



Full wwPDB EM Validation Report ⓘ

Mar 6, 2026 – 01:19 PM UTC

PDB ID : 7U9X / pdb_00007u9x
EMDB ID : EMD-26409
Title : Structure of PKA phosphorylated human RyR2-R2474S in the closed state
Authors : Miotto, M.C.; Marks, A.R.
Deposited on : 2022-03-11
Resolution : 2.58 Å(reported)
Based on initial model : 7TZC

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

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

A user guide is available at

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

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDb archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

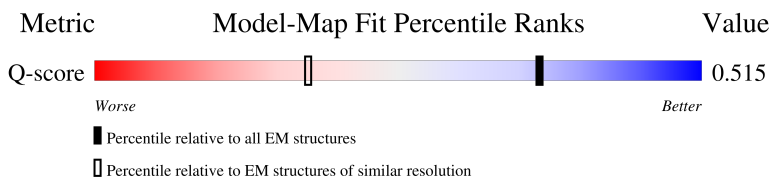
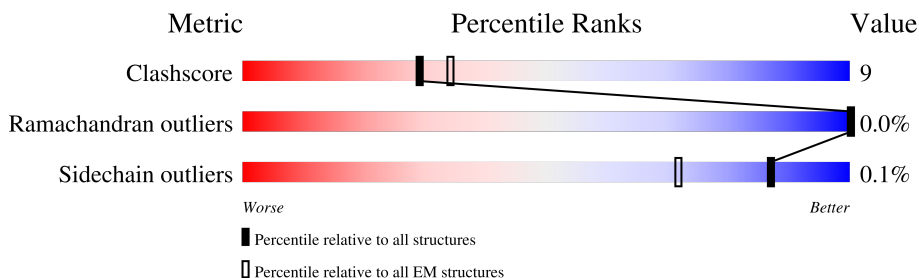
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 2.58 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	7675 (2.08 - 3.08)

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	8% 66% 19% 15%
1	B	4967	8% 66% 19% 15%
1	C	4967	8% 66% 19% 15%
1	D	4967	8% 66% 19% 15%

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Mol	Chain	Length	Quality of chain
2	E	108	 76%22%..
2	F	108	 76%22%..
2	G	108	 76%22%..
2	H	108	 75%23%..

2 Entry composition [i](#)

There are 4 unique types of molecules in this entry. The entry contains 138588 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Ryanodine receptor 2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	4224	Total	C	N	O	S	2	0
			33766	21513	5742	6281	230		
1	B	4224	Total	C	N	O	S	2	0
			33766	21513	5742	6281	230		
1	C	4224	Total	C	N	O	S	2	0
			33766	21513	5742	6281	230		
1	D	4224	Total	C	N	O	S	2	0
			33766	21513	5742	6281	230		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	2474	SER	ARG	variant	UNP Q92736
B	2474	SER	ARG	variant	UNP Q92736
C	2474	SER	ARG	variant	UNP Q92736
D	2474	SER	ARG	variant	UNP Q92736

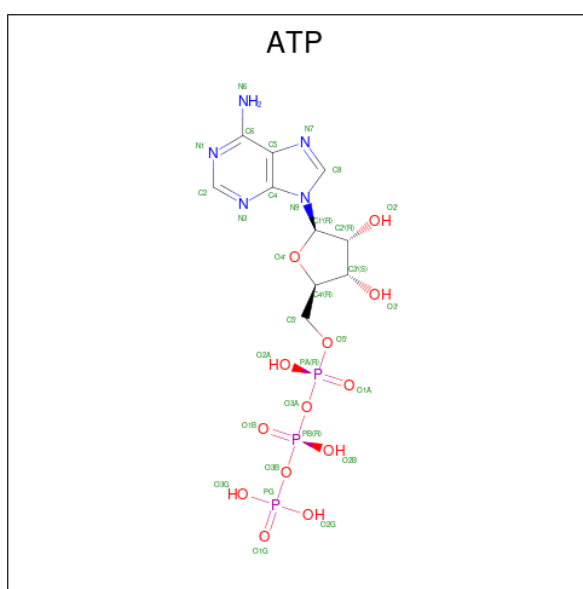
- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

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

- Molecule 3 is ZINC ION (CCD ID: 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 (CCD ID: ATP) (formula: $C_{10}H_{16}N_5O_{13}P_3$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
4	A	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	A	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	B	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	B	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	C	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	C	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	D	1	Total	C	N	O	P	0
			31	10	5	13	3	

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Mol	Chain	Residues	Atoms					AltConf
			Total	C	N	O	P	
4	D	1	31	10	5	13	3	0

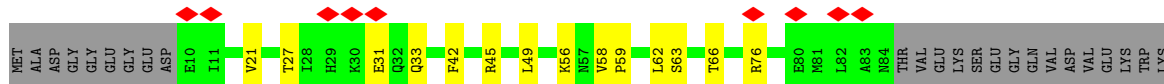
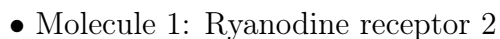
P2677	S2547	I2388	K2054	H1974	SER	Y1714	M1501	HIS	SER	G1198	W1063
P2678	L2548	P2389	T2057	H1975	VAL	M1721	N1502	SER	ASP	V1204	L1064
D2679	L2549	T2390	L2058	L1976	ASP	M1722	N1503	ALA	PHE	A1066	E1065
M2681	R2554	F2391	Q2059	F1979	ALA	E1732	A1513	THR	VAL	D1220	P1067
E2682	L2555	I2396	I2062	D1982	LYS	I1736	A1522	LEU	LEU	T1223	D1068
S2683	S2556	E2405	T2065	K1983	GLN	L1748	L1527	ASP	THR	Y1226	Q1069
N2684	S2560	L2408	M2066	S1984	ALA	I1751	N1551	VAL	ALA	I1229	H1071
E2685	I2569	I2427	V2067	E1985	GLY	P1769	Q1554	ASP	GLY	E1234	A1072
S2686	E2570	I2436	Q2071	C1968	GLU	M1760	F1555	ASP	HIS	R1074	A1073
M2688	R2581	L2453	R2082	P1989	GLY	P1766	E1556	ALA	LEU	L1251	R1075
M2689	M2584	E2453	L2087	L1996	LYS	F1768	K1561	LYS	ASP	S1252	E1076
E2690	M2585	E2453	L2102	E2010	GLY	C1775	V1562	ASP	ARG	E1266	V1077
K2691	L2592	S2457	L2123	ASP	ASP	Y1776	M1564	THR	ALA	H1267	C1078
Q2692	L2592	K2465	L2130	GLY	GLY	P1780	R1585	GLN	GLU	T1276	S1079
S2693	L2593	M2468	R2133	SER	SER	L1787	P1600	ALA	ALA	I1277	T1081
S2694	L2599	G2477	E2139	ASP	ASP	I1790	V1608	THR	THR	T1286	E1083
M2695	L2599	I2478	M2142	ASN	ASN	K1790	L1618	LYS	LYS	G1291	R1086
E2696	A2603	L2484	I2149	SER	SER	T1791	L1630	PHE	PRO	S1292	R1089
S2697	K2604	L2485	T2154	ASP	ASP	I1792	E1634	ASN	GLU	Q1293	A1098
E2698	R2605	H2486	V2154	LEU	LEU	Q1793	E1635	ASN	GLY	N1294	G1099
E2699	F2606	L2487	I2157	THR	THR	M1794	E1636	HIS	LEU	N1295	R1100
M2700	L2607	L2488	Q2157	ILE	ILE	Y1819	R1637	LYS	PRO	C1310	M1113
P2703	L2610	E2489	H2158	ARG	ARG	M1831	T1645	ASP	ALA	K1316	R1114
T2708	L2619	G2491	N2160	GLY	GLY	I1842	C1665	ALA	GLN	THR	S1118
S2709	V2490	D2495	R2163	LEU	LEU	V1850	L1667	LYS	GLY	VAL	R1119
I2711	L2619	L2496	M2167	SER	SER	F1861	L1676	PRO	ALA	L128	L1128
K2716	K2619	D2497	R2167	VAL	VAL	K1852	S1677	SER	GLY	G1129	G1129
L2717	W2627	R2359	R2163	LYS	LYS	E1853	R1671	ARG	LEU	G1139	G1139
F2720	F2630	D2360	R2163	THR	THR	A1854	L1676	LYS	GLN	W1145	W1145
K2723	S2634	F2364	M2167	VAL	VAL	ALA	L1677	ARG	ALA	M1149	M1149
Y2724	E2635	SER	V2171	LYS	LYS	THR	S1678	LEU	LEU	W1156	W1156
H2727	E2635	GLY	V2171	THR	THR	PRO	L1685	ARG	ARG	M1165	M1165
D2730	S2641	SER	V2174	THR	THR	GLU	T1689	LYS	THR	V1166	V1166
K2731	R2642	SER	W2175	LEU	LEU	GLU	M1694	LYS	ASP	D1167	D1167
W2732	K2643	LYS	W2176	LYS	LYS	SER	P1695	PRO	ASP	M1168	M1168
S2733	L2644	THR	V2176	LYS	LYS	ASP	L1706	ASP	GLY	N1169	N1169
M2734	K2655	LEU	G2181	LYS	LYS	A1955	L1711	THR	ASP	E1170	E1170
D2735	K2656	ASP	G2182	GLN	GLN	A1956	L1711	THR	THR	T1176	T1176
K2736	K2656	THR	G2182	ALA	ALA	L1957	L1711	THR	THR	I1181	I1181
L2737	L2661	GLU	G2183	ALA	ALA	R1960	L1711	THR	THR	A1181	A1181
L2737	L2661	GLU	G2183	GLU	GLU	K1961	L1711	THR	THR	A1181	A1181
K2738	E2539	GLU	G2183	GLU	GLU	S1967	L1711	THR	THR	A1181	A1181
N2739	H2540	GLU	G2183	GLU	GLU	P1968	L1711	THR	THR	A1181	A1181
G2740	H2541	GLU	G2183	GLU	GLU	Q1970	L1711	THR	THR	A1181	A1181
W2741	H2541	GLU	G2183	GLU	GLU	P1969	L1711	THR	THR	A1181	A1181
I2742	I2545	ASP	G2183	GLU	GLU	Q1971	L1711	THR	THR	A1181	A1181
Y2743	D2546	SER	G2183	GLU	GLU	Q1972	L1711	THR	THR	A1181	A1181
G2744	D2546	SER	G2183	GLU	GLU	I1973	L1711	THR	THR	A1181	A1181
E2745	D2546	SER	G2183	GLU	GLU		L1711	THR	THR	A1181	A1181
I2746	D2546	SER	G2183	GLU	GLU		L1711	THR	THR	A1181	A1181
Y2747	D2546	SER	G2183	GLU	GLU		L1711	THR	THR	A1181	A1181



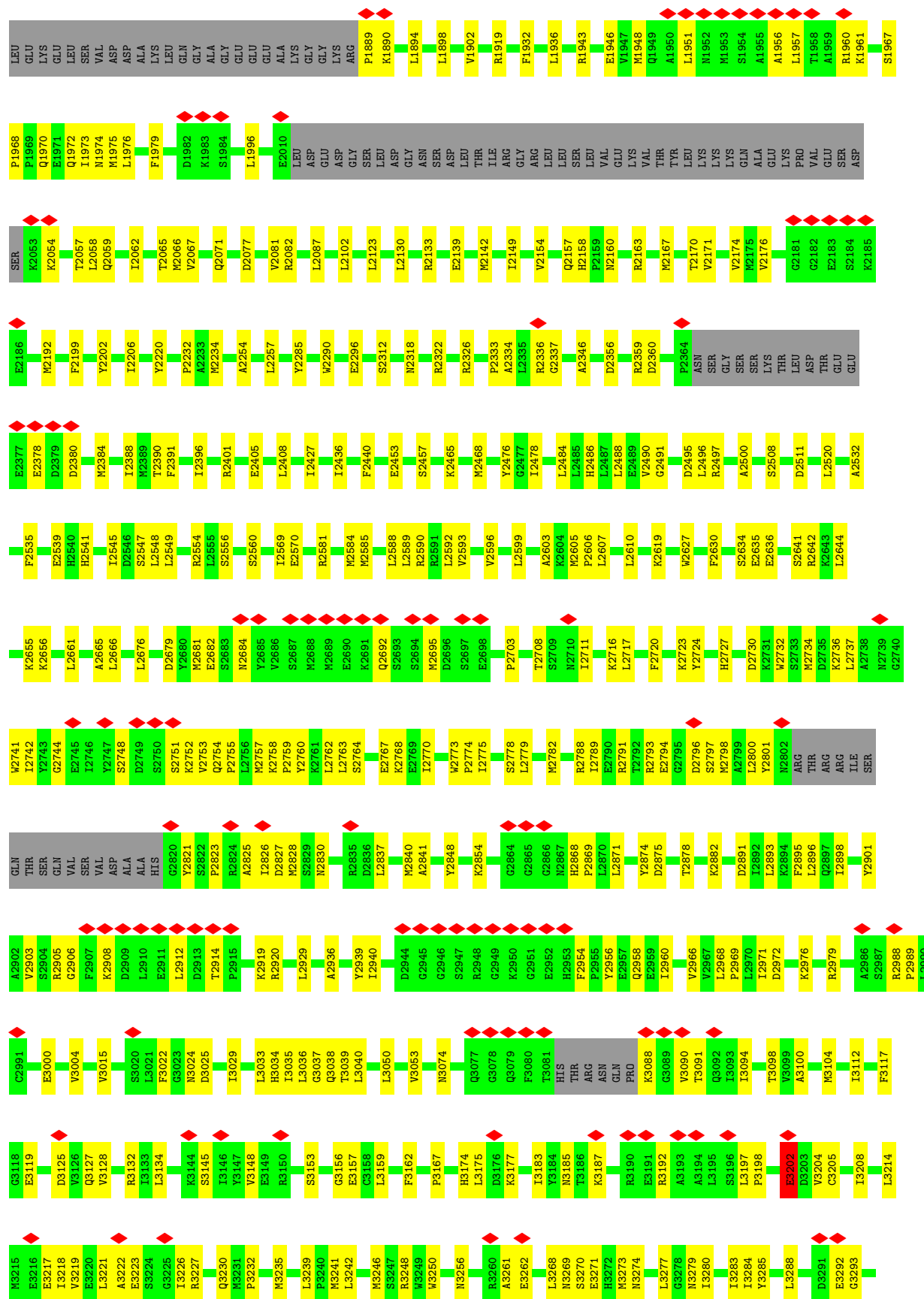




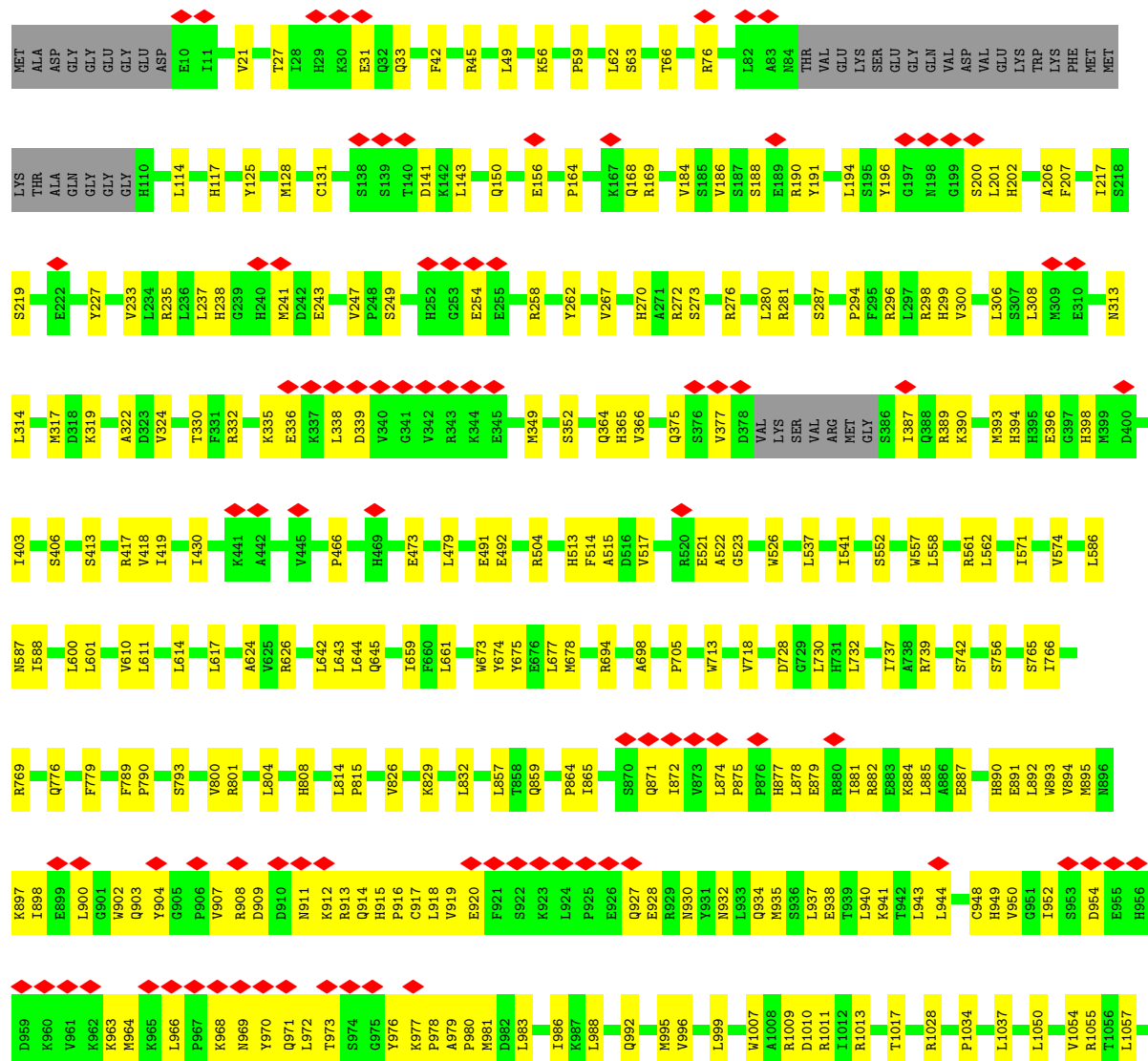
















WORLD WIDE
PDB
PROTEIN DATA BANK

Chain H:  75% 23% ..



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	212141	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)	400	Depositor
Maximum defocus (nm)	1200	Depositor
Magnification	Not provided	
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.859	Depositor
Minimum map value	-0.016	Depositor
Average map value	0.011	Depositor
Map value standard deviation	0.036	Depositor
Recommended contour level	0.15	Depositor
Map size (Å)	425.984, 425.984, 425.984	wwPDB
Map dimensions	512, 512, 512	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.832, 0.832, 0.832	Depositor

5 Model quality

5.1 Standard geometry

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

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.14	1/34506 (0.0%)	0.35	1/46608 (0.0%)
1	B	0.14	1/34506 (0.0%)	0.35	1/46608 (0.0%)
1	C	0.14	1/34506 (0.0%)	0.35	1/46608 (0.0%)
1	D	0.14	1/34506 (0.0%)	0.35	1/46608 (0.0%)
2	E	0.24	0/834	0.45	0/1123
2	F	0.24	0/834	0.45	0/1123
2	G	0.24	0/834	0.45	0/1123
2	H	0.24	0/834	0.45	0/1123
All	All	0.14	4/141360 (0.0%)	0.35	4/190924 (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	1
1	B	0	1
1	C	0	1
1	D	0	1
All	All	0	4

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1819	VAL	CA-CB	-5.14	1.51	1.54
1	B	1819	VAL	CA-CB	-5.10	1.51	1.54
1	D	1819	VAL	CA-CB	-5.10	1.51	1.54
1	C	1819	VAL	CA-CB	-5.01	1.51	1.54

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	B	3202	GLU	CA-CB-CG	5.63	125.36	114.10
1	C	3202	GLU	CA-CB-CG	5.63	125.36	114.10
1	A	3202	GLU	CA-CB-CG	5.61	125.33	114.10
1	D	3202	GLU	CA-CB-CG	5.61	125.31	114.10

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	3926	GLY	Peptide
1	B	3926	GLY	Peptide
1	C	3926	GLY	Peptide
1	D	3926	GLY	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	33766	0	33447	649	0
1	B	33766	0	33447	641	0
1	C	33766	0	33447	653	0
1	D	33766	0	33447	641	0
2	E	818	0	821	15	0
2	F	818	0	821	14	0
2	G	818	0	821	15	0
2	H	818	0	821	15	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	2	0
4	B	62	0	24	2	0
4	C	62	0	24	2	0
4	D	62	0	24	2	0
All	All	138588	0	137168	2562	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 9.

All (2562) 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:B:2149:ILE:HG21	1:B:2167:MET:HE1	1.53	0.90
1:A:2149:ILE:HG21	1:A:2167:MET:HE1	1.53	0.88
1:D:2149:ILE:HG21	1:D:2167:MET:HE1	1.53	0.88
1:C:2149:ILE:HG21	1:C:2167:MET:HE1	1.53	0.87
1:C:4834:PRO:HB3	1:C:4843:ARG:HD3	1.59	0.83
1:D:4834:PRO:HB3	1:D:4843:ARG:HD3	1.60	0.83
1:A:4834:PRO:HB3	1:A:4843:ARG:HD3	1.60	0.83
1:B:4834:PRO:HB3	1:B:4843:ARG:HD3	1.60	0.82
1:C:317:MET:HE3	1:C:322:ALA:HA	1.65	0.79
1:D:317:MET:HE3	1:D:322:ALA:HA	1.65	0.78
1:B:317:MET:HE3	1:B:322:ALA:HA	1.65	0.78
1:A:885:LEU:HB2	1:A:1057:LEU:HD21	1.66	0.77
1:A:317:MET:HE3	1:A:322:ALA:HA	1.65	0.77
1:B:885:LEU:HB2	1:B:1057:LEU:HD21	1.66	0.76
1:D:885:LEU:HB2	1:D:1057:LEU:HD21	1.66	0.76
1:C:968:LYS:HA	1:C:971:GLN:HB3	1.67	0.76
1:C:885:LEU:HB2	1:C:1057:LEU:HD21	1.66	0.75
1:A:968:LYS:HA	1:A:971:GLN:HB3	1.67	0.75
1:A:1694:MET:HE3	1:A:1695:PRO:HD2	1.69	0.75
1:C:3803:LEU:HB2	1:C:3884:SER:HB3	1.69	0.75
1:D:3803:LEU:HB2	1:D:3884:SER:HB3	1.69	0.75
1:B:1694:MET:HE3	1:B:1695:PRO:HD2	1.69	0.75
1:D:968:LYS:HA	1:D:971:GLN:HB3	1.67	0.75
1:C:902:TRP:CE3	1:C:915:HIS:HB2	2.22	0.74
1:C:1694:MET:HE3	1:C:1695:PRO:HD2	1.69	0.74
1:D:2760:TYR:O	1:D:2768:LYS:NZ	2.20	0.74
1:D:1694:MET:HE3	1:D:1695:PRO:HD2	1.69	0.74
1:B:968:LYS:HA	1:B:971:GLN:HB3	1.67	0.74
1:C:4279:MET:HE1	1:D:4487:TYR:HB3	1.70	0.74
1:C:2760:TYR:O	1:C:2768:LYS:NZ	2.20	0.74
1:A:3803:LEU:HB2	1:A:3884:SER:HB3	1.69	0.74
1:D:1766:PRO:HG3	1:D:1780:PRO:HB3	1.69	0.74
1:D:902:TRP:CE3	1:D:915:HIS:HB2	2.22	0.74
1:C:2826:ILE:HD12	1:D:1501:ASN:HB2	1.70	0.73
1:B:2826:ILE:HD12	1:C:1501:ASN:HB2	1.68	0.73
1:A:1766:PRO:HG3	1:A:1780:PRO:HB3	1.69	0.73
1:B:3803:LEU:HB2	1:B:3884:SER:HB3	1.69	0.73
1:A:2333:PRO:HA	1:A:2336:ARG:HG3	1.71	0.73
1:A:2760:TYR:O	1:A:2768:LYS:NZ	2.20	0.73
1:A:219:SER:H	1:A:349:MET:HE3	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:902:TRP:CE3	1:A:915:HIS:HB2	2.22	0.73
1:C:2333:PRO:HA	1:C:2336:ARG:HG3	1.71	0.73
1:B:1766:PRO:HG3	1:B:1780:PRO:HB3	1.69	0.73
1:B:4279:MET:HE1	1:C:4487:TYR:HB3	1.69	0.73
1:D:2333:PRO:HA	1:D:2336:ARG:HG3	1.71	0.73
1:C:1766:PRO:HG3	1:C:1780:PRO:HB3	1.69	0.73
1:B:902:TRP:CE3	1:B:915:HIS:HB2	2.22	0.73
1:A:2826:ILE:HD12	1:B:1501:ASN:HB2	1.69	0.72
1:D:335:LYS:NZ	1:D:398:HIS:O	2.23	0.72
1:A:335:LYS:NZ	1:A:398:HIS:O	2.23	0.72
1:B:219:SER:H	1:B:349:MET:HE3	1.53	0.72
1:B:2760:TYR:O	1:B:2768:LYS:NZ	2.20	0.72
1:B:3221:LEU:HD22	1:B:3226:ILE:HD13	1.71	0.72
1:C:3221:LEU:HD22	1:C:3226:ILE:HD13	1.71	0.72
1:D:3221:LEU:HD22	1:D:3226:ILE:HD13	1.71	0.72
1:A:1501:ASN:ND2	1:D:2827:ASP:O	2.23	0.72
1:A:4487:TYR:HB3	1:D:4279:MET:HE1	1.71	0.72
1:C:829:LYS:NZ	1:C:1037:LEU:O	2.21	0.72
1:B:2285:TYR:OH	1:B:2380:ASP:O	2.08	0.72
1:A:4279:MET:HE1	1:B:4487:TYR:HB3	1.71	0.72
1:C:335:LYS:NZ	1:C:398:HIS:O	2.23	0.72
1:D:219:SER:H	1:D:349:MET:HE3	1.53	0.72
1:B:2333:PRO:HA	1:B:2336:ARG:HG3	1.71	0.71
1:C:219:SER:H	1:C:349:MET:HE3	1.53	0.71
1:D:829:LYS:NZ	1:D:1037:LEU:O	2.21	0.71
1:A:3250:TRP:O	1:A:3256:ASN:ND2	2.24	0.71
1:B:335:LYS:NZ	1:B:398:HIS:O	2.23	0.71
1:C:3250:TRP:O	1:C:3256:ASN:ND2	2.24	0.71
1:A:3221:LEU:HD22	1:A:3226:ILE:HD13	1.71	0.71
1:A:1501:ASN:HB2	1:D:2826:ILE:HD12	1.70	0.71
1:A:76:ARG:HD2	1:D:3890:TRP:HB3	1.73	0.71
1:B:3250:TRP:O	1:B:3256:ASN:ND2	2.24	0.71
1:C:2285:TYR:OH	1:C:2380:ASP:O	2.08	0.71
1:C:2827:ASP:O	1:D:1501:ASN:ND2	2.24	0.71
1:D:2285:TYR:OH	1:D:2380:ASP:O	2.08	0.70
1:A:829:LYS:NZ	1:A:1037:LEU:O	2.21	0.70
1:A:2827:ASP:O	1:B:1501:ASN:ND2	2.25	0.70
1:D:3250:TRP:O	1:D:3256:ASN:ND2	2.24	0.70
1:C:930:ASN:O	1:C:934:GLN:NE2	2.25	0.70
1:D:3653:GLU:OE2	1:D:3660:ARG:NH2	2.23	0.70
1:B:59:PRO:HG2	1:B:319:LYS:HG3	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:963:LYS:NZ	1:B:1060:TYR:OH	2.25	0.70
1:C:59:PRO:HG2	1:C:319:LYS:HG3	1.74	0.70
1:A:2285:TYR:OH	1:A:2380:ASP:O	2.08	0.70
1:D:930:ASN:O	1:D:934:GLN:NE2	2.25	0.70
1:D:963:LYS:NZ	1:D:1060:TYR:OH	2.25	0.70
1:C:3653:GLU:OE2	1:C:3660:ARG:NH2	2.23	0.69
1:C:882:ARG:HE	1:C:937:LEU:HD13	1.58	0.69
1:B:930:ASN:O	1:B:934:GLN:NE2	2.25	0.69
1:C:3890:TRP:HB3	1:D:76:ARG:HD2	1.75	0.69
1:C:963:LYS:NZ	1:C:1060:TYR:OH	2.25	0.69
1:D:882:ARG:HE	1:D:937:LEU:HD13	1.58	0.69
1:B:882:ARG:HE	1:B:937:LEU:HD13	1.58	0.69
1:A:59:PRO:HG2	1:A:319:LYS:HG3	1.74	0.69
1:A:930:ASN:O	1:A:934:GLN:NE2	2.25	0.69
1:A:963:LYS:NZ	1:A:1060:TYR:OH	2.25	0.69
1:A:3273:MET:HE1	1:A:3309:LYS:HB2	1.75	0.69
1:D:3202:GLU:H	1:D:3202:GLU:CD	2.01	0.69
1:D:59:PRO:HG2	1:D:319:LYS:HG3	1.74	0.69
1:D:2840:MET:SD	1:D:2905:ARG:NH1	2.66	0.69
1:A:882:ARG:HE	1:A:937:LEU:HD13	1.58	0.68
1:C:3202:GLU:H	1:C:3202:GLU:CD	2.01	0.68
1:A:3653:GLU:OE2	1:A:3660:ARG:NH2	2.23	0.68
1:C:2593:VAL:HG22	1:C:2644:LEU:HB2	1.75	0.68
1:A:3202:GLU:H	1:A:3202:GLU:CD	2.01	0.68
1:C:3273:MET:HE1	1:C:3309:LYS:HB2	1.76	0.68
1:D:2593:VAL:HG22	1:D:2644:LEU:HB2	1.76	0.68
1:A:2666:LEU:HD11	1:A:2969:PRO:HB2	1.76	0.68
1:B:2593:VAL:HG22	1:B:2644:LEU:HB2	1.76	0.68
1:B:3273:MET:HE1	1:B:3309:LYS:HB2	1.75	0.68
1:D:2666:LEU:HD11	1:D:2969:PRO:HB2	1.76	0.68
1:A:2593:VAL:HG22	1:A:2644:LEU:HB2	1.75	0.68
1:A:3890:TRP:HB3	1:B:76:ARG:HD2	1.75	0.68
1:B:2666:LEU:HD11	1:B:2969:PRO:HB2	1.76	0.68
1:B:3202:GLU:H	1:B:3202:GLU:CD	2.01	0.68
1:C:2142:MET:HE1	1:C:2174:VAL:HG21	1.76	0.68
1:B:2840:MET:SD	1:B:2905:ARG:NH1	2.67	0.68
1:C:2840:MET:SD	1:C:2905:ARG:NH1	2.67	0.68
1:D:2142:MET:HB2	1:D:2192:MET:HE1	1.75	0.68
1:D:3273:MET:HE1	1:D:3309:LYS:HB2	1.75	0.68
1:A:281:ARG:NH2	1:A:287:SER:OG	2.27	0.68
1:B:829:LYS:NZ	1:B:1037:LEU:O	2.21	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2666:LEU:HD11	1:C:2969:PRO:HB2	1.76	0.68
1:D:281:ARG:NH2	1:D:287:SER:OG	2.27	0.68
1:A:2840:MET:SD	1:A:2905:ARG:NH1	2.67	0.67
1:C:281:ARG:NH2	1:C:287:SER:OG	2.27	0.67
1:D:890:HIS:NE2	1:D:917:CYS:O	2.27	0.67
1:D:2142:MET:HE1	1:D:2174:VAL:HG21	1.76	0.67
1:B:281:ARG:NH2	1:B:287:SER:OG	2.27	0.67
1:B:601:LEU:HB3	1:B:642:LEU:HD11	1.76	0.67
1:B:3650:GLU:HG3	1:B:3659:LYS:HE2	1.76	0.67
1:C:601:LEU:HB3	1:C:642:LEU:HD11	1.76	0.67
1:B:3890:TRP:HB3	1:C:76:ARG:HD2	1.77	0.67
1:D:878:LEU:HD21	1:D:950:VAL:HG21	1.76	0.67
1:A:2912:LEU:HD12	1:A:2914:THR:H	1.60	0.67
2:G:83:TYR:OH	1:C:1768:PHE:O	2.08	0.67
2:G:50:ARG:HE	2:G:53:LYS:HE3	1.60	0.67
1:A:3828:LYS:H	1:A:3828:LYS:HD2	1.60	0.67
1:B:2142:MET:HB2	1:B:2192:MET:HE1	1.75	0.67
1:C:2142:MET:HB2	1:C:2192:MET:HE1	1.75	0.67
1:B:878:LEU:HD21	1:B:950:VAL:HG21	1.76	0.67
1:B:3653:GLU:OE2	1:B:3660:ARG:NH2	2.23	0.67
1:B:562:LEU:HD22	1:B:600:LEU:HD22	1.77	0.66
1:B:2827:ASP:O	1:C:1501:ASN:ND2	2.27	0.66
1:A:601:LEU:HB3	1:A:642:LEU:HD11	1.76	0.66
1:A:890:HIS:NE2	1:A:917:CYS:O	2.27	0.66
1:C:562:LEU:HD22	1:C:600:LEU:HD22	1.77	0.66
2:E:50:ARG:HE	2:E:53:LYS:HE3	1.60	0.66
1:B:3828:LYS:HD2	1:B:3828:LYS:H	1.60	0.66
1:A:562:LEU:HD22	1:A:600:LEU:HD22	1.77	0.66
1:A:2142:MET:HB2	1:A:2192:MET:HE1	1.75	0.66
1:C:3828:LYS:H	1:C:3828:LYS:HD2	1.60	0.66
1:D:3650:GLU:HG3	1:D:3659:LYS:HE2	1.76	0.66
2:H:24:VAL:HG22	2:H:48:LYS:HG2	1.78	0.66
1:A:2142:MET:HE1	1:A:2174:VAL:HG21	1.76	0.66
1:B:2142:MET:HE1	1:B:2174:VAL:HG21	1.76	0.66
1:B:2912:LEU:HD12	1:B:2914:THR:H	1.60	0.66
1:D:3828:LYS:H	1:D:3828:LYS:HD2	1.60	0.66
1:A:878:LEU:HD21	1:A:950:VAL:HG21	1.76	0.66
1:A:3650:GLU:HG3	1:A:3659:LYS:HE2	1.76	0.66
1:D:2912:LEU:HD12	1:D:2914:THR:H	1.60	0.66
1:A:878:LEU:HD23	1:A:881:ILE:HD11	1.78	0.66
1:D:601:LEU:HB3	1:D:642:LEU:HD11	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:50:ARG:HE	2:F:53:LYS:HE3	1.60	0.66
1:C:3650:GLU:HG3	1:C:3659:LYS:HE2	1.76	0.66
1:D:4481:TRP:HA	1:D:4484:ILE:HG12	1.78	0.66
1:B:4481:TRP:HA	1:B:4484:ILE:HG12	1.78	0.65
1:D:878:LEU:HD23	1:D:881:ILE:HD11	1.78	0.65
1:C:878:LEU:HD23	1:C:881:ILE:HD11	1.78	0.65
1:C:2912:LEU:HD12	1:C:2914:THR:H	1.60	0.65
2:G:24:VAL:HG22	2:G:48:LYS:HG2	1.78	0.65
2:H:50:ARG:HE	2:H:53:LYS:HE3	1.60	0.65
1:A:4832:GLU:O	1:A:4843:ARG:NH2	2.30	0.65
1:B:890:HIS:NE2	1:B:917:CYS:O	2.27	0.65
1:C:4481:TRP:HA	1:C:4484:ILE:HG12	1.78	0.65
1:D:4832:GLU:O	1:D:4843:ARG:NH2	2.30	0.65
1:A:2979:ARG:HG3	1:A:3039:THR:HG22	1.79	0.65
1:D:562:LEU:HD22	1:D:600:LEU:HD22	1.77	0.65
2:F:24:VAL:HG22	2:F:48:LYS:HG2	1.78	0.65
1:D:1434:PRO:HB3	1:D:1501:ASN:HA	1.79	0.65
2:E:24:VAL:HG22	2:E:48:LYS:HG2	1.78	0.65
1:B:4832:GLU:O	1:B:4843:ARG:NH2	2.30	0.65
1:B:878:LEU:HD23	1:B:881:ILE:HD11	1.78	0.64
1:C:878:LEU:HD21	1:C:950:VAL:HG21	1.76	0.64
1:D:2979:ARG:HG3	1:D:3039:THR:HG22	1.79	0.64
1:B:2979:ARG:HG3	1:B:3039:THR:HG22	1.79	0.64
1:C:2979:ARG:HG3	1:C:3039:THR:HG22	1.79	0.64
1:C:4832:GLU:O	1:C:4843:ARG:NH2	2.30	0.64
1:A:2789:ILE:HD11	1:A:2901:TYR:HB3	1.80	0.64
1:A:1434:PRO:HB3	1:A:1501:ASN:HA	1.79	0.64
1:D:2789:ILE:HD11	1:D:2901:TYR:HB3	1.80	0.64
1:A:4481:TRP:HA	1:A:4484:ILE:HG12	1.78	0.64
1:D:983:LEU:O	1:D:1055:ARG:NH2	2.31	0.64
1:A:1456:GLY:O	1:A:1461:ARG:NH2	2.31	0.64
1:B:2789:ILE:HD11	1:B:2901:TYR:HB3	1.80	0.64
1:A:983:LEU:O	1:A:1055:ARG:NH2	2.31	0.64
1:C:1434:PRO:HB3	1:C:1501:ASN:HA	1.79	0.64
1:C:1456:GLY:O	1:C:1461:ARG:NH2	2.31	0.64
1:C:4263:SER:O	1:C:4267:GLN:NE2	2.31	0.64
1:D:4263:SER:O	1:D:4267:GLN:NE2	2.31	0.64
1:B:4263:SER:O	1:B:4267:GLN:NE2	2.31	0.64
1:C:2789:ILE:HD11	1:C:2901:TYR:HB3	1.80	0.64
1:D:1456:GLY:O	1:D:1461:ARG:NH2	2.31	0.64
1:B:1456:GLY:O	1:B:1461:ARG:NH2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1790:LYS:O	1:B:1794:MET:HG3	1.98	0.64
1:C:1790:LYS:O	1:C:1794:MET:HG3	1.98	0.64
1:D:1114:ARG:NH1	1:D:1128:LEU:O	2.31	0.64
1:B:983:LEU:O	1:B:1055:ARG:NH2	2.31	0.63
1:D:3701:ASP:OD2	1:D:3727:GLN:NE2	2.32	0.63
1:A:3649:ALA:C	1:A:3652:PRO:HD2	2.24	0.63
1:B:3701:ASP:OD2	1:B:3727:GLN:NE2	2.32	0.63
1:C:983:LEU:O	1:C:1055:ARG:NH2	2.31	0.63
1:A:4263:SER:O	1:A:4267:GLN:NE2	2.31	0.63
1:B:1434:PRO:HB3	1:B:1501:ASN:HA	1.79	0.63
1:D:1790:LYS:O	1:D:1794:MET:HG3	1.98	0.63
1:B:188:SER:HB2	1:B:190:ARG:HH11	1.64	0.63
1:C:3701:ASP:OD2	1:C:3727:GLN:NE2	2.32	0.63
1:D:1948:MET:HA	1:D:1951:LEU:HD23	1.81	0.63
1:C:1114:ARG:NH1	1:C:1128:LEU:O	2.31	0.63
1:D:3192:ARG:HG2	1:D:3197:LEU:HD12	1.81	0.63
1:A:3701:ASP:OD2	1:A:3727:GLN:NE2	2.32	0.63
1:C:1948:MET:HA	1:C:1951:LEU:HD23	1.81	0.63
1:A:1948:MET:HA	1:A:1951:LEU:HD23	1.81	0.63
1:A:4177:VAL:HG11	1:A:4880:VAL:HA	1.81	0.63
1:C:3823:GLU:OE1	1:C:3826:GLY:N	2.32	0.63
1:D:4177:VAL:HG11	1:D:4880:VAL:HA	1.81	0.63
1:A:3192:ARG:HG2	1:A:3197:LEU:HD12	1.81	0.62
1:B:3192:ARG:HG2	1:B:3197:LEU:HD12	1.81	0.62
1:B:4177:VAL:HG11	1:B:4880:VAL:HA	1.81	0.62
1:C:3852:SER:HA	1:C:3855:GLN:HG2	1.81	0.62
1:A:1585:ARG:NE	1:A:1634:GLU:OE2	2.32	0.62
1:B:1585:ARG:NE	1:B:1634:GLU:OE2	2.32	0.62
1:B:3649:ALA:C	1:B:3652:PRO:HD2	2.24	0.62
1:C:4153:SER:HG	1:C:4156:SER:HG	1.43	0.62
1:D:3270:SER:O	1:D:3274:ASN:ND2	2.33	0.62
1:A:1790:LYS:O	1:A:1794:MET:HG3	1.98	0.62
1:B:909:ASP:HB2	1:B:912:LYS:HE3	1.81	0.62
1:B:1114:ARG:NH1	1:B:1128:LEU:O	2.31	0.62
1:B:1948:MET:HA	1:B:1951:LEU:HD23	1.81	0.62
1:B:3270:SER:O	1:B:3274:ASN:ND2	2.32	0.62
1:C:4177:VAL:HG11	1:C:4880:VAL:HA	1.81	0.62
1:D:3852:SER:HA	1:D:3855:GLN:HG2	1.81	0.62
1:A:3270:SER:O	1:A:3274:ASN:ND2	2.33	0.62
1:B:3823:GLU:OE1	1:B:3826:GLY:N	2.32	0.62
1:C:903:GLN:HA	1:C:918:LEU:HD22	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2641:SER:HB2	1:A:2676:LEU:HD21	1.82	0.62
1:B:713:TRP:HH2	1:B:1251:LEU:HD21	1.64	0.62
1:B:3852:SER:HA	1:B:3855:GLN:HG2	1.81	0.62
1:C:713:TRP:HH2	1:C:1251:LEU:HD21	1.64	0.62
1:C:2202:TYR:O	1:C:2206:ILE:HG12	2.00	0.62
1:D:2641:SER:HB2	1:D:2676:LEU:HD21	1.82	0.62
1:A:903:GLN:HA	1:A:918:LEU:HD22	1.82	0.62
1:B:2202:TYR:O	1:B:2206:ILE:HG12	2.00	0.62
1:C:932:ASN:HA	1:C:935:MET:HE2	1.81	0.62
1:D:903:GLN:HA	1:D:918:LEU:HD22	1.82	0.62
1:A:188:SER:HB2	1:A:190:ARG:HH11	1.64	0.62
1:A:713:TRP:HH2	1:A:1251:LEU:HD21	1.64	0.62
1:B:2641:SER:HB2	1:B:2676:LEU:HD21	1.82	0.62
1:C:890:HIS:NE2	1:C:917:CYS:O	2.27	0.62
1:C:3192:ARG:HG2	1:C:3197:LEU:HD12	1.81	0.62
1:D:188:SER:HB2	1:D:190:ARG:HH11	1.64	0.62
1:D:932:ASN:HA	1:D:935:MET:HE2	1.82	0.62
1:D:1585:ARG:NE	1:D:1634:GLU:OE2	2.32	0.62
1:D:2791:ARG:NH2	1:D:2796:ASP:OD2	2.33	0.62
1:D:3649:ALA:C	1:D:3652:PRO:HD2	2.24	0.62
1:A:2789:ILE:HD13	1:A:2903:VAL:HG22	1.82	0.62
1:A:3852:SER:HA	1:A:3855:GLN:HG2	1.81	0.62
1:B:874:LEU:HD22	1:B:937:LEU:HD11	1.82	0.62
1:B:874:LEU:HD13	1:B:879:GLU:HB2	1.82	0.62
1:B:903:GLN:HA	1:B:918:LEU:HD22	1.82	0.62
1:C:909:ASP:HB2	1:C:912:LYS:HE3	1.81	0.62
1:C:1585:ARG:NE	1:C:1634:GLU:OE2	2.32	0.62
1:C:2755:PRO:O	1:C:2758:LYS:NZ	2.28	0.62
1:A:2202:TYR:O	1:A:2206:ILE:HG12	2.00	0.62
1:B:2508:SER:HB3	1:B:2560:SER:HB3	1.82	0.62
1:D:2296:GLU:HG3	1:D:2390:THR:HG22	1.82	0.62
1:A:2508:SER:HB3	1:A:2560:SER:HB3	1.82	0.61
1:A:3823:GLU:OE1	1:A:3826:GLY:N	2.32	0.61
1:B:2296:GLU:HG3	1:B:2390:THR:HG22	1.82	0.61
1:C:2641:SER:HB2	1:C:2676:LEU:HD21	1.82	0.61
1:C:3270:SER:O	1:C:3274:ASN:ND2	2.32	0.61
1:D:2500:ALA:HB1	1:D:2554:ARG:HD2	1.82	0.61
1:D:2754:GLN:HB3	1:D:2757:MET:HE1	1.82	0.61
1:D:4943:MET:HE1	1:D:4950:GLU:HB2	1.81	0.61
1:A:874:LEU:HD22	1:A:937:LEU:HD11	1.82	0.61
1:A:1113:MET:HB2	1:A:1156:TRP:HZ2	1.66	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2296:GLU:HG3	1:A:2390:THR:HG22	1.82	0.61
1:A:2791:ARG:NH2	1:A:2796:ASP:OD2	2.33	0.61
1:C:874:LEU:HD13	1:C:879:GLU:HB2	1.82	0.61
1:C:3649:ALA:C	1:C:3652:PRO:HD2	2.24	0.61
1:A:2681:MET:HG3	1:A:2914:THR:HG23	1.83	0.61
1:B:2500:ALA:HB1	1:B:2554:ARG:HD2	1.83	0.61
1:B:2791:ARG:NH2	1:B:2796:ASP:OD2	2.33	0.61
1:C:2296:GLU:HG3	1:C:2390:THR:HG22	1.82	0.61
1:C:2500:ALA:HB1	1:C:2554:ARG:HD2	1.82	0.61
1:C:2508:SER:HB3	1:C:2560:SER:HB3	1.82	0.61
1:C:4943:MET:HE1	1:C:4950:GLU:HB2	1.82	0.61
1:D:3823:GLU:OE1	1:D:3826:GLY:N	2.32	0.61
1:D:713:TRP:HH2	1:D:1251:LEU:HD21	1.64	0.61
1:D:4107:GLU:OE1	1:D:4147:ARG:NH1	2.34	0.61
1:D:3292:GLU:HG2	1:D:3293:GLY:H	1.64	0.61
1:B:2789:ILE:HD13	1:B:2903:VAL:HG22	1.82	0.61
1:D:909:ASP:HB2	1:D:912:LYS:HE3	1.81	0.61
1:D:2681:MET:HG3	1:D:2914:THR:HG23	1.83	0.61
1:A:2500:ALA:HB1	1:A:2554:ARG:HD2	1.82	0.61
1:A:4943:MET:HE1	1:A:4950:GLU:HB2	1.82	0.61
1:C:188:SER:HB2	1:C:190:ARG:HH11	1.64	0.61
1:C:1113:MET:HB2	1:C:1156:TRP:HZ2	1.66	0.61
1:A:3292:GLU:HG2	1:A:3293:GLY:H	1.64	0.61
1:B:276:ARG:HG2	1:B:300:VAL:HG22	1.82	0.61
1:B:2596:VAL:HG21	1:B:2610:LEU:HD11	1.83	0.61
1:B:4943:MET:HE1	1:B:4950:GLU:HB2	1.82	0.61
1:C:874:LEU:HD22	1:C:937:LEU:HD11	1.82	0.61
1:C:2791:ARG:NH2	1:C:2796:ASP:OD2	2.33	0.61
1:D:2202:TYR:O	1:D:2206:ILE:HG12	2.00	0.61
1:A:2754:GLN:HB3	1:A:2757:MET:HE1	1.82	0.61
1:B:2754:GLN:HB3	1:B:2757:MET:HE1	1.82	0.61
1:C:2596:VAL:HG21	1:C:2610:LEU:HD11	1.83	0.61
1:C:4107:GLU:OE1	1:C:4147:ARG:NH1	2.34	0.61
1:A:874:LEU:HD13	1:A:879:GLU:HB2	1.82	0.60
1:A:909:ASP:HB2	1:A:912:LYS:HE3	1.81	0.60
1:A:932:ASN:HA	1:A:935:MET:HE2	1.82	0.60
1:C:332:ARG:HH12	1:C:339:ASP:H	1.49	0.60
1:D:2789:ILE:HD13	1:D:2903:VAL:HG22	1.82	0.60
1:A:332:ARG:HH12	1:A:339:ASP:H	1.49	0.60
1:B:932:ASN:HA	1:B:935:MET:HE2	1.82	0.60
1:B:2741:TRP:CD1	1:B:2752:LYS:HZ3	2.20	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3292:GLU:HG2	1:B:3293:GLY:H	1.64	0.60
1:C:164:PRO:HB3	1:C:169:ARG:HB2	1.84	0.60
1:C:3277:LEU:HD22	1:C:3318:HIS:CE1	2.36	0.60
1:D:874:LEU:HD13	1:D:879:GLU:HB2	1.82	0.60
1:B:4107:GLU:OE1	1:B:4147:ARG:NH1	2.34	0.60
1:C:2868:HIS:HB3	1:C:2871:LEU:HD13	1.84	0.60
1:D:1010:ASP:OD1	1:D:1013:ARG:NH2	2.32	0.60
1:D:1113:MET:HB2	1:D:1156:TRP:HZ2	1.65	0.60
1:D:2868:HIS:HB3	1:D:2871:LEU:HD13	1.84	0.60
1:D:3277:LEU:HD22	1:D:3318:HIS:CE1	2.36	0.60
1:A:164:PRO:HB3	1:A:169:ARG:HB2	1.84	0.60
1:C:2754:GLN:HB3	1:C:2757:MET:HE1	1.82	0.60
1:B:164:PRO:HB3	1:B:169:ARG:HB2	1.84	0.60
1:B:1113:MET:HB2	1:B:1156:TRP:HZ2	1.66	0.60
1:D:276:ARG:HG2	1:D:300:VAL:HG22	1.82	0.60
1:A:276:ARG:HG2	1:A:300:VAL:HG22	1.82	0.60
1:C:3292:GLU:HG2	1:C:3293:GLY:H	1.64	0.60
1:D:332:ARG:HH12	1:D:339:ASP:H	1.49	0.60
1:D:2508:SER:HB3	1:D:2560:SER:HB3	1.82	0.60
1:A:2596:VAL:HG21	1:A:2610:LEU:HD11	1.83	0.60
1:A:2748:SER:HG	1:A:2751:SER:HG	1.48	0.60
1:A:1114:ARG:NH1	1:A:1128:LEU:O	2.31	0.60
1:A:3277:LEU:HD22	1:A:3318:HIS:CE1	2.36	0.60
2:H:83:TYR:OH	1:D:1768:PHE:O	2.09	0.60
1:B:2681:MET:HG3	1:B:2914:THR:HG23	1.83	0.60
1:D:164:PRO:HB3	1:D:169:ARG:HB2	1.83	0.60
1:D:874:LEU:HD22	1:D:937:LEU:HD11	1.82	0.60
1:A:900:LEU:O	1:A:913:ARG:NH2	2.35	0.60
1:A:1010:ASP:OD1	1:A:1013:ARG:NH2	2.32	0.60
1:B:332:ARG:HH12	1:B:339:ASP:H	1.50	0.60
1:B:2666:LEU:HD12	1:B:2966:VAL:HA	1.84	0.60
1:C:2681:MET:HG3	1:C:2914:THR:HG23	1.83	0.60
1:D:2798:MET:HA	1:D:2801:TYR:CD2	2.37	0.60
1:A:541:ILE:HD11	1:A:574:VAL:HG13	1.84	0.60
1:B:2868:HIS:HB3	1:B:2871:LEU:HD13	1.84	0.60
1:D:541:ILE:HD11	1:D:574:VAL:HG13	1.84	0.60
1:B:2798:MET:HA	1:B:2801:TYR:CD2	2.37	0.59
1:B:3277:LEU:HD22	1:B:3318:HIS:CE1	2.36	0.59
1:C:27:THR:N	1:C:196:TYR:OH	2.30	0.59
1:C:2789:ILE:HD13	1:C:2903:VAL:HG22	1.82	0.59
1:D:2793:ARG:O	1:D:2797:SER:OG	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:988:LEU:HD11	1:B:1055:ARG:HG2	1.85	0.59
1:B:2748:SER:OG	1:B:2751:SER:OG	2.20	0.59
1:A:2798:MET:HA	1:A:2801:TYR:CD2	2.37	0.59
1:A:2868:HIS:HB3	1:A:2871:LEU:HD13	1.84	0.59
1:C:2378:GLU:OE2	1:C:2457:SER:OG	2.21	0.59
1:D:601:LEU:HG	1:D:610:VAL:HG11	1.85	0.59
1:D:4187:GLU:OE2	1:D:4947:ARG:NH2	2.35	0.59
1:A:308:LEU:HD12	1:A:393:MET:HG3	1.84	0.59
1:A:2666:LEU:HD12	1:A:2966:VAL:HA	1.84	0.59
1:A:4107:GLU:OE1	1:A:4147:ARG:NH1	2.34	0.59
1:A:4187:GLU:OE2	1:A:4947:ARG:NH2	2.35	0.59
1:B:194:LEU:HD11	1:B:201:LEU:HD12	1.84	0.59
1:B:900:LEU:O	1:B:913:ARG:NH2	2.35	0.59
1:C:276:ARG:HG2	1:C:300:VAL:HG22	1.82	0.59
1:A:988:LEU:HD11	1:A:1055:ARG:HG2	1.84	0.59
1:A:3246:MET:SD	1:A:3268:LEU:HD11	2.43	0.59
1:C:194:LEU:HD11	1:C:201:LEU:HD12	1.84	0.59
1:C:541:ILE:HD11	1:C:574:VAL:HG13	1.84	0.59
1:C:2798:MET:HA	1:C:2801:TYR:CD2	2.37	0.59
1:D:900:LEU:O	1:D:913:ARG:NH2	2.35	0.59
1:D:2596:VAL:HG21	1:D:2610:LEU:HD11	1.83	0.59
1:C:3246:MET:SD	1:C:3268:LEU:HD11	2.43	0.59
1:D:194:LEU:HD11	1:D:201:LEU:HD12	1.84	0.59
1:D:4093:ASP:OD1	1:D:4094:ILE:HD12	2.03	0.59
1:A:194:LEU:HD11	1:A:201:LEU:HD12	1.84	0.59
1:A:3261:ALA:O	1:A:3262:GLU:HG3	2.03	0.59
1:C:308:LEU:HD12	1:C:393:MET:HG3	1.84	0.59
1:C:2142:MET:HE1	1:C:2174:VAL:HG11	1.84	0.59
1:B:308:LEU:HD12	1:B:393:MET:HG3	1.84	0.59
1:B:678:MET:SD	1:B:801:ARG:NH2	2.76	0.59
1:B:4187:GLU:OE2	1:B:4947:ARG:NH2	2.35	0.59
1:C:143:LEU:HD12	1:C:207:PHE:HE2	1.68	0.59
1:C:678:MET:SD	1:C:801:ARG:NH2	2.76	0.59
1:C:2730:ASP:OD1	1:C:2821:TYR:OH	2.19	0.59
1:D:143:LEU:HD12	1:D:207:PHE:HE2	1.68	0.59
1:D:308:LEU:HD12	1:D:393:MET:HG3	1.84	0.59
1:D:2570:GLU:HG2	1:D:2605:MET:HG3	1.84	0.59
1:D:2755:PRO:O	1:D:2758:LYS:NZ	2.28	0.59
1:A:558:LEU:HG	1:A:571:ILE:HG23	1.85	0.59
1:A:601:LEU:HG	1:A:610:VAL:HG11	1.85	0.59
1:B:4093:ASP:OD1	1:B:4094:ILE:HD12	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2666:LEU:HD12	1:C:2966:VAL:HA	1.84	0.59
1:C:3261:ALA:O	1:C:3262:GLU:HG3	2.03	0.59
1:D:558:LEU:HG	1:D:571:ILE:HG23	1.85	0.59
1:D:2666:LEU:HD12	1:D:2966:VAL:HA	1.84	0.59
1:D:3261:ALA:O	1:D:3262:GLU:HG3	2.03	0.59
1:A:143:LEU:HD12	1:A:207:PHE:HE2	1.68	0.59
1:A:2142:MET:HE1	1:A:2174:VAL:HG11	1.84	0.59
1:B:2142:MET:HE1	1:B:2174:VAL:HG11	1.84	0.59
1:B:3261:ALA:O	1:B:3262:GLU:HG3	2.03	0.59
1:C:280:LEU:HD12	1:C:294:PRO:HB2	1.85	0.59
1:A:2570:GLU:HG2	1:A:2605:MET:HG3	1.84	0.58
1:A:2732:TRP:O	1:A:2736:LYS:HG2	2.03	0.58
1:B:541:ILE:HD11	1:B:574:VAL:HG13	1.84	0.58
1:A:2734:MET:HE3	1:A:2825:ALA:H	1.68	0.58
1:B:3246:MET:SD	1:B:3268:LEU:HD11	2.43	0.58
1:C:988:LEU:HD11	1:C:1055:ARG:HG2	1.85	0.58
1:C:2732:TRP:O	1:C:2736:LYS:HG2	2.03	0.58
1:C:4187:GLU:OE2	1:C:4947:ARG:NH2	2.35	0.58
1:D:988:LEU:HD11	1:D:1055:ARG:HG2	1.84	0.58
1:B:280:LEU:HD12	1:B:294:PRO:HB2	1.85	0.58
1:C:2741:TRP:CD1	1:C:2752:LYS:HZ3	2.20	0.58
1:D:2142:MET:HE1	1:D:2174:VAL:HG11	1.84	0.58
1:D:3177:LYS:HA	1:D:3185:ASN:HD21	1.68	0.58
1:D:3246:MET:SD	1:D:3268:LEU:HD11	2.43	0.58
1:B:2570:GLU:HG2	1:B:2605:MET:HG3	1.84	0.58
1:B:2732:TRP:O	1:B:2736:LYS:HG2	2.03	0.58
1:B:4636:ASN:ND2	1:B:4669:LEU:O	2.36	0.58
1:C:601:LEU:HG	1:C:610:VAL:HG11	1.85	0.58
1:C:2570:GLU:HG2	1:C:2605:MET:HG3	1.84	0.58
1:D:2730:ASP:OD1	1:D:2821:TYR:OH	2.19	0.58
1:D:4636:ASN:ND2	1:D:4669:LEU:O	2.36	0.58
1:A:2741:TRP:CD1	1:A:2752:LYS:HZ3	2.21	0.58
1:A:4093:ASP:OD1	1:A:4094:ILE:HD12	2.03	0.58
1:B:1089:ARG:HB3	1:B:1204:VAL:HG23	1.86	0.58
1:B:1498:GLN:O	1:B:1500:ARG:NH1	2.36	0.58
1:C:4093:ASP:OD1	1:C:4094:ILE:HD12	2.03	0.58
1:D:1089:ARG:HB3	1:D:1204:VAL:HG23	1.86	0.58
1:D:1498:GLN:O	1:D:1500:ARG:NH1	2.36	0.58
1:A:2793:ARG:O	1:A:2797:SER:OG	2.17	0.58
1:B:601:LEU:HG	1:B:610:VAL:HG11	1.85	0.58
1:C:900:LEU:O	1:C:913:ARG:NH2	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2378:GLU:OE2	1:D:2457:SER:OG	2.21	0.58
1:D:2732:TRP:O	1:D:2736:LYS:HG2	2.03	0.58
1:D:3303:SER:O	1:D:3306:ILE:HG22	2.04	0.58
1:A:2748:SER:OG	1:A:2751:SER:OG	2.20	0.58
1:C:3157:GLU:HG3	1:C:3302:PHE:HZ	1.68	0.58
1:C:3177:LYS:HA	1:C:3185:ASN:HD21	1.69	0.58
1:C:3303:SER:O	1:C:3306:ILE:HG22	2.04	0.58
1:A:2378:GLU:OE2	1:A:2457:SER:OG	2.21	0.58
1:A:3303:SER:O	1:A:3306:ILE:HG22	2.03	0.58
1:B:3177:LYS:HA	1:B:3185:ASN:HD21	1.69	0.58
1:C:4636:ASN:ND2	1:C:4669:LEU:O	2.36	0.58
1:D:27:THR:N	1:D:196:TYR:OH	2.30	0.58
1:A:678:MET:SD	1:A:801:ARG:NH2	2.76	0.58
1:A:1089:ARG:HB3	1:A:1204:VAL:HG23	1.86	0.58
1:A:3177:LYS:HA	1:A:3185:ASN:HD21	1.68	0.58
1:A:4636:ASN:ND2	1:A:4669:LEU:O	2.36	0.58
1:C:1089:ARG:HB3	1:C:1204:VAL:HG23	1.86	0.58
1:D:678:MET:SD	1:D:801:ARG:NH2	2.76	0.58
1:D:3157:GLU:HG3	1:D:3302:PHE:HZ	1.68	0.58
1:B:27:THR:N	1:B:196:TYR:OH	2.30	0.57
1:B:2378:GLU:OE2	1:B:2457:SER:OG	2.21	0.57
1:B:2755:PRO:O	1:B:2758:LYS:NZ	2.28	0.57
1:C:1010:ASP:OD1	1:C:1013:ARG:NH2	2.32	0.57
1:D:881:ILE:HD12	1:D:1057:LEU:HD12	1.86	0.57
1:C:4268:MET:HA	1:C:4271:VAL:HG12	1.86	0.57
1:D:4268:MET:HA	1:D:4271:VAL:HG12	1.86	0.57
1:C:270:HIS:CD2	1:C:491:GLU:HG3	2.40	0.57
1:C:558:LEU:HG	1:C:571:ILE:HG23	1.85	0.57
1:C:881:ILE:HD12	1:C:1057:LEU:HD12	1.87	0.57
1:C:1498:GLN:O	1:C:1500:ARG:NH1	2.36	0.57
1:C:2057:THR:HG22	1:C:2059:GLN:H	1.69	0.57
1:D:2741:TRP:CD1	1:D:2752:LYS:HZ3	2.21	0.57
1:A:3157:GLU:HG3	1:A:3302:PHE:HZ	1.68	0.57
1:B:143:LEU:HD12	1:B:207:PHE:HE2	1.68	0.57
1:B:2734:MET:HE3	1:B:2825:ALA:H	1.68	0.57
1:A:2057:THR:HG22	1:A:2059:GLN:H	1.69	0.57
1:A:2793:ARG:NH1	1:A:2794:GLU:HB3	2.20	0.57
1:A:4491:LEU:HB3	1:D:4283:PHE:HE2	1.69	0.57
1:B:558:LEU:HG	1:B:571:ILE:HG23	1.85	0.57
1:B:881:ILE:HD12	1:B:1057:LEU:HD12	1.87	0.57
1:D:2734:MET:HE3	1:D:2825:ALA:H	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1010:ASP:OD1	1:B:1013:ARG:NH2	2.32	0.57
1:D:1956:ALA:O	1:D:1960:ARG:NH1	2.38	0.57
1:B:270:HIS:CD2	1:B:491:GLU:HG3	2.40	0.57
1:B:3157:GLU:HG3	1:B:3302:PHE:HZ	1.68	0.57
1:B:3303:SER:O	1:B:3306:ILE:HG22	2.03	0.57
1:C:2793:ARG:NH1	1:C:2794:GLU:HB3	2.20	0.57
1:D:2929:LEU:HD13	1:D:2971:ILE:HG12	1.87	0.57
1:B:2793:ARG:NH1	1:B:2794:GLU:HB3	2.20	0.57
1:B:2929:LEU:HD13	1:B:2971:ILE:HG12	1.87	0.57
1:B:4283:PHE:HE2	1:C:4491:LEU:HB3	1.69	0.57
1:A:881:ILE:HD12	1:A:1057:LEU:HD12	1.87	0.57
1:A:2755:PRO:O	1:A:2758:LYS:NZ	2.28	0.57
2:E:79:PRO:HA	2:E:82:ALA:HB3	1.87	0.57
1:B:1956:ALA:O	1:B:1960:ARG:NH1	2.38	0.57
1:D:270:HIS:CD2	1:D:491:GLU:HG3	2.40	0.57
1:D:280:LEU:HD12	1:D:294:PRO:HB2	1.85	0.57
1:A:270:HIS:CD2	1:A:491:GLU:HG3	2.40	0.57
1:A:280:LEU:HD12	1:A:294:PRO:HB2	1.85	0.57
1:A:3015:VAL:HB	1:A:3029:ILE:HG21	1.87	0.57
1:B:3015:VAL:HB	1:B:3029:ILE:HG21	1.87	0.57
1:C:737:ILE:HD12	1:C:1482:ARG:HD3	1.87	0.57
1:D:2793:ARG:NH1	1:D:2794:GLU:HB3	2.20	0.57
1:A:2929:LEU:HD13	1:A:2971:ILE:HG12	1.87	0.56
1:D:859:GLN:OE1	1:D:859:GLN:N	2.38	0.56
1:A:1956:ALA:O	1:A:1960:ARG:NH1	2.38	0.56
2:F:83:TYR:OH	1:B:1768:PHE:O	2.17	0.56
1:B:3832:ASP:HB3	1:B:3835:PHE:HB3	1.88	0.56
1:B:4268:MET:HA	1:B:4271:VAL:HG12	1.86	0.56
1:A:859:GLN:OE1	1:A:859:GLN:N	2.38	0.56
1:A:3639:LYS:HD2	1:A:4683:ARG:HH12	1.71	0.56
1:A:3832:ASP:HB3	1:A:3835:PHE:HB3	1.88	0.56
1:A:4268:MET:HA	1:A:4271:VAL:HG12	1.86	0.56
1:B:737:ILE:HD12	1:B:1482:ARG:HD3	1.87	0.56
1:B:859:GLN:N	1:B:859:GLN:OE1	2.38	0.56
1:B:2943:PHE:O	1:B:2947:SER:OG	2.19	0.56
1:B:3022:PHE:HB3	1:B:3025:ASP:HB3	1.88	0.56
1:C:2734:MET:HE3	1:C:2825:ALA:H	1.68	0.56
1:C:2929:LEU:HD13	1:C:2971:ILE:HG12	1.87	0.56
1:B:903:GLN:O	1:B:915:HIS:N	2.29	0.56
1:C:1956:ALA:O	1:C:1960:ARG:NH1	2.38	0.56
1:D:3832:ASP:HB3	1:D:3835:PHE:HB3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4283:PHE:HE2	1:B:4491:LEU:HB3	1.70	0.56
1:A:903:GLN:O	1:A:915:HIS:N	2.29	0.56
1:A:3022:PHE:HB3	1:A:3025:ASP:HB3	1.88	0.56
2:F:79:PRO:HA	2:F:82:ALA:HB3	1.87	0.56
1:C:2760:TYR:HA	1:C:2763:LEU:HD13	1.87	0.56
1:C:3639:LYS:HD2	1:C:4683:ARG:HH12	1.71	0.56
1:B:2057:THR:HG22	1:B:2059:GLN:H	1.69	0.56
1:B:3320:LEU:HB2	1:B:3321:PRO:HD3	1.88	0.56
1:C:859:GLN:OE1	1:C:859:GLN:N	2.38	0.56
1:C:903:GLN:O	1:C:915:HIS:N	2.29	0.56
1:C:2436:ILE:HG22	1:C:2491:GLY:HA3	1.88	0.56
1:D:3639:LYS:HD2	1:D:4683:ARG:HH12	1.71	0.56
1:B:2716:LYS:HZ1	1:B:2791:ARG:NE	2.04	0.56
1:B:3292:GLU:HG2	1:B:3293:GLY:N	2.21	0.56
1:C:2793:ARG:O	1:C:2797:SER:OG	2.17	0.56
1:C:3145:SER:HB3	1:C:3148:VAL:HG12	1.88	0.56
1:C:3292:GLU:HG2	1:C:3293:GLY:N	2.21	0.56
1:C:3832:ASP:HB3	1:C:3835:PHE:HB3	1.88	0.56
1:D:2057:THR:HG22	1:D:2059:GLN:H	1.69	0.56
1:D:3292:GLU:HG2	1:D:3293:GLY:N	2.21	0.56
1:A:2730:ASP:OD1	1:A:2821:TYR:OH	2.19	0.56
2:H:79:PRO:HA	2:H:82:ALA:HB3	1.87	0.56
1:C:1748:LEU:HB3	1:C:1751:ILE:HD13	1.88	0.56
1:C:4283:PHE:HE2	1:D:4491:LEU:HB3	1.71	0.56
1:C:4874:ARG:NH1	1:D:4868:ASP:OD1	2.37	0.56
1:D:3015:VAL:HB	1:D:3029:ILE:HG21	1.87	0.56
1:D:3145:SER:HB3	1:D:3148:VAL:HG12	1.88	0.56
1:A:3292:GLU:HG2	1:A:3293:GLY:N	2.21	0.55
2:F:58:LYS:O	2:F:62:GLU:HG2	2.06	0.55
1:B:1425:THR:HG22	1:B:1563:VAL:HG13	1.88	0.55
1:B:3639:LYS:HD2	1:B:4683:ARG:HH12	1.71	0.55
1:D:1748:LEU:HB3	1:D:1751:ILE:HD13	1.88	0.55
1:D:2760:TYR:HA	1:D:2763:LEU:HD13	1.87	0.55
1:A:3320:LEU:HB2	1:A:3321:PRO:HD3	1.88	0.55
2:G:58:LYS:O	2:G:62:GLU:HG2	2.06	0.55
1:D:895:MET:HB2	1:D:970:TYR:HD1	1.72	0.55
1:D:966:LEU:H	1:D:977:LYS:NZ	2.04	0.55
1:A:737:ILE:HD12	1:A:1482:ARG:HD3	1.87	0.55
1:A:3145:SER:HB3	1:A:3148:VAL:HG12	1.88	0.55
1:A:4874:ARG:NH1	1:B:4868:ASP:OD1	2.38	0.55
1:B:2760:TYR:HA	1:B:2763:LEU:HD13	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2436:ILE:HG22	1:D:2491:GLY:HA3	1.88	0.55
1:A:895:MET:HB2	1:A:970:TYR:HD1	1.72	0.55
1:A:4864:GLY:HA2	1:D:4867:ILE:HG12	1.89	0.55
2:G:79:PRO:HA	2:G:82:ALA:HB3	1.87	0.55
1:B:1748:LEU:HB3	1:B:1751:ILE:HD13	1.88	0.55
1:B:2436:ILE:HG22	1:B:2491:GLY:HA3	1.88	0.55
1:C:3972:MET:HE3	1:C:4094:ILE:HD13	1.88	0.55
1:D:643:LEU:O	1:D:645:GLN:NE2	2.40	0.55
1:D:3134:LEU:HB2	1:D:3162:PHE:CE2	2.42	0.55
1:A:1748:LEU:HB3	1:A:1751:ILE:HD13	1.88	0.55
1:A:2588:LEU:O	1:A:2592:LEU:HD23	2.07	0.55
1:A:4848:ILE:HD11	1:D:4818:TYR:HA	1.89	0.55
2:E:58:LYS:O	2:E:62:GLU:HG2	2.06	0.55
2:H:58:LYS:O	2:H:62:GLU:HG2	2.06	0.55
1:B:2130:LEU:HD11	1:B:2170:THR:HG23	1.89	0.55
1:C:3015:VAL:HB	1:C:3029:ILE:HG21	1.87	0.55
1:D:1007:TRP:NE1	4:D:5003:ATP:O2B	2.33	0.55
1:D:1425:THR:HG22	1:D:1563:VAL:HG13	1.88	0.55
1:D:2427:ILE:O	1:D:2476:TYR:OH	2.24	0.55
1:D:2588:LEU:O	1:D:2592:LEU:HD23	2.07	0.55
1:D:3022:PHE:HB3	1:D:3025:ASP:HB3	1.87	0.55
1:A:2427:ILE:O	1:A:2476:TYR:OH	2.24	0.55
1:C:940:LEU:HA	1:C:943:LEU:HD12	1.89	0.55
1:D:306:LEU:HD11	1:D:314:LEU:HD12	1.89	0.55
1:C:4634:VAL:HG22	1:C:4640:PHE:HD1	1.72	0.55
1:D:49:LEU:HD12	1:D:201:LEU:HB3	1.88	0.55
1:A:49:LEU:HD12	1:A:201:LEU:HB3	1.88	0.55
1:A:1498:GLN:O	1:A:1500:ARG:NH1	2.36	0.55
1:A:2130:LEU:HD11	1:A:2170:THR:HG23	1.89	0.55
1:A:2760:TYR:HA	1:A:2763:LEU:HD13	1.87	0.55
1:B:940:LEU:HA	1:B:943:LEU:HD12	1.89	0.55
1:B:2588:LEU:O	1:B:2592:LEU:HD23	2.07	0.55
1:C:895:MET:HB2	1:C:970:TYR:HD1	1.72	0.55
1:C:3320:LEU:HB2	1:C:3321:PRO:HD3	1.88	0.55
1:D:737:ILE:HD12	1:D:1482:ARG:HD3	1.87	0.55
1:A:4867:ILE:HG12	1:B:4864:GLY:HA2	1.89	0.55
1:B:49:LEU:HD12	1:B:201:LEU:HB3	1.88	0.55
1:A:1645:THR:HG23	1:A:1695:PRO:HG3	1.88	0.55
1:B:4634:VAL:HG22	1:B:4640:PHE:HD1	1.72	0.55
1:C:966:LEU:H	1:C:977:LYS:NZ	2.05	0.55
1:C:4818:TYR:HA	1:D:4848:ILE:HD11	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2130:LEU:HD11	1:D:2170:THR:HG23	1.89	0.55
1:D:3320:LEU:HB2	1:D:3321:PRO:HD3	1.88	0.55
1:A:27:THR:N	1:A:196:TYR:OH	2.30	0.54
1:A:306:LEU:HD11	1:A:314:LEU:HD12	1.89	0.54
1:B:643:LEU:O	1:B:645:GLN:NE2	2.40	0.54
1:B:966:LEU:H	1:B:977:LYS:NZ	2.05	0.54
1:B:2427:ILE:O	1:B:2476:TYR:OH	2.24	0.54
1:B:3134:LEU:HB2	1:B:3162:PHE:CE2	2.42	0.54
1:D:1645:THR:HG23	1:D:1695:PRO:HG3	1.88	0.54
1:A:3972:MET:HE3	1:A:4094:ILE:HD13	1.88	0.54
1:C:1129:GLY:HA3	1:C:1145:TRP:HB3	1.89	0.54
1:C:3336:GLU:OE1	1:C:3337:GLU:HG3	2.07	0.54
1:D:908:ARG:HG2	1:D:916:PRO:HG2	1.89	0.54
1:D:940:LEU:HA	1:D:943:LEU:HD12	1.89	0.54
1:A:966:LEU:H	1:A:977:LYS:NZ	2.04	0.54
1:A:2758:LYS:HG3	1:A:2763:LEU:HD12	1.90	0.54
1:B:2793:ARG:O	1:B:2797:SER:OG	2.17	0.54
1:B:3145:SER:HB3	1:B:3148:VAL:HG12	1.88	0.54
1:C:49:LEU:HD12	1:C:201:LEU:HB3	1.88	0.54
1:C:908:ARG:HG2	1:C:916:PRO:HG2	1.89	0.54
1:A:3269:ASN:OD1	1:A:3270:SER:N	2.41	0.54
1:B:713:TRP:CE2	1:B:1600:PRO:HD3	2.43	0.54
1:B:2730:ASP:OD1	1:B:2821:TYR:OH	2.19	0.54
1:B:3159:LEU:HD21	1:B:3241:MET:HE3	1.89	0.54
1:C:713:TRP:CE2	1:C:1600:PRO:HD3	2.43	0.54
1:C:3159:LEU:HD21	1:C:3241:MET:HE3	1.89	0.54
1:B:1129:GLY:HA3	1:B:1145:TRP:HB3	1.89	0.54
1:B:3972:MET:HE3	1:B:4094:ILE:HD13	1.88	0.54
1:D:3972:MET:HE3	1:D:4094:ILE:HD13	1.88	0.54
1:A:1425:THR:HG22	1:A:1563:VAL:HG13	1.88	0.54
1:A:2436:ILE:HG22	1:A:2491:GLY:HA3	1.88	0.54
1:B:3336:GLU:OE1	1:B:3337:GLU:HG3	2.07	0.54
1:C:306:LEU:HD11	1:C:314:LEU:HD12	1.89	0.54
1:C:643:LEU:O	1:C:645:GLN:NE2	2.40	0.54
1:C:1645:THR:HG23	1:C:1695:PRO:HG3	1.88	0.54
1:C:2758:LYS:HG3	1:C:2763:LEU:HD12	1.90	0.54
1:D:887:GLU:O	1:D:976:TYR:OH	2.26	0.54
1:A:908:ARG:HG2	1:A:916:PRO:HG2	1.88	0.54
1:B:644:LEU:HD13	1:B:1630:LEU:HD21	1.90	0.54
1:B:908:ARG:HG2	1:B:916:PRO:HG2	1.88	0.54
1:C:3183:ILE:HG23	1:C:3187:LYS:HE3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:713:TRP:CE2	1:D:1600:PRO:HD3	2.43	0.54
1:D:3269:ASN:OD1	1:D:3270:SER:N	2.41	0.54
1:B:1645:THR:HG23	1:B:1695:PRO:HG3	1.88	0.54
1:B:4265:LYS:HG3	1:C:4694:LEU:HD23	1.90	0.54
1:C:644:LEU:HD13	1:C:1630:LEU:HD21	1.90	0.54
1:C:1425:THR:HG22	1:C:1563:VAL:HG13	1.88	0.54
1:C:2427:ILE:O	1:C:2476:TYR:OH	2.24	0.54
1:C:2826:ILE:HG21	1:C:2895:PHE:HE1	1.73	0.54
1:C:3022:PHE:HB3	1:C:3025:ASP:HB3	1.88	0.54
1:A:200:SER:OG	1:A:202:HIS:NE2	2.40	0.54
1:A:644:LEU:HD13	1:A:1630:LEU:HD21	1.90	0.54
1:A:713:TRP:CE2	1:A:1600:PRO:HD3	2.43	0.54
1:A:940:LEU:HA	1:A:943:LEU:HD12	1.89	0.54
1:B:895:MET:HB2	1:B:970:TYR:HD1	1.72	0.54
1:B:1894:LEU:HD22	1:B:2065:THR:HG21	1.90	0.54
1:C:2130:LEU:HD11	1:C:2170:THR:HG23	1.89	0.54
1:C:2588:LEU:O	1:C:2592:LEU:HD23	2.07	0.54
1:D:3183:ILE:HG23	1:D:3187:LYS:HE3	1.90	0.54
1:A:2396:ILE:HG13	1:A:2468:MET:HE1	1.90	0.54
1:A:3134:LEU:HB2	1:A:3162:PHE:CE2	2.42	0.54
1:B:2826:ILE:HG21	1:B:2895:PHE:HE1	1.73	0.54
1:C:661:LEU:HD22	1:C:673:TRP:CE2	2.43	0.54
1:C:3134:LEU:HB2	1:C:3162:PHE:CE2	2.42	0.54
1:C:3246:MET:HA	1:C:3268:LEU:HD21	1.90	0.54
1:C:3277:LEU:HD12	1:C:3306:ILE:HG23	1.90	0.54
1:A:131:CYS:SG	1:A:150:GLN:HB2	2.48	0.53
1:A:1011:ARG:NE	4:A:5003:ATP:O2G	2.40	0.53
1:A:2539:GLU:HA	1:A:2584:MET:HE3	1.91	0.53
1:A:2716:LYS:HZ1	1:A:2791:ARG:NE	2.05	0.53
1:B:878:LEU:HD11	1:B:950:VAL:HG11	1.90	0.53
1:B:3246:MET:HA	1:B:3268:LEU:HD21	1.90	0.53
1:D:661:LEU:HD22	1:D:673:TRP:CE2	2.43	0.53
1:D:2724:TYR:OH	1:D:2891:ASP:OD2	2.16	0.53
1:D:3202:GLU:OE1	1:D:3202:GLU:N	2.20	0.53
1:A:63:SER:HB3	1:A:276:ARG:HH22	1.74	0.53
1:A:659:ILE:HD11	1:A:826:VAL:HG22	1.91	0.53
1:A:661:LEU:HD22	1:A:673:TRP:CE2	2.43	0.53
1:A:2290:TRP:CZ2	1:A:2388:ILE:HG12	2.43	0.53
1:A:3336:GLU:OE1	1:A:3337:GLU:HG3	2.07	0.53
1:A:4818:TYR:HA	1:B:4848:ILE:HD11	1.90	0.53
1:B:1011:ARG:NE	4:B:5003:ATP:O2G	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2290:TRP:CZ2	1:B:2388:ILE:HG12	2.43	0.53
1:B:2396:ILE:HG13	1:B:2468:MET:HE1	1.90	0.53
1:B:3183:ILE:HG23	1:B:3187:LYS:HE3	1.90	0.53
1:C:131:CYS:SG	1:C:150:GLN:HB2	2.48	0.53
1:C:2539:GLU:HA	1:C:2584:MET:HE3	1.91	0.53
1:D:2539:GLU:HA	1:D:2584:MET:HE3	1.90	0.53
1:D:3159:LEU:HD21	1:D:3241:MET:HE3	1.89	0.53
1:A:3183:ILE:HG23	1:A:3187:LYS:HE3	1.90	0.53
1:B:131:CYS:SG	1:B:150:GLN:HB2	2.48	0.53
1:B:1007:TRP:NE1	4:B:5003:ATP:O2B	2.33	0.53
1:B:2758:LYS:HG3	1:B:2763:LEU:HD12	1.90	0.53
1:C:3269:ASN:OD1	1:C:3270:SER:N	2.41	0.53
1:D:659:ILE:HD11	1:D:826:VAL:HG22	1.91	0.53
1:A:3159:LEU:HD21	1:A:3241:MET:HE3	1.89	0.53
1:A:4634:VAL:HG22	1:A:4640:PHE:HD1	1.72	0.53
1:B:306:LEU:HD11	1:B:314:LEU:HD12	1.89	0.53
1:B:2539:GLU:HA	1:B:2584:MET:HE3	1.91	0.53
1:B:3269:ASN:OD1	1:B:3270:SER:N	2.41	0.53
1:B:4283:PHE:CE2	1:C:4491:LEU:HB3	2.44	0.53
1:D:2826:ILE:HG21	1:D:2895:PHE:HE1	1.73	0.53
1:A:1129:GLY:HA3	1:A:1145:TRP:HB3	1.89	0.53
1:A:2157:GLN:O	1:A:3615:ARG:NH2	2.36	0.53
1:A:3277:LEU:HD12	1:A:3306:ILE:HG23	1.90	0.53
1:D:131:CYS:SG	1:D:150:GLN:HB2	2.48	0.53
1:D:878:LEU:HD11	1:D:950:VAL:HG11	1.90	0.53
1:D:1129:GLY:HA3	1:D:1145:TRP:HB3	1.89	0.53
1:D:3246:MET:HA	1:D:3268:LEU:HD21	1.91	0.53
1:D:3336:GLU:OE1	1:D:3337:GLU:HG3	2.07	0.53
1:D:4634:VAL:HG22	1:D:4640:PHE:HD1	1.72	0.53
1:B:1165:MET:HE1	1:B:1176:THR:HG23	1.90	0.53
1:B:2742:ILE:HB	1:B:2753:VAL:HG22	1.91	0.53
1:C:659:ILE:HD11	1:C:826:VAL:HG22	1.91	0.53
1:D:3277:LEU:HD22	1:D:3318:HIS:HE1	1.73	0.53
1:A:643:LEU:O	1:A:645:GLN:NE2	2.40	0.53
1:B:3277:LEU:HD11	1:B:3307:ILE:HG12	1.91	0.53
1:D:63:SER:HB3	1:D:276:ARG:HH22	1.74	0.53
1:D:2758:LYS:HG3	1:D:2763:LEU:HD12	1.90	0.53
1:A:2717:LEU:HD13	1:A:2779:LEU:HD22	1.91	0.53
1:B:63:SER:HB3	1:B:276:ARG:HH22	1.74	0.53
1:B:661:LEU:HD22	1:B:673:TRP:CE2	2.43	0.53
1:C:988:LEU:HD23	1:C:992:GLN:HB3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4265:LYS:HG3	1:D:4694:LEU:HD23	1.91	0.53
1:D:2748:SER:HG	1:D:2751:SER:HG	1.57	0.53
1:A:3246:MET:HA	1:A:3268:LEU:HD21	1.90	0.53
1:B:2837:LEU:HD23	1:B:2840:MET:HG3	1.91	0.53
1:B:3697:LYS:HA	1:B:3700:HIS:CD2	2.44	0.53
1:C:1007:TRP:NE1	4:C:5003:ATP:O2B	2.33	0.53
1:C:1165:MET:HE1	1:C:1176:THR:HG23	1.90	0.53
1:C:2724:TYR:OH	1:C:2891:ASP:OD2	2.16	0.53
1:D:981:MET:HE2	1:D:1060:TYR:HD1	1.74	0.53
1:D:988:LEU:HD23	1:D:992:GLN:HB3	1.91	0.53
1:D:1894:LEU:HD22	1:D:2065:THR:HG21	1.90	0.53
1:D:2943:PHE:O	1:D:2947:SER:OG	2.19	0.53
1:A:878:LEU:HD11	1:A:950:VAL:HG11	1.90	0.53
1:A:907:VAL:HA	1:A:916:PRO:HG3	1.91	0.53
1:B:659:ILE:HD11	1:B:826:VAL:HG22	1.91	0.53
1:C:552:SER:HB2	1:C:588:ILE:HD12	1.91	0.53
1:C:2290:TRP:CZ2	1:C:2388:ILE:HG12	2.43	0.53
1:C:3697:LYS:HA	1:C:3700:HIS:CD2	2.44	0.53
1:D:276:ARG:HB2	1:D:298:ARG:HB3	1.91	0.53
1:D:644:LEU:HD13	1:D:1630:LEU:HD21	1.90	0.53
1:D:3277:LEU:HD11	1:D:3307:ILE:HG12	1.91	0.53
1:A:981:MET:HE2	1:A:1060:TYR:HD1	1.74	0.52
1:A:4694:LEU:HD23	1:D:4265:LYS:HG3	1.92	0.52
1:B:2160:ASN:OD1	1:B:2163:ARG:NH2	2.40	0.52
1:B:2334:ALA:HB2	1:B:2346:ALA:HB2	1.91	0.52
1:B:2727:HIS:ND1	1:B:2826:ILE:HG22	2.23	0.52
1:D:1011:ARG:NE	4:D:5003:ATP:O2G	2.40	0.52
1:D:3277:LEU:HD12	1:D:3306:ILE:HG23	1.90	0.52
1:A:2826:ILE:HG21	1:A:2895:PHE:HE1	1.73	0.52
1:B:2717:LEU:HD13	1:B:2779:LEU:HD22	1.91	0.52
1:B:3127:GLN:HB3	1:B:3183:ILE:HD11	1.90	0.52
1:B:4867:ILE:HG12	1:C:4864:GLY:HA2	1.92	0.52
1:C:878:LEU:HD11	1:C:950:VAL:HG11	1.90	0.52
1:C:887:GLU:O	1:C:976:TYR:OH	2.26	0.52
1:C:2837:LEU:HD23	1:C:2840:MET:HG3	1.91	0.52
1:C:4867:ILE:HG12	1:D:4864:GLY:HA2	1.91	0.52
1:D:903:GLN:O	1:D:915:HIS:N	2.29	0.52
1:A:814:LEU:HD12	1:A:815:PRO:HD2	1.92	0.52
1:A:988:LEU:HD23	1:A:992:GLN:HB3	1.91	0.52
1:A:2334:ALA:HB2	1:A:2346:ALA:HB2	1.92	0.52
1:B:887:GLU:O	1:B:976:TYR:OH	2.26	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4690:LYS:HG3	1:C:4692:SER:H	1.75	0.52
1:D:1165:MET:HE1	1:D:1176:THR:HG23	1.90	0.52
1:D:2290:TRP:CZ2	1:D:2388:ILE:HG12	2.43	0.52
1:D:3650:GLU:HB2	1:D:3651:PRO:HD3	1.91	0.52
1:A:1165:MET:HE1	1:A:1176:THR:HG23	1.90	0.52
1:A:2727:HIS:ND1	1:A:2826:ILE:HG22	2.24	0.52
1:A:2837:LEU:HD23	1:A:2840:MET:HG3	1.91	0.52
1:A:3697:LYS:HA	1:A:3700:HIS:CD2	2.44	0.52
1:B:200:SER:OG	1:B:202:HIS:NE2	2.40	0.52
1:B:814:LEU:HD12	1:B:815:PRO:HD2	1.92	0.52
1:C:1276:THR:OG1	1:C:1278:ASP:OD1	2.28	0.52
1:C:3277:LEU:HD22	1:C:3318:HIS:HE1	1.74	0.52
1:C:3642:GLU:OE1	1:C:3730:ARG:NH1	2.43	0.52
1:D:2176:VAL:HG22	1:D:2220:TYR:CZ	2.45	0.52
1:B:276:ARG:HB2	1:B:298:ARG:HB3	1.91	0.52
1:B:4874:ARG:NH1	1:C:4868:ASP:OD1	2.40	0.52
1:C:814:LEU:HD12	1:C:815:PRO:HD2	1.92	0.52
1:C:2727:HIS:ND1	1:C:2826:ILE:HG22	2.24	0.52
1:D:2717:LEU:HD13	1:D:2779:LEU:HD22	1.91	0.52
1:A:948:CYS:SG	1:A:995:MET:HG3	2.50	0.52
1:A:3127:GLN:HB3	1:A:3183:ILE:HD11	1.90	0.52
1:A:4265:LYS:HG3	1:B:4694:LEU:HD23	1.92	0.52
1:B:948:CYS:SG	1:B:995:MET:HG3	2.50	0.52
1:B:2724:TYR:HD2	1:B:2775:ILE:HG12	1.75	0.52
1:B:3642:GLU:OE1	1:B:3730:ARG:NH1	2.43	0.52
1:C:2396:ILE:HG13	1:C:2468:MET:HE1	1.90	0.52
1:C:2841:ALA:HB2	1:C:2893:LEU:HD12	1.92	0.52
1:D:2727:HIS:ND1	1:D:2826:ILE:HG22	2.24	0.52
1:A:2759:PRO:HG2	1:A:2762:LEU:HD23	1.92	0.52
1:A:3277:LEU:HD22	1:A:3318:HIS:HE1	1.73	0.52
1:A:3642:GLU:OE1	1:A:3730:ARG:NH1	2.43	0.52
1:B:1722:ASN:O	1:B:1919:ARG:NH2	2.43	0.52
1:B:2759:PRO:HG2	1:B:2762:LEU:HD23	1.92	0.52
1:C:1894:LEU:HD22	1:C:2065:THR:HG21	1.90	0.52
1:C:2724:TYR:HD2	1:C:2775:ILE:HG12	1.75	0.52
1:C:3127:GLN:HB3	1:C:3183:ILE:HD11	1.90	0.52
1:D:2396:ILE:HG13	1:D:2468:MET:HE1	1.90	0.52
1:D:2759:PRO:HG2	1:D:2762:LEU:HD23	1.92	0.52
1:A:272:ARG:O	1:A:299:HIS:NE2	2.43	0.52
1:A:552:SER:HB2	1:A:588:ILE:HD12	1.91	0.52
1:B:988:LEU:HD23	1:B:992:GLN:HB3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:4690:LYS:HG3	1:B:4692:SER:H	1.75	0.52
1:C:63:SER:HB3	1:C:276:ARG:HH22	1.74	0.52
1:D:2716:LYS:HZ1	1:D:2791:ARG:NE	2.07	0.52
1:A:1007:TRP:NE1	4:A:5003:ATP:O2B	2.33	0.52
1:A:1685:LEU:O	1:A:1689:ILE:HG12	2.10	0.52
1:A:3277:LEU:HD11	1:A:3307:ILE:HG12	1.91	0.52
1:B:2157:GLN:O	1:B:3615:ARG:NH2	2.36	0.52
1:C:969:ASN:OD1	1:C:970:TYR:N	2.42	0.52
1:C:1011:ARG:NE	4:C:5003:ATP:O2G	2.40	0.52
1:C:2176:VAL:HG22	1:C:2220:TYR:CZ	2.45	0.52
1:D:814:LEU:HD12	1:D:815:PRO:HD2	1.92	0.52
1:D:1276:THR:OG1	1:D:1278:ASP:OD1	2.28	0.52
1:D:3642:GLU:OE1	1:D:3730:ARG:NH1	2.43	0.52
1:A:276:ARG:HB2	1:A:298:ARG:HB3	1.91	0.52
1:A:2176:VAL:HG22	1:A:2220:TYR:CZ	2.45	0.52
1:A:2607:LEU:HD23	1:A:2665:ALA:HA	1.92	0.52
1:A:3280:ILE:HG23	1:A:3299:LEU:HD21	1.92	0.52
1:A:4690:LYS:HG3	1:A:4692:SER:H	1.75	0.52
1:B:907:VAL:HA	1:B:916:PRO:HG3	1.92	0.52
1:C:948:CYS:SG	1:C:995:MET:HG3	2.50	0.52
1:C:2692:GLN:NE2	1:C:2695:MET:O	2.43	0.52
1:C:2717:LEU:HD13	1:C:2779:LEU:HD22	1.91	0.52
1:C:2748:SER:OG	1:C:2751:SER:OG	2.20	0.52
1:A:254:GLU:O	1:A:258:ARG:HG3	2.11	0.51
1:A:1894:LEU:HD22	1:A:2065:THR:HG21	1.90	0.51
1:B:272:ARG:O	1:B:299:HIS:NE2	2.43	0.51
1:C:907:VAL:HA	1:C:916:PRO:HG3	1.91	0.51
1:C:981:MET:HE2	1:C:1060:TYR:HD1	1.74	0.51
1:C:1685:LEU:O	1:C:1689:ILE:HG12	2.10	0.51
1:C:2759:PRO:HG2	1:C:2762:LEU:HD23	1.92	0.51
1:C:3280:ILE:HG23	1:C:3299:LEU:HD21	1.92	0.51
1:D:1665:CYS:HB3	1:D:1676:LEU:HD12	1.93	0.51
1:D:2742:ILE:HB	1:D:2753:VAL:HG22	1.91	0.51
1:A:1665:CYS:HB3	1:A:1676:LEU:HD12	1.92	0.51
1:A:4868:ASP:OD1	1:D:4874:ARG:NH1	2.40	0.51
1:B:981:MET:HE2	1:B:1060:TYR:HD1	1.74	0.51
1:B:1469:LEU:HB2	1:B:1478:GLU:HG2	1.92	0.51
1:B:2841:ALA:HB2	1:B:2893:LEU:HD12	1.92	0.51
1:C:254:GLU:O	1:C:258:ARG:HG3	2.10	0.51
1:C:995:MET:HE1	1:C:1054:VAL:HG21	1.93	0.51
1:C:2742:ILE:HB	1:C:2753:VAL:HG22	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3127:GLN:HB3	1:D:3183:ILE:HD11	1.91	0.51
1:D:3697:LYS:HA	1:D:3700:HIS:CD2	2.44	0.51
1:D:4690:LYS:HG3	1:D:4692:SER:H	1.75	0.51
1:A:995:MET:HE1	1:A:1054:VAL:HG21	1.93	0.51
1:A:1276:THR:OG1	1:A:1278:ASP:OD1	2.28	0.51
1:A:2160:ASN:OD1	1:A:2163:ARG:NH2	2.40	0.51
1:A:2724:TYR:HD2	1:A:2775:ILE:HG12	1.75	0.51
2:E:26:HIS:CD2	2:E:105:LEU:HD11	2.46	0.51
1:B:2176:VAL:HG22	1:B:2220:TYR:CZ	2.45	0.51
1:C:243:GLU:OE1	1:C:389:ARG:NH2	2.30	0.51
1:C:3277:LEU:HD11	1:C:3307:ILE:HG12	1.91	0.51
1:C:3650:GLU:HB2	1:C:3651:PRO:HD3	1.92	0.51
1:D:552:SER:HB2	1:D:588:ILE:HD12	1.91	0.51
1:D:948:CYS:SG	1:D:995:MET:HG3	2.50	0.51
1:A:2742:ILE:HB	1:A:2753:VAL:HG22	1.91	0.51
1:A:4283:PHE:CE2	1:B:4491:LEU:HB3	2.45	0.51
1:A:4491:LEU:HB3	1:D:4283:PHE:CE2	2.45	0.51
1:B:785:ASP:OD1	1:B:785:ASP:N	2.41	0.51
1:B:915:HIS:NE2	1:B:917:CYS:HB2	2.26	0.51
1:B:995:MET:HE1	1:B:1054:VAL:HG21	1.93	0.51
1:B:2603:ALA:C	1:B:2606:PRO:HD2	2.35	0.51
1:B:3277:LEU:HD12	1:B:3306:ILE:HG23	1.90	0.51
1:C:276:ARG:HB2	1:C:298:ARG:HB3	1.91	0.51
1:C:1665:CYS:HB3	1:C:1676:LEU:HD12	1.92	0.51
1:C:4283:PHE:CE2	1:D:4491:LEU:HB3	2.46	0.51
1:D:1685:LEU:O	1:D:1689:ILE:HG12	2.10	0.51
1:A:887:GLU:O	1:A:976:TYR:OH	2.26	0.51
1:A:2703:PRO:HB2	1:A:2854:LYS:HB2	1.93	0.51
1:C:2655:LYS:O	1:C:2958:GLN:NE2	2.44	0.51
1:D:254:GLU:O	1:D:258:ARG:HG3	2.10	0.51
1:D:2724:TYR:HD2	1:D:2775:ILE:HG12	1.75	0.51
1:D:2837:LEU:HD23	1:D:2840:MET:HG3	1.91	0.51
1:A:915:HIS:NE2	1:A:917:CYS:HB2	2.26	0.51
1:A:2655:LYS:O	1:A:2958:GLN:NE2	2.44	0.51
1:A:3650:GLU:HB2	1:A:3651:PRO:HD3	1.92	0.51
1:B:969:ASN:OD1	1:B:970:TYR:N	2.42	0.51
1:C:992:GLN:NE2	1:C:1064:LEU:O	2.39	0.51
1:D:915:HIS:NE2	1:D:917:CYS:HB2	2.26	0.51
1:D:2334:ALA:HB2	1:D:2346:ALA:HB2	1.92	0.51
1:A:992:GLN:NE2	1:A:1064:LEU:O	2.39	0.51
1:A:2692:GLN:NE2	1:A:2695:MET:O	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3202:GLU:OE1	1:A:3202:GLU:N	2.20	0.51
2:G:18:LYS:O	2:G:51:ILE:HD11	2.11	0.51
2:H:26:HIS:CD2	2:H:105:LEU:HD11	2.46	0.51
1:B:1936:LEU:HD22	1:B:1976:LEU:HD13	1.93	0.51
1:C:2603:ALA:C	1:C:2606:PRO:HD2	2.35	0.51
1:D:272:ARG:O	1:D:299:HIS:NE2	2.43	0.51
1:D:2703:PRO:HB2	1:D:2854:LYS:HB2	1.93	0.51
1:D:3119:GLU:OE2	1:D:3119:GLU:N	2.44	0.51
1:A:1722:ASN:O	1:A:1919:ARG:NH2	2.43	0.51
1:A:2841:ALA:HB2	1:A:2893:LEU:HD12	1.92	0.51
2:F:26:HIS:CD2	2:F:105:LEU:HD11	2.45	0.51
1:B:254:GLU:O	1:B:258:ARG:HG3	2.10	0.51
1:B:2607:LEU:HD23	1:B:2665:ALA:HA	1.92	0.51
1:B:3277:LEU:HD22	1:B:3318:HIS:HE1	1.73	0.51
1:B:4818:TYR:HA	1:C:4848:ILE:HD11	1.93	0.51
1:C:2708:THR:HA	1:C:2711:ILE:HD13	1.93	0.51
1:D:1469:LEU:HB2	1:D:1478:GLU:HG2	1.92	0.51
1:D:1678:SER:HB2	1:D:1768:PHE:CE2	2.46	0.51
1:D:2603:ALA:C	1:D:2606:PRO:HD2	2.35	0.51
1:D:2692:GLN:NE2	1:D:2695:MET:O	2.43	0.51
2:E:18:LYS:O	2:E:51:ILE:HD11	2.11	0.51
1:B:552:SER:HB2	1:B:588:ILE:HD12	1.91	0.51
1:B:1113:MET:HB2	1:B:1156:TRP:CZ2	2.46	0.51
1:B:2692:GLN:NE2	1:B:2695:MET:O	2.43	0.51
1:D:1113:MET:HB2	1:D:1156:TRP:CZ2	2.46	0.51
1:D:2841:ALA:HB2	1:D:2893:LEU:HD12	1.92	0.51
1:A:1469:LEU:HB2	1:A:1478:GLU:HG2	1.92	0.51
1:A:1936:LEU:HD22	1:A:1976:LEU:HD13	1.93	0.51
2:F:18:LYS:O	2:F:51:ILE:HD11	2.11	0.51
1:B:1685:LEU:O	1:B:1689:ILE:HG12	2.10	0.51
1:B:2655:LYS:O	1:B:2958:GLN:NE2	2.44	0.51
1:B:2703:PRO:HB2	1:B:2854:LYS:HB2	1.93	0.51
1:C:2334:ALA:HB2	1:C:2346:ALA:HB2	1.92	0.51
1:D:907:VAL:HA	1:D:916:PRO:HG3	1.91	0.51
1:D:1722:ASN:O	1:D:1919:ARG:NH2	2.43	0.51
1:D:2067:VAL:O	1:D:2071:GLN:HG2	2.11	0.51
1:D:2607:LEU:HD23	1:D:2665:ALA:HA	1.92	0.51
1:D:2655:LYS:O	1:D:2958:GLN:NE2	2.44	0.51
1:A:2067:VAL:O	1:A:2071:GLN:HG2	2.11	0.50
2:G:26:HIS:CD2	2:G:105:LEU:HD11	2.46	0.50
2:G:106:ASN:OD1	2:G:107:LEU:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1665:CYS:HB3	1:B:1676:LEU:HD12	1.93	0.50
1:C:272:ARG:O	1:C:299:HIS:NE2	2.43	0.50
1:C:1469:LEU:HB2	1:C:1478:GLU:HG2	1.92	0.50
1:D:995:MET:HE1	1:D:1054:VAL:HG21	1.93	0.50
1:A:2603:ALA:C	1:A:2606:PRO:HD2	2.35	0.50
1:B:2154:VAL:HG13	1:B:2158:HIS:HD2	1.77	0.50
1:B:3202:GLU:OE1	1:B:3202:GLU:N	2.20	0.50
1:C:3729:ALA:HA	1:C:3732:HIS:CD2	2.46	0.50
1:D:3729:ALA:HA	1:D:3732:HIS:CD2	2.46	0.50
2:F:106:ASN:OD1	2:F:107:LEU:N	2.44	0.50
1:B:2708:THR:HA	1:B:2711:ILE:HD13	1.93	0.50
1:D:1932:PHE:CE1	1:D:1996:LEU:HB2	2.47	0.50
1:D:1936:LEU:HD22	1:D:1976:LEU:HD13	1.93	0.50
1:D:3280:ILE:HG23	1:D:3299:LEU:HD21	1.92	0.50
1:A:3729:ALA:HA	1:A:3732:HIS:CD2	2.46	0.50
1:B:2067:VAL:O	1:B:2071:GLN:HG2	2.11	0.50
1:B:3650:GLU:HB2	1:B:3651:PRO:HD3	1.92	0.50
1:C:1113:MET:HB2	1:C:1156:TRP:CZ2	2.46	0.50
1:C:3153:SER:O	1:C:3156:GLY:N	2.44	0.50
1:A:4145:ILE:O	1:A:4961:GLN:NE2	2.45	0.50
1:B:1678:SER:HB2	1:B:1768:PHE:CE2	2.46	0.50
1:B:3153:SER:O	1:B:3156:GLY:N	2.44	0.50
1:B:3227:ARG:HB2	1:B:3230:GLN:HG3	1.94	0.50
1:C:1722:ASN:O	1:C:1919:ARG:NH2	2.43	0.50
1:D:2708:THR:HA	1:D:2711:ILE:HD13	1.93	0.50
1:A:871:GLN:HE21	1:A:872:ILE:HG23	1.77	0.50
1:A:1113:MET:HB2	1:A:1156:TRP:CZ2	2.46	0.50
1:C:200:SER:OG	1:C:202:HIS:NE2	2.40	0.50
1:C:1721:MET:HG3	1:C:1759:PRO:HG3	1.93	0.50
1:C:3202:GLU:OE1	1:C:3202:GLU:N	2.20	0.50
1:D:871:GLN:HE21	1:D:872:ILE:HG23	1.77	0.50
1:D:969:ASN:OD1	1:D:970:TYR:N	2.42	0.50
1:A:2619:LYS:HD2	1:A:2627:TRP:HE1	1.77	0.50
1:B:313:ASN:OD1	1:B:314:LEU:N	2.45	0.50
1:B:1118:SER:HB3	1:B:1204:VAL:HG11	1.94	0.50
1:B:2102:LEU:HB2	1:B:3625:GLU:HG3	1.94	0.50
1:C:915:HIS:NE2	1:C:917:CYS:HB2	2.26	0.50
1:C:1932:PHE:CE1	1:C:1996:LEU:HB2	2.47	0.50
1:C:2703:PRO:HB2	1:C:2854:LYS:HB2	1.93	0.50
1:B:804:LEU:HD13	1:B:832:LEU:HD21	1.94	0.50
1:B:2062:ILE:O	1:B:2066:MET:HG2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3280:ILE:HG23	1:B:3299:LEU:HD21	1.92	0.50
1:D:1721:MET:HG3	1:D:1759:PRO:HG3	1.93	0.50
1:D:4633:LEU:HD13	1:D:4707:MET:HE3	1.94	0.50
1:A:313:ASN:OD1	1:A:314:LEU:N	2.45	0.50
1:A:3315:LEU:HA	1:A:3318:HIS:HB3	1.94	0.50
1:B:963:LYS:HD2	1:B:979:ALA:O	2.12	0.50
1:C:804:LEU:HD13	1:C:832:LEU:HD21	1.94	0.50
1:C:1678:SER:HB2	1:C:1768:PHE:CE2	2.46	0.50
1:C:2619:LYS:HD2	1:C:2627:TRP:HE1	1.77	0.50
1:D:963:LYS:HD2	1:D:979:ALA:O	2.12	0.50
1:D:3153:SER:O	1:D:3156:GLY:N	2.44	0.50
1:A:1721:MET:HG3	1:A:1759:PRO:HG3	1.93	0.49
1:A:3153:SER:O	1:A:3156:GLY:N	2.44	0.49
1:C:808:HIS:CG	1:C:832:LEU:HD23	2.47	0.49
1:C:1118:SER:HB3	1:C:1204:VAL:HG11	1.94	0.49
1:C:2607:LEU:HD23	1:C:2665:ALA:HA	1.92	0.49
1:C:4633:LEU:HD13	1:C:4707:MET:HE3	1.94	0.49
1:D:313:ASN:OD1	1:D:314:LEU:N	2.45	0.49
1:A:1678:SER:HB2	1:A:1768:PHE:CE2	2.46	0.49
1:A:2062:ILE:O	1:A:2066:MET:HG2	2.12	0.49
2:E:106:ASN:OD1	2:E:107:LEU:N	2.44	0.49
2:H:18:LYS:O	2:H:51:ILE:HD11	2.11	0.49
1:B:1721:MET:HG3	1:B:1759:PRO:HG3	1.93	0.49
1:B:3088:LYS:HG3	1:B:3091:THR:H	1.78	0.49
1:B:4044:SER:HA	1:B:4077:THR:HA	1.95	0.49
1:B:4819:VAL:HG12	1:B:4830:GLU:HG3	1.94	0.49
1:C:313:ASN:OD1	1:C:314:LEU:N	2.45	0.49
1:C:963:LYS:HD2	1:C:979:ALA:O	2.12	0.49
1:C:1936:LEU:HD22	1:C:1976:LEU:HD13	1.93	0.49
1:C:3094:ILE:O	1:C:3098:THR:HG23	2.12	0.49
1:D:2748:SER:OG	1:D:2751:SER:OG	2.20	0.49
1:A:808:HIS:CG	1:A:832:LEU:HD23	2.47	0.49
1:A:2154:VAL:HG13	1:A:2158:HIS:HD2	1.77	0.49
1:A:3227:ARG:HB2	1:A:3230:GLN:HG3	1.94	0.49
1:B:875:PRO:HD2	1:B:878:LEU:HD12	1.94	0.49
1:B:2619:LYS:HD2	1:B:2627:TRP:HE1	1.77	0.49
1:B:3729:ALA:HA	1:B:3732:HIS:CD2	2.46	0.49
1:B:4930:GLU:HA	1:B:4933:HIS:CD2	2.48	0.49
1:C:2102:LEU:HB2	1:C:3625:GLU:HG3	1.94	0.49
1:C:2793:ARG:O	1:C:2797:SER:CB	2.60	0.49
1:C:4044:SER:HA	1:C:4077:THR:HA	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:808:HIS:CG	1:D:832:LEU:HD23	2.47	0.49
1:A:2102:LEU:HB2	1:A:3625:GLU:HG3	1.94	0.49
1:C:698:ALA:HB3	1:C:789:PHE:CE1	2.48	0.49
1:C:4265:LYS:H	1:C:4265:LYS:HD2	1.78	0.49
1:B:698:ALA:HB3	1:B:789:PHE:CE1	2.48	0.49
1:B:4145:ILE:O	1:B:4961:GLN:NE2	2.45	0.49
1:B:4275:THR:HG22	1:B:4277:LYS:H	1.78	0.49
1:C:2067:VAL:O	1:C:2071:GLN:HG2	2.12	0.49
1:C:2154:VAL:HG13	1:C:2158:HIS:HD2	1.77	0.49
1:C:3227:ARG:HB2	1:C:3230:GLN:HG3	1.93	0.49
1:D:964:MET:HE1	1:D:981:MET:O	2.13	0.49
1:D:972:LEU:HD11	1:D:976:TYR:H	1.77	0.49
1:D:2154:VAL:HG13	1:D:2158:HIS:HD2	1.77	0.49
1:D:4145:ILE:O	1:D:4961:GLN:NE2	2.45	0.49
1:A:972:LEU:HD11	1:A:976:TYR:H	1.77	0.49
2:F:68:SER:O	2:F:104:LEU:HD12	2.13	0.49
2:G:68:SER:O	2:G:104:LEU:HD12	2.13	0.49
1:B:972:LEU:HD11	1:B:976:TYR:H	1.78	0.49
1:C:971:GLN:NE2	1:C:972:LEU:O	2.46	0.49
1:C:4145:ILE:O	1:C:4961:GLN:NE2	2.45	0.49
1:D:875:PRO:HD2	1:D:878:LEU:HD12	1.94	0.49
1:D:2793:ARG:O	1:D:2797:SER:CB	2.60	0.49
1:A:2062:ILE:HG21	1:A:2087:LEU:HG	1.95	0.49
1:A:2708:THR:HA	1:A:2711:ILE:HD13	1.93	0.49
1:A:2788:ARG:NH2	1:A:2906:GLY:O	2.46	0.49
1:A:2793:ARG:O	1:A:2797:SER:CB	2.60	0.49
1:A:3033:LEU:HD13	1:A:3104:MET:SD	2.53	0.49
1:A:3119:GLU:OE2	1:A:3119:GLU:N	2.44	0.49
1:A:4044:SER:HA	1:A:4077:THR:HA	1.95	0.49
1:B:3094:ILE:O	1:B:3098:THR:HG23	2.13	0.49
1:D:2619:LYS:HD2	1:D:2627:TRP:HE1	1.77	0.49
1:D:3221:LEU:C	1:D:3223:GLU:H	2.21	0.49
1:D:4070:ALA:HB1	1:D:4078:LEU:HD22	1.94	0.49
1:D:4265:LYS:H	1:D:4265:LYS:HD2	1.78	0.49
1:A:1932:PHE:CE1	1:A:1996:LEU:HB2	2.47	0.49
1:A:4070:ALA:HB1	1:A:4078:LEU:HD22	1.94	0.49
1:A:4275:THR:HG22	1:A:4277:LYS:H	1.78	0.49
1:B:1932:PHE:CE1	1:B:1996:LEU:HB2	2.47	0.49
1:B:4016:PHE:CE1	1:B:4020:PHE:HE1	2.31	0.49
1:B:4070:ALA:HB1	1:B:4078:LEU:HD22	1.94	0.49
1:B:4265:LYS:H	1:B:4265:LYS:HD2	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:365:HIS:HB2	1:C:393:MET:HE2	1.95	0.49
1:C:2160:ASN:OD1	1:C:2163:ARG:NH2	2.40	0.49
1:C:4016:PHE:CE1	1:C:4020:PHE:HE1	2.31	0.49
1:C:4070:ALA:HB1	1:C:4078:LEU:HD22	1.94	0.49
1:D:2062:ILE:HG21	1:D:2087:LEU:HG	1.95	0.49
1:D:2788:ARG:NH2	1:D:2906:GLY:O	2.46	0.49
1:A:698:ALA:HB3	1:A:789:PHE:CE1	2.48	0.49
1:A:4930:GLU:HA	1:A:4933:HIS:CD2	2.48	0.49
2:H:106:ASN:OD1	2:H:107:LEU:N	2.44	0.49
1:B:808:HIS:CG	1:B:832:LEU:HD23	2.47	0.49
1:C:875:PRO:HD2	1:C:878:LEU:HD12	1.94	0.49
1:C:4275:THR:HG22	1:C:4277:LYS:H	1.78	0.49
1:D:365:HIS:HB2	1:D:393:MET:HE2	1.95	0.49
1:D:698:ALA:HB3	1:D:789:PHE:CE1	2.48	0.49
1:D:1118:SER:HB3	1:D:1204:VAL:HG11	1.94	0.49
1:D:2102:LEU:HB2	1:D:3625:GLU:HG3	1.94	0.49
1:D:3094:ILE:O	1:D:3098:THR:HG23	2.13	0.49
1:D:3227:ARG:HB2	1:D:3230:GLN:HG3	1.93	0.49
1:A:963:LYS:HD2	1:A:979:ALA:O	2.12	0.49
1:A:3088:LYS:HG3	1:A:3091:THR:H	1.78	0.49
1:A:3125:ASP:HA	1:A:3128:VAL:HG12	1.95	0.49
1:A:4607:ALA:HB1	1:A:4649:VAL:HG21	1.95	0.49
1:A:4921:PHE:HE2	1:A:4940:VAL:HG11	1.78	0.49
1:B:2793:ARG:O	1:B:2797:SER:CB	2.60	0.49
1:B:3033:LEU:HD13	1:B:3104:MET:SD	2.53	0.49
1:C:964:MET:HE1	1:C:981:MET:O	2.13	0.49
1:C:3088:LYS:HG3	1:C:3091:THR:H	1.78	0.49
1:D:1635:GLU:HB2	1:D:1637:ARG:HG2	1.95	0.49
1:D:2062:ILE:O	1:D:2066:MET:HG2	2.12	0.49
1:A:168:GLN:OE1	1:A:168:GLN:N	2.46	0.48
1:A:969:ASN:OD1	1:A:970:TYR:N	2.42	0.48
1:A:1118:SER:HB3	1:A:1204:VAL:HG11	1.94	0.48
2:F:25:VAL:HG12	2:F:104:LEU:HD23	1.95	0.48
1:B:964:MET:HE1	1:B:981:MET:O	2.13	0.48
1:B:1685:LEU:HB3	1:B:1706:LEU:HD12	1.95	0.48
1:B:3025:ASP:O	1:B:3029:ILE:HD12	2.13	0.48
1:C:871:GLN:HE21	1:C:872:ILE:HG23	1.77	0.48
1:C:2062:ILE:O	1:C:2066:MET:HG2	2.12	0.48
1:C:2716:LYS:HZ1	1:C:2791:ARG:NE	2.11	0.48
1:C:2788:ARG:NH2	1:C:2906:GLY:O	2.46	0.48
1:C:4930:GLU:HA	1:C:4933:HIS:CD2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3033:LEU:HD13	1:D:3104:MET:SD	2.53	0.48
1:D:4044:SER:HA	1:D:4077:THR:HA	1.95	0.48
1:D:4634:VAL:O	1:D:4637:THR:OG1	2.31	0.48
1:A:964:MET:HE1	1:A:981:MET:O	2.13	0.48
1:A:2724:TYR:OH	1:A:2891:ASP:OD2	2.16	0.48
1:A:2939:TYR:CE2	1:A:2956:TYR:HB3	2.48	0.48
1:A:3221:LEU:C	1:A:3223:GLU:H	2.21	0.48
1:A:4633:LEU:HD13	1:A:4707:MET:HE3	1.94	0.48
1:A:4819:VAL:HG12	1:A:4830:GLU:HG3	1.94	0.48
1:B:871:GLN:HE21	1:B:872:ILE:HG23	1.77	0.48
1:B:2592:LEU:CD1	1:B:2606:PRO:HB3	2.44	0.48
1:B:3315:LEU:HA	1:B:3318:HIS:HB3	1.94	0.48
1:B:4607:ALA:HB1	1:B:4649:VAL:HG21	1.95	0.48
1:C:267:VAL:HG12	1:C:273:SER:HB3	1.95	0.48
1:C:3221:LEU:C	1:C:3223:GLU:H	2.21	0.48
1:D:804:LEU:HD13	1:D:832:LEU:HD21	1.94	0.48
1:D:3315:LEU:HA	1:D:3318:HIS:HB3	1.94	0.48
1:A:804:LEU:HD13	1:A:832:LEU:HD21	1.94	0.48
1:A:971:GLN:NE2	1:A:972:LEU:O	2.46	0.48
1:A:1967:SER:O	1:A:1972:GLN:NE2	2.41	0.48
1:A:3025:ASP:O	1:A:3029:ILE:HD12	2.13	0.48
1:B:674:TYR:CE1	1:B:756:SER:HB3	2.49	0.48
1:B:2778:SER:O	1:B:2782:MET:HG3	2.13	0.48
1:B:3803:LEU:HD13	1:B:3888:PHE:CD2	2.48	0.48
1:C:168:GLN:OE1	1:C:168:GLN:N	2.46	0.48
1:C:1685:LEU:HB3	1:C:1706:LEU:HD12	1.95	0.48
1:C:4607:ALA:HB1	1:C:4649:VAL:HG21	1.95	0.48
1:C:4819:VAL:HG12	1:C:4830:GLU:HG3	1.94	0.48
1:D:2939:TYR:CE2	1:D:2956:TYR:HB3	2.48	0.48
1:D:4275:THR:HG22	1:D:4277:LYS:H	1.78	0.48
1:D:4607:ALA:HB1	1:D:4649:VAL:HG21	1.95	0.48
1:A:3094:ILE:O	1:A:3098:THR:HG23	2.13	0.48
1:B:1635:GLU:HB2	1:B:1637:ARG:HG2	1.95	0.48
1:C:972:LEU:HD11	1:C:976:TYR:H	1.78	0.48
1:C:3803:LEU:HD13	1:C:3888:PHE:CD2	2.48	0.48
1:D:4016:PHE:CE1	1:D:4020:PHE:HE1	2.31	0.48
1:A:1635:GLU:HB2	1:A:1637:ARG:HG2	1.95	0.48
1:A:2592:LEU:CD1	1:A:2606:PRO:HB3	2.44	0.48
2:H:68:SER:O	2:H:104:LEU:HD12	2.13	0.48
1:B:168:GLN:N	1:B:168:GLN:OE1	2.46	0.48
1:B:2788:ARG:NH2	1:B:2906:GLY:O	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:3221:LEU:C	1:B:3223:GLU:H	2.21	0.48
1:C:2592:LEU:CD1	1:C:2606:PRO:HB3	2.44	0.48
1:C:4196:THR:O	1:C:4200:MET:HG3	2.13	0.48
1:C:4587:ILE:HD11	1:C:4726:MET:HB2	1.95	0.48
1:D:267:VAL:HG12	1:D:273:SER:HB3	1.95	0.48
1:D:2160:ASN:OD1	1:D:2163:ARG:NH2	2.40	0.48
1:D:2592:LEU:CD1	1:D:2606:PRO:HB3	2.44	0.48
1:A:756:SER:HB2	1:A:769:ARG:HB2	1.96	0.48
1:A:893:TRP:O	1:A:897:LYS:HE2	2.14	0.48
1:B:756:SER:HB2	1:B:769:ARG:HB2	1.96	0.48
1:B:3125:ASP:HA	1:B:3128:VAL:HG12	1.95	0.48
1:B:4507:LEU:HD13	1:B:4745:ASP:HB3	1.96	0.48
1:B:4633:LEU:HD13	1:B:4707:MET:HE3	1.94	0.48
1:D:4819:VAL:HG12	1:D:4830:GLU:HG3	1.94	0.48
1:D:4921:PHE:HE2	1:D:4940:VAL:HG11	1.78	0.48
1:A:330:THR:HG23	1:A:366:VAL:HG22	1.95	0.48
1:A:4196:THR:O	1:A:4200:MET:HG3	2.13	0.48
1:A:4265:LYS:HD2	1:A:4265:LYS:H	1.78	0.48
2:E:25:VAL:HG12	2:E:104:LEU:HD23	1.95	0.48
1:B:237:LEU:HA	1:B:243:GLU:O	2.14	0.48
1:B:971:GLN:NE2	1:B:972:LEU:O	2.46	0.48
1:B:3119:GLU:N	1:B:3119:GLU:OE2	2.44	0.48
1:B:4196:THR:O	1:B:4200:MET:HG3	2.13	0.48
1:C:893:TRP:O	1:C:897:LYS:HE2	2.13	0.48
1:C:3119:GLU:OE2	1:C:3119:GLU:N	2.44	0.48
1:C:3284:ILE:O	1:C:3288:LEU:HG	2.14	0.48
1:C:4504:MET:HE2	1:C:4504:MET:HA	1.96	0.48
1:C:4634:VAL:O	1:C:4637:THR:OG1	2.31	0.48
1:D:168:GLN:OE1	1:D:168:GLN:N	2.46	0.48
1:D:992:GLN:NE2	1:D:1064:LEU:O	2.39	0.48
1:D:3025:ASP:O	1:D:3029:ILE:HD12	2.13	0.48
1:D:3088:LYS:HG3	1:D:3091:THR:H	1.78	0.48
1:D:3803:LEU:HD13	1:D:3888:PHE:CD2	2.48	0.48
1:D:4930:GLU:HA	1:D:4933:HIS:CD2	2.48	0.48
1:A:4587:ILE:HD11	1:A:4726:MET:HB2	1.95	0.48
2:H:25:VAL:HG12	2:H:104:LEU:HD23	1.95	0.48
1:C:4507:LEU:HD13	1:C:4745:ASP:HB3	1.96	0.48
1:D:237:LEU:HA	1:D:243:GLU:O	2.14	0.48
1:D:330:THR:HG23	1:D:366:VAL:HG22	1.95	0.48
1:D:756:SER:HB2	1:D:769:ARG:HB2	1.96	0.48
1:D:1079:SER:OG	1:D:1083:GLU:O	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3803:LEU:HD13	1:A:3888:PHE:CD2	2.48	0.48
1:A:4016:PHE:CE1	1:A:4020:PHE:HE1	2.31	0.48
1:B:966:LEU:H	1:B:977:LYS:HZ1	1.60	0.48
1:B:1671:ARG:HG3	1:B:1776:TYR:CE2	2.49	0.48
1:C:674:TYR:CE1	1:C:756:SER:HB3	2.49	0.48
1:C:2778:SER:O	1:C:2782:MET:HG3	2.13	0.48
1:D:1850:VAL:HA	1:D:2054:LYS:HE2	1.96	0.48
1:D:3074:ASN:OD1	1:D:3090:VAL:HG13	2.14	0.48
1:D:4196:THR:O	1:D:4200:MET:HG3	2.13	0.48
1:D:4504:MET:HE2	1:D:4504:MET:HA	1.96	0.48
1:D:4507:LEU:HD13	1:D:4745:ASP:HB3	1.96	0.48
1:B:1226:TYR:HD1	1:B:1229:ILE:HD12	1.79	0.48
1:B:1714:TYR:HD2	1:B:1831:MET:HG2	1.79	0.48
1:B:2939:TYR:CE2	1:B:2956:TYR:HB3	2.48	0.48
1:B:4587:ILE:HD11	1:B:4726:MET:HB2	1.95	0.48
1:C:2062:ILE:HG21	1:C:2087:LEU:HG	1.95	0.48
1:D:2778:SER:O	1:D:2782:MET:HG3	2.13	0.48
1:D:3976:LYS:HB2	1:D:4094:ILE:HG13	1.95	0.48
1:A:514:PHE:HD2	1:A:526:TRP:HB2	1.79	0.47
1:A:1310:CYS:HA	1:A:1513:ALA:HB1	1.96	0.47
1:A:1714:TYR:HD2	1:A:1831:MET:HG2	1.79	0.47
1:A:2954:PHE:HZ	1:A:2960:ILE:HG21	1.79	0.47
1:B:330:THR:HG23	1:B:366:VAL:HG22	1.95	0.47
1:B:983:LEU:HB3	1:B:1055:ARG:HH22	1.79	0.47
1:B:2062:ILE:HG21	1:B:2087:LEU:HG	1.95	0.47
1:B:3214:LEU:HD13	1:B:3242:LEU:HD21	1.96	0.47
1:B:4634:VAL:O	1:B:4637:THR:OG1	2.31	0.47
1:C:966:LEU:H	1:C:977:LYS:HZ1	1.61	0.47
1:D:238:HIS:HA	1:D:403:ILE:HD13	1.96	0.47
1:D:1714:TYR:HD2	1:D:1831:MET:HG2	1.79	0.47
1:D:3958:LEU:HB2	1:D:3968:LEU:HD13	1.96	0.47
1:A:267:VAL:HG12	1:A:273:SER:HB3	1.95	0.47
1:A:674:TYR:CE1	1:A:756:SER:HB3	2.49	0.47
1:A:875:PRO:HD2	1:A:878:LEU:HD12	1.94	0.47
1:A:983:LEU:HB3	1:A:1055:ARG:HH22	1.79	0.47
1:A:1671:ARG:HG3	1:A:1776:TYR:CE2	2.49	0.47
2:E:68:SER:O	2:E:104:LEU:HD12	2.13	0.47
2:G:25:VAL:HG12	2:G:104:LEU:HD23	1.95	0.47
1:B:249:SER:HB2	1:B:272:ARG:NE	2.29	0.47
1:B:267:VAL:HG12	1:B:273:SER:HB3	1.95	0.47
1:B:4603:GLU:OE2	1:B:4705:TYR:OH	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:514:PHE:HD2	1:C:526:TRP:HB2	1.79	0.47
1:C:1226:TYR:HD1	1:C:1229:ILE:HD12	1.79	0.47
1:C:1635:GLU:HB2	1:C:1637:ARG:HG2	1.95	0.47
1:C:3025:ASP:O	1:C:3029:ILE:HD12	2.14	0.47
1:C:3033:LEU:HD13	1:C:3104:MET:SD	2.53	0.47
1:C:3958:LEU:HB2	1:C:3968:LEU:HD13	1.96	0.47
1:D:674:TYR:CE1	1:D:756:SER:HB3	2.49	0.47
1:A:365:HIS:HB2	1:A:393:MET:HE2	1.95	0.47
1:A:2778:SER:O	1:A:2782:MET:HG3	2.13	0.47
1:B:893:TRP:O	1:B:897:LYS:HE2	2.13	0.47
1:B:2610:LEU:HD13	1:B:2644:LEU:HD21	1.96	0.47
1:B:3958:LEU:HB2	1:B:3968:LEU:HD13	1.96	0.47
1:B:4921:PHE:HE2	1:B:4940:VAL:HG11	1.78	0.47
1:C:238:HIS:HA	1:C:403:ILE:HD13	1.96	0.47
1:C:756:SER:HB2	1:C:769:ARG:HB2	1.96	0.47
1:C:1415:ASP:HB3	1:C:1561:LYS:HG3	1.95	0.47
1:C:1714:TYR:HD2	1:C:1831:MET:HG2	1.79	0.47
1:C:2939:TYR:CE2	1:C:2956:TYR:HB3	2.48	0.47
1:C:3315:LEU:HA	1:C:3318:HIS:HB3	1.94	0.47
1:D:893:TRP:O	1:D:897:LYS:HE2	2.14	0.47
1:D:3284:ILE:O	1:D:3288:LEU:HG	2.14	0.47
1:D:4618:THR:HG22	1:D:4661:TYR:CZ	2.50	0.47
1:A:3214:LEU:HD13	1:A:3242:LEU:HD21	1.96	0.47
1:C:237:LEU:HA	1:C:243:GLU:O	2.14	0.47
1:C:1850:VAL:HA	1:C:2054:LYS:HE2	1.96	0.47
1:C:2610:LEU:HD13	1:C:2644:LEU:HD21	1.96	0.47
1:C:3074:ASN:OD1	1:C:3090:VAL:HG13	2.14	0.47
1:C:3320:LEU:HD23	1:C:3323:MET:HE2	1.96	0.47
1:D:1310:CYS:HA	1:D:1513:ALA:HB1	1.97	0.47
1:D:1415:ASP:HB3	1:D:1561:LYS:HG3	1.95	0.47
1:D:1444:GLY:HA3	1:D:1487:MET:HA	1.97	0.47
1:D:1671:ARG:HG3	1:D:1776:TYR:CE2	2.49	0.47
1:D:3125:ASP:HA	1:D:3128:VAL:HG12	1.95	0.47
1:A:1415:ASP:HB3	1:A:1561:LYS:HG3	1.95	0.47
1:A:1444:GLY:HA3	1:A:1487:MET:HA	1.97	0.47
1:A:1685:LEU:HB3	1:A:1706:LEU:HD12	1.95	0.47
1:A:2290:TRP:HZ3	1:A:2391:PHE:CD2	2.33	0.47
2:E:27:TYR:HA	2:E:101:ASP:O	2.15	0.47
1:B:2290:TRP:HZ3	1:B:2391:PHE:CD2	2.33	0.47
1:C:2322:ARG:O	1:C:2326:ARG:HG2	2.15	0.47
1:D:983:LEU:HB3	1:D:1055:ARG:HH22	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:938:GLU:HA	1:A:941:LYS:HB2	1.97	0.47
1:A:1007:TRP:O	1:A:1011:ARG:HG2	2.14	0.47
1:A:2318:ASN:O	1:A:2322:ARG:HG2	2.15	0.47
1:A:4618:THR:HG22	1:A:4661:TYR:CZ	2.50	0.47
2:G:27:TYR:HA	2:G:101:ASP:O	2.15	0.47
1:B:233:VAL:HG22	1:B:276:ARG:HD2	1.97	0.47
1:B:247:VAL:O	1:B:272:ARG:NH1	2.46	0.47
1:B:1276:THR:OG1	1:B:1278:ASP:OD1	2.28	0.47
1:B:3320:LEU:HD23	1:B:3323:MET:HE2	1.97	0.47
1:B:4504:MET:HE2	1:B:4504:MET:HA	1.96	0.47
1:C:330:THR:HG23	1:C:366:VAL:HG22	1.95	0.47
1:C:1310:CYS:HA	1:C:1513:ALA:HB1	1.97	0.47
1:C:1444:GLY:HA3	1:C:1487:MET:HA	1.97	0.47
1:C:3739:MET:HE3	1:C:3739:MET:HB3	1.72	0.47
1:C:4921:PHE:HE2	1:C:4940:VAL:HG11	1.78	0.47
1:D:125:TYR:CE1	1:D:417:ARG:HD3	2.49	0.47
1:D:249:SER:HB2	1:D:272:ARG:NE	2.29	0.47
1:D:971:GLN:NE2	1:D:972:LEU:O	2.46	0.47
1:D:2290:TRP:HZ3	1:D:2391:PHE:CD2	2.33	0.47
1:D:2954:PHE:HZ	1:D:2960:ILE:HG21	1.79	0.47
1:A:249:SER:HB2	1:A:272:ARG:NE	2.29	0.47
1:A:966:LEU:H	1:A:977:LYS:HZ1	1.60	0.47
1:A:2322:ARG:O	1:A:2326:ARG:HG2	2.15	0.47
1:A:2895:PHE:HA	1:A:2898:ILE:HG22	1.97	0.47
1:A:3205:CYS:HB3	1:A:3208:ILE:HD12	1.96	0.47
1:A:3976:LYS:HB2	1:A:4094:ILE:HG13	1.95	0.47
1:A:4079:ASP:O	1:A:4082:GLU:HG3	2.15	0.47
1:A:4507:LEU:HD13	1:A:4745:ASP:HB3	1.96	0.47
1:B:125:TYR:CE1	1:B:417:ARG:HD3	2.49	0.47
1:B:365:HIS:HB2	1:B:393:MET:HE2	1.95	0.47
1:B:514:PHE:HD2	1:B:526:TRP:HB2	1.79	0.47
1:B:938:GLU:HA	1:B:941:LYS:HB2	1.97	0.47
1:B:1079:SER:OG	1:B:1083:GLU:O	2.29	0.47
1:B:1444:GLY:HA3	1:B:1487:MET:HA	1.97	0.47
1:B:2318:ASN:O	1:B:2322:ARG:HG2	2.14	0.47
1:B:2322:ARG:O	1:B:2326:ARG:HG2	2.15	0.47
1:B:3074:ASN:OD1	1:B:3090:VAL:HG13	2.14	0.47
1:B:3284:ILE:O	1:B:3288:LEU:HG	2.14	0.47
1:B:4618:THR:HG22	1:B:4661:TYR:CZ	2.50	0.47
1:B:4748:MET:O	1:B:4754:ARG:NH1	2.48	0.47
1:C:904:TYR:CD1	1:C:919:VAL:HG22	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:904:TYR:HB2	1:C:973:THR:HB	1.97	0.47
1:C:1671:ARG:HG3	1:C:1776:TYR:CE2	2.49	0.47
1:C:2157:GLN:O	1:C:3615:ARG:NH2	2.36	0.47
1:C:2826:ILE:CD1	1:D:1501:ASN:HB2	2.42	0.47
1:C:4618:THR:HG22	1:C:4661:TYR:CZ	2.50	0.47
1:D:200:SER:OG	1:D:202:HIS:NE2	2.40	0.47
1:D:514:PHE:HD2	1:D:526:TRP:HB2	1.79	0.47
1:D:1685:LEU:HB3	1:D:1706:LEU:HD12	1.95	0.47
1:D:2610:LEU:HD13	1:D:2644:LEU:HD21	1.96	0.47
1:D:3214:LEU:HD13	1:D:3242:LEU:HD21	1.96	0.47
1:D:4079:ASP:O	1:D:4082:GLU:HG3	2.15	0.47
1:A:141:ASP:HA	1:D:2337:GLY:O	2.15	0.47
1:A:1226:TYR:HD1	1:A:1229:ILE:HD12	1.79	0.47
1:B:904:TYR:CD1	1:B:919:VAL:HG22	2.50	0.47
1:B:937:LEU:O	1:B:940:LEU:HG	2.15	0.47
1:B:971:GLN:NE2	1:B:972:LEU:HD23	2.30	0.47
1:B:1850:VAL:HA	1:B:2054:LYS:HE2	1.96	0.47
1:B:2082:ARG:HG3	1:B:3687:LEU:HD22	1.97	0.47
1:C:125:TYR:CE1	1:C:417:ARG:HD3	2.49	0.47
1:C:249:SER:HB2	1:C:272:ARG:NE	2.29	0.47
1:C:2082:ARG:HG3	1:C:3687:LEU:HD22	1.97	0.47
1:C:3214:LEU:HD13	1:C:3242:LEU:HD21	1.96	0.47
1:C:4616:TYR:CE2	1:C:4632:ARG:HG2	2.50	0.47
1:D:2895:PHE:HA	1:D:2898:ILE:HG22	1.97	0.47
1:A:937:LEU:O	1:A:940:LEU:HG	2.15	0.47
1:A:949:HIS:HB2	1:A:1065:GLU:HB2	1.97	0.47
1:A:3958:LEU:HB2	1:A:3968:LEU:HD13	1.96	0.47
1:A:4504:MET:HE2	1:A:4504:MET:HA	1.96	0.47
1:A:4603:GLU:OE2	1:A:4705:TYR:OH	2.29	0.47
1:B:904:TYR:HB2	1:B:973:THR:HB	1.97	0.47
1:B:949:HIS:HB2	1:B:1065:GLU:HB2	1.97	0.47
1:B:1310:CYS:HA	1:B:1513:ALA:HB1	1.96	0.47
1:B:3976:LYS:HB2	1:B:4094:ILE:HG13	1.96	0.47
1:C:971:GLN:NE2	1:C:972:LEU:HD23	2.30	0.47
1:C:983:LEU:HB3	1:C:1055:ARG:HH22	1.79	0.47
1:C:3125:ASP:HA	1:C:3128:VAL:HG12	1.95	0.47
1:C:3205:CYS:HB3	1:C:3208:ILE:HD12	1.96	0.47
1:C:3976:LYS:HB2	1:C:4094:ILE:HG13	1.96	0.47
1:C:4079:ASP:O	1:C:4082:GLU:HG3	2.15	0.47
1:D:904:TYR:HB2	1:D:973:THR:HB	1.97	0.47
1:D:3320:LEU:HD23	1:D:3323:MET:HE2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:237:LEU:HA	1:A:243:GLU:O	2.14	0.47
1:A:904:TYR:CD1	1:A:919:VAL:HG22	2.50	0.47
1:A:2082:ARG:HG3	1:A:3687:LEU:HD22	1.97	0.47
1:A:3649:ALA:O	1:A:3652:PRO:HD2	2.15	0.47
2:F:27:TYR:HA	2:F:101:ASP:O	2.15	0.47
1:C:238:HIS:HB2	1:C:262:TYR:CE1	2.50	0.47
1:C:1007:TRP:O	1:C:1011:ARG:HG2	2.14	0.47
1:C:1034:PRO:HG2	1:C:1037:LEU:HD13	1.97	0.47
1:D:4616:TYR:CE2	1:D:4632:ARG:HG2	2.50	0.47
1:D:4748:MET:O	1:D:4754:ARG:NH1	2.48	0.47
1:A:1419:PHE:HA	1:A:1422:GLN:HG3	1.97	0.46
1:A:3074:ASN:OD1	1:A:3090:VAL:HG13	2.14	0.46
1:B:865:ILE:HG13	1:B:865:ILE:O	2.15	0.46
1:B:2954:PHE:HZ	1:B:2960:ILE:HG21	1.79	0.46
1:B:4079:ASP:O	1:B:4082:GLU:HG3	2.15	0.46
1:C:983:LEU:HD12	1:C:1055:ARG:HB3	1.98	0.46
1:C:3649:ALA:O	1:C:3652:PRO:HD2	2.15	0.46
1:D:430:ILE:HG23	1:D:504:ARG:HD2	1.97	0.46
1:D:865:ILE:HG13	1:D:865:ILE:O	2.15	0.46
1:D:2082:ARG:HG3	1:D:3687:LEU:HD22	1.97	0.46
1:D:4587:ILE:HD11	1:D:4726:MET:HB2	1.95	0.46
1:A:238:HIS:HA	1:A:403:ILE:HD13	1.96	0.46
1:A:537:LEU:O	1:A:541:ILE:HG12	2.15	0.46
1:A:1176:THR:HG22	1:A:1181:ILE:HA	1.97	0.46
1:A:1850:VAL:HA	1:A:2054:LYS:HE2	1.96	0.46
1:A:4616:TYR:CE2	1:A:4632:ARG:HG2	2.50	0.46
1:B:238:HIS:HA	1:B:403:ILE:HD13	1.96	0.46
1:B:983:LEU:HD12	1:B:1055:ARG:HB3	1.98	0.46
1:B:1007:TRP:O	1:B:1011:ARG:HG2	2.14	0.46
1:B:1415:ASP:HB3	1:B:1561:LYS:HG3	1.95	0.46
1:B:2581:ARG:HG2	1:B:2630:PHE:CE1	2.50	0.46
1:B:2724:TYR:OH	1:B:2891:ASP:OD2	2.16	0.46
1:C:938:GLU:HA	1:C:941:LYS:HB2	1.97	0.46
1:C:949:HIS:HB2	1:C:1065:GLU:HB2	1.97	0.46
1:C:2290:TRP:HZ3	1:C:2391:PHE:CD2	2.33	0.46
1:C:2581:ARG:HG2	1:C:2630:PHE:CE1	2.50	0.46
1:C:2954:PHE:HZ	1:C:2960:ILE:HG21	1.79	0.46
1:C:4287:TYR:HE1	1:D:4591:TYR:CD2	2.33	0.46
1:D:949:HIS:HB2	1:D:1065:GLU:HB2	1.97	0.46
1:D:1007:TRP:O	1:D:1011:ARG:HG2	2.14	0.46
1:D:1226:TYR:HD1	1:D:1229:ILE:HD12	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2322:ARG:O	1:D:2326:ARG:HG2	2.15	0.46
1:A:233:VAL:HG22	1:A:276:ARG:HD2	1.97	0.46
1:A:1979:PHE:CZ	1:A:1996:LEU:HD23	2.51	0.46
1:A:3242:LEU:O	1:A:3246:MET:HG2	2.15	0.46
1:B:732:LEU:HB3	1:B:779:PHE:CZ	2.51	0.46
1:B:1419:PHE:HA	1:B:1422:GLN:HG3	1.98	0.46
1:B:1979:PHE:CZ	1:B:1996:LEU:HD23	2.51	0.46
1:B:4616:TYR:CE2	1:B:4632:ARG:HG2	2.50	0.46
1:C:233:VAL:HG22	1:C:276:ARG:HD2	1.96	0.46
1:C:1176:THR:HG22	1:C:1181:ILE:HA	1.97	0.46
1:A:971:GLN:NE2	1:A:972:LEU:HD23	2.30	0.46
1:A:983:LEU:HD12	1:A:1055:ARG:HB3	1.98	0.46
1:A:1501:ASN:HB2	1:D:2826:ILE:CD1	2.43	0.46
1:A:2627:TRP:HB3	1:A:2630:PHE:HD2	1.81	0.46
1:B:934:GLN:O	1:B:937:LEU:N	2.49	0.46
1:B:1711:LEU:HD22	1:B:1831:MET:HE1	1.98	0.46
1:B:1714:TYR:CZ	1:B:1761:MET:HB2	2.51	0.46
1:B:3649:ALA:O	1:B:3652:PRO:HD2	2.15	0.46
1:C:785:ASP:OD1	1:C:785:ASP:N	2.41	0.46
1:C:1714:TYR:CZ	1:C:1761:MET:HB2	2.51	0.46
1:C:4268:MET:CE	1:D:4481:TRP:HE1	2.28	0.46
1:D:983:LEU:HD12	1:D:1055:ARG:HB3	1.97	0.46
1:D:1979:PHE:CZ	1:D:1996:LEU:HD23	2.51	0.46
1:D:2627:TRP:HB3	1:D:2630:PHE:HD2	1.81	0.46
1:A:125:TYR:CE1	1:A:417:ARG:HD3	2.49	0.46
1:A:238:HIS:HB2	1:A:262:TYR:CE1	2.50	0.46
1:A:732:LEU:HB3	1:A:779:PHE:CZ	2.51	0.46
1:A:1714:TYR:CZ	1:A:1761:MET:HB2	2.51	0.46
1:A:2171:VAL:HG21	1:A:2199:PHE:CD1	2.51	0.46
1:A:3320:LEU:HD23	1:A:3323:MET:HE2	1.96	0.46
1:A:4045:LYS:N	1:A:4076:GLU:O	2.46	0.46
1:B:1034:PRO:HG2	1:B:1037:LEU:HD13	1.97	0.46
1:B:1145:TRP:CE2	1:B:1149:ASN:HB3	2.51	0.46
1:B:1932:PHE:CZ	1:B:1996:LEU:HB2	2.51	0.46
1:B:2312:SER:OG	1:B:2401:ARG:O	2.25	0.46
1:B:4287:TYR:HE1	1:C:4591:TYR:CD2	2.34	0.46
1:C:430:ILE:HG23	1:C:504:ARG:HD2	1.97	0.46
1:C:732:LEU:HB3	1:C:779:PHE:CZ	2.51	0.46
1:C:898:ILE:HB	1:C:918:LEU:HD21	1.98	0.46
1:C:934:GLN:O	1:C:937:LEU:N	2.49	0.46
1:C:4045:LYS:N	1:C:4076:GLU:O	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4748:MET:O	1:C:4754:ARG:NH1	2.48	0.46
1:D:891:GLU:HA	1:D:894:VAL:HG22	1.98	0.46
1:D:937:LEU:O	1:D:940:LEU:HG	2.15	0.46
1:D:938:GLU:HA	1:D:941:LYS:HB2	1.97	0.46
1:D:1419:PHE:HA	1:D:1422:GLN:HG3	1.98	0.46
1:D:2171:VAL:HG21	1:D:2199:PHE:CD1	2.51	0.46
1:A:1711:LEU:HD22	1:A:1831:MET:HE1	1.98	0.46
1:A:4634:VAL:O	1:A:4637:THR:OG1	2.31	0.46
2:H:27:TYR:HA	2:H:101:ASP:O	2.15	0.46
1:B:515:ALA:HB2	1:B:523:GLY:HA3	1.97	0.46
1:B:1792:ILE:HG12	1:B:1842:ILE:HD11	1.98	0.46
1:B:2627:TRP:HB3	1:B:2630:PHE:HD2	1.81	0.46
1:C:891:GLU:HA	1:C:894:VAL:HG22	1.98	0.46
1:C:908:ARG:NH2	1:C:917:CYS:SG	2.89	0.46
1:C:937:LEU:O	1:C:940:LEU:HG	2.15	0.46
1:C:2171:VAL:HG21	1:C:2199:PHE:CD1	2.51	0.46
1:C:3128:VAL:O	1:C:3132:ARG:HG3	2.16	0.46
1:D:238:HIS:HB2	1:D:262:TYR:CE1	2.50	0.46
1:D:894:VAL:HG11	1:D:976:TYR:HD2	1.81	0.46
1:D:1428:TYR:OH	1:D:1444:GLY:O	2.33	0.46
1:D:1711:LEU:HD22	1:D:1831:MET:HE1	1.98	0.46
1:D:3034:HIS:NE2	1:D:3038:GLN:OE1	2.49	0.46
1:A:908:ARG:NH2	1:A:917:CYS:SG	2.89	0.46
1:A:3034:HIS:NE2	1:A:3038:GLN:OE1	2.49	0.46
1:A:4480:PHE:N	1:A:4483:LYS:HZ3	2.14	0.46
1:B:537:LEU:O	1:B:541:ILE:HG12	2.15	0.46
1:B:897:LYS:HA	1:B:900:LEU:HB2	1.97	0.46
1:B:2826:ILE:CD1	1:C:1501:ASN:HB2	2.41	0.46
1:C:21:VAL:HG13	1:C:217:ILE:HG13	1.98	0.46
1:C:983:LEU:HB3	1:C:1055:ARG:NH2	2.31	0.46
1:C:1979:PHE:CZ	1:C:1996:LEU:HD23	2.51	0.46
1:C:2723:LYS:HE2	1:C:2723:LYS:HB3	1.82	0.46
1:C:2895:PHE:HA	1:C:2898:ILE:HG22	1.97	0.46
1:C:3222:ALA:HB2	1:C:3283:ILE:CG1	2.46	0.46
1:D:732:LEU:HB3	1:D:779:PHE:CZ	2.51	0.46
1:D:934:GLN:O	1:D:937:LEU:N	2.49	0.46
1:D:971:GLN:NE2	1:D:972:LEU:HD23	2.30	0.46
1:D:3242:LEU:O	1:D:3246:MET:HG2	2.16	0.46
1:A:430:ILE:HG23	1:A:504:ARG:HD2	1.98	0.46
1:A:2610:LEU:HD13	1:A:2644:LEU:HD21	1.96	0.46
1:A:3284:ILE:O	1:A:3288:LEU:HG	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4831:ILE:HG13	1:A:4843:ARG:NH2	2.31	0.46
1:B:3034:HIS:NE2	1:B:3038:GLN:OE1	2.49	0.46
1:B:4874:ARG:NH2	1:C:4875:ASP:OD2	2.49	0.46
1:C:537:LEU:O	1:C:541:ILE:HG12	2.15	0.46
1:C:2716:LYS:HZ1	1:C:2791:ARG:HB2	1.80	0.46
1:D:1714:TYR:CZ	1:D:1761:MET:HB2	2.51	0.46
1:D:1932:PHE:CZ	1:D:1996:LEU:HB2	2.51	0.46
1:D:2318:ASN:O	1:D:2322:ARG:HG2	2.15	0.46
1:D:3128:VAL:O	1:D:3132:ARG:HG3	2.16	0.46
1:D:3649:ALA:O	1:D:3652:PRO:HD2	2.15	0.46
1:A:587:ASN:OD1	1:A:2133:ARG:NH1	2.49	0.46
1:A:626:ARG:NH2	1:A:1667:LEU:O	2.46	0.46
1:A:705:PRO:HB3	1:A:857:LEU:HD11	1.98	0.46
1:A:1034:PRO:HG2	1:A:1037:LEU:HD13	1.97	0.46
1:A:1428:TYR:OH	1:A:1444:GLY:O	2.33	0.46
1:A:1932:PHE:CZ	1:A:1996:LEU:HB2	2.51	0.46
1:A:3174:HIS:CE1	1:A:3175:LEU:HD22	2.51	0.46
1:A:3222:ALA:HB2	1:A:3283:ILE:CG1	2.46	0.46
1:A:4268:MET:CE	1:B:4481:TRP:HE1	2.29	0.46
1:A:4748:MET:O	1:A:4754:ARG:NH1	2.48	0.46
1:B:587:ASN:OD1	1:B:2133:ARG:NH1	2.49	0.46
1:B:3205:CYS:HB3	1:B:3208:ILE:HD12	1.96	0.46
1:B:3242:LEU:O	1:B:3246:MET:HG2	2.15	0.46
1:C:1419:PHE:HA	1:C:1422:GLN:HG3	1.98	0.46
1:C:1428:TYR:OH	1:C:1444:GLY:O	2.33	0.46
1:C:2318:ASN:O	1:C:2322:ARG:HG2	2.15	0.46
1:C:2627:TRP:HB3	1:C:2630:PHE:HD2	1.81	0.46
1:C:3024:ASN:OD1	1:C:3025:ASP:N	2.49	0.46
1:C:3198:PRO:HG2	1:C:3204:VAL:HA	1.98	0.46
1:D:537:LEU:O	1:D:541:ILE:HG12	2.15	0.46
1:D:705:PRO:HB3	1:D:857:LEU:HD11	1.98	0.46
1:D:897:LYS:HA	1:D:900:LEU:HB2	1.97	0.46
1:D:904:TYR:CD1	1:D:919:VAL:HG22	2.50	0.46
1:D:2581:ARG:HG2	1:D:2630:PHE:CE1	2.50	0.46
1:D:2868:HIS:CD2	1:D:2869:PRO:HD2	2.51	0.46
1:D:3205:CYS:HB3	1:D:3208:ILE:HD12	1.96	0.46
1:A:904:TYR:HB2	1:A:973:THR:HB	1.97	0.46
1:A:1145:TRP:CE2	1:A:1149:ASN:HB3	2.51	0.46
1:A:4616:TYR:HE2	1:A:4632:ARG:HG2	1.81	0.46
1:B:238:HIS:HB2	1:B:262:TYR:CE1	2.50	0.46
1:B:243:GLU:OE1	1:B:389:ARG:NH2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:908:ARG:NH2	1:B:917:CYS:SG	2.89	0.46
1:B:3174:HIS:CE1	1:B:3175:LEU:HD22	2.51	0.46
1:B:3198:PRO:HG2	1:B:3204:VAL:HA	1.98	0.46
1:B:4616:TYR:HE2	1:B:4632:ARG:HG2	1.81	0.46
1:C:2868:HIS:CD2	1:C:2869:PRO:HD2	2.51	0.46
1:D:243:GLU:OE1	1:D:389:ARG:NH2	2.30	0.46
1:D:898:ILE:HB	1:D:918:LEU:HD21	1.98	0.46
1:D:908:ARG:NH2	1:D:917:CYS:SG	2.89	0.46
1:D:966:LEU:H	1:D:977:LYS:HZ1	1.62	0.46
1:D:3198:PRO:HG2	1:D:3204:VAL:HA	1.98	0.46
1:D:3222:ALA:HB2	1:D:3283:ILE:HG13	1.98	0.46
1:A:677:LEU:HD11	1:A:800:VAL:HB	1.98	0.45
1:A:865:ILE:O	1:A:865:ILE:HG13	2.15	0.45
1:A:897:LYS:HA	1:A:900:LEU:HB2	1.97	0.45
1:A:1098:ALA:HA	1:A:1168:MET:HB2	1.98	0.45
1:A:2972:ASP:OD1	1:A:3035:ILE:HD12	2.16	0.45
1:A:3024:ASN:OD1	1:A:3025:ASP:N	2.49	0.45
1:A:3128:VAL:O	1:A:3132:ARG:HG3	2.16	0.45
1:A:3198:PRO:HG2	1:A:3204:VAL:HA	1.98	0.45
1:B:898:ILE:HB	1:B:918:LEU:HD21	1.98	0.45
1:B:2767:GLU:O	1:B:2770:ILE:HG22	2.16	0.45
1:C:897:LYS:HA	1:C:900:LEU:HB2	1.97	0.45
1:C:1711:LEU:HD22	1:C:1831:MET:HE1	1.98	0.45
1:C:3242:LEU:O	1:C:3246:MET:HG2	2.15	0.45
1:C:4831:ILE:HG13	1:C:4843:ARG:NH2	2.31	0.45
1:D:3222:ALA:HB2	1:D:3283:ILE:CG1	2.46	0.45
1:A:243:GLU:OE1	1:A:389:ARG:NH2	2.30	0.45
1:A:2154:VAL:HG13	1:A:2158:HIS:CD2	2.52	0.45
1:A:2581:ARG:HG2	1:A:2630:PHE:CE1	2.50	0.45
1:B:332:ARG:HD2	1:B:364:GLN:OE1	2.17	0.45
1:B:626:ARG:NH2	1:B:1667:LEU:O	2.46	0.45
1:B:1967:SER:O	1:B:1972:GLN:NE2	2.41	0.45
1:B:2171:VAL:HG21	1:B:2199:PHE:CD1	2.51	0.45
1:C:515:ALA:HB2	1:C:523:GLY:HA3	1.97	0.45
1:C:894:VAL:HG11	1:C:976:TYR:HD2	1.81	0.45
1:C:2356:ASP:OD2	1:C:2359:ARG:HG3	2.17	0.45
1:D:332:ARG:HD2	1:D:364:GLN:OE1	2.16	0.45
1:D:891:GLU:HG2	1:D:978:PRO:HA	1.98	0.45
1:D:2642:ARG:NH1	1:D:2682:GLU:HB2	2.31	0.45
1:D:2793:ARG:HH11	1:D:2794:GLU:HB3	1.81	0.45
1:A:934:GLN:O	1:A:937:LEU:N	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1489:CYS:HB3	1:A:1492:GLU:HG3	1.99	0.45
1:A:2337:GLY:O	1:B:141:ASP:HA	2.17	0.45
1:A:2868:HIS:CD2	1:A:2869:PRO:HD2	2.51	0.45
1:A:4481:TRP:HE1	1:D:4268:MET:CE	2.28	0.45
1:A:4591:TYR:CD2	1:D:4287:TYR:HE1	2.34	0.45
1:A:4875:ASP:OD2	1:D:4874:ARG:NH2	2.49	0.45
1:B:63:SER:CB	1:B:276:ARG:HH12	2.30	0.45
1:B:233:VAL:HG22	1:B:276:ARG:CD	2.47	0.45
1:B:1176:THR:HG22	1:B:1181:ILE:HA	1.97	0.45
1:B:2741:TRP:CE3	1:B:2754:GLN:HB2	2.51	0.45
1:B:2972:ASP:OD1	1:B:3035:ILE:HD12	2.16	0.45
1:B:3222:ALA:HB2	1:B:3283:ILE:HG13	1.98	0.45
1:C:1145:TRP:CE2	1:C:1149:ASN:HB3	2.51	0.45
1:C:2793:ARG:HH11	1:C:2794:GLU:HB3	1.81	0.45
1:D:983:LEU:HB3	1:D:1055:ARG:NH2	2.31	0.45
1:D:1176:THR:HG22	1:D:1181:ILE:HA	1.97	0.45
1:D:3024:ASN:OD1	1:D:3025:ASP:N	2.49	0.45
1:D:4831:ILE:HG13	1:D:4843:ARG:NH2	2.31	0.45
1:A:247:VAL:O	1:A:272:ARG:NH1	2.46	0.45
1:A:894:VAL:HG11	1:A:976:TYR:HD2	1.81	0.45
1:A:1792:ILE:HG12	1:A:1842:ILE:HD11	1.98	0.45
1:A:2356:ASP:OD2	1:A:2359:ARG:HG3	2.17	0.45
1:A:3050:LEU:HB3	1:A:3053:VAL:HG23	1.99	0.45
1:A:3888:PHE:HB3	1:A:3906:PHE:CZ	2.52	0.45
1:B:705:PRO:HB3	1:B:857:LEU:HD11	1.98	0.45
1:B:983:LEU:HB3	1:B:1055:ARG:NH2	2.31	0.45
1:B:1428:TYR:OH	1:B:1444:GLY:O	2.33	0.45
1:B:2642:ARG:NH1	1:B:2682:GLU:HB2	2.31	0.45
1:B:2895:PHE:HA	1:B:2898:ILE:HG22	1.97	0.45
1:B:3222:ALA:HB2	1:B:3283:ILE:CG1	2.46	0.45
1:B:4268:MET:CE	1:C:4481:TRP:HE1	2.28	0.45
1:B:4831:ILE:HG13	1:B:4843:ARG:NH2	2.31	0.45
1:C:247:VAL:O	1:C:272:ARG:NH1	2.46	0.45
1:C:587:ASN:OD1	1:C:2133:ARG:NH1	2.49	0.45
1:C:2154:VAL:HG13	1:C:2158:HIS:CD2	2.52	0.45
1:C:3034:HIS:NE2	1:C:3038:GLN:OE1	2.49	0.45
1:C:4616:TYR:HE2	1:C:4632:ARG:HG2	1.81	0.45
1:D:233:VAL:HG22	1:D:276:ARG:HD2	1.97	0.45
1:D:247:VAL:O	1:D:272:ARG:NH1	2.46	0.45
1:D:1145:TRP:CE2	1:D:1149:ASN:HB3	2.51	0.45
1:D:1792:ILE:HG12	1:D:1842:ILE:HD11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3050:LEU:HB3	1:D:3053:VAL:HG23	1.99	0.45
1:A:3222:ALA:HB2	1:A:3283:ILE:HG13	1.98	0.45
2:E:85:ALA:O	2:E:94:PRO:HB3	2.17	0.45
1:B:894:VAL:HG11	1:B:976:TYR:HD2	1.81	0.45
1:B:1170:GLU:N	1:B:1170:GLU:OE2	2.50	0.45
1:C:63:SER:CB	1:C:276:ARG:HH12	2.30	0.45
1:C:514:PHE:CD2	1:C:526:TRP:HB2	2.52	0.45
1:C:1932:PHE:CZ	1:C:1996:LEU:HB2	2.51	0.45
1:C:3811:GLN:HE21	1:C:3828:LYS:HD3	1.81	0.45
1:D:233:VAL:HG21	1:D:413:SER:HB3	1.99	0.45
1:D:626:ARG:NH2	1:D:1667:LEU:O	2.46	0.45
1:D:1098:ALA:HA	1:D:1168:MET:HB2	1.98	0.45
1:D:1851:PHE:HZ	1:D:2058:LEU:HD13	1.82	0.45
1:A:514:PHE:CD2	1:A:526:TRP:HB2	2.52	0.45
1:A:983:LEU:HB3	1:A:1055:ARG:NH2	2.31	0.45
1:A:2642:ARG:NH1	1:A:2682:GLU:HB2	2.31	0.45
1:B:514:PHE:CD2	1:B:526:TRP:HB2	2.52	0.45
1:D:233:VAL:HG22	1:D:276:ARG:CD	2.47	0.45
1:A:63:SER:CB	1:A:276:ARG:HH12	2.30	0.45
1:A:332:ARG:HD2	1:A:364:GLN:OE1	2.17	0.45
1:A:2741:TRP:CE3	1:A:2754:GLN:HB2	2.51	0.45
1:A:2767:GLU:O	1:A:2770:ILE:HG22	2.16	0.45
1:A:4287:TYR:HE1	1:B:4591:TYR:CD2	2.34	0.45
1:B:430:ILE:HG23	1:B:504:ARG:HD2	1.98	0.45
1:B:891:GLU:HG2	1:B:978:PRO:HA	1.98	0.45
1:B:999:LEU:HD22	1:B:1050:LEU:HD11	1.99	0.45
1:B:2453:GLU:OE2	1:B:2511:ASP:N	2.40	0.45
1:B:2798:MET:HE1	1:C:1497:GLY:H	1.82	0.45
1:B:2868:HIS:CD2	1:B:2869:PRO:HD2	2.51	0.45
1:B:3024:ASN:OD1	1:B:3025:ASP:N	2.49	0.45
1:B:3128:VAL:O	1:B:3132:ARG:HG3	2.16	0.45
1:C:332:ARG:HD2	1:C:364:GLN:OE1	2.16	0.45
1:C:1792:ILE:HG12	1:C:1842:ILE:HD11	1.98	0.45
1:C:2767:GLU:O	1:C:2770:ILE:HG22	2.16	0.45
1:C:3174:HIS:CE1	1:C:3175:LEU:HD22	2.51	0.45
1:C:3888:PHE:HB3	1:C:3906:PHE:CZ	2.52	0.45
1:D:235:ARG:HB2	1:D:406:SER:OG	2.17	0.45
1:D:614:LEU:HA	1:D:617:LEU:HD12	1.99	0.45
1:D:677:LEU:HD11	1:D:800:VAL:HB	1.98	0.45
1:D:2767:GLU:O	1:D:2770:ILE:HG22	2.16	0.45
1:D:2972:ASP:OD1	1:D:3035:ILE:HD12	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3174:HIS:CE1	1:D:3175:LEU:HD22	2.51	0.45
1:A:233:VAL:HG22	1:A:276:ARG:CD	2.47	0.45
1:A:375:GLN:HG3	1:A:377:VAL:HG13	1.99	0.45
1:A:1170:GLU:OE2	1:A:1170:GLU:N	2.50	0.45
1:A:4513:ILE:O	1:A:4517:LEU:HG	2.17	0.45
1:B:21:VAL:HG13	1:B:217:ILE:HG13	1.98	0.45
1:B:235:ARG:HB2	1:B:406:SER:OG	2.17	0.45
1:B:3851:ASN:ND2	1:B:3854:PHE:HD2	2.15	0.45
1:C:742:SER:HB3	1:C:776:GLN:HE21	1.81	0.45
1:C:865:ILE:O	1:C:865:ILE:HG13	2.15	0.45
1:C:1851:PHE:HZ	1:C:2058:LEU:HD13	1.82	0.45
1:C:4480:PHE:N	1:C:4483:LYS:HZ3	2.14	0.45
1:D:365:HIS:HB2	1:D:393:MET:CE	2.47	0.45
1:D:742:SER:HB3	1:D:776:GLN:HE21	1.81	0.45
1:D:2154:VAL:HG13	1:D:2158:HIS:CD2	2.52	0.45
1:D:3011:LEU:HD23	1:D:3011:LEU:HA	1.83	0.45
1:D:4513:ILE:O	1:D:4517:LEU:HG	2.17	0.45
1:A:515:ALA:HB2	1:A:523:GLY:HA3	1.97	0.45
1:A:614:LEU:HA	1:A:617:LEU:HD12	1.99	0.45
1:A:1079:SER:OG	1:A:1083:GLU:O	2.29	0.45
1:A:1970:GLN:O	1:A:1973:ILE:HG22	2.17	0.45
1:A:2405:GLU:HB2	1:A:2408:LEU:HD12	1.99	0.45
1:A:4306:PHE:HA	1:A:4309:ILE:HG12	1.99	0.45
1:B:677:LEU:HD11	1:B:800:VAL:HB	1.98	0.45
1:B:3888:PHE:HB3	1:B:3906:PHE:CZ	2.52	0.45
1:C:233:VAL:HG22	1:C:276:ARG:CD	2.47	0.45
1:C:904:TYR:O	1:C:914:GLN:HB3	2.17	0.45
1:C:2360:ASP:OD1	1:C:2384:MET:N	2.50	0.45
1:C:3222:ALA:HB2	1:C:3283:ILE:HG13	1.98	0.45
1:C:4513:ILE:O	1:C:4517:LEU:HG	2.17	0.45
1:D:938:GLU:HG3	1:D:941:LYS:HE2	1.99	0.45
1:D:1420:LEU:HG	1:D:1564:MET:SD	2.57	0.45
1:D:2356:ASP:OD2	1:D:2359:ARG:HG3	2.17	0.45
1:D:3888:PHE:HB3	1:D:3906:PHE:CZ	2.52	0.45
1:A:233:VAL:HG21	1:A:413:SER:HB3	1.99	0.45
1:A:1420:LEU:HG	1:A:1564:MET:SD	2.57	0.45
1:A:3851:ASN:ND2	1:A:3854:PHE:HD2	2.15	0.45
2:G:85:ALA:O	2:G:94:PRO:HB3	2.17	0.45
1:B:891:GLU:HA	1:B:894:VAL:HG22	1.98	0.45
1:B:2337:GLY:O	1:C:141:ASP:HA	2.17	0.45
1:C:233:VAL:HG21	1:C:413:SER:HB3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:365:HIS:HB2	1:C:393:MET:CE	2.47	0.45
1:C:694:ARG:HG2	1:C:728:ASP:HB3	1.99	0.45
1:C:938:GLU:HG3	1:C:941:LYS:HE2	1.99	0.45
1:C:966:LEU:HD12	1:C:978:PRO:HB2	1.99	0.45
1:C:1170:GLU:N	1:C:1170:GLU:OE2	2.50	0.45
1:C:2741:TRP:CE3	1:C:2754:GLN:HB2	2.52	0.45
1:C:2789:ILE:HD11	1:C:2896:LEU:HD22	1.99	0.45
1:C:2972:ASP:OD1	1:C:3035:ILE:HD12	2.16	0.45
1:C:4250:TYR:O	1:C:4254:THR:HG23	2.17	0.45
1:D:514:PHE:CD2	1:D:526:TRP:HB2	2.52	0.45
1:D:966:LEU:HD12	1:D:978:PRO:HB2	1.98	0.45
1:D:1170:GLU:N	1:D:1170:GLU:OE2	2.50	0.45
1:D:2741:TRP:CE3	1:D:2754:GLN:HB2	2.51	0.45
1:D:3700:HIS:HB2	1:D:3702:GLU:HG2	1.99	0.45
1:D:3851:ASN:ND2	1:D:3854:PHE:HD2	2.15	0.45
1:D:4616:TYR:HE2	1:D:4632:ARG:HG2	1.81	0.45
1:A:891:GLU:HG2	1:A:978:PRO:HA	1.98	0.44
1:A:1898:LEU:HD13	1:A:1902:VAL:HG12	1.99	0.44
1:B:909:ASP:HB3	1:B:911:ASN:OD1	2.18	0.44
1:B:1898:LEU:HD13	1:B:1902:VAL:HG12	1.99	0.44
1:B:2154:VAL:HG13	1:B:2158:HIS:CD2	2.52	0.44
1:B:2405:GLU:HB2	1:B:2408:LEU:HD12	1.99	0.44
1:B:4250:TYR:O	1:B:4254:THR:HG23	2.17	0.44
1:C:1970:GLN:O	1:C:1973:ILE:HG22	2.17	0.44
1:C:2232:PRO:C	1:C:2234:MET:H	2.25	0.44
1:C:2642:ARG:NH1	1:C:2682:GLU:HB2	2.31	0.44
1:C:3317:THR:HA	1:C:3320:LEU:HG	1.99	0.44
1:C:3700:HIS:HB2	1:C:3702:GLU:HG2	1.99	0.44
1:D:587:ASN:OD1	1:D:2133:ARG:NH1	2.49	0.44
1:D:2954:PHE:CZ	1:D:2960:ILE:HG21	2.53	0.44
1:A:466:PRO:HG2	1:A:479:LEU:HG	1.99	0.44
1:A:742:SER:HB3	1:A:776:GLN:HE21	1.81	0.44
1:A:898:ILE:HB	1:A:918:LEU:HD21	1.98	0.44
1:A:909:ASP:HB3	1:A:911:ASN:OD1	2.18	0.44
1:A:966:LEU:HD12	1:A:978:PRO:HB2	1.99	0.44
1:A:996:VAL:HG22	1:A:1054:VAL:HG11	2.00	0.44
1:A:1851:PHE:HZ	1:A:2058:LEU:HD13	1.82	0.44
1:A:2139:GLU:HA	1:A:2192:MET:CE	2.47	0.44
1:A:2599:LEU:HB3	1:A:2661:LEU:HD21	1.99	0.44
1:A:3317:THR:HA	1:A:3320:LEU:HG	1.99	0.44
1:B:184:VAL:HG22	1:B:191:TYR:CD1	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:718:VAL:HG23	1:B:793:SER:HB3	2.00	0.44
1:B:966:LEU:HD12	1:B:978:PRO:HB2	1.99	0.44
1:B:968:LYS:HA	1:B:968:LYS:HD2	1.88	0.44
1:B:1086:ARG:HG3	1:B:1252:SER:OG	2.18	0.44
1:B:1098:ALA:HA	1:B:1168:MET:HB2	1.99	0.44
1:B:2139:GLU:HA	1:B:2192:MET:CE	2.47	0.44
1:B:2356:ASP:OD2	1:B:2359:ARG:HG3	2.17	0.44
1:B:2723:LYS:HE2	1:B:2723:LYS:HB3	1.82	0.44
1:B:3050:LEU:HB3	1:B:3053:VAL:HG23	1.99	0.44
1:B:3317:THR:HA	1:B:3320:LEU:HG	1.99	0.44
1:B:4513:ILE:O	1:B:4517:LEU:HG	2.17	0.44
1:D:996:VAL:HG22	1:D:1054:VAL:HG11	2.00	0.44
1:D:2232:PRO:C	1:D:2234:MET:H	2.25	0.44
1:D:3317:THR:HA	1:D:3320:LEU:HG	1.99	0.44
1:D:4250:TYR:O	1:D:4254:THR:HG23	2.17	0.44
1:A:21:VAL:HG13	1:A:217:ILE:HG13	1.98	0.44
1:A:891:GLU:HA	1:A:894:VAL:HG22	1.98	0.44
1:A:4250:TYR:O	1:A:4254:THR:HG23	2.17	0.44
2:H:85:ALA:O	2:H:94:PRO:HB3	2.17	0.44
1:B:365:HIS:HB2	1:B:393:MET:CE	2.47	0.44
1:B:1851:PHE:HZ	1:B:2058:LEU:HD13	1.82	0.44
1:C:184:VAL:HG22	1:C:191:TYR:CD1	2.53	0.44
1:C:466:PRO:HG2	1:C:479:LEU:HG	1.99	0.44
1:C:705:PRO:HB3	1:C:857:LEU:HD11	1.98	0.44
1:C:999:LEU:HD22	1:C:1050:LEU:HD11	1.99	0.44
1:C:1420:LEU:HG	1:C:1564:MET:SD	2.57	0.44
1:C:1957:LEU:HG	1:C:1961:LYS:HG2	1.99	0.44
1:C:4172:PHE:O	1:C:4176:VAL:HG22	2.18	0.44
1:D:1034:PRO:HG2	1:D:1037:LEU:HD13	1.97	0.44
1:D:4306:PHE:HA	1:D:4309:ILE:HG12	1.99	0.44
1:A:1501:ASN:CB	1:D:2827:ASP:H	2.31	0.44
1:A:2826:ILE:CD1	1:B:1501:ASN:HB2	2.42	0.44
1:B:904:TYR:O	1:B:914:GLN:HB3	2.17	0.44
1:B:1957:LEU:HG	1:B:1961:LYS:HG2	1.99	0.44
1:B:2788:ARG:NH1	1:B:2905:ARG:O	2.51	0.44
1:B:3167:PRO:HA	1:B:3248:ARG:NH2	2.33	0.44
1:C:2139:GLU:HA	1:C:2192:MET:CE	2.47	0.44
1:C:3050:LEU:HB3	1:C:3053:VAL:HG23	1.99	0.44
1:D:63:SER:CB	1:D:276:ARG:HH12	2.30	0.44
1:D:515:ALA:HB2	1:D:523:GLY:HA3	1.97	0.44
1:D:739:ARG:HG3	1:D:1469:LEU:HD11	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1522:ALA:HB2	1:D:1527:LEU:HD21	2.00	0.44
1:D:2789:ILE:HD11	1:D:2896:LEU:HD22	1.99	0.44
1:D:3239:LEU:HD23	1:D:3239:LEU:HA	1.88	0.44
1:D:3811:GLN:HE21	1:D:3828:LYS:HD3	1.81	0.44
1:D:4590:TYR:OH	1:D:4718:SER:HB2	2.18	0.44
1:A:1220:ASP:O	1:A:1223:THR:OG1	2.34	0.44
1:A:4481:TRP:O	1:A:4485:ILE:HG12	2.17	0.44
1:B:375:GLN:HG3	1:B:377:VAL:HG13	1.99	0.44
1:B:996:VAL:HG22	1:B:1054:VAL:HG11	2.00	0.44
1:B:2793:ARG:HH11	1:B:2794:GLU:HB3	1.81	0.44
1:B:4481:TRP:O	1:B:4485:ILE:HG12	2.17	0.44
1:C:718:VAL:HG23	1:C:793:SER:HB3	2.00	0.44
1:C:2440:PHE:CZ	1:C:2465:LYS:HD3	2.53	0.44
1:C:2954:PHE:CZ	1:C:2960:ILE:HG21	2.52	0.44
1:D:586:LEU:HD11	1:D:617:LEU:HA	2.00	0.44
1:D:694:ARG:HG2	1:D:728:ASP:HB3	1.99	0.44
1:D:909:ASP:HB3	1:D:911:ASN:OD1	2.18	0.44
1:D:999:LEU:HD22	1:D:1050:LEU:HD11	1.99	0.44
1:A:557:TRP:NE1	1:A:561:ARG:HH12	2.15	0.44
1:A:2440:PHE:CZ	1:A:2465:LYS:HD3	2.53	0.44
1:A:2954:PHE:CZ	1:A:2960:ILE:HG21	2.52	0.44
1:A:3811:GLN:HE21	1:A:3828:LYS:HD3	1.82	0.44
1:A:4874:ARG:NH2	1:B:4875:ASP:OD2	2.51	0.44
2:E:91:VAL:HG23	2:E:92:ILE:HG12	2.00	0.44
2:F:85:ALA:O	2:F:94:PRO:HB3	2.17	0.44
2:F:91:VAL:HG23	2:F:92:ILE:HG12	2.00	0.44
1:B:614:LEU:HA	1:B:617:LEU:HD12	1.99	0.44
1:B:1970:GLN:O	1:B:1973:ILE:HG22	2.17	0.44
1:C:375:GLN:HG3	1:C:377:VAL:HG13	1.99	0.44
1:C:891:GLU:HG2	1:C:978:PRO:HA	1.98	0.44
1:C:996:VAL:HG22	1:C:1054:VAL:HG11	2.00	0.44
1:C:1098:ALA:HA	1:C:1168:MET:HB2	1.98	0.44
1:C:1489:CYS:HB3	1:C:1492:GLU:HG3	1.99	0.44
1:D:2440:PHE:CZ	1:D:2465:LYS:HD3	2.53	0.44
1:A:586:LEU:HD11	1:A:617:LEU:HA	2.00	0.44
1:A:915:HIS:CD2	1:A:917:CYS:HB2	2.53	0.44
1:A:2232:PRO:C	1:A:2234:MET:H	2.25	0.44
1:A:2878:THR:O	1:A:2882:LYS:HG3	2.18	0.44
1:A:3011:LEU:HD23	1:A:3011:LEU:HA	1.83	0.44
1:A:3167:PRO:HA	1:A:3248:ARG:NH2	2.33	0.44
1:B:915:HIS:CD2	1:B:917:CYS:HB2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1489:CYS:HB3	1:B:1492:GLU:HG3	1.99	0.44
1:B:2440:PHE:CZ	1:B:2465:LYS:HD3	2.53	0.44
1:B:2744:GLY:HA2	1:B:2753:VAL:CG1	2.48	0.44
1:B:2789:ILE:HD11	1:B:2896:LEU:HD22	1.99	0.44
1:C:892:LEU:HA	1:C:895:MET:HG2	2.00	0.44
1:C:1970:GLN:O	1:C:1974:ASN:ND2	2.51	0.44
1:C:2337:GLY:O	1:D:141:ASP:HA	2.17	0.44
1:C:3214:LEU:O	1:C:3218:ILE:HG12	2.18	0.44
1:C:3851:ASN:ND2	1:C:3854:PHE:HD2	2.15	0.44
1:C:4020:PHE:CD2	1:C:4087:PHE:HB3	2.53	0.44
1:D:892:LEU:HA	1:D:895:MET:HG2	2.00	0.44
1:D:1970:GLN:O	1:D:1973:ILE:HG22	2.17	0.44
1:D:2360:ASP:OD1	1:D:2384:MET:N	2.50	0.44
1:D:3214:LEU:O	1:D:3218:ILE:HG12	2.18	0.44
1:D:4172:PHE:O	1:D:4176:VAL:HG22	2.18	0.44
1:A:56:LYS:HA	1:A:324:VAL:HG23	2.00	0.44
1:A:235:ARG:HB2	1:A:406:SER:OG	2.17	0.44
1:A:999:LEU:HD22	1:A:1050:LEU:HD11	1.99	0.44
1:A:4172:PHE:O	1:A:4176:VAL:HG22	2.18	0.44
1:B:466:PRO:HG2	1:B:479:LEU:HG	1.99	0.44
1:B:938:GLU:HG3	1:B:941:LYS:HE2	1.99	0.44
1:B:1420:LEU:HG	1:B:1564:MET:SD	2.57	0.44
1:B:2599:LEU:HB3	1:B:2661:LEU:HD21	1.99	0.44
1:B:2837:LEU:O	1:B:2840:MET:HB2	2.18	0.44
1:B:4172:PHE:O	1:B:4176:VAL:HG22	2.18	0.44
1:C:614:LEU:HA	1:C:617:LEU:HD12	1.99	0.44
1:C:1086:ARG:HG3	1:C:1252:SER:OG	2.18	0.44
1:C:2679:ASP:HA	1:C:2920:ARG:HG3	2.00	0.44
1:D:466:PRO:HG2	1:D:479:LEU:HG	1.99	0.44
1:D:915:HIS:CD2	1:D:917:CYS:HB2	2.53	0.44
1:D:919:VAL:HG12	1:D:920:GLU:O	2.18	0.44
1:D:2405:GLU:HB2	1:D:2408:LEU:HD12	1.99	0.44
1:D:2679:ASP:HA	1:D:2920:ARG:HG3	2.00	0.44
1:D:2788:ARG:NH1	1:D:2905:ARG:O	2.51	0.44
1:D:4020:PHE:CD2	1:D:4087:PHE:HB3	2.53	0.44
1:A:184:VAL:HG22	1:A:191:TYR:CD1	2.53	0.44
1:A:766:ILE:HB	1:A:779:PHE:HB2	2.00	0.44
1:A:892:LEU:HA	1:A:895:MET:HG2	2.00	0.44
1:A:1086:ARG:HG3	1:A:1252:SER:OG	2.17	0.44
1:A:1234:GLU:OE1	1:A:1234:GLU:N	2.50	0.44
1:A:1522:ALA:HB2	1:A:1527:LEU:HD21	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2788:ARG:HH12	1:A:2908:LYS:NZ	2.16	0.44
1:A:4020:PHE:CD2	1:A:4087:PHE:HB3	2.53	0.44
2:G:91:VAL:HG23	2:G:92:ILE:HG12	2.00	0.44
1:B:742:SER:HB3	1:B:776:GLN:HE21	1.81	0.44
1:B:1176:THR:HG22	1:B:1181:ILE:HG13	2.00	0.44
1:B:2788:ARG:HH12	1:B:2908:LYS:NZ	2.16	0.44
1:C:586:LEU:HD11	1:C:617:LEU:HA	2.00	0.44
1:C:1522:ALA:HB2	1:C:1527:LEU:HD21	2.00	0.44
1:C:2599:LEU:HB3	1:C:2661:LEU:HD21	1.99	0.44
1:A:718:VAL:HG23	1:A:793:SER:HB3	2.00	0.43
1:A:2541:HIS:O	1:A:2545:ILE:HG13	2.18	0.43
1:A:2744:GLY:HA2	1:A:2753:VAL:CG1	2.48	0.43
1:A:4714:PHE:CD1	1:D:4294:LEU:HD12	2.53	0.43
1:B:233:VAL:HG21	1:B:413:SER:HB3	1.99	0.43
1:B:557:TRP:NE1	1:B:561:ARG:HH12	2.15	0.43
1:B:2874:TYR:CZ	1:B:2882:LYS:HD2	2.53	0.43
1:C:227:TYR:CG	1:C:352:SER:HB2	2.53	0.43
1:C:677:LEU:HD11	1:C:800:VAL:HB	1.98	0.43
1:C:915:HIS:CD2	1:C:917:CYS:HB2	2.53	0.43
1:C:2827:ASP:H	1:D:1501:ASN:CB	2.31	0.43
1:C:3239:LEU:HD23	1:C:3239:LEU:HA	1.88	0.43
1:C:4306:PHE:HA	1:C:4309:ILE:HG12	1.99	0.43
1:D:2585:MET:O	1:D:2589:LEU:HD23	2.18	0.43
1:D:2599:LEU:HB3	1:D:2661:LEU:HD21	1.99	0.43
1:D:3653:GLU:C	1:D:3654:GLU:HG3	2.43	0.43
1:A:521:GLU:HG2	1:A:522:ALA:N	2.33	0.43
1:A:2793:ARG:HH11	1:A:2794:GLU:HB3	1.81	0.43
1:A:3811:GLN:HE22	1:A:3826:GLY:C	2.27	0.43
1:B:586:LEU:HD11	1:B:617:LEU:HA	2.00	0.43
1:B:739:ARG:HG3	1:B:1469:LEU:HD11	2.00	0.43
1:B:919:VAL:HG12	1:B:920:GLU:O	2.18	0.43
1:B:2744:GLY:HA2	1:B:2753:VAL:HG12	1.99	0.43
1:C:473:GLU:HG2	1:C:3676:LEU:HD13	1.99	0.43
1:C:872:ILE:HD11	1:C:941:LYS:HB3	2.00	0.43
1:C:2788:ARG:HH12	1:C:2908:LYS:NZ	2.16	0.43
1:C:4052:MET:HE1	1:C:4063:THR:HA	2.00	0.43
1:C:4590:TYR:OH	1:C:4718:SER:HB2	2.18	0.43
1:D:184:VAL:HG22	1:D:191:TYR:CD1	2.53	0.43
1:D:227:TYR:CG	1:D:352:SER:HB2	2.53	0.43
1:D:387:ILE:HG22	1:D:389:ARG:HG3	2.01	0.43
1:D:988:LEU:CD1	1:D:1055:ARG:HG2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1086:ARG:HG3	1:D:1252:SER:OG	2.18	0.43
1:D:2139:GLU:HA	1:D:2192:MET:CE	2.47	0.43
1:D:2157:GLN:O	1:D:3615:ARG:NH2	2.36	0.43
1:D:4481:TRP:O	1:D:4485:ILE:HG12	2.17	0.43
1:A:365:HIS:HB2	1:A:393:MET:CE	2.47	0.43
1:A:1957:LEU:HG	1:A:1961:LYS:HG2	1.99	0.43
1:A:2360:ASP:OD1	1:A:2384:MET:N	2.50	0.43
1:A:3653:GLU:C	1:A:3654:GLU:HG3	2.43	0.43
2:E:62:GLU:HG2	2:E:62:GLU:H	1.68	0.43
2:H:91:VAL:HG23	2:H:92:ILE:HG12	2.00	0.43
1:B:4020:PHE:CD2	1:B:4087:PHE:HB3	2.53	0.43
1:B:4306:PHE:HA	1:B:4309:ILE:HG12	1.99	0.43
1:C:1967:SER:O	1:C:1972:GLN:NE2	2.41	0.43
1:C:2405:GLU:HB2	1:C:2408:LEU:HD12	1.99	0.43
1:C:3167:PRO:HA	1:C:3248:ARG:NH2	2.32	0.43
1:D:21:VAL:HG13	1:D:217:ILE:HG13	1.98	0.43
1:D:375:GLN:HG3	1:D:377:VAL:HG13	1.99	0.43
1:D:419:ILE:HG21	1:D:492:GLU:HG3	2.01	0.43
1:D:557:TRP:NE1	1:D:561:ARG:HH12	2.15	0.43
1:D:872:ILE:HD11	1:D:941:LYS:HB3	2.00	0.43
1:D:1898:LEU:HD13	1:D:1902:VAL:HG12	1.99	0.43
1:D:2744:GLY:HA2	1:D:2753:VAL:CG1	2.48	0.43
1:D:3167:PRO:HA	1:D:3248:ARG:NH2	2.33	0.43
1:A:872:ILE:HD11	1:A:941:LYS:HB3	2.00	0.43
1:A:938:GLU:HG3	1:A:941:LYS:HE2	1.99	0.43
1:A:2723:LYS:HB3	1:A:2723:LYS:HE2	1.82	0.43
1:A:2788:ARG:NH1	1:A:2905:ARG:O	2.51	0.43
1:B:694:ARG:HG2	1:B:728:ASP:HB3	1.99	0.43
1:B:2763:LEU:HD23	1:B:2767:GLU:OE1	2.18	0.43
1:B:3653:GLU:C	1:B:3654:GLU:HG3	2.43	0.43
1:B:4052:MET:HE1	1:B:4063:THR:HA	2.00	0.43
1:C:557:TRP:NE1	1:C:561:ARG:HH12	2.15	0.43
1:C:739:ARG:HG3	1:C:1469:LEU:HD11	2.00	0.43
1:C:919:VAL:HG12	1:C:920:GLU:O	2.18	0.43
1:C:1968:PRO:O	1:C:1972:GLN:HG3	2.19	0.43
1:C:2123:LEU:HD13	1:C:2167:MET:HG2	2.00	0.43
1:C:2878:THR:O	1:C:2882:LYS:HG3	2.18	0.43
1:D:56:LYS:HA	1:D:324:VAL:HG23	2.00	0.43
1:D:1489:CYS:HB3	1:D:1492:GLU:HG3	1.99	0.43
1:D:1968:PRO:O	1:D:1972:GLN:HG3	2.19	0.43
1:D:2874:TYR:CZ	1:D:2882:LYS:HD2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3763:ILE:HD11	1:D:3838:ASP:O	2.19	0.43
1:A:988:LEU:CD1	1:A:1055:ARG:HG2	2.48	0.43
1:A:2585:MET:O	1:A:2589:LEU:HD23	2.18	0.43
1:A:2837:LEU:O	1:A:2840:MET:HB2	2.18	0.43
1:A:3214:LEU:O	1:A:3218:ILE:HG12	2.18	0.43
1:B:237:LEU:HD13	1:B:241:MET:SD	2.59	0.43
1:B:419:ILE:HG21	1:B:492:GLU:HG3	2.01	0.43
1:B:505:LEU:HD23	1:B:505:LEU:HA	1.92	0.43
1:B:2123:LEU:HD13	1:B:2167:MET:HG2	2.00	0.43
1:B:4796:SER:HB3	1:B:4803:ASP:HB2	2.01	0.43
1:C:766:ILE:HB	1:C:779:PHE:HB2	2.00	0.43
1:C:909:ASP:HB3	1:C:911:ASN:OD1	2.18	0.43
1:C:1898:LEU:HD13	1:C:1902:VAL:HG12	1.99	0.43
1:C:2744:GLY:HA2	1:C:2753:VAL:CG1	2.48	0.43
1:C:2788:ARG:NH1	1:C:2905:ARG:O	2.51	0.43
1:C:2837:LEU:O	1:C:2840:MET:HB2	2.18	0.43
1:C:2968:LEU:HB2	1:C:2969:PRO:HD3	2.01	0.43
1:C:3763:ILE:HD11	1:C:3838:ASP:O	2.19	0.43
1:C:4481:TRP:O	1:C:4485:ILE:HG12	2.17	0.43
1:D:718:VAL:HG23	1:D:793:SER:HB3	2.00	0.43
1:D:1234:GLU:OE1	1:D:1234:GLU:N	2.50	0.43
1:D:1967:SER:O	1:D:1972:GLN:NE2	2.41	0.43
1:A:419:ILE:HG21	1:A:492:GLU:HG3	2.01	0.43
1:A:694:ARG:HG2	1:A:728:ASP:HB3	1.99	0.43
1:A:919:VAL:HG12	1:A:920:GLU:O	2.18	0.43
1:A:2972:ASP:OD1	1:A:2976:LYS:NZ	2.51	0.43
1:A:3700:HIS:HB2	1:A:3702:GLU:HG2	1.99	0.43
1:A:4270:LYS:HA	1:A:4270:LYS:HD3	1.85	0.43
1:B:1234:GLU:N	1:B:1234:GLU:OE1	2.50	0.43
1:B:2720:PHE:CE1	1:B:2895:PHE:HD2	2.37	0.43
1:B:2954:PHE:CZ	1:B:2960:ILE:HG21	2.53	0.43
1:C:235:ARG:HB2	1:C:406:SER:OG	2.17	0.43
1:C:387:ILE:HG22	1:C:389:ARG:HG3	2.00	0.43
1:C:513:HIS:O	1:C:517:VAL:HG23	2.19	0.43
1:C:897:LYS:O	1:C:902:TRP:HB2	2.19	0.43
1:C:968:LYS:HA	1:C:968:LYS:HD2	1.88	0.43
1:C:1176:THR:HG22	1:C:1181:ILE:HG13	2.00	0.43
1:C:2254:ALA:HA	1:C:2257:LEU:HD12	2.01	0.43
1:C:3653:GLU:C	1:C:3654:GLU:HG3	2.43	0.43
1:D:1957:LEU:HG	1:D:1961:LYS:HG2	1.99	0.43
1:D:2541:HIS:O	1:D:2545:ILE:HG13	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3112:ILE:HG23	1:D:3117:PHE:HB2	2.01	0.43
1:A:387:ILE:HG22	1:A:389:ARG:HG3	2.00	0.43
1:A:739:ARG:HG3	1:A:1469:LEU:HD11	2.00	0.43
1:A:1968:PRO:O	1:A:1972:GLN:HG3	2.19	0.43
1:A:1970:GLN:O	1:A:1974:ASN:ND2	2.51	0.43
1:A:2798:MET:HE1	1:B:1497:GLY:H	1.83	0.43
1:A:4052:MET:HE1	1:A:4063:THR:HA	2.00	0.43
1:B:56:LYS:HA	1:B:324:VAL:HG23	2.00	0.43
1:B:1266:GLU:HB3	1:B:1267:HIS:CD2	2.54	0.43
1:B:1522:ALA:HB2	1:B:1527:LEU:HD21	2.00	0.43
1:B:2232:PRO:C	1:B:2234:MET:H	2.25	0.43
1:B:2360:ASP:OD1	1:B:2384:MET:N	2.50	0.43
1:B:3214:LEU:O	1:B:3218:ILE:HG12	2.18	0.43
1:B:4045:LYS:N	1:B:4076:GLU:O	2.46	0.43
1:C:963:LYS:HD2	1:C:979:ALA:C	2.44	0.43
1:C:2634:SER:O	1:C:2635:GLU:HB3	2.19	0.43
1:C:2720:PHE:CE1	1:C:2895:PHE:HD2	2.37	0.43
1:C:2744:GLY:HA2	1:C:2753:VAL:HG12	2.00	0.43
1:C:4603:GLU:OE2	1:C:4705:TYR:OH	2.29	0.43
1:C:4796:SER:HB3	1:C:4803:ASP:HB2	2.01	0.43
1:D:904:TYR:O	1:D:914:GLN:HB3	2.18	0.43
1:D:1970:GLN:O	1:D:1974:ASN:ND2	2.51	0.43
1:D:2556:SER:HB3	1:D:2569:ILE:HG21	2.01	0.43
1:A:473:GLU:HG2	1:A:3676:LEU:HD13	1.99	0.43
1:A:904:TYR:O	1:A:914:GLN:HB3	2.17	0.43
1:A:1176:THR:HG22	1:A:1181:ILE:HG13	2.00	0.43
1:A:2679:ASP:HA	1:A:2920:ARG:HG3	2.00	0.43
1:A:2720:PHE:CE1	1:A:2895:PHE:HD2	2.37	0.43
1:A:2827:ASP:H	1:B:1501:ASN:CB	2.32	0.43
1:A:3614:HIS:CD2	1:A:3615:ARG:HG2	2.54	0.43
1:B:473:GLU:HG2	1:B:3676:LEU:HD13	1.99	0.43
1:B:521:GLU:HG2	1:B:522:ALA:N	2.33	0.43
1:B:766:ILE:HB	1:B:779:PHE:HB2	2.00	0.43
1:B:2241:ASP:OD2	1:B:2297:ARG:NH2	2.48	0.43
1:B:3700:HIS:HB2	1:B:3702:GLU:HG2	1.99	0.43
1:B:3763:ILE:HD11	1:B:3838:ASP:O	2.19	0.43
1:C:245:LEU:HD12	1:C:245:LEU:HA	1.89	0.43
1:C:336:GLU:OE2	1:C:338:LEU:HB2	2.18	0.43
1:C:988:LEU:CD1	1:C:1055:ARG:HG2	2.48	0.43
1:C:2465:LYS:NZ	1:C:2495:ASP:OD2	2.51	0.43
1:D:237:LEU:HD13	1:D:241:MET:SD	2.59	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:473:GLU:HG2	1:D:3676:LEU:HD13	1.99	0.43
1:D:877:HIS:O	1:D:881:ILE:HG12	2.19	0.43
1:D:2744:GLY:HA2	1:D:2753:VAL:HG12	1.99	0.43
1:D:2837:LEU:O	1:D:2840:MET:HB2	2.18	0.43
1:D:4052:MET:HE1	1:D:4063:THR:HA	2.00	0.43
1:A:336:GLU:OE2	1:A:338:LEU:HB2	2.18	0.43
1:A:877:HIS:O	1:A:881:ILE:HG12	2.19	0.43
1:A:1266:GLU:HB3	1:A:1267:HIS:CD2	2.54	0.43
1:A:2789:ILE:HD11	1:A:2896:LEU:HD22	1.99	0.43
1:A:2874:TYR:CZ	1:A:2882:LYS:HD2	2.54	0.43
1:B:227:TYR:CG	1:B:352:SER:HB2	2.54	0.43
1:B:872:ILE:HD11	1:B:941:LYS:HB3	2.00	0.43
1:B:892:LEU:HA	1:B:895:MET:HG2	2.00	0.43
1:B:2556:SER:HB3	1:B:2569:ILE:HG21	2.01	0.43
1:B:4049:HIS:ND1	1:B:4067:LEU:HD11	2.34	0.43
1:B:4590:TYR:OH	1:B:4718:SER:HB2	2.18	0.43
1:C:521:GLU:HG2	1:C:522:ALA:N	2.33	0.43
1:C:2453:GLU:OE2	1:C:2511:ASP:N	2.40	0.43
1:C:2763:LEU:HD23	1:C:2767:GLU:OE1	2.18	0.43
1:C:4049:HIS:ND1	1:C:4067:LEU:HD11	2.34	0.43
1:D:336:GLU:OE2	1:D:338:LEU:HB2	2.18	0.43
1:D:375:GLN:N	1:D:390:LYS:O	2.44	0.43
1:D:907:VAL:CA	1:D:916:PRO:HG3	2.48	0.43
1:D:954:ASP:HB3	1:D:957:ALA:H	1.84	0.43
1:D:1266:GLU:HB3	1:D:1267:HIS:CD2	2.54	0.43
1:D:2254:ALA:HA	1:D:2257:LEU:HD12	2.01	0.43
1:D:2763:LEU:HD23	1:D:2767:GLU:OE1	2.18	0.43
1:A:2763:LEU:HD23	1:A:2767:GLU:OE1	2.18	0.43
1:A:4294:LEU:HD12	1:B:4714:PHE:CD1	2.54	0.43
1:A:4590:TYR:OH	1:A:4718:SER:HB2	2.18	0.43
1:A:4796:SER:HB3	1:A:4803:ASP:HB2	2.01	0.43
2:H:8:ILE:HA	1:D:730:LEU:HD11	2.01	0.43
1:B:1970:GLN:O	1:B:1974:ASN:ND2	2.51	0.43
1:C:954:ASP:HB3	1:C:957:ALA:H	1.84	0.43
1:C:1266:GLU:HB3	1:C:1267:HIS:CD2	2.54	0.43
1:C:2585:MET:O	1:C:2589:LEU:HD23	2.18	0.43
1:C:2798:MET:HE1	1:D:1497:GLY:H	1.83	0.43
1:C:3811:GLN:HE22	1:C:3826:GLY:C	2.27	0.43
1:C:4507:LEU:HG	1:C:4511:PHE:HE2	1.84	0.43
1:D:766:ILE:HB	1:D:779:PHE:HB2	2.00	0.43
1:D:897:LYS:O	1:D:902:TRP:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1176:THR:HG22	1:D:1181:ILE:HG13	2.00	0.43
1:D:1433:PHE:CZ	1:D:1554:GLN:HB2	2.54	0.43
1:D:3614:HIS:CD2	1:D:3615:ARG:HG2	2.54	0.43
1:A:1433:PHE:CZ	1:A:1554:GLN:HB2	2.54	0.42
1:A:2737:LEU:HD22	1:A:2823:PRO:HG2	2.01	0.42
1:A:3311:LYS:HD3	1:A:3313:GLN:NE2	2.34	0.42
1:B:877:HIS:O	1:B:881:ILE:HG12	2.19	0.42
1:B:2972:ASP:OD1	1:B:2976:LYS:NZ	2.51	0.42
1:C:2496:LEU:HD23	1:C:2520:LEU:HD13	2.01	0.42
1:C:2556:SER:HB3	1:C:2569:ILE:HG21	2.01	0.42
1:C:2874:TYR:CZ	1:C:2882:LYS:HD2	2.54	0.42
1:C:3649:ALA:O	1:C:3653:GLU:OE1	2.37	0.42
1:D:2634:SER:O	1:D:2635:GLU:HB3	2.19	0.42
1:D:2720:PHE:CE1	1:D:2895:PHE:HD2	2.37	0.42
1:D:2968:LEU:HB2	1:D:2969:PRO:HD3	2.01	0.42
1:A:513:HIS:O	1:A:517:VAL:HG23	2.19	0.42
1:A:2556:SER:HB3	1:A:2569:ILE:HG21	2.01	0.42
1:A:2744:GLY:HA2	1:A:2753:VAL:HG12	1.99	0.42
1:A:3763:ILE:HD11	1:A:3838:ASP:O	2.19	0.42
1:A:4049:HIS:ND1	1:A:4067:LEU:HD11	2.34	0.42
1:B:875:PRO:HA	1:B:876:PRO:HD3	1.97	0.42
1:B:1433:PHE:CZ	1:B:1554:GLN:HB2	2.54	0.42
1:B:2541:HIS:O	1:B:2545:ILE:HG13	2.18	0.42
1:B:2585:MET:O	1:B:2589:LEU:HD23	2.18	0.42
1:B:2679:ASP:HA	1:B:2920:ARG:HG3	2.00	0.42
1:B:2878:THR:O	1:B:2882:LYS:HG3	2.18	0.42
1:B:2936:ALA:O	1:B:2940:ILE:HD12	2.19	0.42
1:B:3311:LYS:HD3	1:B:3313:GLN:NE2	2.34	0.42
1:B:3649:ALA:O	1:B:3653:GLU:OE1	2.37	0.42
1:C:907:VAL:CA	1:C:916:PRO:HG3	2.48	0.42
1:C:4197:ILE:HG12	1:C:4923:MET:HE3	2.01	0.42
1:C:4283:PHE:HE1	1:C:4287:TYR:HE2	1.67	0.42
1:D:521:GLU:HG2	1:D:522:ALA:N	2.33	0.42
1:A:713:TRP:CH2	1:A:1251:LEU:HD21	2.50	0.42
1:A:1139:GLY:HA3	1:A:1156:TRP:CE3	2.54	0.42
1:A:1732:GLU:O	1:A:1736:ILE:HD12	2.20	0.42
1:A:2123:LEU:HD13	1:A:2167:MET:HG2	2.00	0.42
1:A:4197:ILE:HG12	1:A:4923:MET:HE3	2.01	0.42
1:A:4858:LEU:HA	1:A:4861:ILE:HD12	2.02	0.42
2:G:62:GLU:HG2	2:G:62:GLU:H	1.68	0.42
1:B:387:ILE:HG22	1:B:389:ARG:HG3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2826:ILE:HG21	1:B:2895:PHE:CE1	2.54	0.42
1:C:42:PHE:CE2	1:C:418:VAL:HG13	2.54	0.42
1:C:2936:ALA:O	1:C:2940:ILE:HD12	2.20	0.42
1:C:3727:GLN:HG2	1:C:3730:ARG:HH21	1.84	0.42
1:D:513:HIS:O	1:D:517:VAL:HG23	2.19	0.42
1:D:713:TRP:CH2	1:D:1251:LEU:HD21	2.50	0.42
1:D:963:LYS:HD2	1:D:979:ALA:C	2.44	0.42
1:D:1286:THR:HG22	1:D:1551:ASN:HA	2.01	0.42
1:D:1429:SER:HB3	1:D:1556:GLU:HB2	2.01	0.42
1:D:2486:HIS:O	1:D:2490:VAL:HG22	2.20	0.42
1:D:3811:GLN:HE22	1:D:3826:GLY:C	2.26	0.42
1:D:4603:GLU:OE2	1:D:4705:TYR:OH	2.29	0.42
1:A:907:VAL:CA	1:A:916:PRO:HG3	2.48	0.42
1:A:1599:MET:HE3	1:A:1599:MET:HB2	1.91	0.42
1:A:2486:HIS:O	1:A:2490:VAL:HG22	2.20	0.42
1:A:4507:LEU:HG	1:A:4511:PHE:HE2	1.84	0.42
1:A:4569:GLU:HB3	1:A:4570:PRO:HD3	2.02	0.42
1:B:963:LYS:HD2	1:B:979:ALA:C	2.44	0.42
1:B:2496:LEU:HD23	1:B:2520:LEU:HD13	2.01	0.42
1:B:2797:SER:O	1:B:2800:LEU:HB2	2.20	0.42
1:B:4283:PHE:HE1	1:B:4287:TYR:HE2	1.67	0.42
1:C:2541:HIS:O	1:C:2545:ILE:HG13	2.18	0.42
1:C:3112:ILE:HG23	1:C:3117:PHE:HB2	2.01	0.42
1:D:42:PHE:CE2	1:D:418:VAL:HG13	2.54	0.42
1:D:885:LEU:HD13	1:D:1057:LEU:HD23	2.02	0.42
1:D:2744:GLY:HA3	1:D:2755:PRO:HA	2.02	0.42
1:D:2797:SER:O	1:D:2800:LEU:HB2	2.20	0.42
1:D:2878:THR:O	1:D:2882:LYS:HG3	2.18	0.42
1:D:2936:ALA:O	1:D:2940:ILE:HD12	2.20	0.42
1:A:227:TYR:CG	1:A:352:SER:HB2	2.53	0.42
1:A:237:LEU:HD13	1:A:241:MET:SD	2.59	0.42
1:A:897:LYS:O	1:A:902:TRP:HB2	2.19	0.42
1:B:988:LEU:CD1	1:B:1055:ARG:HG2	2.48	0.42
1:B:2549:LEU:HD13	1:B:2588:LEU:HD22	2.02	0.42
1:B:2634:SER:O	1:B:2635:GLU:HB3	2.19	0.42
1:B:2737:LEU:HD22	1:B:2823:PRO:HG2	2.02	0.42
1:B:3112:ILE:HG23	1:B:3117:PHE:HB2	2.01	0.42
1:B:4021:LEU:HD22	1:B:4128:TYR:CE2	2.55	0.42
1:B:4507:LEU:HG	1:B:4511:PHE:HE2	1.84	0.42
1:C:237:LEU:HD13	1:C:241:MET:SD	2.59	0.42
1:C:1286:THR:HG22	1:C:1551:ASN:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2737:LEU:HD22	1:C:2823:PRO:HG2	2.02	0.42
1:C:4021:LEU:HD22	1:C:4128:TYR:CE2	2.55	0.42
1:C:4502:MET:HE1	1:C:4585:PHE:HD2	1.85	0.42
1:C:4874:ARG:NH2	1:D:4875:ASP:OD2	2.53	0.42
1:D:31:GLU:CD	1:D:33:GLN:HE22	2.28	0.42
1:D:2123:LEU:HD13	1:D:2167:MET:HG2	2.00	0.42
1:D:2764:SER:O	1:D:2768:LYS:HG3	2.20	0.42
1:D:3727:GLN:HG2	1:D:3730:ARG:HH21	1.84	0.42
1:A:59:PRO:HB3	1:A:296:ARG:HH11	1.85	0.42
1:A:2968:LEU:HB2	1:A:2969:PRO:HD3	2.01	0.42
1:A:3727:GLN:HG2	1:A:3730:ARG:HH21	1.84	0.42
1:A:4110:PRO:HG3	1:A:4966:LEU:HD23	2.01	0.42
1:A:4248:LEU:HG	1:A:4297:PHE:CE1	2.55	0.42
1:B:336:GLU:OE2	1:B:338:LEU:HB2	2.18	0.42
1:B:394:HIS:CE1	1:B:396:GLU:CD	2.98	0.42
1:B:2254:ALA:HA	1:B:2257:LEU:HD12	2.01	0.42
1:B:2744:GLY:HA3	1:B:2755:PRO:HA	2.02	0.42
1:B:3614:HIS:CD2	1:B:3615:ARG:HG2	2.54	0.42
1:B:4270:LYS:HA	1:B:4270:LYS:HD3	1.85	0.42
1:C:56:LYS:HA	1:C:324:VAL:HG23	2.00	0.42
1:C:59:PRO:HB3	1:C:296:ARG:HH11	1.85	0.42
1:C:419:ILE:HG21	1:C:492:GLU:HG3	2.01	0.42
1:C:624:ALA:HB2	1:C:1667:LEU:HD12	2.01	0.42
1:C:1139:GLY:HA3	1:C:1156:TRP:CE3	2.54	0.42
1:C:1234:GLU:OE1	1:C:1234:GLU:N	2.50	0.42
1:C:1433:PHE:CZ	1:C:1554:GLN:HB2	2.54	0.42
1:D:1139:GLY:HA3	1:D:1156:TRP:CE3	2.54	0.42
1:D:2737:LEU:HD22	1:D:2823:PRO:HG2	2.02	0.42
1:D:2788:ARG:HH12	1:D:2908:LYS:NZ	2.16	0.42
1:D:3311:LYS:HD3	1:D:3313:GLN:NE2	2.34	0.42
1:D:4021:LEU:HD22	1:D:4128:TYR:CE2	2.55	0.42
1:D:4480:PHE:N	1:D:4483:LYS:HZ3	2.17	0.42
1:D:4480:PHE:O	1:D:4484:ILE:HG23	2.20	0.42
1:A:1074:ARG:HG3	1:A:1076:GLU:H	1.85	0.42
1:A:2254:ALA:HA	1:A:2257:LEU:HD12	2.01	0.42
1:A:2797:SER:O	1:A:2800:LEU:HB2	2.20	0.42
1:B:513:HIS:O	1:B:517:VAL:HG23	2.19	0.42
1:B:1286:THR:HG22	1:B:1551:ASN:HA	2.01	0.42
1:B:1968:PRO:O	1:B:1972:GLN:HG3	2.19	0.42
1:B:3312:PRO:HA	1:B:3315:LEU:HB3	2.02	0.42
1:C:31:GLU:CD	1:C:33:GLN:HE22	2.28	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:3739:MET:HE3	1:D:3739:MET:HB3	1.72	0.42
1:D:3780:TYR:HE1	1:D:3784:LYS:HZ2	1.67	0.42
1:D:4049:HIS:ND1	1:D:4067:LEU:HD11	2.34	0.42
1:D:4569:GLU:HB3	1:D:4570:PRO:HD3	2.02	0.42
1:D:4796:SER:HB3	1:D:4803:ASP:HB2	2.01	0.42
1:A:954:ASP:HB3	1:A:957:ALA:H	1.84	0.42
1:A:1286:THR:HG22	1:A:1551:ASN:HA	2.02	0.42
1:A:2943:PHE:O	1:A:2947:SER:OG	2.19	0.42
1:B:42:PHE:CE2	1:B:418:VAL:HG13	2.54	0.42
1:B:907:VAL:CA	1:B:916:PRO:HG3	2.48	0.42
1:B:1139:GLY:HA3	1:B:1156:TRP:CE3	2.54	0.42
1:B:2486:HIS:O	1:B:2490:VAL:HG22	2.20	0.42
1:B:4569:GLU:HB3	1:B:4570:PRO:HD3	2.02	0.42
1:C:394:HIS:CE1	1:C:396:GLU:CD	2.98	0.42
1:C:1429:SER:HB3	1:C:1556:GLU:HB2	2.01	0.42
1:C:2655:LYS:HG3	1:C:2656:LYS:O	2.20	0.42
1:C:3311:LYS:HD3	1:C:3313:GLN:NE2	2.34	0.42
1:C:4480:PHE:O	1:C:4484:ILE:HG23	2.20	0.42
1:D:4001:ASP:OD1	1:D:4114:ARG:NH2	2.52	0.42
1:D:4248:LEU:HG	1:D:4297:PHE:CE1	2.55	0.42
1:A:31:GLU:CD	1:A:33:GLN:HE22	2.28	0.42
1:A:59:PRO:HD2	1:A:319:LYS:O	2.20	0.42
1:A:2764:SER:O	1:A:2768:LYS:HG3	2.20	0.42
1:A:4283:PHE:HE1	1:A:4287:TYR:HE2	1.67	0.42
1:B:59:PRO:HB3	1:B:296:ARG:HH11	1.85	0.42
1:B:675:TYR:CE1	1:B:790:PRO:HB3	2.55	0.42
1:B:927:GLN:HG2	1:B:928:GLU:N	2.35	0.42
1:B:1074:ARG:HG3	1:B:1076:GLU:H	1.85	0.42
1:B:2764:SER:O	1:B:2768:LYS:HG3	2.20	0.42
1:B:4502:MET:HE1	1:B:4585:PHE:HD2	1.85	0.42
1:B:4858:LEU:HA	1:B:4861:ILE:HD12	2.02	0.42
1:C:877:HIS:O	1:C:881:ILE:HG12	2.19	0.42
1:C:4110:PRO:HG3	1:C:4966:LEU:HD23	2.01	0.42
1:C:4294:LEU:HD12	1:D:4714:PHE:CD1	2.55	0.42
1:D:1599:MET:HE3	1:D:1599:MET:HB2	1.92	0.42
1:A:42:PHE:CE2	1:A:418:VAL:HG13	2.54	0.42
1:A:2549:LEU:HD13	1:A:2588:LEU:HD22	2.02	0.42
1:A:2744:GLY:HA3	1:A:2755:PRO:HA	2.02	0.42
1:A:3112:ILE:HG23	1:A:3117:PHE:HB2	2.01	0.42
1:A:3739:MET:HE3	1:A:3739:MET:HB3	1.72	0.42
1:A:4502:MET:HE1	1:A:4585:PHE:HD2	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:62:LEU:O	1:B:66:THR:HG23	2.20	0.42
1:B:885:LEU:HD13	1:B:1057:LEU:HD23	2.02	0.42
1:B:897:LYS:O	1:B:902:TRP:HB2	2.19	0.42
1:B:2968:LEU:HB2	1:B:2969:PRO:HD3	2.01	0.42
1:B:3727:GLN:HG2	1:B:3730:ARG:HH21	1.84	0.42
1:C:885:LEU:HD13	1:C:1057:LEU:HD23	2.02	0.42
1:C:964:MET:HE2	1:C:980:PRO:HG2	2.02	0.42
1:C:1009:ARG:HH11	1:C:1013:ARG:NE	2.18	0.42
1:C:1074:ARG:HG3	1:C:1076:GLU:H	1.85	0.42
1:C:2486:HIS:O	1:C:2490:VAL:HG22	2.20	0.42
1:C:2549:LEU:HD13	1:C:2588:LEU:HD22	2.02	0.42
1:C:2791:ARG:NH2	1:C:2901:TYR:OH	2.53	0.42
1:C:3312:PRO:HA	1:C:3315:LEU:HB3	2.02	0.42
1:C:3614:HIS:CD2	1:C:3615:ARG:HG2	2.54	0.42
1:C:4117:THR:HA	1:C:4120:GLU:CD	2.45	0.42
1:D:927:GLN:HG2	1:D:928:GLU:N	2.35	0.42
1:D:1017:THR:O	1:D:1028:ARG:HA	2.20	0.42
1:D:3100:ALA:HB1	1:D:3104:MET:HE2	2.02	0.42
1:D:4507:LEU:HG	1:D:4511:PHE:HE2	1.84	0.42
1:A:270:HIS:NE2	1:A:491:GLU:HG3	2.35	0.41
1:A:963:LYS:HD2	1:A:979:ALA:C	2.44	0.41
1:A:1429:SER:HB3	1:A:1556:GLU:HB2	2.01	0.41
1:A:1497:GLY:H	1:D:2798:MET:HE1	1.85	0.41
1:A:4609:LYS:HD2	1:A:4615:LEU:HD13	2.02	0.41
1:B:4480:PHE:O	1:B:4484:ILE:HG23	2.20	0.41
1:C:2497:ARG:NH2	1:C:2547:SER:OG	2.52	0.41
1:D:675:TYR:CE1	1:D:790:PRO:HB3	2.55	0.41
1:D:964:MET:HE2	1:D:980:PRO:HG2	2.02	0.41
1:D:1074:ARG:HG3	1:D:1076:GLU:H	1.85	0.41
1:D:4502:MET:HE1	1:D:4585:PHE:HD2	1.85	0.41
1:D:4858:LEU:HA	1:D:4861:ILE:HD12	2.02	0.41
1:A:675:TYR:CE1	1:A:790:PRO:HB3	2.55	0.41
1:A:964:MET:HE2	1:A:980:PRO:HG2	2.02	0.41
1:A:2171:VAL:HG21	1:A:2199:PHE:CE1	2.56	0.41
1:A:2453:GLU:OE2	1:A:2511:ASP:N	2.40	0.41
1:A:2496:LEU:HD23	1:A:2520:LEU:HD13	2.01	0.41
1:A:3061:LEU:HD23	1:A:3061:LEU:HA	1.86	0.41
1:A:3100:ALA:HB1	1:A:3104:MET:HE2	2.02	0.41
1:B:31:GLU:CD	1:B:33:GLN:HE22	2.28	0.41
1:B:948:CYS:HA	1:B:1067:PRO:HD3	2.03	0.41
1:B:964:MET:HE2	1:B:980:PRO:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1732:GLU:O	1:B:1736:ILE:HD12	2.20	0.41
1:B:3232:PRO:HA	1:B:3235:MET:SD	2.60	0.41
1:B:4197:ILE:HG12	1:B:4923:MET:HE3	2.01	0.41
1:C:1119:ARG:NH1	1:C:1198:GLY:HA3	2.35	0.41
1:C:2744:GLY:HA3	1:C:2755:PRO:HA	2.02	0.41
1:C:2764:SER:O	1:C:2768:LYS:HG3	2.20	0.41
1:D:267:VAL:HG22	1:D:272:ARG:NH2	2.35	0.41
1:D:1732:GLU:O	1:D:1736:ILE:HD12	2.20	0.41
1:D:4206:ILE:HG22	1:D:4493:ASN:HD22	1.85	0.41
1:D:4283:PHE:HE1	1:D:4287:TYR:HE2	1.67	0.41
1:D:4609:LYS:HD2	1:D:4615:LEU:HD13	2.02	0.41
1:A:76:ARG:CD	1:D:3890:TRP:HB3	2.48	0.41
1:A:1075:ALA:O	1:A:1076:GLU:HG3	2.21	0.41
1:A:1943:ARG:O	1:A:1946:GLU:HG2	2.21	0.41
1:A:2634:SER:O	1:A:2635:GLU:HB3	2.19	0.41
1:A:4021:LEU:HD22	1:A:4128:TYR:CE2	2.55	0.41
1:B:200:SER:O	1:B:202:HIS:HD2	2.04	0.41
1:B:375:GLN:N	1:B:390:LYS:O	2.44	0.41
1:B:1119:ARG:NH1	1:B:1198:GLY:HA3	2.35	0.41
1:B:2773:TRP:HB3	1:B:2774:PRO:HD3	2.02	0.41
1:B:4110:PRO:HG3	1:B:4966:LEU:HD23	2.01	0.41
1:B:4480:PHE:N	1:B:4483:LYS:HZ3	2.18	0.41
1:C:59:PRO:HD2	1:C:319:LYS:O	2.20	0.41
1:C:626:ARG:NH2	1:C:1667:LEU:O	2.46	0.41
1:C:881:ILE:HA	1:C:884:LYS:HG2	2.02	0.41
1:C:2778:SER:OG	1:C:2848:TYR:OH	2.24	0.41
1:C:2797:SER:O	1:C:2800:LEU:HB2	2.20	0.41
1:C:4248:LEU:HG	1:C:4297:PHE:CE1	2.55	0.41
1:D:59:PRO:HD2	1:D:319:LYS:O	2.20	0.41
1:D:881:ILE:HA	1:D:884:LYS:HG2	2.02	0.41
1:D:1943:ARG:O	1:D:1946:GLU:HG2	2.21	0.41
1:D:1960:ARG:H	1:D:1960:ARG:HD3	1.85	0.41
1:D:2655:LYS:HG3	1:D:2656:LYS:O	2.20	0.41
1:D:2684:ASN:HD21	1:D:2919:LYS:HD2	1.85	0.41
1:A:505:LEU:HD23	1:A:505:LEU:HA	1.92	0.41
1:A:885:LEU:HD13	1:A:1057:LEU:HD23	2.02	0.41
1:A:2655:LYS:HG3	1:A:2656:LYS:O	2.20	0.41
1:B:114:LEU:HB2	1:B:117:HIS:ND1	2.36	0.41
1:B:954:ASP:HB3	1:B:957:ALA:H	1.84	0.41
1:B:1075:ALA:O	1:B:1076:GLU:HG3	2.21	0.41
1:C:948:CYS:HA	1:C:1067:PRO:HD3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1017:THR:O	1:C:1028:ARG:HA	2.20	0.41
1:C:2478:ILE:HG21	1:C:2484:LEU:HD13	2.02	0.41
1:C:3219:VAL:HG12	1:C:3279:ASN:HD21	1.86	0.41
1:D:394:HIS:CE1	1:D:396:GLU:CD	2.98	0.41
1:D:1119:ARG:NH1	1:D:1198:GLY:HA3	2.35	0.41
1:D:2496:LEU:HD23	1:D:2520:LEU:HD13	2.01	0.41
1:D:2532:ALA:HA	1:D:2535:PHE:HD2	1.86	0.41
1:D:2549:LEU:HD13	1:D:2588:LEU:HD22	2.02	0.41
1:D:4110:PRO:HG3	1:D:4966:LEU:HD23	2.01	0.41
1:D:4197:ILE:HG12	1:D:4923:MET:HE3	2.01	0.41
1:A:394:HIS:CE1	1:A:396:GLU:CD	2.98	0.41
1:A:1119:ARG:NH1	1:A:1198:GLY:HA3	2.35	0.41
1:A:2754:GLN:HG3	1:A:2756:LEU:H	1.86	0.41
1:A:2988:ARG:N	1:A:2989:PRO:HD2	2.36	0.41
1:B:1009:ARG:HH11	1:B:1013:ARG:NE	2.18	0.41
1:B:3219:VAL:HG12	1:B:3279:ASN:HD21	1.86	0.41
1:C:62:LEU:O	1:C:66:THR:HG23	2.20	0.41
1:C:114:LEU:HB2	1:C:117:HIS:ND1	2.36	0.41
1:C:1079:SER:OG	1:C:1083:GLU:O	2.29	0.41
1:C:1960:ARG:HD3	1:C:1960:ARG:H	1.85	0.41
1:C:2684:ASN:HD21	1:C:2919:LYS:HD2	1.85	0.41
1:C:4569:GLU:HB3	1:C:4570:PRO:HD3	2.02	0.41
1:D:59:PRO:HB3	1:D:296:ARG:HH11	1.85	0.41
1:D:3649:ALA:O	1:D:3653:GLU:OE1	2.37	0.41
1:A:3219:VAL:HG12	1:A:3279:ASN:HD21	1.86	0.41
1:A:3878:LEU:HB2	1:A:3916:VAL:HG11	2.03	0.41
1:A:4283:PHE:CE1	1:A:4287:TYR:HE2	2.39	0.41
1:B:1943:ARG:O	1:B:1946:GLU:HG2	2.21	0.41
1:B:2827:ASP:H	1:C:1501:ASN:CB	2.34	0.41
1:B:3011:LEU:HD23	1:B:3011:LEU:HA	1.83	0.41
1:B:3157:GLU:HG3	1:B:3302:PHE:CZ	2.53	0.41
1:B:3739:MET:HE3	1:B:3739:MET:HB3	1.72	0.41
1:B:4117:THR:HA	1:B:4120:GLU:CD	2.46	0.41
1:B:4609:LYS:HD2	1:B:4615:LEU:HD13	2.02	0.41
1:C:267:VAL:HG22	1:C:272:ARG:NH2	2.35	0.41
1:C:3036:LEU:O	1:C:3040:LEU:HG	2.21	0.41
1:C:3314:LEU:HD23	1:C:3318:HIS:HB2	2.03	0.41
1:C:4001:ASP:OD1	1:C:4114:ARG:NH2	2.52	0.41
1:C:4609:LYS:HD2	1:C:4615:LEU:HD13	2.02	0.41
1:D:2478:ILE:HG21	1:D:2484:LEU:HD13	2.02	0.41
1:D:3036:LEU:O	1:D:3040:LEU:HG	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:267:VAL:HG22	1:A:272:ARG:NH2	2.35	0.41
1:A:515:ALA:HA	1:A:519:GLY:O	2.21	0.41
1:A:1009:ARG:HH11	1:A:1013:ARG:NE	2.18	0.41
1:A:1017:THR:O	1:A:1028:ARG:HA	2.20	0.41
1:A:1988:CYS:HA	1:A:1989:PRO:HD3	1.94	0.41
1:A:2677:PRO:HA	1:A:2678:PRO:HD3	1.99	0.41
1:A:2716:LYS:NZ	1:A:2791:ARG:HB2	2.36	0.41
1:A:2936:ALA:O	1:A:2940:ILE:HD12	2.20	0.41
1:A:3649:ALA:O	1:A:3653:GLU:OE1	2.37	0.41
1:A:4480:PHE:O	1:A:4484:ILE:HG23	2.20	0.41
1:B:267:VAL:HG22	1:B:272:ARG:NH2	2.35	0.41
1:B:983:LEU:HD13	1:B:986:ILE:HD13	2.02	0.41
1:B:2655:LYS:HG3	1:B:2656:LYS:O	2.20	0.41
1:B:2791:ARG:NH2	1:B:2901:TYR:OH	2.53	0.41
1:B:3036:LEU:O	1:B:3040:LEU:HG	2.21	0.41
1:B:4056:LYS:HE2	1:C:4660:PHE:CE2	2.56	0.41
1:C:375:GLN:N	1:C:390:LYS:O	2.44	0.41
1:C:1889:PRO:HB2	1:C:1890:LYS:H	1.64	0.41
1:C:1975:MET:HE3	1:C:1975:MET:HB2	1.96	0.41
1:C:3878:LEU:HB2	1:C:3916:VAL:HG11	2.03	0.41
1:D:1220:ASP:O	1:D:1223:THR:OG1	2.34	0.41
1:D:1719:LEU:HD23	1:D:1719:LEU:HA	1.86	0.41
1:A:2532:ALA:HA	1:A:2535:PHE:HD2	1.86	0.41
1:A:2591:ARG:NH1	1:A:2694:SER:OG	2.54	0.41
2:G:26:HIS:NE2	2:G:105:LEU:HD11	2.36	0.41
1:B:1608:VAL:HA	1:B:1618:LEU:O	2.21	0.41
1:B:2171:VAL:HG21	1:B:2199:PHE:CE1	2.56	0.41
1:B:3100:ALA:HB1	1:B:3104:MET:HE2	2.02	0.41
1:B:4248:LEU:HG	1:B:4297:PHE:CE1	2.55	0.41
1:C:675:TYR:CE1	1:C:790:PRO:HB3	2.55	0.41
1:C:1732:GLU:O	1:C:1736:ILE:HD12	2.20	0.41
1:C:2972:ASP:OD1	1:C:2976:LYS:NZ	2.51	0.41
1:C:4206:ILE:HG22	1:C:4493:ASN:HD22	1.85	0.41
1:C:4858:LEU:HA	1:C:4861:ILE:HD12	2.02	0.41
1:D:1009:ARG:HH11	1:D:1013:ARG:NE	2.18	0.41
1:D:3219:VAL:HG12	1:D:3279:ASN:HD21	1.86	0.41
1:D:3269:ASN:HB3	1:D:3271:GLU:HG3	2.03	0.41
1:D:3878:LEU:HB2	1:D:3916:VAL:HG11	2.03	0.41
1:A:952:ILE:HB	1:A:1062:TYR:CE2	2.56	0.41
1:A:983:LEU:HD13	1:A:986:ILE:HD13	2.02	0.41
1:A:1967:SER:OG	1:A:1971:GLU:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2478:ILE:HG21	1:A:2484:LEU:HD13	2.02	0.41
1:A:2773:TRP:HB3	1:A:2774:PRO:HD3	2.02	0.41
1:A:4155:SER:O	1:A:4159:GLN:HG2	2.21	0.41
1:A:4206:ILE:HG22	1:A:4493:ASN:HD22	1.85	0.41
2:H:26:HIS:NE2	2:H:105:LEU:HD11	2.36	0.41
1:B:59:PRO:HD2	1:B:319:LYS:O	2.20	0.41
1:B:270:HIS:NE2	1:B:491:GLU:HG3	2.35	0.41
1:B:515:ALA:HA	1:B:519:GLY:O	2.21	0.41
1:B:624:ALA:HB2	1:B:1667:LEU:HD12	2.02	0.41
1:B:881:ILE:HA	1:B:884:LYS:HG2	2.02	0.41
1:B:952:ILE:HB	1:B:1062:TYR:CE2	2.56	0.41
1:B:1429:SER:HB3	1:B:1556:GLU:HB2	2.01	0.41
1:B:1719:LEU:HD23	1:B:1719:LEU:HA	1.87	0.41
1:B:1988:CYS:HA	1:B:1989:PRO:HD3	1.94	0.41
1:B:4283:PHE:CE1	1:B:4287:TYR:HE2	2.39	0.41
1:C:156:GLU:HB2	1:C:186:VAL:HG12	2.03	0.41
1:C:713:TRP:CH2	1:C:1251:LEU:HD21	2.50	0.41
1:C:1552:VAL:HG12	1:C:1553:PHE:HD1	1.86	0.41
1:C:1943:ARG:O	1:C:1946:GLU:HG2	2.21	0.41
1:C:2312:SER:OG	1:C:2401:ARG:O	2.24	0.41
1:C:2590:ARG:NH2	1:C:2875:ASP:OD2	2.54	0.41
1:C:3232:PRO:HA	1:C:3235:MET:SD	2.60	0.41
1:C:3269:ASN:HB3	1:C:3271:GLU:HG3	2.03	0.41
1:C:3780:TYR:HE1	1:C:3784:LYS:HZ2	1.69	0.41
1:C:4155:SER:O	1:C:4159:GLN:HG2	2.21	0.41
1:C:4827:ILE:O	1:C:4831:ILE:HG12	2.21	0.41
1:D:624:ALA:HB2	1:D:1667:LEU:HD12	2.01	0.41
1:D:952:ILE:HB	1:D:1062:TYR:CE2	2.56	0.41
1:D:968:LYS:HA	1:D:968:LYS:HD2	1.88	0.41
1:D:1608:VAL:HA	1:D:1618:LEU:O	2.21	0.41
1:D:2590:ARG:NH2	1:D:2875:ASP:OD2	2.54	0.41
1:D:2716:LYS:NZ	1:D:2791:ARG:HB2	2.36	0.41
1:D:3232:PRO:HA	1:D:3235:MET:SD	2.60	0.41
1:A:42:PHE:HZ	1:A:459:LEU:HG	1.86	0.41
1:A:62:LEU:O	1:A:66:THR:HG23	2.20	0.41
1:A:1608:VAL:HA	1:A:1618:LEU:O	2.21	0.41
1:A:1898:LEU:HD22	1:A:1902:VAL:HG11	2.03	0.41
1:A:3036:LEU:O	1:A:3040:LEU:HG	2.21	0.41
1:A:3217:GLU:O	1:A:3221:LEU:HG	2.21	0.41
1:A:3232:PRO:HA	1:A:3235:MET:SD	2.60	0.41
1:A:3661:VAL:HB	1:A:3665:HIS:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:572:LEU:HD12	1:B:572:LEU:HA	1.95	0.41
1:B:2590:ARG:NH2	1:B:2875:ASP:OD2	2.54	0.41
1:B:3046:MET:HE2	1:B:3054:LYS:HG2	2.03	0.41
1:B:3840:PHE:CE1	1:B:3874:THR:HG23	2.56	0.41
1:B:4073:ASP:HB3	1:B:4077:THR:H	1.86	0.41
1:C:200:SER:O	1:C:202:HIS:HD2	2.04	0.41
1:C:765:SER:HA	1:C:779:PHE:O	2.21	0.41
1:C:872:ILE:HD12	1:C:944:LEU:HD11	2.03	0.41
1:C:952:ILE:HB	1:C:1062:TYR:CE2	2.56	0.41
1:D:864:PRO:HB2	1:D:1009:ARG:HB2	2.03	0.41
1:D:872:ILE:HD12	1:D:944:LEU:HD11	2.03	0.41
1:D:2171:VAL:HG21	1:D:2199:PHE:CE1	2.56	0.41
1:D:2773:TRP:HB3	1:D:2774:PRO:HD3	2.02	0.41
1:D:3661:VAL:HB	1:D:3665:HIS:HB3	2.02	0.41
1:D:4639:SER:HB2	1:D:4642:ASN:HD21	1.86	0.41
1:A:624:ALA:HB2	1:A:1667:LEU:HD12	2.02	0.40
1:A:864:PRO:HB2	1:A:1009:ARG:HB2	2.03	0.40
1:A:2142:MET:HE2	1:A:2142:MET:HB3	1.92	0.40
1:A:2465:LYS:NZ	1:A:2495:ASP:OD2	2.51	0.40
1:A:3046:MET:HE2	1:A:3054:LYS:HG2	2.03	0.40
1:B:191:TYR:N	1:B:206:ALA:O	2.51	0.40
1:B:3037:GLY:HA2	1:B:3040:LEU:HG	2.03	0.40
1:B:4827:ILE:O	1:B:4831:ILE:HG12	2.21	0.40
1:C:45:ARG:NE	1:C:128:MET:HE1	2.36	0.40
1:C:1649:GLU:HG2	1:C:1650:LEU:N	2.37	0.40
1:C:2488:LEU:HD11	1:C:2548:LEU:HD13	2.03	0.40
1:C:2830:ASN:HB2	1:D:1435:GLY:HA3	2.03	0.40
1:C:2988:ARG:N	1:C:2989:PRO:HD2	2.36	0.40
1:C:3217:GLU:O	1:C:3221:LEU:HG	2.21	0.40
1:C:3271:GLU:HA	1:C:3274:ASN:HD21	1.86	0.40
1:D:45:ARG:NE	1:D:128:MET:HE1	2.36	0.40
1:D:191:TYR:N	1:D:206:ALA:O	2.51	0.40
1:D:2149:ILE:HD13	1:D:2167:MET:HE3	2.04	0.40
1:D:3037:GLY:HA2	1:D:3040:LEU:HG	2.03	0.40
1:D:3327:LYS:NZ	1:D:3328:LYS:HE3	2.35	0.40
1:D:3986:LEU:O	1:D:3989:ASN:HB2	2.22	0.40
1:D:4117:THR:HA	1:D:4120:GLU:CD	2.46	0.40
1:D:4283:PHE:CE1	1:D:4287:TYR:HE2	2.39	0.40
1:A:114:LEU:HB2	1:A:117:HIS:ND1	2.36	0.40
1:A:375:GLN:N	1:A:390:LYS:O	2.44	0.40
1:A:765:SER:HA	1:A:779:PHE:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:881:ILE:HA	1:A:884:LYS:HG2	2.02	0.40
1:A:1435:GLY:HA3	1:D:2830:ASN:HB2	2.02	0.40
1:A:1787:LEU:HD12	1:A:1787:LEU:HA	1.92	0.40
1:A:2581:ARG:HG2	1:A:2630:PHE:HE1	1.87	0.40
1:B:872:ILE:HD12	1:B:944:LEU:HD11	2.03	0.40
1:B:992:GLN:NE2	1:B:1064:LEU:O	2.39	0.40
1:B:1299:ILE:O	1:B:1300:MET:HE2	2.21	0.40
1:B:1967:SER:OG	1:B:1971:GLU:HB3	2.21	0.40
1:B:2488:LEU:HD11	1:B:2548:LEU:HD13	2.03	0.40
1:B:2754:GLN:HG3	1:B:2756:LEU:H	1.86	0.40
1:B:2828:MET:HE1	1:B:2891:ASP:O	2.22	0.40
1:B:4294:LEU:HD12	1:C:4714:PHE:CD1	2.56	0.40
1:B:4639:SER:HB2	1:B:4642:ASN:HD21	1.87	0.40
1:C:42:PHE:HZ	1:C:459:LEU:HG	1.86	0.40
1:C:2171:VAL:HG21	1:C:2199:PHE:CE1	2.56	0.40
1:C:2716:LYS:NZ	1:C:2791:ARG:HB2	2.36	0.40
1:C:3000:GLU:O	1:C:3004:VAL:HG23	2.22	0.40
1:C:3037:GLY:HA2	1:C:3040:LEU:HG	2.03	0.40
1:C:3986:LEU:O	1:C:3989:ASN:HB2	2.22	0.40
1:C:4639:SER:HB2	1:C:4642:ASN:HD21	1.86	0.40
1:D:156:GLU:HB2	1:D:186:VAL:HG12	2.03	0.40
1:D:2988:ARG:N	1:D:2989:PRO:HD2	2.36	0.40
1:D:3312:PRO:HA	1:D:3315:LEU:HB3	2.02	0.40
1:D:4045:LYS:N	1:D:4076:GLU:O	2.46	0.40
1:D:4155:SER:O	1:D:4159:GLN:HG2	2.21	0.40
1:A:1039:ASP:OD1	1:A:1042:THR:OG1	2.33	0.40
1:A:1100:ARG:HG2	1:A:1167:ASP:CG	2.46	0.40
1:A:1960:ARG:HD3	1:A:1960:ARG:H	1.85	0.40
1:A:2488:LEU:HD11	1:A:2548:LEU:HD13	2.03	0.40
1:A:2497:ARG:NH2	1:A:2547:SER:OG	2.52	0.40
1:A:3202:GLU:CD	1:A:3202:GLU:N	2.75	0.40
1:A:3312:PRO:HA	1:A:3315:LEU:HB3	2.02	0.40
1:A:3327:LYS:NZ	1:A:3328:LYS:HE3	2.36	0.40
1:B:42:PHE:HZ	1:B:459:LEU:HG	1.86	0.40
1:B:1719:LEU:HD21	1:B:1830:ILE:HD12	2.04	0.40
1:B:2478:ILE:HG21	1:B:2484:LEU:HD13	2.02	0.40
1:B:2591:ARG:NH1	1:B:2694:SER:OG	2.54	0.40
1:B:3061:LEU:HD23	1:B:3061:LEU:HA	1.86	0.40
1:B:3327:LYS:NZ	1:B:3328:LYS:HE3	2.36	0.40
1:B:4001:ASP:OD1	1:B:4114:ARG:NH2	2.52	0.40
1:C:58:VAL:HG22	1:C:320:GLU:HA	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1446:ILE:HG12	1:C:1542:ALA:HB2	2.04	0.40
1:C:2532:ALA:HA	1:C:2535:PHE:HD2	1.86	0.40
1:C:3327:LYS:NZ	1:C:3328:LYS:HE3	2.35	0.40
1:C:3661:VAL:HB	1:C:3665:HIS:HB3	2.03	0.40
1:C:3840:PHE:CE1	1:C:3874:THR:HG23	2.56	0.40
1:D:765:SER:HA	1:D:779:PHE:O	2.21	0.40
1:D:871:GLN:NE2	1:D:872:ILE:HG23	2.37	0.40
1:D:3271:GLU:HA	1:D:3274:ASN:HD21	1.86	0.40
1:A:200:SER:O	1:A:202:HIS:HD2	2.04	0.40
1:A:927:GLN:HG2	1:A:928:GLU:N	2.35	0.40
1:A:948:CYS:HA	1:A:1067:PRO:HD3	2.03	0.40
1:A:4827:ILE:O	1:A:4831:ILE:HG12	2.21	0.40
2:E:26:HIS:NE2	2:E:105:LEU:HD11	2.36	0.40
1:B:2532:ALA:HA	1:B:2535:PHE:HD2	1.86	0.40
1:B:3271:GLU:HA	1:B:3274:ASN:HD21	1.87	0.40
1:B:3314:LEU:HD23	1:B:3318:HIS:HB2	2.03	0.40
1:B:4206:ILE:HG22	1:B:4493:ASN:HD22	1.85	0.40
1:B:4781:TYR:HD1	1:B:4846:PHE:CE2	2.40	0.40
1:C:675:TYR:CZ	1:C:790:PRO:HB3	2.57	0.40
1:C:983:LEU:HD13	1:C:986:ILE:HD13	2.02	0.40
1:C:1898:LEU:HD22	1:C:1902:VAL:HG11	2.03	0.40
1:C:3100:ALA:HB1	1:C:3104:MET:HE2	2.02	0.40
1:C:3285:TYR:HA	1:C:3288:LEU:HG	2.03	0.40
1:C:4781:TYR:HD1	1:C:4846:PHE:CE2	2.40	0.40
1:D:62:LEU:O	1:D:66:THR:HG23	2.20	0.40
1:D:611:LEU:HD22	1:D:1660:LEU:HD22	2.04	0.40
1:D:948:CYS:HA	1:D:1067:PRO:HD3	2.03	0.40
1:D:983:LEU:HD13	1:D:986:ILE:HD13	2.02	0.40
1:D:2453:GLU:OE2	1:D:2511:ASP:N	2.40	0.40
1:D:2488:LEU:HD11	1:D:2548:LEU:HD13	2.03	0.40
1:A:45:ARG:NE	1:A:128:MET:HE1	2.36	0.40
1:A:871:GLN:NE2	1:A:872:ILE:HG23	2.37	0.40
1:A:1768:PHE:O	2:E:83:TYR:OH	2.18	0.40
1:A:2684:ASN:HD21	1:A:2919:LYS:HD2	1.85	0.40
1:A:2758:LYS:HD3	1:A:2762:LEU:HB3	2.04	0.40
1:A:2791:ARG:NH2	1:A:2901:TYR:OH	2.53	0.40
1:A:2826:ILE:HG21	1:A:2895:PHE:CE1	2.54	0.40
1:A:3037:GLY:HA2	1:A:3040:LEU:HG	2.03	0.40
1:A:3271:GLU:HA	1:A:3274:ASN:HD21	1.86	0.40
1:A:3736:ALA:O	1:A:3740:VAL:HG13	2.22	0.40
1:A:4117:THR:HA	1:A:4120:GLU:CD	2.46	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:26:HIS:NE2	2:F:105:LEU:HD11	2.36	0.40
1:B:758:CYS:HB3	1:B:819:TYR:CE2	2.57	0.40
1:B:1017:THR:O	1:B:1028:ARG:HA	2.20	0.40
1:B:1100:ARG:HG2	1:B:1167:ASP:CG	2.46	0.40
1:B:4160:TRP:N	1:B:4200:MET:HE3	2.37	0.40
1:C:270:HIS:NE2	1:C:491:GLU:HG3	2.36	0.40
1:C:1100:ARG:HG2	1:C:1167:ASP:CG	2.46	0.40
1:C:1125:ASP:OD1	1:C:1594:VAL:HG12	2.22	0.40
1:C:2077:ASP:O	1:C:2081:VAL:HG23	2.22	0.40
1:C:2634:SER:C	1:C:2636:GLU:H	2.30	0.40
1:C:2773:TRP:HB3	1:C:2774:PRO:HD3	2.02	0.40
1:C:2828:MET:HE1	1:C:2891:ASP:O	2.22	0.40
1:C:4073:ASP:HB3	1:C:4077:THR:H	1.86	0.40
1:D:114:LEU:HB2	1:D:117:HIS:ND1	2.36	0.40
1:D:270:HIS:NE2	1:D:491:GLU:HG3	2.35	0.40
1:D:675:TYR:CZ	1:D:790:PRO:HB3	2.57	0.40
1:D:892:LEU:HD13	1:D:895:MET:SD	2.62	0.40
1:D:1446:ILE:HG12	1:D:1542:ALA:HB2	2.04	0.40
1:D:2265:VAL:HG21	1:D:2301:PHE:CE2	2.57	0.40
1:D:2563:LYS:HE2	1:D:2563:LYS:HB2	1.91	0.40
1:D:2826:ILE:HG21	1:D:2895:PHE:CE1	2.54	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%)	4102 (98%)	96 (2%)	0	100	100
1	B	4198/4967 (84%)	4102 (98%)	96 (2%)	0	100	100
1	C	4198/4967 (84%)	4101 (98%)	97 (2%)	0	100	100
1	D	4198/4967 (84%)	4103 (98%)	95 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	E	105/108 (97%)	102 (97%)	2 (2%)	1 (1%)	12	26
2	F	105/108 (97%)	102 (97%)	2 (2%)	1 (1%)	12	26
2	G	105/108 (97%)	102 (97%)	2 (2%)	1 (1%)	12	26
2	H	105/108 (97%)	102 (97%)	2 (2%)	1 (1%)	12	26
All	All	17212/20300 (85%)	16816 (98%)	392 (2%)	4 (0%)	100	100

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	F	61	GLU
2	H	61	GLU
2	E	61	GLU
2	G	61	GLU

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3708/4358 (85%)	3705 (100%)	3 (0%)	88	96
1	B	3708/4358 (85%)	3705 (100%)	3 (0%)	88	96
1	C	3708/4358 (85%)	3705 (100%)	3 (0%)	88	96
1	D	3708/4358 (85%)	3705 (100%)	3 (0%)	88	96
2	E	88/89 (99%)	87 (99%)	1 (1%)	65	83
2	F	88/89 (99%)	87 (99%)	1 (1%)	65	83
2	G	88/89 (99%)	87 (99%)	1 (1%)	65	83
2	H	88/89 (99%)	87 (99%)	1 (1%)	65	83
All	All	15184/17788 (85%)	15168 (100%)	16 (0%)	87	96

All (16) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	1064	LEU
1	A	3202	GLU
1	A	3739	MET
2	E	62	GLU
2	F	62	GLU
2	G	62	GLU
2	H	62	GLU
1	B	1064	LEU
1	B	3202	GLU
1	B	3739	MET
1	C	1064	LEU
1	C	3202	GLU
1	C	3739	MET
1	D	1064	LEU
1	D	3202	GLU
1	D	3739	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (166) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	33	GLN
1	A	79	GLN
1	A	198	ASN
1	A	209	GLN
1	A	604	HIS
1	A	836	HIS
1	A	934	GLN
1	A	971	GLN
1	A	1046	ASN
1	A	1151	HIS
1	A	1244	ASN
1	A	1501	ASN
1	A	1670	HIS
1	A	1722	ASN
1	A	1949	GLN
1	A	1970	GLN
1	A	2059	GLN
1	A	2125	GLN
1	A	2251	ASN
1	A	2309	ASN
1	A	2973	GLN
1	A	3017	HIS
1	A	3115	HIS

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Mol	Chain	Res	Type
1	A	3178	HIS
1	A	3185	ASN
1	A	3274	ASN
1	A	3304	GLN
1	A	3727	GLN
1	A	3767	ASN
1	A	3770	ASN
1	A	3775	GLN
1	A	3811	GLN
1	A	3850	HIS
1	A	3869	ASN
1	A	3925	GLN
1	A	4009	ASN
1	A	4159	GLN
1	A	4164	GLN
1	A	4493	ASN
1	A	4636	ASN
1	A	4787	ASN
1	A	4879	GLN
2	E	54	GLN
2	E	66	GLN
2	F	54	GLN
2	F	66	GLN
2	G	54	GLN
2	G	66	GLN
2	H	54	GLN
2	H	66	GLN
1	B	33	GLN
1	B	79	GLN
1	B	198	ASN
1	B	209	GLN
1	B	604	HIS
1	B	836	HIS
1	B	934	GLN
1	B	1046	ASN
1	B	1151	HIS
1	B	1244	ASN
1	B	1501	ASN
1	B	1722	ASN
1	B	1970	GLN
1	B	2059	GLN
1	B	2125	GLN

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Mol	Chain	Res	Type
1	B	2251	ASN
1	B	2309	ASN
1	B	2654	GLN
1	B	2973	GLN
1	B	3017	HIS
1	B	3063	ASN
1	B	3115	HIS
1	B	3178	HIS
1	B	3185	ASN
1	B	3274	ASN
1	B	3304	GLN
1	B	3727	GLN
1	B	3767	ASN
1	B	3775	GLN
1	B	3850	HIS
1	B	3869	ASN
1	B	3925	GLN
1	B	4009	ASN
1	B	4159	GLN
1	B	4164	GLN
1	B	4493	ASN
1	B	4636	ASN
1	B	4787	ASN
1	B	4879	GLN
1	C	33	GLN
1	C	79	GLN
1	C	198	ASN
1	C	209	GLN
1	C	604	HIS
1	C	836	HIS
1	C	934	GLN
1	C	1046	ASN
1	C	1151	HIS
1	C	1244	ASN
1	C	1501	ASN
1	C	1722	ASN
1	C	1970	GLN
1	C	2059	GLN
1	C	2125	GLN
1	C	2251	ASN
1	C	2309	ASN
1	C	2973	GLN

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Mol	Chain	Res	Type
1	C	3017	HIS
1	C	3063	ASN
1	C	3115	HIS
1	C	3178	HIS
1	C	3185	ASN
1	C	3274	ASN
1	C	3304	GLN
1	C	3727	GLN
1	C	3767	ASN
1	C	3775	GLN
1	C	3811	GLN
1	C	3850	HIS
1	C	3869	ASN
1	C	3925	GLN
1	C	4009	ASN
1	C	4159	GLN
1	C	4164	GLN
1	C	4493	ASN
1	C	4636	ASN
1	C	4787	ASN
1	C	4879	GLN
1	D	33	GLN
1	D	79	GLN
1	D	198	ASN
1	D	209	GLN
1	D	836	HIS
1	D	934	GLN
1	D	971	GLN
1	D	1046	ASN
1	D	1151	HIS
1	D	1244	ASN
1	D	1501	ASN
1	D	1577	ASN
1	D	1670	HIS
1	D	1722	ASN
1	D	1970	GLN
1	D	2059	GLN
1	D	2125	GLN
1	D	2251	ASN
1	D	2309	ASN
1	D	2973	GLN
1	D	3017	HIS

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Mol	Chain	Res	Type
1	D	3115	HIS
1	D	3185	ASN
1	D	3274	ASN
1	D	3304	GLN
1	D	3727	GLN
1	D	3767	ASN
1	D	3775	GLN
1	D	3811	GLN
1	D	3850	HIS
1	D	3869	ASN
1	D	3925	GLN
1	D	4009	ASN
1	D	4159	GLN
1	D	4164	GLN
1	D	4493	ASN
1	D	4636	ASN
1	D	4879	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 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	C	5002	-	32,33,33	0.26	0	48,52,52	0.30	0
4	ATP	D	5002	-	32,33,33	0.26	0	48,52,52	0.30	0
4	ATP	B	5002	-	32,33,33	0.26	0	48,52,52	0.30	0
4	ATP	A	5003	-	32,33,33	0.26	0	48,52,52	0.27	0
4	ATP	D	5003	-	32,33,33	0.25	0	48,52,52	0.27	0
4	ATP	B	5003	-	32,33,33	0.26	0	48,52,52	0.27	0
4	ATP	C	5003	-	32,33,33	0.26	0	48,52,52	0.27	0
4	ATP	A	5002	-	32,33,33	0.26	0	48,52,52	0.30	0

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	C	5002	-	-	7/22/38/38	0/3/3/3
4	ATP	D	5002	-	-	7/22/38/38	0/3/3/3
4	ATP	B	5002	-	-	7/22/38/38	0/3/3/3
4	ATP	A	5003	-	-	6/22/38/38	0/3/3/3
4	ATP	D	5003	-	-	6/22/38/38	0/3/3/3
4	ATP	B	5003	-	-	6/22/38/38	0/3/3/3
4	ATP	C	5003	-	-	6/22/38/38	0/3/3/3
4	ATP	A	5002	-	-	7/22/38/38	0/3/3/3

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (52) torsion outliers are listed below:

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

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Mol	Chain	Res	Type	Atoms
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	PA-O3A-PB-O1B
4	B	5003	ATP	PA-O3A-PB-O1B
4	C	5003	ATP	PA-O3A-PB-O1B
4	D	5003	ATP	PA-O3A-PB-O1B
4	A	5002	ATP	PB-O3A-PA-O5'
4	B	5002	ATP	PB-O3A-PA-O5'
4	C	5002	ATP	PB-O3A-PA-O5'
4	D	5002	ATP	PB-O3A-PA-O5'
4	A	5003	ATP	C4'-C5'-O5'-PA
4	B	5003	ATP	C4'-C5'-O5'-PA
4	C	5003	ATP	C4'-C5'-O5'-PA
4	D	5003	ATP	C4'-C5'-O5'-PA
4	A	5002	ATP	PG-O3B-PB-O1B
4	A	5002	ATP	PA-O3A-PB-O1B
4	A	5002	ATP	PA-O3A-PB-O2B
4	B	5002	ATP	PG-O3B-PB-O1B
4	B	5002	ATP	PA-O3A-PB-O1B
4	B	5002	ATP	PA-O3A-PB-O2B
4	C	5002	ATP	PG-O3B-PB-O1B
4	C	5002	ATP	PA-O3A-PB-O1B
4	C	5002	ATP	PA-O3A-PB-O2B
4	D	5002	ATP	PG-O3B-PB-O1B
4	D	5002	ATP	PA-O3A-PB-O1B
4	D	5002	ATP	PA-O3A-PB-O2B
4	B	5003	ATP	C2'-C1'-N9-C8
4	D	5003	ATP	C2'-C1'-N9-C8
4	A	5003	ATP	C2'-C1'-N9-C8
4	C	5003	ATP	C2'-C1'-N9-C8
4	A	5003	ATP	PA-O3A-PB-O2B
4	B	5003	ATP	PA-O3A-PB-O2B
4	C	5003	ATP	PA-O3A-PB-O2B
4	D	5003	ATP	PA-O3A-PB-O2B
4	A	5002	ATP	PG-O3B-PB-O3A
4	B	5002	ATP	PG-O3B-PB-O3A
4	C	5002	ATP	PG-O3B-PB-O3A

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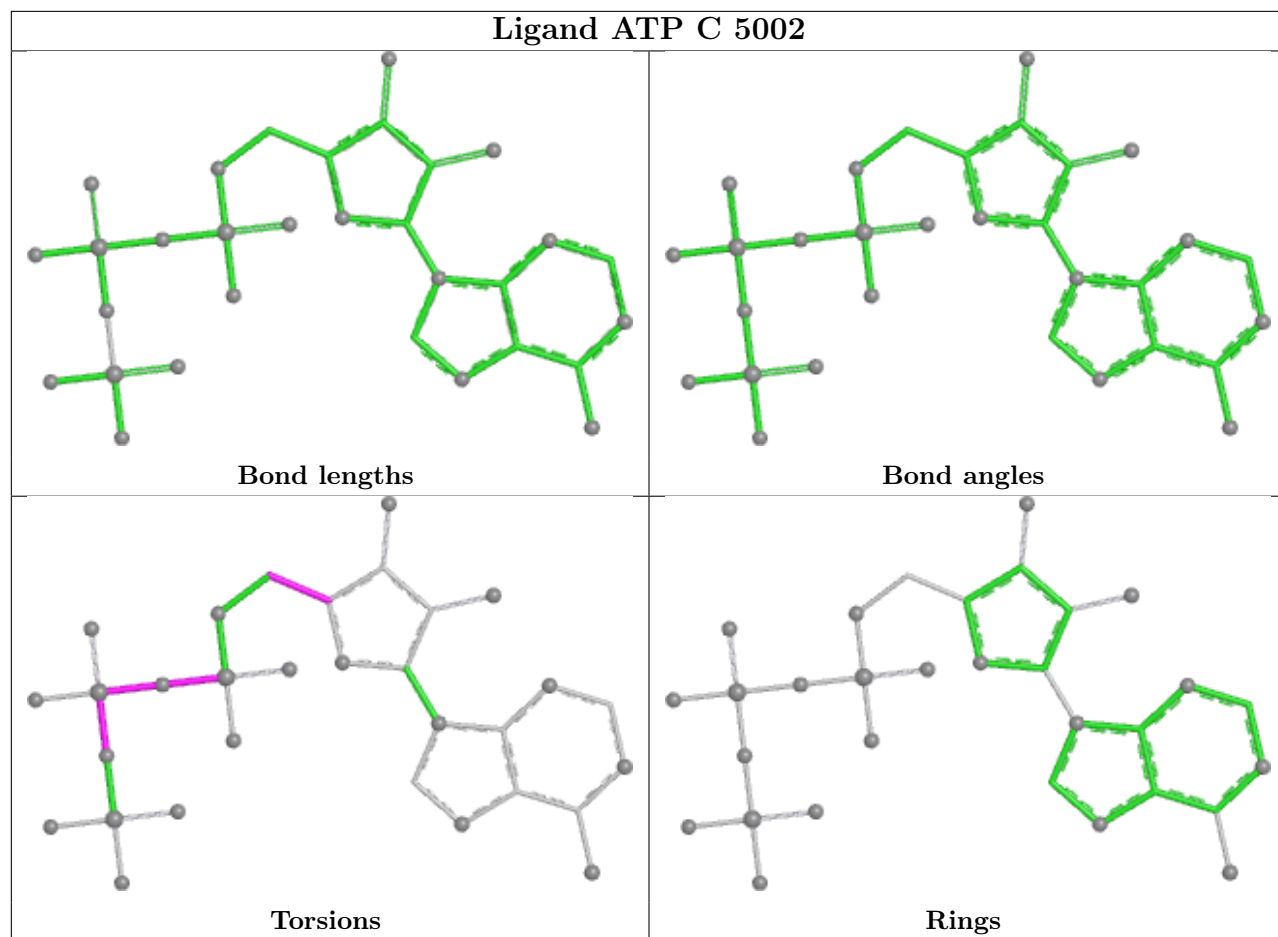
Mol	Chain	Res	Type	Atoms
4	D	5002	ATP	PG-O3B-PB-O3A

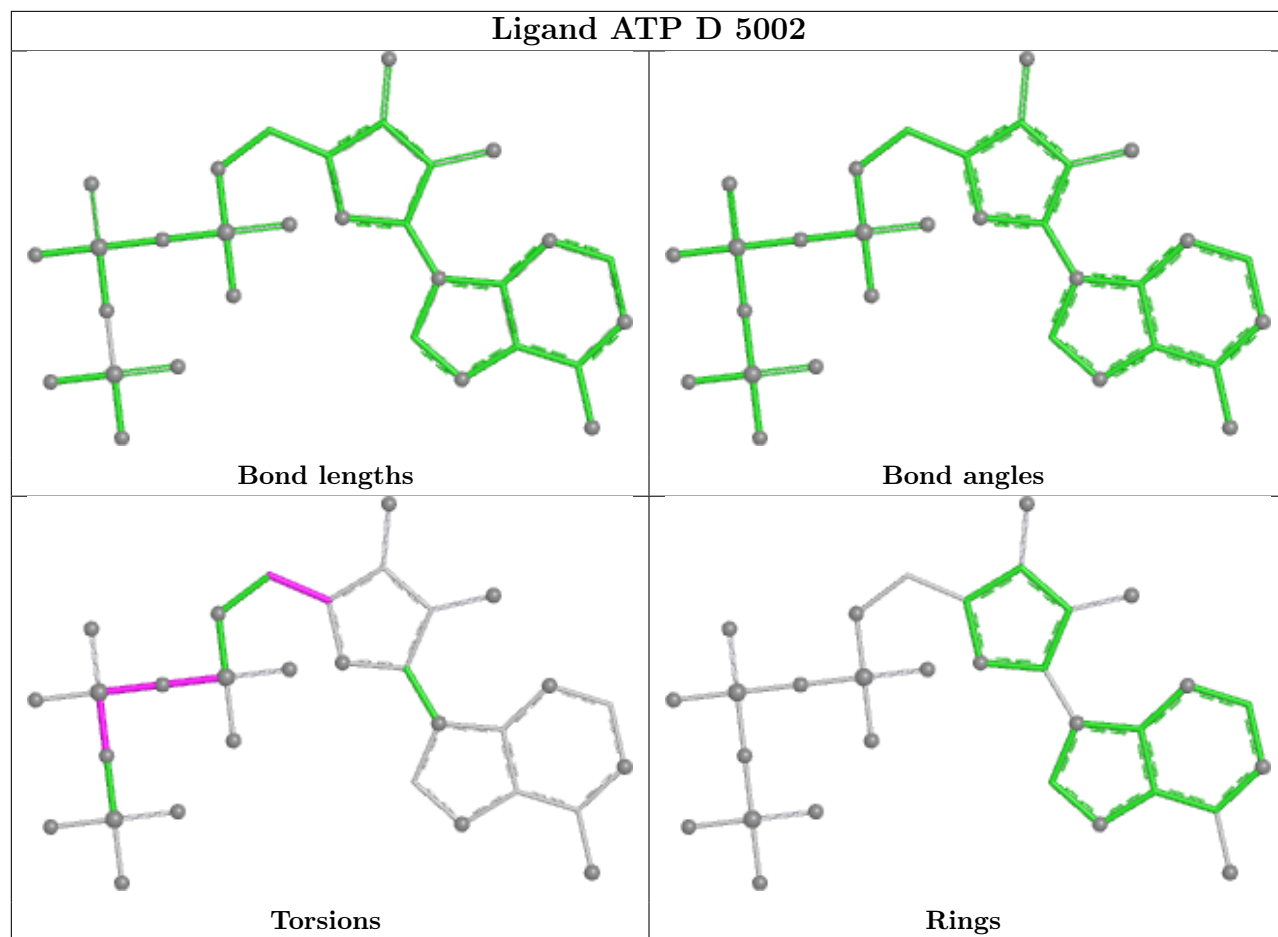
There are no ring outliers.

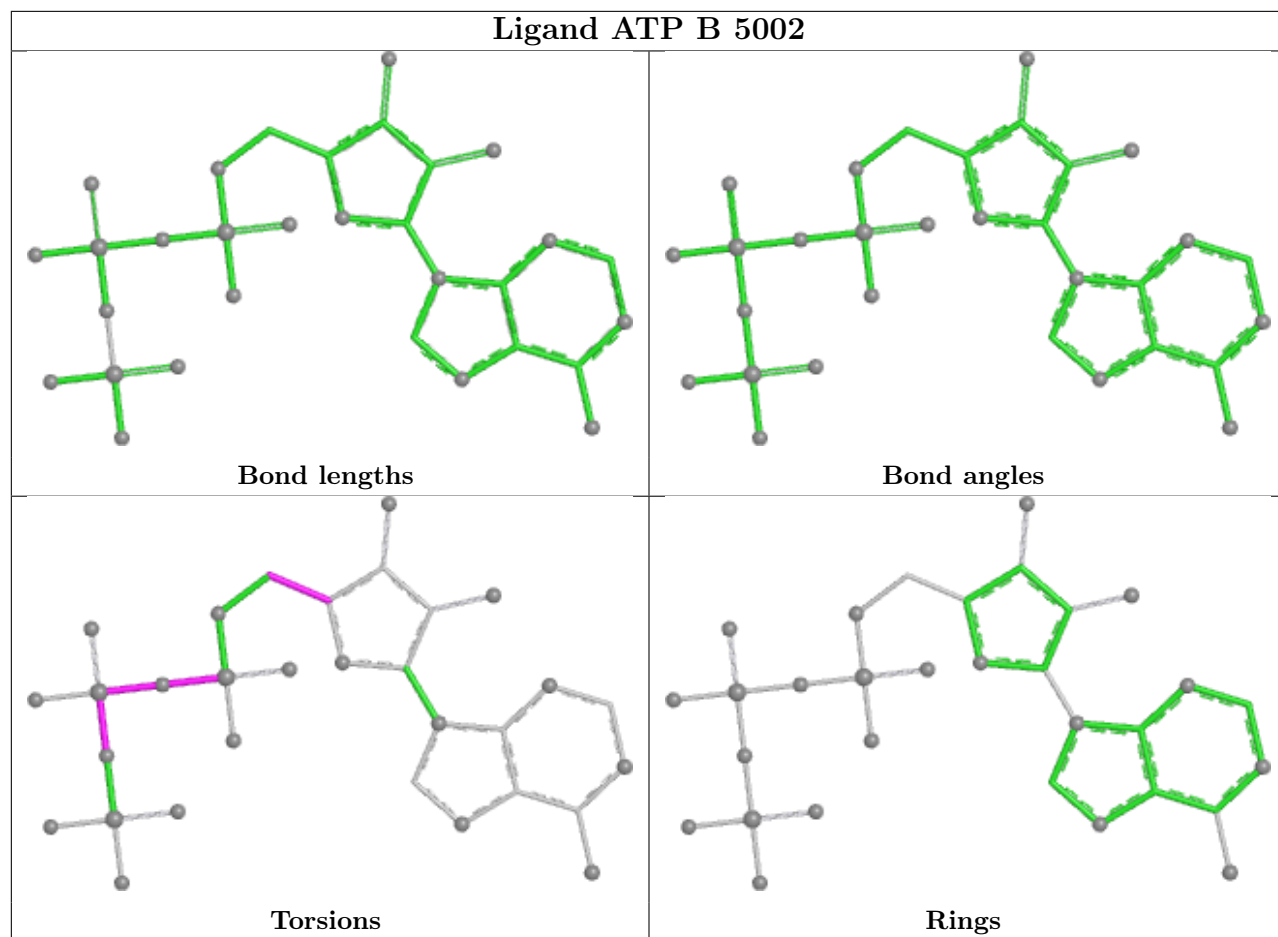
4 monomers are involved in 8 short contacts:

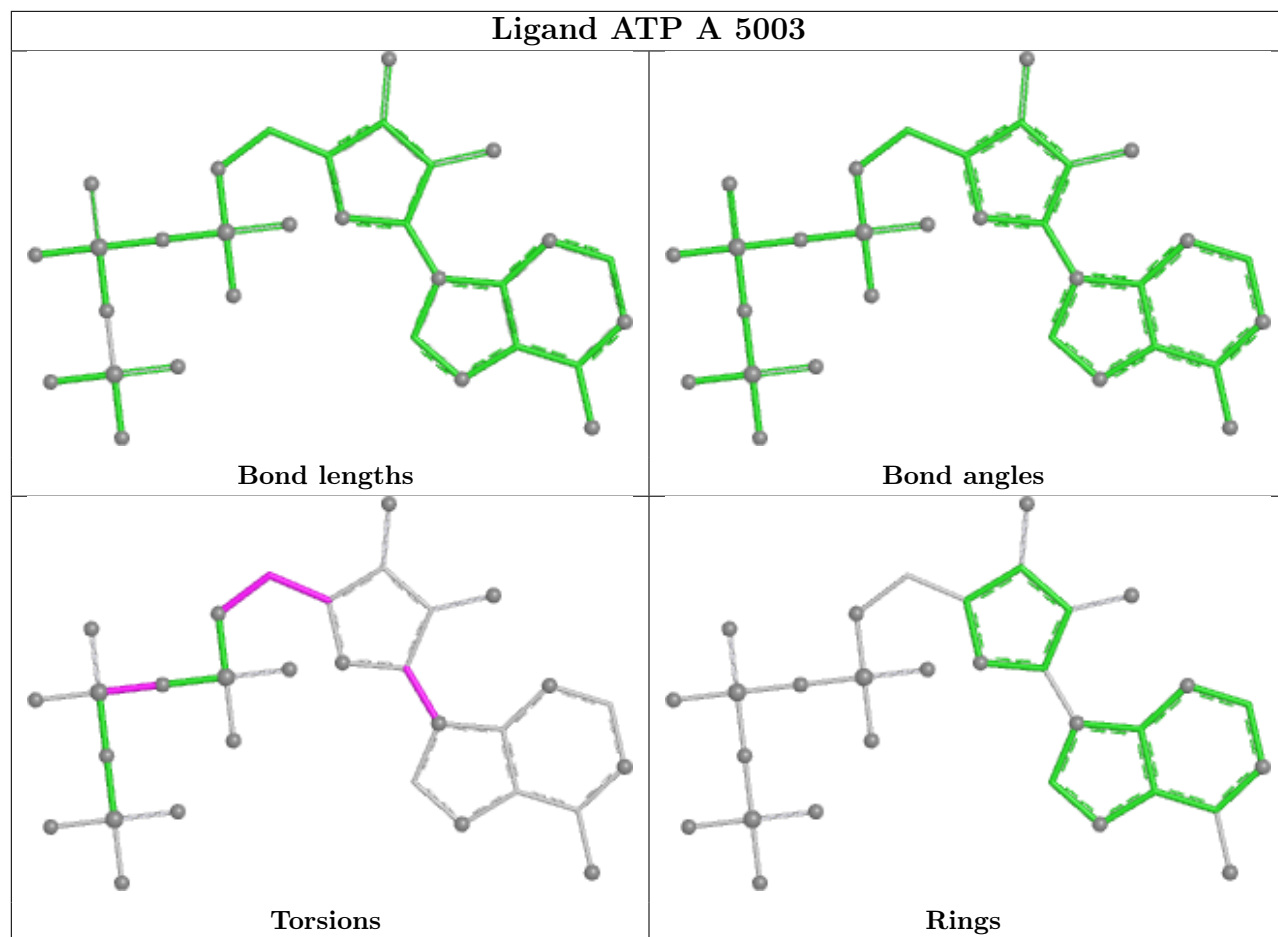
Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	A	5003	ATP	2	0
4	D	5003	ATP	2	0
4	B	5003	ATP	2	0
4	C	5003	ATP	2	0

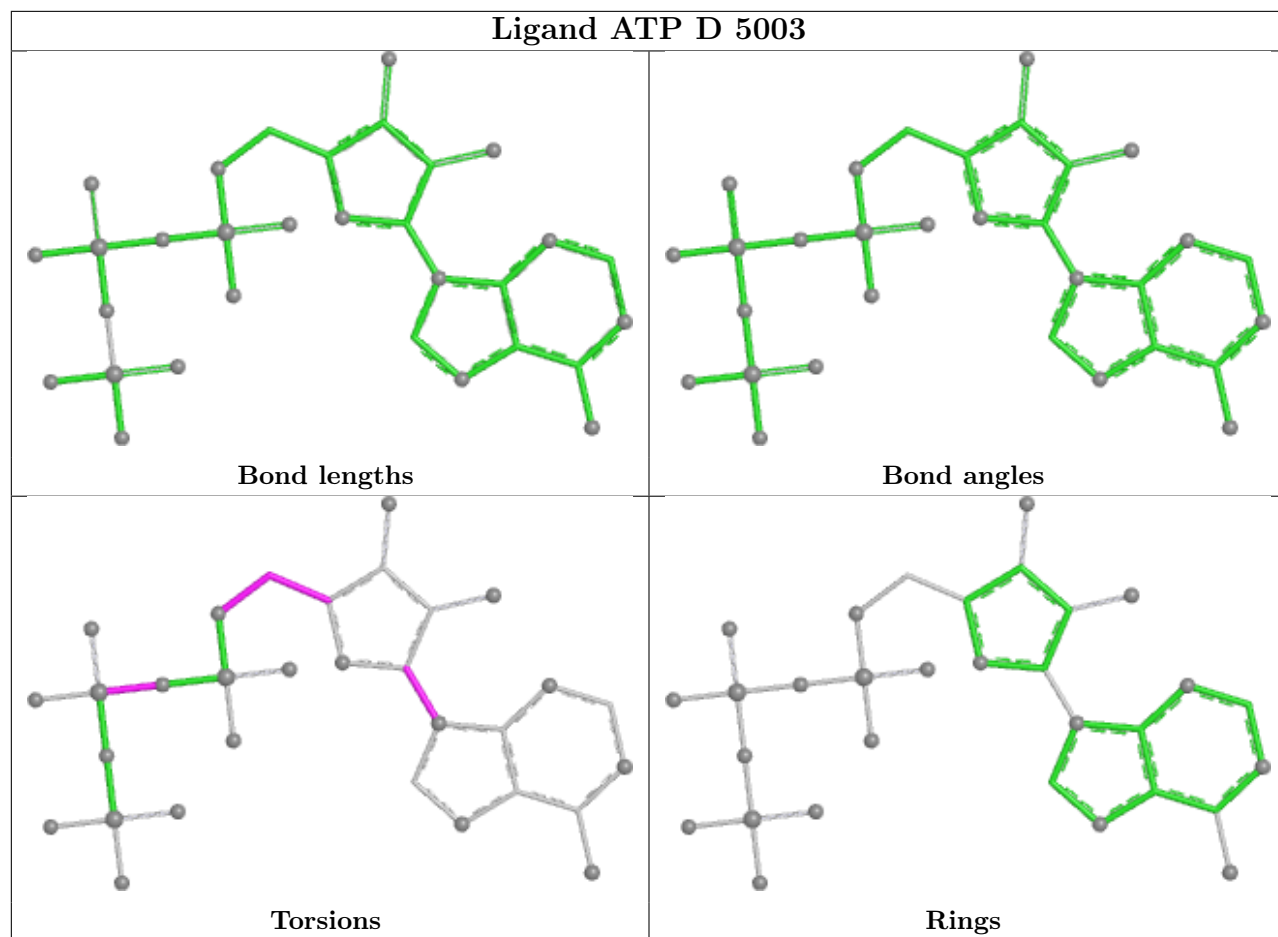
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. 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.

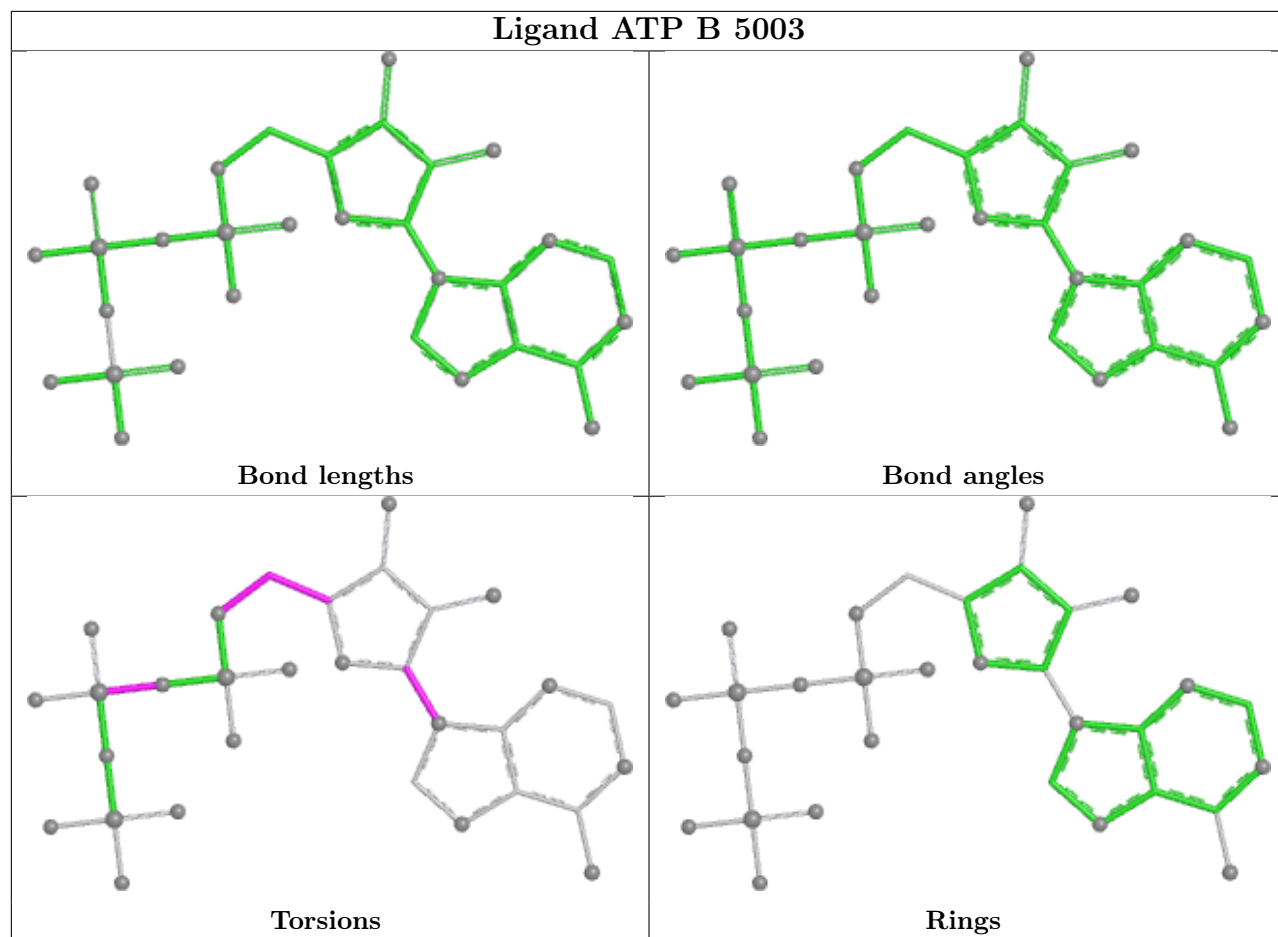


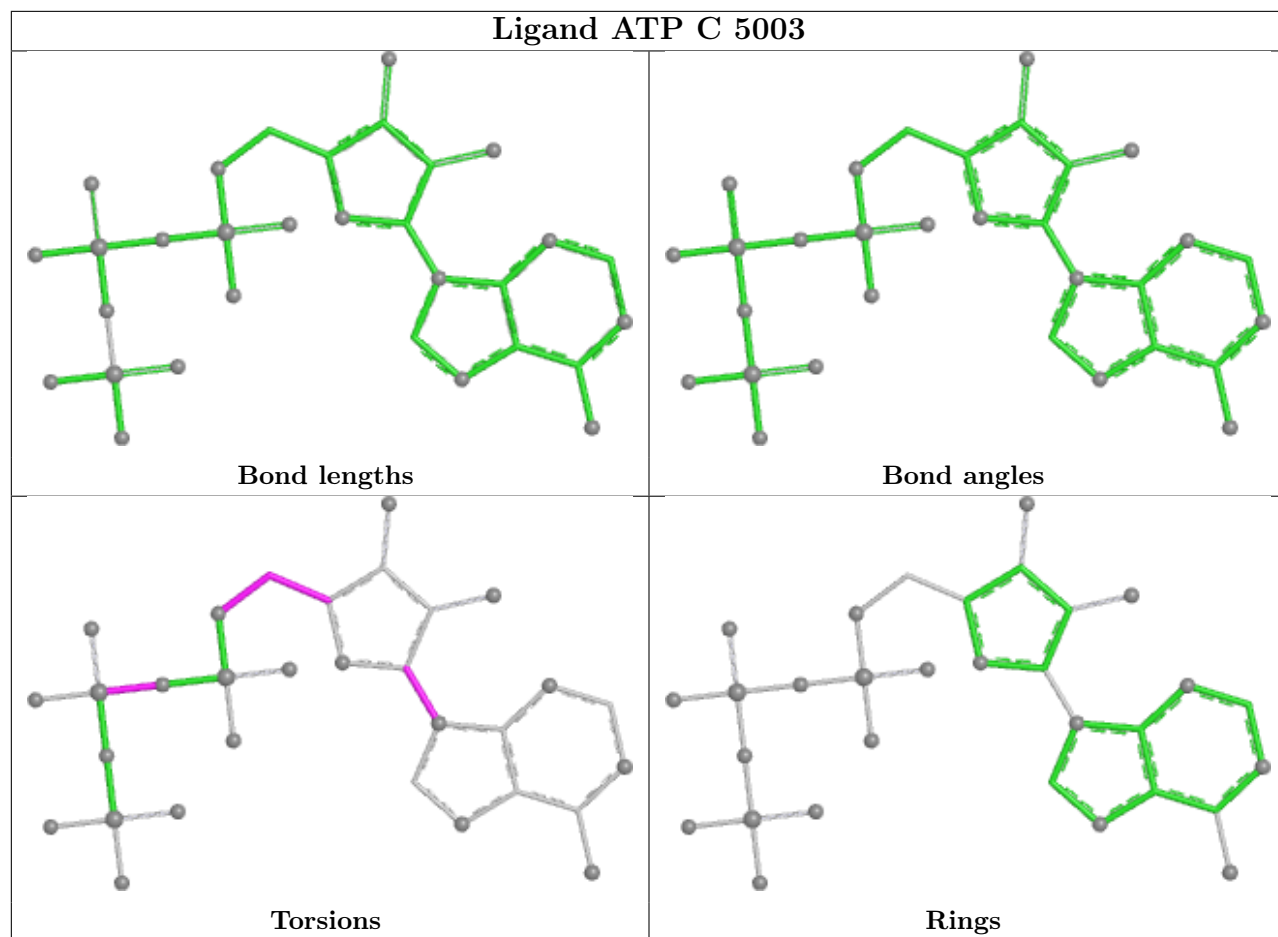


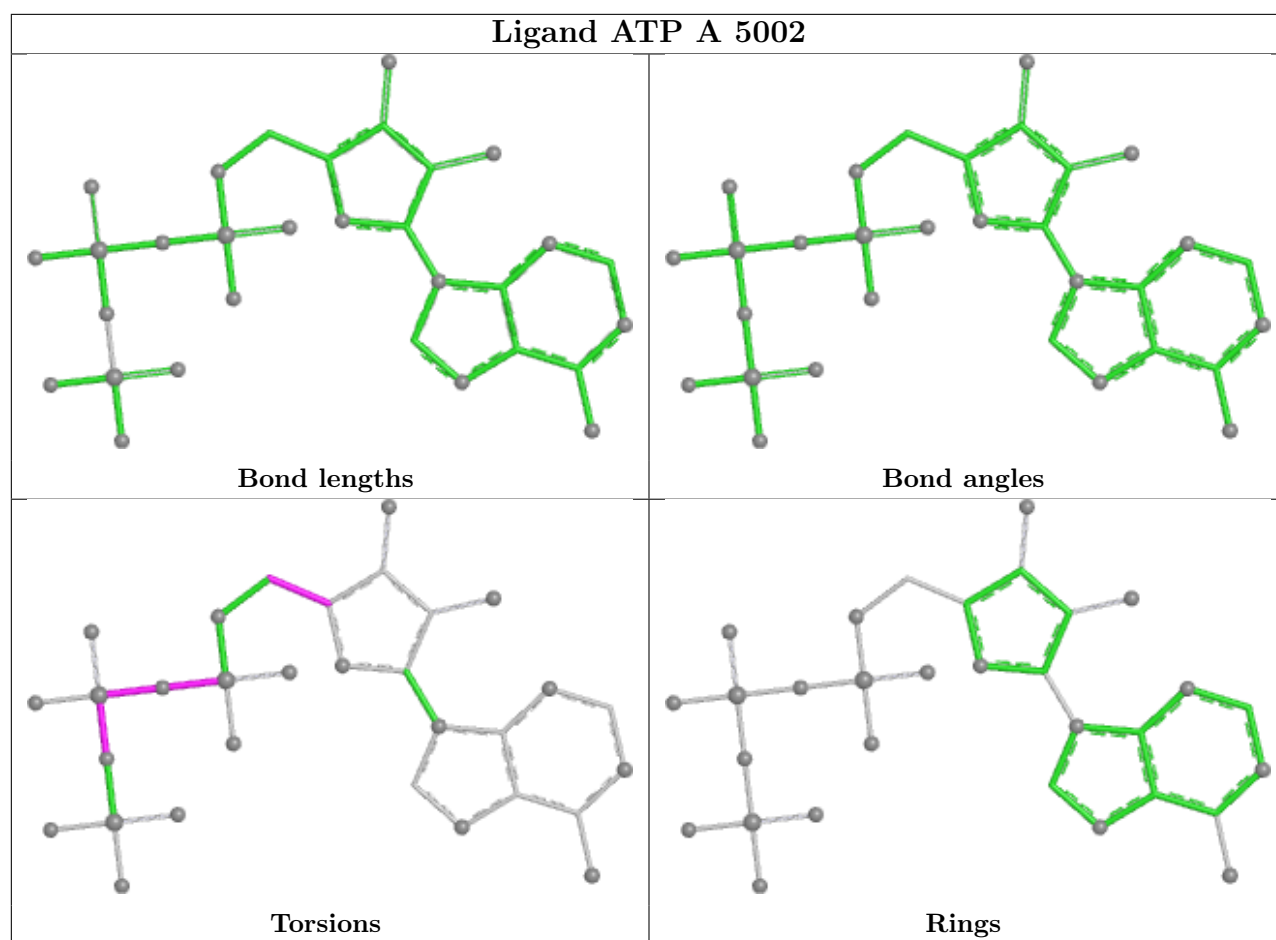












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

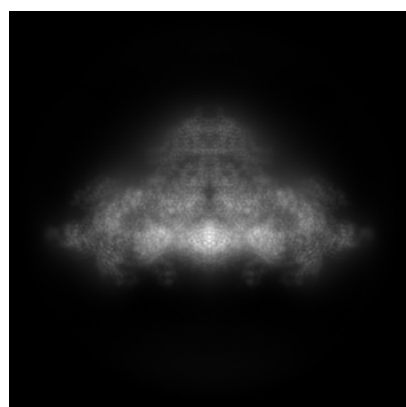
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-26409. These allow visual inspection of the internal detail of the map and identification of artifacts.

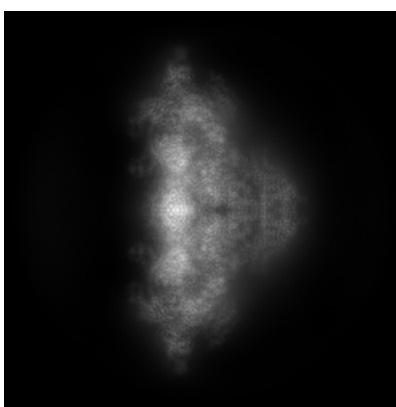
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

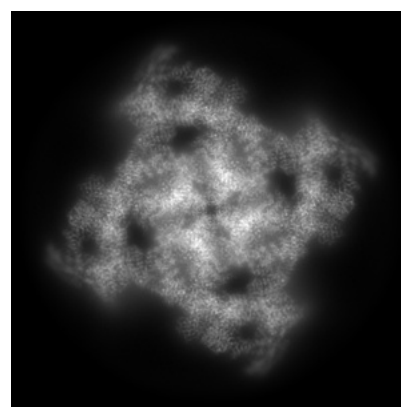
6.1.1 Primary map



X



Y

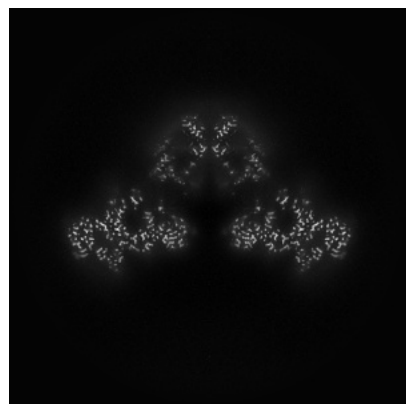


Z

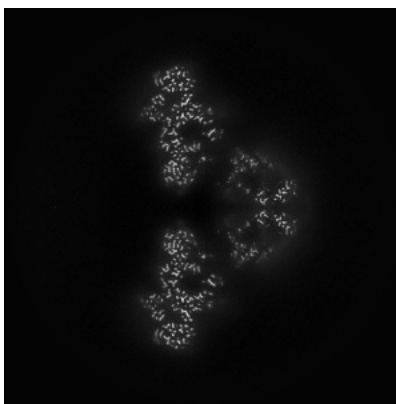
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

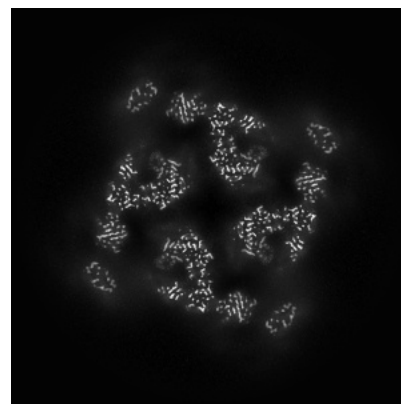
6.2.1 Primary map



X Index: 256



Y Index: 256

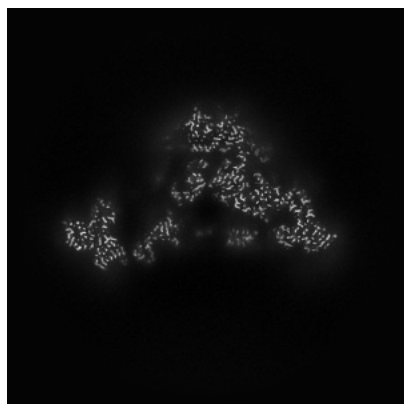


Z Index: 256

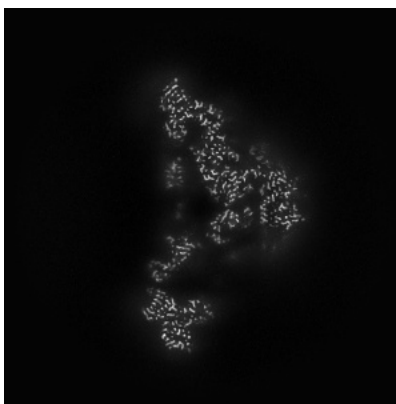
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

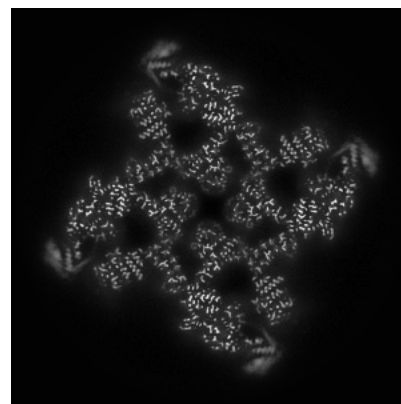
6.3.1 Primary map



X Index: 275



Y Index: 237

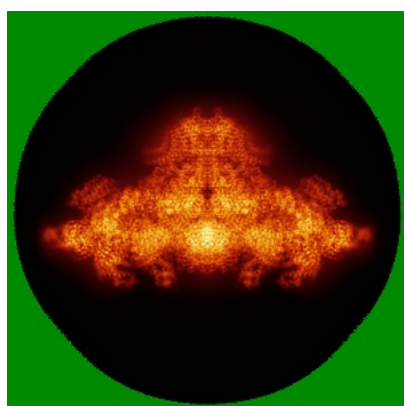


Z Index: 227

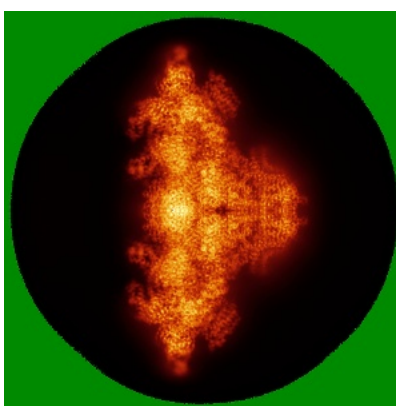
The images above show the largest variance slices of the map in three orthogonal directions.

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

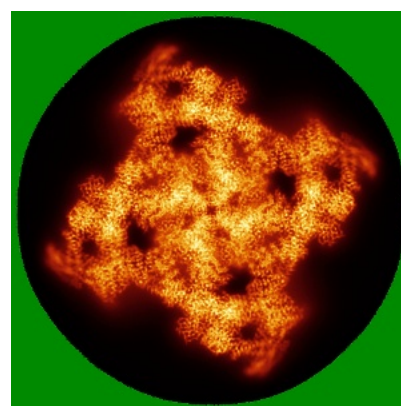
6.4.1 Primary map



X



Y

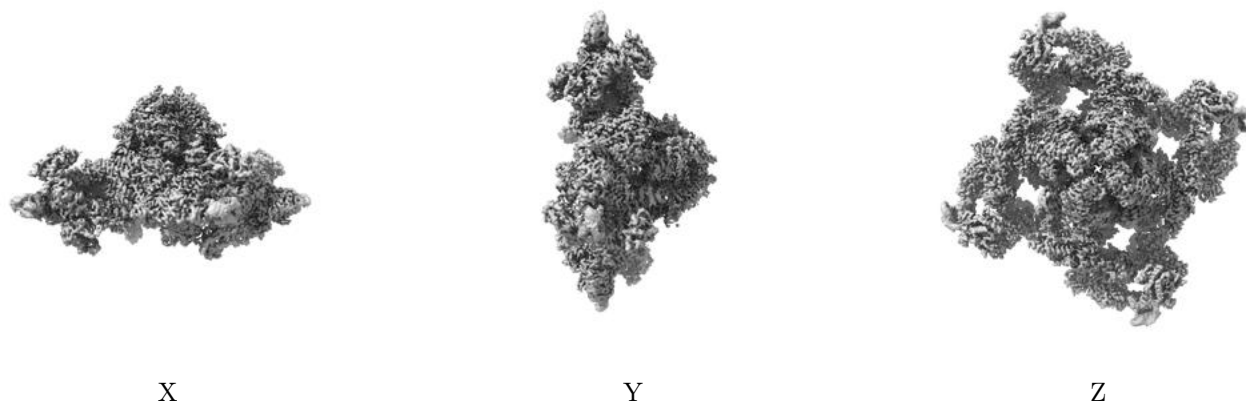


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.15. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

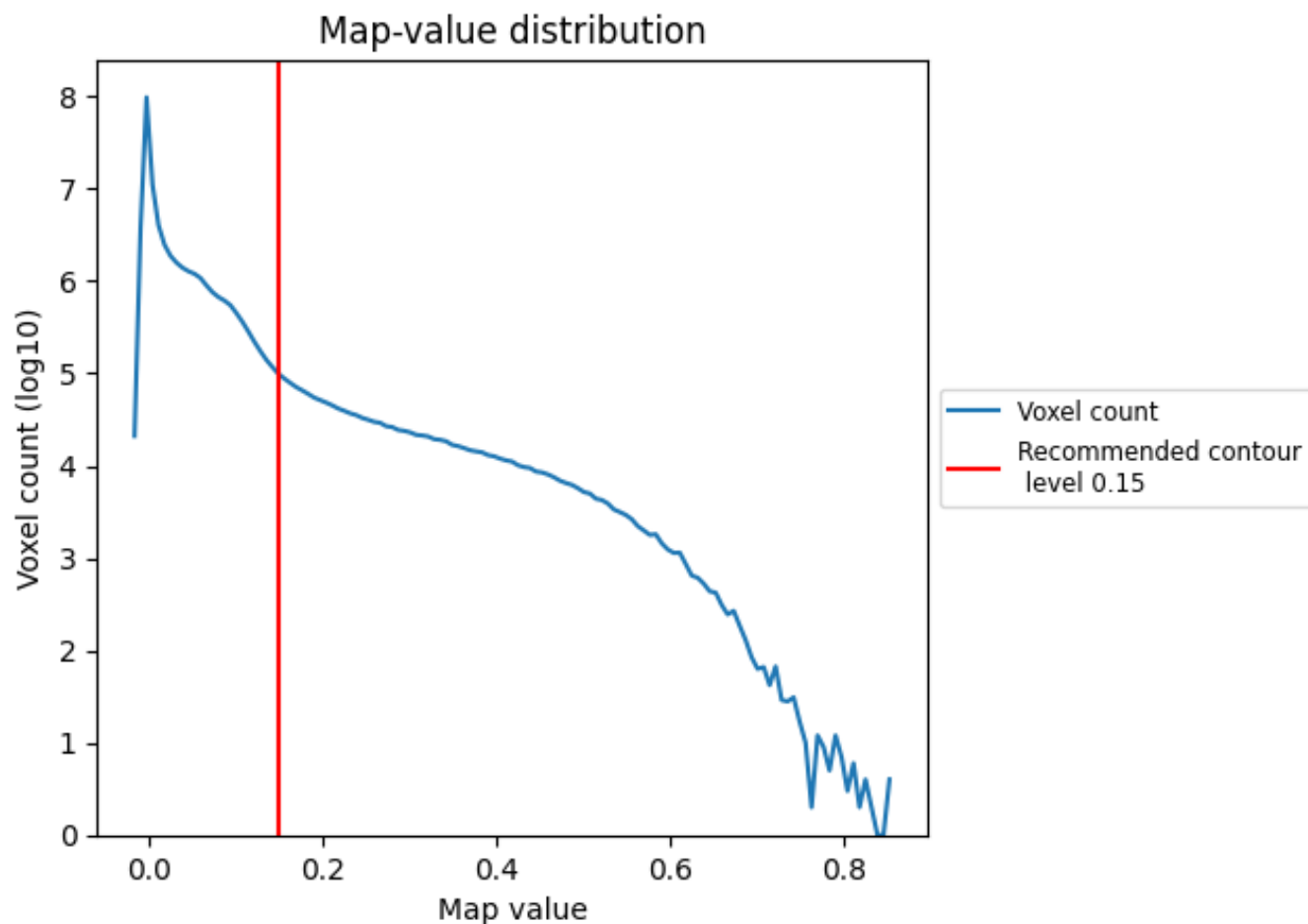
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

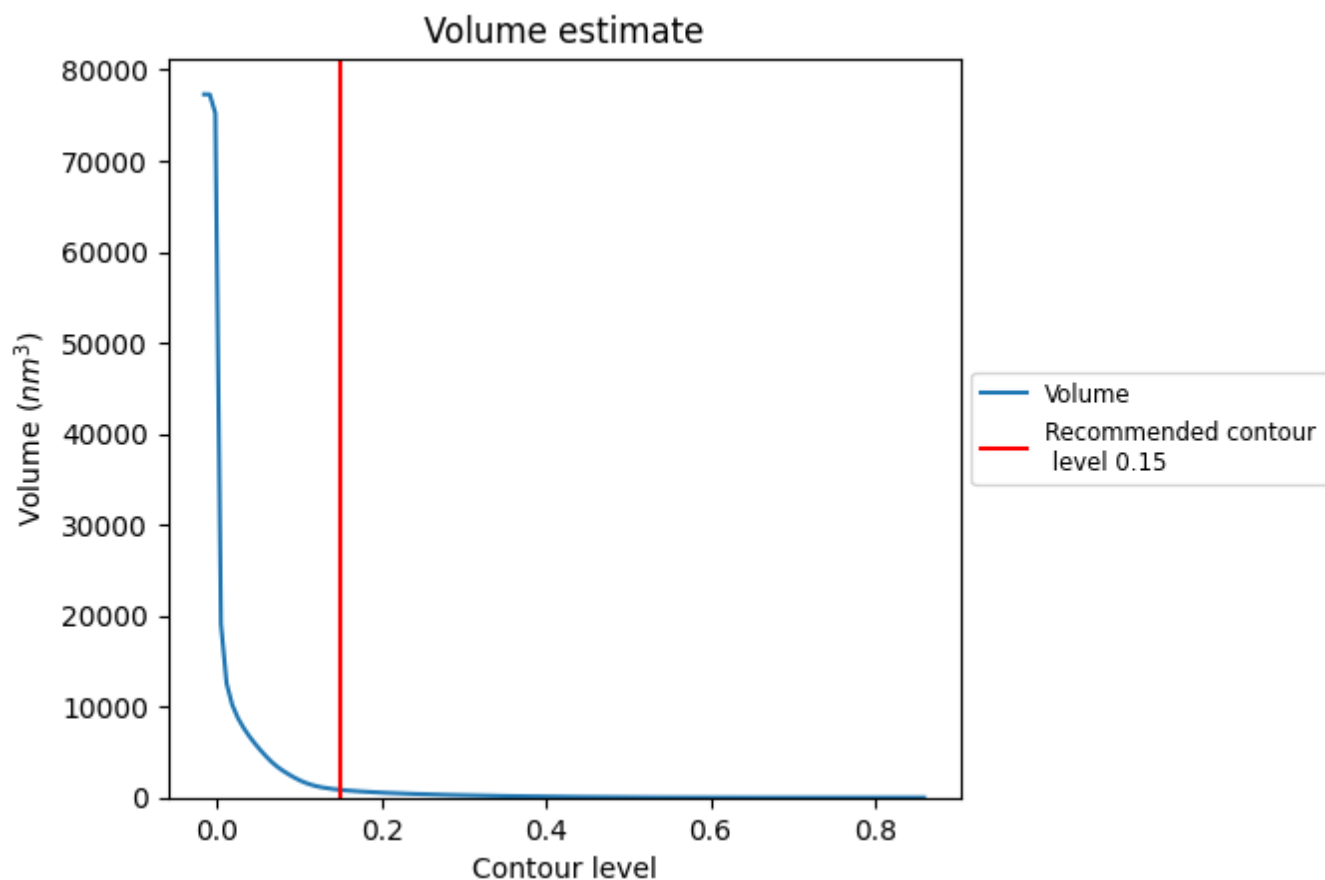
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

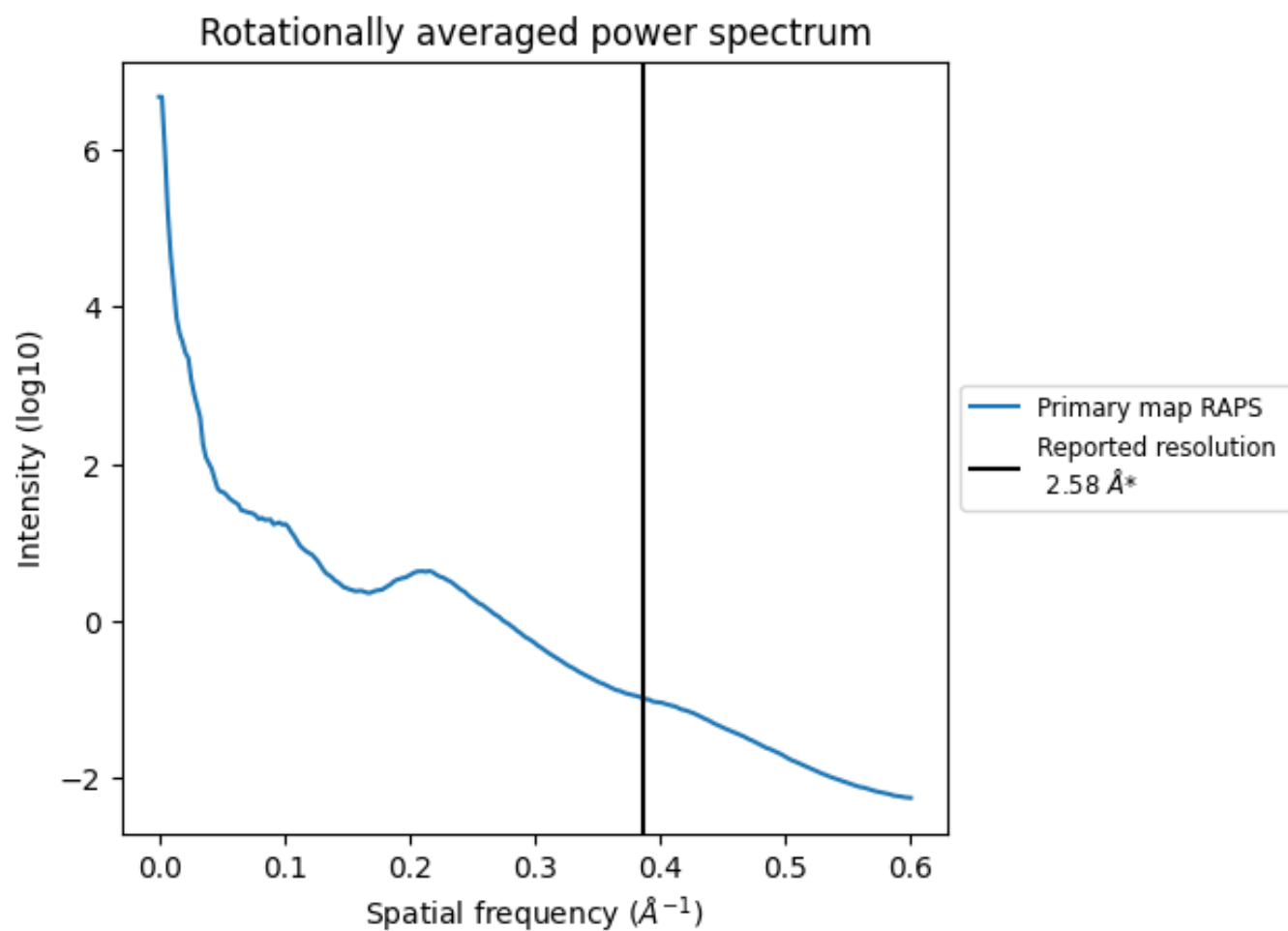
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 847 nm³; this corresponds to an approximate mass of 765 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.388 Å⁻¹

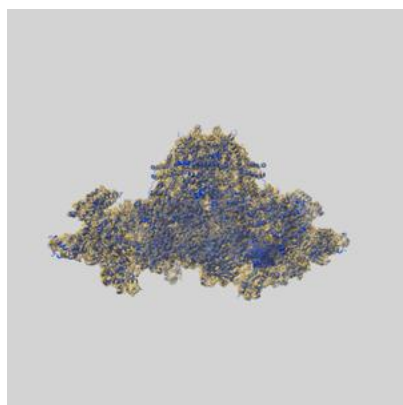
8 Fourier-Shell correlation ⓘ

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

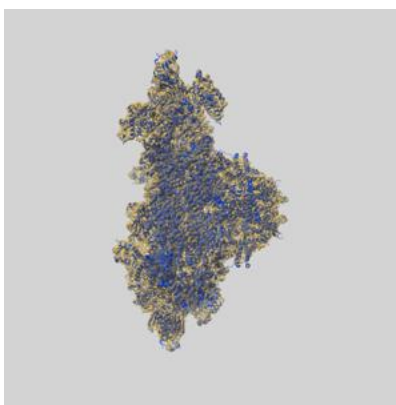
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-26409 and PDB model 7U9X. Per-residue inclusion information can be found in section [3](#) on page [7](#).

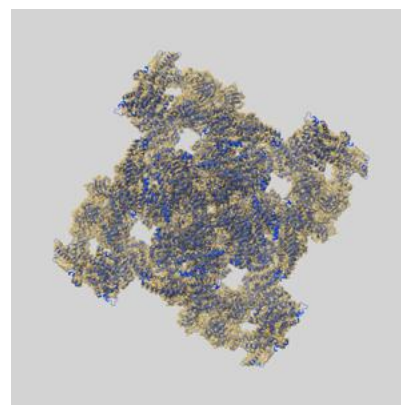
9.1 Map-model overlay [i](#)



X



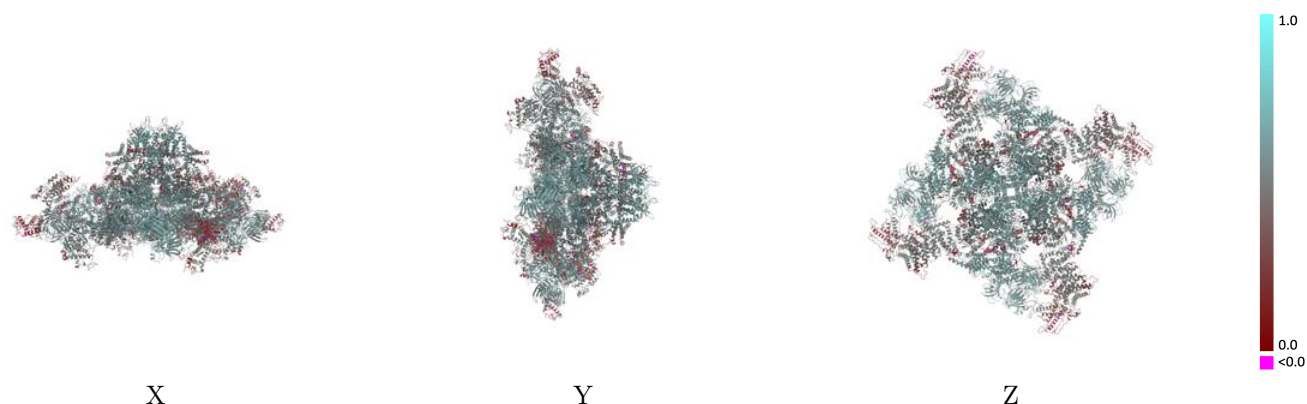
Y



Z

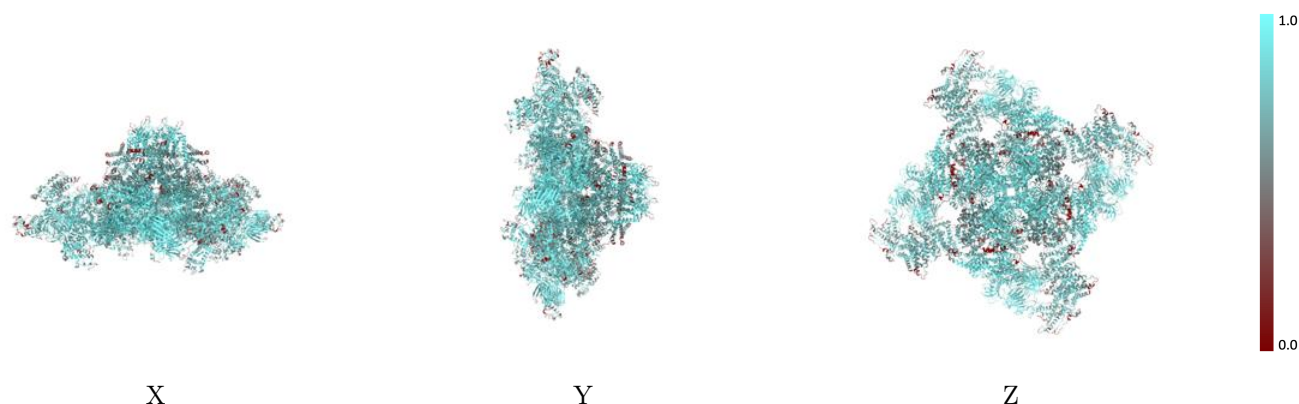
The images above show the 3D surface view of the map at the recommended contour level 0.15 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



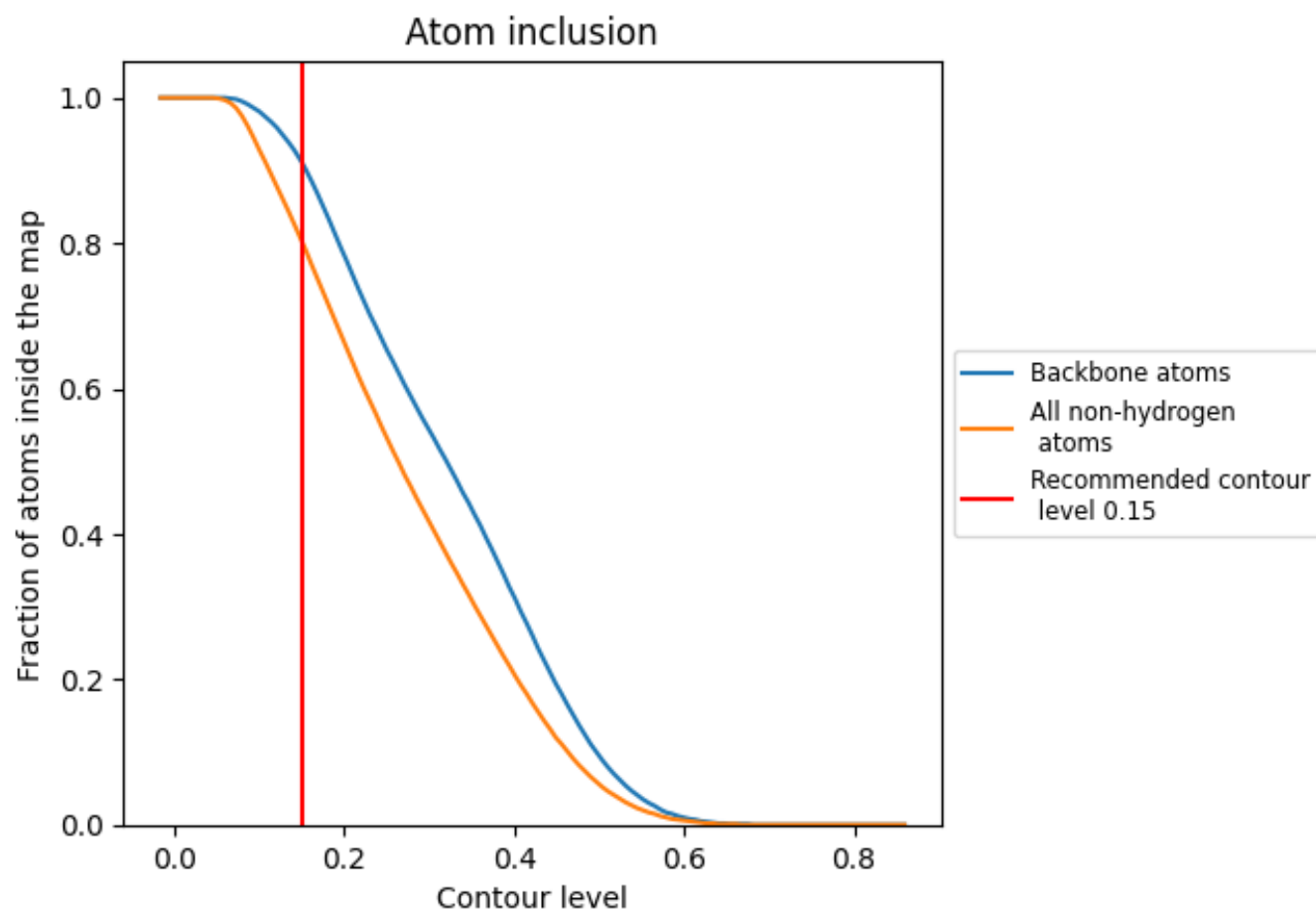
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.15).

9.4 Atom inclusion [i](#)



At the recommended contour level, 91% of all backbone atoms, 80% 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 (0.15) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8030	0.5150
A	0.8010	0.5150
B	0.8000	0.5100
C	0.8000	0.5100
D	0.8020	0.5170
E	0.9070	0.5880
F	0.8930	0.5750
G	0.9060	0.5720
H	0.9160	0.5910

1.0

0.0

<0.0