



## Full wwPDB EM Validation Report ⓘ

Nov 19, 2022 – 03:27 PM EST

PDB ID : 7T3T  
EMDB ID : EMD-25670  
Title : IP3, ATP, and Ca<sup>2+</sup> bound type 3 IP3 receptor in the active state  
Authors : Schmitz, E.A.; Takahashi, H.; Karakas, E.  
Deposited on : 2021-12-08  
Resolution : 3.80 Å (reported)  
Based on initial model : 6UQK

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

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

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

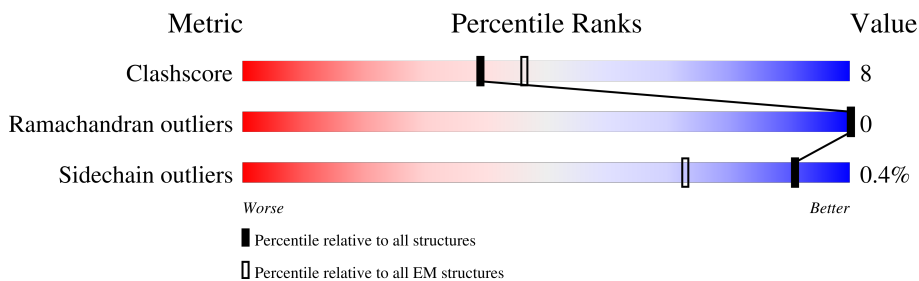
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 3.80 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	2633	
1	B	2633	
1	C	2633	
1	D	2633	

## 2 Entry composition [i](#)

There are 5 unique types of molecules in this entry. The entry contains 68516 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.

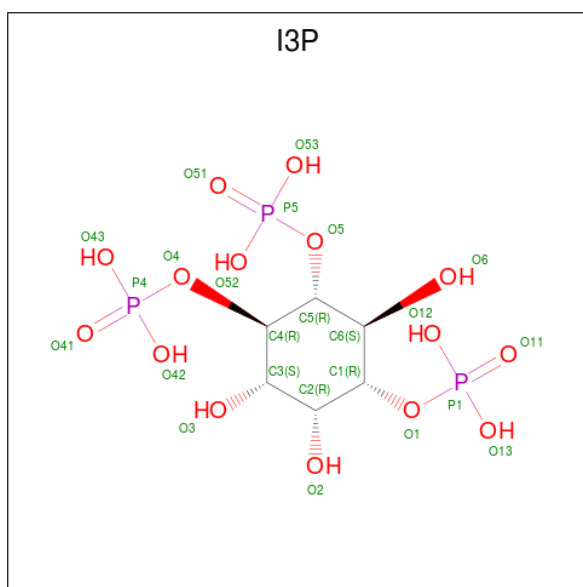
- Molecule 1 is a protein called Inositol 1,4,5-trisphosphate receptor type 3.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	2121	17072	10908	2923	3138	103	0	0
1	B	2121	17072	10908	2923	3138	103	0	0
1	C	2121	17072	10908	2923	3138	103	0	0
1	D	2121	17072	10908	2923	3138	103	0	0

- Molecule 2 is ZINC ION (three-letter code: ZN) (formula: Zn) (labeled as "Ligand of Interest" by depositor).

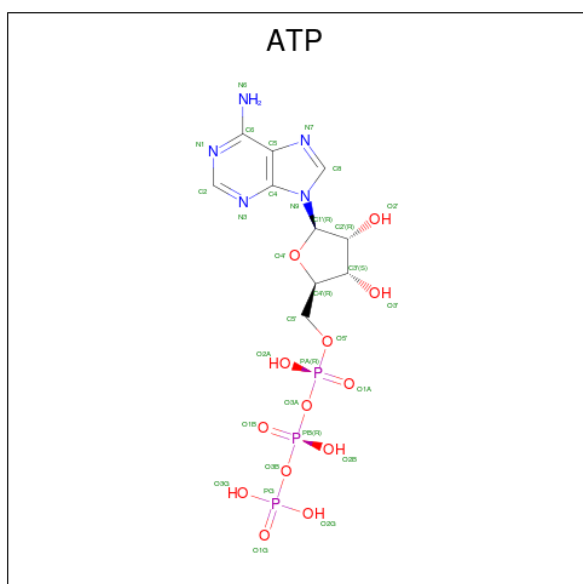
Mol	Chain	Residues	Atoms		AltConf
2	A	1	Total 1	Zn 1	0
2	B	1	Total 1	Zn 1	0
2	C	1	Total 1	Zn 1	0
2	D	1	Total 1	Zn 1	0

- Molecule 3 is D-MYO-INOSITOL-1,4,5-TRIPHOSPHATE (three-letter code: I3P) (formula: C<sub>6</sub>H<sub>15</sub>O<sub>15</sub>P<sub>3</sub>) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms			AltConf	
			Total	C	O		P
3	A	1	24	6	15	3	0
3	B	1	24	6	15	3	0
3	C	1	24	6	15	3	0
3	D	1	24	6	15	3	0

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

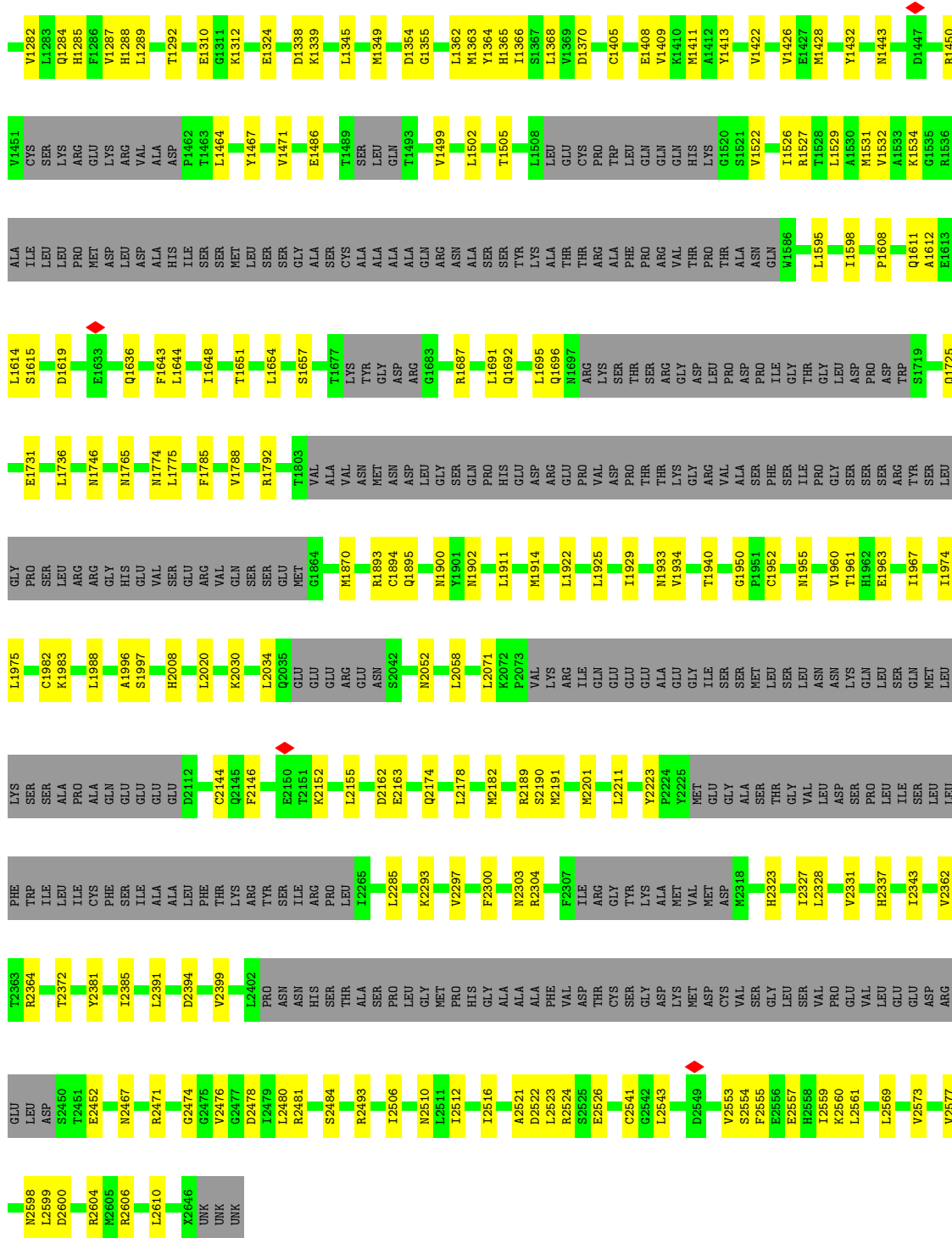


Mol	Chain	Residues	Atoms					AltConf
4	A	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	B	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	C	1	Total	C	N	O	P	0
			31	10	5	13	3	
4	D	1	Total	C	N	O	P	0
			31	10	5	13	3	

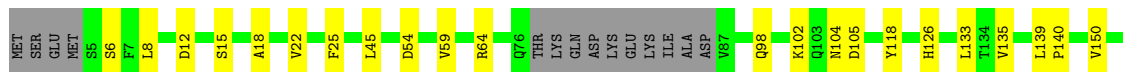
- Molecule 5 is CALCIUM ION (three-letter code: CA) (formula: Ca) (labeled as "Ligand of Interest" by depositor).

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



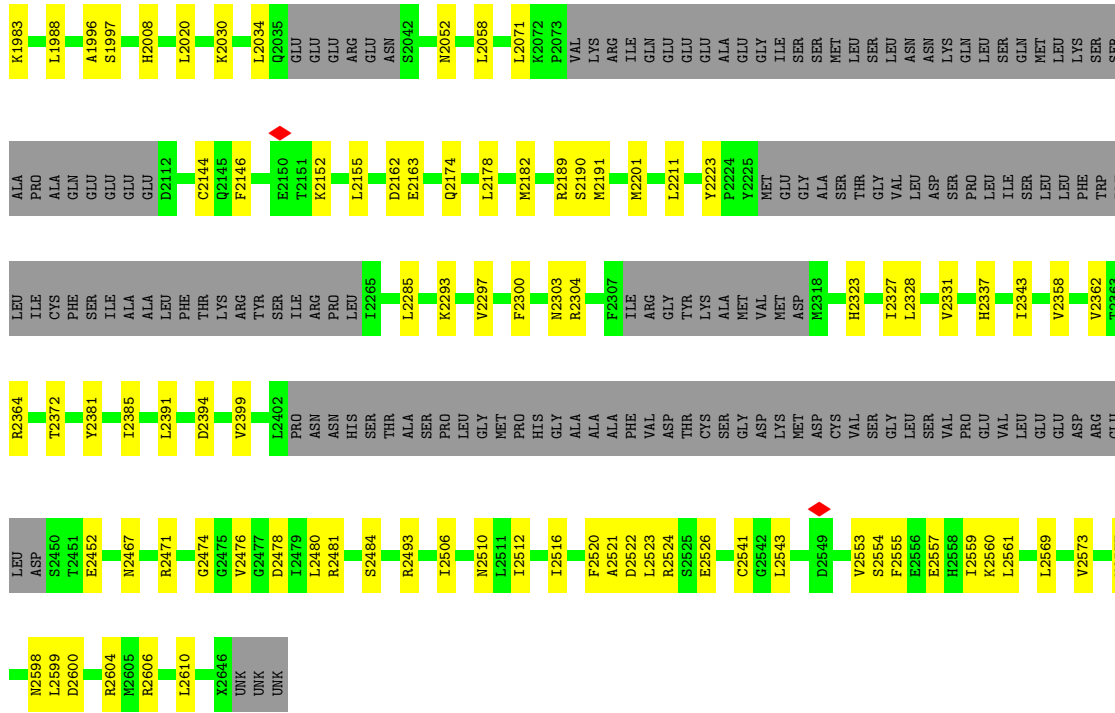


• Molecule 1: Inositol 1,4,5-trisphosphate receptor type 3

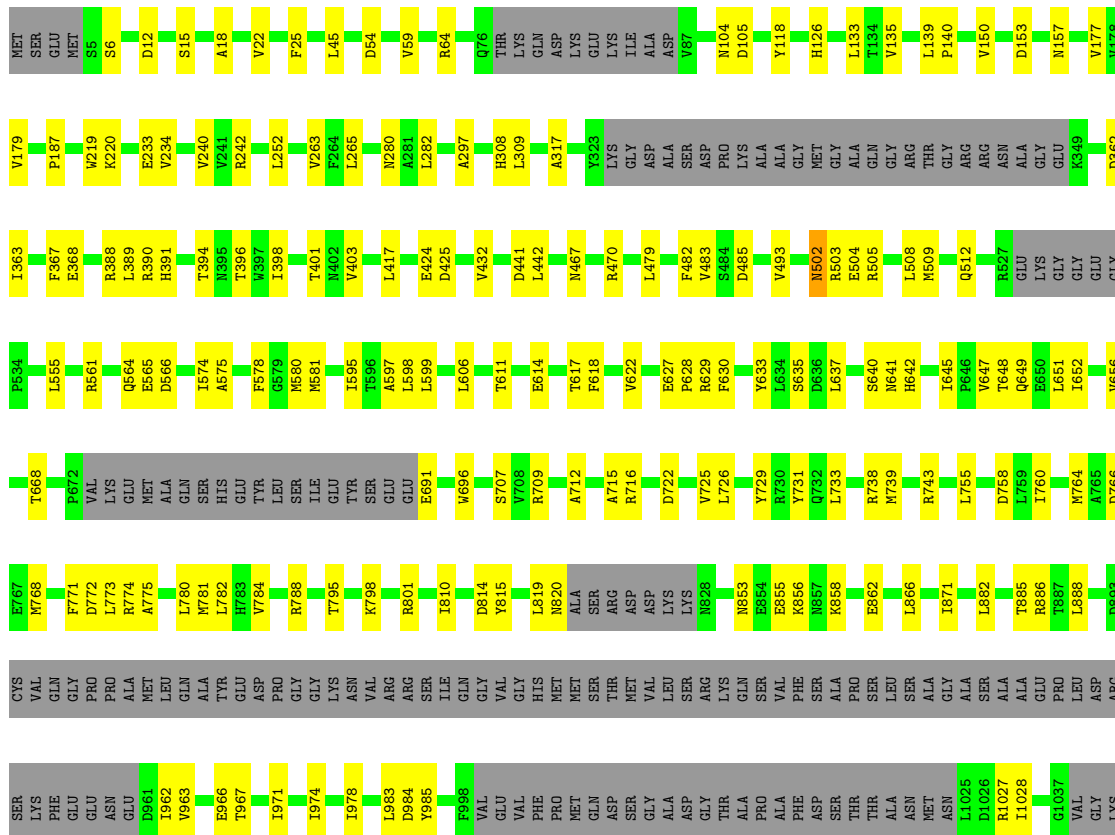
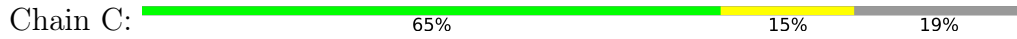








● Molecule 1: Inositol 1,4,5-trisphosphate receptor type 3





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Chain D:  65% 15% 19%

MET	SER	GLU	GLU	MET	SS	S6	D12	S15	A18	V22	F25	C36	L45	D54	V59	R64	Q76	THR	LYS	GLN	ASP	LYS	GLU	LYS	ILE	ALA	ASP	V87	Q98	K102	G103	M104	D105	H126	L133	T134	V135	L139	P140	V150	T151	L152	D153						
M157	V179	P187	W219	K220	E233	V234	V240	V241	R242	L252	V263	F264	L265	N280	A281	L282	A297	H308	L309	A317	Y323	LYS	GLY	ASP	ALA	SER	ALA	ALA	F482	V483	S484	D485	V493	N502	R503	E504	R505	L508	M509	Q512	R527	GLU	LYS	GLY					
R349	D362	I363	F367	E368	R388	L389	R390	H391	T394	M395	W396	W397	L398	T401	M402	V403	L417	E424	D425	V432	D441	L442	M467	R470	L479	F482	V483	S484	D485	V493	N502	R503	E504	R505	L508	M509	Q512	R527	GLU	LYS	GLY								
GLY	GLU	GLY	P534	L555	R561	Q564	L573	D566	I574	A575	F578	G579	M580	M581	I595	T596	A597	L598	L599	L606	T611	D441	L442	T617	F618	V622	R626	E627	P628	R629	F630	Y633	L634	S635	D636	L637	S640	N641	H642	M645	V647	T648	Q649	E650					
L651	I652	V656	T668	P672	VAL	GLU	GLN	SER	HIS	GLU	TVR	M580	M581	I595	T596	A597	L598	L599	L606	T611	D441	L442	T617	F618	V622	R626	E627	P628	R629	F630	Y633	L634	S635	D636	L637	S640	N641	H642	M645	V647	T648	Q649	E650						
L759	I760	D766	E767	M768	F771	D772	L773	R774	A775	L780	M781	L782	H783	V784	R788	T795	K798	R801	I810	D814	Y815	L819	N820	ALA	SER	ARG	ASP	A715	R716	D722	V725	L726	E854	K855	K856	N857	Y731	K858	E862	L866	M739	R743	L755	D758					
L759	I760	D766	E767	M768	F771	D772	L773	R774	A775	L780	M781	L782	H783	V784	R788	T795	K798	R801	I810	D814	Y815	L819	N820	ALA	SER	ARG	ASP	A715	R716	D722	V725	L726	E854	K855	K856	N857	Y731	K858	E862	L866	M739	R743	L755	D758					
T887	L888	D893	CYS	VAL	GLN	GLY	PRO	PRO	PRO	ALA	ALA	GLU	LEU	GLN	GLN	ALA	TVA	GLU	GLY	ASN	VAL	ARG	ARG	SER	ILE	GLY	VAL	LEU	VAL	ALA	ARG	GLN	SER	PHE	ALA	VAL	ASP	ASP	ALA	THR	THR	ALA	ASN	D1026	L1027	I1028			
PRO	LEU	ASP	ARG	SER	LYS	PHE	GLU	GLU	PRO	ASN	GLU	GLU	GLU	PRO	GLY	GLY	ASN	VAL	ARG	ARG	ARG	SER	ILE	GLY	VAL	LEU	VAL	ALA	ARG	GLN	SER	PHE	ALA	VAL	ASP	ASP	ALA	THR	THR	ALA	ASN	D1026	L1027	I1028					
A1032	M1035	F1036	G1037	VAL	GLY	LYS	THR	THR	SER	SER	PHE	LEU	MET	L1045	D1048	D1049	K1339	F1055	L1059	I1060	T1063	M1064	T1091	S1100	A1101	Q1102	D1103	V1104	E1105	E1113	L1117	E1125	L1126	M1127	VAL	ASP	LYS	LYS	GLY	GLU	VAL	VAL	VAL	GLU	GLU	GLU	GLU	GLU	ASP
LYS	LYS	GLU	ARG	PRO	THR	ASP	GLU	GLU	GLY	PHE	LEU	HIS	PRO	PRO	PRO	GLY	GLU	LYS	SER	GLU	M1168	I1175	R1178	M1182	C1183	M1189	R1190	A1202	V1205	D1208	I1212	M1239	M1242	H1247	T1255	E1260	Q1273	L1274	E1277	I1278	V1282	L1283	Q1284						
H1285	F1286	V1287	H1288	L1289	T1292	Q1298	E1310	G1311	K1312	E1324	D1338	K1339	L1345	M1349	D1354	G1355	L1362	M1363	Y1364	H1365	I1366	S1367	L1368	V1369	D1370	C1405	E1408	V1409	K1410	M1411	V1422	V1426	E1427	M1428	Y1432	V1438	M1443	D1447	R1450	V1451	CYS								
SER	LYS	ARG	GLU	LYS	ARG	VAL	ASP	P1462	T1463	L1464	Y1467	V1471	E1486	M1487	S1488	T1489	LEU	GLN	T1493	V1499	L1502	T1505	L1508	LEU	GLU	CYS	PRO	TRP	LEU	GLN	GLN	HIS	G1520	S1521	V1522	I1526	R1527	T1528	L1529	A1530	M1531	V1532	A1533	K1534	G1535	R1536	ALA		
ILE	LEU	PRO	PRO	MET	ASP	LEU	ASP	ALA	HIS	ILE	SER	MET	SER	GLY	ALA	SER	CYS	ALA	ALA	ALA	GLN	ARG	ASN	ALA	SER	SER	TYR	LYS	ALA	THR	THR	THR	PRO	PRO	PRO	ILE	ASN	GLN	V1586	T1588	P1608	A1611	A1612	E1613	L1614	S1615			
D1619	E1633	Q1636	F1643	L1644	I1648	T1651	L1654	S1657	T1677	LYS	TYR	GLY	ASP	ARG	G1683	R1687	L1691	Q1692	L1695	G1696	M1697	ARG	LYS	THR	SER	THR	SER	THR	ARG	GLY	ASP	ILE	GLY	THR	GLY	LEU	ASP	T1588	P1608	A1611	A1612	E1613	L1614	S1615					



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	20039	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 ( $e^-/\text{\AA}^2$ )	60	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	1600	Depositor
Magnification	105000	Depositor
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	1.560	Depositor
Minimum map value	-0.794	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.047	Depositor
Recommended contour level	0.12	Depositor
Map size ( $\text{\AA}$ )	397.44, 397.44, 397.44	wwPDB
Map dimensions	480, 480, 480	wwPDB
Map angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Pixel spacing ( $\text{\AA}$ )	0.828, 0.828, 0.828	Depositor

## 5 Model quality [i](#)

### 5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: I3P, ZN, CA, ATP

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	0.26	0/17287	0.47	1/23345 (0.0%)
1	B	0.26	0/17287	0.47	1/23345 (0.0%)
1	C	0.26	0/17287	0.47	1/23345 (0.0%)
1	D	0.26	0/17287	0.47	1/23345 (0.0%)
All	All	0.26	0/69148	0.47	4/93380 (0.0%)

There are no bond length outliers.

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1370	ASP	CB-CG-OD2	5.19	122.97	118.30
1	B	1370	ASP	CB-CG-OD2	5.19	122.97	118.30
1	C	1370	ASP	CB-CG-OD2	5.19	122.97	118.30
1	D	1370	ASP	CB-CG-OD2	5.19	122.97	118.30

There are no chirality outliers.

There are no planarity outliers.

### 5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	17072	0	17103	269	0
1	B	17072	0	17103	269	0
1	C	17072	0	17103	274	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	D	17072	0	17103	269	0
2	A	1	0	0	0	0
2	B	1	0	0	0	0
2	C	1	0	0	0	0
2	D	1	0	0	0	0
3	A	24	0	9	0	0
3	B	24	0	9	0	0
3	C	24	0	9	0	0
3	D	24	0	9	0	0
4	A	31	0	12	3	0
4	B	31	0	12	3	0
4	C	31	0	12	3	0
4	D	31	0	12	2	0
5	A	1	0	0	0	0
5	B	1	0	0	0	0
5	C	1	0	0	0	0
5	D	1	0	0	0	0
All	All	68516	0	68496	1065	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 8.

All (1065) 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:240:VAL:HG11	1:B:309:LEU:HD11	1.51	0.91
1:D:240:VAL:HG11	1:D:309:LEU:HD11	1.51	0.91
1:C:240:VAL:HG11	1:C:309:LEU:HD11	1.51	0.90
1:A:240:VAL:HG11	1:A:309:LEU:HD11	1.51	0.88
1:C:712:ALA:HB1	1:C:716:ARG:HH12	1.42	0.85
1:D:712:ALA:HB1	1:D:716:ARG:HH12	1.42	0.85
1:B:712:ALA:HB1	1:B:716:ARG:HH12	1.42	0.83
1:A:712:ALA:HB1	1:A:716:ARG:HH12	1.42	0.83
1:A:885:THR:HG23	1:A:978:ILE:HD13	1.64	0.80
1:C:2506:ILE:O	1:C:2510:ASN:ND2	2.15	0.80
1:D:885:THR:HG23	1:D:978:ILE:HD13	1.64	0.80
1:D:2506:ILE:O	1:D:2510:ASN:ND2	2.15	0.80
1:B:2506:ILE:O	1:B:2510:ASN:ND2	2.15	0.80
1:A:2506:ILE:O	1:A:2510:ASN:ND2	2.15	0.79
1:B:885:THR:HG23	1:B:978:ILE:HD13	1.64	0.79
1:C:885:THR:HG23	1:C:978:ILE:HD13	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:963:VAL:O	1:A:967:THR:HG23	1.85	0.77
1:D:368:GLU:OE1	1:D:390:ARG:NH2	2.18	0.77
1:A:368:GLU:OE1	1:A:390:ARG:NH2	2.18	0.77
1:B:368:GLU:OE1	1:B:390:ARG:NH2	2.18	0.77
1:B:963:VAL:O	1:B:967:THR:HG23	1.85	0.77
1:C:368:GLU:OE1	1:C:390:ARG:NH2	2.18	0.76
1:C:963:VAL:O	1:C:967:THR:HG23	1.85	0.76
1:A:1028:ILE:HG21	1:A:1598:ILE:HD11	1.68	0.75
1:D:963:VAL:O	1:D:967:THR:HG23	1.85	0.75
1:D:1028:ILE:HG21	1:D:1598:ILE:HD11	1.68	0.75
1:A:1117:LEU:HD21	1:A:1175:ILE:HG21	1.69	0.75
1:C:1028:ILE:HG21	1:C:1598:ILE:HD11	1.68	0.75
1:B:1028:ILE:HG21	1:B:1598:ILE:HD11	1.68	0.74
1:D:1117:LEU:HD21	1:D:1175:ILE:HG21	1.69	0.74
1:C:668:THR:HG1	1:C:729:TYR:HH	1.32	0.74
1:A:2303:ASN:OD1	1:A:2304:ARG:N	2.20	0.74
1:B:2303:ASN:OD1	1:B:2304:ARG:N	2.20	0.74
1:D:1102:GLN:NE2	1:D:1105:GLU:OE2	2.21	0.74
1:D:1895:GLN:O	1:D:1900:ASN:ND2	2.20	0.74
1:C:1895:GLN:O	1:C:1900:ASN:ND2	2.20	0.74
1:B:1102:GLN:NE2	1:B:1105:GLU:OE2	2.21	0.74
1:C:1102:GLN:NE2	1:C:1105:GLU:OE2	2.21	0.74
1:A:716:ARG:NH2	1:A:768:MET:SD	2.60	0.74
1:A:1895:GLN:O	1:A:1900:ASN:ND2	2.20	0.74
1:A:1102:GLN:NE2	1:A:1105:GLU:OE2	2.21	0.73
1:D:716:ARG:NH2	1:D:768:MET:SD	2.60	0.73
1:B:1895:GLN:O	1:B:1900:ASN:ND2	2.20	0.73
1:D:2303:ASN:OD1	1:D:2304:ARG:N	2.20	0.73
1:C:1117:LEU:HD21	1:C:1175:ILE:HG21	1.69	0.73
1:C:2303:ASN:OD1	1:C:2304:ARG:N	2.20	0.73
1:D:709:ARG:NH1	1:D:766:ASP:OD1	2.21	0.73
1:C:709:ARG:NH1	1:C:766:ASP:OD1	2.21	0.73
1:B:1644:LEU:HD23	1:B:1731:GLU:HG3	1.70	0.73
1:D:1644:LEU:HD23	1:D:1731:GLU:HG3	1.70	0.73
1:B:716:ARG:NH2	1:B:768:MET:SD	2.60	0.73
1:B:1117:LEU:HD21	1:B:1175:ILE:HG21	1.69	0.73
1:A:709:ARG:NH1	1:A:766:ASP:OD1	2.21	0.72
1:B:709:ARG:NH1	1:B:766:ASP:OD1	2.21	0.72
1:C:716:ARG:NH2	1:C:768:MET:SD	2.60	0.72
1:C:1893:ARG:NH1	1:C:1955:ASN:OD1	2.22	0.72
1:B:1893:ARG:NH1	1:B:1955:ASN:OD1	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2598:ASN:OD1	1:B:2599:LEU:N	2.22	0.72
1:A:1644:LEU:HD23	1:A:1731:GLU:HG3	1.70	0.72
1:C:1644:LEU:HD23	1:C:1731:GLU:HG3	1.70	0.72
1:D:1893:ARG:NH1	1:D:1955:ASN:OD1	2.22	0.72
1:C:712:ALA:HB1	1:C:716:ARG:NH1	2.05	0.72
1:D:467:ASN:OD1	1:D:470:ARG:NH1	2.23	0.72
1:A:467:ASN:OD1	1:A:470:ARG:NH1	2.23	0.72
1:D:2598:ASN:OD1	1:D:2599:LEU:N	2.22	0.72
1:A:564:GLN:HB3	1:A:574:ILE:HD12	1.73	0.71
1:A:2598:ASN:OD1	1:A:2599:LEU:N	2.22	0.71
1:B:712:ALA:HB1	1:B:716:ARG:NH1	2.05	0.71
1:B:2553:VAL:O	1:B:2554:SER:OG	2.07	0.71
1:B:1774:ASN:OD1	1:B:1775:LEU:N	2.23	0.71
1:C:467:ASN:OD1	1:C:470:ARG:NH1	2.23	0.71
1:C:2598:ASN:OD1	1:C:2599:LEU:N	2.22	0.71
1:A:1239:ASN:ND2	1:A:1242:ASN:OD1	2.24	0.71
1:C:1239:ASN:ND2	1:C:1242:ASN:OD1	2.24	0.71
1:C:2553:VAL:O	1:C:2554:SER:OG	2.07	0.71
1:B:467:ASN:OD1	1:B:470:ARG:NH1	2.23	0.71
1:D:795:THR:O	1:D:798:LYS:NZ	2.22	0.71
1:A:712:ALA:HB1	1:A:716:ARG:NH1	2.05	0.71
1:B:564:GLN:HB3	1:B:574:ILE:HD12	1.73	0.71
1:D:389:LEU:HB2	1:D:398:ILE:HD12	1.72	0.71
1:A:1774:ASN:OD1	1:A:1775:LEU:N	2.23	0.70
1:C:1774:ASN:OD1	1:C:1775:LEU:N	2.23	0.70
1:D:1774:ASN:OD1	1:D:1775:LEU:N	2.23	0.70
1:A:795:THR:O	1:A:798:LYS:NZ	2.22	0.70
1:A:1893:ARG:NH1	1:A:1955:ASN:OD1	2.22	0.70
1:B:18:ALA:HB2	1:B:219:TRP:CZ3	2.26	0.70
1:A:1255:THR:OG1	1:A:1260:GLU:OE1	2.10	0.70
1:D:564:GLN:HB3	1:D:574:ILE:HD12	1.73	0.70
1:C:2484:SER:HA	1:D:2399:VAL:HG21	1.73	0.70
1:D:1239:ASN:ND2	1:D:1242:ASN:OD1	2.24	0.70
1:A:389:LEU:HB2	1:A:398:ILE:HD12	1.72	0.70
1:D:712:ALA:HB1	1:D:716:ARG:NH1	2.05	0.70
1:B:1239:ASN:ND2	1:B:1242:ASN:OD1	2.24	0.70
1:A:691:GLU:OE2	1:A:707:SER:OG	2.10	0.70
1:B:389:LEU:HB2	1:B:398:ILE:HD12	1.72	0.70
1:C:18:ALA:HB2	1:C:219:TRP:CZ3	2.27	0.70
1:C:564:GLN:HB3	1:C:574:ILE:HD12	1.73	0.70
1:D:1255:THR:OG1	1:D:1260:GLU:OE1	2.09	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2452:GLU:N	1:B:2452:GLU:OE1	2.25	0.69
1:A:18:ALA:HB2	1:A:219:TRP:CZ3	2.26	0.69
1:C:389:LEU:HB2	1:C:398:ILE:HD12	1.72	0.69
1:D:18:ALA:HB2	1:D:219:TRP:CZ3	2.26	0.69
1:C:2452:GLU:OE1	1:C:2452:GLU:N	2.25	0.69
1:A:1692:GLN:O	1:A:1696:GLN:NE2	2.26	0.69
1:A:2452:GLU:OE1	1:A:2452:GLU:N	2.25	0.69
1:A:2553:VAL:O	1:A:2554:SER:OG	2.07	0.69
1:B:691:GLU:OE2	1:B:707:SER:OG	2.10	0.69
1:A:1502:LEU:HD23	1:A:1529:LEU:HD13	1.75	0.68
1:D:691:GLU:OE2	1:D:707:SER:OG	2.10	0.68
1:B:1692:GLN:O	1:B:1696:GLN:NE2	2.26	0.68
1:C:1894:CYS:SG	1:C:1895:GLN:N	2.67	0.68
1:D:1692:GLN:O	1:D:1696:GLN:NE2	2.26	0.68
1:D:2452:GLU:N	1:D:2452:GLU:OE1	2.25	0.68
1:A:1894:CYS:SG	1:A:1895:GLN:N	2.67	0.68
1:A:2399:VAL:HG21	1:D:2484:SER:HA	1.74	0.68
1:D:2553:VAL:O	1:D:2554:SER:OG	2.07	0.68
1:A:668:THR:HG1	1:A:729:TYR:HH	1.40	0.68
1:C:1502:LEU:HD23	1:C:1529:LEU:HD13	1.75	0.68
1:D:1894:CYS:SG	1:D:1895:GLN:N	2.67	0.68
1:B:780:LEU:O	1:B:784:VAL:HG12	1.94	0.68
1:B:1502:LEU:HD23	1:B:1529:LEU:HD13	1.75	0.68
1:B:1894:CYS:SG	1:B:1895:GLN:N	2.67	0.68
1:B:2484:SER:HA	1:C:2399:VAL:HG21	1.76	0.68
1:B:1255:THR:OG1	1:B:1260:GLU:OE1	2.10	0.68
1:D:1502:LEU:HD23	1:D:1529:LEU:HD13	1.75	0.68
1:B:599:LEU:O	1:B:606:LEU:HD12	1.94	0.68
1:C:599:LEU:O	1:C:606:LEU:HD12	1.94	0.68
1:C:1255:THR:OG1	1:C:1260:GLU:OE1	2.09	0.68
1:C:1692:GLN:O	1:C:1696:GLN:NE2	2.26	0.68
1:A:599:LEU:O	1:A:606:LEU:HD12	1.94	0.67
1:A:668:THR:OG1	1:A:729:TYR:OH	2.13	0.67
1:D:882:LEU:O	1:D:885:THR:OG1	2.13	0.67
1:B:795:THR:O	1:B:798:LYS:NZ	2.22	0.67
1:C:780:LEU:O	1:C:784:VAL:HG12	1.94	0.67
1:D:599:LEU:O	1:D:606:LEU:HD12	1.94	0.67
1:A:2484:SER:HA	1:B:2399:VAL:HG21	1.75	0.67
1:D:780:LEU:O	1:D:784:VAL:HG12	1.94	0.67
1:C:882:LEU:O	1:C:885:THR:OG1	2.13	0.67
1:C:691:GLU:OE2	1:C:707:SER:OG	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:627:GLU:OE2	1:A:629:ARG:NE	2.28	0.67
1:D:2152:LYS:NZ	4:D:2703:ATP:O2B	2.28	0.67
1:C:2152:LYS:NZ	4:C:2703:ATP:O2B	2.28	0.66
1:A:882:LEU:O	1:A:885:THR:OG1	2.13	0.66
1:C:795:THR:O	1:C:798:LYS:NZ	2.22	0.66
1:C:627:GLU:OE2	1:C:629:ARG:NE	2.28	0.66
1:D:627:GLU:OE2	1:D:629:ARG:NE	2.28	0.66
1:B:627:GLU:OE2	1:B:629:ARG:NE	2.28	0.65
1:B:775:ALA:HB1	1:B:862:GLU:OE1	1.96	0.65
1:C:775:ALA:HB1	1:C:862:GLU:OE1	1.96	0.65
1:A:780:LEU:O	1:A:784:VAL:HG12	1.94	0.65
1:B:2152:LYS:NZ	4:B:2703:ATP:O2B	2.28	0.65
1:C:815:TYR:OH	1:C:984:ASP:OD2	2.15	0.65
1:B:882:LEU:O	1:B:885:THR:OG1	2.13	0.65
1:A:775:ALA:HB1	1:A:862:GLU:OE1	1.96	0.65
1:A:2058:LEU:HD12	1:A:2071:LEU:HD13	1.78	0.65
1:D:2155:LEU:CD2	1:D:2178:LEU:HD11	2.27	0.65
1:A:2152:LYS:NZ	4:A:2703:ATP:O2B	2.28	0.64
1:A:1048:ASP:OD2	1:A:1055:PHE:N	2.29	0.64
1:C:2155:LEU:CD2	1:C:2178:LEU:HD11	2.27	0.64
1:D:2058:LEU:HD12	1:D:2071:LEU:HD13	1.78	0.64
1:D:775:ALA:HB1	1:D:862:GLU:OE1	1.96	0.64
1:B:2058:LEU:HD12	1:B:2071:LEU:HD13	1.78	0.64
1:B:2155:LEU:CD2	1:B:2178:LEU:HD11	2.27	0.64
1:B:668:THR:HG1	1:B:729:TYR:HH	1.38	0.64
1:B:815:TYR:OH	1:B:984:ASP:OD2	2.15	0.64
1:A:2155:LEU:CD2	1:A:2178:LEU:HD11	2.27	0.64
1:C:2058:LEU:HD12	1:C:2071:LEU:HD13	1.78	0.63
1:C:1113:GLU:OE2	1:C:1178:ARG:NH1	2.32	0.63
1:B:1113:GLU:OE2	1:B:1178:ARG:NH1	2.32	0.63
1:B:1048:ASP:OD2	1:B:1055:PHE:N	2.29	0.62
1:D:1934:VAL:HG11	1:D:1988:LEU:HB3	1.81	0.62
1:B:668:THR:OG1	1:B:729:TYR:OH	2.13	0.62
1:B:772:ASP:OD1	1:B:773:LEU:N	2.33	0.62
1:B:1934:VAL:HG11	1:B:1988:LEU:HB3	1.81	0.62
1:D:1113:GLU:OE2	1:D:1178:ARG:NH1	2.32	0.62
1:A:2155:LEU:HD22	1:A:2178:LEU:HD21	1.82	0.62
1:D:772:ASP:OD1	1:D:773:LEU:N	2.33	0.62
1:C:2155:LEU:HD22	1:C:2178:LEU:HD21	1.82	0.62
1:A:1934:VAL:HG11	1:A:1988:LEU:HB3	1.81	0.61
1:B:2155:LEU:HD22	1:B:2178:LEU:HD21	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2155:LEU:HD22	1:D:2178:LEU:HD21	1.82	0.61
1:C:1048:ASP:OD2	1:C:1055:PHE:N	2.29	0.61
1:C:1934:VAL:HG11	1:C:1988:LEU:HB3	1.81	0.61
1:D:1048:ASP:OD2	1:D:1055:PHE:N	2.29	0.61
1:A:1113:GLU:OE2	1:A:1178:ARG:NH1	2.32	0.61
1:A:2178:LEU:HD13	1:A:2569:LEU:HD22	1.83	0.61
1:C:1060:ILE:O	1:C:1063:THR:OG1	2.16	0.61
1:C:2178:LEU:HD13	1:C:2569:LEU:HD22	1.83	0.61
1:B:2178:LEU:HD13	1:B:2569:LEU:HD22	1.83	0.61
1:A:629:ARG:NH1	1:A:633:TYR:OH	2.34	0.61
1:B:629:ARG:NH1	1:B:633:TYR:OH	2.34	0.61
1:C:772:ASP:OD1	1:C:773:LEU:N	2.33	0.61
1:B:2557:GLU:OE2	1:B:2561:LEU:HD12	2.01	0.61
1:C:2557:GLU:OE2	1:C:2561:LEU:HD12	2.01	0.61
1:A:815:TYR:OH	1:A:984:ASP:OD2	2.15	0.61
1:A:772:ASP:OD1	1:A:773:LEU:N	2.33	0.60
1:D:2557:GLU:OE2	1:D:2561:LEU:HD12	2.01	0.60
1:B:1960:VAL:HG13	1:B:1961:THR:HG23	1.83	0.60
1:A:1310:GLU:OE1	1:A:1312:LYS:NZ	2.35	0.60
1:C:503:ARG:NH2	1:C:566:ASP:O	2.35	0.60
1:C:1310:GLU:OE1	1:C:1312:LYS:NZ	2.35	0.60
1:D:640:SER:HB2	1:D:645:ILE:HD11	1.83	0.60
1:A:652:ILE:O	1:A:656:VAL:HG12	2.02	0.60
1:B:640:SER:HB2	1:B:645:ILE:HD11	1.83	0.60
1:D:629:ARG:NH1	1:D:633:TYR:OH	2.34	0.60
1:D:1060:ILE:O	1:D:1063:THR:OG1	2.16	0.60
1:A:1960:VAL:HG13	1:A:1961:THR:HG23	1.83	0.60
1:D:503:ARG:NH2	1:D:566:ASP:O	2.35	0.60
1:A:503:ARG:NH2	1:A:566:ASP:O	2.35	0.60
1:A:983:LEU:HD21	1:A:1091:THR:HG21	1.84	0.60
1:D:983:LEU:HD21	1:D:1091:THR:HG21	1.84	0.60
1:B:652:ILE:O	1:B:656:VAL:HG12	2.02	0.60
1:D:2178:LEU:HD13	1:D:2569:LEU:HD22	1.83	0.60
1:A:2557:GLU:OE2	1:A:2561:LEU:HD12	2.01	0.60
1:B:1691:LEU:HD21	1:B:1695:LEU:HD11	1.84	0.59
1:C:629:ARG:NH1	1:C:633:TYR:OH	2.34	0.59
1:A:743:ARG:NH1	1:A:788:ARG:O	2.36	0.59
1:A:885:THR:CG2	1:A:978:ILE:HD13	2.32	0.59
1:B:743:ARG:NH1	1:B:788:ARG:O	2.36	0.59
1:D:652:ILE:O	1:D:656:VAL:HG12	2.02	0.59
1:B:503:ARG:NH2	1:B:566:ASP:O	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:983:LEU:HD21	1:B:1091:THR:HG21	1.84	0.59
1:D:743:ARG:NH1	1:D:788:ARG:O	2.36	0.59
1:D:1691:LEU:HD21	1:D:1695:LEU:HD11	1.84	0.59
1:A:640:SER:HB2	1:A:645:ILE:HD11	1.83	0.59
1:A:2030:LYS:O	1:A:2034:LEU:HD23	2.03	0.59
1:A:2573:VAL:O	1:A:2577:VAL:HG12	2.03	0.59
1:B:2476:VAL:HG22	1:B:2480:LEU:CD1	2.33	0.59
1:D:2030:LYS:O	1:D:2034:LEU:HD23	2.03	0.59
1:B:1060:ILE:O	1:B:1063:THR:OG1	2.16	0.59
1:C:2030:LYS:O	1:C:2034:LEU:HD23	2.03	0.59
1:D:2573:VAL:O	1:D:2577:VAL:HG12	2.03	0.59
1:C:640:SER:HB2	1:C:645:ILE:HD11	1.83	0.59
1:C:1960:VAL:HG13	1:C:1961:THR:HG23	1.83	0.59
1:B:1310:GLU:OE1	1:B:1312:LYS:NZ	2.35	0.59
1:C:652:ILE:O	1:C:656:VAL:HG12	2.02	0.59
1:D:885:THR:CG2	1:D:978:ILE:HD13	2.32	0.59
1:D:1310:GLU:OE1	1:D:1312:LYS:NZ	2.35	0.59
1:D:1960:VAL:HG13	1:D:1961:THR:HG23	1.83	0.59
1:D:2476:VAL:HG22	1:D:2480:LEU:CD1	2.33	0.59
1:D:2293:LYS:HB3	1:D:2327:ILE:HG22	1.85	0.59
1:A:2476:VAL:HG22	1:A:2480:LEU:CD1	2.33	0.59
1:A:2604:ARG:O	1:A:2606:ARG:N	2.36	0.59
1:B:2573:VAL:O	1:B:2577:VAL:HG12	2.03	0.59
1:C:819:LEU:HD12	1:C:820:ASN:O	2.03	0.59
1:C:983:LEU:HD21	1:C:1091:THR:HG21	1.84	0.59
1:B:2604:ARG:O	1:B:2606:ARG:N	2.36	0.58
1:C:2476:VAL:HG22	1:C:2480:LEU:CD1	2.33	0.58
1:D:819:LEU:HD12	1:D:820:ASN:O	2.03	0.58
1:D:668:THR:OG1	1:D:729:TYR:OH	2.12	0.58
1:A:2293:LYS:HB3	1:A:2327:ILE:HG22	1.85	0.58
1:C:2293:LYS:HB3	1:C:2327:ILE:HG22	1.85	0.58
1:D:2560:LYS:NZ	4:D:2703:ATP:O3G	2.35	0.58
1:C:1691:LEU:HD21	1:C:1695:LEU:HD11	1.84	0.58
1:B:885:THR:CG2	1:B:978:ILE:HD13	2.32	0.58
1:C:743:ARG:NH1	1:C:788:ARG:O	2.36	0.58
1:C:885:THR:CG2	1:C:978:ILE:HD13	2.32	0.58
1:D:362:ASP:OD1	1:D:363:ILE:N	2.37	0.58
1:D:815:TYR:OH	1:D:984:ASP:OD2	2.15	0.58
1:B:2030:LYS:O	1:B:2034:LEU:HD23	2.03	0.58
1:B:2293:LYS:HB3	1:B:2327:ILE:HG22	1.85	0.58
1:B:2560:LYS:NZ	4:B:2703:ATP:O3G	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2560:LYS:NZ	4:C:2703:ATP:O3G	2.35	0.58
1:B:819:LEU:HD12	1:B:820:ASN:O	2.03	0.58
1:C:2573:VAL:O	1:C:2577:VAL:HG12	2.03	0.58
1:C:362:ASP:OD1	1:C:363:ILE:N	2.37	0.58
1:A:362:ASP:OD1	1:A:363:ILE:N	2.37	0.57
1:C:252:LEU:HD13	1:C:417:LEU:HD12	1.86	0.57
1:C:1950:GLY:O	1:C:1952:CYS:N	2.36	0.57
1:D:2604:ARG:O	1:D:2606:ARG:N	2.36	0.57
1:A:2560:LYS:NZ	4:A:2703:ATP:O3G	2.35	0.57
1:D:252:LEU:HD13	1:D:417:LEU:HD12	1.86	0.57
1:A:819:LEU:HD12	1:A:820:ASN:O	2.03	0.57
1:A:1691:LEU:HD21	1:A:1695:LEU:HD11	1.84	0.57
1:B:362:ASP:OD1	1:B:363:ILE:N	2.37	0.57
1:A:1950:GLY:O	1:A:1952:CYS:N	2.36	0.57
1:D:240:VAL:CG1	1:D:309:LEU:HD11	2.30	0.57
1:B:388:ARG:NH1	1:B:425:ASP:O	2.37	0.57
1:B:1338:ASP:OD1	1:B:1339:LYS:N	2.38	0.57
1:D:733:LEU:HD22	1:D:780:LEU:HD22	1.87	0.57
1:B:733:LEU:HD22	1:B:780:LEU:HD22	1.87	0.57
1:A:388:ARG:NH1	1:A:425:ASP:O	2.37	0.57
1:A:733:LEU:HD22	1:A:780:LEU:HD22	1.87	0.57
1:A:1364:TYR:HE1	1:A:1368:LEU:HD11	1.70	0.57
1:C:424:GLU:N	1:C:424:GLU:OE1	2.38	0.57
1:C:1338:ASP:OD1	1:C:1339:LYS:N	2.38	0.57
1:D:388:ARG:NH1	1:D:425:ASP:O	2.37	0.56
1:D:1060:ILE:HG22	1:D:1064:MET:HE1	1.85	0.56
1:C:388:ARG:NH1	1:C:425:ASP:O	2.37	0.56
1:C:733:LEU:HD22	1:C:780:LEU:HD22	1.87	0.56
1:A:424:GLU:OE1	1:A:424:GLU:N	2.38	0.56
1:A:606:LEU:HD13	1:A:645:ILE:CD1	2.36	0.56
1:A:1060:ILE:O	1:A:1063:THR:OG1	2.16	0.56
1:A:1636:GLN:OE1	1:A:1636:GLN:N	2.39	0.56
1:B:606:LEU:HD13	1:B:645:ILE:CD1	2.36	0.56
1:B:1364:TYR:HE1	1:B:1368:LEU:HD11	1.70	0.56
1:C:606:LEU:HD13	1:C:645:ILE:CD1	2.36	0.56
1:D:606:LEU:HD13	1:D:645:ILE:CD1	2.36	0.56
1:D:1338:ASP:OD1	1:D:1339:LYS:N	2.38	0.56
1:A:1338:ASP:OD1	1:A:1339:LYS:N	2.38	0.56
1:B:252:LEU:HD13	1:B:417:LEU:HD12	1.86	0.56
1:C:1364:TYR:HE1	1:C:1368:LEU:HD11	1.70	0.56
1:A:1288:HIS:O	1:A:1292:THR:OG1	2.17	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:614:GLU:O	1:B:617:THR:OG1	2.23	0.56
1:B:1273:GLN:NE2	1:B:1277:GLU:OE2	2.39	0.56
1:D:424:GLU:OE1	1:D:424:GLU:N	2.38	0.56
1:A:252:LEU:HD13	1:A:417:LEU:HD12	1.86	0.56
1:C:614:GLU:O	1:C:617:THR:OG1	2.23	0.56
1:B:424:GLU:N	1:B:424:GLU:OE1	2.38	0.56
1:B:962:ILE:O	1:B:966:GLU:OE1	2.24	0.56
1:B:1950:GLY:O	1:B:1952:CYS:N	2.36	0.56
1:C:1366:ILE:HD13	1:C:1408:GLU:OE1	2.06	0.56
1:C:2604:ARG:O	1:C:2606:ARG:N	2.36	0.56
1:D:1273:GLN:NE2	1:D:1277:GLU:OE2	2.39	0.56
1:D:1364:TYR:HE1	1:D:1368:LEU:HD11	1.70	0.56
1:D:962:ILE:O	1:D:966:GLU:OE1	2.24	0.56
1:A:1273:GLN:NE2	1:A:1277:GLU:OE2	2.39	0.55
1:D:1366:ILE:HD13	1:D:1408:GLU:OE1	2.06	0.55
1:A:962:ILE:O	1:A:966:GLU:OE1	2.24	0.55
1:A:1366:ILE:HD13	1:A:1408:GLU:OE1	2.06	0.55
1:C:962:ILE:O	1:C:966:GLU:OE1	2.24	0.55
1:C:1273:GLN:NE2	1:C:1277:GLU:OE2	2.39	0.55
1:D:1950:GLY:O	1:D:1952:CYS:N	2.36	0.55
1:A:614:GLU:O	1:A:617:THR:OG1	2.23	0.55
1:B:1366:ILE:HD13	1:B:1408:GLU:OE1	2.06	0.55
1:B:1531:MET:O	1:B:1534:LYS:NZ	2.40	0.55
1:B:1636:GLN:N	1:B:1636:GLN:OE1	2.39	0.55
1:A:240:VAL:CG1	1:A:309:LEU:HD11	2.30	0.55
1:B:240:VAL:CG1	1:B:309:LEU:HD11	2.30	0.55
1:C:1960:VAL:HG23	1:C:1967:ILE:HG13	1.89	0.55
1:D:755:LEU:HD12	1:D:780:LEU:HD21	1.89	0.55
1:D:1636:GLN:N	1:D:1636:GLN:OE1	2.39	0.55
1:A:1960:VAL:HG23	1:A:1967:ILE:HG13	1.89	0.55
1:C:1060:ILE:HG22	1:C:1064:MET:HE1	1.89	0.55
1:D:1364:TYR:CE1	1:D:1368:LEU:HD11	2.42	0.54
1:B:1960:VAL:HG23	1:B:1967:ILE:HG13	1.89	0.54
1:B:2155:LEU:HD21	1:B:2174:GLN:CG	2.37	0.54
1:A:1364:TYR:CE1	1:A:1368:LEU:HD11	2.42	0.54
1:D:1059:LEU:O	1:D:1063:THR:HG23	2.08	0.54
1:A:2144:CYS:HA	1:A:2182:MET:CE	2.38	0.54
1:C:755:LEU:HD12	1:C:780:LEU:HD21	1.89	0.54
1:C:2155:LEU:HD21	1:C:2174:GLN:CG	2.37	0.54
1:D:1960:VAL:HG23	1:D:1967:ILE:HG13	1.89	0.54
1:D:2155:LEU:HD21	1:D:2174:GLN:CG	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:578:PHE:CE2	1:A:595:ILE:HD12	2.43	0.54
1:B:578:PHE:CE2	1:B:595:ILE:HD12	2.43	0.54
1:C:1059:LEU:O	1:C:1063:THR:HG23	2.08	0.54
1:D:578:PHE:CE2	1:D:595:ILE:HD12	2.43	0.54
1:D:1531:MET:O	1:D:1534:LYS:NZ	2.40	0.54
1:D:2144:CYS:HA	1:D:2182:MET:CE	2.38	0.54
1:A:1060:ILE:HG22	1:A:1064:MET:HE1	1.88	0.53
1:C:578:PHE:CE2	1:C:595:ILE:HD12	2.43	0.53
1:A:755:LEU:HD12	1:A:780:LEU:HD21	1.89	0.53
1:A:1059:LEU:O	1:A:1063:THR:HG23	2.08	0.53
1:B:1364:TYR:CE1	1:B:1368:LEU:HD11	2.42	0.53
1:B:2144:CYS:HA	1:B:2182:MET:CE	2.38	0.53
1:C:1531:MET:O	1:C:1534:LYS:NZ	2.39	0.53
1:D:2297:VAL:HG22	1:D:2323:HIS:HB3	1.91	0.53
1:A:2155:LEU:HD21	1:A:2174:GLN:CG	2.37	0.53
1:B:1059:LEU:O	1:B:1063:THR:HG23	2.08	0.53
1:C:1364:TYR:CE1	1:C:1368:LEU:HD11	2.42	0.53
1:C:1636:GLN:OE1	1:C:1636:GLN:N	2.39	0.53
1:A:2297:VAL:HG22	1:A:2323:HIS:HB3	1.91	0.53
1:C:2522:ASP:O	1:C:2526:GLU:OE1	2.27	0.53
1:B:755:LEU:HD12	1:B:780:LEU:HD21	1.89	0.53
1:B:2297:VAL:HG22	1:B:2323:HIS:HB3	1.91	0.53
1:C:2144:CYS:HA	1:C:2182:MET:CE	2.38	0.53
1:D:2522:ASP:O	1:D:2526:GLU:OE1	2.27	0.53
1:A:1691:LEU:CD2	1:A:1695:LEU:HD11	2.39	0.53
1:A:2155:LEU:HD21	1:A:2174:GLN:HG3	1.91	0.53
1:C:240:VAL:CG1	1:C:309:LEU:HD11	2.30	0.53
1:B:54:ASP:O	1:B:126:HIS:NE2	2.39	0.53
1:D:853:ASN:OD1	1:D:856:LYS:N	2.40	0.53
1:D:1691:LEU:CD2	1:D:1695:LEU:HD11	2.39	0.53
1:C:1691:LEU:CD2	1:C:1695:LEU:HD11	2.39	0.53
1:B:1691:LEU:CD2	1:B:1695:LEU:HD11	2.39	0.52
1:C:1870:MET:HE2	1:C:1870:MET:HA	1.91	0.52
1:C:2297:VAL:HG22	1:C:2323:HIS:HB3	1.91	0.52
1:D:1870:MET:HA	1:D:1870:MET:HE2	1.91	0.52
1:B:504:GLU:OE1	1:B:504:GLU:N	2.41	0.52
1:B:1060:ILE:HG22	1:B:1064:MET:HE1	1.92	0.52
1:C:482:PHE:HZ	1:C:508:LEU:HD23	1.75	0.52
1:D:482:PHE:HZ	1:D:508:LEU:HD23	1.75	0.52
1:D:614:GLU:O	1:D:617:THR:OG1	2.23	0.52
1:D:1183:CYS:O	1:D:1190:ARG:NH2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:493:VAL:HG21	1:B:555:LEU:HD21	1.92	0.52
1:B:2155:LEU:HD21	1:B:2174:GLN:HG3	1.91	0.52
1:B:2522:ASP:O	1:B:2526:GLU:OE1	2.27	0.52
1:A:54:ASP:O	1:A:126:HIS:NE2	2.39	0.52
1:B:1183:CYS:O	1:B:1190:ARG:NH1	2.42	0.52
1:C:493:VAL:HG21	1:C:555:LEU:HD21	1.92	0.52
1:A:853:ASN:OD1	1:A:856:LYS:N	2.40	0.52
1:A:1183:CYS:O	1:A:1190:ARG:NH2	2.43	0.52
1:D:1288:HIS:O	1:D:1292:THR:OG1	2.17	0.52
1:A:2522:ASP:O	1:A:2526:GLU:OE1	2.27	0.52
1:C:635:SER:O	1:C:738:ARG:NH1	2.43	0.52
1:B:2391:LEU:HD23	1:B:2391:LEU:H	1.75	0.52
1:D:1183:CYS:O	1:D:1190:ARG:NH1	2.42	0.52
1:D:2391:LEU:HD23	1:D:2391:LEU:H	1.75	0.52
1:B:482:PHE:HZ	1:B:508:LEU:HD23	1.75	0.52
1:C:2155:LEU:HD21	1:C:2174:GLN:HG3	1.91	0.52
1:A:482:PHE:HZ	1:A:508:LEU:HD23	1.75	0.51
1:A:2391:LEU:H	1:A:2391:LEU:HD23	1.75	0.51
1:C:1183:CYS:O	1:C:1190:ARG:NH1	2.42	0.51
1:D:858:LYS:O	1:D:862:GLU:OE1	2.29	0.51
1:D:1612:ALA:O	1:D:1615:SER:OG	2.25	0.51
1:A:801:ARG:NH2	1:A:984:ASP:OD1	2.44	0.51
1:C:2391:LEU:HD23	1:C:2391:LEU:H	1.75	0.51
1:D:2155:LEU:HD21	1:D:2174:GLN:HG3	1.91	0.51
1:D:493:VAL:HG21	1:D:555:LEU:HD21	1.92	0.51
1:D:635:SER:O	1:D:738:ARG:NH1	2.43	0.51
1:A:493:VAL:HG21	1:A:555:LEU:HD21	1.92	0.51
1:D:801:ARG:NH2	1:D:984:ASP:OD1	2.44	0.51
1:B:2162:ASP:OD1	1:B:2163:GLU:N	2.42	0.51
1:C:696:TRP:CE2	1:C:725:VAL:HG21	2.46	0.51
1:D:54:ASP:O	1:D:126:HIS:NE2	2.39	0.51
1:A:504:GLU:OE1	1:A:504:GLU:N	2.41	0.51
1:B:635:SER:O	1:B:738:ARG:NH1	2.43	0.51
1:A:1183:CYS:O	1:A:1190:ARG:NH1	2.42	0.51
1:A:1982:CYS:SG	1:A:1983:LYS:N	2.84	0.51
1:B:1982:CYS:SG	1:B:1983:LYS:N	2.84	0.51
1:C:1982:CYS:SG	1:C:1983:LYS:N	2.84	0.51
1:D:1982:CYS:SG	1:D:1983:LYS:N	2.84	0.51
1:A:635:SER:O	1:A:738:ARG:NH1	2.43	0.51
1:B:760:ILE:HG21	1:B:781:MET:HB2	1.92	0.51
1:B:801:ARG:NH2	1:B:984:ASP:OD1	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1526:ILE:HD13	1:B:1529:LEU:HD21	1.93	0.51
1:C:317:ALA:HB3	1:C:391:HIS:CE1	2.46	0.51
1:D:1287:VAL:HG21	1:D:1324:GLU:HB3	1.93	0.51
1:A:760:ILE:HG21	1:A:781:MET:HB2	1.92	0.51
1:B:317:ALA:HB3	1:B:391:HIS:CE1	2.46	0.51
1:B:1870:MET:HA	1:B:1870:MET:HE2	1.91	0.51
1:A:1526:ILE:HD13	1:A:1529:LEU:HD21	1.93	0.50
1:C:1916:GLY:O	1:C:1917:SER:OG	2.25	0.50
1:A:482:PHE:O	1:A:505:ARG:NH1	2.40	0.50
1:A:696:TRP:CE2	1:A:725:VAL:HG21	2.46	0.50
1:A:2598:ASN:OD1	1:A:2600:ASP:N	2.38	0.50
1:C:858:LYS:O	1:C:862:GLU:OE1	2.29	0.50
1:A:2162:ASP:OD1	1:A:2163:GLU:N	2.42	0.50
1:C:1183:CYS:O	1:C:1190:ARG:NH2	2.43	0.50
1:C:1287:VAL:HG21	1:C:1324:GLU:HB3	1.93	0.50
1:C:801:ARG:NH2	1:C:984:ASP:OD1	2.44	0.50
1:A:317:ALA:HB3	1:A:391:HIS:CE1	2.46	0.50
1:B:696:TRP:CE2	1:B:725:VAL:HG21	2.46	0.50
1:B:858:LYS:O	1:B:862:GLU:OE1	2.29	0.50
1:B:1183:CYS:O	1:B:1190:ARG:NH2	2.43	0.50
1:B:1922:LEU:HD23	1:B:1922:LEU:H	1.77	0.50
1:C:1526:ILE:HD13	1:C:1529:LEU:HD21	1.93	0.50
1:A:1287:VAL:HG21	1:A:1324:GLU:HB3	1.93	0.50
1:A:1870:MET:HE2	1:A:1870:MET:HA	1.92	0.50
1:B:853:ASN:OD1	1:B:856:LYS:N	2.40	0.50
1:C:1422:VAL:O	1:C:1432:TYR:OH	2.24	0.50
1:D:317:ALA:HB3	1:D:391:HIS:CE1	2.46	0.50
1:D:1922:LEU:H	1:D:1922:LEU:HD23	1.77	0.50
1:A:1532:VAL:HG12	1:A:1532:VAL:O	2.12	0.50
1:B:1287:VAL:HG21	1:B:1324:GLU:HB3	1.93	0.50
1:C:885:THR:HG21	1:C:978:ILE:HG21	1.94	0.50
1:D:2598:ASN:OD1	1:D:2600:ASP:N	2.38	0.50
1:A:367:PHE:HE2	1:A:398:ILE:HD11	1.77	0.50
1:B:394:THR:OG1	1:B:396:THR:OG1	2.30	0.50
1:C:394:THR:OG1	1:C:396:THR:OG1	2.30	0.50
1:C:760:ILE:HG21	1:C:781:MET:HB2	1.92	0.50
1:C:2178:LEU:HD13	1:C:2569:LEU:CD2	2.42	0.50
1:D:1526:ILE:HD13	1:D:1529:LEU:HD21	1.93	0.50
1:A:858:LYS:O	1:A:862:GLU:OE1	2.29	0.50
1:A:2178:LEU:HD13	1:A:2569:LEU:CD2	2.42	0.50
1:D:2178:LEU:HD13	1:D:2569:LEU:CD2	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:367:PHE:HE2	1:D:398:ILE:HD11	1.77	0.49
1:D:696:TRP:CE2	1:D:725:VAL:HG21	2.46	0.49
1:A:15:SER:HG	1:A:25:PHE:HE2	1.60	0.49
1:A:1922:LEU:H	1:A:1922:LEU:HD23	1.77	0.49
1:B:885:THR:HG21	1:B:978:ILE:HG21	1.94	0.49
1:C:54:ASP:O	1:C:126:HIS:NE2	2.39	0.49
1:D:760:ILE:HG21	1:D:781:MET:HB2	1.92	0.49
1:D:1532:VAL:HG12	1:D:1532:VAL:O	2.12	0.49
1:A:1531:MET:O	1:A:1534:LYS:NZ	2.40	0.49
1:B:482:PHE:O	1:B:505:ARG:NH1	2.40	0.49
1:C:1284:GLN:NE2	1:C:1288:HIS:NE2	2.59	0.49
1:D:885:THR:HG21	1:D:978:ILE:HG21	1.94	0.49
1:C:1925:LEU:HB3	1:C:1929:ILE:HD13	1.95	0.49
1:C:722:ASP:O	1:C:725:VAL:HG12	2.13	0.49
1:C:985:TYR:CD2	1:C:1045:LEU:HD21	2.48	0.49
1:B:1532:VAL:HG12	1:B:1532:VAL:O	2.12	0.49
1:B:2598:ASN:OD1	1:B:2600:ASP:N	2.38	0.49
1:C:1612:ALA:O	1:C:1615:SER:OG	2.25	0.49
1:D:394:THR:OG1	1:D:396:THR:OG1	2.30	0.49
1:A:135:VAL:HG11	1:A:187:PRO:CB	2.43	0.49
1:A:885:THR:HG21	1:A:978:ILE:HG21	1.94	0.49
1:A:2481:ARG:O	1:A:2493:ARG:NH2	2.43	0.49
1:B:985:TYR:CD2	1:B:1045:LEU:HD21	2.48	0.49
1:C:135:VAL:HG11	1:C:187:PRO:CB	2.43	0.49
1:C:367:PHE:HE2	1:C:398:ILE:HD11	1.77	0.49
1:D:985:TYR:CD2	1:D:1045:LEU:HD21	2.48	0.49
1:C:1922:LEU:HD23	1:C:1922:LEU:H	1.77	0.49
1:D:1925:LEU:HB3	1:D:1929:ILE:HD13	1.95	0.49
1:A:722:ASP:O	1:A:725:VAL:HG12	2.13	0.48
1:B:1288:HIS:O	1:B:1292:THR:OG1	2.17	0.48
1:B:2178:LEU:HD13	1:B:2569:LEU:CD2	2.42	0.48
1:C:1532:VAL:O	1:C:1532:VAL:HG12	2.12	0.48
1:D:482:PHE:O	1:D:505:ARG:NH1	2.40	0.48
1:B:367:PHE:HE2	1:B:398:ILE:HD11	1.77	0.48
1:C:649:GLN:NE2	1:C:739:MET:O	2.36	0.48
1:B:135:VAL:HG11	1:B:187:PRO:CB	2.43	0.48
1:B:722:ASP:O	1:B:725:VAL:HG12	2.13	0.48
1:A:12:ASP:O	1:A:59:VAL:HG22	2.13	0.48
1:A:985:TYR:CD2	1:A:1045:LEU:HD21	2.48	0.48
1:B:12:ASP:O	1:B:59:VAL:HG22	2.13	0.48
1:D:135:VAL:HG11	1:D:187:PRO:CB	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:722:ASP:O	1:D:725:VAL:HG12	2.13	0.48
1:C:12:ASP:O	1:C:59:VAL:HG22	2.13	0.48
1:B:1925:LEU:HB3	1:B:1929:ILE:HD13	1.95	0.48
1:C:482:PHE:O	1:C:505:ARG:NH1	2.40	0.48
1:C:1619:ASP:OD2	1:C:1687:ARG:NH2	2.45	0.48
1:C:282:LEU:HD12	1:C:442:LEU:HD22	1.96	0.48
1:A:45:LEU:HD11	1:A:220:LYS:HD3	1.96	0.48
1:A:1925:LEU:HB3	1:A:1929:ILE:HD13	1.95	0.48
1:C:64:ARG:NE	1:D:1963:GLU:O	2.47	0.48
1:C:508:LEU:HD12	1:C:512:GLN:HG2	1.96	0.48
1:D:389:LEU:CB	1:D:398:ILE:HD12	2.42	0.48
1:B:64:ARG:NE	1:C:1963:GLU:O	2.47	0.48
1:D:282:LEU:HD12	1:D:442:LEU:HD22	1.96	0.48
1:D:2162:ASP:OD1	1:D:2163:GLU:N	2.42	0.48
1:B:6:SER:O	1:B:179:VAL:HG22	2.14	0.47
1:D:6:SER:O	1:D:179:VAL:HG22	2.14	0.47
1:A:6:SER:O	1:A:179:VAL:HG22	2.14	0.47
1:A:139:LEU:HD12	1:B:1428:MET:HG3	1.97	0.47
1:A:2553:VAL:HG13	1:A:2554:SER:N	2.30	0.47
1:B:2362:VAL:HG22	1:B:2516:ILE:HD12	1.97	0.47
1:D:45:LEU:HD11	1:D:220:LYS:HD3	1.96	0.47
1:A:1963:GLU:O	1:D:64:ARG:NE	2.47	0.47
1:C:853:ASN:OD1	1:C:856:LYS:N	2.40	0.47
1:C:2481:ARG:O	1:C:2493:ARG:NH2	2.43	0.47
1:A:234:VAL:HG11	1:A:297:ALA:HB1	1.97	0.47
1:B:389:LEU:CB	1:B:398:ILE:HD12	2.42	0.47
1:B:2474:GLY:HA3	1:B:2478:ASP:OD2	2.15	0.47
1:C:6:SER:O	1:C:179:VAL:HG22	2.14	0.47
1:D:234:VAL:HG11	1:D:297:ALA:HB1	1.97	0.47
1:A:389:LEU:CB	1:A:398:ILE:HD12	2.42	0.47
1:A:508:LEU:HD12	1:A:512:GLN:HG2	1.96	0.47
1:A:2474:GLY:HA3	1:A:2478:ASP:OD2	2.15	0.47
1:B:282:LEU:HD12	1:B:442:LEU:HD22	1.96	0.47
1:C:1785:PHE:O	1:C:1788:VAL:HG12	2.15	0.47
1:C:2364:ARG:HH12	1:C:2523:LEU:HD11	1.79	0.47
1:D:12:ASP:O	1:D:59:VAL:HG22	2.13	0.47
1:D:2364:ARG:HH12	1:D:2523:LEU:HD11	1.79	0.47
1:D:2553:VAL:HG13	1:D:2554:SER:N	2.30	0.47
1:C:485:ASP:OD2	1:C:502:ASN:OD1	2.33	0.47
1:C:2474:GLY:HA3	1:C:2478:ASP:OD2	2.15	0.47
1:D:508:LEU:HD12	1:D:512:GLN:HG2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2474:GLY:HA3	1:D:2478:ASP:OD2	2.15	0.47
1:A:282:LEU:HD12	1:A:442:LEU:HD22	1.96	0.47
1:A:317:ALA:HB3	1:A:391:HIS:ND1	2.30	0.47
1:C:886:ARG:NE	1:C:1049:ASP:OD1	2.45	0.47
1:C:2553:VAL:HG13	1:C:2554:SER:N	2.30	0.47
1:D:2211:LEU:HD22	1:D:2285:LEU:HD22	1.97	0.47
1:A:252:LEU:HD13	1:A:417:LEU:CD1	2.45	0.47
1:A:2362:VAL:HG22	1:A:2516:ILE:HD12	1.97	0.47
1:C:45:LEU:HD11	1:C:220:LYS:HD3	1.96	0.47
1:C:2362:VAL:HG22	1:C:2516:ILE:HD12	1.97	0.47
1:D:317:ALA:HB3	1:D:391:HIS:ND1	2.30	0.47
1:D:2178:LEU:O	1:D:2182:MET:HG3	2.15	0.47
1:B:317:ALA:HB3	1:B:391:HIS:ND1	2.30	0.46
1:B:1278:ILE:HD11	1:B:1282:VAL:HG11	1.97	0.46
1:B:1902:ASN:OD1	1:B:1905:CYS:SG	2.60	0.46
1:B:2178:LEU:O	1:B:2182:MET:HG3	2.15	0.46
1:D:1100:SER:OG	1:D:1101:ALA:N	2.49	0.46
1:A:485:ASP:OD2	1:A:502:ASN:OD1	2.33	0.46
1:A:1785:PHE:O	1:A:1788:VAL:HG12	2.15	0.46
1:D:1785:PHE:O	1:D:1788:VAL:HG12	2.15	0.46
1:A:64:ARG:NE	1:B:1963:GLU:O	2.48	0.46
1:A:1278:ILE:HD11	1:A:1282:VAL:HG11	1.97	0.46
1:A:2178:LEU:O	1:A:2182:MET:HG3	2.15	0.46
1:A:2190:SER:OG	1:A:2191:MET:SD	2.74	0.46
1:B:252:LEU:HD11	1:B:263:VAL:CG1	2.46	0.46
1:B:1608:PRO:HA	1:B:1611:GLN:NE2	2.30	0.46
1:C:1284:GLN:HE21	1:C:1288:HIS:CE1	2.34	0.46
1:D:252:LEU:HD11	1:D:263:VAL:CG1	2.46	0.46
1:D:485:ASP:OD2	1:D:502:ASN:OD1	2.33	0.46
1:A:1428:MET:HG3	1:D:139:LEU:HD12	1.97	0.46
1:A:2211:LEU:HD22	1:A:2285:LEU:HD22	1.97	0.46
1:B:508:LEU:HD12	1:B:512:GLN:HG2	1.96	0.46
1:B:649:GLN:NE2	1:B:739:MET:O	2.36	0.46
1:B:1349:MET:HE1	1:B:1405:CYS:HA	1.96	0.46
1:B:1785:PHE:O	1:B:1788:VAL:HG12	2.15	0.46
1:B:2553:VAL:O	1:B:2557:GLU:HB3	2.16	0.46
1:C:317:ALA:HB3	1:C:391:HIS:ND1	2.31	0.46
1:C:1202:ALA:O	1:C:1205:VAL:HG12	2.16	0.46
1:C:2394:ASP:OD1	1:C:2481:ARG:NH2	2.48	0.46
1:D:367:PHE:CE2	1:D:398:ILE:HD11	2.51	0.46
1:A:1422:VAL:O	1:A:1432:TYR:OH	2.24	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2201:MET:HE1	1:A:2300:PHE:N	2.31	0.46
1:A:2364:ARG:HH12	1:A:2523:LEU:HD11	1.79	0.46
1:B:485:ASP:OD2	1:B:502:ASN:OD1	2.33	0.46
1:B:1100:SER:OG	1:B:1101:ALA:N	2.49	0.46
1:B:2201:MET:HE1	1:B:2300:PHE:N	2.31	0.46
1:C:234:VAL:HG11	1:C:297:ALA:HB1	1.97	0.46
1:C:1278:ILE:HD11	1:C:1282:VAL:HG11	1.97	0.46
1:D:1619:ASP:OD2	1:D:1687:ARG:NH2	2.45	0.46
1:A:649:GLN:NE2	1:A:739:MET:O	2.36	0.46
1:B:45:LEU:HD11	1:B:220:LYS:HD3	1.96	0.46
1:B:252:LEU:HD13	1:B:417:LEU:CD1	2.45	0.46
1:B:367:PHE:CE2	1:B:398:ILE:HD11	2.51	0.46
1:B:1997:SER:OG	1:B:2052:ASN:ND2	2.49	0.46
1:C:367:PHE:CE2	1:C:398:ILE:HD11	2.51	0.46
1:C:479:LEU:O	1:C:483:VAL:HG23	2.16	0.46
1:C:2162:ASP:OD1	1:C:2163:GLU:N	2.42	0.46
1:D:504:GLU:OE1	1:D:504:GLU:N	2.41	0.46
1:D:2481:ARG:O	1:D:2493:ARG:NH2	2.43	0.46
1:A:252:LEU:HD11	1:A:263:VAL:CG1	2.46	0.46
1:A:367:PHE:CE2	1:A:398:ILE:HD11	2.51	0.46
1:A:1608:PRO:HA	1:A:1611:GLN:NE2	2.30	0.46
1:A:1612:ALA:O	1:A:1615:SER:OG	2.25	0.46
1:B:139:LEU:HD12	1:C:1428:MET:HG3	1.97	0.46
1:B:234:VAL:HG11	1:B:297:ALA:HB1	1.97	0.46
1:C:389:LEU:CB	1:C:398:ILE:HD12	2.42	0.46
1:C:1608:PRO:HA	1:C:1611:GLN:NE2	2.30	0.46
1:D:252:LEU:HD13	1:D:417:LEU:CD1	2.45	0.46
1:D:2190:SER:OG	1:D:2191:MET:SD	2.74	0.46
1:A:2553:VAL:O	1:A:2557:GLU:HB3	2.16	0.46
1:B:2364:ARG:HH12	1:B:2523:LEU:HD11	1.79	0.46
1:C:139:LEU:HD12	1:D:1428:MET:HG3	1.97	0.46
1:C:2598:ASN:OD1	1:C:2600:ASP:N	2.38	0.46
1:D:479:LEU:O	1:D:483:VAL:HG23	2.16	0.46
1:D:1916:GLY:O	1:D:1917:SER:OG	2.25	0.46
1:D:2394:ASP:OD1	1:D:2481:ARG:NH2	2.49	0.46
1:A:1100:SER:OG	1:A:1101:ALA:N	2.49	0.46
1:A:1189:MET:O	1:A:1189:MET:HG2	2.16	0.46
1:B:2190:SER:OG	1:B:2191:MET:SD	2.74	0.46
1:B:2553:VAL:HG13	1:B:2554:SER:N	2.30	0.46
1:C:1189:MET:O	1:C:1189:MET:HG2	2.16	0.46
1:D:280:ASN:O	1:D:308:HIS:NE2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1278:ILE:HD11	1:D:1282:VAL:HG11	1.97	0.46
1:D:2362:VAL:HG22	1:D:2516:ILE:HD12	1.97	0.46
1:A:1736:LEU:C	1:A:1736:LEU:HD23	2.37	0.46
1:B:394:THR:HG1	1:B:396:THR:HG1	1.64	0.46
1:C:242:ARG:HB2	1:C:432:VAL:HG23	1.98	0.46
1:D:1202:ALA:O	1:D:1205:VAL:HG12	2.16	0.46
1:D:1486:GLU:OE1	1:D:1486:GLU:N	2.49	0.46
1:A:479:LEU:O	1:A:483:VAL:HG23	2.16	0.45
1:A:871:ILE:HD13	1:A:974:ILE:HG23	1.98	0.45
1:A:1202:ALA:O	1:A:1205:VAL:HG12	2.16	0.45
1:B:1189:MET:O	1:B:1189:MET:HG2	2.16	0.45
1:C:252:LEU:HD11	1:C:263:VAL:CG1	2.46	0.45
1:C:1486:GLU:N	1:C:1486:GLU:OE1	2.49	0.45
1:C:1736:LEU:C	1:C:1736:LEU:HD23	2.37	0.45
1:D:1189:MET:O	1:D:1189:MET:HG2	2.16	0.45
1:D:1345:LEU:O	1:D:1349:MET:HG2	2.16	0.45
1:D:1736:LEU:C	1:D:1736:LEU:HD23	2.37	0.45
1:A:394:THR:OG1	1:A:396:THR:OG1	2.30	0.45
1:A:1345:LEU:O	1:A:1349:MET:HG2	2.16	0.45
1:A:1505:THR:OG1	1:A:1529:LEU:HD22	2.16	0.45
1:B:1486:GLU:OE1	1:B:1486:GLU:N	2.49	0.45
1:C:2178:LEU:O	1:C:2182:MET:HG3	2.15	0.45
1:D:871:ILE:HD13	1:D:974:ILE:HG23	1.98	0.45
1:D:1611:GLN:HA	1:D:1614:LEU:HG	1.98	0.45
1:D:1902:ASN:OD1	1:D:1905:CYS:SG	2.60	0.45
1:D:2201:MET:HE1	1:D:2300:PHE:N	2.31	0.45
1:A:1611:GLN:HA	1:A:1614:LEU:HG	1.98	0.45
1:B:1505:THR:OG1	1:B:1529:LEU:HD22	2.16	0.45
1:C:2553:VAL:O	1:C:2557:GLU:HB3	2.16	0.45
1:D:1505:THR:OG1	1:D:1529:LEU:HD22	2.16	0.45
1:D:1608:PRO:HA	1:D:1611:GLN:NE2	2.30	0.45
1:D:1997:SER:OG	1:D:2052:ASN:ND2	2.49	0.45
1:B:479:LEU:O	1:B:483:VAL:HG23	2.16	0.45
1:B:1612:ALA:O	1:B:1615:SER:OG	2.25	0.45
1:B:1736:LEU:HD23	1:B:1736:LEU:C	2.37	0.45
1:C:252:LEU:HD13	1:C:417:LEU:CD1	2.45	0.45
1:C:580:MET:SD	1:C:581:MET:N	2.90	0.45
1:C:1345:LEU:O	1:C:1349:MET:HG2	2.16	0.45
1:C:2190:SER:OG	1:C:2191:MET:SD	2.74	0.45
1:C:2201:MET:HE1	1:C:2300:PHE:N	2.31	0.45
1:C:2211:LEU:HD22	1:C:2285:LEU:HD22	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1997:SER:OG	1:C:2052:ASN:ND2	2.49	0.45
1:A:1486:GLU:N	1:A:1486:GLU:OE1	2.49	0.45
1:B:133:LEU:HD11	1:B:150:VAL:CG1	2.47	0.45
1:B:1345:LEU:O	1:B:1349:MET:HG2	2.16	0.45
1:C:871:ILE:HD13	1:C:974:ILE:HG23	1.98	0.45
1:D:2553:VAL:O	1:D:2557:GLU:HB3	2.16	0.45
1:A:1997:SER:OG	1:A:2052:ASN:ND2	2.49	0.45
1:B:242:ARG:HB2	1:B:432:VAL:HG23	1.98	0.45
1:B:1247:HIS:CG	1:B:1274:LEU:HD11	2.52	0.45
1:C:104:ASN:OD1	1:C:105:ASP:N	2.50	0.45
1:C:1100:SER:OG	1:C:1101:ALA:N	2.49	0.45
1:C:1505:THR:OG1	1:C:1529:LEU:HD22	2.16	0.45
1:D:15:SER:HG	1:D:25:PHE:HE2	1.65	0.45
1:A:133:LEU:HD11	1:A:150:VAL:CG1	2.47	0.45
1:A:1349:MET:HE1	1:A:1405:CYS:HA	1.99	0.45
1:B:2211:LEU:HD22	1:B:2285:LEU:HD22	1.97	0.45
1:D:133:LEU:HD11	1:D:150:VAL:CG1	2.47	0.45
1:D:580:MET:SD	1:D:581:MET:N	2.90	0.45
1:D:1422:VAL:O	1:D:1432:TYR:OH	2.24	0.45
1:A:696:TRP:CZ2	1:A:725:VAL:HG21	2.52	0.45
1:A:1060:ILE:HG23	1:A:1643:PHE:CE1	2.52	0.45
1:C:504:GLU:OE1	1:C:504:GLU:N	2.41	0.45
1:D:242:ARG:HB2	1:D:432:VAL:HG23	1.98	0.45
1:A:1247:HIS:CG	1:A:1274:LEU:HD11	2.52	0.45
1:B:22:VAL:HG23	1:B:22:VAL:O	2.17	0.45
1:B:606:LEU:HD13	1:B:645:ILE:HD12	1.99	0.45
1:B:1202:ALA:O	1:B:1205:VAL:HG12	2.16	0.45
1:C:133:LEU:HD11	1:C:150:VAL:CG1	2.47	0.45
1:C:140:PRO:HD3	1:D:1426:VAL:HG13	1.99	0.45
1:C:696:TRP:CZ2	1:C:725:VAL:HG21	2.52	0.45
1:C:1247:HIS:CG	1:C:1274:LEU:HD11	2.52	0.45
1:D:1247:HIS:CG	1:D:1274:LEU:HD11	2.52	0.45
1:A:580:MET:SD	1:A:581:MET:N	2.90	0.44
1:B:580:MET:SD	1:B:581:MET:N	2.90	0.44
1:D:888:LEU:HD22	1:D:971:ILE:HG12	1.98	0.44
1:D:2521:ALA:O	1:D:2524:ARG:HG2	2.17	0.44
1:B:871:ILE:HD13	1:B:974:ILE:HG23	1.98	0.44
1:D:153:ASP:OD2	1:D:157:ASN:ND2	2.51	0.44
1:D:1060:ILE:HG23	1:D:1643:PHE:CE1	2.52	0.44
1:A:782:LEU:HD12	1:A:866:LEU:HA	2.00	0.44
1:A:888:LEU:HD22	1:A:971:ILE:HG12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1284:GLN:NE2	1:A:1288:HIS:NE2	2.59	0.44
1:B:696:TRP:CZ2	1:B:725:VAL:HG21	2.52	0.44
1:B:1611:GLN:HA	1:B:1614:LEU:HG	1.98	0.44
1:C:22:VAL:O	1:C:22:VAL:HG23	2.17	0.44
1:C:2521:ALA:O	1:C:2524:ARG:HG2	2.17	0.44
1:D:649:GLN:NE2	1:D:739:MET:O	2.36	0.44
1:D:696:TRP:CZ2	1:D:725:VAL:HG21	2.52	0.44
1:D:782:LEU:HD12	1:D:866:LEU:HA	2.00	0.44
1:C:888:LEU:HD22	1:C:971:ILE:HG12	1.99	0.44
1:C:1611:GLN:HA	1:C:1614:LEU:HG	1.99	0.44
1:D:104:ASN:OD1	1:D:105:ASP:N	2.50	0.44
1:A:153:ASP:OD2	1:A:157:ASN:ND2	2.51	0.44
1:A:280:ASN:O	1:A:308:HIS:NE2	2.49	0.44
1:A:1285:HIS:O	1:A:1289:LEU:HD13	2.18	0.44
1:B:265:LEU:HD11	1:B:417:LEU:HD21	2.00	0.44
1:A:104:ASN:OD1	1:A:105:ASP:N	2.50	0.44
1:A:265:LEU:HD11	1:A:417:LEU:HD21	2.00	0.44
1:A:2541:CYS:SG	1:A:2543:LEU:HD13	2.58	0.44
1:B:1060:ILE:HG23	1:B:1643:PHE:CE1	2.52	0.44
1:B:1285:HIS:O	1:B:1289:LEU:HD13	2.18	0.44
1:C:153:ASP:OD2	1:C:157:ASN:ND2	2.51	0.44
1:C:1285:HIS:O	1:C:1289:LEU:HD13	2.18	0.44
1:D:1408:GLU:O	1:D:1411:MET:HG3	2.18	0.44
1:D:1725:GLN:OE1	1:D:1765:ASN:ND2	2.44	0.44
1:A:140:PRO:HD3	1:B:1426:VAL:HG13	2.00	0.44
1:A:242:ARG:HB2	1:A:432:VAL:HG23	1.98	0.44
1:B:1788:VAL:O	1:B:1792:ARG:HG2	2.18	0.44
1:C:265:LEU:HD11	1:C:417:LEU:HD21	2.00	0.44
1:C:1060:ILE:HG23	1:C:1643:PHE:CE1	2.52	0.44
1:A:647:VAL:HG13	1:A:648:THR:N	2.33	0.44
1:A:1284:GLN:HE21	1:A:1288:HIS:CE1	2.34	0.44
1:A:1648:ILE:HG23	1:A:1736:LEU:HD12	2.00	0.44
1:B:153:ASP:OD2	1:B:157:ASN:ND2	2.51	0.44
1:B:888:LEU:HD22	1:B:971:ILE:HG12	1.98	0.44
1:B:1408:GLU:O	1:B:1411:MET:HG3	2.18	0.44
1:B:2521:ALA:O	1:B:2524:ARG:HG2	2.17	0.44
1:C:647:VAL:HG13	1:C:648:THR:N	2.33	0.44
1:C:1648:ILE:HG23	1:C:1736:LEU:HD12	2.00	0.44
1:D:22:VAL:HG23	1:D:22:VAL:O	2.17	0.44
1:D:1285:HIS:O	1:D:1289:LEU:HD13	2.18	0.44
1:D:1788:VAL:O	1:D:1792:ARG:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2541:CYS:SG	1:D:2543:LEU:HD13	2.58	0.44
1:A:22:VAL:HG23	1:A:22:VAL:O	2.17	0.44
1:A:1619:ASP:OD2	1:A:1687:ARG:NH2	2.45	0.44
1:A:2521:ALA:O	1:A:2524:ARG:HG2	2.17	0.44
1:A:2555:PHE:CE2	1:A:2559:ILE:HG21	2.53	0.44
1:B:2476:VAL:HG22	1:B:2480:LEU:HD13	2.00	0.44
1:C:441:ASP:O	1:C:508:LEU:HD21	2.18	0.44
1:C:1408:GLU:O	1:C:1411:MET:HG3	2.18	0.44
1:C:2541:CYS:SG	1:C:2543:LEU:HD13	2.58	0.44
1:D:2555:PHE:CE2	1:D:2559:ILE:HG21	2.53	0.44
1:A:886:ARG:NE	1:A:1049:ASP:OD1	2.45	0.43
1:B:104:ASN:OD1	1:B:105:ASP:N	2.50	0.43
1:B:140:PRO:HD3	1:C:1426:VAL:HG13	1.99	0.43
1:B:1648:ILE:HG23	1:B:1736:LEU:HD12	2.00	0.43
1:C:606:LEU:HD13	1:C:645:ILE:HD12	2.00	0.43
1:D:265:LEU:HD11	1:D:417:LEU:HD21	2.00	0.43
1:D:622:VAL:HG22	1:D:630:PHE:HB3	2.00	0.43
1:D:1648:ILE:HG23	1:D:1736:LEU:HD12	2.00	0.43
1:D:2381:TYR:CZ	1:D:2385:ILE:HD11	2.53	0.43
1:A:1408:GLU:O	1:A:1411:MET:HG3	2.18	0.43
1:B:15:SER:HG	1:B:25:PHE:HE2	1.66	0.43
1:B:441:ASP:O	1:B:508:LEU:HD21	2.18	0.43
1:B:647:VAL:HG13	1:B:648:THR:N	2.33	0.43
1:B:2555:PHE:CE2	1:B:2559:ILE:HG21	2.53	0.43
1:C:2476:VAL:HG22	1:C:2480:LEU:HD13	2.00	0.43
1:D:647:VAL:HG13	1:D:648:THR:N	2.33	0.43
1:A:2381:TYR:CZ	1:A:2385:ILE:HD11	2.53	0.43
1:B:622:VAL:HG22	1:B:630:PHE:HB3	2.00	0.43
1:B:1060:ILE:HG22	1:B:1064:MET:CE	2.49	0.43
1:A:2476:VAL:HG22	1:A:2480:LEU:HD13	2.00	0.43
1:C:483:VAL:HG21	1:C:509:MET:SD	2.59	0.43
1:C:782:LEU:HD12	1:C:866:LEU:HA	2.00	0.43
1:C:985:TYR:CE2	1:C:1045:LEU:HD21	2.53	0.43
1:C:1788:VAL:O	1:C:1792:ARG:HG2	2.18	0.43
1:C:2381:TYR:CZ	1:C:2385:ILE:HD11	2.53	0.43
1:C:2555:PHE:CE2	1:C:2559:ILE:HG21	2.53	0.43
1:D:2372:THR:HG22	1:D:2512:ILE:HG13	2.01	0.43
1:A:1788:VAL:O	1:A:1792:ARG:HG2	2.18	0.43
1:A:2560:LYS:NZ	4:A:2703:ATP:O1A	2.51	0.43
1:B:985:TYR:CE2	1:B:1045:LEU:HD21	2.53	0.43
1:B:1975:LEU:HD11	1:B:2020:LEU:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2372:THR:HG22	1:B:2512:ILE:HG13	2.01	0.43
1:C:715:ALA:HB2	1:C:726:LEU:HD12	2.01	0.43
1:C:1444:PHE:HE1	1:C:1467:TYR:HH	1.63	0.43
1:C:1975:LEU:HD11	1:C:2020:LEU:HD12	2.01	0.43
1:A:606:LEU:HD13	1:A:645:ILE:HD12	2.00	0.43
1:B:280:ASN:O	1:B:308:HIS:NE2	2.49	0.43
1:B:782:LEU:HD12	1:B:866:LEU:HA	2.00	0.43
1:B:1284:GLN:NE2	1:B:1288:HIS:NE2	2.59	0.43
1:B:2146:PHE:CD2	1:B:2189:ARG:NH1	2.87	0.43
1:C:2146:PHE:CD2	1:C:2189:ARG:NH1	2.87	0.43
1:B:611:THR:C	1:B:651:LEU:HD21	2.39	0.43
1:B:1467:TYR:O	1:B:1471:VAL:HG22	2.19	0.43
1:B:1651:THR:HG23	1:B:1736:LEU:HD11	2.01	0.43
1:C:1467:TYR:O	1:C:1471:VAL:HG22	2.19	0.43
1:C:2008:HIS:CG	1:C:2008:HIS:O	2.72	0.43
1:D:985:TYR:CE2	1:D:1045:LEU:HD21	2.53	0.43
1:D:2146:PHE:CD2	1:D:2189:ARG:NH1	2.87	0.43
1:B:2381:TYR:CZ	1:B:2385:ILE:HD11	2.53	0.43
1:C:252:LEU:HA	1:C:265:LEU:HD23	2.01	0.43
1:C:1911:LEU:HB2	1:C:1940:THR:HG21	2.01	0.43
1:D:483:VAL:HG21	1:D:509:MET:SD	2.59	0.43
1:D:715:ALA:HB2	1:D:726:LEU:HD12	2.01	0.43
1:D:1911:LEU:HB2	1:D:1940:THR:HG21	2.01	0.43
1:A:483:VAL:HG21	1:A:509:MET:SD	2.59	0.43
1:A:1426:VAL:HG13	1:D:140:PRO:HD3	1.99	0.43
1:A:1651:THR:HG23	1:A:1736:LEU:HD11	2.01	0.43
1:A:2372:THR:HG22	1:A:2512:ILE:HG13	2.01	0.43
1:B:483:VAL:HG21	1:B:509:MET:SD	2.59	0.43
1:B:561:ARG:NH1	1:B:597:ALA:HB2	2.34	0.43
1:B:715:ALA:HB2	1:B:726:LEU:HD12	2.01	0.43
1:B:758:ASP:OD1	1:B:758:ASP:N	2.52	0.43
1:B:2008:HIS:O	1:B:2008:HIS:CG	2.71	0.43
1:C:15:SER:HG	1:C:25:PHE:HE2	1.67	0.43
1:C:611:THR:C	1:C:651:LEU:HD21	2.39	0.43
1:C:2372:THR:HG22	1:C:2512:ILE:HG13	2.01	0.43
1:D:561:ARG:NH1	1:D:597:ALA:HB2	2.34	0.43
1:A:2146:PHE:CD2	1:A:2189:ARG:NH1	2.87	0.43
1:B:252:LEU:HA	1:B:265:LEU:HD23	2.01	0.43
1:B:1911:LEU:HB2	1:B:1940:THR:HG21	2.01	0.43
1:C:280:ASN:O	1:C:308:HIS:NE2	2.49	0.43
1:C:561:ARG:NH1	1:C:597:ALA:HB2	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:622:VAL:HG22	1:C:630:PHE:HB3	2.00	0.43
1:D:1467:TYR:O	1:D:1471:VAL:HG22	2.19	0.43
1:D:1695:LEU:O	1:D:1695:LEU:HD12	2.19	0.43
1:A:1060:ILE:HG22	1:A:1064:MET:CE	2.49	0.42
1:A:1911:LEU:HB2	1:A:1940:THR:HG21	2.01	0.42
1:B:1284:GLN:HE21	1:B:1288:HIS:CE1	2.34	0.42
1:B:2541:CYS:SG	1:B:2543:LEU:HD13	2.58	0.42
1:D:758:ASP:OD1	1:D:758:ASP:N	2.52	0.42
1:D:1354:ASP:OD1	1:D:1355:GLY:N	2.52	0.42
1:A:611:THR:C	1:A:651:LEU:HD21	2.39	0.42
1:A:2343:ILE:HD12	1:A:2343:ILE:H	1.84	0.42
1:C:758:ASP:N	1:C:758:ASP:OD1	2.52	0.42
1:C:2543:LEU:HD23	1:C:2610:LEU:HD12	2.01	0.42
1:D:441:ASP:O	1:D:508:LEU:HD21	2.18	0.42
1:D:1060:ILE:HG22	1:D:1064:MET:CE	2.49	0.42
1:D:2343:ILE:HD12	1:D:2343:ILE:H	1.84	0.42
1:A:622:VAL:HG22	1:A:630:PHE:HB3	2.00	0.42
1:A:771:PHE:HB2	1:A:855:GLU:OE1	2.20	0.42
1:A:985:TYR:CE2	1:A:1045:LEU:HD21	2.53	0.42
1:A:2543:LEU:HD23	1:A:2610:LEU:HD12	2.01	0.42
1:B:771:PHE:HB2	1:B:855:GLU:OE1	2.20	0.42
1:B:2223:TYR:OH	1:B:2337:HIS:CE1	2.73	0.42
1:B:2553:VAL:O	1:B:2554:SER:CB	2.67	0.42
1:C:771:PHE:HB2	1:C:855:GLU:OE1	2.20	0.42
1:C:781:MET:HA	1:C:784:VAL:HG12	2.01	0.42
1:D:252:LEU:HA	1:D:265:LEU:HD23	2.01	0.42
1:D:1113:GLU:O	1:D:1117:LEU:HD23	2.20	0.42
1:A:633:TYR:O	1:A:637:LEU:HD13	2.20	0.42
1:A:2223:TYR:OH	1:A:2337:HIS:CE1	2.73	0.42
1:B:2343:ILE:HD12	1:B:2343:ILE:H	1.84	0.42
1:C:1695:LEU:HD12	1:C:1695:LEU:O	2.19	0.42
1:C:2391:LEU:HG	1:C:2391:LEU:O	2.20	0.42
1:D:696:TRP:NE1	1:D:725:VAL:HG21	2.35	0.42
1:D:2008:HIS:CG	1:D:2008:HIS:O	2.72	0.42
1:D:2391:LEU:O	1:D:2391:LEU:HG	2.20	0.42
1:A:1975:LEU:HD11	1:A:2020:LEU:HD12	2.00	0.42
1:A:2008:HIS:CG	1:A:2008:HIS:O	2.72	0.42
1:A:2328:LEU:O	1:A:2331:VAL:HG12	2.20	0.42
1:A:2467:ASN:O	1:A:2471:ARG:NE	2.52	0.42
1:B:1422:VAL:O	1:B:1432:TYR:OH	2.24	0.42
1:C:401:THR:HG22	1:C:403:VAL:H	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1349:MET:HE1	1:C:1405:CYS:HA	2.00	0.42
1:C:2467:ASN:O	1:C:2471:ARG:NE	2.52	0.42
1:D:401:THR:HG22	1:D:403:VAL:H	1.85	0.42
1:D:606:LEU:HD13	1:D:645:ILE:HD12	2.00	0.42
1:D:2328:LEU:O	1:D:2331:VAL:HG12	2.20	0.42
1:A:441:ASP:O	1:A:508:LEU:HD21	2.18	0.42
1:A:1695:LEU:HD12	1:A:1695:LEU:O	2.19	0.42
1:A:2391:LEU:HG	1:A:2391:LEU:O	2.20	0.42
1:B:1113:GLU:O	1:B:1117:LEU:HD23	2.20	0.42
1:B:2328:LEU:O	1:B:2331:VAL:HG12	2.20	0.42
1:C:696:TRP:NE1	1:C:725:VAL:HG21	2.35	0.42
1:C:1354:ASP:OD1	1:C:1355:GLY:N	2.52	0.42
1:C:2223:TYR:OH	1:C:2337:HIS:CE1	2.72	0.42
1:C:2328:LEU:O	1:C:2331:VAL:HG12	2.20	0.42
1:D:1284:GLN:HE21	1:D:1288:HIS:CE1	2.34	0.42
1:D:1499:VAL:HA	1:D:1502:LEU:HD12	2.01	0.42
1:D:1654:LEU:HD12	1:D:1657:SER:HB2	2.02	0.42
1:D:1914:MET:CE	1:D:1933:ASN:ND2	2.83	0.42
1:D:2543:LEU:HD23	1:D:2610:LEU:HD12	2.01	0.42
1:D:2553:VAL:O	1:D:2554:SER:CB	2.67	0.42
1:A:561:ARG:NH1	1:A:597:ALA:HB2	2.34	0.42
1:A:1467:TYR:O	1:A:1471:VAL:HG22	2.19	0.42
1:A:1522:VAL:O	1:A:1526:ILE:HG12	2.20	0.42
1:B:633:TYR:O	1:B:637:LEU:HD13	2.20	0.42
1:B:1695:LEU:O	1:B:1695:LEU:HD12	2.19	0.42
1:B:2155:LEU:HD21	1:B:2174:GLN:HG2	2.02	0.42
1:C:1960:VAL:HG13	1:C:1961:THR:N	2.35	0.42
1:D:771:PHE:HB2	1:D:855:GLU:OE1	2.20	0.42
1:D:1522:VAL:O	1:D:1526:ILE:HG12	2.20	0.42
1:D:1651:THR:HG23	1:D:1736:LEU:HD11	2.01	0.42
1:D:1960:VAL:HG13	1:D:1961:THR:N	2.35	0.42
1:A:715:ALA:HB2	1:A:726:LEU:HD12	2.01	0.42
1:A:1725:GLN:OE1	1:A:1765:ASN:ND2	2.44	0.42
1:A:1960:VAL:HG13	1:A:1961:THR:N	2.35	0.42
1:B:696:TRP:NE1	1:B:725:VAL:HG21	2.35	0.42
1:C:1651:THR:HG23	1:C:1736:LEU:HD11	2.01	0.42
1:D:611:THR:C	1:D:651:LEU:HD21	2.39	0.42
1:A:1278:ILE:O	1:A:1278:ILE:HG23	2.20	0.42
1:A:1464:LEU:HD12	1:A:1464:LEU:N	2.35	0.42
1:A:1914:MET:CE	1:A:1933:ASN:ND2	2.83	0.42
1:B:781:MET:HA	1:B:784:VAL:HG12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1354:ASP:OD1	1:B:1355:GLY:N	2.52	0.42
1:B:2144:CYS:HA	1:B:2182:MET:HE1	2.01	0.42
1:B:2560:LYS:NZ	4:B:2703:ATP:O1A	2.51	0.42
1:C:1113:GLU:O	1:C:1117:LEU:HD23	2.19	0.42
1:C:1499:VAL:HA	1:C:1502:LEU:HD12	2.01	0.42
1:D:633:TYR:O	1:D:637:LEU:HD13	2.20	0.42
1:D:886:ARG:NE	1:D:1049:ASP:OD1	2.45	0.42
1:B:886:ARG:NE	1:B:1049:ASP:OD1	2.45	0.42
1:B:1436:HIS:O	1:B:1439:THR:OG1	2.34	0.42
1:C:1208:ASP:O	1:C:1212:ILE:HG23	2.20	0.42
1:C:2155:LEU:HD21	1:C:2174:GLN:HG2	2.02	0.42
1:A:252:LEU:HA	1:A:265:LEU:HD23	2.01	0.41
1:A:1113:GLU:O	1:A:1117:LEU:HD23	2.20	0.41
1:B:1654:LEU:HD12	1:B:1657:SER:HB2	2.02	0.41
1:B:2481:ARG:O	1:B:2493:ARG:NH2	2.43	0.41
1:D:810:ILE:HD12	1:D:814:ASP:CB	2.50	0.41
1:D:2223:TYR:OH	1:D:2337:HIS:CE1	2.73	0.41
1:A:1208:ASP:O	1:A:1212:ILE:HG23	2.20	0.41
1:A:1499:VAL:HA	1:A:1502:LEU:HD12	2.01	0.41
1:B:401:THR:HG22	1:B:403:VAL:H	1.85	0.41
1:B:614:GLU:O	1:B:618:PHE:CD2	2.73	0.41
1:B:641:ASN:O	1:B:642:HIS:HB2	2.20	0.41
1:B:810:ILE:HD12	1:B:814:ASP:CB	2.50	0.41
1:C:633:TYR:O	1:C:637:LEU:HD13	2.20	0.41
1:C:1060:ILE:HG22	1:C:1064:MET:CE	2.49	0.41
1:C:1436:HIS:O	1:C:1439:THR:OG1	2.34	0.41
1:D:1100:SER:O	1:D:1104:VAL:HG23	2.21	0.41
1:D:1278:ILE:O	1:D:1278:ILE:HG23	2.20	0.41
1:A:781:MET:HA	1:A:784:VAL:HG12	2.01	0.41
1:A:2553:VAL:O	1:A:2554:SER:CB	2.67	0.41
1:B:2394:ASP:OD1	1:B:2481:ARG:NH2	2.49	0.41
1:C:2144:CYS:HA	1:C:2182:MET:HE1	2.02	0.41
1:D:641:ASN:O	1:D:642:HIS:HB2	2.20	0.41
1:D:1362:LEU:HD11	1:D:1409:VAL:HG21	2.03	0.41
1:D:2476:VAL:HG22	1:D:2480:LEU:HD13	2.00	0.41
1:A:1100:SER:O	1:A:1104:VAL:HG23	2.21	0.41
1:B:2543:LEU:HD23	1:B:2610:LEU:HD12	2.01	0.41
1:C:614:GLU:O	1:C:618:PHE:CD2	2.73	0.41
1:C:810:ILE:HD12	1:C:814:ASP:CB	2.50	0.41
1:D:1438:TRP:NE1	1:D:1487:ASN:OD1	2.52	0.41
1:D:1464:LEU:N	1:D:1464:LEU:HD12	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1975:LEU:HD11	1:D:2020:LEU:HD12	2.01	0.41
1:D:2155:LEU:HD21	1:D:2174:GLN:HG2	2.02	0.41
1:A:614:GLU:O	1:A:618:PHE:CD2	2.73	0.41
1:A:758:ASP:N	1:A:758:ASP:OD1	2.52	0.41
1:A:1354:ASP:OD1	1:A:1355:GLY:N	2.52	0.41
1:B:8:LEU:HD12	1:B:221:ILE:HG21	2.03	0.41
1:B:626:ARG:HE	1:B:699:LYS:HA	1.86	0.41
1:B:1208:ASP:O	1:B:1212:ILE:HG23	2.20	0.41
1:B:1278:ILE:O	1:B:1278:ILE:HG23	2.20	0.41
1:B:1499:VAL:HA	1:B:1502:LEU:HD12	2.01	0.41
1:B:1914:MET:CE	1:B:1933:ASN:ND2	2.83	0.41
1:B:2391:LEU:O	1:B:2391:LEU:HG	2.20	0.41
1:C:1362:LEU:HD11	1:C:1409:VAL:HG21	2.03	0.41
1:C:1914:MET:CE	1:C:1933:ASN:ND2	2.83	0.41
1:C:2343:ILE:HD12	1:C:2343:ILE:H	1.84	0.41
1:D:781:MET:HA	1:D:784:VAL:HG12	2.01	0.41
1:A:17:TYR:OH	1:A:44:ASP:OD1	2.25	0.41
1:A:626:ARG:HE	1:A:699:LYS:HA	1.86	0.41
1:A:1362:LEU:HD11	1:A:1409:VAL:HG21	2.03	0.41
1:A:2155:LEU:HD21	1:A:2174:GLN:HG2	2.02	0.41
1:B:1362:LEU:HD11	1:B:1409:VAL:HG21	2.03	0.41
1:C:641:ASN:O	1:C:642:HIS:HB2	2.20	0.41
1:C:1278:ILE:HG23	1:C:1278:ILE:O	2.20	0.41
1:C:1654:LEU:HD12	1:C:1657:SER:HB2	2.02	0.41
1:D:561:ARG:O	1:D:565:GLU:HG3	2.21	0.41
1:A:696:TRP:NE1	1:A:725:VAL:HG21	2.35	0.41
1:A:764:MET:O	1:A:774:ARG:NH2	2.54	0.41
1:B:1464:LEU:N	1:B:1464:LEU:HD12	2.35	0.41
1:C:1522:VAL:O	1:C:1526:ILE:HG12	2.20	0.41
1:C:2150:GLU:OE1	1:C:2150:GLU:N	2.50	0.41
1:A:1654:LEU:HD12	1:A:1657:SER:HB2	2.02	0.41
1:B:1100:SER:O	1:B:1104:VAL:HG23	2.21	0.41
1:B:1522:VAL:O	1:B:1526:ILE:HG12	2.20	0.41
1:B:1960:VAL:HG13	1:B:1961:THR:N	2.35	0.41
1:C:233:GLU:N	1:C:233:GLU:OE1	2.54	0.41
1:C:1100:SER:O	1:C:1104:VAL:HG23	2.20	0.41
1:C:1595:LEU:O	1:C:1598:ILE:HG22	2.21	0.41
1:C:1974:ILE:HG22	1:C:1996:ALA:HB3	2.02	0.41
1:D:1284:GLN:NE2	1:D:1288:HIS:NE2	2.59	0.41
1:A:483:VAL:CG2	1:A:509:MET:SD	3.09	0.41
1:A:561:ARG:O	1:A:565:GLU:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:810:ILE:HD12	1:A:814:ASP:CB	2.50	0.41
1:A:1365:HIS:CE1	1:A:1413:TYR:HH	2.35	0.41
1:B:2467:ASN:O	1:B:2471:ARG:NE	2.52	0.41
1:C:561:ARG:O	1:C:565:GLU:HG3	2.21	0.41
1:C:628:PRO:HB2	1:C:731:TYR:CD2	2.56	0.41
1:C:2553:VAL:O	1:C:2554:SER:CB	2.67	0.41
1:D:233:GLU:OE1	1:D:233:GLU:N	2.54	0.41
1:D:614:GLU:O	1:D:618:PHE:CD2	2.73	0.41
1:D:628:PRO:HB2	1:D:731:TYR:CD2	2.56	0.41
1:D:2467:ASN:O	1:D:2471:ARG:NE	2.52	0.41
1:A:8:LEU:HD12	1:A:221:ILE:HG21	2.03	0.41
1:A:401:THR:HG22	1:A:403:VAL:H	1.85	0.41
1:A:641:ASN:O	1:A:642:HIS:HB2	2.20	0.41
1:A:1974:ILE:HG22	1:A:1996:ALA:HB3	2.02	0.41
1:B:628:PRO:HB2	1:B:731:TYR:CD2	2.56	0.41
1:C:1298:GLN:OE1	1:C:1298:GLN:N	2.54	0.41
1:C:1464:LEU:HD12	1:C:1464:LEU:N	2.35	0.41
1:C:2560:LYS:HZ2	4:C:2703:ATP:PA	2.44	0.41
1:D:1208:ASP:O	1:D:1212:ILE:HG23	2.20	0.41
1:A:36:CYS:SG	1:A:152:LEU:HD21	2.61	0.40
1:A:1595:LEU:O	1:A:1598:ILE:HG22	2.21	0.40
1:A:2394:ASP:OD1	1:A:2481:ARG:NH2	2.49	0.40
1:B:1298:GLN:OE1	1:B:1298:GLN:N	2.54	0.40
1:C:575:ALA:HB2	1:C:598:LEU:HD21	2.04	0.40
1:C:764:MET:O	1:C:774:ARG:NH2	2.54	0.40
1:D:1182:MET:SD	1:D:1183:CYS:N	2.94	0.40
1:A:98:GLN:HB3	1:A:102:LYS:NZ	2.37	0.40
1:B:233:GLU:N	1:B:233:GLU:OE1	2.54	0.40
1:B:1408:GLU:HA	1:B:1411:MET:HG3	2.03	0.40
1:B:1974:ILE:HG22	1:B:1996:ALA:HB3	2.02	0.40
1:C:1930:ASN:O	1:C:1934:VAL:HG23	2.22	0.40
1:D:36:CYS:SG	1:D:152:LEU:HD21	2.61	0.40
1:D:575:ALA:HB2	1:D:598:LEU:HD21	2.04	0.40
1:D:626:ARG:HE	1:D:699:LYS:HA	1.86	0.40
1:D:1032:ALA:O	1:D:1035:MET:HG3	2.21	0.40
1:D:1298:GLN:OE1	1:D:1298:GLN:N	2.54	0.40
1:D:1349:MET:HE1	1:D:1405:CYS:HA	2.03	0.40
1:D:1974:ILE:HG22	1:D:1996:ALA:HB3	2.02	0.40
1:D:2144:CYS:HA	1:D:2182:MET:HE1	2.02	0.40
1:B:575:ALA:HB2	1:B:598:LEU:HD21	2.04	0.40
1:B:1758:ILE:HD11	1:B:1872:PRO:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2358:VAL:HG23	1:B:2520:PHE:CE1	2.57	0.40
1:C:483:VAL:CG2	1:C:509:MET:SD	3.09	0.40
1:C:581:MET:HB3	1:C:595:ILE:HD11	2.03	0.40
1:C:1182:MET:SD	1:C:1183:CYS:N	2.94	0.40
1:D:1758:ILE:HD11	1:D:1872:PRO:O	2.21	0.40
1:A:628:PRO:HB2	1:A:731:TYR:CD2	2.56	0.40
1:A:1032:ALA:O	1:A:1035:MET:HG3	2.21	0.40
1:A:1408:GLU:HA	1:A:1411:MET:HG3	2.03	0.40
1:A:2144:CYS:HA	1:A:2182:MET:HE1	2.02	0.40
1:B:98:GLN:HB3	1:B:102:LYS:NZ	2.37	0.40
1:C:118:TYR:CE1	1:C:177:VAL:HG22	2.56	0.40
1:C:1314:VAL:HG11	1:C:1317:CYS:SG	2.61	0.40
1:C:1617:LEU:O	1:C:1621:LEU:HD23	2.21	0.40
1:C:1758:ILE:HD11	1:C:1872:PRO:O	2.21	0.40
1:C:2020:LEU:HD11	1:C:2025:LEU:HD13	2.04	0.40
1:D:2020:LEU:HD11	1:D:2025:LEU:HD13	2.04	0.40
1:A:1363:MET:HA	1:A:1366:ILE:HD12	2.04	0.40
1:B:118:TYR:CE1	1:B:177:VAL:HG22	2.56	0.40
1:B:242:ARG:HB2	1:B:432:VAL:CG2	2.52	0.40
1:B:1595:LEU:O	1:B:1598:ILE:HG22	2.21	0.40
1:C:1317:CYS:O	1:C:1321:ILE:HG12	2.22	0.40
1:C:1776:MET:O	1:C:1782:SER:HB2	2.22	0.40
1:D:98:GLN:HB3	1:D:102:LYS:NZ	2.37	0.40
1:D:483:VAL:CG2	1:D:509:MET:SD	3.09	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	2058/2633 (78%)	1969 (96%)	89 (4%)	0	<b>100</b> <b>100</b>

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	2058/2633 (78%)	1969 (96%)	89 (4%)	0	100	100
1	C	2058/2633 (78%)	1969 (96%)	89 (4%)	0	100	100
1	D	2058/2633 (78%)	1969 (96%)	89 (4%)	0	100	100
All	All	8232/10532 (78%)	7876 (96%)	356 (4%)	0	100	100

There are no Ramachandran outliers to report.

### 5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	1899/2329 (82%)	1892 (100%)	7 (0%)	91	95
1	B	1899/2329 (82%)	1892 (100%)	7 (0%)	91	95
1	C	1899/2329 (82%)	1892 (100%)	7 (0%)	91	95
1	D	1899/2329 (82%)	1892 (100%)	7 (0%)	91	95
All	All	7596/9316 (82%)	7568 (100%)	28 (0%)	91	95

All (28) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	502	ASN
1	A	1027	ARG
1	A	1443	ASN
1	A	1450	ARG
1	A	1527	ARG
1	A	1746	ASN
1	A	1902	ASN
1	B	502	ASN
1	B	1027	ARG
1	B	1443	ASN
1	B	1450	ARG
1	B	1527	ARG
1	B	1746	ASN

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Mol	Chain	Res	Type
1	B	1902	ASN
1	C	502	ASN
1	C	1027	ARG
1	C	1443	ASN
1	C	1450	ARG
1	C	1527	ARG
1	C	1746	ASN
1	C	1902	ASN
1	D	502	ASN
1	D	1027	ARG
1	D	1443	ASN
1	D	1450	ARG
1	D	1527	ARG
1	D	1746	ASN
1	D	1902	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	1933	ASN
1	C	1746	ASN
1	D	1933	ASN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

Of 16 ligands modelled in this entry, 8 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	2703	-	26,33,33	0.63	0	31,52,52	1.05	2 (6%)
3	I3P	B	2702	-	24,24,24	1.25	3 (12%)	36,39,39	0.60	1 (2%)
4	ATP	A	2703	-	26,33,33	0.62	0	31,52,52	1.05	2 (6%)
4	ATP	D	2703	-	26,33,33	0.62	0	31,52,52	1.05	2 (6%)
3	I3P	A	2702	-	24,24,24	1.25	3 (12%)	36,39,39	0.60	1 (2%)
3	I3P	D	2702	-	24,24,24	1.24	3 (12%)	36,39,39	0.60	1 (2%)
3	I3P	C	2702	-	24,24,24	1.25	3 (12%)	36,39,39	0.60	1 (2%)
4	ATP	B	2703	-	26,33,33	0.62	0	31,52,52	1.05	2 (6%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	ATP	C	2703	-	-	5/18/38/38	0/3/3/3
3	I3P	B	2702	-	-	5/15/39/39	0/1/1/1
4	ATP	A	2703	-	-	5/18/38/38	0/3/3/3
4	ATP	D	2703	-	-	5/18/38/38	0/3/3/3
3	I3P	A	2702	-	-	5/15/39/39	0/1/1/1
3	I3P	D	2702	-	-	5/15/39/39	0/1/1/1
3	I3P	C	2702	-	-	5/15/39/39	0/1/1/1
4	ATP	B	2703	-	-	5/18/38/38	0/3/3/3

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	B	2702	I3P	P1-O1	3.04	1.65	1.59
3	A	2702	I3P	P1-O1	3.00	1.65	1.59
3	C	2702	I3P	P1-O1	3.00	1.65	1.59
3	D	2702	I3P	P1-O1	2.97	1.64	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	C	2702	I3P	P4-O4	2.97	1.64	1.59
3	A	2702	I3P	P4-O4	2.95	1.64	1.59
3	D	2702	I3P	P4-O4	2.95	1.64	1.59
3	B	2702	I3P	P4-O4	2.93	1.64	1.59
3	D	2702	I3P	P5-O5	2.86	1.64	1.59
3	A	2702	I3P	P5-O5	2.86	1.64	1.59
3	B	2702	I3P	P5-O5	2.86	1.64	1.59
3	C	2702	I3P	P5-O5	2.86	1.64	1.59

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	A	2703	ATP	C5-C6-N6	2.23	123.74	120.35
4	B	2703	ATP	C5-C6-N6	2.23	123.74	120.35
4	C	2703	ATP	C5-C6-N6	2.23	123.74	120.35
4	D	2703	ATP	C5-C6-N6	2.23	123.74	120.35
4	A	2703	ATP	PB-O3B-PG	2.05	139.85	132.83
4	C	2703	ATP	PB-O3B-PG	2.05	139.85	132.83
4	D	2703	ATP	PB-O3B-PG	2.05	139.85	132.83
4	B	2703	ATP	PB-O3B-PG	2.04	139.84	132.83
3	D	2702	I3P	C5-C6-C1	2.03	113.16	108.96
3	A	2702	I3P	C5-C6-C1	2.01	113.13	108.96
3	B	2702	I3P	C5-C6-C1	2.01	113.13	108.96
3	C	2702	I3P	C5-C6-C1	2.00	113.11	108.96

There are no chirality outliers.

All (40) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	A	2702	I3P	C1-O1-P1-O11
3	A	2702	I3P	C5-O5-P5-O53
3	B	2702	I3P	C1-O1-P1-O11
3	B	2702	I3P	C5-O5-P5-O53
3	C	2702	I3P	C1-O1-P1-O11
3	C	2702	I3P	C5-O5-P5-O53
3	D	2702	I3P	C1-O1-P1-O11
3	D	2702	I3P	C5-O5-P5-O53
4	A	2703	ATP	C5'-O5'-PA-O3A
4	B	2703	ATP	C5'-O5'-PA-O3A
4	C	2703	ATP	C5'-O5'-PA-O3A
4	D	2703	ATP	C5'-O5'-PA-O3A
4	A	2703	ATP	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
4	B	2703	ATP	O4'-C4'-C5'-O5'
4	C	2703	ATP	O4'-C4'-C5'-O5'
4	D	2703	ATP	O4'-C4'-C5'-O5'
4	A	2703	ATP	PB-O3A-PA-O1A
4	B	2703	ATP	PB-O3A-PA-O1A
4	C	2703	ATP	PB-O3A-PA-O1A
4	D	2703	ATP	PB-O3A-PA-O1A
4	A	2703	ATP	PB-O3A-PA-O5'
4	B	2703	ATP	PB-O3A-PA-O5'
4	C	2703	ATP	PB-O3A-PA-O5'
4	D	2703	ATP	PB-O3A-PA-O5'
4	A	2703	ATP	C5'-O5'-PA-O1A
4	B	2703	ATP	C5'-O5'-PA-O1A
4	C	2703	ATP	C5'-O5'-PA-O1A
4	D	2703	ATP	C5'-O5'-PA-O1A
3	A	2702	I3P	C3-C4-O4-P4
3	B	2702	I3P	C3-C4-O4-P4
3	C	2702	I3P	C3-C4-O4-P4
3	D	2702	I3P	C3-C4-O4-P4
3	A	2702	I3P	C1-O1-P1-O13
3	A	2702	I3P	C4-O4-P4-O43
3	B	2702	I3P	C1-O1-P1-O13
3	B	2702	I3P	C4-O4-P4-O43
3	C	2702	I3P	C1-O1-P1-O13
3	C	2702	I3P	C4-O4-P4-O43
3	D	2702	I3P	C1-O1-P1-O13
3	D	2702	I3P	C4-O4-P4-O43

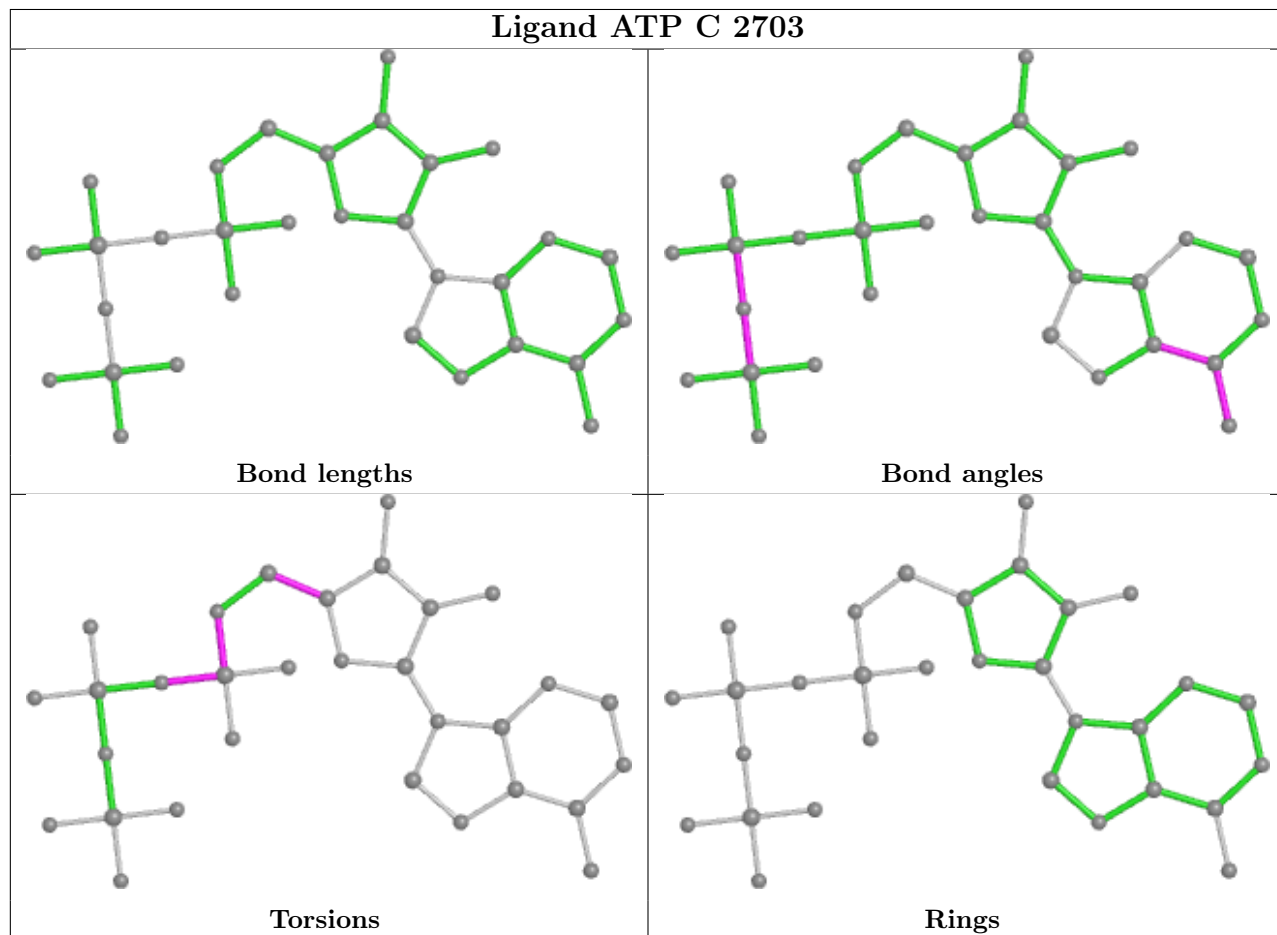
There are no ring outliers.

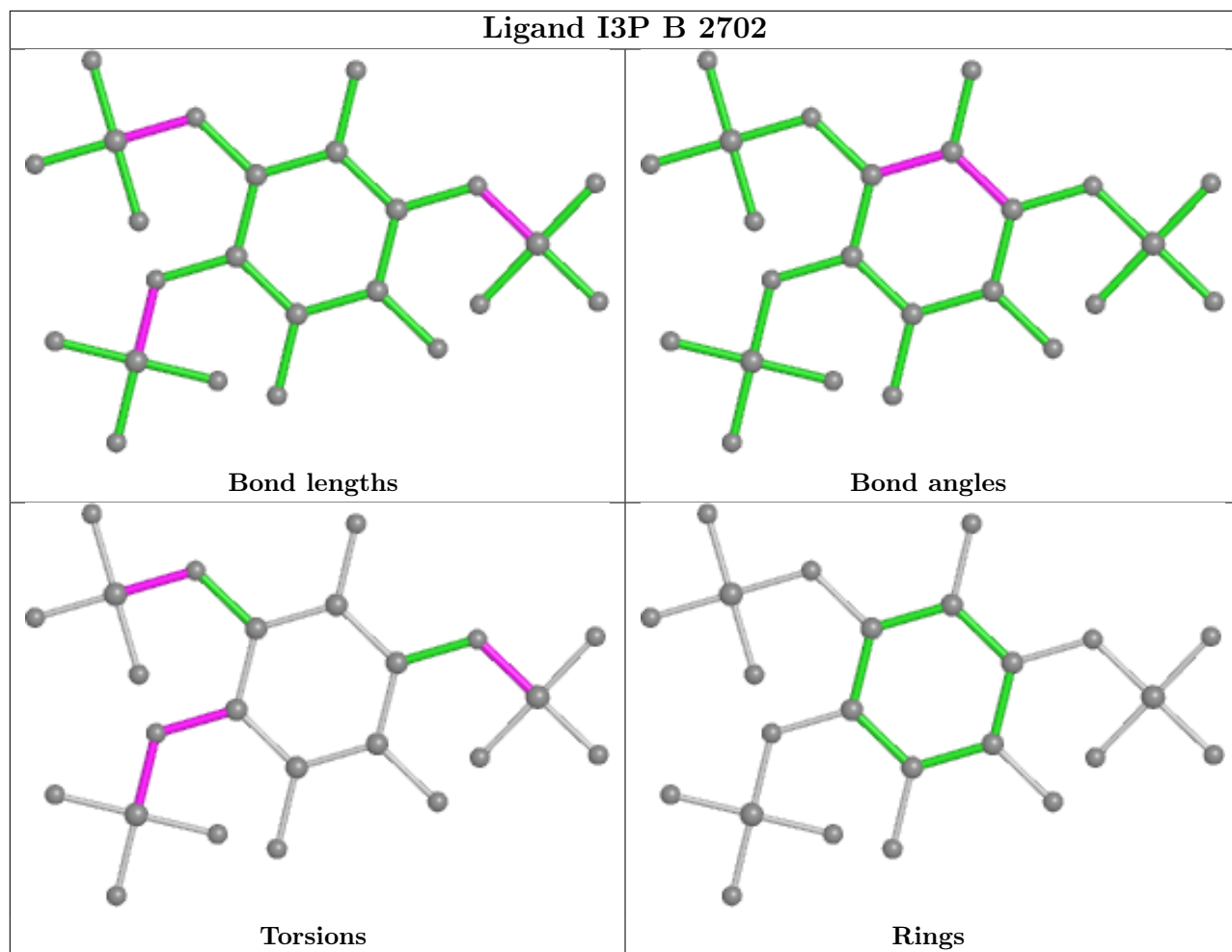
4 monomers are involved in 11 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	C	2703	ATP	3	0
4	A	2703	ATP	3	0
4	D	2703	ATP	2	0
4	B	2703	ATP	3	0

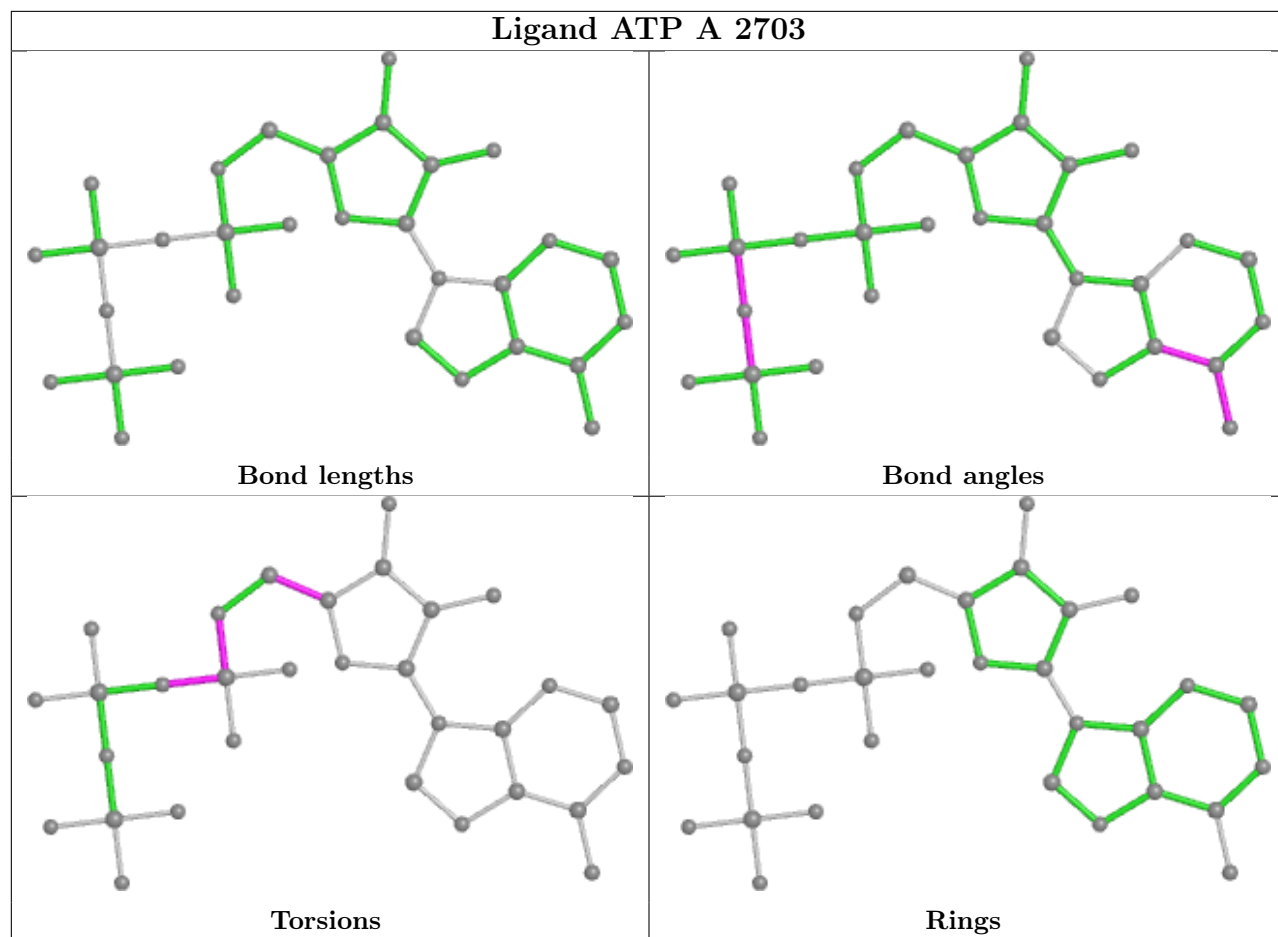
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

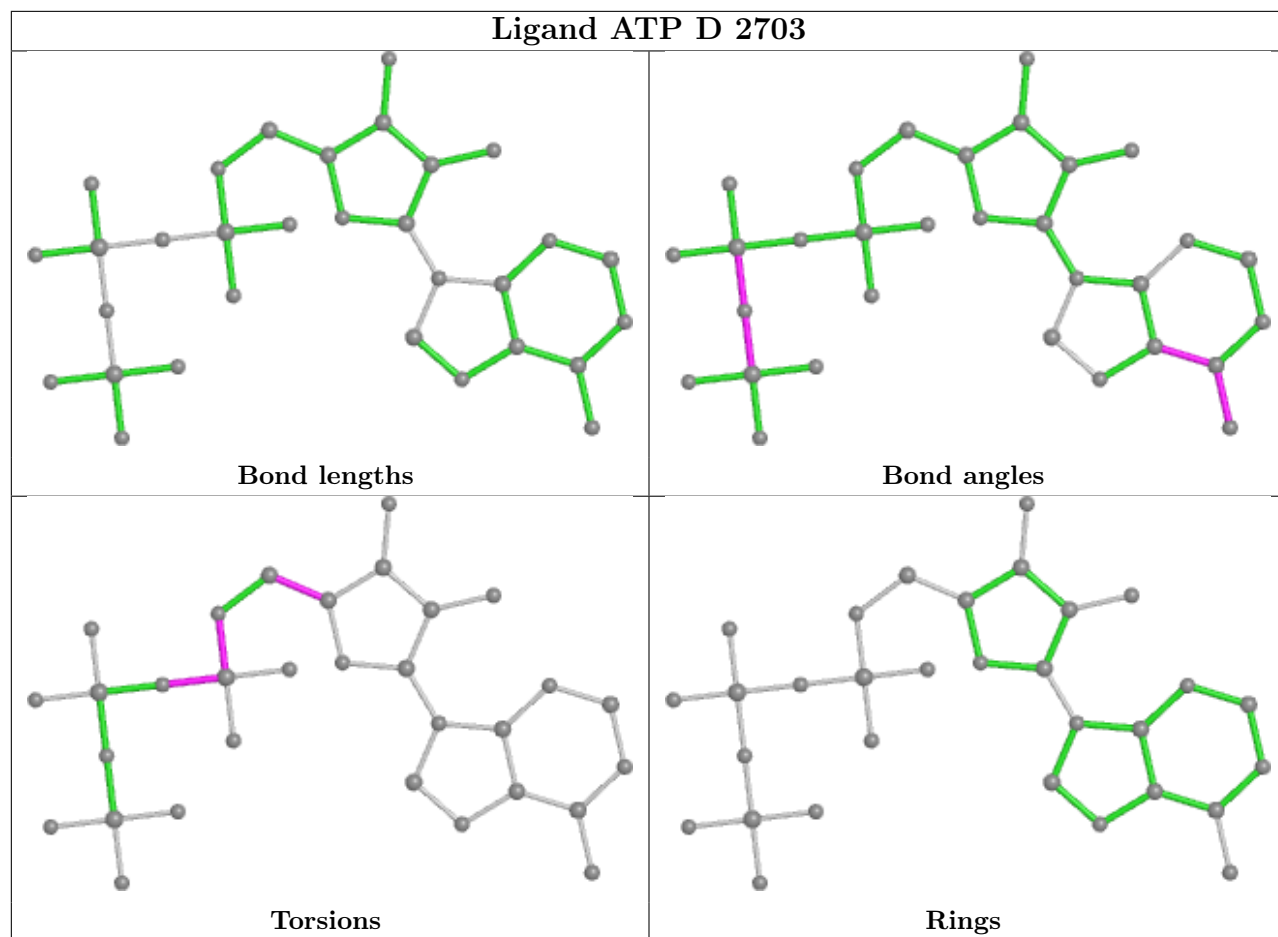
Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD 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.

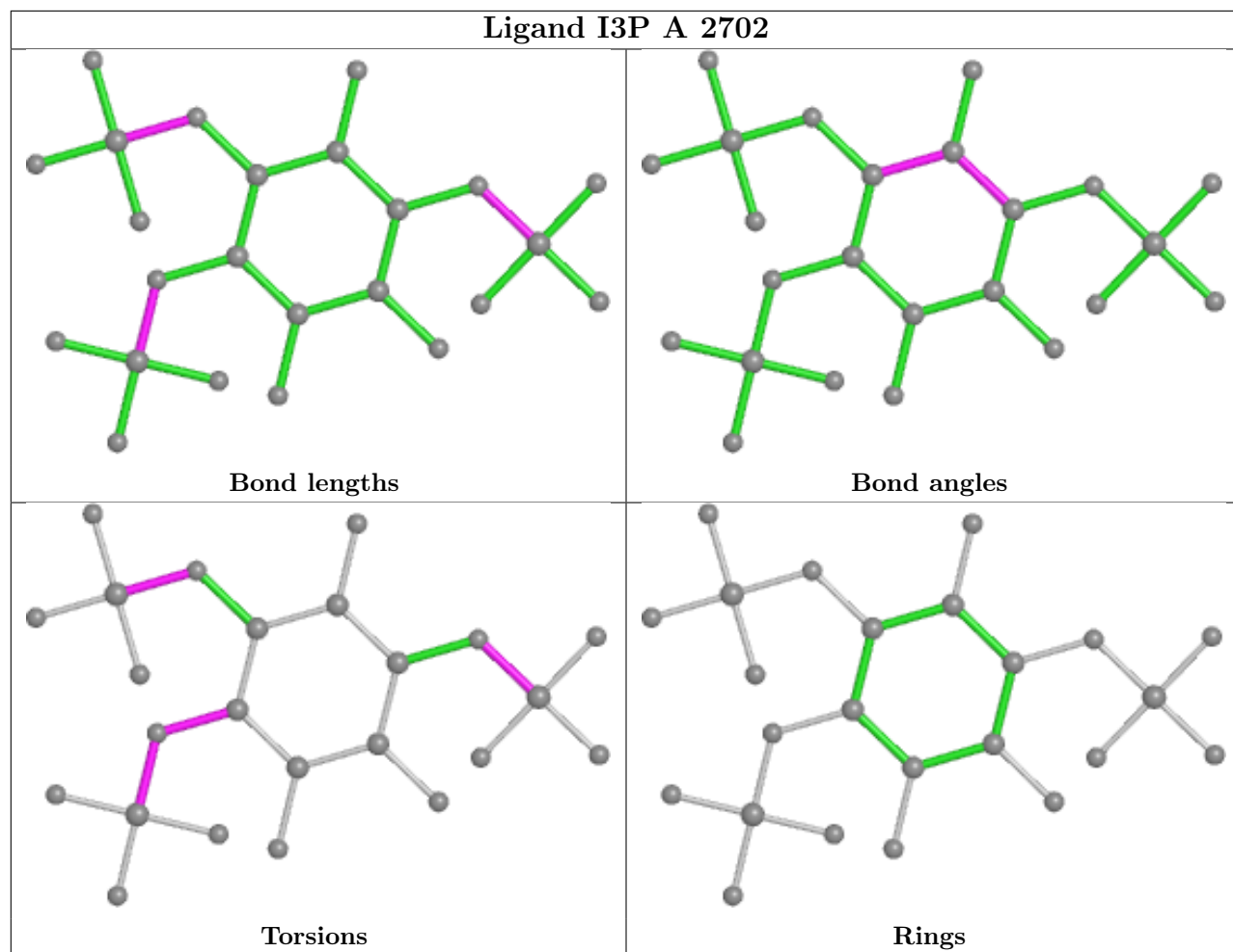


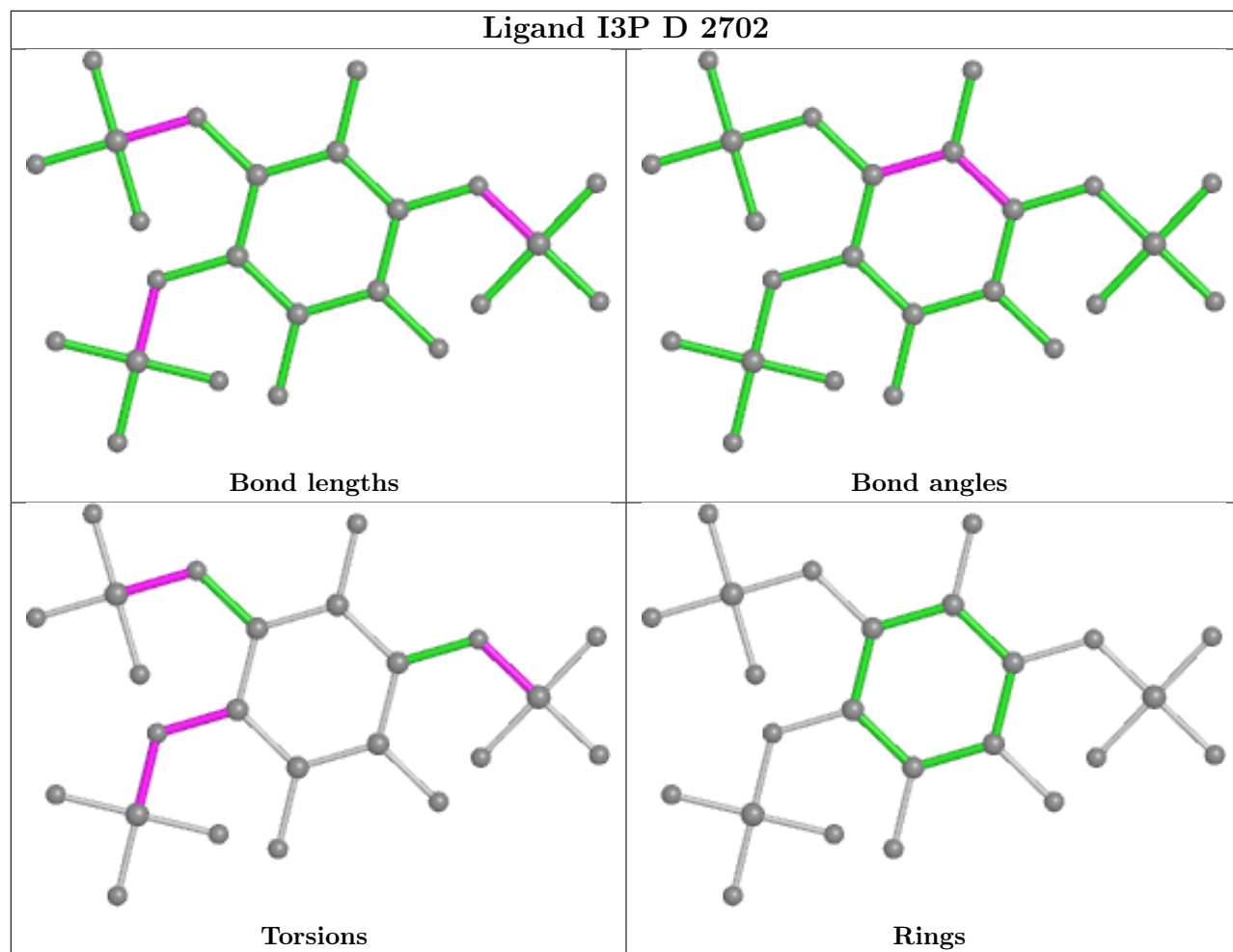


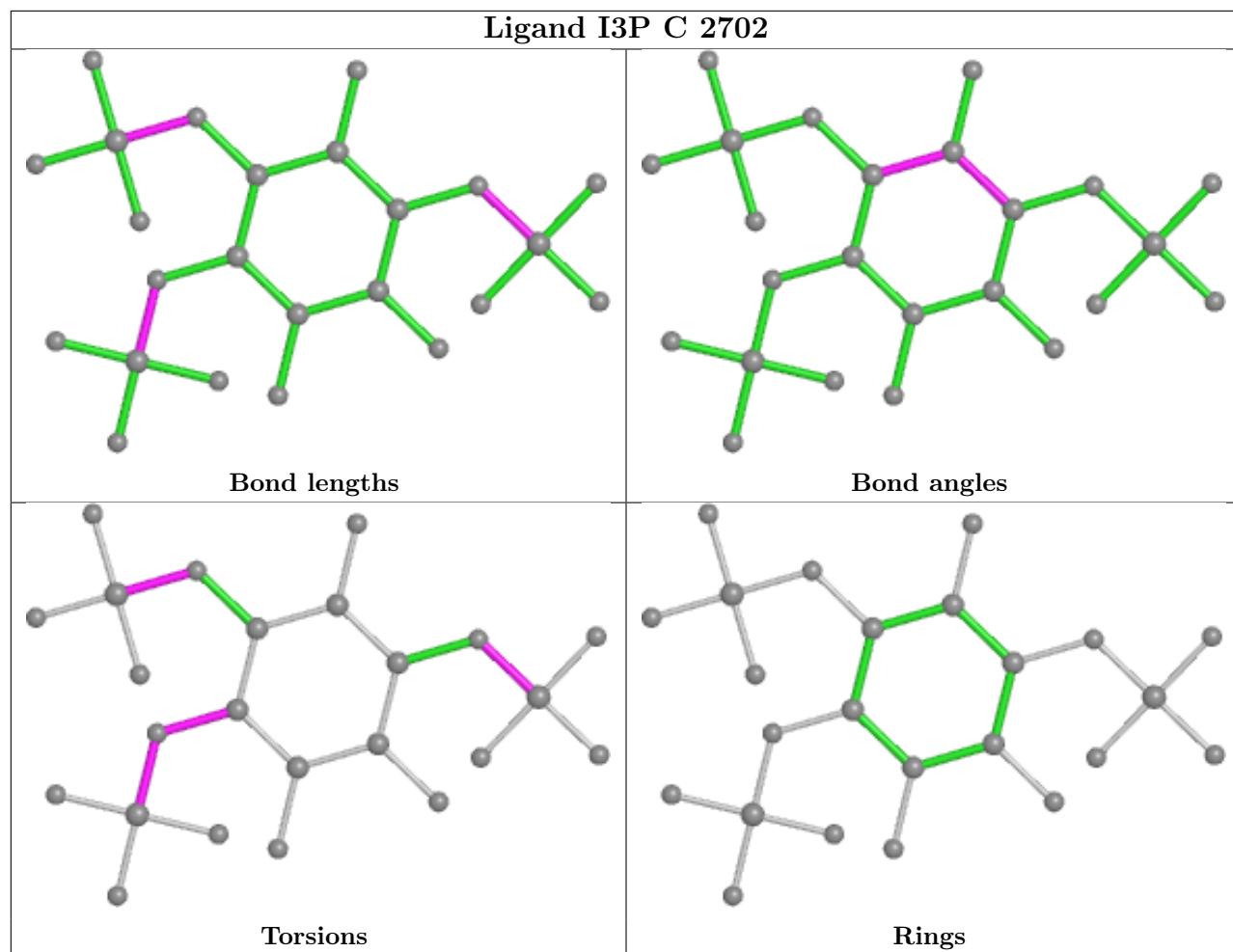


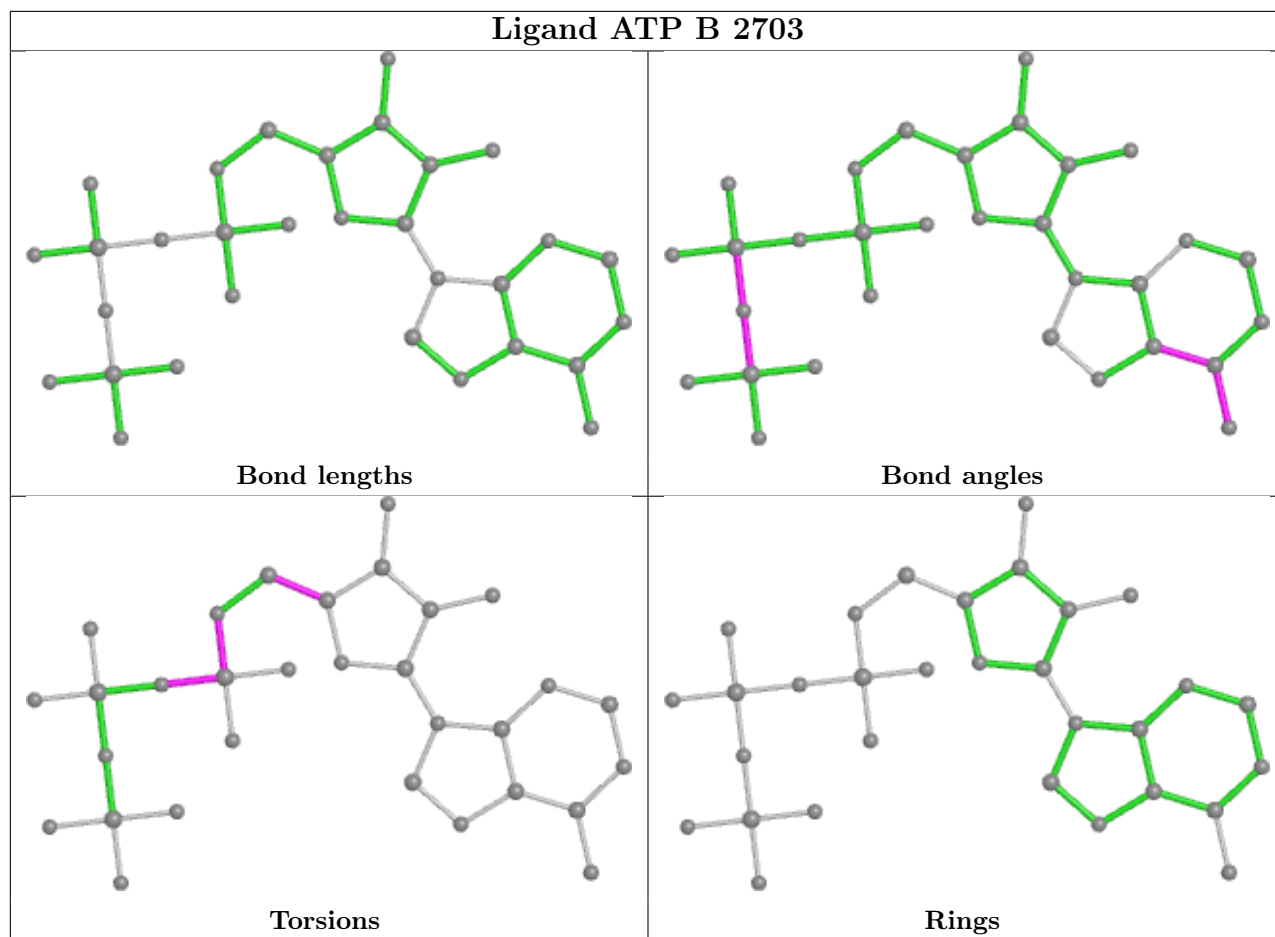












## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	A	1
1	B	1
1	C	1
1	D	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A	2611:VAL	C	2628:UNK	N	28.89
1	B	2611:VAL	C	2628:UNK	N	28.89

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	C	2611:VAL	C	2628:UNK	N	28.89
1	D	2611:VAL	C	2628:UNK	N	28.89

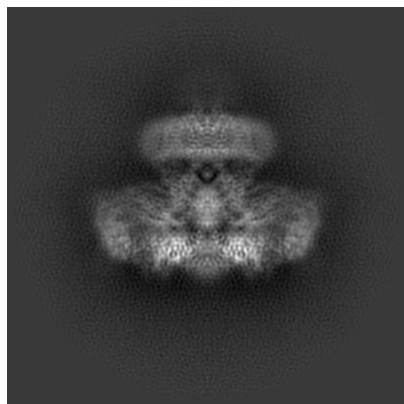
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-25670. These allow visual inspection of the internal detail of the map and identification of artifacts.

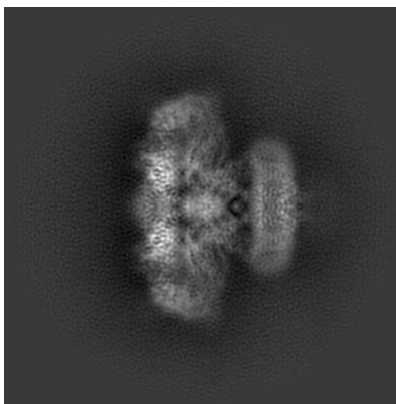
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

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

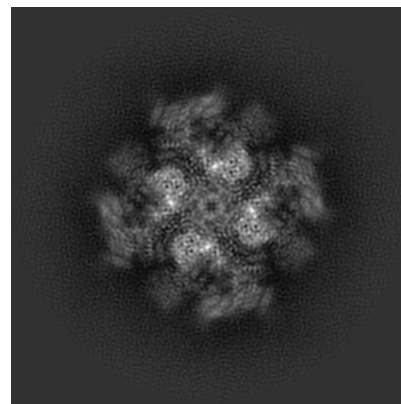
#### 6.1.1 Primary map



X

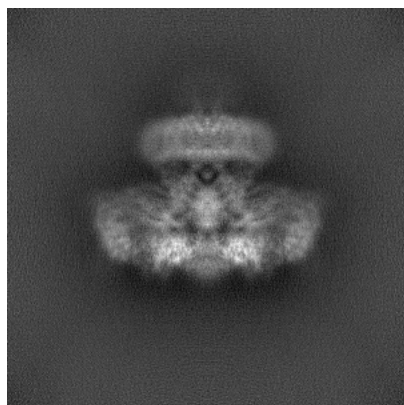


Y

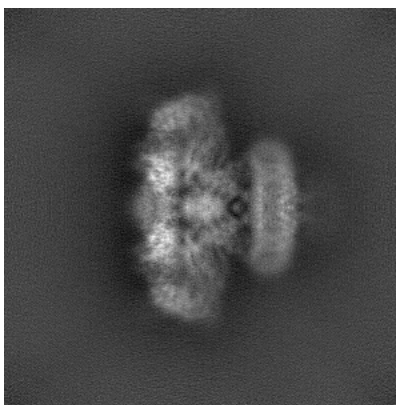


Z

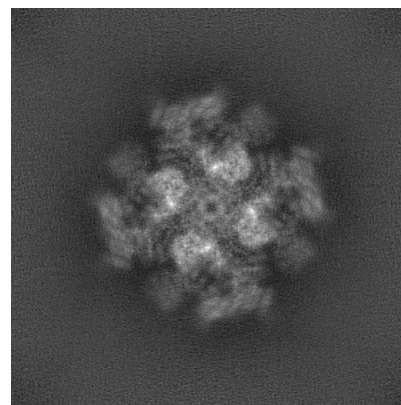
#### 6.1.2 Raw map



X



Y



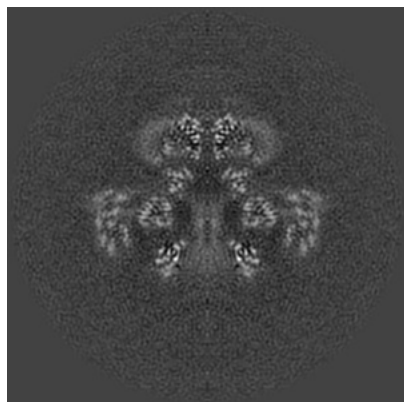
Z

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

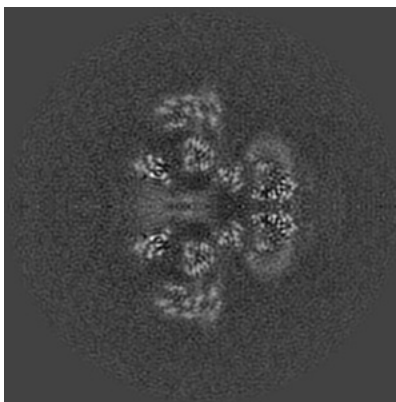


## 6.2 Central slices [i](#)

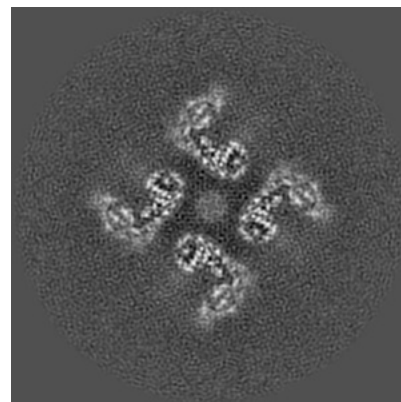
### 6.2.1 Primary map



X Index: 240

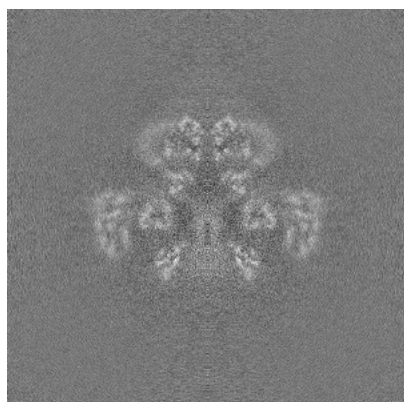


Y Index: 240

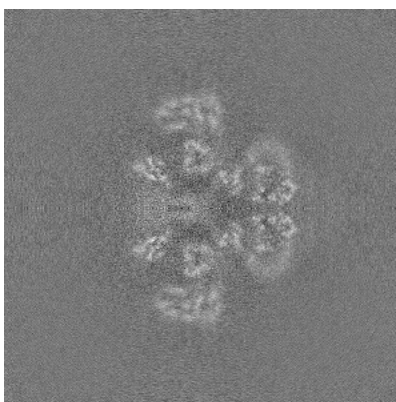


Z Index: 240

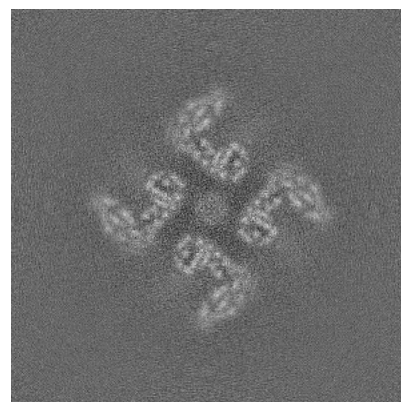
### 6.2.2 Raw map



X Index: 240



Y Index: 240

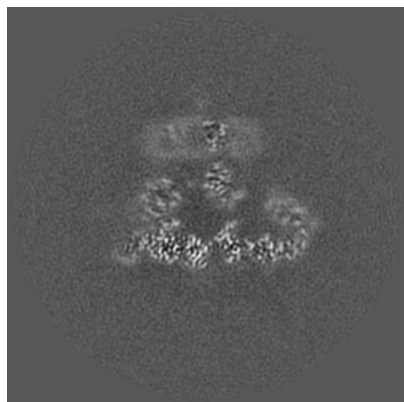


Z Index: 240

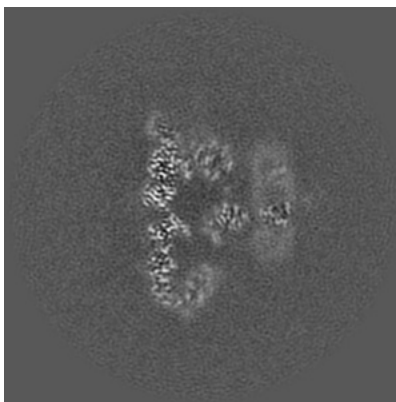
The images above show central slices of the map in three orthogonal directions.

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

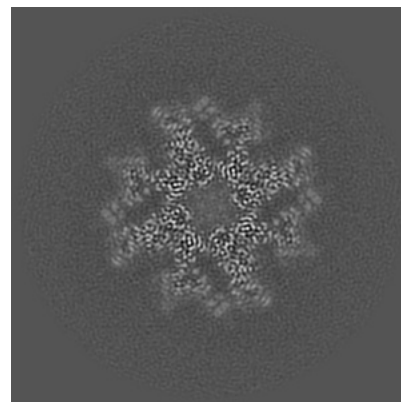
### 6.3.1 Primary map



X Index: 206

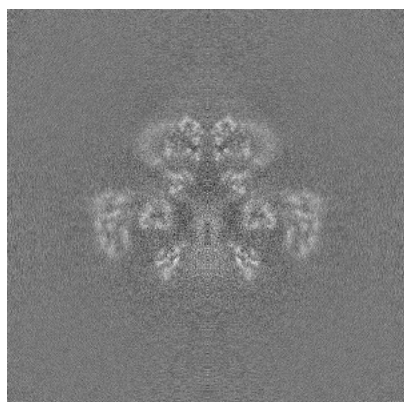


Y Index: 206

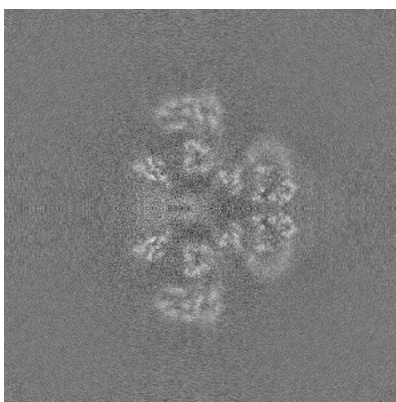


Z Index: 191

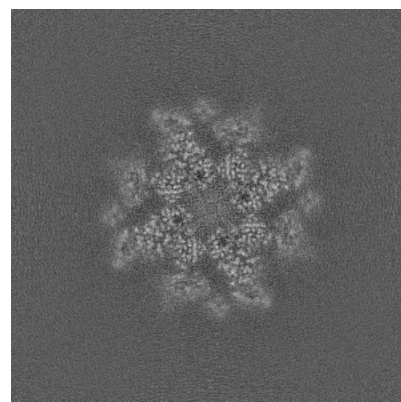
### 6.3.2 Raw map



X Index: 240



Y Index: 240

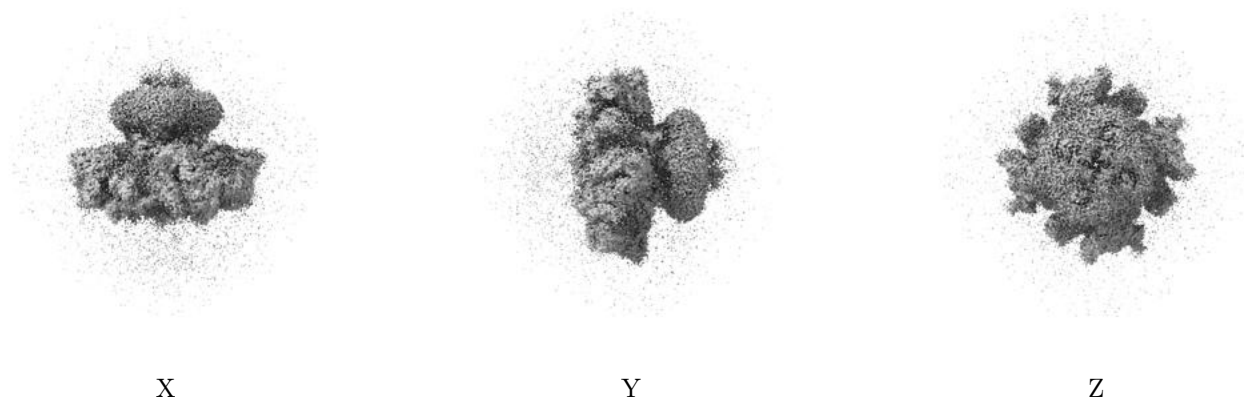


Z Index: 189

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

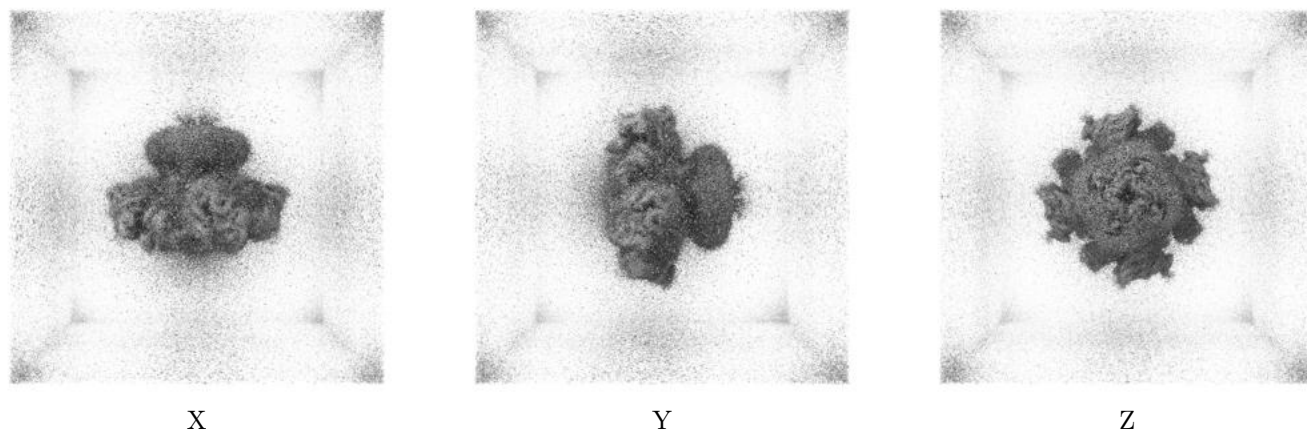
## 6.4 Orthogonal surface views [i](#)

### 6.4.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.12. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

### 6.4.2 Raw map



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

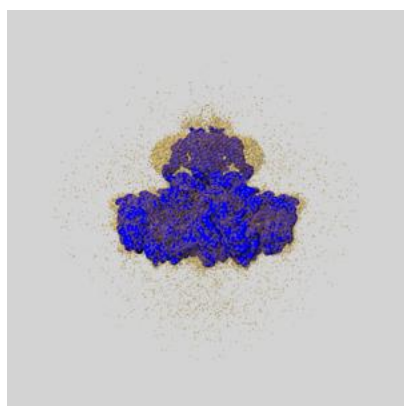
## 6.5 Mask visualisation [i](#)

This section shows the 3D surface view of the primary map at 50% transparency overlaid with the specified mask at 0% transparency

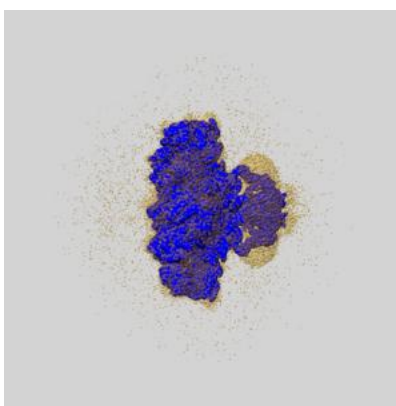
A mask typically either:

- Encompasses the whole structure
- Separates out a domain, a functional unit, a monomer or an area of interest from a larger structure

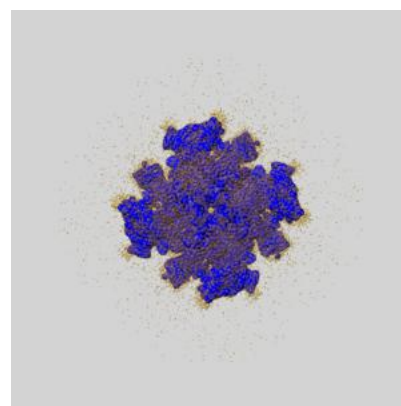
### 6.5.1 emd\_25670\_msk\_1.map [i](#)



X



Y

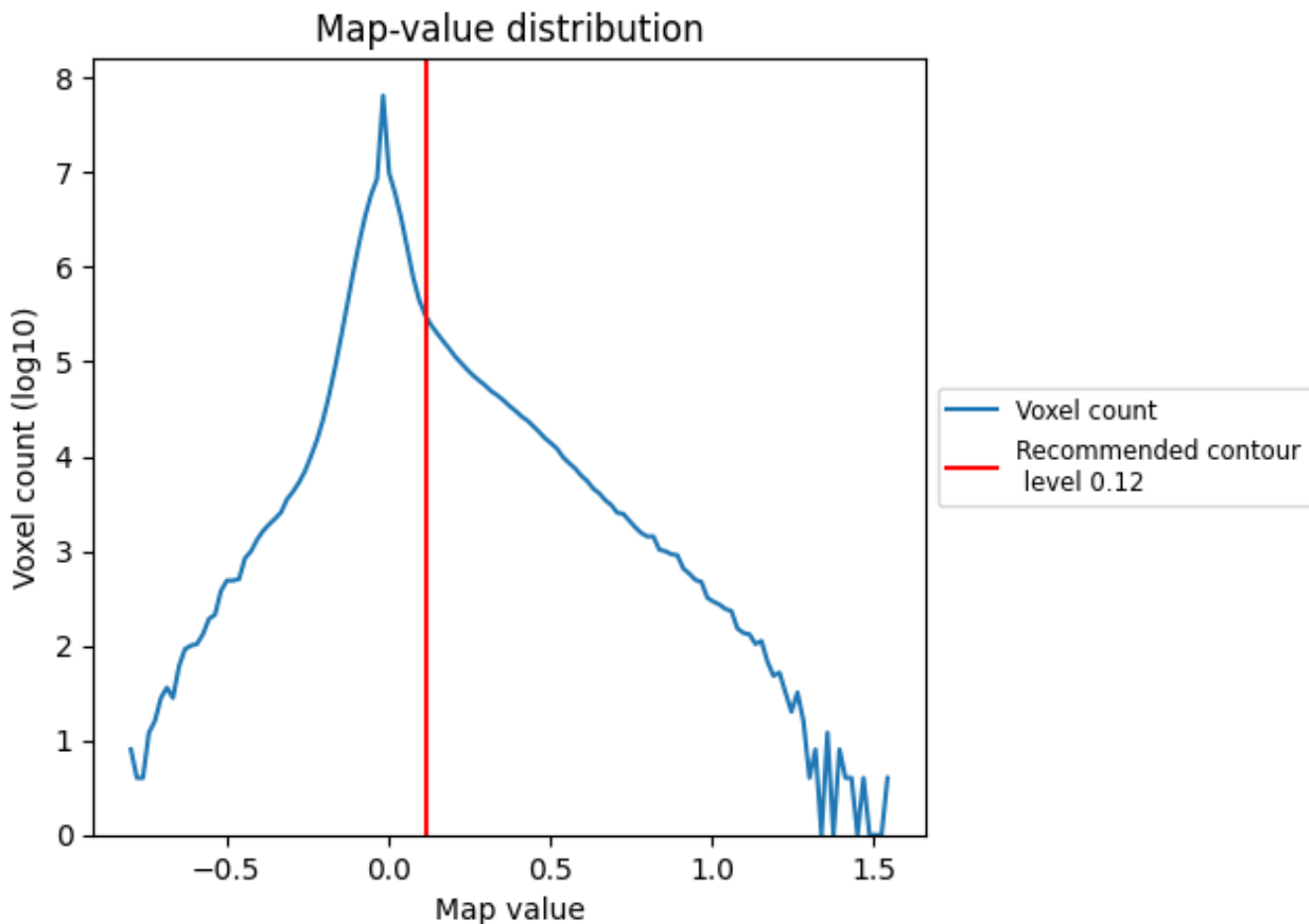


Z

## 7 Map analysis [i](#)

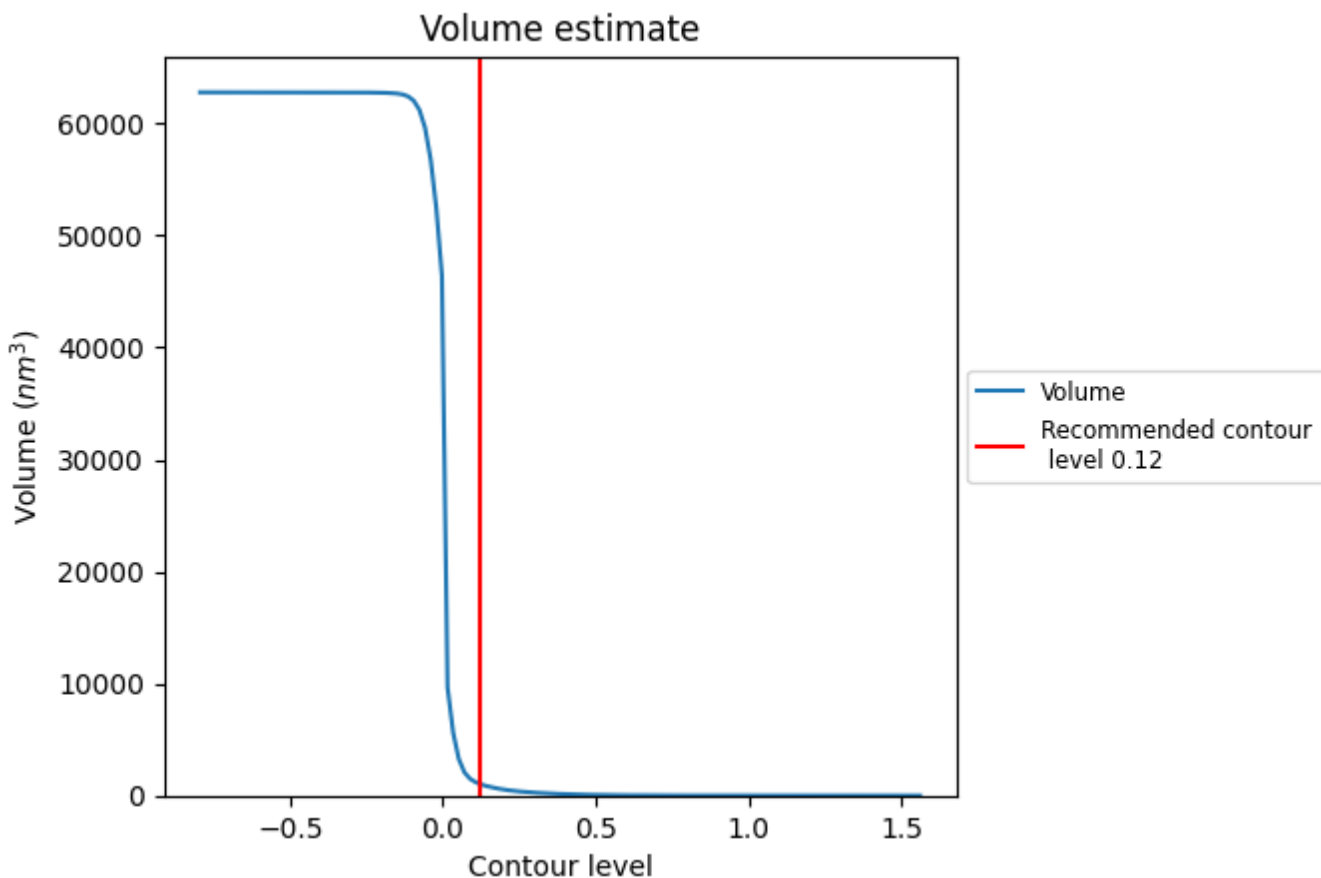
This section contains the results of statistical analysis of the map.

### 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.

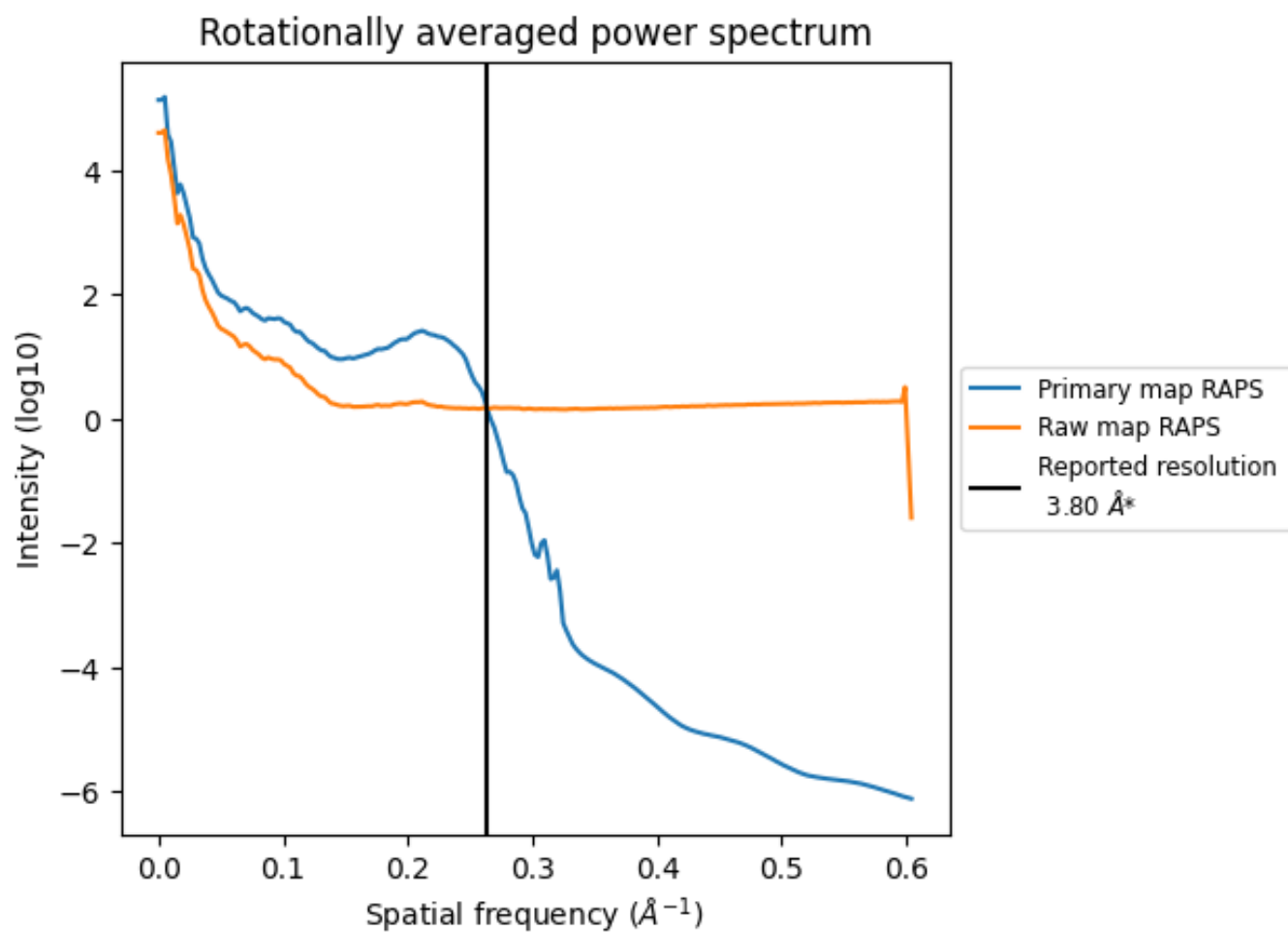
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1054  $\text{nm}^3$ ; this corresponds to an approximate mass of 952 kDa.

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

### 7.3 Rotationally averaged power spectrum i



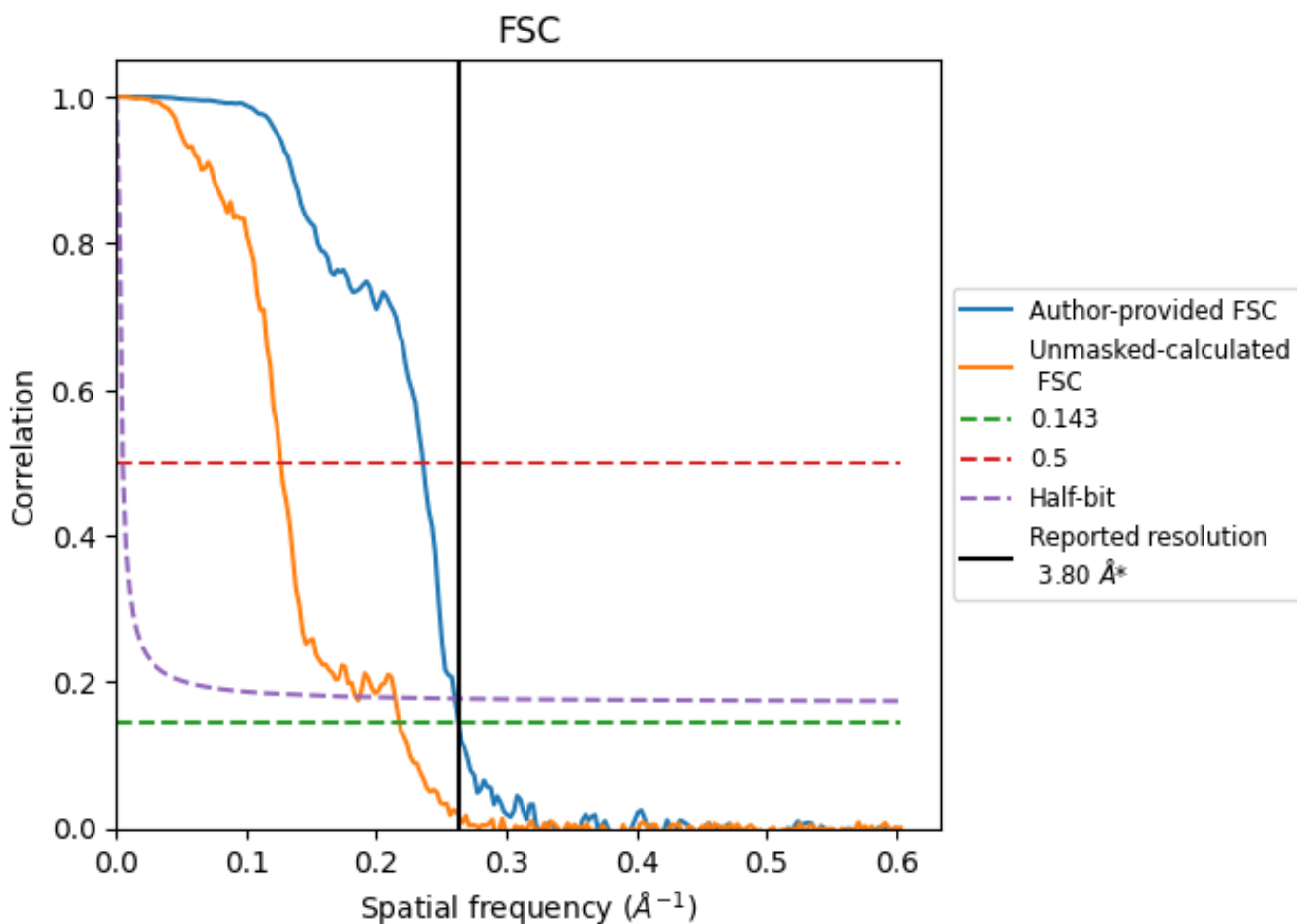
\*Reported resolution corresponds to spatial frequency of 0.263 Å<sup>-1</sup>



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

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

### 8.1 FSC [i](#)



\*Reported resolution corresponds to spatial frequency of 0.263 Å<sup>-1</sup>



## 8.2 Resolution estimates [i](#)

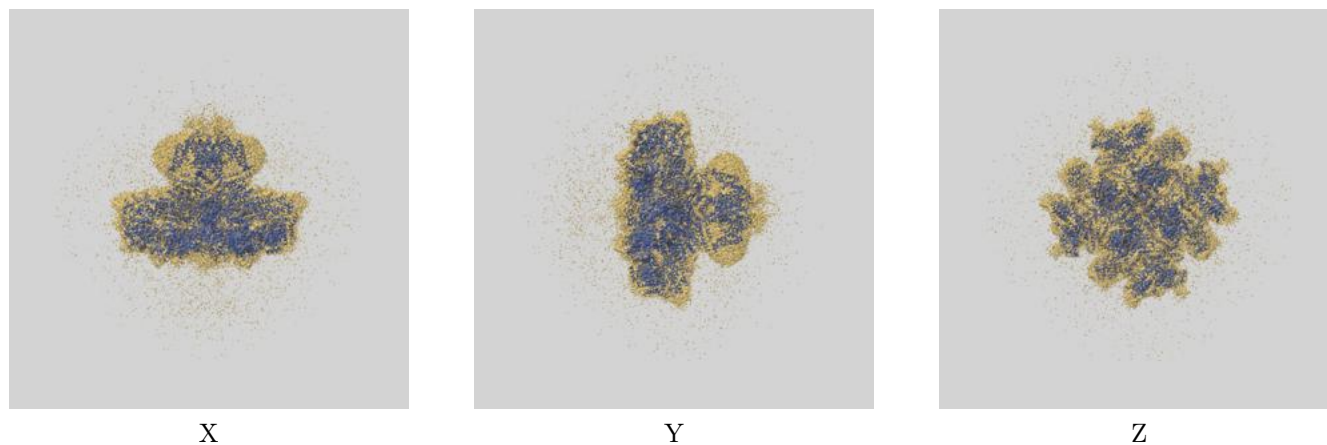
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.80	-	-
Author-provided FSC curve	3.80	4.24	3.84
Unmasked-calculated*	4.59	7.90	5.42

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 4.59 differs from the reported value 3.8 by more than 10 %

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

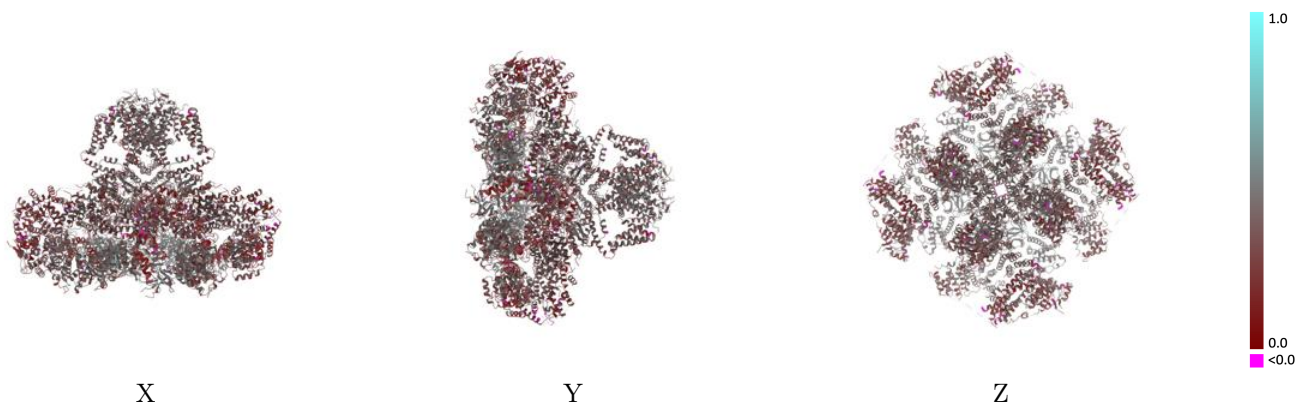
This section contains information regarding the fit between EMDB map EMD-25670 and PDB model 7T3T. Per-residue inclusion information can be found in section [3](#) on page [6](#).

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



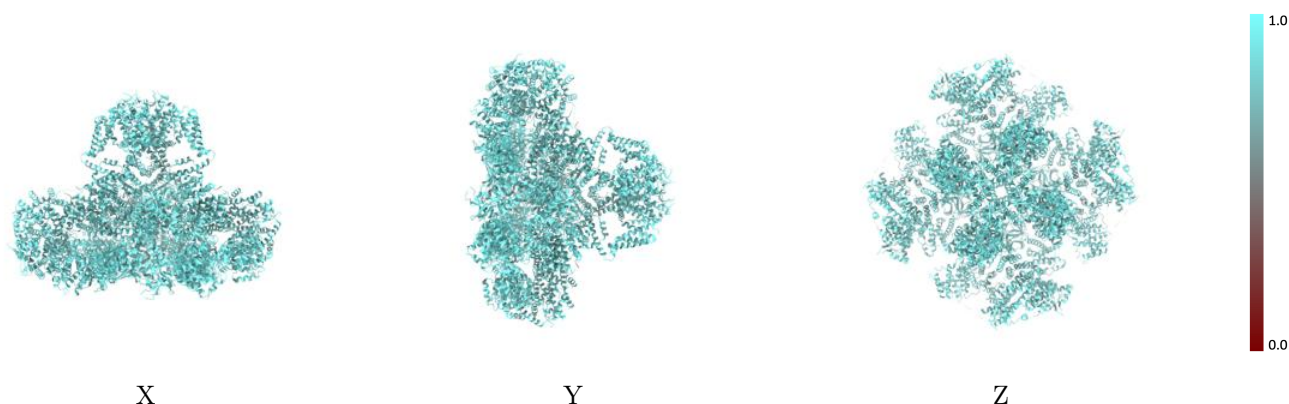
The images above show the 3D surface view of the map at the recommended contour level 0.12 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



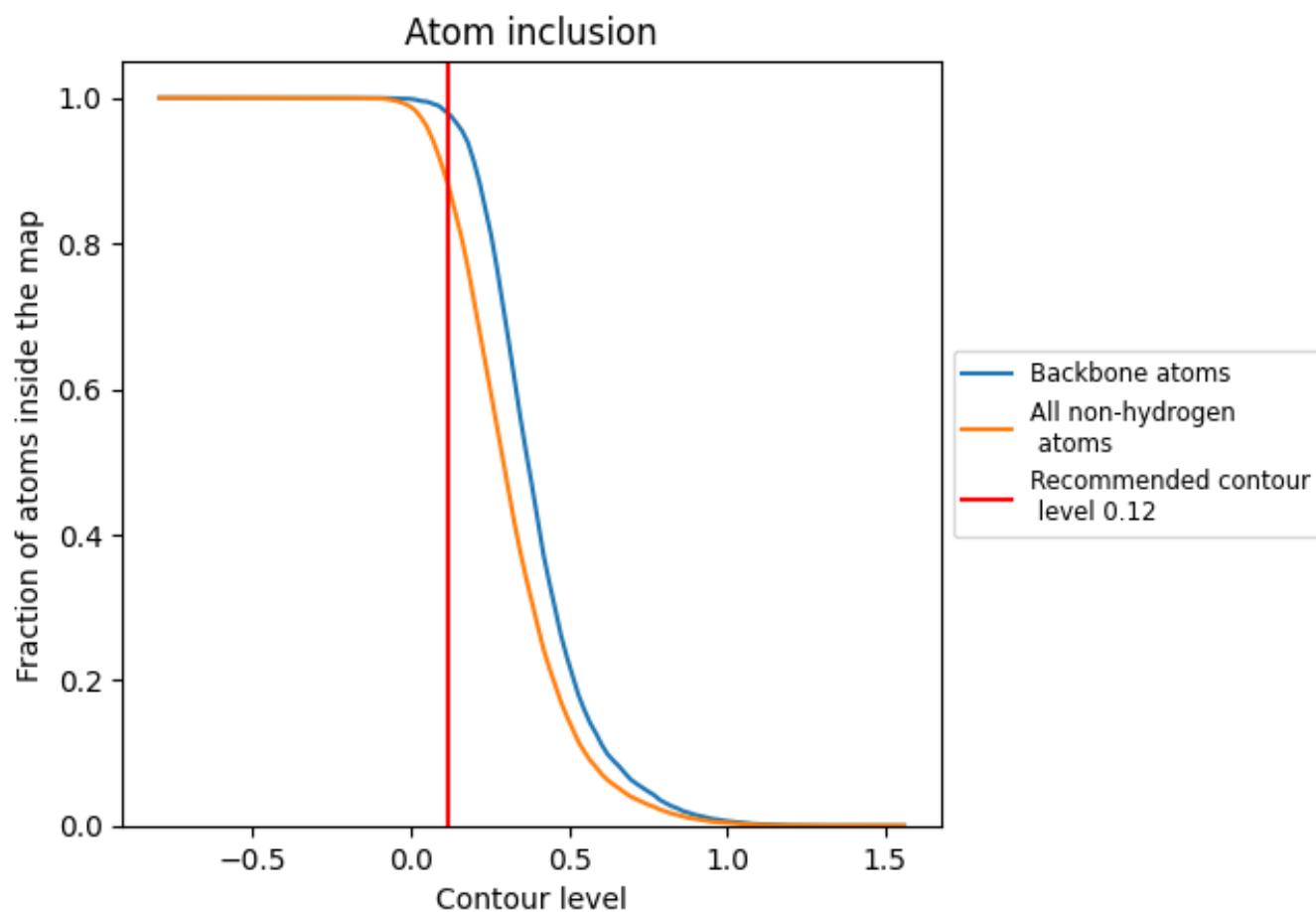
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.12).




## 9.4 Atom inclusion [i](#)



At the recommended contour level, 98% of all backbone atoms, 88% 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 (0.12) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.8779	 0.3570
A	 0.8777	 0.3570
B	 0.8782	 0.3570
C	 0.8777	 0.3570
D	 0.8780	 0.3570

