Full wwPDB EM Validation Report ⓘ

Aug 4, 2025 – 04:48 PM JST

PDB ID	:	9J3D / pdb_00009j3d
EMDB ID	:	EMD-61114
Title	:	Cryo-EM structure of TMexCD1-TOprJ1
Authors	:	Shi, Y.; Feng, Y.
Deposited on	:	2024-08-08
Resolution	:	2.97 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

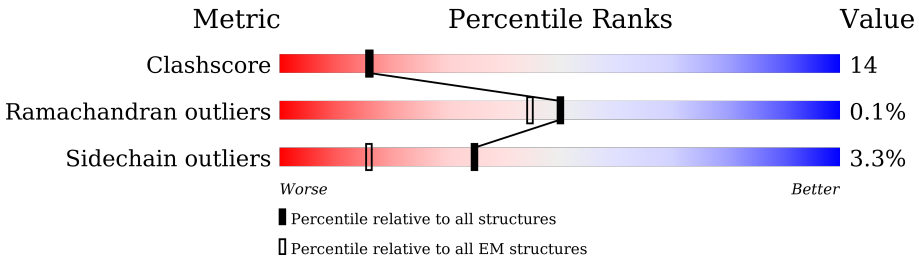
EMDB validation analysis	:	0.0.1.dev126
MolProbity	:	4-5-2 with Phenix2.0rc1
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.45.1

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 2.97 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	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

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 <=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	483	12% 59% 23% • 17%
1	B	483	13% 56% 26% • 17%
1	C	483	13% 60% 22% • 17%
2	D	395	• 74% 12% 14%
2	E	395	15% 72% 13% • 14%
2	F	395	• 74% 12% 14%
2	G	395	16% 68% 17% 14%
2	H	395	• 77% 9% 14%

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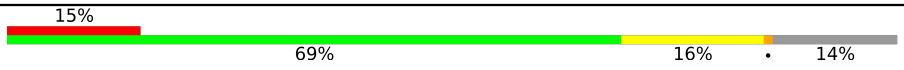
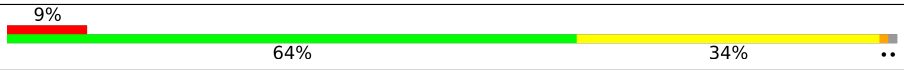
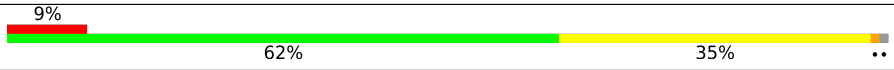
Mol	Chain	Length	Quality of chain
2	I	395	
3	J	1044	
3	K	1044	
3	L	1044	

2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 47865 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 RND efflux system, OprJ-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	402	Total	C	N	O	S	0	0
			3065	1876	576	609	4		
1	B	402	Total	C	N	O	S	0	0
			3065	1876	576	609	4		
1	C	402	Total	C	N	O	S	0	0
			3065	1876	576	609	4		

There are 18 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	478	HIS	-	expression tag	UNP A0A411AKN6
A	479	HIS	-	expression tag	UNP A0A411AKN6
A	480	HIS	-	expression tag	UNP A0A411AKN6
A	481	HIS	-	expression tag	UNP A0A411AKN6
A	482	HIS	-	expression tag	UNP A0A411AKN6
A	483	HIS	-	expression tag	UNP A0A411AKN6
B	478	HIS	-	expression tag	UNP A0A411AKN6
B	479	HIS	-	expression tag	UNP A0A411AKN6
B	480	HIS	-	expression tag	UNP A0A411AKN6
B	481	HIS	-	expression tag	UNP A0A411AKN6
B	482	HIS	-	expression tag	UNP A0A411AKN6
B	483	HIS	-	expression tag	UNP A0A411AKN6
C	478	HIS	-	expression tag	UNP A0A411AKN6
C	479	HIS	-	expression tag	UNP A0A411AKN6
C	480	HIS	-	expression tag	UNP A0A411AKN6
C	481	HIS	-	expression tag	UNP A0A411AKN6
C	482	HIS	-	expression tag	UNP A0A411AKN6
C	483	HIS	-	expression tag	UNP A0A411AKN6

- Molecule 2 is a protein called RND efflux system, MexC-like protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	D	338	Total	C	N	O	S	0	0
			2543	1580	471	487	5		
2	E	338	Total	C	N	O	S	0	0
			2543	1580	471	487	5		
2	F	338	Total	C	N	O	S	0	0
			2543	1580	471	487	5		
2	G	338	Total	C	N	O	S	0	0
			2543	1580	471	487	5		
2	H	338	Total	C	N	O	S	0	0
			2543	1580	471	487	5		
2	I	338	Total	C	N	O	S	0	0
			2543	1580	471	487	5		

There are 48 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
D	388	TRP	-	expression tag	UNP A0A411AKL2
D	389	SER	-	expression tag	UNP A0A411AKL2
D	390	HIS	-	expression tag	UNP A0A411AKL2
D	391	PRO	-	expression tag	UNP A0A411AKL2
D	392	GLN	-	expression tag	UNP A0A411AKL2
D	393	PHE	-	expression tag	UNP A0A411AKL2
D	394	GLU	-	expression tag	UNP A0A411AKL2
D	395	LYS	-	expression tag	UNP A0A411AKL2
E	388	TRP	-	expression tag	UNP A0A411AKL2
E	389	SER	-	expression tag	UNP A0A411AKL2
E	390	HIS	-	expression tag	UNP A0A411AKL2
E	391	PRO	-	expression tag	UNP A0A411AKL2
E	392	GLN	-	expression tag	UNP A0A411AKL2
E	393	PHE	-	expression tag	UNP A0A411AKL2
E	394	GLU	-	expression tag	UNP A0A411AKL2
E	395	LYS	-	expression tag	UNP A0A411AKL2
F	388	TRP	-	expression tag	UNP A0A411AKL2
F	389	SER	-	expression tag	UNP A0A411AKL2
F	390	HIS	-	expression tag	UNP A0A411AKL2
F	391	PRO	-	expression tag	UNP A0A411AKL2
F	392	GLN	-	expression tag	UNP A0A411AKL2
F	393	PHE	-	expression tag	UNP A0A411AKL2
F	394	GLU	-	expression tag	UNP A0A411AKL2
F	395	LYS	-	expression tag	UNP A0A411AKL2
G	388	TRP	-	expression tag	UNP A0A411AKL2
G	389	SER	-	expression tag	UNP A0A411AKL2
G	390	HIS	-	expression tag	UNP A0A411AKL2
G	391	PRO	-	expression tag	UNP A0A411AKL2

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Chain	Residue	Modelled	Actual	Comment	Reference
G	392	GLN	-	expression tag	UNP A0A411AKL2
G	393	PHE	-	expression tag	UNP A0A411AKL2
G	394	GLU	-	expression tag	UNP A0A411AKL2
G	395	LYS	-	expression tag	UNP A0A411AKL2
H	388	TRP	-	expression tag	UNP A0A411AKL2
H	389	SER	-	expression tag	UNP A0A411AKL2
H	390	HIS	-	expression tag	UNP A0A411AKL2
H	391	PRO	-	expression tag	UNP A0A411AKL2
H	392	GLN	-	expression tag	UNP A0A411AKL2
H	393	PHE	-	expression tag	UNP A0A411AKL2
H	394	GLU	-	expression tag	UNP A0A411AKL2
H	395	LYS	-	expression tag	UNP A0A411AKL2
I	388	TRP	-	expression tag	UNP A0A411AKL2
I	389	SER	-	expression tag	UNP A0A411AKL2
I	390	HIS	-	expression tag	UNP A0A411AKL2
I	391	PRO	-	expression tag	UNP A0A411AKL2
I	392	GLN	-	expression tag	UNP A0A411AKL2
I	393	PHE	-	expression tag	UNP A0A411AKL2
I	394	GLU	-	expression tag	UNP A0A411AKL2
I	395	LYS	-	expression tag	UNP A0A411AKL2

- Molecule 3 is a protein called Efflux pump membrane transporter.

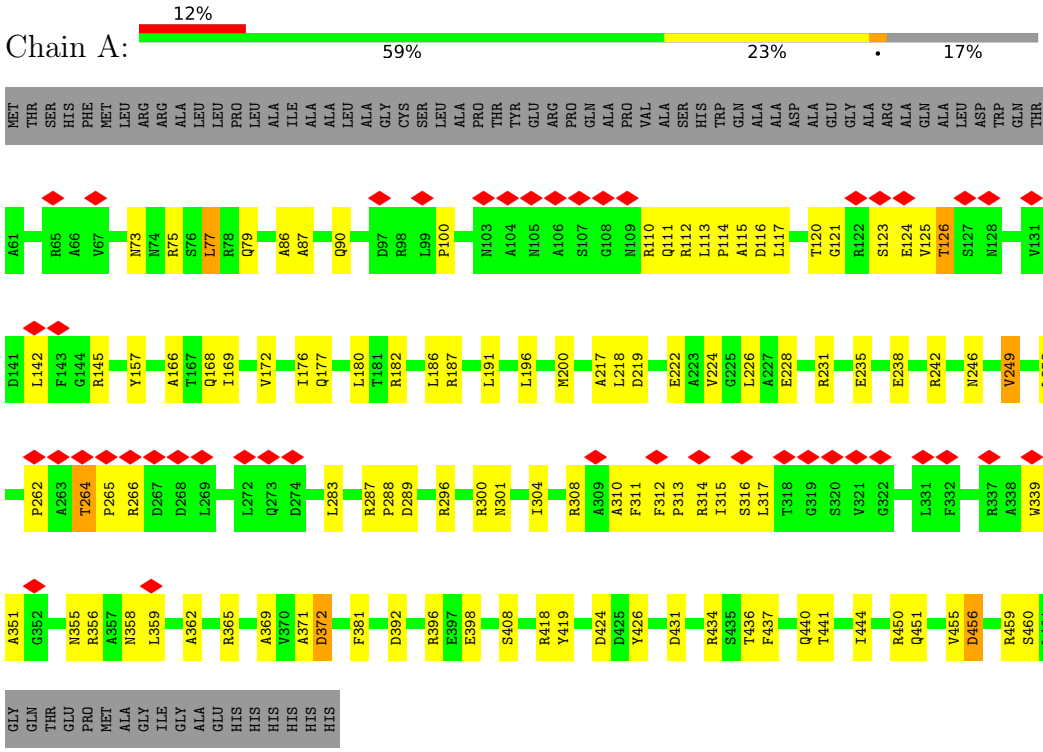
Mol	Chain	Residues	Atoms					AltConf	Trace
3	J	1032	Total	C	N	O	S	0	0
			7804	5030	1295	1445	34		
3	K	1032	Total	C	N	O	S	0	0
			7804	5030	1295	1445	34		
3	L	1032	Total	C	N	O	S	0	0
			7804	5030	1295	1445	34		

3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

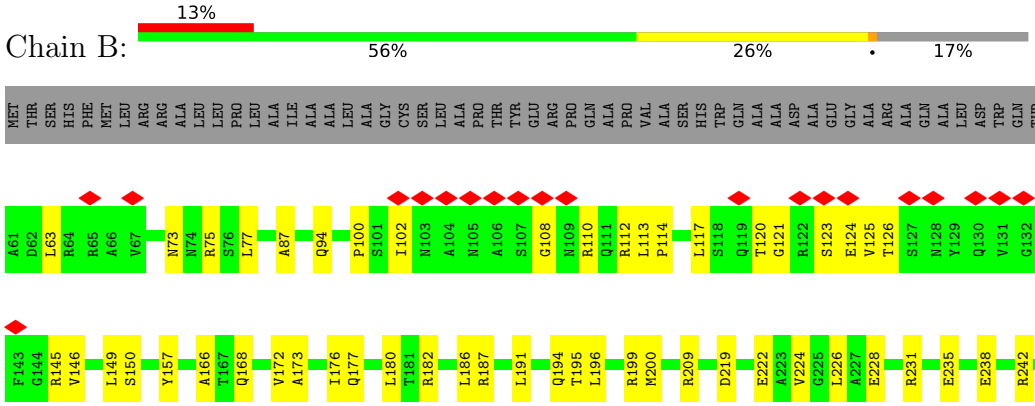
• Molecule 1: RND efflux system, OprJ-like protein

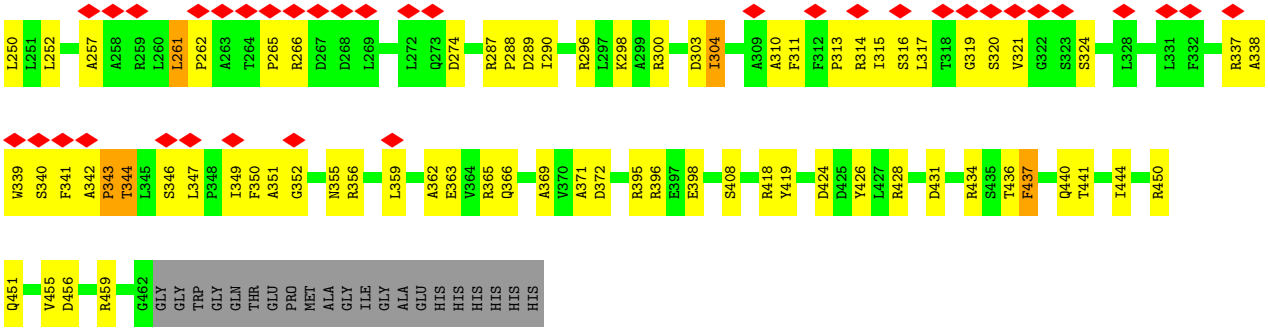
Chain A:



• Molecule 1: RND efflux system, OprJ-like protein

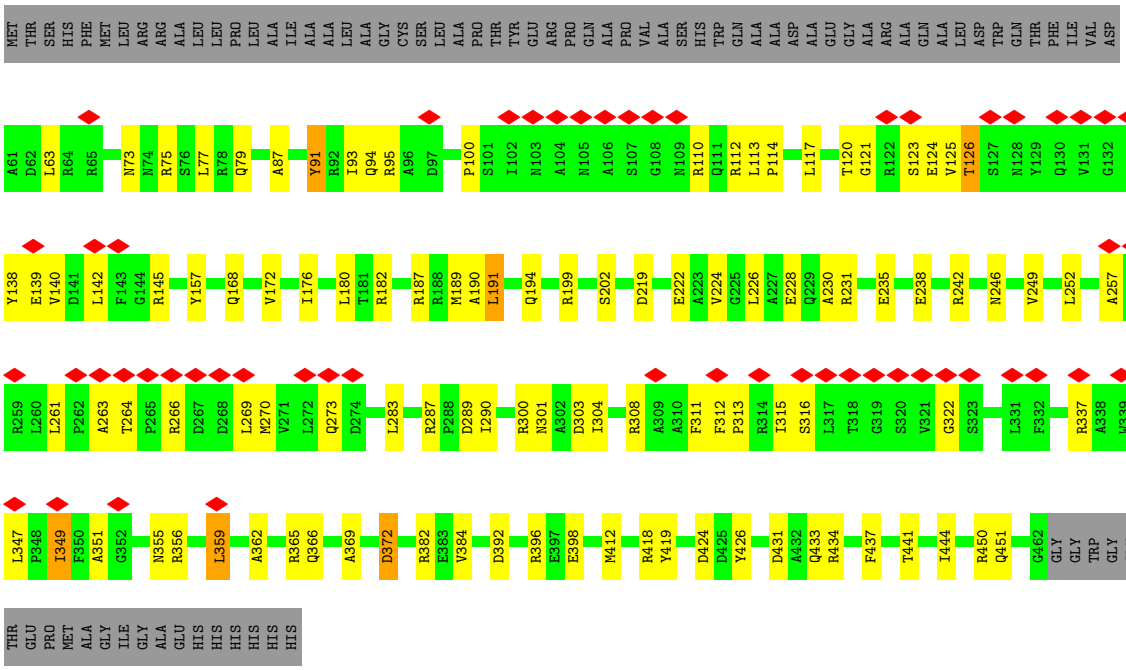
Chain B:





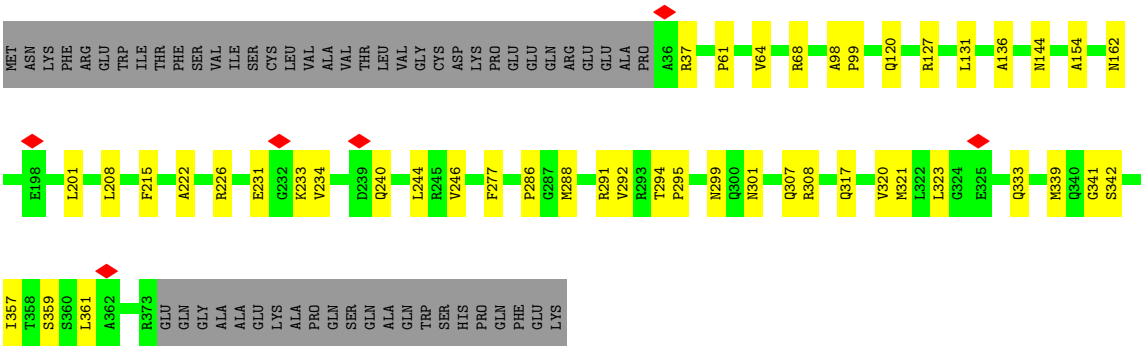
• Molecule 1: RND efflux system, OprJ-like protein

Chain C:



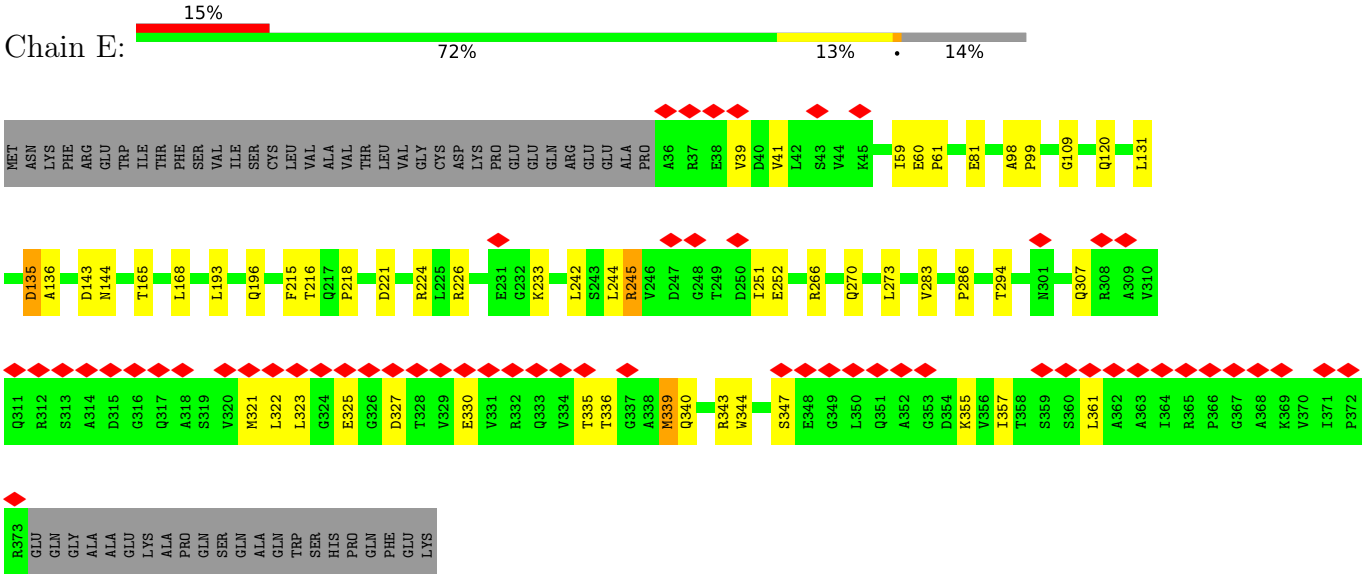
• Molecule 2: RND efflux system, MexC-like protein

Chain D:



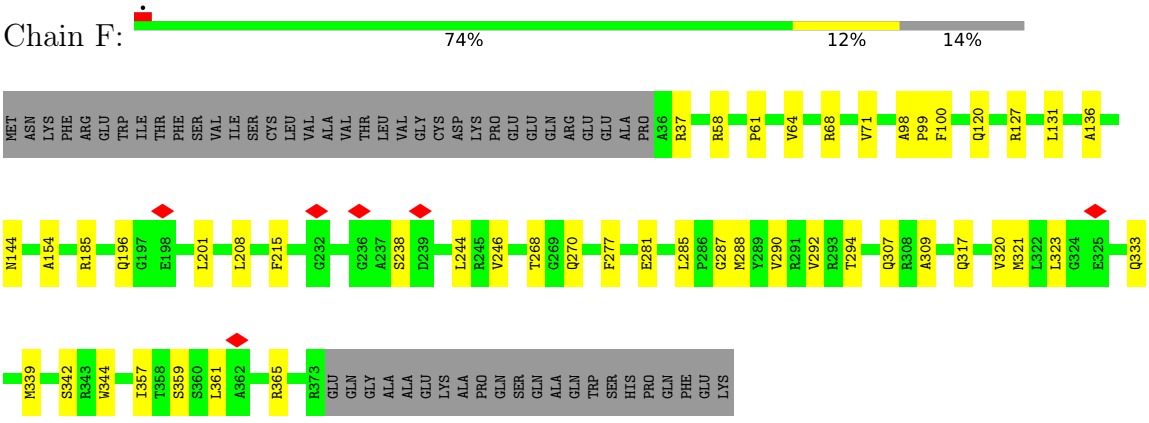
• Molecule 2: RND efflux system, MexC-like protein

Chain E:



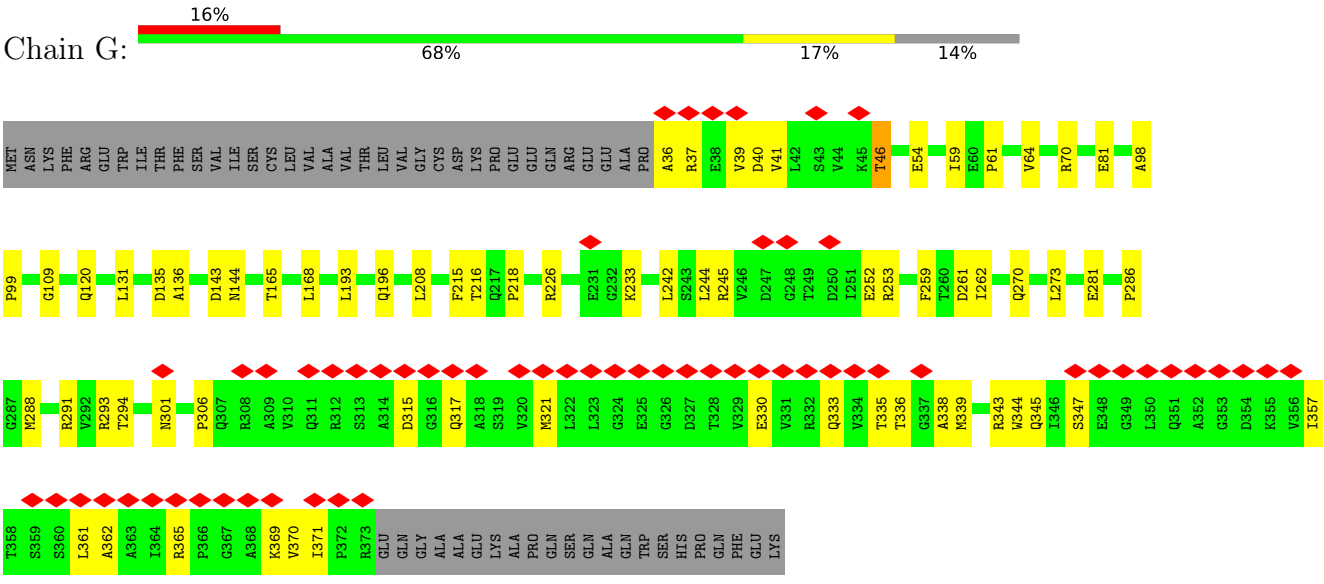
• Molecule 2: RND efflux system, MexC-like protein

Chain F:



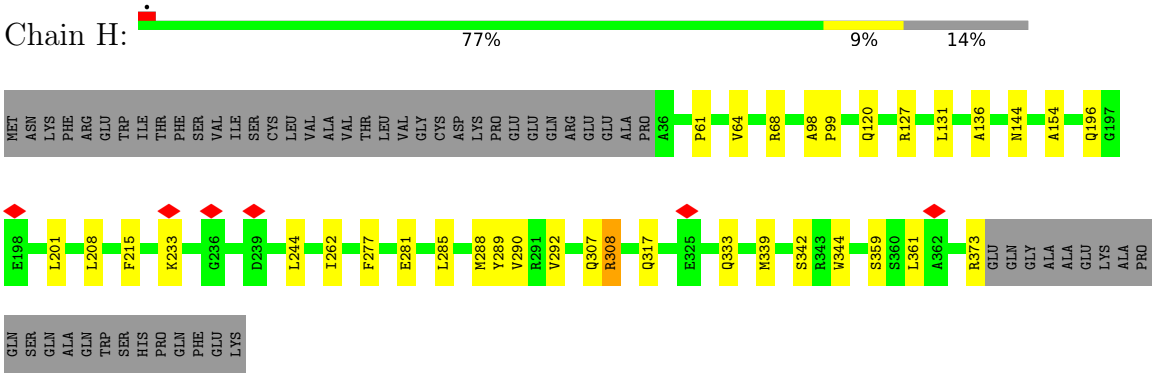
• Molecule 2: RND efflux system, MexC-like protein

Chain G:



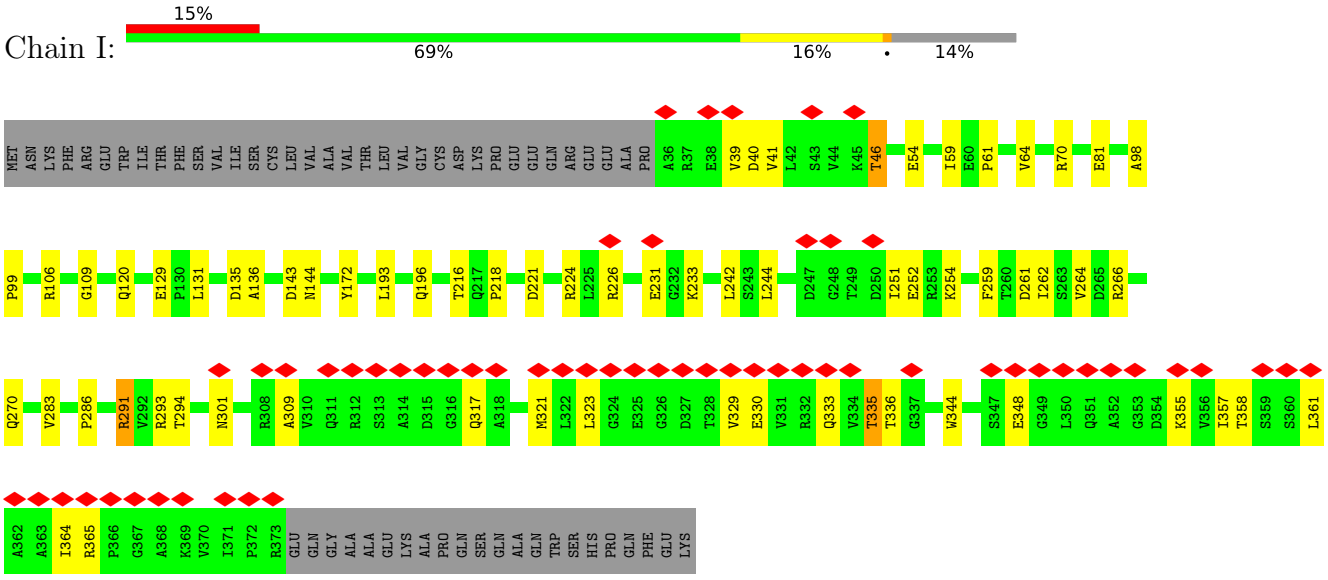
• Molecule 2: RND efflux system, MexC-like protein

Chain H:



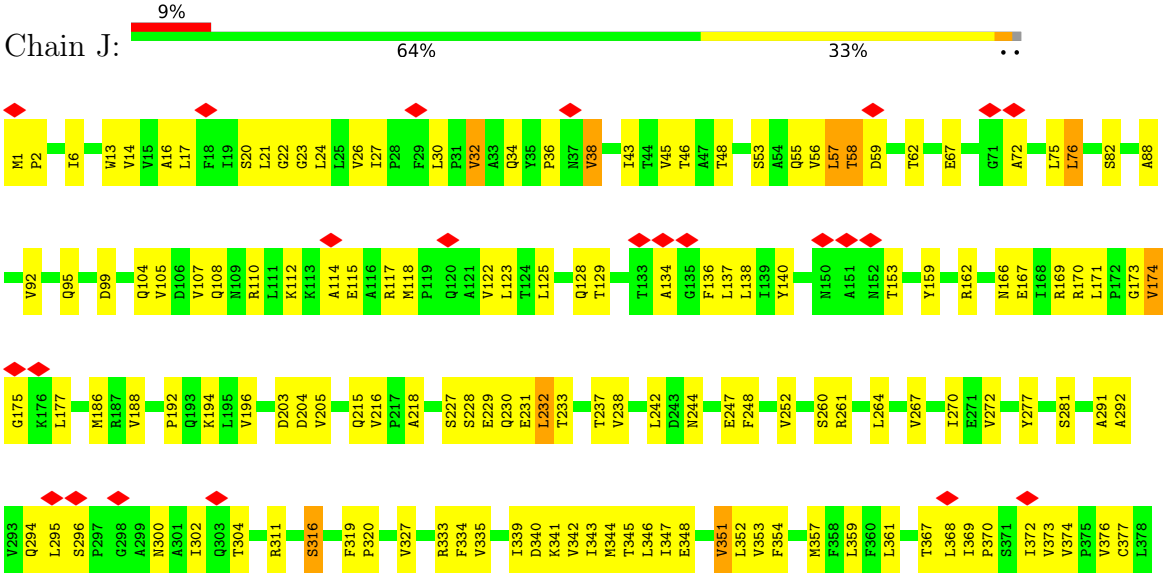
• Molecule 2: RND efflux system, MexC-like protein

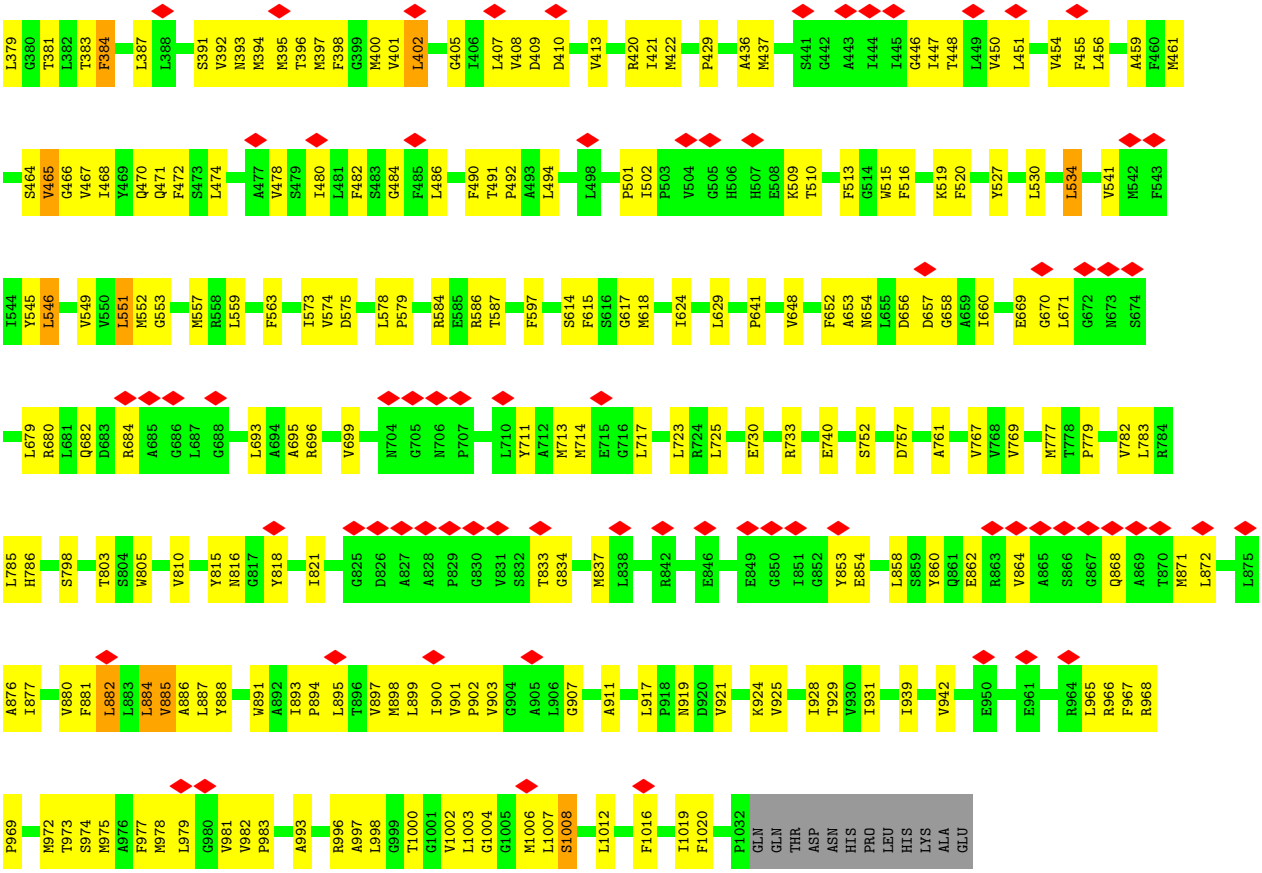
Chain I:



• Molecule 3: Efflux pump membrane transporter

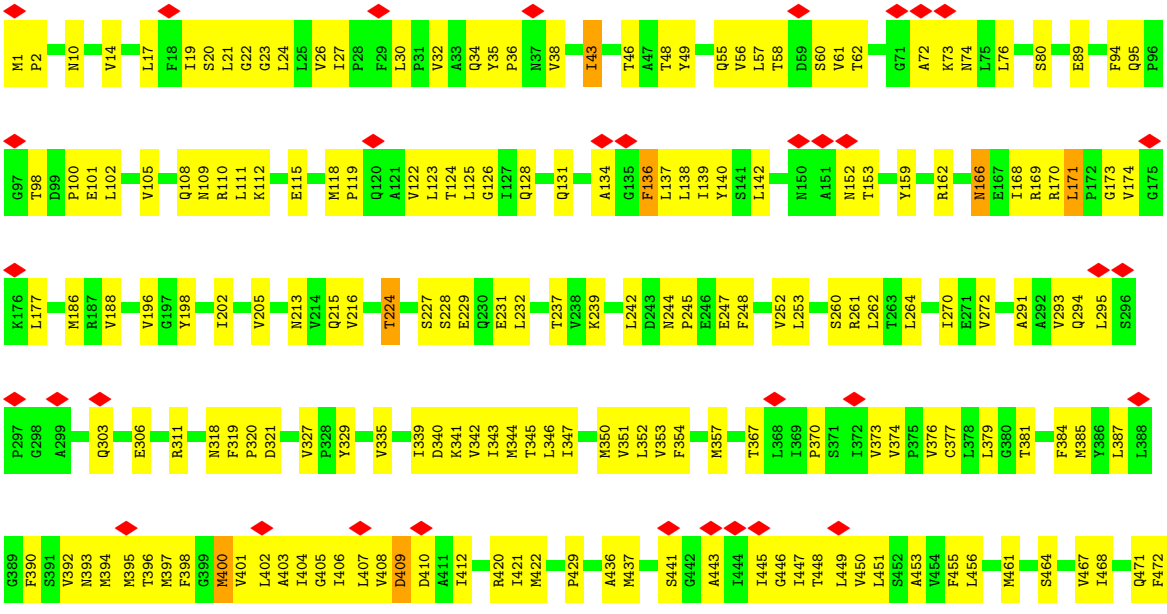
Chain J:

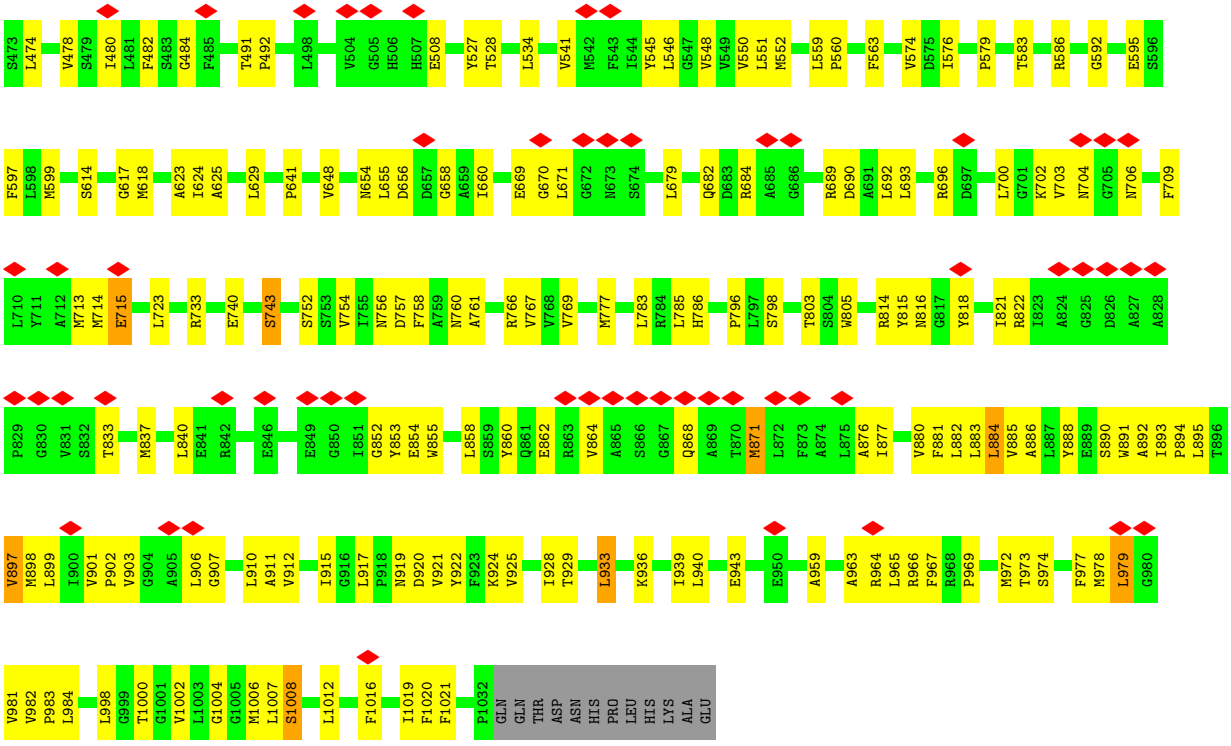




• Molecule 3: Efflux pump membrane transporter

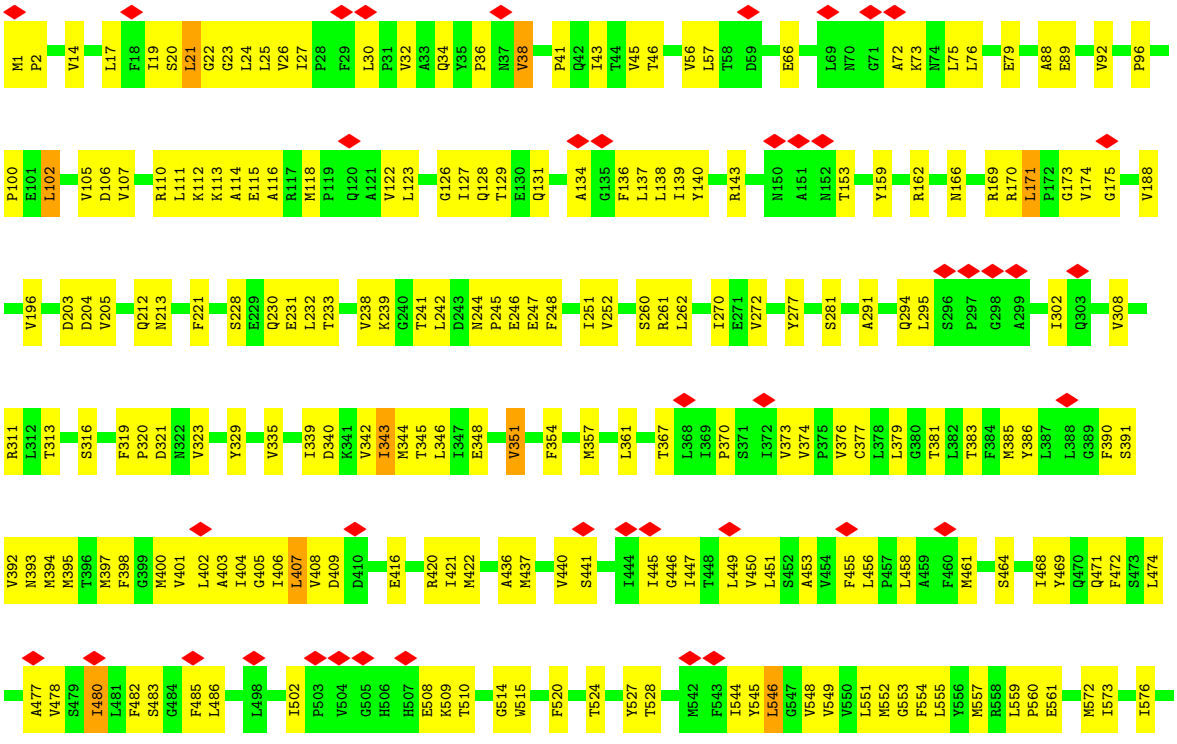
Chain K:

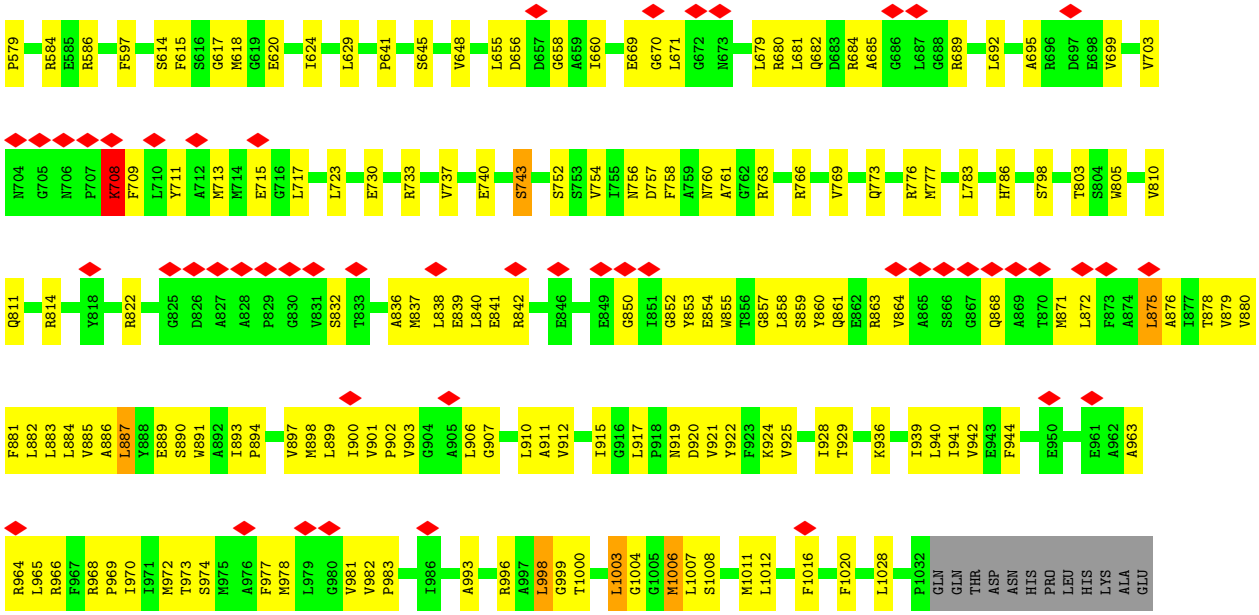




• Molecule 3: Efflux pump membrane transporter

Chain L:




P579 R584 E585 R586 F597 S614 F615 S616 G617 M618 G619 E620 I624 L629 P641 S645 V648 L655 D656 D657 G658 A659 I660 E669 G670 L671 G672 N673 L679 R680 L681 Q682 D683 R684 A685 G686 L687 G688 R689 L692 A695 R696 D697 E698 V699 V703
N704 G705 N706 P707 K708 F709 L710 Y711 A712 M713 M714 E715 G716 L717 L723 E730 R733 V737 E740 S743 S752 S753 V754 I755 N756 D757 F758 A759 N760 A761 G762 R763 R766 V769 Q773 R776 M777 L783 H786 S798 T803 S804 W805 V810
Q811 R814 Y818 R822 G825 D826 A827 A828 P829 G830 V831 S832 T833 A836 M837 L838 E839 L840 E841 R842 E846 E849 G850 I851 G852 Y853 E854 W855 T856 G857 L858 S859 Y860 Q861 E862 R863 V864 A865 S866 G867 Q868 A869 T870 M871 L872 F873 A874 L875 A876 I877 T878 V879 V880
F881 L882 L883 L884 V885 A886 L887 Y888 E889 S890 W891 A892 I893 P894 V897 M898 L899 I900 V901 P902 V903 G904 A905 L906 G907 L910 A911 V912 I915 G916 L917 P918 N919 D920 V921 Y922 F923 K924 V925 I928 T929 K936 I939 L940 I941 V942 E943 F944 E950 E961 A962 A963
R964 L965 R966 F967 R968 P969 I970 I971 M972 T973 S974 M975 A976 F977 M978 L979 G980 V981 V982 P983 I986 A993 R996 A997 L998 G999 T1000 L1003 G1004 G1005 M1006 L1007 S1008 M1011 L1012 F1016 F1020 L1028 P1032 GLN GLN THR ASP ASN HIS PRO LEU HIS LYS ALA GLU

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	41168	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 ($e^-/Å^2$)	60	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	2000	Depositor
Magnification	Not provided	
Image detector	FEI FALCON IV (4k x 4k)	Depositor
Maximum map value	1.234	Depositor
Minimum map value	-0.691	Depositor
Average map value	0.005	Depositor
Map value standard deviation	0.032	Depositor
Recommended contour level	0.3	Depositor
Map size (Å)	558.0, 558.0, 558.0	wwPDB
Map dimensions	600, 600, 600	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.93, 0.93, 0.93	Depositor

5 Model quality

5.1 Standard geometry

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	0.21	0/3096	0.43	2/4192 (0.0%)
1	B	0.22	0/3096	0.42	0/4192
1	C	0.22	0/3096	0.43	0/4192
2	D	0.16	0/2574	0.37	0/3487
2	E	0.17	0/2574	0.36	0/3487
2	F	0.16	0/2574	0.36	0/3487
2	G	0.18	0/2574	0.39	0/3487
2	H	0.20	0/2574	0.38	0/3487
2	I	0.20	0/2574	0.38	1/3487 (0.0%)
3	J	0.28	0/7960	0.50	0/10845
3	K	0.26	0/7960	0.49	0/10845
3	L	0.26	1/7960 (0.0%)	0.49	0/10845
All	All	0.23	1/48612 (0.0%)	0.45	3/66033 (0.0%)

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	L	1003	LEU	CG-CD2	-5.46	1.34	1.52

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	I	291	ARG	CB-CA-C	5.77	119.66	110.19
1	A	116	ASP	CB-CA-C	-5.31	110.47	116.63
1	A	348	PRO	CA-N-CD	-5.07	104.90	112.00

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	3065	0	3060	99	0
1	B	3065	0	3060	102	0
1	C	3065	0	3060	110	0
2	D	2543	0	2591	32	0
2	E	2543	0	2591	42	0
2	F	2543	0	2591	35	0
2	G	2543	0	2591	55	0
2	H	2543	0	2591	31	0
2	I	2543	0	2591	48	0
3	J	7804	0	7946	298	0
3	K	7804	0	7946	294	0
3	L	7804	0	7946	333	0
All	All	47865	0	48564	1367	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 14.

All (1367) 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)
3:L:965:LEU:HB3	3:L:966:ARG:NH2	1.76	1.00
3:J:353:VAL:HG12	3:J:357:MET:HE2	1.42	0.97
3:J:711:TYR:HB2	3:J:713:MET:HE1	1.46	0.95
3:J:118:MET:HE2	3:J:118:MET:H	1.30	0.94
2:H:359:SER:HB2	3:L:656:ASP:HB2	1.50	0.93
3:J:965:LEU:HB3	3:J:966:ARG:NH1	1.86	0.91
3:L:863:ARG:HH11	3:L:864:VAL:HG22	1.37	0.89
2:F:359:SER:HB2	3:K:656:ASP:HB2	1.52	0.88
3:L:679:LEU:HD11	3:L:853:TYR:HB2	1.55	0.88
3:K:437:MET:HE2	3:K:437:MET:HA	1.55	0.88
3:J:342:VAL:HG11	3:J:397:MET:HB3	1.56	0.87
3:L:118:MET:HE2	3:L:118:MET:H	1.38	0.87
3:K:118:MET:H	3:K:118:MET:HE2	1.38	0.87
3:L:965:LEU:HB3	3:L:966:ARG:HH21	1.37	0.86
1:C:110:ARG:HH22	1:C:120:THR:H	1.21	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:110:ARG:HH22	1:A:120:THR:H	1.23	0.85
3:J:14:VAL:HG11	3:K:886:ALA:HB2	1.56	0.85
2:D:359:SER:HB2	3:J:656:ASP:HB2	1.57	0.85
3:K:394:MET:HB3	3:K:398:PHE:CZ	2.11	0.84
1:C:117:LEU:HD13	1:C:123:SER:HB3	1.59	0.84
1:A:191:LEU:HA	1:A:437:PHE:HE1	1.42	0.84
1:A:140:VAL:HG13	1:A:315:ILE:HB	1.59	0.83
1:C:313:PRO:HA	1:C:346:SER:O	1.78	0.83
3:J:118:MET:HE2	3:J:118:MET:N	1.93	0.83
2:H:285:LEU:HD22	2:I:262:ILE:HD12	1.60	0.83
3:J:368:LEU:HG	3:J:372:ILE:HD11	1.61	0.83
3:L:449:LEU:HD22	3:L:883:LEU:HG	1.61	0.82
1:B:117:LEU:HD12	1:B:125:VAL:HB	1.61	0.82
2:G:338:ALA:H	2:G:345:GLN:HB3	1.46	0.81
1:B:63:LEU:HD11	1:B:176:ILE:HG13	1.64	0.80
3:L:32:VAL:HG13	3:L:392:VAL:HG12	1.62	0.80
3:K:342:VAL:HG11	3:K:397:MET:HB3	1.61	0.80
1:A:87:ALA:HA	1:A:90:GLN:OE1	1.80	0.79
3:J:965:LEU:HB3	3:J:966:ARG:HH11	1.48	0.79
3:L:342:VAL:HG11	3:L:397:MET:HB3	1.64	0.79
3:L:978:MET:SD	3:L:1006:MET:HG2	2.22	0.79
3:J:108:GLN:HE22	3:J:112:LYS:HZ1	1.32	0.78
3:J:978:MET:HE1	3:J:1007:LEU:HB2	1.63	0.78
1:C:191:LEU:HG	1:C:441:THR:HB	1.65	0.77
3:J:30:LEU:HD12	3:J:392:VAL:HG21	1.67	0.77
3:L:46:THR:HG22	3:L:128:GLN:HB2	1.66	0.77
3:L:407:LEU:C	3:L:407:LEU:HD23	2.09	0.77
3:K:341:LYS:O	3:K:344:MET:HG3	1.85	0.76
1:A:191:LEU:HD11	1:A:440:GLN:HG2	1.66	0.76
2:F:307:GLN:NE2	2:F:339:MET:SD	2.58	0.76
3:J:137:LEU:HD12	3:J:295:LEU:HB2	1.68	0.75
3:J:405:GLY:HA3	3:J:977:PHE:CD2	2.22	0.75
3:K:357:MET:HA	3:K:972:MET:HE1	1.68	0.75
3:L:139:ILE:HB	3:L:329:TYR:HB3	1.67	0.74
1:C:140:VAL:HG13	1:C:315:ILE:HB	1.67	0.74
3:J:357:MET:HB2	3:J:367:THR:HG23	1.68	0.74
2:H:307:GLN:NE2	2:H:339:MET:SD	2.59	0.74
3:J:886:ALA:HB2	3:L:14:VAL:HG11	1.67	0.74
3:L:316:SER:HA	3:L:319:PHE:HD2	1.53	0.74
3:L:978:MET:HE1	3:L:1007:LEU:HB2	1.69	0.74
3:J:114:ALA:O	3:J:118:MET:HE1	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:10:ASN:O	3:K:14:VAL:HG23	1.86	0.74
3:J:46:THR:HG22	3:J:128:GLN:HB2	1.67	0.73
1:B:94:GLN:OE1	1:B:149:LEU:HD13	1.89	0.73
1:B:112:ARG:HG3	1:B:114:PRO:HD2	1.70	0.73
3:J:231:GLU:HB2	3:K:586:ARG:HD2	1.70	0.73
3:L:982:VAL:HG13	3:L:983:PRO:HD3	1.70	0.73
3:K:978:MET:HE1	3:K:1007:LEU:HB2	1.70	0.72
3:L:422:MET:HE3	3:L:422:MET:O	1.89	0.72
3:J:353:VAL:HG12	3:J:357:MET:CE	2.20	0.72
3:K:231:GLU:HB2	3:L:586:ARG:HD2	1.71	0.72
1:C:112:ARG:HG3	1:C:114:PRO:HD2	1.72	0.72
2:G:321:MET:HE2	2:G:361:LEU:HD22	1.71	0.72
3:K:868:GLN:HA	3:K:871:MET:CE	2.19	0.72
3:L:557:MET:HE3	3:L:557:MET:HA	1.70	0.72
1:B:235:GLU:OE1	1:C:396:ARG:NH1	2.23	0.72
3:J:882:LEU:HD11	3:L:17:LEU:HD13	1.71	0.72
1:A:396:ARG:NH1	1:C:235:GLU:OE1	2.23	0.71
2:H:233:LYS:HA	2:H:233:LYS:HE2	1.69	0.71
3:K:617:GLY:C	3:K:618:MET:HE2	2.14	0.71
3:L:43:ILE:HG21	3:L:107:VAL:HG21	1.71	0.71
1:A:142:LEU:HD11	1:A:312:PHE:HD1	1.55	0.71
1:B:177:GLN:NE2	1:B:456:ASP:OD1	2.23	0.71
3:L:34:GLN:HA	3:L:394:MET:HE3	1.71	0.71
3:K:682:GLN:NE2	3:K:815:TYR:O	2.23	0.71
3:K:534:LEU:HD21	3:K:1019:ILE:HD11	1.73	0.71
3:L:897:VAL:O	3:L:900:ILE:HG22	1.90	0.71
1:A:191:LEU:HA	1:A:437:PHE:CE1	2.23	0.70
1:C:172:VAL:O	1:C:176:ILE:HD12	1.90	0.70
1:C:142:LEU:HD11	1:C:312:PHE:HD2	1.56	0.70
3:J:43:ILE:HG21	3:J:107:VAL:HG21	1.71	0.70
3:J:357:MET:HA	3:J:972:MET:HE1	1.73	0.70
3:K:134:ALA:HB3	3:K:670:GLY:HA2	1.73	0.70
2:D:233:LYS:O	2:D:233:LYS:NZ	2.24	0.70
1:C:194:GLN:HG3	1:C:437:PHE:CE1	2.26	0.70
3:L:1011:MET:SD	3:L:1012:LEU:HD12	2.31	0.70
3:L:863:ARG:NH1	3:L:864:VAL:HG22	2.06	0.70
3:K:422:MET:HE1	3:K:429:PRO:HG3	1.73	0.70
1:A:191:LEU:HD13	1:A:437:PHE:CD1	2.27	0.70
1:C:191:LEU:HA	1:C:194:GLN:HE21	1.57	0.69
3:J:377:CYS:HB3	3:J:407:LEU:HD11	1.74	0.69
3:L:374:VAL:HG22	3:L:407:LEU:CD2	2.21	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:377:CYS:HB3	3:K:407:LEU:HD11	1.74	0.69
3:L:965:LEU:HB3	3:L:966:ARG:CZ	2.22	0.69
2:E:321:MET:HE2	2:E:361:LEU:HD22	1.74	0.69
3:J:17:LEU:HD13	3:K:882:LEU:HD11	1.73	0.69
3:J:391:SER:OG	3:J:393:ASN:ND2	2.24	0.69
1:A:177:GLN:NE2	1:A:456:ASP:OD1	2.25	0.69
2:E:323:LEU:HB3	2:E:355:LYS:HB2	1.72	0.69
3:L:357:MET:HB2	3:L:367:THR:HG23	1.73	0.69
3:J:579:PRO:HD3	3:J:658:GLY:HA2	1.75	0.69
3:L:981:VAL:HB	3:L:1003:LEU:HD21	1.75	0.69
3:L:134:ALA:HB3	3:L:670:GLY:HA2	1.74	0.69
1:B:316:SER:HB3	1:B:344:THR:HG22	1.74	0.69
3:J:974:SER:O	3:J:978:MET:HG2	1.92	0.68
2:D:246:VAL:HG13	2:D:288:MET:HE2	1.75	0.68
3:J:6:ILE:HD11	3:J:492:PRO:HB2	1.75	0.68
1:A:235:GLU:OE1	1:B:396:ARG:NH1	2.26	0.68
2:G:336:THR:HB	2:G:344:TRP:CZ3	2.28	0.68
1:C:117:LEU:HD12	1:C:125:VAL:HB	1.76	0.68
3:K:402:LEU:HD21	3:K:472:PHE:HZ	1.58	0.68
2:I:321:MET:HE2	2:I:361:LEU:HD22	1.75	0.68
2:E:216:THR:HG21	3:J:260:SER:HB2	1.74	0.68
3:K:357:MET:HB2	3:K:367:THR:HG23	1.75	0.68
3:L:34:GLN:HG3	3:L:394:MET:HE3	1.75	0.68
2:H:281:GLU:O	2:I:226:ARG:NH2	2.26	0.67
3:K:449:LEU:HD21	3:K:883:LEU:HD22	1.75	0.67
3:L:447:ILE:O	3:L:451:LEU:HD23	1.93	0.67
1:A:111:GLN:HE21	1:B:340:SER:HB3	1.60	0.67
3:K:974:SER:O	3:K:978:MET:HG2	1.94	0.67
3:L:115:GLU:OE2	3:L:123:LEU:HD22	1.94	0.67
3:K:17:LEU:HD13	3:L:882:LEU:HD11	1.77	0.67
3:K:925:VAL:HA	3:K:928:ILE:HD12	1.76	0.67
1:C:123:SER:OG	1:C:124:GLU:N	2.26	0.67
2:D:37:ARG:NH2	3:J:653:ALA:O	2.28	0.67
1:A:300:ARG:HD3	1:A:365:ARG:HD2	1.76	0.67
1:C:63:LEU:HD11	1:C:176:ILE:HG13	1.77	0.67
3:J:368:LEU:O	3:J:372:ILE:HD12	1.95	0.67
1:C:433:GLN:NE2	1:C:437:PHE:CD2	2.60	0.66
1:B:196:LEU:O	1:B:200:MET:HG2	1.95	0.66
3:L:422:MET:HG3	3:L:502:ILE:HD12	1.77	0.66
3:K:30:LEU:HD12	3:K:392:VAL:HG21	1.77	0.66
2:F:246:VAL:HG13	2:F:288:MET:HE2	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:837:MET:HE1	3:L:855:TRP:CZ3	2.30	0.66
2:H:285:LEU:HD22	2:I:262:ILE:CD1	2.24	0.66
1:B:123:SER:OG	1:B:124:GLU:N	2.28	0.66
2:G:208:LEU:HD11	2:H:262:ILE:HG12	1.78	0.66
2:G:270:GLN:NE2	3:K:261:ARG:O	2.29	0.66
3:J:777:MET:HE2	3:J:777:MET:HA	1.78	0.66
3:J:354:PHE:HA	3:J:357:MET:HE3	1.77	0.66
1:C:238:GLU:OE2	1:C:242:ARG:NE	2.28	0.65
3:K:74:ASN:ND2	3:K:98:THR:OG1	2.30	0.65
3:K:693:LEU:HD22	3:K:696:ARG:HH21	1.61	0.65
2:G:216:THR:HG21	3:K:260:SER:HB2	1.78	0.65
3:J:682:GLN:NE2	3:J:815:TYR:O	2.28	0.65
2:D:233:LYS:HG3	2:D:234:VAL:HG23	1.76	0.65
3:L:106:ASP:OD2	3:L:110:ARG:NH1	2.30	0.65
3:L:682:GLN:HE22	3:L:854:GLU:HB2	1.61	0.65
3:L:883:LEU:CD1	3:L:887:LEU:HD23	2.26	0.65
3:K:168:ILE:HA	3:K:171:LEU:HD23	1.79	0.65
3:J:134:ALA:HB3	3:J:670:GLY:HA2	1.77	0.64
3:J:420:ARG:HD3	3:J:966:ARG:HH22	1.62	0.64
3:L:118:MET:HE2	3:L:118:MET:N	2.10	0.64
3:K:921:VAL:O	3:K:925:VAL:HG12	1.98	0.64
3:J:216:VAL:HG22	3:K:743:SER:HB3	1.80	0.64
3:J:586:ARG:HD2	3:L:231:GLU:HB2	1.78	0.64
3:L:868:GLN:HA	3:L:871:MET:HE1	1.80	0.64
3:J:713:MET:SD	3:J:713:MET:N	2.71	0.64
1:A:313:PRO:HG3	1:A:347:LEU:HD22	1.80	0.64
1:B:140:VAL:HB	1:B:315:ILE:HB	1.79	0.64
1:B:300:ARG:NH2	1:B:362:ALA:O	2.31	0.64
3:J:897:VAL:O	3:J:900:ILE:HG22	1.97	0.64
3:L:978:MET:SD	3:L:1006:MET:HE3	2.38	0.64
2:I:46:THR:HG23	2:I:301:ASN:HA	1.79	0.63
2:I:216:THR:HG21	3:L:260:SER:HB2	1.79	0.63
2:E:339:MET:HE3	2:E:340:GLN:N	2.13	0.63
1:A:111:GLN:NE2	1:B:340:SER:HB3	2.13	0.63
1:C:191:LEU:HD22	1:C:437:PHE:CD1	2.32	0.63
3:J:454:VAL:HG13	3:J:455:PHE:CD2	2.33	0.63
1:A:287:ARG:NH2	1:A:289:ASP:OD2	2.31	0.63
2:E:41:VAL:HG13	2:E:355:LYS:HB3	1.81	0.63
3:J:409:ASP:OD2	3:J:410:ASP:N	2.31	0.63
1:A:191:LEU:HD13	1:A:437:PHE:CE1	2.33	0.63
1:B:187:ARG:NH2	1:B:266:ARG:O	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:316:SER:HB3	1:C:344:THR:HG22	1.79	0.63
3:K:679:LEU:HD22	3:K:840:LEU:HD21	1.80	0.63
3:L:20:SER:OG	3:L:376:VAL:HG22	1.99	0.63
3:L:370:PRO:O	3:L:374:VAL:HG23	1.99	0.63
3:K:696:ARG:HD3	3:K:821:ILE:HG21	1.79	0.63
2:F:268:THR:HB	2:F:270:GLN:HE21	1.64	0.63
2:G:321:MET:HG2	2:G:357:ILE:HB	1.81	0.63
3:J:422:MET:CE	3:J:501:PRO:HA	2.29	0.63
3:K:409:ASP:HB2	3:K:936:LYS:HZ2	1.64	0.62
1:C:187:ARG:NH2	1:C:266:ARG:O	2.32	0.62
3:K:402:LEU:HD21	3:K:472:PHE:CZ	2.34	0.62
3:L:357:MET:HA	3:L:972:MET:HE1	1.80	0.62
2:D:307:GLN:NE2	2:D:339:MET:SD	2.71	0.62
2:I:270:GLN:NE2	3:L:261:ARG:O	2.32	0.62
3:J:374:VAL:HG22	3:J:407:LEU:HD22	1.81	0.62
1:A:100:PRO:HB3	1:A:138:TYR:CD2	2.35	0.62
1:A:264:THR:O	1:A:266:ARG:NH2	2.31	0.62
3:K:409:ASP:HB2	3:K:936:LYS:NZ	2.13	0.62
2:F:281:GLU:O	2:G:226:ARG:NH2	2.27	0.62
3:L:685:ALA:HB2	3:L:850:GLY:HA3	1.82	0.62
3:K:840:LEU:HD13	3:K:855:TRP:HH2	1.65	0.62
3:L:405:GLY:HA3	3:L:977:PHE:CD2	2.35	0.62
3:J:171:LEU:HD21	3:J:311:ARG:HG2	1.82	0.61
3:J:461:MET:HE1	3:J:872:LEU:HB2	1.82	0.61
3:K:397:MET:N	3:K:397:MET:HE3	2.16	0.61
3:L:374:VAL:HG22	3:L:407:LEU:HD21	1.82	0.61
1:B:110:ARG:HH22	1:B:120:THR:H	1.47	0.61
2:D:61:PRO:HG2	2:D:64:VAL:HG22	1.83	0.61
3:J:186:MET:HE3	3:J:248:PHE:CD1	2.36	0.61
1:A:441:THR:HA	1:A:444:ILE:HD12	1.82	0.61
1:C:112:ARG:NH2	1:C:126:THR:OG1	2.34	0.61
3:J:617:GLY:C	3:J:618:MET:HE2	2.24	0.61
3:K:213:ASN:O	3:K:756:ASN:ND2	2.34	0.61
2:G:369:LYS:HZ3	2:G:371:ILE:HG13	1.66	0.61
3:L:57:LEU:HD11	3:L:88:ALA:HB2	1.82	0.61
1:C:264:THR:O	1:C:266:ARG:NH2	2.34	0.61
3:K:534:LEU:HD12	3:K:534:LEU:O	1.99	0.61
3:L:449:LEU:HD22	3:L:883:LEU:CG	2.30	0.61
3:J:696:ARG:HG3	3:J:821:ILE:HG21	1.82	0.61
3:J:998:LEU:O	3:J:1002:VAL:HG12	2.01	0.61
3:K:137:LEU:HD22	3:K:138:LEU:HD23	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:112:ARG:HE	1:A:124:GLU:C	2.09	0.60
2:E:339:MET:HE1	2:E:343:ARG:N	2.16	0.60
3:L:876:ALA:O	3:L:880:VAL:HG12	2.02	0.60
3:J:446:GLY:O	3:J:450:VAL:HG12	2.02	0.60
3:L:875:LEU:O	3:L:879:VAL:HG12	2.01	0.60
3:L:213:ASN:O	3:L:756:ASN:ND2	2.34	0.60
3:L:717:LEU:HB3	3:L:810:VAL:HG13	1.84	0.60
1:A:351:ALA:HB1	1:A:355:ASN:H	1.65	0.60
1:C:300:ARG:NH2	1:C:362:ALA:O	2.35	0.60
3:L:883:LEU:HD13	3:L:883:LEU:O	2.02	0.60
3:L:978:MET:HA	3:L:1006:MET:CE	2.31	0.60
1:A:112:ARG:HD3	1:A:113:LEU:H	1.67	0.59
3:K:73:LYS:HE3	3:K:74:ASN:HB2	1.83	0.59
1:B:398:GLU:OE1	1:B:450:ARG:NH1	2.35	0.59
3:J:876:ALA:O	3:J:880:VAL:HG12	2.02	0.59
3:J:996:ARG:O	3:J:1000:THR:HG22	2.02	0.59
3:L:2:PRO:HG2	3:L:437:MET:HE2	1.83	0.59
3:L:671:LEU:HB3	3:L:858:LEU:HG	1.84	0.59
3:K:370:PRO:HA	3:K:373:VAL:HG12	1.84	0.59
3:L:883:LEU:HD13	3:L:887:LEU:HD23	1.83	0.59
3:J:397:MET:O	3:J:401:VAL:HG12	2.03	0.59
1:B:112:ARG:HD3	1:B:113:LEU:H	1.67	0.59
1:B:117:LEU:HD13	1:B:123:SER:HB3	1.85	0.59
3:L:474:LEU:O	3:L:478:VAL:HG12	2.01	0.59
1:A:123:SER:OG	1:A:124:GLU:N	2.30	0.59
2:E:335:THR:OG1	2:E:347:SER:OG	2.21	0.59
2:H:61:PRO:HG2	2:H:64:VAL:HG22	1.84	0.59
3:J:115:GLU:OE2	3:J:123:LEU:HD22	2.02	0.59
3:K:173:GLY:O	3:K:295:LEU:HD12	2.02	0.59
3:L:409:ASP:HB2	3:L:936:LYS:NZ	2.18	0.59
3:J:23:GLY:HA3	3:J:379:LEU:HB3	1.84	0.59
1:B:180:LEU:HD13	1:B:451:GLN:HB3	1.85	0.59
3:K:76:LEU:HG	3:K:95:GLN:HE21	1.66	0.59
3:L:711:TYR:HB2	3:L:713:MET:HE1	1.85	0.59
3:J:474:LEU:O	3:J:478:VAL:HG12	2.02	0.59
3:J:527:TYR:CD2	3:J:967:PHE:CD1	2.91	0.59
2:E:61:PRO:HD3	2:E:286:PRO:HB3	1.85	0.58
3:J:104:GLN:HE22	3:K:109:ASN:ND2	2.01	0.58
3:K:868:GLN:HA	3:K:871:MET:SD	2.43	0.58
1:B:117:LEU:HA	1:B:121:GLY:HA3	1.85	0.58
2:I:61:PRO:HD3	2:I:286:PRO:HB3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:977:PHE:HB3	3:J:1006:MET:SD	2.42	0.58
2:G:369:LYS:NZ	2:G:371:ILE:HG13	2.17	0.58
3:K:534:LEU:CD2	3:K:1019:ILE:HD11	2.33	0.58
3:K:777:MET:HA	3:K:777:MET:HE2	1.85	0.58
1:C:63:LEU:HD21	1:C:176:ILE:HG12	1.84	0.58
1:C:112:ARG:HB2	1:C:125:VAL:HA	1.86	0.58
3:J:394:MET:HB3	3:J:398:PHE:CZ	2.38	0.58
3:K:58:THR:HG23	3:K:814:ARG:HH22	1.68	0.58
3:L:23:GLY:HA3	3:L:379:LEU:HB3	1.84	0.58
3:L:398:PHE:HA	3:L:401:VAL:HG12	1.85	0.58
1:A:112:ARG:HG3	1:A:114:PRO:HD2	1.85	0.58
1:C:301:ASN:HA	1:C:304:ILE:HD12	1.86	0.58
2:F:61:PRO:HG2	2:F:64:VAL:HG22	1.85	0.58
2:D:320:VAL:C	2:D:321:MET:HE2	2.29	0.58
2:I:321:MET:HG2	2:I:357:ILE:HB	1.84	0.58
3:J:57:LEU:HD11	3:J:88:ALA:HB2	1.86	0.58
1:C:117:LEU:HA	1:C:121:GLY:HA3	1.85	0.58
3:L:863:ARG:HD3	3:L:864:VAL:N	2.19	0.58
1:B:191:LEU:HD13	1:B:437:PHE:CD2	2.39	0.58
1:B:238:GLU:OE2	1:B:242:ARG:NE	2.36	0.58
2:G:59:ILE:HD11	2:G:244:LEU:HD11	1.84	0.58
2:H:373:ARG:HH22	3:L:656:ASP:HB3	1.68	0.58
2:I:218:PRO:HA	2:I:270:GLN:HG2	1.86	0.58
3:L:246:GLU:OE2	3:L:246:GLU:N	2.28	0.58
1:C:180:LEU:HD13	1:C:451:GLN:HB3	1.85	0.58
3:L:868:GLN:HA	3:L:871:MET:SD	2.43	0.58
1:A:112:ARG:HB2	1:A:125:VAL:HA	1.85	0.58
3:J:833:THR:O	3:J:837:MET:HE3	2.03	0.58
2:H:127:ARG:NH2	2:I:143:ASP:OD2	2.36	0.57
3:J:76:LEU:HD23	3:J:95:GLN:HG3	1.86	0.57
3:J:530:LEU:O	3:J:534:LEU:HB2	2.04	0.57
3:K:700:LEU:O	3:K:704:ASN:HB2	2.03	0.57
3:L:409:ASP:OD1	3:L:973:THR:OG1	2.21	0.57
3:L:915:ILE:HD12	3:L:1000:THR:HB	1.84	0.57
1:B:296:ARG:NH1	1:B:372:ASP:OD1	2.37	0.57
3:J:36:PRO:HD3	3:J:395:MET:HE3	1.86	0.57
1:B:313:PRO:HA	1:B:346:SER:O	2.05	0.57
2:H:308:ARG:HG2	3:L:586:ARG:NH2	2.18	0.57
3:J:925:VAL:HA	3:J:928:ILE:HD12	1.86	0.57
3:J:978:MET:SD	3:J:1006:MET:HG2	2.45	0.57
3:K:350:MET:HE3	3:K:350:MET:O	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:969:PRO:O	3:K:973:THR:HG22	2.05	0.57
3:L:552:MET:HE3	3:L:552:MET:C	2.30	0.57
3:L:777:MET:HE2	3:L:777:MET:HA	1.87	0.57
1:C:289:ASP:OD1	1:C:290:ILE:N	2.38	0.57
3:K:474:LEU:O	3:K:478:VAL:HG12	2.04	0.57
1:B:289:ASP:OD1	1:B:290:ILE:N	2.37	0.57
1:C:351:ALA:HB1	1:C:355:ASN:H	1.69	0.57
2:F:37:ARG:NH2	3:K:655:LEU:O	2.38	0.57
2:G:81:GLU:OE2	2:G:81:GLU:N	2.38	0.57
3:J:137:LEU:HD22	3:J:138:LEU:HD23	1.86	0.57
3:K:982:VAL:HG13	3:K:983:PRO:HD3	1.85	0.57
3:L:860:TYR:O	3:L:864:VAL:HG23	2.05	0.57
3:L:868:GLN:HA	3:L:871:MET:CE	2.34	0.57
2:D:144:ASN:OD1	2:I:120:GLN:NE2	2.37	0.57
3:J:22:GLY:O	3:J:26:VAL:HG23	2.05	0.57
3:J:833:THR:C	3:J:837:MET:HE3	2.29	0.57
3:K:23:GLY:HA3	3:K:379:LEU:HB3	1.86	0.57
3:K:876:ALA:O	3:K:880:VAL:HG12	2.04	0.57
2:G:120:GLN:NE2	2:H:144:ASN:OD1	2.37	0.57
3:K:977:PHE:CG	3:K:1006:MET:HE1	2.40	0.57
1:A:112:ARG:NH2	1:A:126:THR:OG1	2.38	0.57
3:K:101:GLU:OE1	3:L:73:LYS:NZ	2.38	0.57
3:K:684:ARG:NH2	3:K:853:TYR:O	2.38	0.57
3:L:2:PRO:CG	3:L:437:MET:HE2	2.35	0.57
3:L:446:GLY:O	3:L:450:VAL:HG12	2.05	0.57
3:L:572:MET:HE3	3:L:645:SER:OG	2.05	0.57
2:I:81:GLU:N	2:I:81:GLU:OE2	2.38	0.57
3:J:563:PHE:CE1	3:J:862:GLU:HB2	2.40	0.57
3:K:374:VAL:HG22	3:K:407:LEU:HD22	1.86	0.57
1:C:304:ILE:HD11	1:C:366:GLN:HB2	1.87	0.56
3:K:350:MET:HE3	3:K:350:MET:HA	1.87	0.56
3:L:43:ILE:HG22	3:L:92:VAL:HB	1.87	0.56
2:E:81:GLU:OE2	2:E:81:GLU:N	2.38	0.56
2:E:218:PRO:HA	2:E:270:GLN:HG2	1.86	0.56
3:K:446:GLY:O	3:K:450:VAL:HG12	2.05	0.56
1:C:77:LEU:HD21	1:C:168:GLN:HA	1.87	0.56
2:E:120:GLN:NE2	2:F:144:ASN:OD1	2.37	0.56
2:G:233:LYS:HE2	2:G:233:LYS:N	2.21	0.56
3:J:16:ALA:CB	3:J:490:PHE:CE2	2.89	0.56
3:J:67:GLU:OE1	3:L:763:ARG:NH2	2.38	0.56
3:J:684:ARG:NH2	3:J:854:GLU:OE1	2.33	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:552:MET:HB2	3:K:906:LEU:HB2	1.87	0.56
3:K:998:LEU:O	3:K:1002:VAL:HG12	2.05	0.56
3:L:34:GLN:HG3	3:L:394:MET:CE	2.35	0.56
3:L:911:ALA:HB2	3:L:1004:GLY:HA3	1.87	0.56
2:D:341:GLY:O	3:L:230:GLN:NE2	2.39	0.56
2:F:196:GLN:NE2	2:G:70:ARG:HE	2.03	0.56
3:L:969:PRO:O	3:L:973:THR:HG22	2.05	0.56
3:K:671:LEU:HB3	3:K:858:LEU:HG	1.87	0.56
3:K:901:VAL:HG22	3:K:902:PRO:HD3	1.87	0.56
3:L:922:TYR:HB3	3:L:998:LEU:CD1	2.35	0.56
3:L:974:SER:O	3:L:978:MET:HG2	2.06	0.56
3:J:16:ALA:HB2	3:J:490:PHE:CE2	2.39	0.56
3:J:671:LEU:HB3	3:J:858:LEU:HG	1.87	0.56
3:L:385:MET:HG3	3:L:390:PHE:HB2	1.86	0.56
1:B:112:ARG:HB2	1:B:125:VAL:HA	1.87	0.56
3:K:579:PRO:HD3	3:K:658:GLY:HA2	1.85	0.56
1:A:219:ASP:O	1:A:222:GLU:HG3	2.05	0.56
1:B:451:GLN:O	1:B:455:VAL:HG23	2.06	0.56
2:G:315:ASP:HB3	3:K:152:ASN:HD22	1.71	0.56
3:J:552:MET:HE3	3:J:553:GLY:N	2.20	0.56
1:C:112:ARG:HD3	1:C:113:LEU:H	1.71	0.56
3:J:173:GLY:O	3:J:296:SER:N	2.31	0.56
1:C:412:MET:HE2	1:C:412:MET:HA	1.88	0.55
3:J:20:SER:O	3:J:24:LEU:HD23	2.06	0.55
3:J:917:LEU:HD23	3:J:997:ALA:HA	1.88	0.55
1:C:249:VAL:HG23	1:C:257:ALA:HB3	1.87	0.55
1:C:313:PRO:HG3	1:C:347:LEU:HB2	1.88	0.55
2:D:127:ARG:NH2	2:E:143:ASP:OD2	2.38	0.55
2:G:36:ALA:HA	2:G:369:LYS:HG3	1.89	0.55
3:L:30:LEU:HD11	3:L:386:TYR:HB2	1.88	0.55
3:J:344:MET:HE1	3:J:348:GLU:OE2	2.05	0.55
3:L:20:SER:O	3:L:24:LEU:HD23	2.07	0.55
2:E:323:LEU:HD11	2:E:327:ASP:HA	1.88	0.55
3:J:43:ILE:HG22	3:J:92:VAL:HB	1.89	0.55
3:J:921:VAL:O	3:J:925:VAL:HG12	2.06	0.55
3:K:915:ILE:HD12	3:K:1000:THR:HB	1.87	0.55
2:H:233:LYS:HE2	2:H:233:LYS:CA	2.36	0.55
3:J:58:THR:HA	3:J:62:THR:CG2	2.36	0.55
3:J:834:GLY:HA2	3:J:837:MET:HE3	1.88	0.55
3:L:22:GLY:O	3:L:26:VAL:HG23	2.06	0.55
1:A:304:ILE:HA	1:A:362:ALA:HB1	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:194:GLN:HB3	1:B:437:PHE:CE2	2.42	0.55
3:J:978:MET:SD	3:J:1006:MET:HE3	2.47	0.55
3:L:173:GLY:O	3:L:295:LEU:HD12	2.07	0.55
3:J:112:LYS:NZ	3:K:112:LYS:HG3	2.22	0.55
3:J:397:MET:HE3	3:J:397:MET:N	2.22	0.55
3:L:72:ALA:HB3	3:L:75:LEU:HD21	1.88	0.55
3:L:114:ALA:O	3:L:118:MET:HE1	2.06	0.55
1:C:100:PRO:HB3	1:C:138:TYR:CD2	2.41	0.55
1:C:110:ARG:HH22	1:C:120:THR:N	2.00	0.55
3:L:437:MET:HE3	3:L:441:SER:OG	2.06	0.55
3:L:925:VAL:HA	3:L:928:ILE:HD12	1.89	0.55
1:A:238:GLU:OE2	1:A:242:ARG:NE	2.38	0.55
1:B:351:ALA:HB1	1:B:355:ASN:H	1.72	0.55
3:K:216:VAL:HG22	3:L:743:SER:HB3	1.88	0.55
1:B:431:ASP:HA	1:B:434:ARG:HD3	1.88	0.54
3:J:557:MET:HA	3:J:557:MET:HE3	1.88	0.54
3:K:682:GLN:CD	3:K:818:TYR:HB2	2.32	0.54
3:L:277:TYR:O	3:L:584:ARG:NH2	2.40	0.54
1:A:77:LEU:HD21	1:A:168:GLN:HA	1.89	0.54
1:A:296:ARG:NH1	1:A:372:ASP:OD1	2.40	0.54
1:B:77:LEU:HD21	1:B:168:GLN:HA	1.88	0.54
2:G:336:THR:HB	2:G:344:TRP:CE3	2.42	0.54
3:J:717:LEU:HB3	3:J:810:VAL:HG13	1.89	0.54
3:K:108:GLN:NE2	3:L:112:LYS:HG2	2.22	0.54
3:L:36:PRO:CD	3:L:395:MET:HE3	2.37	0.54
3:L:89:GLU:HA	3:L:89:GLU:OE2	2.07	0.54
3:L:246:GLU:H	3:L:246:GLU:CD	2.14	0.54
3:K:472:PHE:CE1	3:K:925:VAL:HG11	2.43	0.54
3:L:394:MET:HB2	3:L:398:PHE:CZ	2.42	0.54
2:D:231:GLU:OE2	2:D:233:LYS:HB2	2.07	0.54
1:C:431:ASP:HA	1:C:434:ARG:HD3	1.90	0.54
3:J:341:LYS:O	3:J:344:MET:HG3	2.07	0.54
3:J:723:LEU:HD11	3:J:803:THR:HB	1.90	0.54
3:L:137:LEU:HD12	3:L:295:LEU:HD22	1.89	0.54
3:L:239:LYS:NZ	3:L:241:THR:O	2.36	0.54
2:E:270:GLN:NE2	3:J:261:ARG:O	2.41	0.54
2:F:127:ARG:NH2	2:G:143:ASP:OD2	2.41	0.54
2:G:218:PRO:HA	2:G:270:GLN:HG2	1.90	0.54
3:L:316:SER:HA	3:L:319:PHE:CD2	2.39	0.54
3:L:409:ASP:HB2	3:L:936:LYS:HZ3	1.71	0.54
1:A:113:LEU:HA	1:B:338:ALA:HB2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:41:VAL:HG13	2:I:355:LYS:HB3	1.89	0.54
3:L:244:ASN:OD1	3:L:247:GLU:HG2	2.08	0.54
1:A:311:PHE:CE2	1:A:359:LEU:HD22	2.43	0.54
3:J:370:PRO:HA	3:J:373:VAL:HG12	1.90	0.54
3:J:893:ILE:O	3:J:897:VAL:HG12	2.07	0.54
3:K:713:MET:HE2	3:K:713:MET:C	2.33	0.54
3:L:978:MET:HA	3:L:1006:MET:HE1	1.88	0.54
1:B:300:ARG:NH1	1:B:303:ASP:HB2	2.23	0.54
3:J:733:ARG:HG2	3:L:252:VAL:HG11	1.90	0.54
3:K:563:PHE:CE2	3:K:862:GLU:HB2	2.43	0.54
3:J:472:PHE:CE2	3:J:925:VAL:HG11	2.43	0.53
3:K:703:VAL:HG13	3:K:709:PHE:CD1	2.43	0.53
3:L:597:PHE:HE2	3:L:648:VAL:HG22	1.73	0.53
1:C:300:ARG:NH1	1:C:303:ASP:HB2	2.23	0.53
1:C:300:ARG:HH21	1:C:366:GLN:N	2.05	0.53
2:D:307:GLN:HG2	3:L:232:LEU:HD11	1.90	0.53
3:J:34:GLN:O	3:J:394:MET:SD	2.67	0.53
3:L:863:ARG:HD3	3:L:863:ARG:C	2.33	0.53
1:C:304:ILE:HD11	1:C:366:GLN:HG3	1.89	0.53
2:E:307:GLN:HB2	2:E:344:TRP:CZ3	2.44	0.53
2:F:215:PHE:CG	2:F:292:VAL:HG21	2.43	0.53
3:K:34:GLN:O	3:K:394:MET:SD	2.67	0.53
3:L:34:GLN:CA	3:L:394:MET:HE3	2.37	0.53
1:B:110:ARG:NH2	1:B:120:THR:H	2.06	0.53
1:C:392:ASP:OD2	1:C:396:ARG:NH2	2.34	0.53
2:G:245:ARG:NH1	2:G:252:GLU:HB2	2.23	0.53
2:G:321:MET:HA	2:G:330:GLU:O	2.08	0.53
3:J:652:PHE:HB3	3:J:660:ILE:HG21	1.89	0.53
3:J:680:ARG:HB2	3:J:854:GLU:HG2	1.91	0.53
3:L:472:PHE:CE1	3:L:925:VAL:HG21	2.44	0.53
2:E:321:MET:HA	2:E:330:GLU:O	2.08	0.53
3:J:352:LEU:HB3	3:J:979:LEU:HD23	1.91	0.53
3:L:342:VAL:O	3:L:345:THR:OG1	2.20	0.53
3:L:713:MET:SD	3:L:713:MET:N	2.82	0.53
3:L:939:ILE:HA	3:L:942:VAL:HG12	1.91	0.53
1:A:313:PRO:HA	1:A:346:SER:O	2.08	0.53
3:K:14:VAL:HG13	3:L:882:LEU:HD12	1.90	0.53
1:C:191:LEU:CA	1:C:194:GLN:HE21	2.21	0.53
3:K:352:LEU:HB3	3:K:979:LEU:HD12	1.90	0.53
3:L:921:VAL:O	3:L:925:VAL:HG12	2.09	0.53
1:A:169:ILE:HG22	1:A:459:ARG:HE	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:398:GLU:OE1	1:C:450:ARG:NH1	2.32	0.53
3:J:36:PRO:CD	3:J:395:MET:HE3	2.39	0.53
3:J:402:LEU:HD21	3:J:472:PHE:HZ	1.73	0.53
1:A:398:GLU:OE1	1:A:450:ARG:NH1	2.33	0.53
3:J:188:VAL:HG22	3:J:270:ILE:HG22	1.91	0.53
3:J:654:ASN:O	3:J:654:ASN:ND2	2.41	0.53
3:J:868:GLN:HA	3:J:871:MET:SD	2.48	0.53
3:K:597:PHE:HE2	3:K:648:VAL:HG22	1.73	0.53
1:B:219:ASP:O	1:B:222:GLU:HG3	2.09	0.53
1:B:249:VAL:HG23	1:B:257:ALA:HB3	1.91	0.53
2:G:46:THR:HG23	2:G:301:ASN:HA	1.91	0.53
3:J:696:ARG:HD2	3:J:714:MET:SD	2.49	0.53
3:J:860:TYR:O	3:J:864:VAL:HG23	2.09	0.53
3:K:22:GLY:O	3:K:26:VAL:HG23	2.09	0.53
3:K:892:ALA:HA	3:K:895:LEU:HD12	1.91	0.53
3:L:464:SER:O	3:L:468:ILE:HG12	2.09	0.53
1:C:110:ARG:HE	1:C:125:VAL:HG21	1.74	0.52
3:J:108:GLN:HG3	3:K:109:ASN:OD1	2.09	0.52
3:J:218:ALA:HB2	3:J:238:VAL:HG23	1.91	0.52
3:K:654:ASN:O	3:K:654:ASN:ND2	2.41	0.52
1:A:117:LEU:HA	1:A:121:GLY:HA3	1.91	0.52
1:A:187:ARG:NH2	1:A:266:ARG:O	2.42	0.52
1:B:441:THR:HA	1:B:444:ILE:HD12	1.90	0.52
3:J:36:PRO:HG3	3:J:471:GLN:OE1	2.09	0.52
3:L:842:ARG:HD2	3:L:842:ARG:C	2.35	0.52
3:L:901:VAL:HG22	3:L:902:PRO:HD3	1.90	0.52
2:H:215:PHE:CG	2:H:292:VAL:HG21	2.43	0.52
3:J:277:TYR:O	3:J:584:ARG:NH2	2.42	0.52
1:A:249:VAL:HG23	1:A:257:ALA:HB3	1.92	0.52
2:E:59:ILE:HD11	2:E:244:LEU:HD11	1.90	0.52
3:K:36:PRO:HG3	3:K:471:GLN:HG3	1.91	0.52
3:K:860:TYR:O	3:K:864:VAL:HG23	2.10	0.52
3:L:73:LYS:NZ	3:L:106:ASP:HB2	2.24	0.52
1:B:226:LEU:HD13	1:B:434:ARG:HH22	1.73	0.52
3:K:715:GLU:HG3	3:K:822:ARG:O	2.09	0.52
3:L:115:GLU:HA	3:L:118:MET:HE3	1.91	0.52
3:J:894:PRO:O	3:J:898:MET:HE2	2.09	0.52
1:A:300:ARG:HB3	1:A:365:ARG:NH1	2.24	0.52
3:J:391:SER:HG	3:J:393:ASN:HD22	1.57	0.52
1:A:177:GLN:HG3	1:A:455:VAL:HG11	1.90	0.52
1:C:190:ALA:C	1:C:194:GLN:HE21	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:233:LYS:HE2	2:I:233:LYS:N	2.25	0.52
3:K:101:GLU:O	3:K:105:VAL:HG22	2.10	0.52
3:L:811:GLN:OE1	3:L:822:ARG:NH2	2.43	0.52
1:C:94:GLN:O	1:C:94:GLN:NE2	2.43	0.51
2:D:307:GLN:HG2	3:L:232:LEU:CD1	2.40	0.51
2:E:245:ARG:NH1	2:E:252:GLU:HB2	2.25	0.51
3:K:48:THR:HB	3:K:125:LEU:HD23	1.92	0.51
3:K:723:LEU:HD11	3:K:803:THR:HB	1.91	0.51
3:K:350:MET:HE3	3:K:350:MET:CA	2.41	0.51
3:K:833:THR:OG1	3:K:862:GLU:OE2	2.24	0.51
3:L:402:LEU:HD21	3:L:472:PHE:CZ	2.45	0.51
3:L:482:PHE:O	3:L:486:LEU:HD23	2.10	0.51
1:C:219:ASP:O	1:C:222:GLU:HG3	2.09	0.51
3:K:20:SER:OG	3:K:376:VAL:HG22	2.10	0.51
3:L:392:VAL:HG12	3:L:392:VAL:O	2.10	0.51
3:L:552:MET:HE3	3:L:553:GLY:N	2.26	0.51
1:A:172:VAL:O	1:A:176:ILE:HG22	2.10	0.51
3:J:45:VAL:HG22	3:J:129:THR:HG22	1.92	0.51
3:J:682:GLN:CD	3:J:818:TYR:HB2	2.36	0.51
3:K:122:VAL:O	3:K:126:GLY:N	2.40	0.51
3:L:354:PHE:HA	3:L:357:MET:SD	2.50	0.51
3:K:398:PHE:HA	3:K:401:VAL:HG12	1.92	0.51
1:A:196:LEU:HD11	1:A:231:ARG:HG3	1.93	0.51
1:C:189:MET:HE3	1:C:238:GLU:HA	1.93	0.51
3:K:174:VAL:HG23	3:K:293:VAL:HG13	1.93	0.51
3:J:901:VAL:HG13	3:J:931:ILE:HD12	1.93	0.51
3:K:140:TYR:CE1	3:K:291:ALA:HB3	2.45	0.51
3:K:837:MET:HE1	3:K:855:TRP:CZ3	2.46	0.51
1:A:180:LEU:HD13	1:A:451:GLN:HB3	1.92	0.51
1:B:191:LEU:HD11	1:B:440:GLN:HG2	1.91	0.51
2:H:196:GLN:NE2	2:I:70:ARG:HE	2.09	0.51
2:I:321:MET:HA	2:I:330:GLU:O	2.11	0.51
3:K:534:LEU:HD11	3:K:541:VAL:HG21	1.93	0.51
3:K:893:ILE:O	3:K:897:VAL:HG12	2.10	0.51
3:L:340:ASP:O	3:L:343:ILE:HG22	2.11	0.51
2:I:59:ILE:HD11	2:I:244:LEU:HD11	1.92	0.51
3:J:333:ARG:HD2	3:J:334:PHE:N	2.25	0.51
3:J:614:SER:HA	3:J:624:ILE:HB	1.93	0.51
3:J:1012:LEU:HD21	3:J:1016:PHE:CD1	2.46	0.51
1:A:87:ALA:HB1	1:A:157:TYR:HA	1.93	0.51
1:B:145:ARG:HB3	1:B:314:ARG:HH12	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:307:GLN:HG2	3:J:232:LEU:HD23	1.92	0.51
3:K:965:LEU:HB3	3:K:966:ARG:HH11	1.75	0.51
3:L:397:MET:HE3	3:L:397:MET:N	2.25	0.51
1:C:142:LEU:HD21	1:C:312:PHE:HB3	1.94	0.50
3:J:679:LEU:HD11	3:J:853:TYR:HD1	1.76	0.50
3:K:20:SER:O	3:K:24:LEU:HD23	2.11	0.50
3:K:353:VAL:HG12	3:K:357:MET:SD	2.51	0.50
3:L:395:MET:HA	3:L:398:PHE:CD2	2.46	0.50
1:B:172:VAL:O	1:B:176:ILE:HD13	2.10	0.50
1:B:252:LEU:HD12	1:B:257:ALA:HB1	1.93	0.50
2:E:233:LYS:HA	2:E:233:LYS:HE3	1.92	0.50
3:J:395:MET:HA	3:J:398:PHE:CD1	2.47	0.50
3:K:139:ILE:HG12	3:K:329:TYR:HB3	1.93	0.50
2:F:58:ARG:NH1	2:F:287:GLY:O	2.44	0.50
2:I:309:ALA:HB2	2:I:358:THR:HG22	1.92	0.50
3:J:405:GLY:HA2	3:J:408:VAL:HG22	1.92	0.50
3:K:166:ASN:HA	3:K:169:ARG:HG2	1.93	0.50
3:L:838:LEU:HA	3:L:841:GLU:OE2	2.11	0.50
1:A:111:GLN:OE1	1:A:112:ARG:N	2.44	0.50
1:A:437:PHE:O	1:A:441:THR:HG22	2.12	0.50
3:J:115:GLU:OE1	3:J:115:GLU:O	2.28	0.50
3:L:398:PHE:HB3	3:L:998:LEU:CD2	2.41	0.50
3:L:450:VAL:HG13	3:L:451:LEU:HD22	1.94	0.50
1:B:112:ARG:CZ	1:B:112:ARG:HA	2.41	0.50
1:C:194:GLN:CD	1:C:437:PHE:CE1	2.90	0.50
2:G:242:LEU:HD22	2:G:294:THR:HG22	1.93	0.50
2:I:317:GLN:OE1	2:I:333:GLN:NE2	2.45	0.50
3:J:898:MET:O	3:J:901:VAL:HG23	2.12	0.50
3:K:868:GLN:HA	3:K:871:MET:HE1	1.91	0.50
3:K:895:LEU:O	3:K:899:LEU:HG	2.10	0.50
3:L:996:ARG:O	3:L:1000:THR:HG23	2.11	0.50
1:C:313:PRO:HG3	1:C:347:LEU:HD22	1.92	0.50
3:J:159:TYR:CZ	3:J:320:PRO:HD3	2.46	0.50
3:K:118:MET:HB2	3:K:123:LEU:HD21	1.92	0.50
3:K:244:ASN:OD1	3:K:247:GLU:HG2	2.11	0.50
3:K:443:ALA:HB2	3:K:943:GLU:HG3	1.93	0.50
1:B:300:ARG:NE	1:B:365:ARG:HB3	2.27	0.50
3:J:215:GLN:NE2	3:K:49:TYR:OH	2.44	0.50
3:K:595:GLU:O	3:K:599:MET:HG3	2.11	0.50
3:K:669:GLU:OE2	3:K:669:GLU:N	2.40	0.50
3:J:527:TYR:CE2	3:J:967:PHE:HD1	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:696:ARG:HD3	3:J:821:ILE:HG12	1.94	0.50
3:K:545:TYR:OH	3:K:899:LEU:O	2.23	0.50
1:A:311:PHE:HZ	1:A:356:ARG:HA	1.77	0.50
1:B:300:ARG:HH21	1:B:366:GLN:N	2.08	0.50
2:I:39:VAL:HB	2:I:357:ILE:HG23	1.94	0.50
2:I:329:VAL:HG21	2:I:364:ILE:HG21	1.93	0.50
3:J:422:MET:HE3	3:J:501:PRO:HA	1.93	0.50
3:J:779:PRO:O	3:J:782:VAL:HG12	2.12	0.50
3:L:370:PRO:HA	3:L:373:VAL:HG12	1.93	0.50
2:E:339:MET:HE3	2:E:340:GLN:H	1.76	0.49
2:F:131:LEU:HB3	2:F:136:ALA:HB3	1.94	0.49
2:F:320:VAL:C	2:F:321:MET:HE2	2.37	0.49
2:G:306:PRO:HA	2:G:343:ARG:HA	1.93	0.49
1:C:73:ASN:O	1:C:75:ARG:NH1	2.45	0.49
2:D:215:PHE:CG	2:D:292:VAL:HG21	2.47	0.49
2:D:361:LEU:HD22	2:D:361:LEU:H	1.77	0.49
2:H:120:GLN:NE2	2:I:144:ASN:OD1	2.45	0.49
2:I:242:LEU:HD22	2:I:294:THR:HG22	1.93	0.49
2:I:323:LEU:HB3	2:I:355:LYS:HB2	1.94	0.49
3:J:20:SER:OG	3:J:376:VAL:HG22	2.12	0.49
3:J:465:VAL:HG22	3:J:563:PHE:HE2	1.76	0.49
3:K:253:LEU:HD21	3:K:264:LEU:HD12	1.94	0.49
3:L:118:MET:HB2	3:L:123:LEU:HD21	1.94	0.49
3:L:559:LEU:HD23	3:L:919:ASN:HB2	1.95	0.49
1:A:115:ALA:O	1:A:117:LEU:HD23	2.12	0.49
1:A:218:LEU:HD21	1:B:428:ARG:HH21	1.77	0.49
1:C:117:LEU:HD13	1:C:123:SER:CB	2.38	0.49
2:I:321:MET:CE	2:I:361:LEU:HD22	2.42	0.49
3:J:108:GLN:HE22	3:J:112:LYS:NZ	2.05	0.49
3:J:629:LEU:HD12	3:J:641:PRO:HG3	1.94	0.49
3:K:400:MET:O	3:K:404:ILE:HD13	2.12	0.49
3:L:159:TYR:CZ	3:L:320:PRO:HD3	2.46	0.49
3:L:407:LEU:HD23	3:L:407:LEU:O	2.12	0.49
1:B:311:PHE:HE2	1:B:359:LEU:HB2	1.77	0.49
2:E:251:ILE:HD13	2:E:283:VAL:HG11	1.93	0.49
2:I:131:LEU:HB3	2:I:136:ALA:HB3	1.95	0.49
3:K:447:ILE:HG13	3:K:939:ILE:HG21	1.94	0.49
2:H:131:LEU:HB3	2:H:136:ALA:HB3	1.94	0.49
3:J:175:GLY:N	3:J:294:GLN:O	2.44	0.49
3:K:34:GLN:HA	3:K:394:MET:SD	2.53	0.49
3:L:461:MET:HG3	3:L:872:LEU:HD12	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:614:SER:HA	3:L:624:ILE:HB	1.94	0.49
1:B:186:LEU:HB3	1:B:265:PRO:HD3	1.93	0.49
1:C:194:GLN:CD	1:C:437:PHE:HE1	2.20	0.49
2:I:251:ILE:HD13	2:I:283:VAL:HG11	1.94	0.49
3:J:244:ASN:OD1	3:J:247:GLU:HG2	2.12	0.49
3:J:891:TRP:C	3:J:894:PRO:HD2	2.38	0.49
3:K:740:GLU:OE1	3:K:740:GLU:C	2.55	0.49
3:K:893:ILE:HB	3:K:894:PRO:HD3	1.95	0.49
3:L:839:GLU:OE2	3:L:842:ARG:NH2	2.38	0.49
2:D:244:LEU:HB2	2:D:277:PHE:CE2	2.47	0.49
3:J:343:ILE:O	3:J:347:ILE:HD12	2.13	0.49
3:J:450:VAL:HG13	3:J:451:LEU:HD22	1.93	0.49
3:K:397:MET:O	3:K:401:VAL:HG12	2.13	0.49
3:K:920:ASP:OD2	3:K:922:TYR:N	2.46	0.49
1:C:191:LEU:O	1:C:194:GLN:HG2	2.12	0.49
3:J:402:LEU:HD13	3:J:929:THR:HG21	1.95	0.49
3:K:56:VAL:O	3:K:60:SER:HB3	2.12	0.49
3:K:136:PHE:HD2	3:K:294:GLN:HE21	1.60	0.49
3:K:245:PRO:HB3	3:K:270:ILE:HG22	1.94	0.49
3:K:592:GLY:HA2	3:K:595:GLU:CD	2.38	0.49
2:G:61:PRO:HD3	2:G:286:PRO:HB3	1.94	0.49
2:I:193:LEU:HD21	2:I:196:GLN:HG3	1.95	0.49
3:J:451:LEU:O	3:J:454:VAL:HG12	2.13	0.49
3:J:515:TRP:CE2	3:J:519:LYS:HG3	2.48	0.49
3:J:911:ALA:HB2	3:J:1004:GLY:HA3	1.94	0.49
3:K:57:LEU:HD12	3:K:61:VAL:HB	1.94	0.49
1:A:252:LEU:HD12	1:A:257:ALA:HB1	1.95	0.49
1:B:191:LEU:HA	1:B:437:PHE:CE2	2.48	0.49
2:G:315:ASP:HB3	3:K:152:ASN:ND2	2.28	0.49
3:J:516:PHE:O	3:J:520:PHE:HB2	2.13	0.49
3:K:335:VAL:O	3:K:339:ILE:HG22	2.12	0.49
3:L:416:GLU:OE2	3:L:968:ARG:HG2	2.12	0.49
1:C:252:LEU:HD12	1:C:257:ALA:HB1	1.94	0.48
2:G:291:ARG:HH22	3:L:730:GLU:HB2	1.78	0.48
3:L:245:PRO:HB3	3:L:270:ILE:HG22	1.94	0.48
3:L:406:ILE:HA	3:L:409:ASP:OD2	2.12	0.48
1:A:224:VAL:O	1:A:228:GLU:HG2	2.13	0.48
1:B:191:LEU:HD13	1:B:437:PHE:CE2	2.48	0.48
1:C:369:ALA:HA	1:C:372:ASP:OD2	2.13	0.48
2:G:131:LEU:HB3	2:G:136:ALA:HB3	1.95	0.48
3:L:377:CYS:HB3	3:L:407:LEU:HD11	1.93	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:508:GLU:N	3:L:508:GLU:OE1	2.47	0.48
3:L:617:GLY:C	3:L:618:MET:HE2	2.38	0.48
1:B:408:SER:HB2	1:B:436:THR:HA	1.95	0.48
1:C:87:ALA:HB1	1:C:157:TYR:HA	1.94	0.48
1:C:191:LEU:HD11	1:C:437:PHE:O	2.13	0.48
2:G:317:GLN:OE1	2:G:333:GLN:NE2	2.45	0.48
2:H:361:LEU:HD22	2:H:361:LEU:H	1.79	0.48
3:J:559:LEU:HD23	3:J:919:ASN:HB2	1.95	0.48
3:J:740:GLU:C	3:J:740:GLU:OE1	2.56	0.48
3:L:344:MET:HE3	3:L:345:THR:N	2.28	0.48
1:A:166:ALA:HB2	1:A:288:PRO:HB2	1.95	0.48
1:A:289:ASP:N	1:A:289:ASP:OD1	2.46	0.48
1:C:311:PHE:HZ	1:C:356:ARG:HA	1.78	0.48
2:E:242:LEU:HD22	2:E:294:THR:HG22	1.94	0.48
3:J:218:ALA:HB2	3:J:238:VAL:CG2	2.43	0.48
3:J:1016:PHE:HB3	3:J:1020:PHE:CZ	2.48	0.48
3:K:437:MET:HA	3:K:437:MET:CE	2.36	0.48
3:L:24:LEU:HA	3:L:27:ILE:HD12	1.94	0.48
1:A:262:PRO:HB2	1:A:266:ARG:HH22	1.77	0.48
1:A:419:TYR:CZ	1:A:426:TYR:HD2	2.31	0.48
2:D:120:GLN:NE2	2:E:144:ASN:OD1	2.46	0.48
3:J:270:ILE:HD12	3:J:270:ILE:O	2.13	0.48
3:J:398:PHE:HB3	3:J:998:LEU:CD1	2.43	0.48
3:K:406:ILE:HG13	3:K:480:ILE:HD13	1.96	0.48
3:K:679:LEU:HD11	3:K:853:TYR:HD1	1.78	0.48
3:K:907:GLY:HA3	3:K:1008:SER:HB3	1.95	0.48
3:K:982:VAL:CG1	3:K:983:PRO:HD3	2.43	0.48
1:B:456:ASP:OD1	1:B:459:ARG:NH2	2.47	0.48
3:K:252:VAL:HG11	3:L:733:ARG:HG2	1.96	0.48
3:K:385:MET:HG3	3:K:390:PHE:HB2	1.96	0.48
3:L:188:VAL:HB	3:L:769:VAL:HG22	1.94	0.48
2:E:339:MET:SD	2:E:344:TRP:CE3	3.06	0.48
2:F:244:LEU:HB2	2:F:277:PHE:CE2	2.49	0.48
2:G:40:ASP:O	2:G:357:ILE:HA	2.13	0.48
3:J:104:GLN:NE2	3:K:109:ASN:ND2	2.62	0.48
3:K:36:PRO:O	3:K:38:VAL:N	2.46	0.48
3:L:381:THR:HG23	3:L:478:VAL:HG13	1.96	0.48
3:L:740:GLU:C	3:L:740:GLU:OE1	2.57	0.48
3:L:944:PHE:CG	3:L:966:ARG:HD2	2.49	0.48
2:E:339:MET:HE1	2:E:343:ARG:H	1.79	0.48
3:L:114:ALA:O	3:L:116:ALA:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:486:LEU:CD1	3:J:490:PHE:HD2	2.27	0.48
3:K:868:GLN:HG2	3:K:871:MET:HE2	1.96	0.48
3:K:906:LEU:HD13	3:K:910:LEU:HD23	1.96	0.48
3:L:579:PRO:HD3	3:L:658:GLY:HA2	1.96	0.48
3:L:723:LEU:HD11	3:L:803:THR:HB	1.94	0.48
1:C:308:ARG:HG2	1:C:359:LEU:HD21	1.94	0.48
2:E:193:LEU:HD21	2:E:196:GLN:HG3	1.95	0.48
2:G:193:LEU:HD21	2:G:196:GLN:HG3	1.94	0.48
3:J:2:PRO:O	3:J:6:ILE:HG12	2.14	0.48
3:K:370:PRO:O	3:K:374:VAL:HG23	2.14	0.48
1:A:138:TYR:CD1	1:A:138:TYR:C	2.91	0.47
2:E:39:VAL:HB	2:E:357:ILE:HG23	1.95	0.47
2:F:120:GLN:NE2	2:G:144:ASN:OD1	2.47	0.47
2:F:270:GLN:NE2	3:K:796:PRO:HD3	2.29	0.47
3:L:43:ILE:HD12	3:L:131:GLN:HA	1.96	0.47
3:L:137:LEU:CD2	3:L:138:LEU:HD23	2.44	0.47
3:L:546:LEU:HA	3:L:549:VAL:HG12	1.96	0.47
1:B:250:LEU:HD22	1:C:382:ARG:HG2	1.94	0.47
1:C:191:LEU:HD22	1:C:437:PHE:CE1	2.49	0.47
3:J:783:LEU:HB3	3:J:798:SER:HB3	1.96	0.47
3:J:816:ASN:O	3:L:170:ARG:NH2	2.46	0.47
3:K:447:ILE:HG23	3:K:451:LEU:CD2	2.44	0.47
3:L:41:PRO:HD3	3:L:96:PRO:HA	1.96	0.47
1:B:87:ALA:HB1	1:B:157:TYR:HA	1.95	0.47
3:J:381:THR:HG23	3:J:478:VAL:HG13	1.96	0.47
3:J:881:PHE:O	3:J:885:VAL:HG12	2.14	0.47
3:J:893:ILE:HB	3:J:894:PRO:HD3	1.96	0.47
3:J:993:ALA:HA	3:J:996:ARG:HD2	1.95	0.47
3:K:447:ILE:HG23	3:K:451:LEU:HD23	1.96	0.47
3:L:114:ALA:C	3:L:118:MET:HE1	2.39	0.47
2:F:98:ALA:HB3	2:F:99:PRO:HD3	1.96	0.47
2:I:335:THR:HG23	2:I:348:GLU:HB2	1.95	0.47
3:K:72:ALA:HA	3:K:110:ARG:NH2	2.30	0.47
3:K:124:THR:O	3:L:116:ALA:HB1	2.14	0.47
3:K:171:LEU:HD21	3:K:311:ARG:HG2	1.96	0.47
3:L:447:ILE:HG12	3:L:939:ILE:HG21	1.96	0.47
3:L:883:LEU:HD13	3:L:883:LEU:C	2.39	0.47
3:L:883:LEU:HD22	3:L:883:LEU:HA	1.74	0.47
3:L:885:VAL:HG23	3:L:890:SER:O	2.13	0.47
2:F:307:GLN:HG3	2:F:344:TRP:CD1	2.50	0.47
3:K:55:GLN:O	3:K:55:GLN:NE2	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:679:LEU:HD13	3:L:855:TRP:CZ3	2.49	0.47
1:C:142:LEU:HD11	1:C:312:PHE:CD2	2.42	0.47
3:K:101:GLU:HG2	3:L:102:LEU:HG	1.95	0.47
3:K:196:VAL:HG22	3:K:786:HIS:HB2	1.95	0.47
1:A:139:GLU:CD	1:A:145:ARG:HH21	2.22	0.47
1:B:300:ARG:HH22	1:B:304:ILE:HG12	1.80	0.47
1:C:283:LEU:HG	1:C:384:VAL:HG11	1.96	0.47
2:G:61:PRO:HG2	2:G:64:VAL:HG22	1.95	0.47
2:H:98:ALA:HB3	2:H:99:PRO:HD3	1.97	0.47
2:H:244:LEU:HD21	2:H:290:VAL:HB	1.97	0.47
3:J:1:MET:SD	3:J:1:MET:N	2.87	0.47
3:J:34:GLN:HG3	3:J:394:MET:SD	2.54	0.47
3:J:357:MET:HB3	3:J:361:LEU:HD23	1.96	0.47
3:K:405:GLY:HA3	3:K:977:PHE:CD2	2.50	0.47
3:L:106:ASP:O	3:L:110:ARG:HG2	2.14	0.47
3:L:313:THR:O	3:L:316:SER:OG	2.24	0.47
2:F:244:LEU:HD21	2:F:290:VAL:HB	1.97	0.47
2:G:339:MET:SD	2:G:344:TRP:CD1	3.08	0.47
2:H:244:LEU:HB2	2:H:277:PHE:CE2	2.50	0.47
3:K:188:VAL:HB	3:K:769:VAL:HG22	1.96	0.47
3:K:891:TRP:C	3:K:894:PRO:HD2	2.40	0.47
3:L:711:TYR:HD2	3:L:713:MET:SD	2.38	0.47
1:C:139:GLU:CD	1:C:145:ARG:HH21	2.23	0.47
2:E:339:MET:HE1	2:E:343:ARG:C	2.40	0.47
3:J:14:VAL:HG13	3:K:882:LEU:HD12	1.97	0.47
3:J:459:ALA:C	3:J:470:GLN:HE22	2.23	0.47
3:J:907:GLY:HA3	3:J:1008:SER:HB3	1.95	0.47
3:K:354:PHE:HA	3:K:357:MET:SD	2.55	0.47
3:K:682:GLN:HB2	3:K:854:GLU:OE2	2.15	0.47
3:L:1:MET:HB2	3:L:2:PRO:HD3	1.96	0.47
3:L:472:PHE:CE1	3:L:925:VAL:HG11	2.50	0.47
1:A:371:ALA:HB3	1:C:79:GLN:HG3	1.96	0.47
2:E:131:LEU:HB3	2:E:136:ALA:HB3	1.96	0.47
3:J:242:LEU:HB2	3:J:248:PHE:CE1	2.50	0.47
3:J:421:ILE:HD12	3:J:436:ALA:HB2	1.97	0.47
3:K:393:ASN:C	3:K:397:MET:SD	2.98	0.47
3:K:394:MET:HB3	3:K:398:PHE:CE2	2.48	0.47
3:K:911:ALA:HB2	3:K:1004:GLY:HA3	1.97	0.47
3:L:21:LEU:O	3:L:25:LEU:HD23	2.15	0.47
3:L:773:GLN:O	3:L:777:MET:HG2	2.15	0.47
1:A:87:ALA:HA	1:A:90:GLN:CD	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:110:ARG:NH2	1:A:120:THR:H	2.02	0.46
1:B:418:ARG:NH1	2:E:136:ALA:O	2.47	0.46
1:C:138:TYR:CD1	1:C:138:TYR:C	2.92	0.46
1:C:269:LEU:HD11	1:C:273:GLN:HG2	1.97	0.46
2:G:39:VAL:HG11	2:G:357:ILE:HD13	1.97	0.46
2:I:221:ASP:OD1	2:I:224:ARG:NH1	2.48	0.46
3:K:340:ASP:O	3:K:343:ILE:HG22	2.14	0.46
3:K:455:PHE:HZ	3:K:929:THR:HA	1.81	0.46
3:L:66:GLU:OE1	3:L:814:ARG:NE	2.42	0.46
3:L:420:ARG:CD	3:L:966:ARG:HH22	2.28	0.46
3:L:669:GLU:OE2	3:L:669:GLU:N	2.39	0.46
3:L:884:LEU:HD21	3:L:897:VAL:HB	1.96	0.46
1:C:441:THR:HA	1:C:444:ILE:HD12	1.98	0.46
3:J:252:VAL:HG11	3:K:733:ARG:HG2	1.97	0.46
3:L:102:LEU:HA	3:L:105:VAL:HG22	1.98	0.46
1:A:112:ARG:HB3	1:A:117:LEU:HD11	1.97	0.46
3:J:170:ARG:NH2	3:K:816:ASN:O	2.48	0.46
3:J:545:TYR:OH	3:J:899:LEU:O	2.27	0.46
3:J:695:ALA:O	3:J:699:VAL:HG22	2.15	0.46
3:K:350:MET:HA	3:K:350:MET:CE	2.45	0.46
3:K:441:SER:O	3:K:445:ILE:HG22	2.14	0.46
3:L:122:VAL:O	3:L:126:GLY:N	2.37	0.46
3:L:175:GLY:N	3:L:294:GLN:O	2.44	0.46
1:A:310:ALA:HA	1:A:314:ARG:HH21	1.80	0.46
1:B:274:ASP:OD1	1:B:395:ARG:NH2	2.48	0.46
1:C:194:GLN:CG	1:C:437:PHE:CE1	2.96	0.46
3:J:455:PHE:HZ	3:J:929:THR:HA	1.79	0.46
3:J:597:PHE:HE2	3:J:648:VAL:HG22	1.80	0.46
3:K:118:MET:HE2	3:K:118:MET:N	2.19	0.46
3:K:472:PHE:C	3:K:472:PHE:CD2	2.93	0.46
3:K:574:VAL:HB	3:K:625:ALA:HB3	1.97	0.46
3:L:684:ARG:HD2	3:L:852:GLY:HA3	1.98	0.46
1:A:135:LEU:HD11	1:A:138:TYR:HB2	1.96	0.46
2:D:131:LEU:HB3	2:D:136:ALA:HB3	1.96	0.46
3:J:140:TYR:CZ	3:J:291:ALA:HB3	2.51	0.46
3:K:115:GLU:OE1	3:K:115:GLU:O	2.33	0.46
3:K:398:PHE:HA	3:K:401:VAL:CG1	2.46	0.46
3:K:713:MET:HE2	3:K:714:MET:C	2.40	0.46
3:L:472:PHE:C	3:L:472:PHE:CD2	2.94	0.46
3:L:922:TYR:HD1	3:L:998:LEU:HD11	1.79	0.46
3:L:999:GLY:O	3:L:1003:LEU:HD23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:86:ALA:O	1:A:90:GLN:HG3	2.16	0.46
1:B:313:PRO:HG3	1:B:347:LEU:HB2	1.97	0.46
1:C:224:VAL:O	1:C:228:GLU:HG2	2.15	0.46
1:C:419:TYR:CZ	1:C:426:TYR:HD2	2.32	0.46
2:G:369:LYS:HD2	2:G:370:VAL:N	2.30	0.46
3:K:541:VAL:HG11	3:K:1019:ILE:HD13	1.98	0.46
3:L:30:LEU:CD1	3:L:386:TYR:HB2	2.46	0.46
3:L:36:PRO:HD2	3:L:395:MET:HE3	1.97	0.46
3:L:398:PHE:HA	3:L:401:VAL:CG1	2.46	0.46
3:L:920:ASP:OD2	3:L:922:TYR:N	2.49	0.46
1:A:112:ARG:HA	1:A:112:ARG:NH1	2.30	0.46
1:B:112:ARG:HD2	1:B:124:GLU:HB3	1.96	0.46
1:B:321:VAL:HA	1:B:338:ALA:O	2.15	0.46
3:J:196:VAL:HG22	3:J:786:HIS:HB2	1.96	0.46
3:K:981:VAL:HG11	3:K:1002:VAL:HG11	1.97	0.46
3:L:655:LEU:HD12	3:L:656:ASP:H	1.81	0.46
3:L:708:LYS:HB3	3:L:708:LYS:HE3	1.61	0.46
1:A:145:ARG:HD3	1:A:314:ARG:NH2	2.30	0.46
1:C:182:ARG:HH22	1:C:263:ALA:HA	1.80	0.46
1:C:190:ALA:O	1:C:194:GLN:NE2	2.49	0.46
3:J:72:ALA:HB3	3:J:75:LEU:HD21	1.97	0.46
3:J:969:PRO:O	3:J:973:THR:HG22	2.16	0.46
3:L:461:MET:HE3	3:L:868:GLN:CB	2.46	0.46
1:A:73:ASN:O	1:A:75:ARG:NH1	2.49	0.46
1:A:419:TYR:CZ	1:A:426:TYR:CD2	3.03	0.46
3:J:466:GLY:O	3:J:470:GLN:HG2	2.16	0.46
3:K:447:ILE:HG21	3:K:936:LYS:HE2	1.97	0.46
3:K:702:LYS:O	3:K:706:ASN:HB2	2.15	0.46
3:L:100:PRO:HB3	3:L:131:GLN:HG3	1.97	0.46
3:L:480:ILE:HD12	3:L:480:ILE:HA	1.80	0.46
3:L:682:GLN:HE22	3:L:854:GLU:CB	2.26	0.46
3:L:783:LEU:HB3	3:L:798:SER:HB3	1.96	0.46
1:A:113:LEU:HD23	1:B:324:SER:HB3	1.98	0.46
1:B:182:ARG:NH2	1:B:261:LEU:HD13	2.31	0.46
1:B:224:VAL:O	1:B:228:GLU:HG2	2.16	0.46
3:J:833:THR:OG1	3:J:862:GLU:OE2	2.24	0.46
3:K:437:MET:SD	3:K:441:SER:OG	2.74	0.46
3:L:629:LEU:HD12	3:L:641:PRO:HG3	1.98	0.46
1:A:142:LEU:HD11	1:A:312:PHE:CD1	2.43	0.45
1:B:182:ARG:NH1	1:B:262:PRO:O	2.48	0.45
1:B:248:LEU:HD23	1:B:261:LEU:HD23	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:304:ILE:HD11	1:B:363:GLU:HA	1.98	0.45
1:B:311:PHE:HZ	1:B:356:ARG:HA	1.80	0.45
1:B:419:TYR:CZ	1:B:426:TYR:CD2	3.04	0.45
1:C:226:LEU:HD13	1:C:434:ARG:NH2	2.32	0.45
2:D:98:ALA:HB3	2:D:99:PRO:HD3	1.98	0.45
2:H:288:MET:HE3	2:H:289:TYR:N	2.31	0.45
3:J:552:MET:HE3	3:J:552:MET:C	2.41	0.45
3:K:464:SER:O	3:K:468:ILE:HG12	2.15	0.45
3:K:618:MET:HE2	3:K:618:MET:N	2.30	0.45
3:L:138:LEU:HD21	3:L:308:VAL:HG11	1.97	0.45
3:L:993:ALA:O	3:L:996:ARG:HG2	2.16	0.45
1:A:77:LEU:HD23	1:A:77:LEU:HA	1.71	0.45
2:F:244:LEU:HD23	2:F:292:VAL:HG12	1.98	0.45
2:I:259:PHE:CZ	2:I:261:ASP:HA	2.52	0.45
3:K:14:VAL:HG11	3:L:886:ALA:HB2	1.97	0.45
3:K:108:GLN:OE1	3:K:112:LYS:HG2	2.16	0.45
3:K:450:VAL:HG13	3:K:451:LEU:HD22	1.99	0.45
3:K:576:ILE:HB	3:K:623:ALA:HB3	1.97	0.45
2:G:259:PHE:CZ	2:G:261:ASP:HA	2.50	0.45
3:J:62:THR:HG21	3:J:82:SER:OG	2.15	0.45
3:J:872:LEU:HD22	3:J:924:LYS:NZ	2.32	0.45
3:J:1012:LEU:O	3:J:1012:LEU:HD23	2.17	0.45
3:K:461:MET:HE3	3:K:461:MET:HB3	1.78	0.45
3:K:528:THR:HG21	3:K:964:ARG:HD2	1.98	0.45
3:K:924:LYS:HE2	3:K:924:LYS:HB2	1.70	0.45
3:L:374:VAL:HG13	3:L:407:LEU:HD13	1.97	0.45
2:E:322:LEU:HD23	2:E:322:LEU:H	1.81	0.45
3:J:340:ASP:O	3:J:343:ILE:HG22	2.16	0.45
3:J:402:LEU:HD21	3:J:472:PHE:CZ	2.52	0.45
3:J:723:LEU:HD13	3:J:805:TRP:CE2	2.51	0.45
3:J:981:VAL:HG11	3:J:1002:VAL:HG11	1.98	0.45
3:K:1016:PHE:HB3	3:K:1020:PHE:CZ	2.51	0.45
3:L:758:PHE:CZ	3:L:760:ASN:HB2	2.52	0.45
1:B:287:ARG:HG2	1:B:289:ASP:OD1	2.16	0.45
3:J:400:MET:HE2	3:J:400:MET:HB3	1.77	0.45
3:J:465:VAL:HG22	3:J:563:PHE:CE2	2.51	0.45
3:J:472:PHE:CD1	3:J:472:PHE:C	2.94	0.45
3:K:242:LEU:HB2	3:K:248:PHE:CE1	2.51	0.45
3:K:406:ILE:HB	3:K:933:LEU:HD21	1.98	0.45
3:L:166:ASN:HA	3:L:169:ARG:HG2	1.98	0.45
3:L:545:TYR:OH	3:L:899:LEU:O	2.27	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:112:ARG:NH2	1:B:126:THR:OG1	2.50	0.45
1:C:419:TYR:CZ	1:C:426:TYR:CD2	3.05	0.45
2:D:323:LEU:HB2	2:D:357:ILE:HD11	1.98	0.45
2:G:335:THR:OG1	2:G:347:SER:OG	2.34	0.45
2:I:321:MET:CG	2:I:357:ILE:HB	2.45	0.45
3:J:409:ASP:OD2	3:J:409:ASP:C	2.60	0.45
3:J:422:MET:HE1	3:J:429:PRO:HG3	1.99	0.45
3:J:669:GLU:OE2	3:J:669:GLU:N	2.45	0.45
3:K:508:GLU:N	3:K:508:GLU:OE2	2.49	0.45
3:L:560:PRO:O	3:L:919:ASN:N	2.39	0.45
3:J:447:ILE:HG13	3:J:939:ILE:HG21	1.97	0.45
3:J:868:GLN:HA	3:J:871:MET:HE1	1.98	0.45
3:K:112:LYS:HE2	3:K:112:LYS:HA	1.99	0.45
3:L:2:PRO:HG2	3:L:437:MET:CE	2.44	0.45
3:L:36:PRO:O	3:L:38:VAL:HG12	2.17	0.45
1:A:300:ARG:HG3	1:A:369:ALA:HB2	1.99	0.45
1:B:149:LEU:HD12	1:B:150:SER:N	2.32	0.45
1:C:138:TYR:C	1:C:138:TYR:HD1	2.25	0.45
3:J:171:LEU:O	3:J:174:VAL:HG12	2.16	0.45
3:J:237:THR:HG23	3:J:237:THR:O	2.17	0.45
3:J:344:MET:SD	3:J:345:THR:N	2.90	0.45
3:J:573:ILE:HG21	3:J:615:PHE:CE2	2.52	0.45
3:K:655:LEU:HD23	3:K:660:ILE:HG12	1.98	0.45
3:L:127:ILE:O	3:L:128:GLN:NE2	2.50	0.45
3:L:891:TRP:C	3:L:894:PRO:HD2	2.42	0.45
1:B:418:ARG:NE	1:B:424:ASP:OD2	2.47	0.45
1:C:182:ARG:NH2	1:C:261:LEU:HD13	2.32	0.45
2:D:240:GLN:HB2	2:D:295:PRO:HG3	1.98	0.45
2:I:266:ARG:NH1	2:I:266:ARG:HB2	2.32	0.45
1:A:112:ARG:HH11	1:A:113:LEU:HD12	1.81	0.45
1:B:231:ARG:O	1:B:235:GLU:HG2	2.16	0.45
1:C:287:ARG:HG2	1:C:289:ASP:OD1	2.17	0.45
3:J:26:VAL:HG21	3:J:383:THR:HG23	1.99	0.45
3:J:67:GLU:OE2	3:J:117:ARG:NH1	2.48	0.45
3:J:72:ALA:HA	3:J:110:ARG:NH2	2.31	0.45
3:J:447:ILE:O	3:J:448:THR:C	2.59	0.45
3:L:140:TYR:CE2	3:L:291:ALA:HB3	2.52	0.45
3:L:520:PHE:O	3:L:524:THR:HG23	2.16	0.45
1:B:108:GLY:O	1:C:342:ALA:HA	2.17	0.44
2:D:317:GLN:NE2	2:D:333:GLN:HB3	2.32	0.44
2:G:37:ARG:HB2	2:G:370:VAL:HG12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:136:PHE:HB3	3:J:292:ALA:HB1	2.00	0.44
3:J:335:VAL:O	3:J:339:ILE:HG22	2.17	0.44
3:J:420:ARG:HH22	3:J:421:ILE:HG13	1.82	0.44
3:J:901:VAL:HB	3:J:902:PRO:HD3	2.00	0.44
3:K:783:LEU:HB3	3:K:798:SER:HB3	1.99	0.44
3:L:965:LEU:C	3:L:966:ARG:CZ	2.90	0.44
3:L:981:VAL:HB	3:L:1003:LEU:CD2	2.44	0.44
1:A:138:TYR:C	1:A:138:TYR:HD1	2.25	0.44
2:G:369:LYS:HZ3	2:G:370:VAL:C	2.24	0.44
2:H:288:MET:HG2	2:I:264:VAL:HG21	2.00	0.44
3:J:112:LYS:HZ3	3:L:112:LYS:HZ3	1.66	0.44
3:K:46:THR:HG23	3:K:89:GLU:OE1	2.17	0.44
3:K:344:MET:SD	3:K:345:THR:N	2.90	0.44
3:K:690:ASP:OD1	3:K:690:ASP:N	2.51	0.44
3:K:884:LEU:HD12	3:K:884:LEU:HA	1.74	0.44
3:L:469:TYR:OH	3:L:924:LYS:HE2	2.17	0.44
1:B:419:TYR:CZ	1:B:426:TYR:HD2	2.36	0.44
1:C:418:ARG:NH1	2:G:136:ALA:O	2.47	0.44
3:J:939:ILE:HA	3:J:942:VAL:HG12	2.00	0.44
3:K:202:ILE:O	3:K:205:VAL:HG22	2.17	0.44
3:L:34:GLN:O	3:L:394:MET:HG2	2.17	0.44
2:I:252:GLU:OE2	2:I:254:LYS:NZ	2.49	0.44
3:K:1006:MET:HG3	3:K:1007:LEU:N	2.32	0.44
3:L:377:CYS:HB3	3:L:407:LEU:CD1	2.48	0.44
3:L:421:ILE:HD12	3:L:436:ALA:HB2	1.98	0.44
1:A:115:ALA:HB2	1:B:337:ARG:HB3	1.98	0.44
3:J:32:VAL:HG12	3:J:392:VAL:HB	2.00	0.44
3:J:682:GLN:HE22	3:J:815:TYR:HB3	1.83	0.44
3:K:10:ASN:HB2	3:L:889:GLU:OE1	2.17	0.44
3:K:404:ILE:O	3:K:408:VAL:HG22	2.16	0.44
3:L:203:ASP:OD1	3:L:203:ASP:C	2.61	0.44
3:L:982:VAL:CG1	3:L:983:PRO:HD3	2.44	0.44
2:E:266:ARG:HB2	2:E:266:ARG:NH1	2.33	0.44
3:K:758:PHE:CZ	3:K:760:ASN:HB2	2.53	0.44
3:L:552:MET:HB2	3:L:906:LEU:HD23	1.98	0.44
1:B:166:ALA:HB2	1:B:288:PRO:HB2	1.99	0.44
3:J:316:SER:HA	3:J:319:PHE:CD1	2.52	0.44
3:K:347:ILE:O	3:K:350:MET:HB2	2.18	0.44
3:K:453:ALA:HA	3:K:456:LEU:HB3	1.99	0.44
3:K:682:GLN:HE22	3:K:815:TYR:HB3	1.83	0.44
3:K:891:TRP:O	3:K:895:LEU:HD12	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:253:ARG:NH2	2:G:281:GLU:OE1	2.51	0.44
2:I:98:ALA:HB3	2:I:99:PRO:HD3	2.00	0.44
3:L:682:GLN:HE21	3:L:684:ARG:HH21	1.65	0.44
1:B:199:ARG:NH1	1:B:434:ARG:HH21	2.15	0.44
1:C:226:LEU:HD13	1:C:434:ARG:HH22	1.83	0.44
2:G:98:ALA:HB3	2:G:99:PRO:HD3	2.00	0.44
3:K:38:VAL:HG23	3:K:467:VAL:HB	1.99	0.44
3:K:448:THR:HG21	3:K:484:GLY:HA3	1.99	0.44
3:K:689:ARG:HA	3:K:692:LEU:HG	1.99	0.44
3:K:713:MET:HE1	3:K:715:GLU:HA	2.00	0.44
3:L:171:LEU:O	3:L:174:VAL:HG12	2.18	0.44
3:L:196:VAL:HG22	3:L:786:HIS:HB2	1.99	0.44
3:L:402:LEU:HD21	3:L:472:PHE:HZ	1.82	0.44
3:L:679:LEU:HD12	3:L:854:GLU:O	2.18	0.44
1:A:418:ARG:NH1	2:I:136:ALA:O	2.48	0.43
1:C:300:ARG:NE	1:C:365:ARG:HB3	2.32	0.43
3:J:203:ASP:OD1	3:J:203:ASP:C	2.60	0.43
3:J:447:ILE:HG23	3:J:451:LEU:CD2	2.48	0.43
3:K:140:TYR:CZ	3:K:291:ALA:HB3	2.53	0.43
3:K:527:TYR:CE2	3:K:967:PHE:HB2	2.53	0.43
3:L:137:LEU:HD22	3:L:138:LEU:HD23	1.99	0.43
3:L:170:ARG:O	3:L:170:ARG:HG3	2.16	0.43
1:A:287:ARG:NH1	1:A:460:SER:O	2.51	0.43
3:J:2:PRO:HG2	3:J:437:MET:HE3	2.00	0.43
3:K:381:THR:HG23	3:K:478:VAL:HG13	1.99	0.43
3:L:26:VAL:HG21	3:L:383:THR:HG23	2.00	0.43
3:L:171:LEU:HD21	3:L:311:ARG:HG2	1.99	0.43
3:L:554:PHE:HD2	3:L:555:LEU:HD22	1.83	0.43
3:L:758:PHE:CE2	3:L:760:ASN:HB2	2.53	0.43
1:A:418:ARG:NE	1:A:424:ASP:OD2	2.50	0.43
1:B:310:ALA:HA	1:B:314:ARG:HH21	1.83	0.43
1:C:266:ARG:HE	1:C:266:ARG:N	2.15	0.43
3:J:887:LEU:HD12	3:J:888:TYR:CE2	2.54	0.43
3:K:23:GLY:O	3:K:27:ILE:HG13	2.18	0.43
3:K:159:TYR:CZ	3:K:320:PRO:HD3	2.53	0.43
3:K:170:ARG:HH22	3:K:311:ARG:NE	2.17	0.43
3:K:421:ILE:HD12	3:K:436:ALA:HB2	2.01	0.43
3:K:437:MET:O	3:K:441:SER:OG	2.33	0.43
3:K:979:LEU:HD13	3:K:979:LEU:O	2.18	0.43
3:L:79:GLU:OE2	3:L:680:ARG:NE	2.51	0.43
3:L:977:PHE:O	3:L:981:VAL:HG23	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:195:THR:O	1:B:199:ARG:HG2	2.18	0.43
2:I:61:PRO:HG2	2:I:64:VAL:HG22	1.99	0.43
3:J:108:GLN:NE2	3:J:112:LYS:HZ1	2.07	0.43
3:K:318:ASN:N	3:K:318:ASN:OD1	2.51	0.43
3:K:614:SER:HA	3:K:624:ILE:HB	2.00	0.43
3:L:393:ASN:C	3:L:397:MET:SD	3.01	0.43
3:L:403:ALA:O	3:L:404:ILE:C	2.61	0.43
3:L:881:PHE:O	3:L:885:VAL:HG12	2.18	0.43
1:B:320:SER:O	1:B:339:TRP:HA	2.18	0.43
2:H:244:LEU:HD23	2:H:292:VAL:HG12	2.01	0.43
3:J:895:LEU:O	3:J:899:LEU:HG	2.19	0.43
3:K:19:ILE:HD12	3:K:19:ILE:HA	1.81	0.43
3:L:111:LEU:HD13	3:L:111:LEU:O	2.18	0.43
1:A:246:ASN:O	1:A:249:VAL:HG12	2.18	0.43
1:C:191:LEU:HA	1:C:194:GLN:NE2	2.28	0.43
2:E:221:ASP:OD1	2:E:224:ARG:NH1	2.51	0.43
3:J:422:MET:C	3:J:502:ILE:HD11	2.43	0.43
3:K:1:MET:HB2	3:K:2:PRO:HD3	2.00	0.43
3:K:80:SER:OG	3:K:814:ARG:HB3	2.16	0.43
3:L:2:PRO:CB	3:L:437:MET:HE2	2.49	0.43
3:L:723:LEU:HD13	3:L:805:TRP:CE2	2.54	0.43
1:B:209:ARG:HG2	2:F:136:ALA:HB1	2.00	0.43
2:D:162:ASN:OD1	2:I:106:ARG:NE	2.51	0.43
2:I:54:GLU:HG2	2:I:293:ARG:HG2	1.99	0.43
3:J:575:ASP:O	3:J:660:ILE:HD12	2.18	0.43
3:J:884:LEU:HB3	3:J:894:PRO:HB3	2.01	0.43
3:L:395:MET:HE2	3:L:395:MET:HB3	1.80	0.43
3:L:509:LYS:HB3	3:L:514:GLY:CA	2.49	0.43
3:L:527:TYR:OH	3:L:963:ALA:HB1	2.18	0.43
3:L:689:ARG:HA	3:L:692:LEU:HG	2.00	0.43
3:L:978:MET:HA	3:L:1006:MET:HE3	1.98	0.43
1:A:191:LEU:HG	1:A:441:THR:HB	2.01	0.43
1:A:408:SER:HB2	1:A:436:THR:HA	2.01	0.43
2:E:98:ALA:HB3	2:E:99:PRO:HD3	2.01	0.43
2:H:342:SER:N	3:K:229:GLU:OE1	2.51	0.43
3:J:369:ILE:HG23	3:J:494:LEU:HD13	1.99	0.43
3:J:882:LEU:HD12	3:L:14:VAL:HG13	2.00	0.43
3:K:393:ASN:O	3:K:396:THR:OG1	2.29	0.43
3:L:374:VAL:HG13	3:L:407:LEU:HD22	2.01	0.43
3:L:441:SER:O	3:L:445:ILE:HG22	2.19	0.43
3:L:458:LEU:HD13	3:L:872:LEU:HD11	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:112:ARG:NE	1:C:124:GLU:O	2.50	0.43
2:D:307:GLN:HB2	2:D:342:SER:O	2.19	0.43
3:J:167:GLU:OE2	3:K:818:TYR:OH	2.36	0.43
3:J:982:VAL:HG13	3:J:983:PRO:HD3	2.00	0.43
3:K:166:ASN:O	3:K:169:ARG:HG2	2.19	0.43
3:K:723:LEU:HD13	3:K:805:TRP:CE2	2.54	0.43
3:L:335:VAL:O	3:L:339:ILE:HG22	2.19	0.43
3:L:357:MET:HB3	3:L:361:LEU:HD23	2.01	0.43
3:L:907:GLY:O	3:L:910:LEU:HG	2.18	0.43
3:L:922:TYR:CD1	3:L:998:LEU:HD11	2.53	0.43
1:A:301:ASN:O	1:A:304:ILE:HG22	2.18	0.43
3:J:351:VAL:O	3:J:354:PHE:HB3	2.19	0.43
3:K:100:PRO:HB2	3:K:131:GLN:HE22	1.84	0.43
3:K:162:ARG:NH1	3:K:761:ALA:HB3	2.34	0.43
3:L:143:ARG:O	3:L:323:VAL:HG23	2.17	0.43
3:L:965:LEU:HB3	3:L:966:ARG:NE	2.34	0.43
1:A:79:GLN:HG3	1:B:371:ALA:HB3	2.01	0.42
2:E:165:THR:O	2:E:168:LEU:HG	2.19	0.42
3:J:55:GLN:NE2	3:J:59:ASP:OD2	2.51	0.42
3:K:128:GLN:HE22	3:L:113:LYS:HB3	1.83	0.42
3:K:142:LEU:HD22	3:K:319:PHE:HE2	1.84	0.42
3:K:171:LEU:O	3:K:174:VAL:HG12	2.19	0.42
3:K:398:PHE:HB3	3:K:998:LEU:HD22	2.01	0.42
3:L:34:GLN:HA	3:L:394:MET:CE	2.42	0.42
3:L:857:GLY:O	3:L:861:GLN:HG2	2.19	0.42
1:A:316:SER:O	1:A:343:PRO:HA	2.19	0.42
1:C:270:MET:HE3	1:C:270:MET:HA	2.00	0.42
2:H:307:GLN:HG3	2:H:344:TRP:CD1	2.53	0.42
2:I:365:ARG:HD3	3:L:321:ASP:OD2	2.18	0.42
3:J:170:ARG:NH1	3:K:816:ASN:HB3	2.34	0.42
3:J:693:LEU:HB3	3:J:696:ARG:HH21	1.84	0.42
3:K:885:VAL:HG23	3:K:890:SER:O	2.20	0.42
3:K:894:PRO:O	3:K:898:MET:HE2	2.19	0.42
3:L:348:GLU:O	3:L:351:VAL:HG12	2.19	0.42
3:L:924:LYS:HE2	3:L:924:LYS:HB2	1.75	0.42
3:L:941:ILE:HG12	3:L:970:ILE:HD11	2.01	0.42
1:B:226:LEU:HD13	1:B:434:ARG:NH2	2.34	0.42
1:B:290:ILE:HD13	1:B:290:ILE:HA	1.91	0.42
1:B:317:LEU:HA	1:B:342:ALA:O	2.19	0.42
2:D:299:ASN:HD22	2:D:301:ASN:H	1.67	0.42
2:G:362:ALA:C	2:G:365:ARG:HH22	2.26	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:112:LYS:HZ3	3:K:112:LYS:HG3	1.84	0.42
3:J:203:ASP:OD1	3:J:204:ASP:N	2.53	0.42
3:K:384:PHE:HD2	3:K:482:PHE:CZ	2.37	0.42
3:K:814:ARG:HG3	3:K:818:TYR:O	2.19	0.42
3:L:878:THR:O	3:L:882:LEU:HD23	2.19	0.42
1:A:182:ARG:NH1	1:A:262:PRO:O	2.52	0.42
1:A:186:LEU:HB3	1:A:265:PRO:HG3	2.01	0.42
1:C:191:LEU:CD2	1:C:437:PHE:CD1	3.01	0.42
2:D:308:ARG:NH2	3:J:657:ASP:OD2	2.52	0.42
2:E:109:GLY:O	2:F:154:ALA:HB1	2.19	0.42
2:I:336:THR:HB	2:I:344:TRP:CE3	2.54	0.42
3:K:119:PRO:O	3:K:123:LEU:HG	2.18	0.42
3:L:469:TYR:CE1	3:L:921:VAL:HB	2.54	0.42
2:E:321:MET:HG2	2:E:357:ILE:HB	2.01	0.42
3:J:395:MET:HE1	3:J:468:ILE:HD13	2.00	0.42
3:J:682:GLN:HB2	3:J:854:GLU:OE2	2.19	0.42
3:K:403:ALA:O	3:K:404:ILE:C	2.63	0.42
3:L:162:ARG:NH1	3:L:761:ALA:HB3	2.34	0.42
3:L:221:PHE:O	3:L:233:THR:HA	2.20	0.42
1:A:231:ARG:O	1:A:235:GLU:HG2	2.19	0.42
1:A:431:ASP:HA	1:A:434:ARG:HD3	2.00	0.42
1:B:146:VAL:HA	1:B:149:LEU:HG	2.00	0.42
2:E:215:PHE:CE2	2:E:273:LEU:HB2	2.55	0.42
3:J:58:THR:HA	3:J:62:THR:HG22	2.01	0.42
3:J:785:LEU:HD23	3:J:785:LEU:HA	1.90	0.42
3:K:629:LEU:HD12	3:K:641:PRO:HG3	2.01	0.42
3:L:480:ILE:HD12	3:L:483:SER:OG	2.20	0.42
1:A:392:ASP:OD2	1:A:396:ARG:NH2	2.40	0.42
1:C:231:ARG:O	1:C:235:GLU:HG2	2.20	0.42
3:J:482:PHE:O	3:J:486:LEU:HD23	2.19	0.42
3:J:491:THR:N	3:J:492:PRO:HD2	2.34	0.42
3:K:74:ASN:HB3	3:K:94:PHE:HD2	1.85	0.42
3:K:559:LEU:HD23	3:K:919:ASN:HB2	2.00	0.42
3:K:696:ARG:HH11	3:K:696:ARG:HG2	1.85	0.42
3:L:100:PRO:HB3	3:L:131:GLN:NE2	2.35	0.42
3:L:836:ALA:O	3:L:840:LEU:HG	2.19	0.42
1:B:300:ARG:HG3	1:B:369:ALA:HB2	2.02	0.42
1:B:341:PHE:CZ	1:B:343:PRO:HG3	2.55	0.42
1:C:117:LEU:CA	1:C:121:GLY:HA3	2.49	0.42
1:C:194:GLN:HG3	1:C:437:PHE:CD1	2.55	0.42
2:I:231:GLU:C	2:I:233:LYS:HE3	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:374:VAL:HG22	3:J:407:LEU:CD2	2.49	0.42
3:J:472:PHE:CE2	3:J:925:VAL:HG21	2.55	0.42
3:K:374:VAL:HG13	3:K:407:LEU:HD13	2.01	0.42
3:K:679:LEU:HD11	3:K:853:TYR:HB2	2.01	0.42
1:A:339:TRP:CH2	1:C:117:LEU:HG	2.55	0.42
1:C:112:ARG:CZ	1:C:112:ARG:HA	2.50	0.42
1:C:228:GLU:OE2	1:C:231:ARG:NH1	2.53	0.42
3:J:23:GLY:O	3:J:27:ILE:HG13	2.20	0.42
3:J:384:PHE:HD1	3:J:482:PHE:CZ	2.38	0.42
3:J:409:ASP:O	3:J:413:VAL:HG12	2.20	0.42
3:J:574:VAL:HG12	3:J:660:ILE:HD11	2.00	0.42
3:K:115:GLU:HA	3:K:118:MET:HE1	2.02	0.42
3:K:472:PHE:CE1	3:K:925:VAL:HG21	2.54	0.42
3:L:203:ASP:OD1	3:L:204:ASP:N	2.53	0.42
3:L:572:MET:C	3:L:573:ILE:HD12	2.45	0.42
3:L:968:ARG:HB3	3:L:969:PRO:HD3	2.02	0.42
1:C:300:ARG:O	1:C:304:ILE:HG13	2.19	0.42
2:F:185:ARG:HD3	2:G:259:PHE:CE2	2.55	0.42
2:G:215:PHE:CE2	2:G:273:LEU:HB2	2.55	0.42
3:J:1:MET:HB2	3:J:2:PRO:HD3	2.02	0.42
3:J:16:ALA:HB1	3:J:490:PHE:CE2	2.53	0.42
3:K:303:GLN:O	3:K:306:GLU:HG2	2.20	0.42
3:K:491:THR:N	3:K:492:PRO:HD2	2.35	0.42
3:K:907:GLY:O	3:K:910:LEU:HG	2.19	0.42
3:L:404:ILE:O	3:L:408:VAL:HG22	2.20	0.42
3:L:453:ALA:HA	3:L:456:LEU:HB3	2.01	0.42
3:L:528:THR:HG21	3:L:964:ARG:HD2	2.01	0.42
1:A:300:ARG:HB3	1:A:365:ARG:HH11	1.85	0.41
1:C:246:ASN:HA	1:C:249:VAL:HG12	2.02	0.41
2:E:60:GLU:HG2	2:E:61:PRO:HD2	2.02	0.41
2:F:71:VAL:HB	2:F:100:PHE:CZ	2.55	0.41
2:F:339:MET:HE1	3:J:230:GLN:OE1	2.20	0.41
3:J:53:SER:OG	3:J:56:VAL:HG12	2.20	0.41
3:J:186:MET:HB3	3:J:767:VAL:HG22	2.02	0.41
3:J:353:VAL:O	3:J:357:MET:HE3	2.20	0.41
3:J:527:TYR:CE2	3:J:967:PHE:CD1	3.08	0.41
3:J:541:VAL:HG11	3:J:1019:ILE:HD13	2.01	0.41
3:L:893:ILE:HB	3:L:894:PRO:HD3	2.02	0.41
1:B:73:ASN:O	1:B:75:ARG:NH1	2.53	0.41
1:C:199:ARG:HH11	1:C:226:LEU:HB3	1.85	0.41
3:J:837:MET:HE2	3:J:837:MET:HB3	1.95	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:367:THR:O	3:K:370:PRO:HD2	2.20	0.41
3:L:19:ILE:HD13	3:L:19:ILE:HA	1.85	0.41
3:L:342:VAL:HG21	3:L:397:MET:HB3	2.01	0.41
3:L:461:MET:HE3	3:L:868:GLN:HB2	2.01	0.41
3:L:544:ILE:HD12	3:L:544:ILE:HA	1.97	0.41
1:A:226:LEU:HD13	1:A:434:ARG:HH22	1.84	0.41
1:A:308:ARG:CG	1:A:359:LEU:HD11	2.50	0.41
1:A:317:LEU:HA	1:A:342:ALA:O	2.19	0.41
1:B:102:ILE:HG23	1:C:349:ILE:HD11	2.02	0.41
1:B:173:ALA:HB3	1:B:459:ARG:HD3	2.02	0.41
2:G:39:VAL:HB	2:G:357:ILE:HG23	2.02	0.41
3:J:162:ARG:NH1	3:J:761:ALA:HB3	2.35	0.41
3:J:192:PRO:O	3:J:196:VAL:HG23	2.20	0.41
3:J:300:ASN:O	3:J:304:THR:OG1	2.27	0.41
3:J:467:VAL:O	3:J:470:GLN:HB2	2.20	0.41
3:J:901:VAL:CG1	3:J:931:ILE:HD12	2.50	0.41
3:K:352:LEU:HD13	3:K:979:LEU:HD13	2.01	0.41
3:L:23:GLY:O	3:L:27:ILE:HG13	2.20	0.41
3:L:242:LEU:HB2	3:L:248:PHE:CE1	2.55	0.41
3:L:320:PRO:HD2	3:L:323:VAL:HG11	2.01	0.41
1:B:319:GLY:HA2	1:B:340:SER:O	2.20	0.41
3:J:13:TRP:O	3:J:16:ALA:HB3	2.21	0.41
3:J:448:THR:HG21	3:J:484:GLY:HA3	2.01	0.41
3:K:57:LEU:C	3:K:62:THR:HG1	2.26	0.41
3:K:239:LYS:O	3:K:239:LYS:HG3	2.20	0.41
3:K:933:LEU:HD13	3:K:933:LEU:HA	1.81	0.41
3:L:45:VAL:HG22	3:L:129:THR:HG22	2.01	0.41
1:A:217:ALA:HB2	2:E:135:ASP:HB3	2.02	0.41
1:C:412:MET:HE1	1:C:433:GLN:N	2.35	0.41
2:D:222:ALA:O	2:D:226:ARG:HG3	2.20	0.41
2:G:54:GLU:HG2	2:G:293:ARG:HG2	2.02	0.41
2:G:165:THR:O	2:G:168:LEU:HG	2.20	0.41
2:I:291:ARG:HH22	3:J:730:GLU:HB2	1.86	0.41
3:K:881:PHE:O	3:K:885:VAL:HG12	2.19	0.41
3:L:455:PHE:HZ	3:L:929:THR:HA	1.85	0.41
3:L:981:VAL:CB	3:L:1003:LEU:HD21	2.48	0.41
1:C:199:ARG:HG3	1:C:230:ALA:CB	2.50	0.41
1:C:300:ARG:HG3	1:C:369:ALA:HB2	2.02	0.41
3:K:474:LEU:HD23	3:K:474:LEU:HA	1.89	0.41
3:K:592:GLY:O	3:K:595:GLU:HG2	2.21	0.41
3:K:754:VAL:HG13	3:K:766:ARG:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:984:LEU:HD23	3:K:984:LEU:HA	1.90	0.41
3:L:400:MET:HE2	3:L:400:MET:HB3	1.83	0.41
3:L:477:ALA:O	3:L:480:ILE:HG22	2.21	0.41
3:L:561:GLU:O	3:L:832:SER:OG	2.35	0.41
3:L:1016:PHE:HB3	3:L:1020:PHE:CZ	2.56	0.41
1:B:94:GLN:CD	1:B:149:LEU:HD13	2.43	0.41
2:D:233:LYS:HZ2	2:D:233:LYS:C	2.20	0.41
2:F:342:SER:HB3	3:J:229:GLU:O	2.20	0.41
2:H:317:GLN:NE2	2:H:333:GLN:HB3	2.36	0.41
2:H:342:SER:HB3	3:K:229:GLU:O	2.20	0.41
3:J:38:VAL:HG23	3:J:464:SER:HB3	2.02	0.41
3:J:48:THR:O	3:J:122:VAL:HG23	2.20	0.41
3:L:32:VAL:HG13	3:L:392:VAL:CG1	2.42	0.41
3:L:576:ILE:HG13	3:L:660:ILE:HD13	2.03	0.41
3:L:754:VAL:HG13	3:L:766:ARG:HB3	2.02	0.41
1:A:358:ASN:N	1:C:93:ILE:HD11	2.36	0.41
1:B:315:ILE:HA	1:B:344:THR:O	2.20	0.41
1:C:322:GLY:O	1:C:337:ARG:HA	2.21	0.41
1:C:418:ARG:NE	1:C:424:ASP:OD2	2.53	0.41
2:F:196:GLN:HE21	2:G:70:ARG:HE	1.69	0.41
3:J:140:TYR:CE1	3:J:291:ALA:HB3	2.56	0.41
3:J:194:LYS:HD3	3:J:267:VAL:HA	2.03	0.41
3:J:868:GLN:HG2	3:J:871:MET:HE1	2.03	0.41
1:B:102:ILE:HD12	1:B:134:GLY:C	2.46	0.41
1:C:261:LEU:HD12	1:C:261:LEU:O	2.21	0.41
2:D:61:PRO:HD3	2:D:286:PRO:HB3	2.03	0.41
2:E:321:MET:CE	2:E:361:LEU:HB3	2.50	0.41
2:E:336:THR:HB	2:E:344:TRP:HD1	1.86	0.41
2:F:323:LEU:HB2	2:F:357:ILE:HD11	2.03	0.41
2:G:39:VAL:HG13	2:G:370:VAL:HG11	2.03	0.41
2:H:68:ARG:HG2	2:H:201:LEU:HA	2.02	0.41
2:I:70:ARG:NH2	2:I:172:TYR:CE2	2.88	0.41
3:J:188:VAL:HB	3:J:769:VAL:HG22	2.03	0.41
3:J:231:GLU:HA	3:K:583:THR:OG1	2.21	0.41
3:J:455:PHE:CZ	3:J:929:THR:HA	2.55	0.41
3:J:725:LEU:HD12	3:L:238:VAL:HG22	2.02	0.41
3:J:872:LEU:HD23	3:J:872:LEU:C	2.46	0.41
3:K:35:TYR:HD1	3:K:395:MET:CE	2.34	0.41
3:K:115:GLU:HA	3:K:118:MET:CE	2.51	0.41
3:K:420:ARG:CD	3:K:966:ARG:HH12	2.34	0.41
3:K:527:TYR:OH	3:K:963:ALA:HB1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:679:LEU:HD11	3:K:853:TYR:CD1	2.56	0.41
3:K:684:ARG:HD2	3:K:852:GLY:HA3	2.03	0.41
3:K:785:LEU:HD23	3:K:785:LEU:HA	1.93	0.41
3:L:140:TYR:CZ	3:L:291:ALA:HB3	2.56	0.41
3:L:212:GLN:OE1	3:L:251:ILE:HG23	2.21	0.41
3:L:262:LEU:HD12	3:L:262:LEU:HA	1.92	0.41
3:L:302:ILE:HD12	3:L:302:ILE:HA	1.86	0.41
3:L:420:ARG:HD2	3:L:966:ARG:HH22	1.86	0.41
3:L:447:ILE:HG21	3:L:936:LYS:HE2	2.02	0.41
3:L:573:ILE:HG21	3:L:615:PHE:CE1	2.56	0.41
3:L:703:VAL:HG13	3:L:709:PHE:CD2	2.56	0.41
3:L:776:ARG:HG3	3:L:777:MET:HE3	2.03	0.41
3:L:1003:LEU:HA	3:L:1003:LEU:HD22	1.77	0.41
2:D:68:ARG:HG2	2:D:201:LEU:HA	2.02	0.41
2:G:109:GLY:O	2:H:154:ALA:HB1	2.21	0.41
2:I:40:ASP:O	2:I:357:ILE:HA	2.21	0.41
3:J:474:LEU:HD23	3:J:474:LEU:HA	1.90	0.41
3:J:480:ILE:HD12	3:J:480:ILE:HA	1.84	0.41
3:J:679:LEU:HD11	3:J:853:TYR:CD1	2.55	0.41
3:J:968:ARG:HB3	3:J:969:PRO:HD3	2.02	0.41
3:K:177:LEU:HD12	3:K:177:LEU:N	2.36	0.41
3:K:472:PHE:HD2	3:K:472:PHE:O	2.04	0.41
1:B:246:ASN:O	1:B:249:VAL:HG12	2.21	0.40
3:J:395:MET:H	3:J:395:MET:HG2	1.68	0.40
3:J:451:LEU:HA	3:J:454:VAL:HG12	2.02	0.40
3:J:578:LEU:HD11	3:J:587:THR:HA	2.03	0.40
3:J:978:MET:HE1	3:J:1007:LEU:CB	2.42	0.40
3:K:186:MET:HB3	3:K:767:VAL:HG22	2.03	0.40
3:K:198:TYR:CG	3:K:262:LEU:HD21	2.57	0.40
3:K:237:THR:O	3:K:237:THR:HG23	2.22	0.40
3:K:959:ALA:HB2	3:K:1021:PHE:CE2	2.56	0.40
3:L:509:LYS:HB3	3:L:514:GLY:HA2	2.03	0.40
3:L:679:LEU:HB2	3:L:855:TRP:CZ3	2.56	0.40
3:L:681:LEU:HD22	3:L:852:GLY:O	2.21	0.40
3:L:894:PRO:O	3:L:898:MET:HG3	2.20	0.40
1:B:100:PRO:HB3	1:B:138:TYR:CD2	2.56	0.40
1:B:177:GLN:HE22	1:B:459:ARG:HH22	1.68	0.40
1:B:350:PHE:CZ	1:B:352:GLY:HA2	2.57	0.40
2:F:285:LEU:HD22	2:G:262:ILE:HG23	2.03	0.40
2:F:317:GLN:NE2	2:F:333:GLN:HB3	2.36	0.40
3:J:34:GLN:CG	3:J:394:MET:SD	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:344:MET:SD	3:J:344:MET:C	3.04	0.40
3:K:560:PRO:O	3:K:919:ASN:N	2.45	0.40
3:L:395:MET:SD	3:L:471:GLN:HB2	2.60	0.40
3:L:711:TYR:CD2	3:L:713:MET:SD	3.15	0.40
2:F:309:ALA:HA	2:F:361:LEU:HD11	2.02	0.40
3:J:447:ILE:HG23	3:J:451:LEU:HD23	2.03	0.40
3:J:509:LYS:HD2	3:J:513:PHE:HB2	2.02	0.40
3:J:527:TYR:CD1	3:J:527:TYR:C	2.99	0.40
3:J:551:LEU:HD22	3:J:551:LEU:HA	1.84	0.40
3:K:43:ILE:HD13	3:K:43:ILE:HA	1.89	0.40
3:K:447:ILE:O	3:K:448:THR:C	2.64	0.40
3:K:840:LEU:O	3:K:840:LEU:HD23	2.22	0.40
3:K:888:TYR:OH	3:K:939:ILE:HG13	2.21	0.40
3:L:436:ALA:O	3:L:440:VAL:HG22	2.21	0.40
1:A:113:LEU:HB2	1:A:114:PRO:HD3	2.04	0.40
1:B:298:LYS:HD2	1:B:298:LYS:HA	1.83	0.40
2:F:68:ARG:HG2	2:F:201:LEU:HA	2.02	0.40
3:J:311:ARG:HD2	3:J:311:ARG:HA	1.90	0.40
3:J:359:LEU:HD11	3:J:516:PHE:CZ	2.57	0.40
3:J:546:LEU:HA	3:J:549:VAL:HG12	2.04	0.40
3:J:887:LEU:HD12	3:J:888:TYR:CD2	2.57	0.40
3:K:410:ASP:OD1	3:K:410:ASP:N	2.54	0.40
3:L:515:TRP:CD1	3:L:515:TRP:C	3.00	0.40
3:L:695:ALA:O	3:L:699:VAL:HG13	2.21	0.40
3:L:912:VAL:HG23	3:L:917:LEU:HB2	2.03	0.40
1:C:91:TYR:OH	1:C:95:ARG:NH1	2.53	0.40
1:C:316:SER:O	1:C:343:PRO:HA	2.22	0.40
2:D:154:ALA:HB1	2:I:109:GLY:O	2.21	0.40
2:F:365:ARG:HA	2:F:365:ARG:HD3	1.75	0.40
2:G:208:LEU:CD1	2:H:262:ILE:HG12	2.50	0.40
3:J:125:LEU:HA	3:J:125:LEU:HD23	1.76	0.40
3:J:169:ARG:NH2	3:J:177:LEU:HD23	2.36	0.40
3:J:170:ARG:O	3:J:170:ARG:HG3	2.21	0.40
3:K:224:THR:OG1	3:L:620:GLU:OE2	2.39	0.40
3:K:400:MET:HE2	3:K:400:MET:HB3	1.78	0.40
3:K:563:PHE:O	3:K:921:VAL:HG13	2.21	0.40
3:K:912:VAL:HG23	3:K:917:LEU:HB2	2.04	0.40
3:L:855:TRP:HB3	3:L:859:SER:CB	2.52	0.40
3:L:882:LEU:HD13	3:L:882:LEU:HA	1.94	0.40
3:L:940:LEU:HD12	3:L:970:ILE:HG13	2.04	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	400/483 (83%)	391 (98%)	8 (2%)	1 (0%)	37	68
1	B	400/483 (83%)	392 (98%)	7 (2%)	1 (0%)	37	68
1	C	400/483 (83%)	391 (98%)	9 (2%)	0	100	100
2	D	336/395 (85%)	332 (99%)	4 (1%)	0	100	100
2	E	336/395 (85%)	331 (98%)	5 (2%)	0	100	100
2	F	336/395 (85%)	331 (98%)	5 (2%)	0	100	100
2	G	336/395 (85%)	331 (98%)	5 (2%)	0	100	100
2	H	336/395 (85%)	332 (99%)	4 (1%)	0	100	100
2	I	336/395 (85%)	329 (98%)	7 (2%)	0	100	100
3	J	1030/1044 (99%)	1009 (98%)	20 (2%)	1 (0%)	48	79
3	K	1030/1044 (99%)	1008 (98%)	21 (2%)	1 (0%)	48	79
3	L	1030/1044 (99%)	1009 (98%)	19 (2%)	2 (0%)	44	74
All	All	6306/6951 (91%)	6186 (98%)	114 (2%)	6 (0%)	50	79

All (6) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	343	PRO
1	B	343	PRO
3	J	752	SER
3	K	752	SER
3	L	752	SER
3	L	708	LYS

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	310/368 (84%)	298 (96%)	12 (4%)	27	59
1	B	310/368 (84%)	302 (97%)	8 (3%)	41	70
1	C	310/368 (84%)	303 (98%)	7 (2%)	45	73
2	D	259/308 (84%)	256 (99%)	3 (1%)	67	85
2	E	259/308 (84%)	254 (98%)	5 (2%)	52	77
2	F	259/308 (84%)	256 (99%)	3 (1%)	67	85
2	G	259/308 (84%)	255 (98%)	4 (2%)	60	82
2	H	259/308 (84%)	257 (99%)	2 (1%)	79	90
2	I	259/308 (84%)	255 (98%)	4 (2%)	60	82
3	J	828/839 (99%)	785 (95%)	43 (5%)	19	50
3	K	828/839 (99%)	788 (95%)	40 (5%)	21	53
3	L	828/839 (99%)	793 (96%)	35 (4%)	25	57
All	All	4968/5469 (91%)	4802 (97%)	166 (3%)	35	64

All (166) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	77	LEU
1	A	126	THR
1	A	140	VAL
1	A	200	MET
1	A	249	VAL
1	A	264	THR
1	A	283	LEU
1	A	341	PHE
1	A	349	ILE
1	A	372	ASP
1	A	381	PHE
1	A	456	ASP
1	B	140	VAL
1	B	142	LEU
1	B	249	VAL
1	B	261	LEU
1	B	304	ILE
1	B	344	THR

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Mol	Chain	Res	Type
1	B	349	ILE
1	B	437	PHE
1	C	91	TYR
1	C	126	THR
1	C	191	LEU
1	C	202	SER
1	C	349	ILE
1	C	359	LEU
1	C	372	ASP
2	D	208	LEU
2	D	291	ARG
2	D	294	THR
2	E	135	ASP
2	E	226	ARG
2	E	245	ARG
2	E	325	GLU
2	E	339	MET
2	F	208	LEU
2	F	238	SER
2	F	294	THR
2	G	41	VAL
2	G	46	THR
2	G	135	ASP
2	G	288	MET
2	H	208	LEU
2	H	308	ARG
2	I	46	THR
2	I	129	GLU
2	I	135	ASP
2	I	335	THR
3	J	21	LEU
3	J	32	VAL
3	J	38	VAL
3	J	57	LEU
3	J	58	THR
3	J	76	LEU
3	J	99	ASP
3	J	105	VAL
3	J	153	THR
3	J	166	ASN
3	J	174	VAL
3	J	205	VAL

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Mol	Chain	Res	Type
3	J	227	SER
3	J	228	SER
3	J	232	LEU
3	J	233	THR
3	J	264	LEU
3	J	272	VAL
3	J	281	SER
3	J	302	ILE
3	J	316	SER
3	J	327	VAL
3	J	346	LEU
3	J	351	VAL
3	J	384	PHE
3	J	387	LEU
3	J	396	THR
3	J	402	LEU
3	J	456	LEU
3	J	465	VAL
3	J	510	THR
3	J	534	LEU
3	J	546	LEU
3	J	551	LEU
3	J	757	ASP
3	J	877	ILE
3	J	882	LEU
3	J	884	LEU
3	J	885	VAL
3	J	903	VAL
3	J	975	MET
3	J	1003	LEU
3	J	1008	SER
3	K	21	LEU
3	K	32	VAL
3	K	43	ILE
3	K	102	LEU
3	K	111	LEU
3	K	136	PHE
3	K	153	THR
3	K	166	ASN
3	K	171	LEU
3	K	215	GLN
3	K	224	THR

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Mol	Chain	Res	Type
3	K	227	SER
3	K	228	SER
3	K	232	LEU
3	K	272	VAL
3	K	321	ASP
3	K	327	VAL
3	K	346	LEU
3	K	351	VAL
3	K	387	LEU
3	K	400	MET
3	K	409	ASP
3	K	412	ILE
3	K	546	LEU
3	K	548	VAL
3	K	550	VAL
3	K	551	LEU
3	K	715	GLU
3	K	743	SER
3	K	757	ASP
3	K	871	MET
3	K	877	ILE
3	K	884	LEU
3	K	897	VAL
3	K	903	VAL
3	K	933	LEU
3	K	940	LEU
3	K	979	LEU
3	K	1008	SER
3	K	1012	LEU
3	L	21	LEU
3	L	38	VAL
3	L	56	VAL
3	L	76	LEU
3	L	102	LEU
3	L	136	PHE
3	L	153	THR
3	L	171	LEU
3	L	205	VAL
3	L	228	SER
3	L	272	VAL
3	L	281	SER
3	L	343	ILE

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Mol	Chain	Res	Type
3	L	346	LEU
3	L	351	VAL
3	L	391	SER
3	L	407	LEU
3	L	480	ILE
3	L	485	PHE
3	L	510	THR
3	L	546	LEU
3	L	548	VAL
3	L	551	LEU
3	L	708	LYS
3	L	715	GLU
3	L	737	VAL
3	L	743	SER
3	L	757	ASP
3	L	875	LEU
3	L	887	LEU
3	L	903	VAL
3	L	998	LEU
3	L	1006	MET
3	L	1008	SER
3	L	1028	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (48) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	94	GLN
1	A	273	GLN
1	A	439	ASN
1	A	451	GLN
1	B	273	GLN
1	B	451	GLN
1	C	194	GLN
1	C	273	GLN
1	C	451	GLN
2	D	120	GLN
2	D	299	ASN
2	E	140	GLN
2	E	206	GLN
2	E	217	GLN
2	E	296	GLN
2	E	333	GLN

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Mol	Chain	Res	Type
2	F	206	GLN
2	F	270	GLN
2	G	217	GLN
2	G	296	GLN
2	I	311	GLN
2	I	333	GLN
3	J	34	GLN
3	J	70	ASN
3	J	108	GLN
3	J	163	ASN
3	J	393	ASN
3	J	651	HIS
3	J	654	ASN
3	J	773	GLN
3	K	70	ASN
3	K	95	GLN
3	K	109	ASN
3	K	152	ASN
3	K	163	ASN
3	K	178	GLN
3	K	213	ASN
3	K	770	GLN
3	K	773	GLN
3	K	861	GLN
3	L	42	GLN
3	L	108	GLN
3	L	109	ASN
3	L	128	GLN
3	L	318	ASN
3	L	682	GLN
3	L	770	GLN
3	L	773	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)

There are no ligands in this entry.

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.

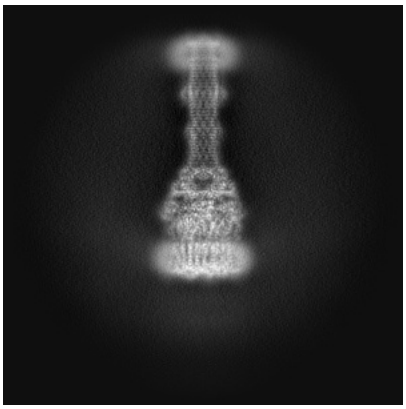
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-61114. These allow visual inspection of the internal detail of the map and identification of artifacts.

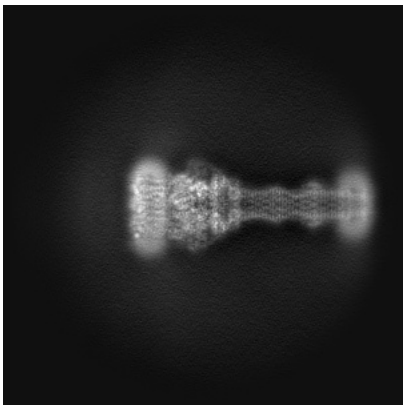
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

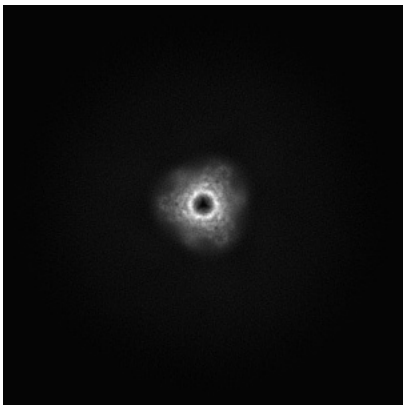
6.1.1 Primary map



X

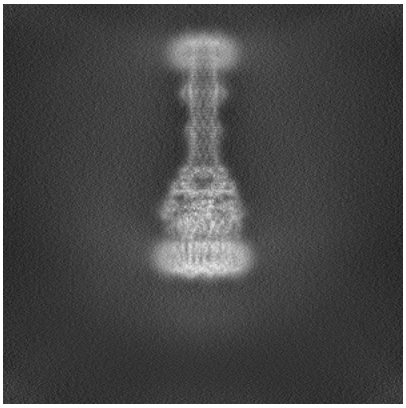


Y

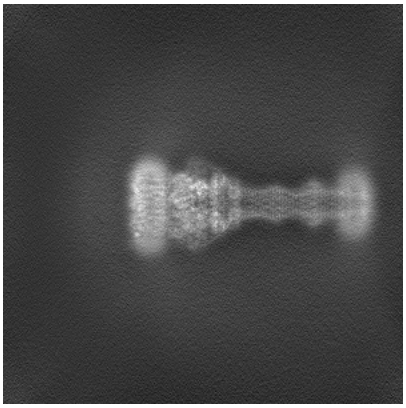


Z

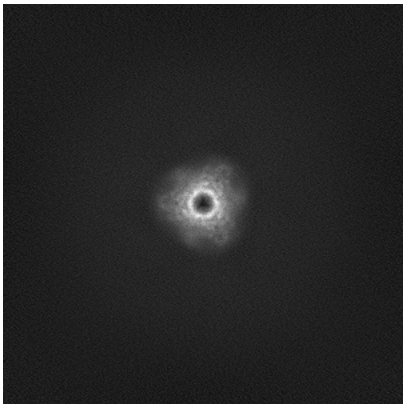
6.1.2 Raw map



X



Y

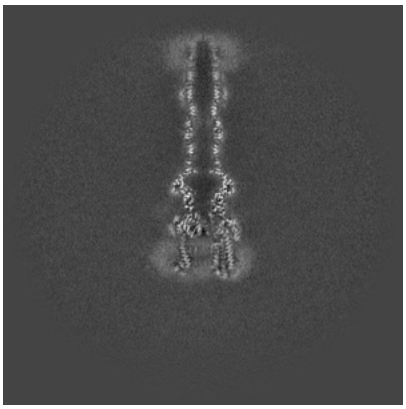


Z

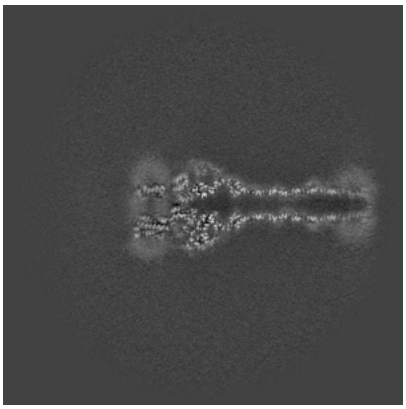
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

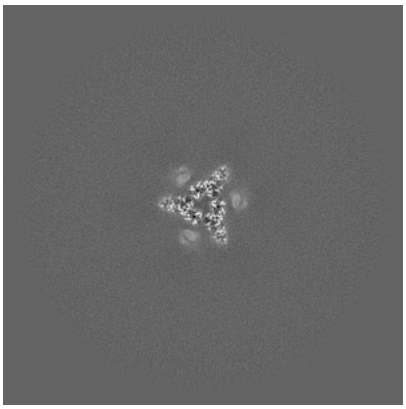
6.2.1 Primary map



X Index: 300

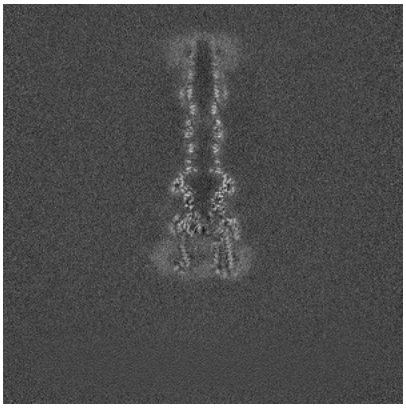


Y Index: 300

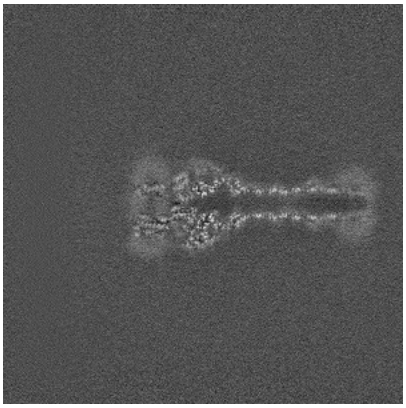


Z Index: 300

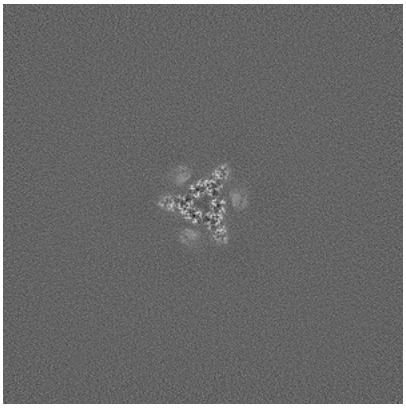
6.2.2 Raw map



X Index: 300



Y Index: 300

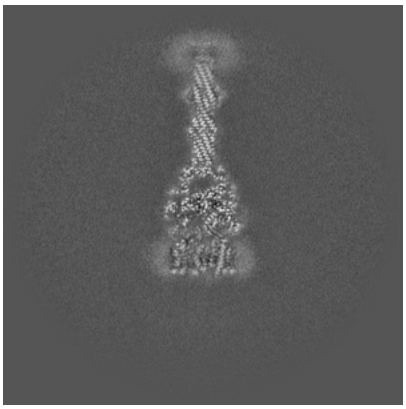


Z Index: 300

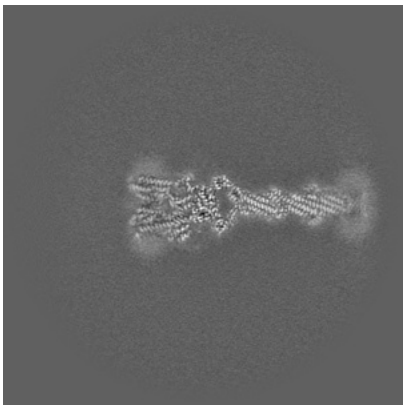
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

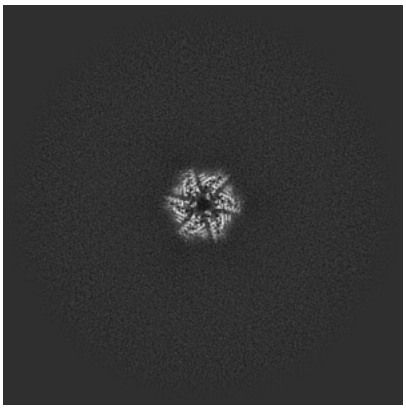
6.3.1 Primary map



X Index: 318

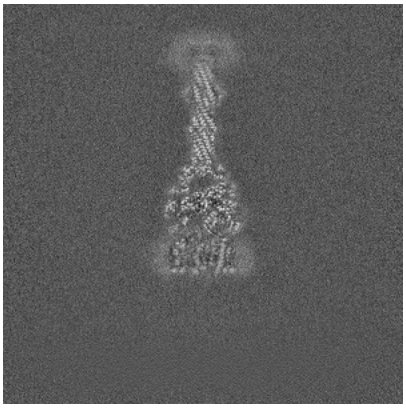


Y Index: 282

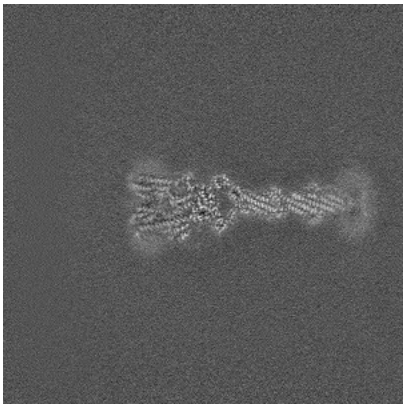


Z Index: 319

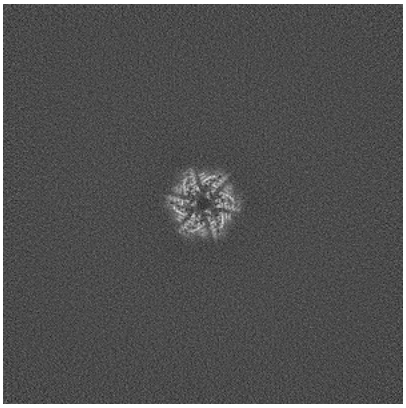
6.3.2 Raw map



X Index: 318



Y Index: 282

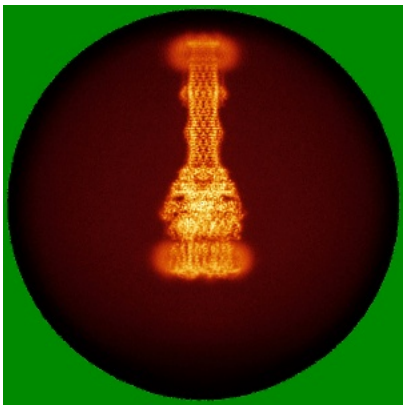


Z Index: 319

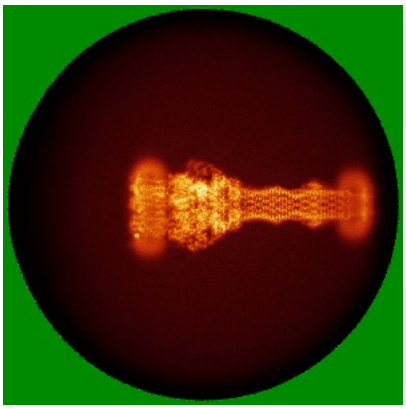
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

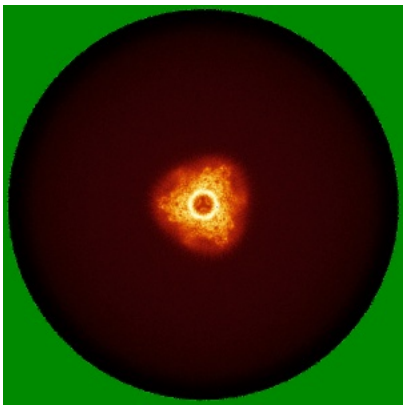
6.4.1 Primary map



X

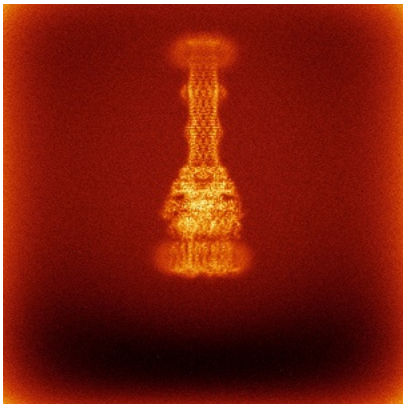


Y

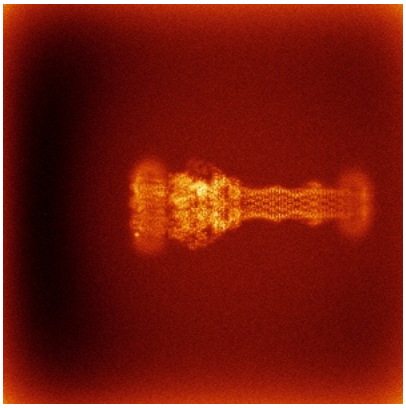


Z

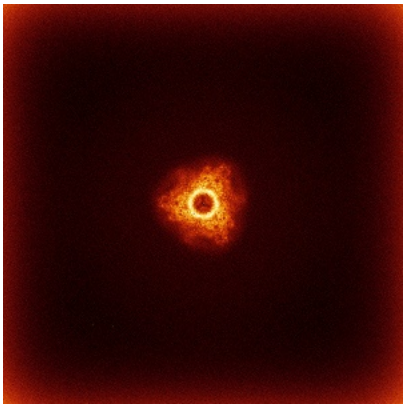
6.4.2 Raw map



X



Y

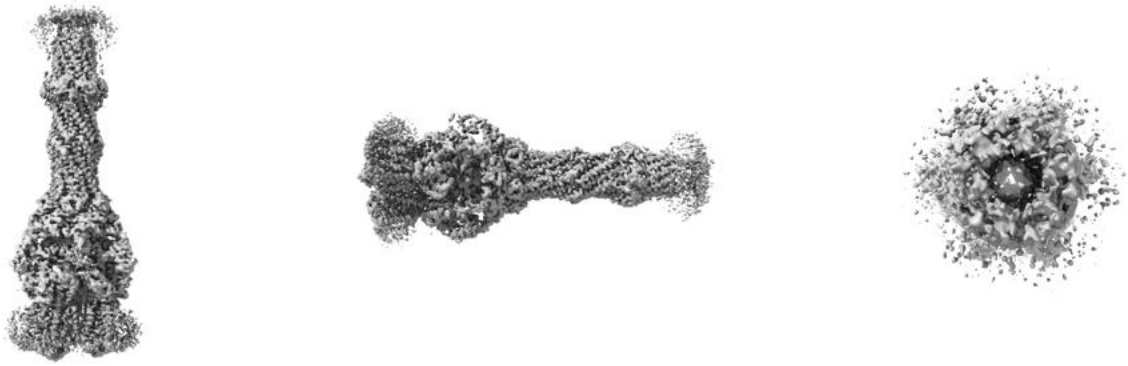


Z

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



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.3. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map

X Y Z

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.

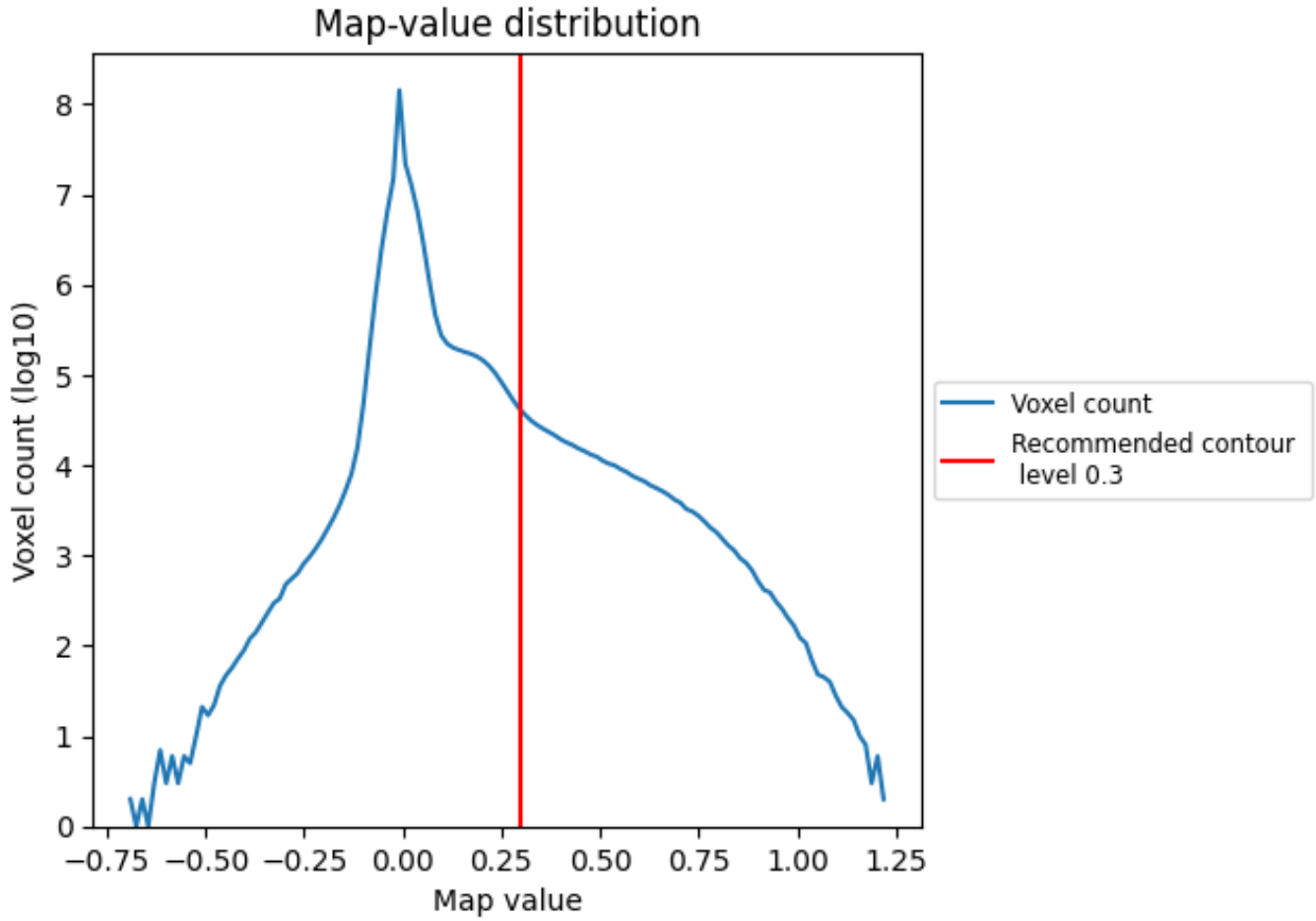
6.6 Mask visualisation (i)

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

7 Map analysis

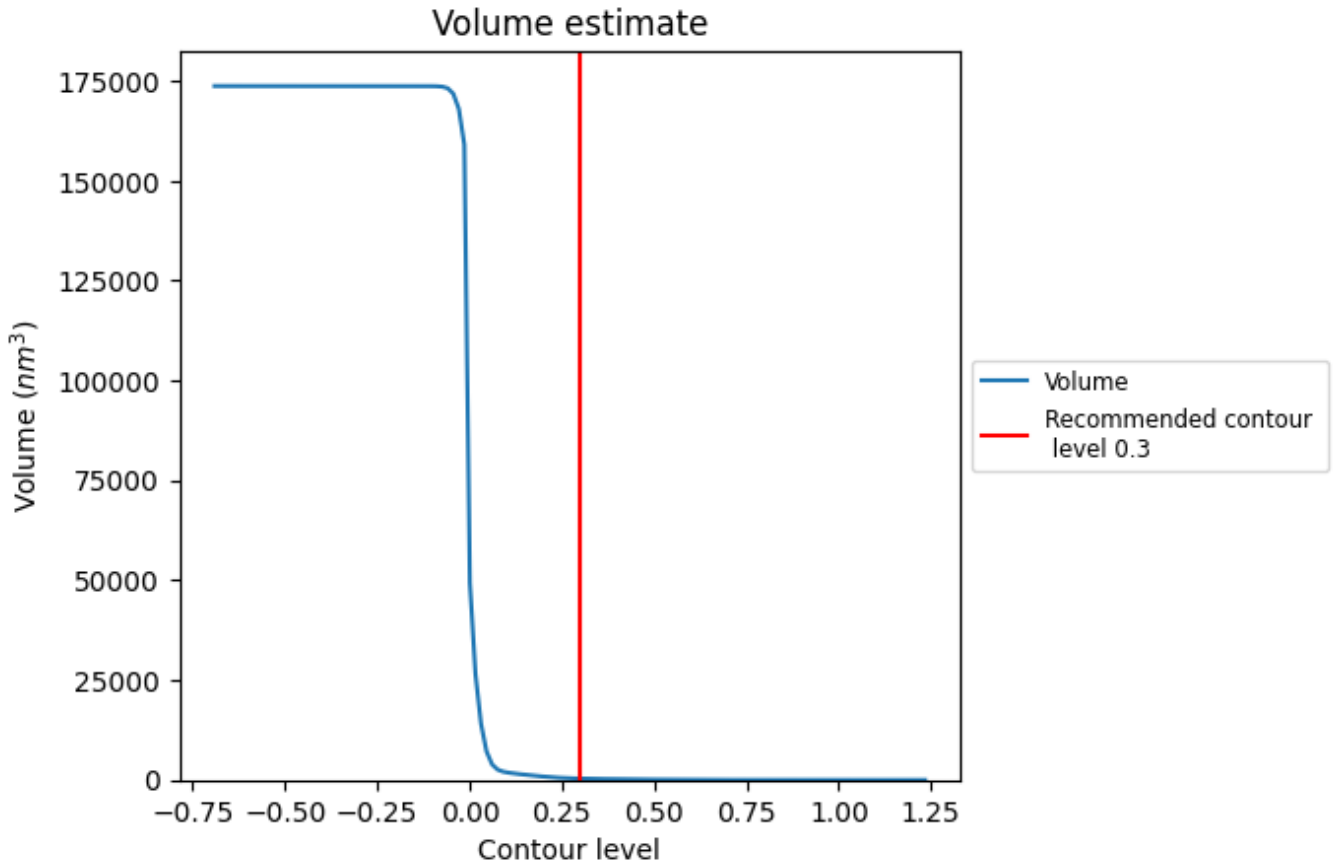
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

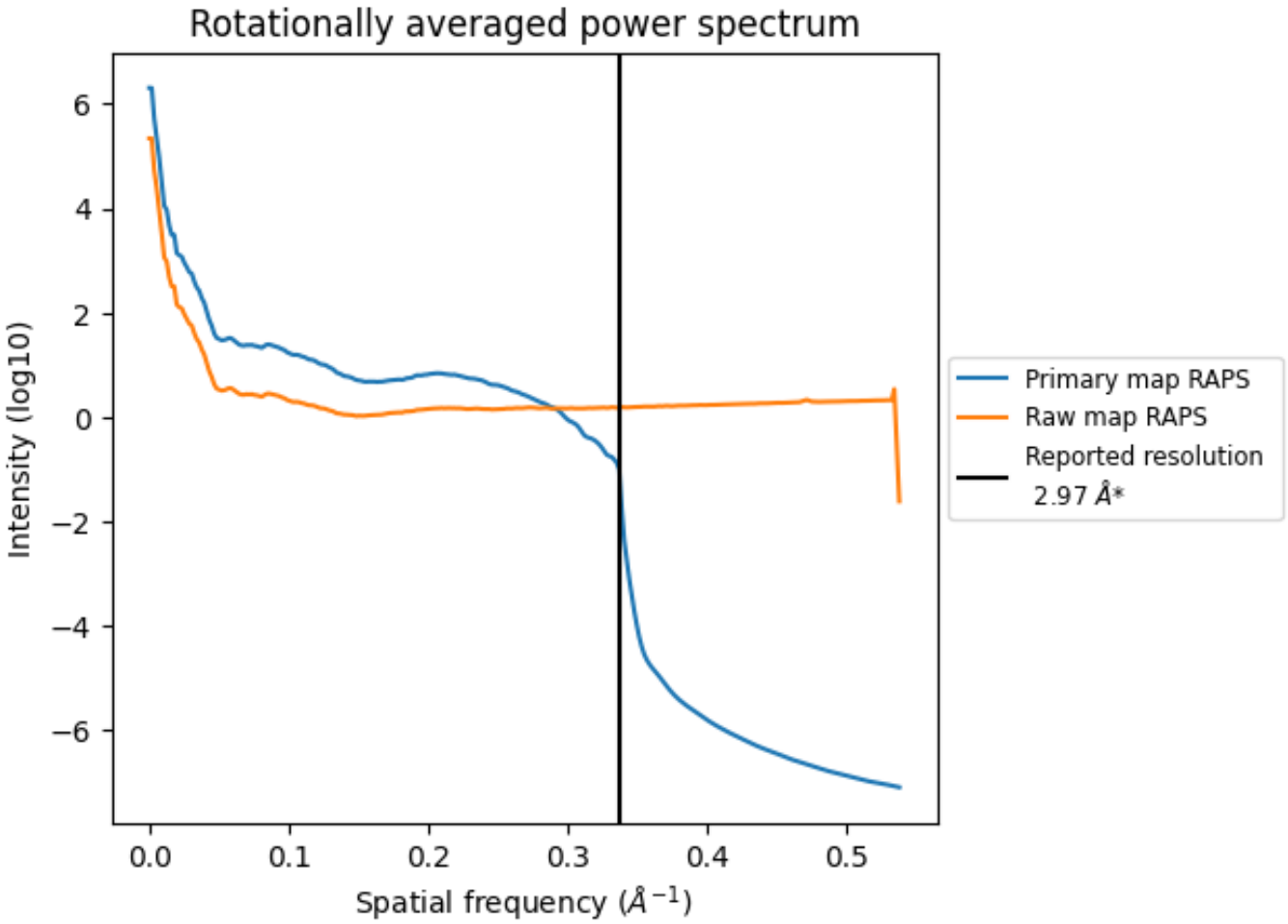
7.2 Volume estimate



The volume at the recommended contour level is 343 nm^3; this corresponds to an approximate mass of 310 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)

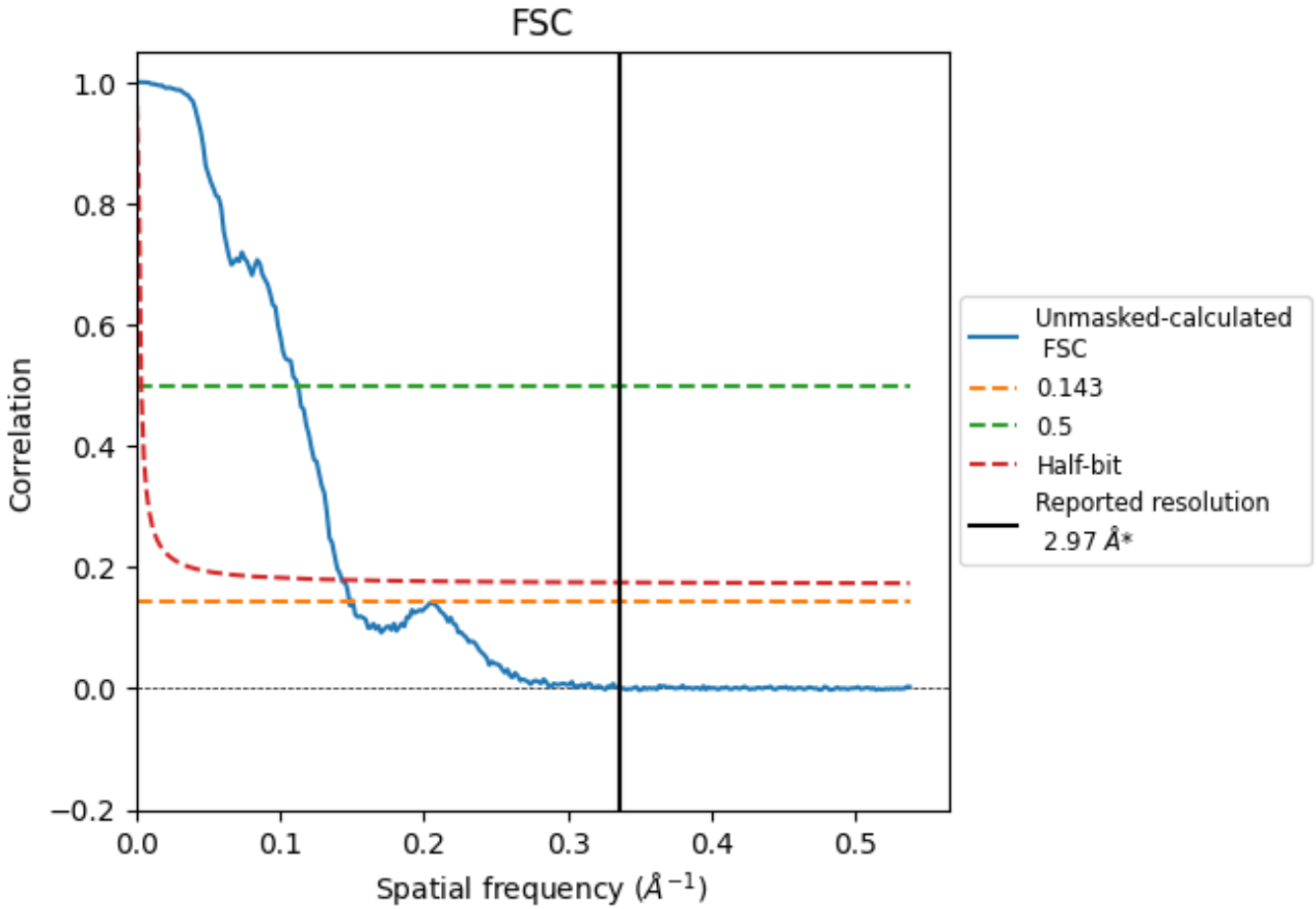


*Reported resolution corresponds to spatial frequency of 0.337 Å^{-1}

8 Fourier-Shell correlation

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



*Reported resolution corresponds to spatial frequency of 0.337 Å^{-1}

8.2 Resolution estimates (i)

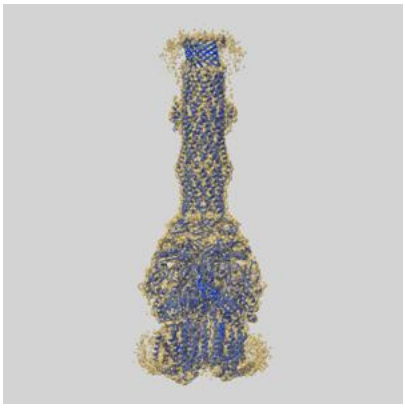
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.97	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	6.74	8.90	7.00

*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 6.74 differs from the reported value 2.97 by more than 10 %

9 Map-model fit

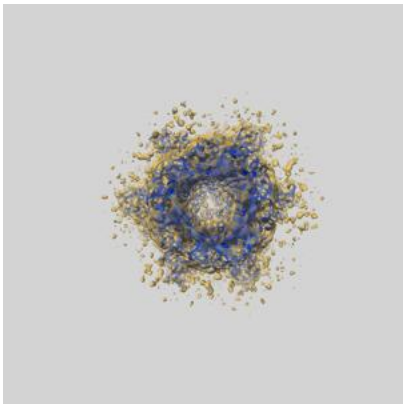
This section contains information regarding the fit between EMDB map EMD-61114 and PDB model 9J3D. Per-residue inclusion information can be found in section 3 on page 7.

9.1 Map-model overlay



X

Y



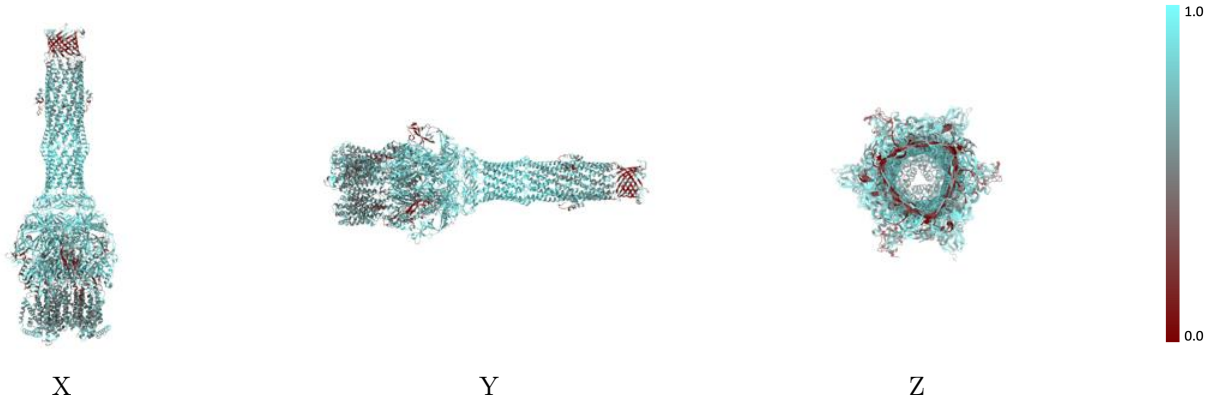
Z

The images above show the 3D surface view of the map at the recommended contour level 0.3 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)

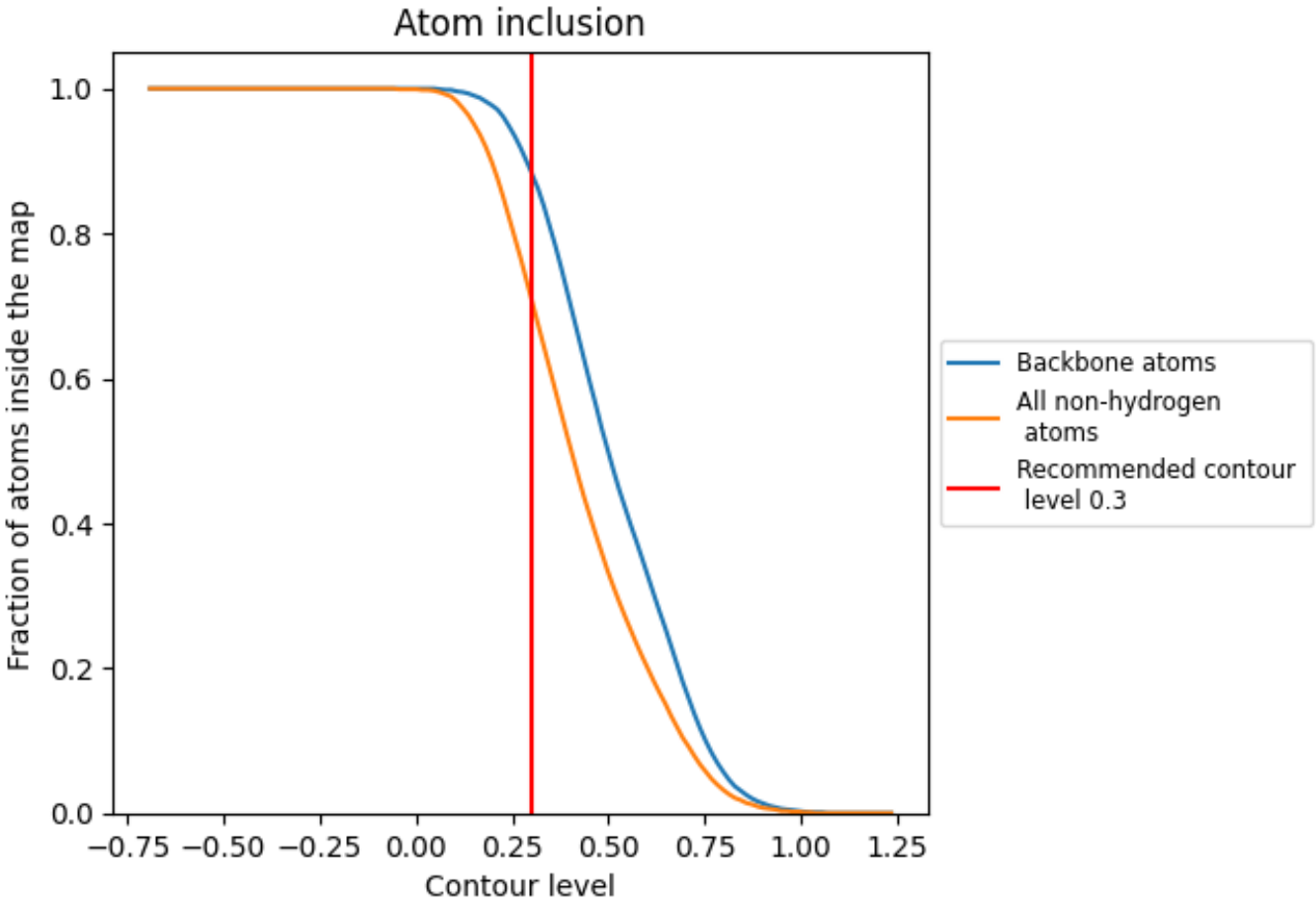
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.3).

9.4 Atom inclusion (i)



At the recommended contour level, 88% of all backbone atoms, 71% 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 (0.3) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7090	0.4040
A	0.6510	0.3640
B	0.6480	0.3680
C	0.6460	0.3680
D	0.8390	0.4760
E	0.7060	0.4240
F	0.8440	0.4770
G	0.7010	0.4210
H	0.8410	0.4740
I	0.7050	0.4210
J	0.6920	0.3910
K	0.6900	0.3900
L	0.6910	0.3900