



Full wwPDB EM Validation Report ⓘ

Mar 27, 2026 – 02:08 AM UTC

PDB ID : 5ND3 / pdb_00005nd3
EMDB ID : EMD-3621
Title : Microtubule-bound MKLP2 motor domain in the with no nucleotide
Authors : Atherton, J.; Yu, I.M.; Cook, A.; Muretta, J.M.; Joseph, A.P.; Major, J.; Sourigues, Y.; Clause, J.; Topf, M.; Rosenfeld, S.S.; Houdusse, A.; Moores, C.A.
Deposited on : 2017-03-07
Resolution : 6.10 Å(reported)

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

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

A user guide is available at

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

The types of validation reports are described at

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

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

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

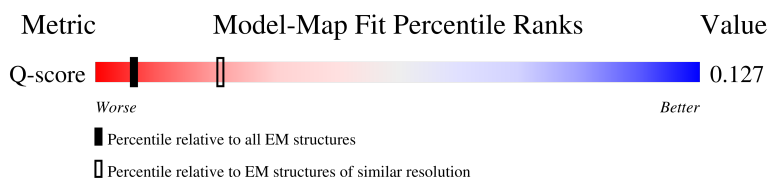
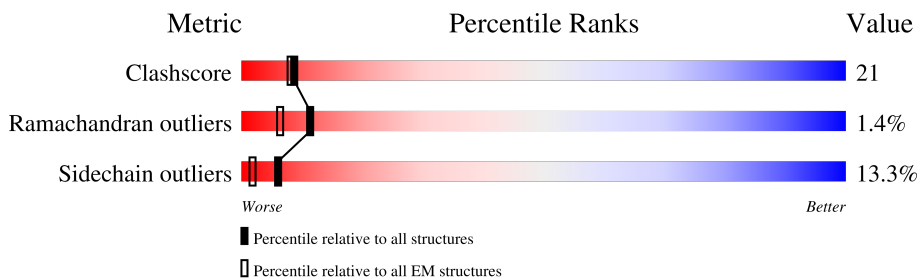
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 6.10 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	1-C	501	
1	2-C	501	
1	3-C	501	
1	4-C	501	

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Mol	Chain	Length	Quality of chain
1	5-C	501	
2	1-A	451	
2	2-A	451	
2	3-A	451	
2	4-A	451	
2	5-A	451	
3	1-B	445	
3	2-B	445	
3	3-B	445	
3	4-B	445	
3	5-B	445	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
4	GTP	1-A	500	-	-	X	-
4	GTP	2-A	500	-	-	X	-
4	GTP	3-A	500	-	-	X	-
4	GTP	4-A	500	-	-	X	-
4	GTP	5-A	500	-	-	X	-
6	GDP	1-B	600	-	-	X	-
6	GDP	2-B	600	-	-	X	-
6	GDP	3-B	600	-	-	X	-
6	GDP	4-B	600	-	-	X	-
6	GDP	5-B	600	-	-	X	-

2 Entry composition

There are 7 unique types of molecules in this entry. The entry contains 45371 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 Kinesin-like protein KIF20A.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	1-C	296	Total	C	N	O	S	0	0
			2375	1508	420	436	11		
1	2-C	296	Total	C	N	O	S	0	0
			2375	1508	420	436	11		
1	3-C	295	Total	C	N	O	S	0	0
			2366	1502	418	435	11		
1	4-C	296	Total	C	N	O	S	0	0
			2375	1508	420	436	11		
1	5-C	296	Total	C	N	O	S	0	0
			2375	1508	420	436	11		

- Molecule 2 is a protein called Tubulin alpha chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	1-A	412	Total	C	N	O	S	0	0
			3227	2043	551	613	20		
2	2-A	412	Total	C	N	O	S	0	0
			3227	2043	551	613	20		
2	3-A	412	Total	C	N	O	S	0	0
			3227	2043	551	613	20		
2	4-A	412	Total	C	N	O	S	0	0
			3227	2043	551	613	20		
2	5-A	412	Total	C	N	O	S	0	0
			3227	2043	551	613	20		

There are 3 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	136	SER	LEU	conflict	UNP F2Z4C1
A	265	GLY	ILE	conflict	UNP F2Z4C1
A	358	GLU	GLN	conflict	UNP F2Z4C1

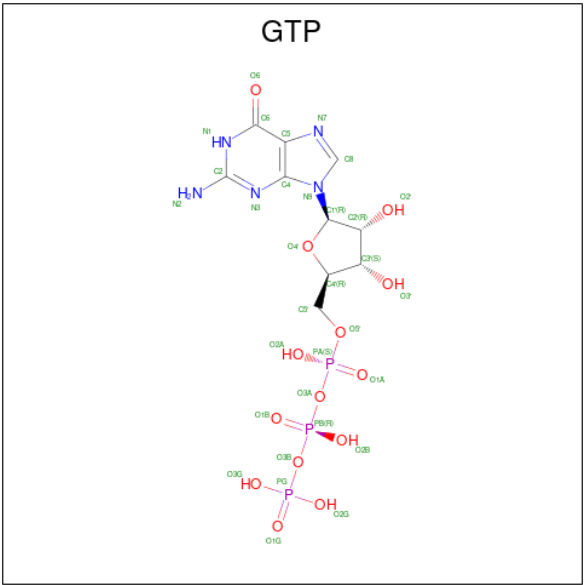
- Molecule 3 is a protein called Tubulin beta-2B chain.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	1-B	426	Total	C	N	O	S	0	0
			3351	2105	575	646	25		
3	2-B	426	Total	C	N	O	S	0	0
			3351	2105	575	646	25		
3	3-B	426	Total	C	N	O	S	0	0
			3351	2105	575	646	25		
3	4-B	426	Total	C	N	O	S	0	0
			3351	2105	575	646	25		
3	5-B	426	Total	C	N	O	S	0	0
			3351	2105	575	646	25		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	57	ALA	THR	conflict	UNP Q6B856
B	172	VAL	MET	conflict	UNP Q6B856
B	298	ALA	SER	conflict	UNP Q6B856
B	318	VAL	ILE	conflict	UNP Q6B856

- Molecule 4 is GUANOSINE-5'-TRIPHOSPHATE (CCD ID: GTP) (formula: C₁₀H₁₆N₅O₁₄P₃).



Mol	Chain	Residues	Atoms					AltConf
4	1-A	1	Total	C	N	O	P	0
			32	10	5	14	3	
4	2-A	1	Total	C	N	O	P	0
			32	10	5	14	3	
4	3-A	1	Total	C	N	O	P	0
			32	10	5	14	3	

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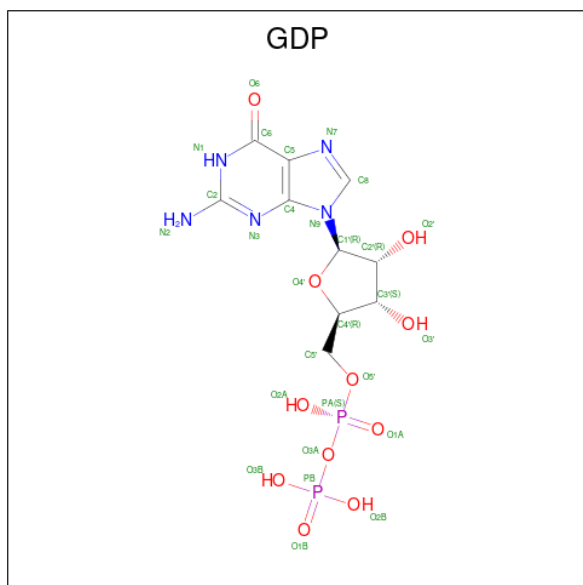
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Mol	Chain	Residues	Atoms					AltConf
4	4-A	1	Total	C	N	O	P	0
			32	10	5	14	3	
4	5-A	1	Total	C	N	O	P	0
			32	10	5	14	3	

- Molecule 5 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
5	1-A	1	Total	Mg	0
			1	1	
5	2-A	1	Total	Mg	0
			1	1	
5	3-A	1	Total	Mg	0
			1	1	
5	4-A	1	Total	Mg	0
			1	1	
5	5-A	1	Total	Mg	0
			1	1	

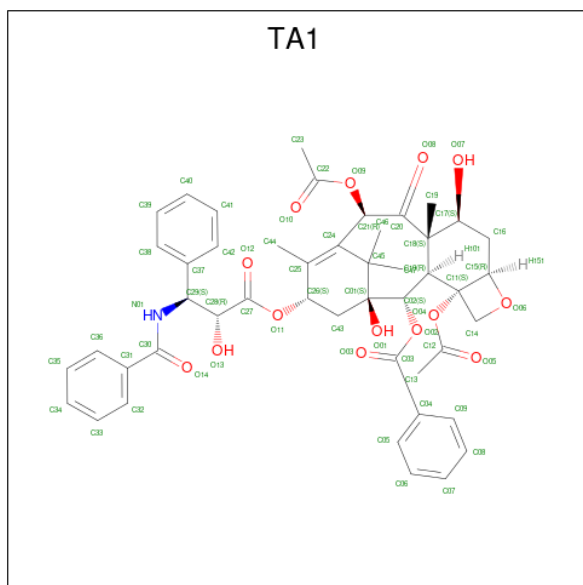
- Molecule 6 is GUANOSINE-5'-DIPHOSPHATE (CCD ID: GDP) (formula: C₁₀H₁₅N₅O₁₁P₂).



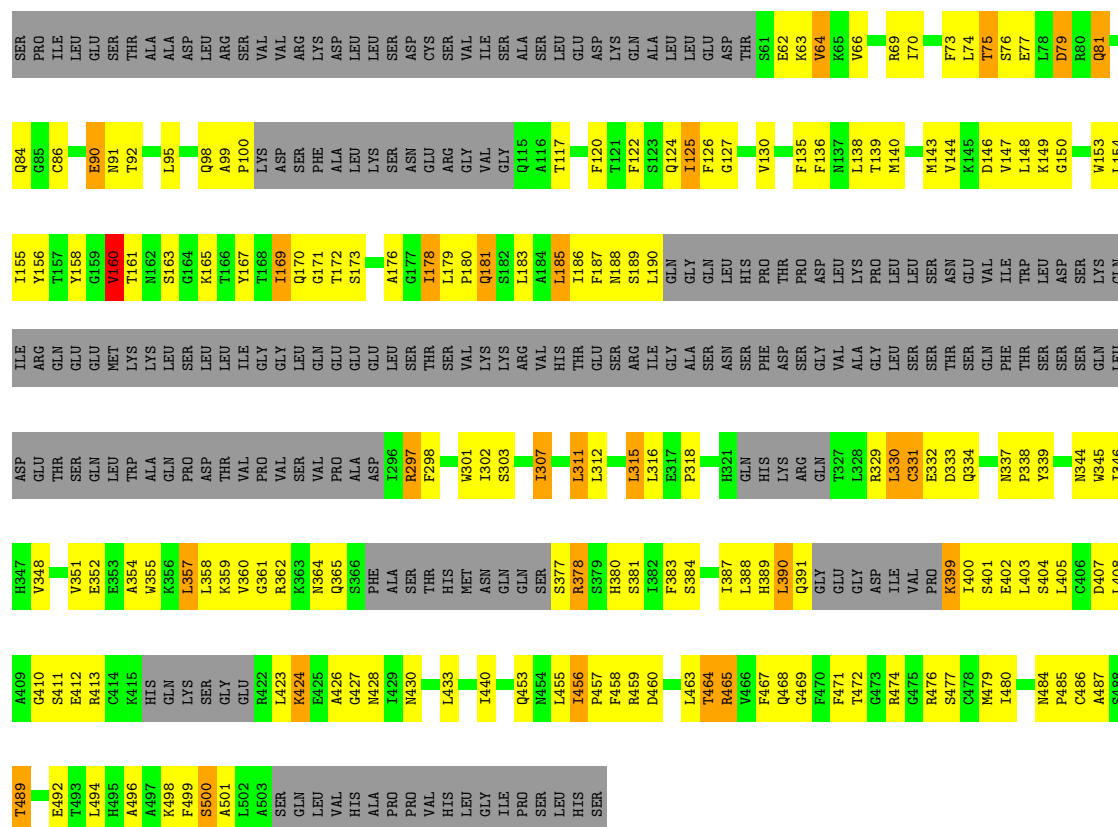
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Mol	Chain	Residues	Atoms					AltConf
6	3-B	1	Total	C	N	O	P	0
			28	10	5	11	2	
6	4-B	1	Total	C	N	O	P	0
			28	10	5	11	2	
6	5-B	1	Total	C	N	O	P	0
			28	10	5	11	2	

- Molecule 7 is TAXOL (CCD ID: TA1) (formula: $C_{47}H_{51}NO_{14}$).

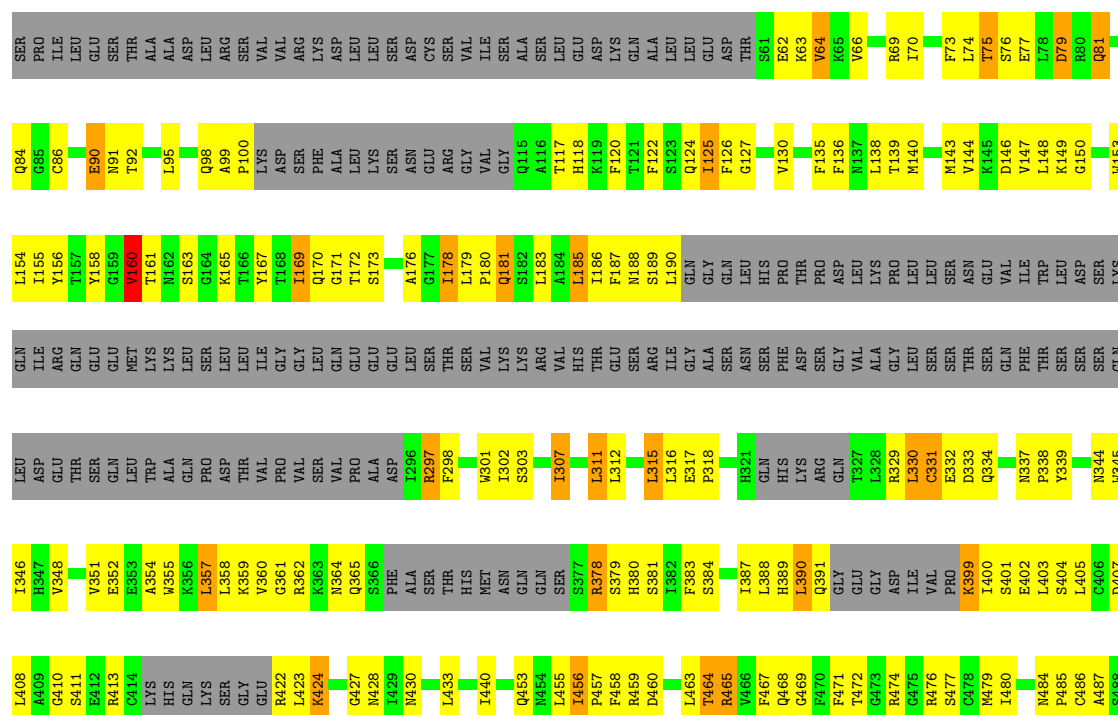


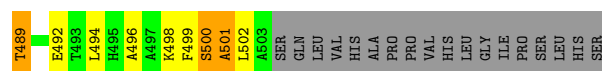
Mol	Chain	Residues	Atoms					AltConf
7	1-B	1	Total	C	N	O		0
			62	47	1	14		
7	2-B	1	Total	C	N	O		0
			62	47	1	14		
7	3-B	1	Total	C	N	O		0
			62	47	1	14		
7	4-B	1	Total	C	N	O		0
			62	47	1	14		
7	5-B	1	Total	C	N	O		0
			62	47	1	14		



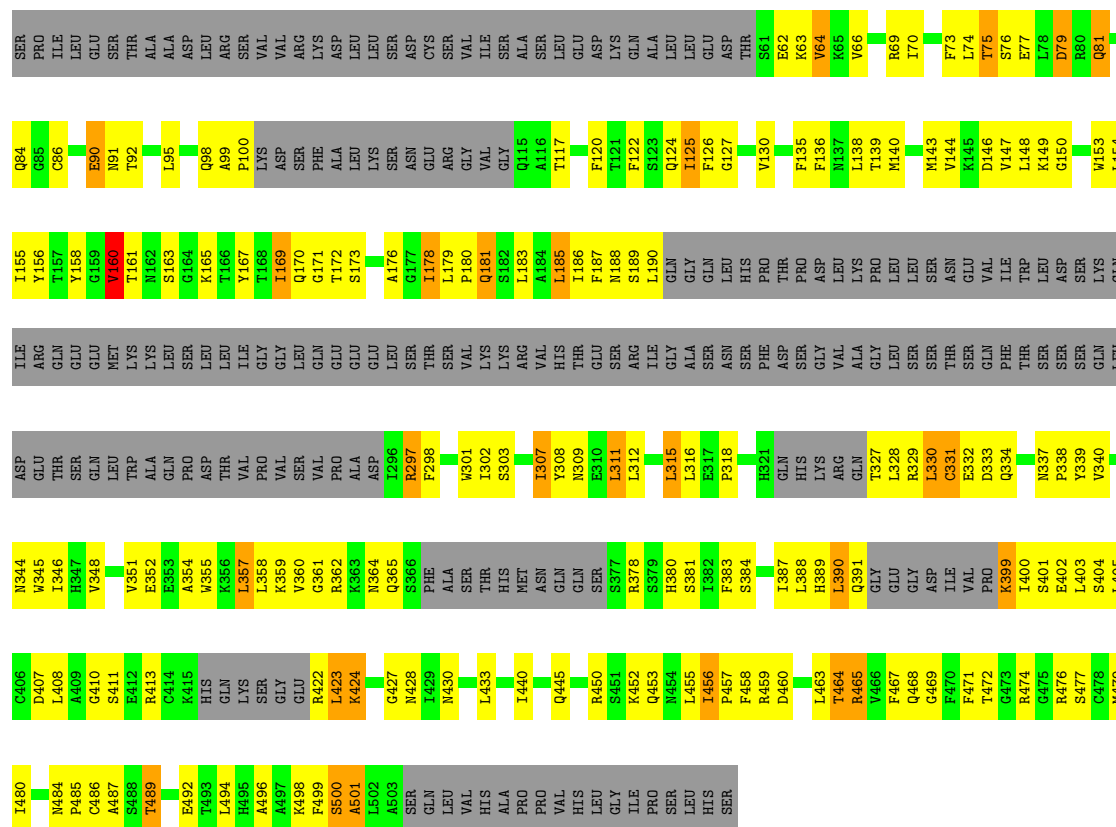
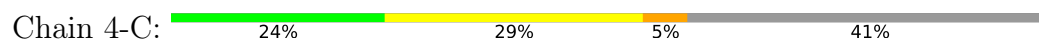
• Molecule 1: Kinesin-like protein KIF20A

Chain 3-C: 25% 29% 5% 41%

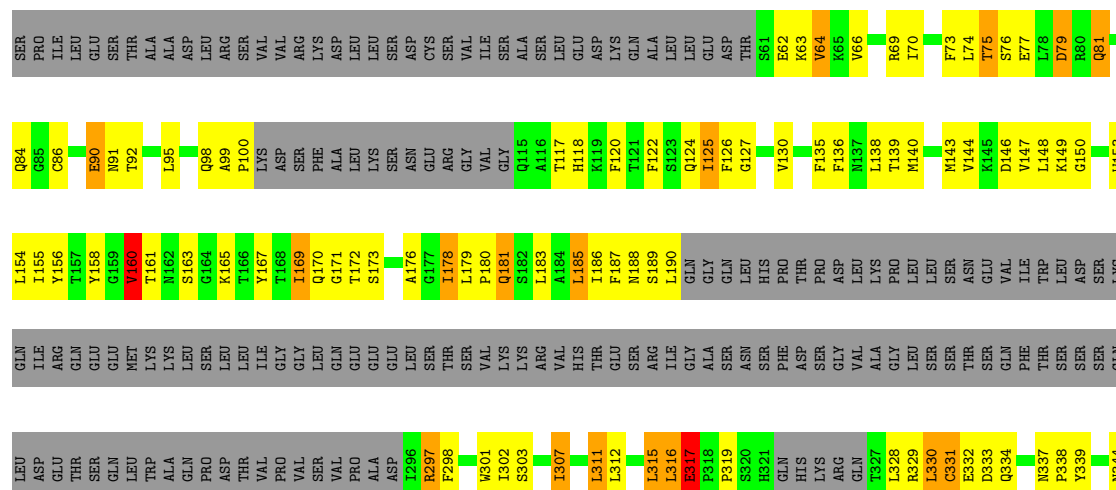
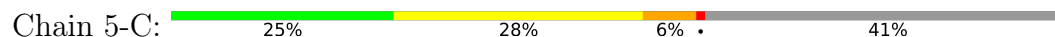


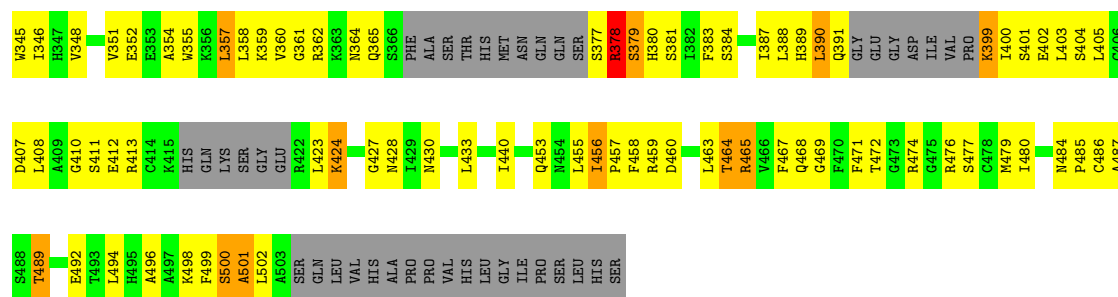


• Molecule 1: Kinesin-like protein KIF20A

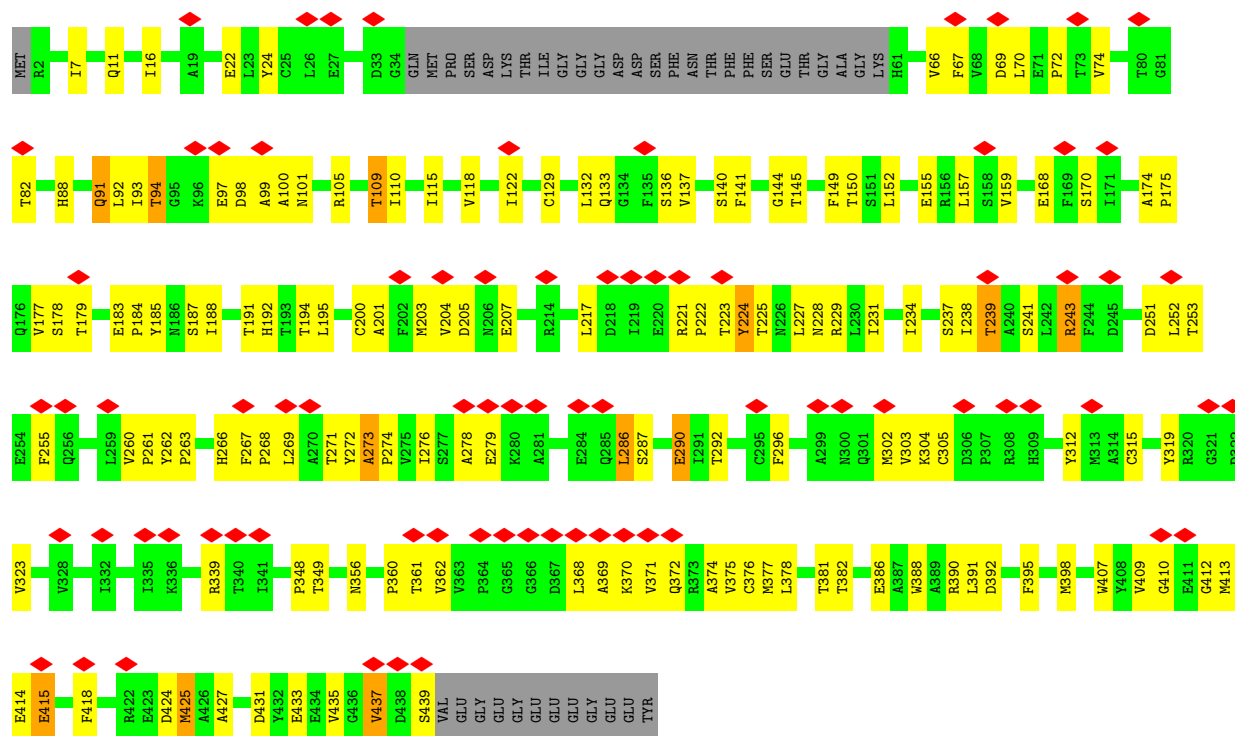


• Molecule 1: Kinesin-like protein KIF20A

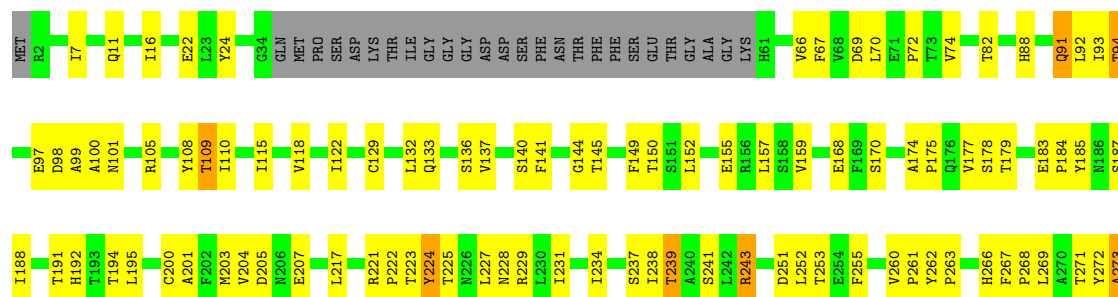




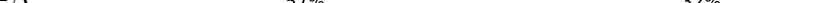
• Molecule 2: Tubulin alpha chain



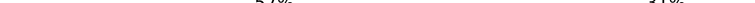
• Molecule 2: Tubulin alpha chain



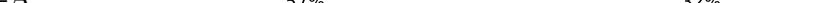
- Molecule 2: Tubulin alpha chain

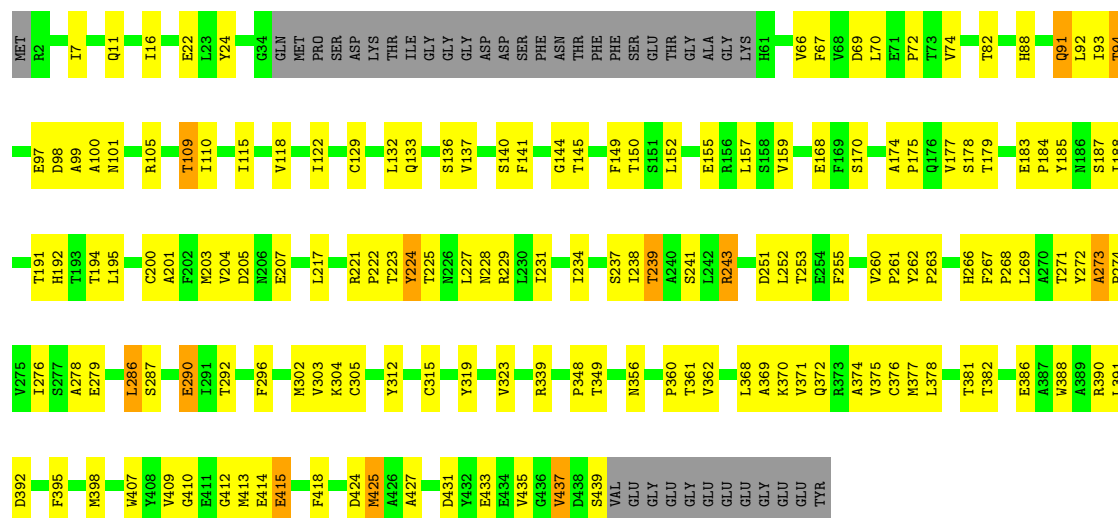
Chain 3-A:  57% 32% 9%

- Molecule 2: Tubulin alpha chain

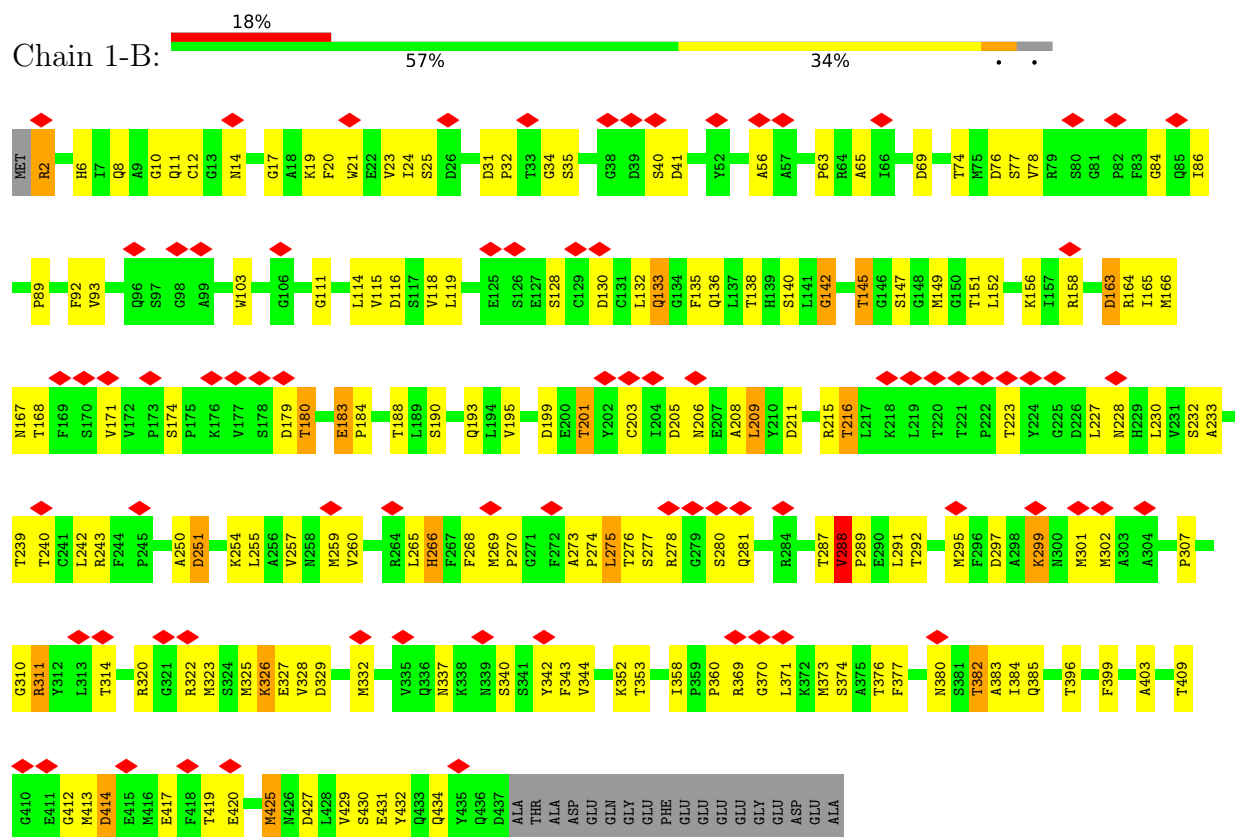
Chain 4-A:  57% 31% 0% 9%

- Molecule 2: Tubulin alpha chain

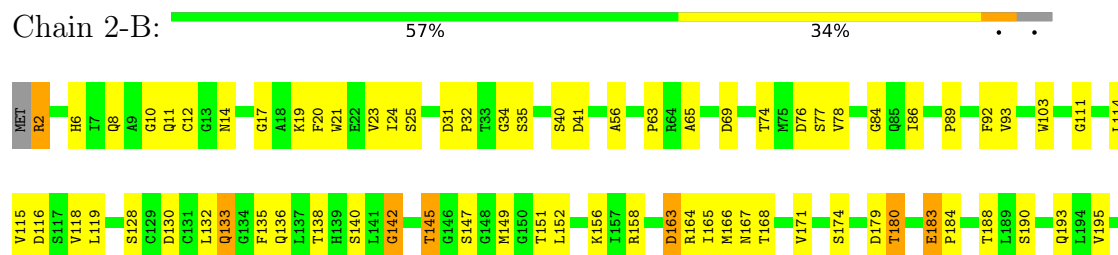
Chain 5-A:  57% 32% 9%

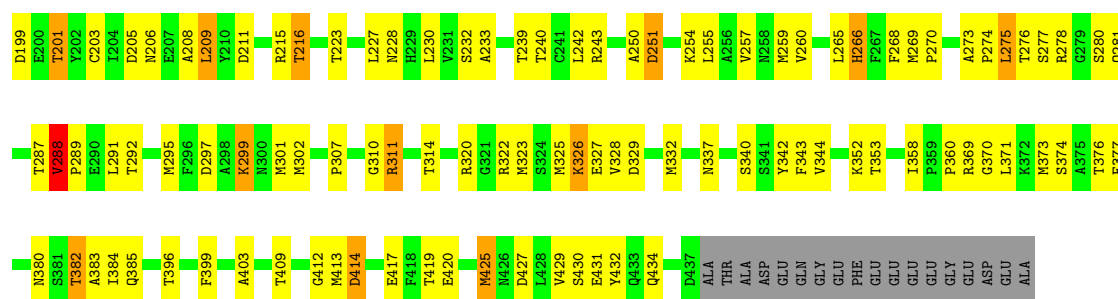


• Molecule 3: Tubulin beta-2B chain



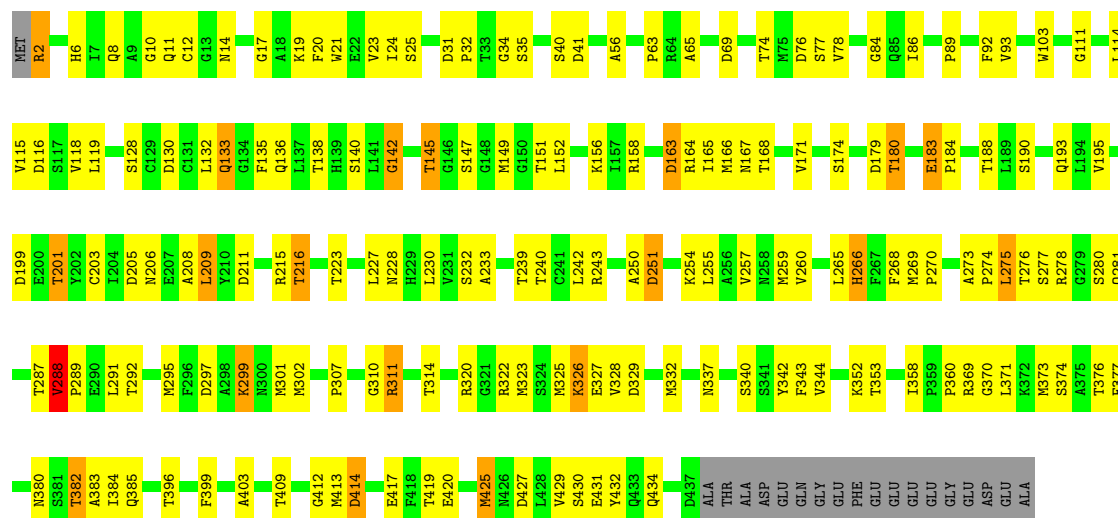
• Molecule 3: Tubulin beta-2B chain





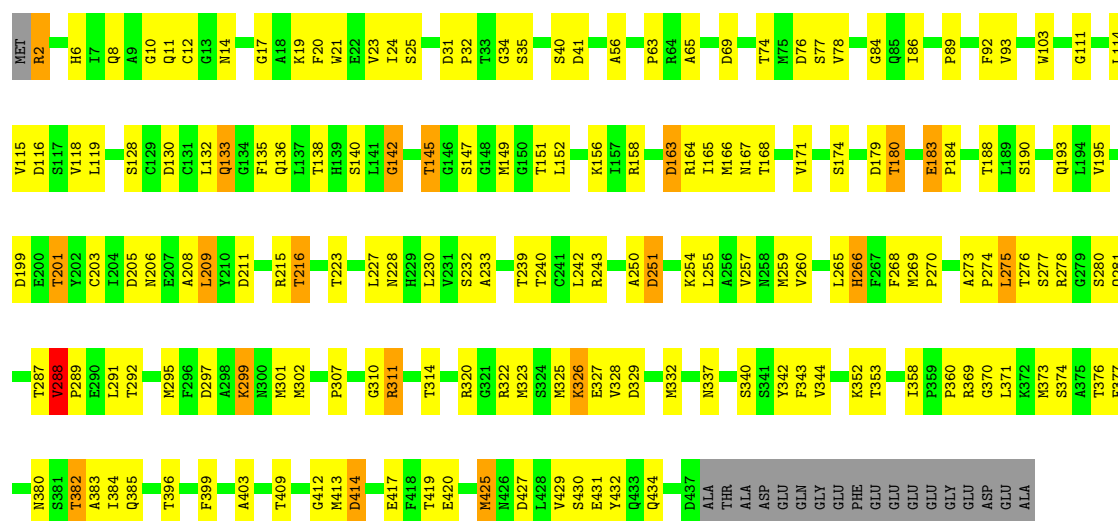
• Molecule 3: Tubulin beta-2B chain

Chain 3-B: 57% 34%



• Molecule 3: Tubulin beta-2B chain

Chain 4-B: 57% 34%

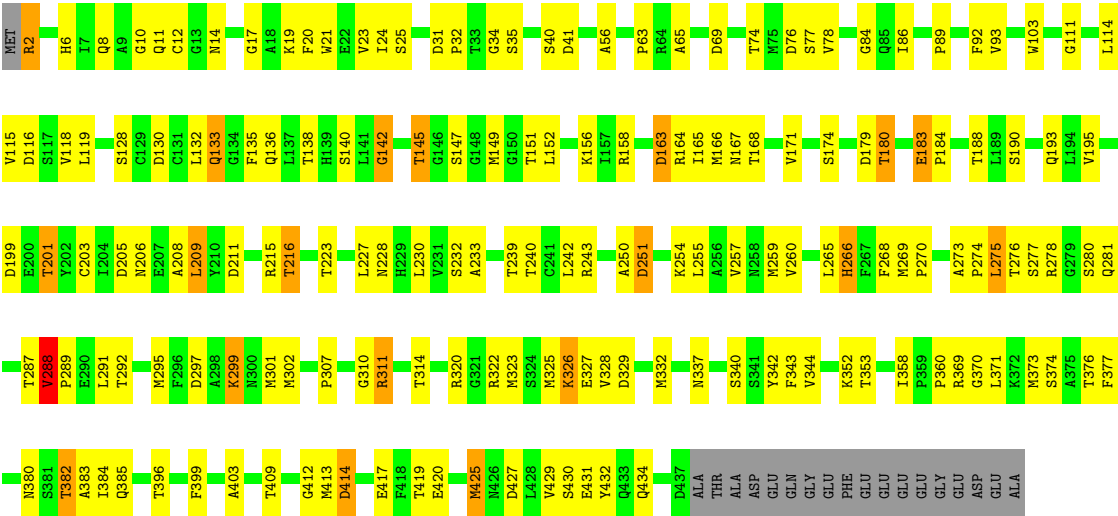


• Molecule 3: Tubulin beta-2B chain

Chain 5-B:

57%

34%



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	9257	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	25	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	DIRECT ELECTRON DE-20 (5k x 3k)	Depositor
Maximum map value	0.109	Depositor
Minimum map value	-0.035	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.011	Depositor
Recommended contour level	0.0321	Depositor
Map size ($\text{\AA}$)	244.79999, 212.67, 246.33	wwPDB
Map dimensions	160, 139, 161	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.53, 1.53, 1.53	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: GDP, GTP, MG, TA1

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	1-C	0.67	3/2416 (0.1%)	0.96	9/3254 (0.3%)
1	2-C	0.67	3/2416 (0.1%)	0.96	9/3254 (0.3%)
1	3-C	0.67	3/2407 (0.1%)	0.96	9/3243 (0.3%)
1	4-C	0.67	3/2416 (0.1%)	0.96	9/3254 (0.3%)
1	5-C	0.67	3/2416 (0.1%)	0.96	9/3254 (0.3%)
2	1-A	0.35	0/3300	0.76	0/4482
2	2-A	0.35	0/3300	0.76	0/4482
2	3-A	0.35	0/3300	0.76	0/4482
2	4-A	0.35	0/3300	0.76	0/4482
2	5-A	0.35	0/3300	0.76	0/4482
3	1-B	0.38	0/3426	0.77	2/4642 (0.0%)
3	2-B	0.38	0/3426	0.77	2/4642 (0.0%)
3	3-B	0.38	0/3426	0.77	2/4642 (0.0%)
3	4-B	0.38	0/3426	0.77	2/4642 (0.0%)
3	5-B	0.38	0/3426	0.77	2/4642 (0.0%)
All	All	0.47	15/45701 (0.0%)	0.82	55/61879 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	1-C	1	4
1	2-C	1	3
1	3-C	1	2
1	4-C	1	1
1	5-C	1	4
All	All	5	14

All (15) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	1-C	465	ARG	CZ-NH1	5.76	1.40	1.32
1	2-C	465	ARG	CZ-NH1	5.76	1.40	1.32
1	3-C	465	ARG	CZ-NH1	5.76	1.40	1.32
1	4-C	465	ARG	CZ-NH1	5.76	1.40	1.32
1	5-C	465	ARG	CZ-NH1	5.76	1.40	1.32
1	1-C	465	ARG	NE-CZ	5.26	1.38	1.33
1	2-C	465	ARG	NE-CZ	5.26	1.38	1.33
1	3-C	465	ARG	NE-CZ	5.26	1.38	1.33
1	4-C	465	ARG	NE-CZ	5.26	1.38	1.33
1	5-C	465	ARG	NE-CZ	5.26	1.38	1.33
1	1-C	465	ARG	CZ-NH2	5.17	1.40	1.33
1	2-C	465	ARG	CZ-NH2	5.17	1.40	1.33
1	3-C	465	ARG	CZ-NH2	5.17	1.40	1.33
1	4-C	465	ARG	CZ-NH2	5.17	1.40	1.33
1	5-C	465	ARG	CZ-NH2	5.17	1.40	1.33

All (55) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1-C	423	LEU	CA-C-N	6.40	131.22	122.07
1	1-C	423	LEU	C-N-CA	6.40	131.22	122.07
1	2-C	423	LEU	CA-C-N	6.40	131.22	122.07
1	2-C	423	LEU	C-N-CA	6.40	131.22	122.07
1	3-C	423	LEU	CA-C-N	6.40	131.22	122.07
1	3-C	423	LEU	C-N-CA	6.40	131.22	122.07
1	4-C	423	LEU	CA-C-N	6.40	131.22	122.07
1	4-C	423	LEU	C-N-CA	6.40	131.22	122.07
1	5-C	423	LEU	CA-C-N	6.40	131.22	122.07
1	5-C	423	LEU	C-N-CA	6.40	131.22	122.07
1	1-C	330	LEU	CA-C-N	-6.30	111.28	122.74
1	1-C	330	LEU	C-N-CA	-6.30	111.28	122.74
1	2-C	330	LEU	CA-C-N	-6.30	111.28	122.74
1	2-C	330	LEU	C-N-CA	-6.30	111.28	122.74
1	3-C	330	LEU	CA-C-N	-6.30	111.28	122.74
1	3-C	330	LEU	C-N-CA	-6.30	111.28	122.74
1	4-C	330	LEU	CA-C-N	-6.30	111.28	122.74
1	4-C	330	LEU	C-N-CA	-6.30	111.28	122.74
1	5-C	330	LEU	CA-C-N	-6.30	111.28	122.74
1	5-C	330	LEU	C-N-CA	-6.30	111.28	122.74
3	1-B	163	ASP	CA-CB-CG	-6.20	106.40	112.60
3	2-B	163	ASP	CA-CB-CG	-6.20	106.40	112.60
3	3-B	163	ASP	CA-CB-CG	-6.20	106.40	112.60
3	4-B	163	ASP	CA-CB-CG	-6.20	106.40	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	5-B	163	ASP	CA-CB-CG	-6.20	106.40	112.60
1	1-C	331	CYS	N-CA-CB	6.16	120.17	110.56
1	2-C	331	CYS	N-CA-CB	6.16	120.17	110.56
1	3-C	331	CYS	N-CA-CB	6.16	120.17	110.56
1	4-C	331	CYS	N-CA-CB	6.16	120.17	110.56
1	5-C	331	CYS	N-CA-CB	6.16	120.17	110.56
1	1-C	411	SER	CA-C-N	-5.87	110.00	121.91
1	1-C	411	SER	C-N-CA	-5.87	110.00	121.91
1	2-C	411	SER	CA-C-N	-5.87	110.00	121.91
1	2-C	411	SER	C-N-CA	-5.87	110.00	121.91
1	3-C	411	SER	CA-C-N	-5.87	110.00	121.91
1	3-C	411	SER	C-N-CA	-5.87	110.00	121.91
1	4-C	411	SER	CA-C-N	-5.87	110.00	121.91
1	4-C	411	SER	C-N-CA	-5.87	110.00	121.91
1	5-C	411	SER	CA-C-N	-5.87	110.00	121.91
1	5-C	411	SER	C-N-CA	-5.87	110.00	121.91
3	1-B	414	ASP	CA-CB-CG	5.49	118.09	112.60
3	2-B	414	ASP	CA-CB-CG	5.49	118.09	112.60
3	3-B	414	ASP	CA-CB-CG	5.49	118.09	112.60
3	4-B	414	ASP	CA-CB-CG	5.49	118.09	112.60
3	5-B	414	ASP	CA-CB-CG	5.49	118.09	112.60
1	1-C	64	VAL	CA-C-N	-5.27	115.76	122.77
1	1-C	64	VAL	C-N-CA	-5.27	115.76	122.77
1	2-C	64	VAL	CA-C-N	-5.27	115.76	122.77
1	2-C	64	VAL	C-N-CA	-5.27	115.76	122.77
1	3-C	64	VAL	CA-C-N	-5.27	115.76	122.77
1	3-C	64	VAL	C-N-CA	-5.27	115.76	122.77
1	4-C	64	VAL	CA-C-N	-5.27	115.76	122.77
1	4-C	64	VAL	C-N-CA	-5.27	115.76	122.77
1	5-C	64	VAL	CA-C-N	-5.27	115.76	122.77
1	5-C	64	VAL	C-N-CA	-5.27	115.76	122.77

All (5) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	1-C	297	ARG	CA
1	2-C	297	ARG	CA
1	3-C	297	ARG	CA
1	4-C	297	ARG	CA
1	5-C	297	ARG	CA

All (14) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	1-C	316	LEU	Mainchain
1	1-C	317	GLU	Peptide
1	1-C	378	ARG	Sidechain
1	1-C	459	ARG	Sidechain
1	2-C	410	GLY	Mainchain,Peptide
1	2-C	459	ARG	Sidechain
1	3-C	422	ARG	Sidechain
1	3-C	459	ARG	Sidechain
1	4-C	459	ARG	Sidechain
1	5-C	316	LEU	Mainchain
1	5-C	317	GLU	Peptide
1	5-C	378	ARG	Sidechain
1	5-C	459	ARG	Sidechain

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1-C	2375	0	2385	151	0
1	2-C	2375	0	2385	147	0
1	3-C	2366	0	2372	147	0
1	4-C	2375	0	2385	160	0
1	5-C	2375	0	2385	150	0
2	1-A	3227	0	3141	122	0
2	2-A	3227	0	3141	122	0
2	3-A	3227	0	3141	125	0
2	4-A	3227	0	3141	119	0
2	5-A	3227	0	3141	121	0
3	1-B	3351	0	3229	120	0
3	2-B	3351	0	3229	119	0
3	3-B	3351	0	3229	120	0
3	4-B	3351	0	3229	124	0
3	5-B	3351	0	3229	120	0
4	1-A	32	0	12	26	0
4	2-A	32	0	12	26	0
4	3-A	32	0	12	26	0
4	4-A	32	0	12	26	0
4	5-A	32	0	12	26	0
5	1-A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	2-A	1	0	0	0	0
5	3-A	1	0	0	0	0
5	4-A	1	0	0	0	0
5	5-A	1	0	0	0	0
6	1-B	28	0	12	12	0
6	2-B	28	0	12	12	0
6	3-B	28	0	12	12	0
6	4-B	28	0	12	12	0
6	5-B	28	0	12	12	0
7	1-B	62	0	51	19	0
7	2-B	62	0	51	19	0
7	3-B	62	0	51	19	0
7	4-B	62	0	51	19	0
7	5-B	62	0	51	19	0
All	All	45371	0	44137	1890	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 21.

All (1890) 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)
2:A:179:THR:OG1	4:A:500:GTP:C3'	1.73	1.34
2:A:179:THR:OG1	4:A:500:GTP:C3'	1.73	1.34
2:A:179:THR:OG1	4:A:500:GTP:C3'	1.73	1.34
2:A:179:THR:OG1	4:A:500:GTP:C3'	1.73	1.34
2:A:179:THR:OG1	4:A:500:GTP:C3'	1.73	1.34
1:C:413:ARG:HD2	1:C:413:ARG:O	1.44	1.16
1:C:388:LEU:HD22	1:C:390:LEU:HD11	1.27	1.13
1:C:388:LEU:HD22	1:C:390:LEU:HD11	1.27	1.13
1:C:388:LEU:HD22	1:C:390:LEU:HD11	1.27	1.13
1:C:388:LEU:HD22	1:C:390:LEU:HD11	1.27	1.13
1:C:388:LEU:HD22	1:C:390:LEU:HD11	1.27	1.13
1:C:413:ARG:HG2	2:A:412:GLY:O	1.49	1.11
1:C:148:LEU:HD23	1:C:387:ILE:HD13	1.18	1.11
1:C:148:LEU:HD23	1:C:387:ILE:HD13	1.19	1.11
1:C:148:LEU:HD23	1:C:387:ILE:HD13	1.19	1.10
1:C:148:LEU:HD23	1:C:387:ILE:HD13	1.19	1.10
1:C:148:LEU:HD23	1:C:387:ILE:HD13	1.19	1.10
1:C:413:ARG:HB2	2:A:414:GLU:OE2	1.51	1.09
2:A:179:THR:OG1	4:A:500:GTP:H3'	0.88	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:179:THR:OG1	4:A:500:GTP:H3'	0.88	1.04
2:A:179:THR:OG1	4:A:500:GTP:H3'	0.88	1.04
2:A:179:THR:OG1	4:A:500:GTP:H3'	0.88	1.04
2:A:179:THR:OG1	4:A:500:GTP:H3'	0.88	1.04
2:A:179:THR:CB	4:A:500:GTP:H3'	1.86	1.04
2:A:179:THR:CB	4:A:500:GTP:H3'	1.86	1.04
2:A:179:THR:CB	4:A:500:GTP:H3'	1.86	1.04
2:A:179:THR:CB	4:A:500:GTP:H3'	1.86	1.04
2:A:179:THR:CB	4:A:500:GTP:H3'	1.86	1.04
2:A:224:TYR:CE1	4:A:500:GTP:C5	2.51	0.98
2:A:224:TYR:CE1	4:A:500:GTP:C5	2.51	0.98
2:A:224:TYR:CE1	4:A:500:GTP:C5	2.51	0.98
2:A:224:TYR:CE1	4:A:500:GTP:C5	2.51	0.98
2:A:224:TYR:CE1	4:A:500:GTP:C5	2.51	0.98
2:A:179:THR:HG1	4:A:500:GTP:H3'	1.25	0.93
2:A:179:THR:HG1	4:A:500:GTP:H3'	1.25	0.93
2:A:179:THR:HG1	4:A:500:GTP:H3'	1.25	0.93
2:A:179:THR:HG1	4:A:500:GTP:H3'	1.25	0.93
2:A:179:THR:HG1	4:A:500:GTP:H3'	1.25	0.93
2:A:179:THR:HG1	4:A:500:GTP:C3'	1.73	0.92
2:A:179:THR:HG1	4:A:500:GTP:C3'	1.73	0.92
2:A:179:THR:HG1	4:A:500:GTP:C3'	1.73	0.92
2:A:179:THR:HG1	4:A:500:GTP:C3'	1.73	0.92
2:A:179:THR:HG1	4:A:500:GTP:C3'	1.73	0.92
2:A:224:TYR:CD1	4:A:500:GTP:C6	2.60	0.89
2:A:224:TYR:CD1	4:A:500:GTP:C6	2.60	0.89
2:A:224:TYR:CD1	4:A:500:GTP:C6	2.60	0.89
2:A:224:TYR:CD1	4:A:500:GTP:C6	2.60	0.89
2:A:224:TYR:CD1	4:A:500:GTP:C6	2.60	0.89
3:B:12:CYS:SG	6:B:600:GDP:C4	2.67	0.88
3:B:12:CYS:SG	6:B:600:GDP:C4	2.67	0.88
3:B:12:CYS:SG	6:B:600:GDP:C4	2.67	0.88
3:B:12:CYS:SG	6:B:600:GDP:C4	2.67	0.88
3:B:12:CYS:SG	6:B:600:GDP:C4	2.67	0.88
3:B:250:ALA:HA	3:B:254:LYS:HD3	1.54	0.87
3:B:250:ALA:HA	3:B:254:LYS:HD3	1.54	0.87
3:B:250:ALA:HA	3:B:254:LYS:HD3	1.54	0.87
3:B:250:ALA:HA	3:B:254:LYS:HD3	1.54	0.87
3:B:250:ALA:HA	3:B:254:LYS:HD3	1.54	0.87
2:A:260:VAL:HG12	2:A:266:HIS:HB2	1.54	0.87
2:A:260:VAL:HG12	2:A:266:HIS:HB2	1.54	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:260:VAL:HG12	2:A:266:HIS:HB2	1.54	0.87
2:A:260:VAL:HG12	2:A:266:HIS:HB2	1.54	0.87
2:A:260:VAL:HG12	2:A:266:HIS:HB2	1.54	0.87
1:C:413:ARG:HG2	2:A:412:GLY:O	1.76	0.86
1:C:148:LEU:CD2	1:C:387:ILE:HD13	2.04	0.85
1:C:148:LEU:CD2	1:C:387:ILE:HD13	2.04	0.85
1:C:148:LEU:CD2	1:C:387:ILE:HD13	2.04	0.85
1:C:148:LEU:CD2	1:C:387:ILE:HD13	2.04	0.85
1:C:148:LEU:CD2	1:C:387:ILE:HD13	2.04	0.85
2:A:175:PRO:HG3	2:A:304:LYS:HG2	1.57	0.85
2:A:175:PRO:HG3	2:A:304:LYS:HG2	1.57	0.85
2:A:175:PRO:HG3	2:A:304:LYS:HG2	1.57	0.85
2:A:175:PRO:HG3	2:A:304:LYS:HG2	1.57	0.85
2:A:175:PRO:HG3	2:A:304:LYS:HG2	1.57	0.85
1:C:456:ILE:HD12	1:C:458:PHE:HE2	1.39	0.84
1:C:456:ILE:HD12	1:C:458:PHE:HE2	1.39	0.84
1:C:388:LEU:HD22	1:C:390:LEU:CD1	2.07	0.84
1:C:456:ILE:HD12	1:C:458:PHE:HE2	1.39	0.84
1:C:388:LEU:HD22	1:C:390:LEU:CD1	2.07	0.84
1:C:388:LEU:HD22	1:C:390:LEU:CD1	2.07	0.84
1:C:456:ILE:HD12	1:C:458:PHE:HE2	1.39	0.84
1:C:388:LEU:HD22	1:C:390:LEU:CD1	2.07	0.84
1:C:388:LEU:HD22	1:C:390:LEU:CD1	2.07	0.84
1:C:456:ILE:HD12	1:C:458:PHE:HE2	1.39	0.84
1:C:186:ILE:HD12	1:C:387:ILE:HD11	1.58	0.84
1:C:186:ILE:HD12	1:C:387:ILE:HD11	1.58	0.84
1:C:186:ILE:HD12	1:C:387:ILE:HD11	1.58	0.84
1:C:186:ILE:HD12	1:C:387:ILE:HD11	1.58	0.84
1:C:413:ARG:HB2	2:A:414:GLU:OE2	1.77	0.84
1:C:484:ASN:HB2	1:C:489:THR:HG21	1.58	0.84
1:C:412:GLU:O	1:C:426:ALA:HB1	1.78	0.84
1:C:484:ASN:HB2	1:C:489:THR:HG21	1.58	0.84
1:C:186:ILE:HD12	1:C:387:ILE:HD11	1.58	0.84
1:C:484:ASN:HB2	1:C:489:THR:HG21	1.58	0.84
1:C:484:ASN:HB2	1:C:489:THR:HG21	1.58	0.84
1:C:484:ASN:HB2	1:C:489:THR:HG21	1.58	0.84
2:A:179:THR:HG21	4:A:500:GTP:C2'	2.08	0.83
2:A:179:THR:HG21	4:A:500:GTP:C2'	2.08	0.83
2:A:179:THR:HG21	4:A:500:GTP:C2'	2.08	0.83
2:A:179:THR:HG21	4:A:500:GTP:C2'	2.08	0.83
2:A:179:THR:HG21	4:A:500:GTP:C2'	2.08	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:453:GLN:HB2	3:B:434:GLN:NE2	1.93	0.83
1:C:453:GLN:HB2	3:B:434:GLN:NE2	1.94	0.82
2:A:224:TYR:CE1	4:A:500:GTP:C4	2.67	0.82
2:A:224:TYR:CE1	4:A:500:GTP:C4	2.67	0.82
1:C:453:GLN:HB2	3:B:434:GLN:NE2	1.95	0.82
2:A:224:TYR:CE1	4:A:500:GTP:C4	2.67	0.82
2:A:224:TYR:CE1	4:A:500:GTP:C4	2.67	0.82
2:A:224:TYR:CE1	4:A:500:GTP:C4	2.67	0.82
3:B:360:PRO:O	7:B:601:TA1:O13	1.97	0.82
3:B:360:PRO:O	7:B:601:TA1:O13	1.97	0.82
3:B:360:PRO:O	7:B:601:TA1:O13	1.97	0.82
3:B:360:PRO:O	7:B:601:TA1:O13	1.97	0.82
3:B:360:PRO:O	7:B:601:TA1:O13	1.97	0.82
1:C:413:ARG:CB	2:A:414:GLU:OE2	2.27	0.81
1:C:453:GLN:HB2	3:B:434:GLN:NE2	1.96	0.81
3:B:12:CYS:HB2	6:B:600:GDP:O1A	1.82	0.80
3:B:12:CYS:HB2	6:B:600:GDP:O1A	1.82	0.80
3:B:12:CYS:HB2	6:B:600:GDP:O1A	1.82	0.80
3:B:12:CYS:HB2	6:B:600:GDP:O1A	1.82	0.80
3:B:12:CYS:HB2	6:B:600:GDP:O1A	1.82	0.80
1:C:453:GLN:HB2	3:B:434:GLN:NE2	1.96	0.80
3:B:254:LYS:HE3	3:B:352:LYS:HE3	1.62	0.80
3:B:254:LYS:HE3	3:B:352:LYS:HE3	1.62	0.80
3:B:254:LYS:HE3	3:B:352:LYS:HE3	1.62	0.80
3:B:254:LYS:HE3	3:B:352:LYS:HE3	1.62	0.80
3:B:254:LYS:HE3	3:B:352:LYS:HE3	1.62	0.80
1:C:413:ARG:CD	2:A:412:GLY:O	2.30	0.80
3:B:414:ASP:HB3	3:B:417:GLU:HB2	1.64	0.79
3:B:414:ASP:HB3	3:B:417:GLU:HB2	1.64	0.79
3:B:414:ASP:HB3	3:B:417:GLU:HB2	1.64	0.79
3:B:414:ASP:HB3	3:B:417:GLU:HB2	1.64	0.79
3:B:414:ASP:HB3	3:B:417:GLU:HB2	1.64	0.79
3:B:11:GLN:HB3	6:B:600:GDP:O2B	1.83	0.78
3:B:11:GLN:HB3	6:B:600:GDP:O2B	1.83	0.78
3:B:11:GLN:HB3	6:B:600:GDP:O2B	1.83	0.78
3:B:11:GLN:HB3	6:B:600:GDP:O2B	1.83	0.78
3:B:11:GLN:HB3	6:B:600:GDP:O2B	1.83	0.78
1:C:413:ARG:CG	2:A:412:GLY:O	2.31	0.78
1:C:453:GLN:OE1	1:C:455:LEU:HG	1.83	0.78
3:B:360:PRO:HB2	7:B:601:TA1:H281	1.63	0.78
1:C:453:GLN:OE1	1:C:455:LEU:HG	1.83	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:360:PRO:HB2	7:B:601:TA1:H281	1.63	0.78
1:C:453:GLN:OE1	1:C:455:LEU:HG	1.83	0.78
3:B:360:PRO:HB2	7:B:601:TA1:H281	1.63	0.78
3:B:360:PRO:HB2	7:B:601:TA1:H281	1.63	0.78
3:B:360:PRO:HB2	7:B:601:TA1:H281	1.63	0.78
1:C:453:GLN:OE1	1:C:455:LEU:HG	1.83	0.78
1:C:453:GLN:OE1	1:C:455:LEU:HG	1.83	0.78
3:B:230:LEU:CD1	7:B:601:TA1:H081	2.15	0.77
3:B:230:LEU:CD1	7:B:601:TA1:H081	2.15	0.77
3:B:230:LEU:CD1	7:B:601:TA1:H081	2.15	0.77
3:B:230:LEU:CD1	7:B:601:TA1:H081	2.15	0.77
3:B:230:LEU:CD1	7:B:601:TA1:H081	2.15	0.77
1:C:413:ARG:O	1:C:413:ARG:CD	2.32	0.76
1:C:297:ARG:HB3	1:C:390:LEU:HD13	1.67	0.76
1:C:311:LEU:HD12	1:C:327:THR:HB	1.67	0.76
1:C:297:ARG:HB3	1:C:390:LEU:HD13	1.67	0.76
1:C:297:ARG:HB3	1:C:390:LEU:HD13	1.67	0.76
1:C:297:ARG:HB3	1:C:390:LEU:HD13	1.68	0.76
1:C:297:ARG:HB3	1:C:390:LEU:HD13	1.67	0.76
1:C:457:PRO:HB3	1:C:460:ASP:OD2	1.86	0.75
1:C:337:ASN:HB2	1:C:469:GLY:HA2	1.66	0.75
1:C:337:ASN:HB2	1:C:469:GLY:HA2	1.66	0.75
1:C:457:PRO:HB3	1:C:460:ASP:OD2	1.86	0.75
1:C:337:ASN:HB2	1:C:469:GLY:HA2	1.66	0.75
1:C:337:ASN:HB2	1:C:469:GLY:HA2	1.66	0.75
1:C:457:PRO:HB3	1:C:460:ASP:OD2	1.86	0.75
1:C:457:PRO:HB3	1:C:460:ASP:OD2	1.86	0.75
1:C:337:ASN:HB2	1:C:469:GLY:HA2	1.66	0.75
1:C:457:PRO:HB3	1:C:460:ASP:OD2	1.86	0.75
1:C:413:ARG:HD3	2:A:412:GLY:O	1.87	0.74
1:C:311:LEU:HD12	1:C:327:THR:CB	2.17	0.74
1:C:456:ILE:HD12	1:C:458:PHE:CE2	2.22	0.73
1:C:456:ILE:HD12	1:C:458:PHE:CE2	2.22	0.73
1:C:179:LEU:HB3	1:C:180:PRO:HD3	1.70	0.73
1:C:456:ILE:HD12	1:C:458:PHE:CE2	2.22	0.73
1:C:179:LEU:HB3	1:C:180:PRO:HD3	1.70	0.73
1:C:179:LEU:HB3	1:C:180:PRO:HD3	1.70	0.73
1:C:456:ILE:HD12	1:C:458:PHE:CE2	2.22	0.73
2:A:115:ILE:HD12	2:A:152:LEU:HD13	1.69	0.73
1:C:179:LEU:HB3	1:C:180:PRO:HD3	1.70	0.73
2:A:115:ILE:HD12	2:A:152:LEU:HD13	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:179:LEU:HB3	1:C:180:PRO:HD3	1.70	0.73
2:A:115:ILE:HD12	2:A:152:LEU:HD13	1.69	0.73
2:A:115:ILE:HD12	2:A:152:LEU:HD13	1.69	0.73
1:C:456:ILE:HD12	1:C:458:PHE:CE2	2.22	0.73
2:A:115:ILE:HD12	2:A:152:LEU:HD13	1.69	0.73
3:B:370:GLY:O	7:B:601:TA1:H443	1.87	0.73
3:B:370:GLY:O	7:B:601:TA1:H443	1.87	0.73
3:B:370:GLY:O	7:B:601:TA1:H443	1.87	0.73
3:B:370:GLY:O	7:B:601:TA1:H443	1.87	0.73
3:B:370:GLY:O	7:B:601:TA1:H443	1.87	0.73
2:A:224:TYR:CZ	4:A:500:GTP:C8	2.76	0.72
2:A:224:TYR:CZ	4:A:500:GTP:C8	2.76	0.72
2:A:224:TYR:CZ	4:A:500:GTP:C8	2.76	0.72
2:A:224:TYR:CZ	4:A:500:GTP:C8	2.76	0.72
2:A:224:TYR:CZ	4:A:500:GTP:C8	2.76	0.72
1:C:377:SER:O	1:C:378:ARG:HD3	1.89	0.72
2:A:179:THR:HG21	4:A:500:GTP:H2'	1.72	0.72
2:A:179:THR:HG21	4:A:500:GTP:H2'	1.72	0.72
2:A:179:THR:HG21	4:A:500:GTP:H2'	1.72	0.72
2:A:179:THR:HG21	4:A:500:GTP:H2'	1.72	0.72
2:A:179:THR:HG21	4:A:500:GTP:H2'	1.72	0.72
1:C:458:PHE:HA	1:C:464:THR:HB	1.72	0.72
1:C:458:PHE:HA	1:C:464:THR:HB	1.72	0.72
1:C:458:PHE:HA	1:C:464:THR:HB	1.72	0.72
1:C:458:PHE:HA	1:C:464:THR:HB	1.72	0.71
1:C:458:PHE:HA	1:C:464:THR:HB	1.72	0.71
3:B:273:ALA:HB2	3:B:295:MET:HG3	1.70	0.71
3:B:273:ALA:HB2	3:B:295:MET:HG3	1.70	0.71
3:B:273:ALA:HB2	3:B:295:MET:HG3	1.70	0.71
3:B:273:ALA:HB2	3:B:295:MET:HG3	1.70	0.71
3:B:273:ALA:HB2	3:B:295:MET:HG3	1.70	0.71
1:C:170:GLN:HG3	1:C:355:TRP:HH2	1.55	0.71
1:C:170:GLN:HG3	1:C:355:TRP:HH2	1.55	0.71
1:C:170:GLN:HG3	1:C:355:TRP:HH2	1.55	0.71
1:C:170:GLN:HG3	1:C:355:TRP:HH2	1.55	0.71
1:C:170:GLN:HG3	1:C:355:TRP:HH2	1.55	0.71
2:A:278:ALA:HB2	2:A:369:ALA:HA	1.72	0.71
2:A:278:ALA:HB2	2:A:369:ALA:HA	1.72	0.71
2:A:278:ALA:HB2	2:A:369:ALA:HA	1.72	0.71
2:A:278:ALA:HB2	2:A:369:ALA:HA	1.72	0.71
2:A:278:ALA:HB2	2:A:369:ALA:HA	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:230:LEU:HD13	7:B:601:TA1:H081	1.72	0.71
3:B:230:LEU:HD13	7:B:601:TA1:H081	1.72	0.71
3:B:230:LEU:HD13	7:B:601:TA1:H081	1.72	0.71
3:B:230:LEU:HD13	7:B:601:TA1:H081	1.72	0.71
3:B:230:LEU:HD13	7:B:601:TA1:H081	1.72	0.71
1:C:413:ARG:CG	2:A:412:GLY:O	2.36	0.70
1:C:445:GLN:HB2	1:C:452:LYS:HZ1	1.56	0.70
1:C:183:LEU:HB3	1:C:351:VAL:HG13	1.72	0.70
1:C:183:LEU:HB3	1:C:351:VAL:HG13	1.72	0.70
1:C:183:LEU:HB3	1:C:351:VAL:HG13	1.72	0.70
1:C:183:LEU:HB3	1:C:351:VAL:HG13	1.72	0.70
1:C:183:LEU:HB3	1:C:351:VAL:HG13	1.72	0.70
1:C:144:VAL:HG11	1:C:185:LEU:HB3	1.74	0.69
1:C:144:VAL:HG11	1:C:185:LEU:HB3	1.74	0.69
1:C:144:VAL:HG11	1:C:185:LEU:HB3	1.74	0.69
1:C:144:VAL:HG11	1:C:185:LEU:HB3	1.74	0.69
1:C:144:VAL:HG11	1:C:185:LEU:HB3	1.75	0.69
1:C:355:TRP:NE1	1:C:359:LYS:HE3	2.07	0.69
1:C:355:TRP:NE1	1:C:359:LYS:HE3	2.07	0.69
1:C:355:TRP:NE1	1:C:359:LYS:HE3	2.07	0.69
1:C:355:TRP:NE1	1:C:359:LYS:HE3	2.07	0.69
1:C:355:TRP:NE1	1:C:359:LYS:HE3	2.07	0.69
1:C:424:LYS:NZ	3:B:163:ASP:HA	2.09	0.68
1:C:445:GLN:HB2	1:C:452:LYS:NZ	2.09	0.68
3:B:228:ASN:OD1	6:B:600:GDP:N1	2.26	0.67
3:B:228:ASN:OD1	6:B:600:GDP:N1	2.26	0.67
3:B:228:ASN:OD1	6:B:600:GDP:N1	2.26	0.67
3:B:228:ASN:OD1	6:B:600:GDP:N1	2.26	0.67
3:B:228:ASN:OD1	6:B:600:GDP:N1	2.26	0.67
1:C:377:SER:C	1:C:378:ARG:HD2	2.19	0.67
1:C:316:LEU:HD21	1:C:346:ILE:HB	1.77	0.67
1:C:427:GLY:HA3	2:A:410:GLY:O	1.95	0.67
3:B:114:LEU:HB3	3:B:149:MET:HE1	1.76	0.67
1:C:316:LEU:HD21	1:C:346:ILE:HB	1.77	0.67
3:B:114:LEU:HB3	3:B:149:MET:HE1	1.76	0.67
3:B:114:LEU:HB3	3:B:149:MET:HE1	1.76	0.67
3:B:114:LEU:HB3	3:B:149:MET:HE1	1.76	0.67
3:B:114:LEU:HB3	3:B:149:MET:HE1	1.76	0.67
1:C:316:LEU:HD21	1:C:346:ILE:HB	1.77	0.67
1:C:357:LEU:O	1:C:360:VAL:HG12	1.94	0.67
1:C:424:LYS:NZ	3:B:163:ASP:HA	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:316:LEU:HD21	1:C:346:ILE:HB	1.77	0.67
1:C:316:LEU:HD21	1:C:346:ILE:HB	1.77	0.67
1:C:357:LEU:O	1:C:360:VAL:HG12	1.94	0.67
1:C:357:LEU:O	1:C:360:VAL:HG12	1.94	0.67
1:C:357:LEU:O	1:C:360:VAL:HG12	1.94	0.67
1:C:357:LEU:O	1:C:360:VAL:HG12	1.94	0.67
1:C:176:ALA:HB1	1:C:180:PRO:HB2	1.77	0.67
1:C:427:GLY:HA3	2:A:410:GLY:O	1.95	0.67
1:C:176:ALA:HB1	1:C:180:PRO:HB2	1.77	0.67
2:A:238:ILE:HD12	2:A:378:LEU:HD11	1.77	0.67
2:A:238:ILE:HD12	2:A:378:LEU:HD11	1.77	0.67
1:C:176:ALA:HB1	1:C:180:PRO:HB2	1.77	0.67
2:A:238:ILE:HD12	2:A:378:LEU:HD11	1.77	0.67
2:A:238:ILE:HD12	2:A:378:LEU:HD11	1.77	0.67
1:C:176:ALA:HB1	1:C:180:PRO:HB2	1.77	0.67
2:A:238:ILE:HD12	2:A:378:LEU:HD11	1.77	0.67
1:C:176:ALA:HB1	1:C:180:PRO:HB2	1.77	0.67
2:A:67:PHE:HB2	2:A:92:LEU:HD23	1.76	0.66
2:A:67:PHE:HB2	2:A:92:LEU:HD23	1.76	0.66
2:A:67:PHE:HB2	2:A:92:LEU:HD23	1.76	0.66
2:A:67:PHE:HB2	2:A:92:LEU:HD23	1.76	0.66
2:A:67:PHE:HB2	2:A:92:LEU:HD23	1.76	0.66
3:B:23:VAL:HG13	7:B:601:TA1:H321	1.77	0.66
3:B:23:VAL:HG13	7:B:601:TA1:H321	1.77	0.66
3:B:23:VAL:HG13	7:B:601:TA1:H321	1.77	0.66
3:B:23:VAL:HG13	7:B:601:TA1:H321	1.77	0.66
3:B:23:VAL:HG13	7:B:601:TA1:H321	1.77	0.66
3:B:23:VAL:HG13	7:B:601:TA1:C32	2.24	0.66
3:B:23:VAL:HG13	7:B:601:TA1:C32	2.24	0.66
1:C:427:GLY:HA3	2:A:410:GLY:O	1.96	0.66
3:B:23:VAL:HG13	7:B:601:TA1:C32	2.24	0.66
3:B:23:VAL:HG13	7:B:601:TA1:C32	2.24	0.66
3:B:23:VAL:HG13	7:B:601:TA1:C32	2.24	0.66
1:C:423:LEU:HD13	3:B:163:ASP:CB	2.26	0.65
3:B:195:VAL:HA	3:B:265:LEU:HD22	1.78	0.65
3:B:195:VAL:HA	3:B:265:LEU:HD22	1.78	0.65
1:C:424:LYS:NZ	3:B:163:ASP:HA	2.12	0.65
3:B:195:VAL:HA	3:B:265:LEU:HD22	1.78	0.65
3:B:195:VAL:HA	3:B:265:LEU:HD22	1.78	0.65
3:B:195:VAL:HA	3:B:265:LEU:HD22	1.78	0.65
3:B:168:THR:HB	3:B:201:THR:HG23	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:168:THR:HB	3:B:201:THR:HG23	1.78	0.65
3:B:168:THR:HB	3:B:201:THR:HG23	1.78	0.65
1:C:433:LEU:HG	1:C:499:PHE:HE2	1.60	0.65
3:B:168:THR:HB	3:B:201:THR:HG23	1.78	0.65
3:B:168:THR:HB	3:B:201:THR:HG23	1.78	0.65
1:C:433:LEU:HG	1:C:499:PHE:HE2	1.60	0.65
2:A:7:ILE:HD11	2:A:137:VAL:HG22	1.78	0.65
2:A:7:ILE:HD11	2:A:137:VAL:HG22	1.78	0.65
1:C:433:LEU:HG	1:C:499:PHE:HE2	1.60	0.65
2:A:7:ILE:HD11	2:A:137:VAL:HG22	1.78	0.65
2:A:7:ILE:HD11	2:A:137:VAL:HG22	1.78	0.65
2:A:7:ILE:HD11	2:A:137:VAL:HG22	1.78	0.65
1:C:433:LEU:HG	1:C:499:PHE:HE2	1.60	0.65
1:C:433:LEU:HG	1:C:499:PHE:HE2	1.60	0.65
3:B:69:ASP:HA	3:B:145:THR:HG21	1.78	0.65
3:B:135:PHE:HB2	3:B:166:MET:SD	2.37	0.65
3:B:69:ASP:HA	3:B:145:THR:HG21	1.78	0.65
3:B:135:PHE:HB2	3:B:166:MET:SD	2.37	0.65
3:B:69:ASP:HA	3:B:145:THR:HG21	1.78	0.65
3:B:135:PHE:HB2	3:B:166:MET:SD	2.37	0.65
1:C:424:LYS:NZ	3:B:163:ASP:HA	2.12	0.65
3:B:69:ASP:HA	3:B:145:THR:HG21	1.78	0.65
3:B:135:PHE:HB2	3:B:166:MET:SD	2.37	0.65
3:B:69:ASP:HA	3:B:145:THR:HG21	1.78	0.65
3:B:135:PHE:HB2	3:B:166:MET:SD	2.37	0.65
3:B:242:LEU:HD22	3:B:250:ALA:HB3	1.79	0.65
3:B:242:LEU:HD22	3:B:250:ALA:HB3	1.79	0.65
3:B:242:LEU:HD22	3:B:250:ALA:HB3	1.79	0.65
3:B:242:LEU:HD22	3:B:250:ALA:HB3	1.79	0.65
3:B:242:LEU:HD22	3:B:250:ALA:HB3	1.79	0.65
1:C:150:GLY:HA2	1:C:401:SER:HB3	1.79	0.65
1:C:150:GLY:HA2	1:C:401:SER:HB3	1.79	0.65
2:A:129:CYS:SG	2:A:132:LEU:HB3	2.37	0.64
2:A:129:CYS:SG	2:A:132:LEU:HB3	2.37	0.64
1:C:150:GLY:HA2	1:C:401:SER:HB3	1.79	0.64
2:A:129:CYS:SG	2:A:132:LEU:HB3	2.37	0.64
2:A:129:CYS:SG	2:A:132:LEU:HB3	2.37	0.64
2:A:129:CYS:SG	2:A:132:LEU:HB3	2.37	0.64
1:C:150:GLY:HA2	1:C:401:SER:HB3	1.79	0.64
1:C:150:GLY:HA2	1:C:401:SER:HB3	1.80	0.64
1:C:64:VAL:HG11	1:C:440:ILE:HG23	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:64:VAL:HG11	1:C:440:ILE:HG23	1.79	0.64
1:C:64:VAL:HG11	1:C:440:ILE:HG23	1.79	0.64
1:C:66:VAL:HG21	1:C:500:SER:HB3	1.78	0.64
1:C:413:ARG:HD2	1:C:413:ARG:O	1.96	0.64
1:C:390:LEU:N	1:C:390:LEU:HD12	2.12	0.64
3:B:254:LYS:HE3	3:B:352:LYS:CE	2.27	0.64
1:C:64:VAL:HG11	1:C:440:ILE:HG23	1.79	0.64
3:B:254:LYS:HE3	3:B:352:LYS:CE	2.27	0.64
1:C:66:VAL:HG21	1:C:500:SER:HB3	1.78	0.64
3:B:254:LYS:HE3	3:B:352:LYS:CE	2.27	0.64
1:C:66:VAL:HG21	1:C:500:SER:HB3	1.78	0.64
3:B:254:LYS:HE3	3:B:352:LYS:CE	2.27	0.64
3:B:254:LYS:HE3	3:B:352:LYS:CE	2.27	0.64
1:C:64:VAL:HG11	1:C:440:ILE:HG23	1.79	0.64
3:B:119:LEU:HD21	3:B:156:LYS:HB3	1.79	0.64
1:C:66:VAL:HG21	1:C:500:SER:HB3	1.78	0.64
1:C:424:LYS:NZ	3:B:163:ASP:HA	2.13	0.64
3:B:119:LEU:HD21	3:B:156:LYS:HB3	1.79	0.64
3:B:119:LEU:HD21	3:B:156:LYS:HB3	1.79	0.64
1:C:390:LEU:N	1:C:390:LEU:HD12	2.12	0.64
3:B:119:LEU:HD21	3:B:156:LYS:HB3	1.79	0.64
3:B:119:LEU:HD21	3:B:156:LYS:HB3	1.79	0.64
1:C:66:VAL:HG21	1:C:500:SER:HB3	1.79	0.64
1:C:77:GLU:HB3	1:C:486:CYS:SG	2.38	0.64
1:C:390:LEU:N	1:C:390:LEU:HD12	2.12	0.64
1:C:427:GLY:HA3	2:A:410:GLY:O	1.98	0.64
1:C:390:LEU:N	1:C:390:LEU:HD12	2.12	0.64
1:C:77:GLU:HB3	1:C:486:CYS:SG	2.38	0.64
1:C:390:LEU:N	1:C:390:LEU:HD12	2.12	0.64
1:C:77:GLU:HB3	1:C:486:CYS:SG	2.38	0.64
3:B:89:PRO:HA	3:B:92:PHE:HD2	1.62	0.64
3:B:89:PRO:HA	3:B:92:PHE:HD2	1.62	0.64
1:C:77:GLU:HB3	1:C:486:CYS:SG	2.38	0.64
3:B:89:PRO:HA	3:B:92:PHE:HD2	1.62	0.64
1:C:77:GLU:HB3	1:C:486:CYS:SG	2.38	0.64
3:B:89:PRO:HA	3:B:92:PHE:HD2	1.62	0.64
3:B:89:PRO:HA	3:B:92:PHE:HD2	1.62	0.64
1:C:362:ARG:O	1:C:365:GLN:HG3	1.97	0.64
7:B:601:TA1:H463	7:B:601:TA1:H261	1.80	0.64
1:C:362:ARG:O	1:C:365:GLN:HG3	1.97	0.64
7:B:601:TA1:H463	7:B:601:TA1:H261	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:B:601:TA1:H463	7:B:601:TA1:H261	1.80	0.64
1:C:362:ARG:O	1:C:365:GLN:HG3	1.97	0.64
7:B:601:TA1:H463	7:B:601:TA1:H261	1.80	0.64
1:C:362:ARG:O	1:C:365:GLN:HG3	1.97	0.64
7:B:601:TA1:H463	7:B:601:TA1:H261	1.80	0.64
1:C:453:GLN:HB2	3:B:434:GLN:HE22	1.63	0.64
2:A:7:ILE:HG13	2:A:137:VAL:HA	1.80	0.64
2:A:7:ILE:HG13	2:A:137:VAL:HA	1.80	0.64
1:C:362:ARG:O	1:C:365:GLN:HG3	1.97	0.64
2:A:7:ILE:HG13	2:A:137:VAL:HA	1.80	0.64
2:A:7:ILE:HG13	2:A:137:VAL:HA	1.80	0.64
2:A:7:ILE:HG13	2:A:137:VAL:HA	1.80	0.64
3:B:206:ASN:ND2	6:B:600:GDP:O2'	2.31	0.63
3:B:206:ASN:ND2	6:B:600:GDP:O2'	2.31	0.63
3:B:206:ASN:ND2	6:B:600:GDP:O2'	2.31	0.63
3:B:206:ASN:ND2	6:B:600:GDP:O2'	2.31	0.63
3:B:206:ASN:ND2	6:B:600:GDP:O2'	2.31	0.63
3:B:140:SER:HA	3:B:171:VAL:HB	1.79	0.63
3:B:140:SER:HA	3:B:171:VAL:HB	1.79	0.63
3:B:140:SER:HA	3:B:171:VAL:HB	1.79	0.63
3:B:140:SER:HA	3:B:171:VAL:HB	1.79	0.63
3:B:140:SER:HA	3:B:171:VAL:HB	1.79	0.63
1:C:453:GLN:HB2	3:B:434:GLN:HE22	1.63	0.63
1:C:427:GLY:HA3	2:A:410:GLY:O	1.99	0.63
1:C:378:ARG:HH11	1:C:378:ARG:HB3	1.64	0.63
1:C:453:GLN:HB2	3:B:434:GLN:HE22	1.64	0.63
1:C:453:GLN:HB2	3:B:434:GLN:HE22	1.63	0.63
1:C:297:ARG:HG2	1:C:298:PHE:H	1.64	0.63
1:C:297:ARG:HG2	1:C:298:PHE:H	1.64	0.63
1:C:126:PHE:HD2	1:C:130:VAL:HG11	1.64	0.63
1:C:309:ASN:ND2	1:C:422:ARG:HD3	2.13	0.63
1:C:126:PHE:HD2	1:C:130:VAL:HG11	1.64	0.62
1:C:126:PHE:HD2	1:C:130:VAL:HG11	1.64	0.62
1:C:297:ARG:HG2	1:C:298:PHE:H	1.64	0.62
1:C:126:PHE:HD2	1:C:130:VAL:HG11	1.64	0.62
1:C:297:ARG:HG2	1:C:298:PHE:H	1.64	0.62
1:C:297:ARG:HG2	1:C:298:PHE:H	1.64	0.62
1:C:126:PHE:HD2	1:C:130:VAL:HG11	1.64	0.62
1:C:423:LEU:HD13	3:B:163:ASP:HB2	1.82	0.62
2:A:224:TYR:CZ	4:A:500:GTP:N7	2.68	0.62
2:A:224:TYR:CZ	4:A:500:GTP:C5	2.88	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:224:TYR:CZ	4:A:500:GTP:N7	2.68	0.62
2:A:224:TYR:CZ	4:A:500:GTP:C5	2.88	0.62
2:A:224:TYR:CZ	4:A:500:GTP:N7	2.68	0.62
2:A:224:TYR:CZ	4:A:500:GTP:C5	2.88	0.62
2:A:224:TYR:CZ	4:A:500:GTP:N7	2.68	0.62
2:A:224:TYR:CZ	4:A:500:GTP:C5	2.88	0.62
2:A:224:TYR:CZ	4:A:500:GTP:N7	2.68	0.62
2:A:224:TYR:CZ	4:A:500:GTP:C5	2.88	0.62
1:C:148:LEU:HD13	1:C:189:SER:HB3	1.79	0.62
1:C:148:LEU:HD13	1:C:189:SER:HB3	1.80	0.62
1:C:148:LEU:HD13	1:C:189:SER:HB3	1.80	0.62
1:C:148:LEU:HD13	1:C:189:SER:HB3	1.80	0.62
1:C:148:LEU:HD13	1:C:189:SER:HB3	1.80	0.62
1:C:147:VAL:HG11	1:C:403:LEU:HB2	1.82	0.61
1:C:147:VAL:HG11	1:C:403:LEU:HB2	1.82	0.61
1:C:453:GLN:HB2	3:B:434:GLN:HE22	1.65	0.61
3:B:11:GLN:HA	3:B:74:THR:HG21	1.82	0.61
3:B:11:GLN:HA	3:B:74:THR:HG21	1.82	0.61
1:C:147:VAL:HG11	1:C:403:LEU:HB2	1.82	0.61
3:B:11:GLN:HA	3:B:74:THR:HG21	1.82	0.61
1:C:147:VAL:HG11	1:C:403:LEU:HB2	1.82	0.61
3:B:11:GLN:HA	3:B:74:THR:HG21	1.82	0.61
1:C:147:VAL:HG11	1:C:403:LEU:HB2	1.82	0.61
3:B:11:GLN:HA	3:B:74:THR:HG21	1.82	0.61
3:B:216:THR:HB	3:B:275:LEU:HD12	1.82	0.61
3:B:216:THR:HB	3:B:275:LEU:HD12	1.82	0.61
1:C:64:VAL:HG11	1:C:440:ILE:CG2	2.30	0.61
1:C:413:ARG:NE	2:A:414:GLU:OE2	2.33	0.61
3:B:216:THR:HB	3:B:275:LEU:HD12	1.82	0.61
1:C:64:VAL:HG11	1:C:440:ILE:CG2	2.30	0.61
3:B:216:THR:HB	3:B:275:LEU:HD12	1.82	0.61
1:C:64:VAL:HG11	1:C:440:ILE:CG2	2.30	0.61
3:B:216:THR:HB	3:B:275:LEU:HD12	1.82	0.61
2:A:271:THR:HB	2:A:377:MET:HB3	1.82	0.61
1:C:64:VAL:HG11	1:C:440:ILE:CG2	2.30	0.61
2:A:271:THR:HB	2:A:377:MET:HB3	1.82	0.61
2:A:271:THR:HB	2:A:377:MET:HB3	1.82	0.61
2:A:271:THR:HB	2:A:377:MET:HB3	1.82	0.61
2:A:271:THR:HB	2:A:377:MET:HB3	1.82	0.61
1:C:64:VAL:HG11	1:C:440:ILE:CG2	2.30	0.61
3:B:209:LEU:HD23	3:B:227:LEU:HB3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:209:LEU:HD23	3:B:227:LEU:HB3	1.82	0.61
3:B:209:LEU:HD23	3:B:227:LEU:HB3	1.82	0.61
3:B:209:LEU:HD23	3:B:227:LEU:HB3	1.82	0.61
3:B:209:LEU:HD23	3:B:227:LEU:HB3	1.82	0.61
2:A:224:TYR:OH	4:A:500:GTP:C8	2.53	0.61
2:A:224:TYR:OH	4:A:500:GTP:C8	2.53	0.61
2:A:224:TYR:OH	4:A:500:GTP:C8	2.53	0.61
1:C:328:LEU:HD13	1:C:340:VAL:HG11	1.82	0.61
2:A:224:TYR:OH	4:A:500:GTP:C8	2.53	0.61
2:A:224:TYR:OH	4:A:500:GTP:C8	2.53	0.61
3:B:382:THR:HA	3:B:432:TYR:HD2	1.64	0.60
3:B:382:THR:HA	3:B:432:TYR:HD2	1.64	0.60
3:B:382:THR:HA	3:B:432:TYR:HD2	1.64	0.60
3:B:382:THR:HA	3:B:432:TYR:HD2	1.64	0.60
3:B:382:THR:HA	3:B:432:TYR:HD2	1.64	0.60
3:B:10:GLY:HA2	3:B:145:THR:HB	1.84	0.60
3:B:10:GLY:HA2	3:B:145:THR:HB	1.84	0.60
3:B:10:GLY:HA2	3:B:145:THR:HB	1.84	0.60
1:C:95:LEU:HD21	1:C:125:ILE:HG13	1.83	0.60
3:B:10:GLY:HA2	3:B:145:THR:HB	1.84	0.60
3:B:10:GLY:HA2	3:B:145:THR:HB	1.84	0.60
1:C:95:LEU:HD21	1:C:125:ILE:HG13	1.83	0.60
1:C:95:LEU:HD21	1:C:125:ILE:HG13	1.83	0.60
1:C:95:LEU:HD21	1:C:125:ILE:HG13	1.83	0.60
1:C:95:LEU:HD21	1:C:125:ILE:HG13	1.84	0.60
1:C:380:HIS:HD2	1:C:408:LEU:HG	1.66	0.60
1:C:380:HIS:HD2	1:C:408:LEU:HG	1.66	0.60
1:C:380:HIS:HD2	1:C:408:LEU:HG	1.66	0.60
2:A:204:VAL:HG11	2:A:231:ILE:HD12	1.83	0.60
3:B:360:PRO:HB2	7:B:601:TA1:C28	2.31	0.60
2:A:204:VAL:HG11	2:A:231:ILE:HD12	1.83	0.60
3:B:360:PRO:HB2	7:B:601:TA1:C28	2.31	0.60
2:A:204:VAL:HG11	2:A:231:ILE:HD12	1.83	0.60
3:B:360:PRO:HB2	7:B:601:TA1:C28	2.31	0.60
1:C:380:HIS:HD2	1:C:408:LEU:HG	1.66	0.60
2:A:204:VAL:HG11	2:A:231:ILE:HD12	1.83	0.60
3:B:360:PRO:HB2	7:B:601:TA1:C28	2.31	0.60
1:C:380:HIS:HD2	1:C:408:LEU:HG	1.66	0.60
2:A:204:VAL:HG11	2:A:231:ILE:HD12	1.83	0.60
3:B:360:PRO:HB2	7:B:601:TA1:C28	2.31	0.60
1:C:303:SER:HA	1:C:316:LEU:HD12	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:312:TYR:HA	2:A:381:THR:HG22	1.84	0.60
1:C:303:SER:HA	1:C:316:LEU:HD12	1.84	0.60
2:A:312:TYR:HA	2:A:381:THR:HG22	1.84	0.60
2:A:312:TYR:HA	2:A:381:THR:HG22	1.84	0.60
2:A:312:TYR:HA	2:A:381:THR:HG22	1.84	0.60
2:A:312:TYR:HA	2:A:381:THR:HG22	1.84	0.60
1:C:303:SER:HA	1:C:316:LEU:HD12	1.84	0.60
1:C:303:SER:HA	1:C:316:LEU:HD12	1.84	0.60
1:C:303:SER:HA	1:C:316:LEU:HD12	1.84	0.60
1:C:120:PHE:HB3	1:C:122:PHE:CE2	2.37	0.59
1:C:120:PHE:HB3	1:C:122:PHE:CE2	2.37	0.59
1:C:120:PHE:HB3	1:C:122:PHE:CE2	2.37	0.59
1:C:120:PHE:HB3	1:C:122:PHE:CE2	2.37	0.59
2:A:224:TYR:CD1	4:A:500:GTP:C5	2.87	0.59
2:A:224:TYR:CD1	4:A:500:GTP:C5	2.87	0.59
1:C:120:PHE:HB3	1:C:122:PHE:CE2	2.37	0.59
2:A:224:TYR:CD1	4:A:500:GTP:C5	2.87	0.59
2:A:224:TYR:CD1	4:A:500:GTP:C5	2.87	0.59
1:C:424:LYS:HZ1	3:B:163:ASP:HA	1.67	0.59
2:A:224:TYR:CD1	4:A:500:GTP:C5	2.87	0.59
3:B:179:ASP:HB2	6:B:600:GDP:H3'	1.84	0.59
3:B:179:ASP:HB2	6:B:600:GDP:H3'	1.84	0.59
3:B:179:ASP:HB2	6:B:600:GDP:H3'	1.84	0.59
3:B:179:ASP:HB2	6:B:600:GDP:H3'	1.84	0.59
3:B:179:ASP:HB2	6:B:600:GDP:H3'	1.84	0.59
1:C:424:LYS:HD2	1:C:428:ASN:OD1	2.02	0.59
1:C:412:GLU:HG3	1:C:426:ALA:HB1	1.84	0.59
1:C:424:LYS:HD2	1:C:428:ASN:OD1	2.02	0.59
1:C:424:LYS:HD2	1:C:428:ASN:OD1	2.02	0.59
1:C:424:LYS:HD2	1:C:428:ASN:OD1	2.02	0.59
1:C:424:LYS:HD2	1:C:428:ASN:OD1	2.02	0.59
2:A:168:GLU:HG3	2:A:201:ALA:HA	1.85	0.59
2:A:168:GLU:HG3	2:A:201:ALA:HA	1.85	0.59
2:A:168:GLU:HG3	2:A:201:ALA:HA	1.85	0.59
2:A:168:GLU:HG3	2:A:201:ALA:HA	1.85	0.59
2:A:168:GLU:HG3	2:A:201:ALA:HA	1.85	0.59
1:C:455:LEU:HD11	3:B:431:GLU:HA	1.83	0.59
3:B:273:ALA:HB3	3:B:274:PRO:HD3	1.85	0.59
3:B:273:ALA:HB3	3:B:274:PRO:HD3	1.85	0.59
3:B:273:ALA:HB3	3:B:274:PRO:HD3	1.85	0.59
3:B:273:ALA:HB3	3:B:274:PRO:HD3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:273:ALA:HB3	3:B:274:PRO:HD3	1.85	0.59
3:B:63:PRO:HD3	3:B:86:ILE:HG12	1.84	0.59
3:B:63:PRO:HD3	3:B:86:ILE:HG12	1.84	0.59
3:B:63:PRO:HD3	3:B:86:ILE:HG12	1.84	0.59
3:B:63:PRO:HD3	3:B:86:ILE:HG12	1.84	0.59
1:C:319:PRO:HA	1:C:364:ASN:OD1	2.03	0.59
3:B:63:PRO:HD3	3:B:86:ILE:HG12	1.84	0.59
3:B:297:ASP:OD1	3:B:299:LYS:HG2	2.02	0.58
3:B:297:ASP:OD1	3:B:299:LYS:HG2	2.02	0.58
3:B:297:ASP:OD1	3:B:299:LYS:HG2	2.02	0.58
3:B:297:ASP:OD1	3:B:299:LYS:HG2	2.02	0.58
3:B:297:ASP:OD1	3:B:299:LYS:HG2	2.02	0.58
1:C:424:LYS:HZ1	3:B:163:ASP:HA	1.68	0.58
2:A:224:TYR:OH	4:A:500:GTP:H2'	2.02	0.58
1:C:377:SER:O	1:C:378:ARG:HD2	2.03	0.58
2:A:224:TYR:OH	4:A:500:GTP:H2'	2.02	0.58
2:A:224:TYR:OH	4:A:500:GTP:H2'	2.02	0.58
2:A:224:TYR:OH	4:A:500:GTP:H2'	2.02	0.58
2:A:224:TYR:OH	4:A:500:GTP:H2'	2.02	0.58
2:A:237:SER:HA	2:A:241:SER:OG	2.02	0.58
2:A:237:SER:HA	2:A:241:SER:OG	2.02	0.58
2:A:237:SER:HA	2:A:241:SER:OG	2.02	0.58
2:A:237:SER:HA	2:A:241:SER:OG	2.02	0.58
1:C:455:LEU:HD11	3:B:431:GLU:HA	1.84	0.58
2:A:237:SER:HA	2:A:241:SER:OG	2.02	0.58
1:C:316:LEU:O	1:C:317:GLU:HB2	2.03	0.58
1:C:316:LEU:O	1:C:317:GLU:HB2	2.03	0.58
1:C:301:TRP:HE1	1:C:345:TRP:HA	1.68	0.58
3:B:19:LYS:HG3	3:B:228:ASN:HB2	1.86	0.58
3:B:103:TRP:HZ2	3:B:151:THR:HG21	1.69	0.58
1:C:301:TRP:HE1	1:C:345:TRP:HA	1.69	0.58
1:C:378:ARG:HH12	1:C:412:GLU:HG2	1.69	0.58
3:B:19:LYS:HG3	3:B:228:ASN:HB2	1.86	0.58
3:B:103:TRP:HZ2	3:B:151:THR:HG21	1.69	0.58
1:C:301:TRP:HE1	1:C:345:TRP:HA	1.68	0.58
3:B:19:LYS:HG3	3:B:228:ASN:HB2	1.86	0.58
3:B:103:TRP:HZ2	3:B:151:THR:HG21	1.69	0.58
1:C:301:TRP:HE1	1:C:345:TRP:HA	1.68	0.58
3:B:19:LYS:HG3	3:B:228:ASN:HB2	1.86	0.58
3:B:103:TRP:HZ2	3:B:151:THR:HG21	1.69	0.58
3:B:19:LYS:HG3	3:B:228:ASN:HB2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:103:TRP:HZ2	3:B:151:THR:HG21	1.69	0.58
1:C:301:TRP:HE1	1:C:345:TRP:HA	1.69	0.58
1:C:186:ILE:CD1	1:C:387:ILE:HD11	2.33	0.58
1:C:186:ILE:CD1	1:C:387:ILE:HD11	2.33	0.57
1:C:302:ILE:HD12	1:C:348:VAL:HG21	1.86	0.57
1:C:186:ILE:CD1	1:C:387:ILE:HD11	2.33	0.57
1:C:186:ILE:CD1	1:C:387:ILE:HD11	2.33	0.57
1:C:302:ILE:HD12	1:C:348:VAL:HG21	1.86	0.57
1:C:186:ILE:CD1	1:C:387:ILE:HD11	2.33	0.57
1:C:302:ILE:HD12	1:C:348:VAL:HG21	1.86	0.57
1:C:302:ILE:HD12	1:C:348:VAL:HG21	1.86	0.57
1:C:302:ILE:HD12	1:C:348:VAL:HG21	1.86	0.57
1:C:307:ILE:HG21	1:C:463:LEU:HD11	1.86	0.57
1:C:307:ILE:HG21	1:C:463:LEU:HD11	1.86	0.57
1:C:307:ILE:HG21	1:C:463:LEU:HD11	1.86	0.57
1:C:307:ILE:HG21	1:C:463:LEU:HD11	1.86	0.57
1:C:315:LEU:CD1	1:C:364:ASN:HB2	2.33	0.57
1:C:455:LEU:HD11	3:B:431:GLU:HA	1.85	0.57
1:C:307:ILE:HG21	1:C:463:LEU:HD11	1.86	0.57
1:C:315:LEU:CD1	1:C:364:ASN:HB2	2.33	0.57
1:C:315:LEU:CD1	1:C:364:ASN:HB2	2.33	0.57
1:C:315:LEU:CD1	1:C:364:ASN:HB2	2.33	0.57
1:C:315:LEU:CD1	1:C:364:ASN:HB2	2.33	0.57
2:A:179:THR:CG2	4:A:500:GTP:C2'	2.83	0.57
2:A:179:THR:CG2	4:A:500:GTP:C2'	2.83	0.57
1:C:424:LYS:HZ1	3:B:163:ASP:HA	1.70	0.57
2:A:179:THR:CG2	4:A:500:GTP:C2'	2.83	0.57
2:A:179:THR:CG2	4:A:500:GTP:C2'	2.83	0.57
2:A:179:THR:CG2	4:A:500:GTP:C2'	2.83	0.57
2:A:360:PRO:HG3	2:A:374:ALA:HB2	1.88	0.56
3:B:230:LEU:HD12	7:B:601:TA1:H081	1.86	0.56
2:A:360:PRO:HG3	2:A:374:ALA:HB2	1.88	0.56
3:B:230:LEU:HD12	7:B:601:TA1:H081	1.86	0.56
2:A:360:PRO:HG3	2:A:374:ALA:HB2	1.88	0.56
3:B:230:LEU:HD12	7:B:601:TA1:H081	1.86	0.56
2:A:360:PRO:HG3	2:A:374:ALA:HB2	1.88	0.56
3:B:230:LEU:HD12	7:B:601:TA1:H081	1.86	0.56
2:A:360:PRO:HG3	2:A:374:ALA:HB2	1.88	0.56
3:B:230:LEU:HD12	7:B:601:TA1:H081	1.86	0.56
3:B:260:VAL:HG12	3:B:266:HIS:HB2	1.87	0.56
3:B:311:ARG:HD2	3:B:342:TYR:HA	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:260:VAL:HG12	3:B:266:HIS:HB2	1.87	0.56
3:B:311:ARG:HD2	3:B:342:TYR:HA	1.88	0.56
3:B:260:VAL:HG12	3:B:266:HIS:HB2	1.87	0.56
3:B:311:ARG:HD2	3:B:342:TYR:HA	1.88	0.56
3:B:260:VAL:HG12	3:B:266:HIS:HB2	1.87	0.56
3:B:311:ARG:HD2	3:B:342:TYR:HA	1.88	0.56
3:B:260:VAL:HG12	3:B:266:HIS:HB2	1.87	0.56
3:B:311:ARG:HD2	3:B:342:TYR:HA	1.88	0.56
2:A:141:PHE:HE2	2:A:388:TRP:HH2	1.54	0.56
3:B:89:PRO:HA	3:B:92:PHE:CD2	2.38	0.56
1:C:329:ARG:CZ	1:C:331:CYS:HB2	2.35	0.56
2:A:141:PHE:HE2	2:A:388:TRP:HH2	1.54	0.56
3:B:89:PRO:HA	3:B:92:PHE:CD2	2.38	0.56
1:C:329:ARG:CZ	1:C:331:CYS:HB2	2.35	0.56
2:A:141:PHE:HE2	2:A:388:TRP:HH2	1.54	0.56
3:B:89:PRO:HA	3:B:92:PHE:CD2	2.38	0.56
1:C:329:ARG:CZ	1:C:331:CYS:HB2	2.35	0.56
2:A:141:PHE:HE2	2:A:388:TRP:HH2	1.54	0.56
3:B:89:PRO:HA	3:B:92:PHE:CD2	2.38	0.56
1:C:329:ARG:CZ	1:C:331:CYS:HB2	2.35	0.56
2:A:141:PHE:HE2	2:A:388:TRP:HH2	1.54	0.56
3:B:89:PRO:HA	3:B:92:PHE:CD2	2.38	0.56
1:C:329:ARG:CZ	1:C:331:CYS:HB2	2.35	0.56
2:A:141:PHE:HE2	2:A:388:TRP:HH2	1.54	0.56
3:B:89:PRO:HA	3:B:92:PHE:CD2	2.38	0.56
1:C:329:ARG:CZ	1:C:331:CYS:HB2	2.35	0.56
3:B:12:CYS:SG	6:B:600:GDP:C5	2.99	0.56
3:B:12:CYS:SG	6:B:600:GDP:C5	2.99	0.56
3:B:12:CYS:SG	6:B:600:GDP:C5	2.99	0.56
1:C:160:VAL:HG12	1:C:161:THR:H	1.70	0.56
3:B:12:CYS:SG	6:B:600:GDP:C5	2.99	0.56
3:B:12:CYS:SG	6:B:600:GDP:C5	2.99	0.56
1:C:160:VAL:HG12	1:C:161:THR:H	1.70	0.56
1:C:160:VAL:HG12	1:C:161:THR:H	1.70	0.56
1:C:160:VAL:HG12	1:C:161:THR:H	1.70	0.56
1:C:160:VAL:HG12	1:C:161:THR:H	1.70	0.56
2:A:70:LEU:HB3	2:A:99:ALA:HA	1.86	0.56
2:A:70:LEU:HB3	2:A:99:ALA:HA	1.86	0.56
2:A:70:LEU:HB3	2:A:99:ALA:HA	1.86	0.56
2:A:70:LEU:HB3	2:A:99:ALA:HA	1.86	0.56
2:A:70:LEU:HB3	2:A:99:ALA:HA	1.86	0.56
1:C:455:LEU:HD11	3:B:431:GLU:HA	1.87	0.56
2:A:409:VAL:HA	2:A:413:MET:O	2.06	0.55
1:C:455:LEU:HD11	3:B:431:GLU:HA	1.86	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:409:VAL:HA	2:A:413:MET:O	2.06	0.55
2:A:409:VAL:HA	2:A:413:MET:O	2.06	0.55
2:A:409:VAL:HA	2:A:413:MET:O	2.06	0.55
2:A:409:VAL:HA	2:A:413:MET:O	2.06	0.55
1:C:187:PHE:HA	1:C:190:LEU:HD13	1.87	0.55
1:C:187:PHE:HA	1:C:190:LEU:HD13	1.87	0.55
1:C:187:PHE:HA	1:C:190:LEU:HD13	1.87	0.55
1:C:187:PHE:HA	1:C:190:LEU:HD13	1.87	0.55
1:C:187:PHE:HA	1:C:190:LEU:HD13	1.87	0.55
1:C:360:VAL:HG13	1:C:361:GLY:N	2.21	0.55
3:B:11:GLN:CB	6:B:600:GDP:O2B	2.55	0.55
3:B:20:PHE:HA	3:B:232:SER:HB2	1.89	0.55
3:B:11:GLN:CB	6:B:600:GDP:O2B	2.55	0.55
3:B:20:PHE:HA	3:B:232:SER:HB2	1.89	0.55
1:C:360:VAL:HG13	1:C:361:GLY:N	2.21	0.55
3:B:11:GLN:CB	6:B:600:GDP:O2B	2.55	0.55
3:B:20:PHE:HA	3:B:232:SER:HB2	1.89	0.55
3:B:11:GLN:CB	6:B:600:GDP:O2B	2.55	0.55
3:B:20:PHE:HA	3:B:232:SER:HB2	1.89	0.55
3:B:11:GLN:CB	6:B:600:GDP:O2B	2.55	0.55
3:B:20:PHE:HA	3:B:232:SER:HB2	1.89	0.55
1:C:360:VAL:HG13	1:C:361:GLY:N	2.21	0.55
1:C:360:VAL:HG13	1:C:361:GLY:N	2.21	0.55
1:C:378:ARG:HB3	1:C:378:ARG:NH1	2.22	0.55
1:C:360:VAL:HG13	1:C:361:GLY:N	2.21	0.55
1:C:95:LEU:HD11	1:C:125:ILE:HG13	1.89	0.55
1:C:95:LEU:HD11	1:C:125:ILE:HG13	1.89	0.55
2:A:105:ARG:HA	2:A:109:THR:OG1	2.07	0.55
2:A:183:GLU:HB3	2:A:184:PRO:HD3	1.88	0.55
2:A:105:ARG:HA	2:A:109:THR:OG1	2.07	0.55
2:A:183:GLU:HB3	2:A:184:PRO:HD3	1.88	0.55
1:C:95:LEU:HD11	1:C:125:ILE:HG13	1.89	0.55
2:A:105:ARG:HA	2:A:109:THR:OG1	2.07	0.55
2:A:183:GLU:HB3	2:A:184:PRO:HD3	1.88	0.55
2:A:105:ARG:HA	2:A:109:THR:OG1	2.07	0.55
2:A:183:GLU:HB3	2:A:184:PRO:HD3	1.88	0.55
2:A:105:ARG:HA	2:A:109:THR:OG1	2.07	0.55
2:A:183:GLU:HB3	2:A:184:PRO:HD3	1.88	0.55
2:A:204:VAL:HG13	2:A:302:MET:HG2	1.89	0.55
1:C:95:LEU:HD11	1:C:125:ILE:HG13	1.89	0.55
1:C:413:ARG:HD2	1:C:413:ARG:C	2.28	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:204:VAL:HG13	2:A:302:MET:HG2	1.89	0.55
2:A:204:VAL:HG13	2:A:302:MET:HG2	1.89	0.55
2:A:204:VAL:HG13	2:A:302:MET:HG2	1.89	0.55
1:C:95:LEU:HD11	1:C:125:ILE:HG13	1.89	0.55
2:A:204:VAL:HG13	2:A:302:MET:HG2	1.89	0.55
3:B:179:ASP:CB	6:B:600:GDP:H3'	2.38	0.54
3:B:179:ASP:CB	6:B:600:GDP:H3'	2.38	0.54
3:B:179:ASP:CB	6:B:600:GDP:H3'	2.38	0.54
3:B:179:ASP:CB	6:B:600:GDP:H3'	2.38	0.54
3:B:179:ASP:CB	6:B:600:GDP:H3'	2.38	0.54
1:C:348:VAL:HG11	1:C:354:ALA:HB2	1.90	0.54
3:B:21:TRP:HA	3:B:24:ILE:HG22	1.90	0.54
3:B:21:TRP:HA	3:B:24:ILE:HG22	1.90	0.54
3:B:21:TRP:HA	3:B:24:ILE:HG22	1.90	0.54
1:C:455:LEU:HD11	3:B:434:GLN:HG3	1.88	0.54
3:B:21:TRP:HA	3:B:24:ILE:HG22	1.90	0.54
3:B:21:TRP:HA	3:B:24:ILE:HG22	1.90	0.54
2:A:72:PRO:HA	2:A:94:THR:HG22	1.90	0.54
2:A:234:ILE:O	2:A:238:ILE:HG12	2.07	0.54
3:B:295:MET:HG2	3:B:377:PHE:HB2	1.89	0.54
1:C:348:VAL:HG11	1:C:354:ALA:HB2	1.90	0.54
2:A:72:PRO:HA	2:A:94:THR:HG22	1.90	0.54
2:A:234:ILE:O	2:A:238:ILE:HG12	2.07	0.54
3:B:295:MET:HG2	3:B:377:PHE:HB2	1.89	0.54
2:A:72:PRO:HA	2:A:94:THR:HG22	1.90	0.54
2:A:234:ILE:O	2:A:238:ILE:HG12	2.07	0.54
3:B:295:MET:HG2	3:B:377:PHE:HB2	1.89	0.54
1:C:348:VAL:HG11	1:C:354:ALA:HB2	1.90	0.54
2:A:72:PRO:HA	2:A:94:THR:HG22	1.90	0.54
2:A:234:ILE:O	2:A:238:ILE:HG12	2.07	0.54
3:B:295:MET:HG2	3:B:377:PHE:HB2	1.89	0.54
1:C:348:VAL:HG11	1:C:354:ALA:HB2	1.90	0.54
2:A:72:PRO:HA	2:A:94:THR:HG22	1.90	0.54
2:A:234:ILE:O	2:A:238:ILE:HG12	2.07	0.54
3:B:295:MET:HG2	3:B:377:PHE:HB2	1.89	0.54
1:C:348:VAL:HG11	1:C:354:ALA:HB2	1.90	0.54
1:C:433:LEU:HG	1:C:499:PHE:CE2	2.42	0.54
2:A:179:THR:HG21	4:A:500:GTP:O2'	2.08	0.54
2:A:179:THR:HG21	4:A:500:GTP:O2'	2.08	0.54
1:C:433:LEU:HG	1:C:499:PHE:CE2	2.42	0.54
2:A:179:THR:HG21	4:A:500:GTP:O2'	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:179:THR:HG21	4:A:500:GTP:O2'	2.08	0.54
1:C:433:LEU:HG	1:C:499:PHE:CE2	2.42	0.54
2:A:179:THR:HG21	4:A:500:GTP:O2'	2.08	0.54
1:C:315:LEU:HD12	1:C:364:ASN:HB2	1.89	0.54
1:C:433:LEU:HG	1:C:499:PHE:CE2	2.42	0.54
1:C:315:LEU:HD12	1:C:364:ASN:HB2	1.89	0.54
1:C:433:LEU:HG	1:C:499:PHE:CE2	2.42	0.54
1:C:315:LEU:HD12	1:C:364:ASN:HB2	1.89	0.54
1:C:315:LEU:HD12	1:C:364:ASN:HB2	1.89	0.54
1:C:315:LEU:HD12	1:C:364:ASN:HB2	1.89	0.54
1:C:424:LYS:HZ1	3:B:163:ASP:HA	1.73	0.53
3:B:6:HIS:O	3:B:65:ALA:HA	2.08	0.53
3:B:142:GLY:HA3	3:B:183:GLU:HG3	1.89	0.53
3:B:6:HIS:O	3:B:65:ALA:HA	2.08	0.53
3:B:142:GLY:HA3	3:B:183:GLU:HG3	1.89	0.53
3:B:6:HIS:O	3:B:65:ALA:HA	2.08	0.53
3:B:142:GLY:HA3	3:B:183:GLU:HG3	1.89	0.53
3:B:6:HIS:O	3:B:65:ALA:HA	2.08	0.53
3:B:142:GLY:HA3	3:B:183:GLU:HG3	1.89	0.53
3:B:6:HIS:O	3:B:65:ALA:HA	2.08	0.53
3:B:142:GLY:HA3	3:B:183:GLU:HG3	1.89	0.53
3:B:250:ALA:CA	3:B:254:LYS:HD3	2.33	0.53
1:C:413:ARG:NH1	2:A:108:TYR:CE2	2.76	0.53
3:B:250:ALA:CA	3:B:254:LYS:HD3	2.33	0.53
3:B:250:ALA:CA	3:B:254:LYS:HD3	2.33	0.53
3:B:250:ALA:CA	3:B:254:LYS:HD3	2.33	0.53
3:B:250:ALA:CA	3:B:254:LYS:HD3	2.33	0.53
3:B:277:SER:OG	3:B:281:GLN:HB2	2.09	0.53
3:B:291:LEU:HD21	3:B:373:MET:HG2	1.89	0.53
1:C:380:HIS:CD2	1:C:408:LEU:HG	2.43	0.53
3:B:277:SER:OG	3:B:281:GLN:HB2	2.09	0.53
3:B:291:LEU:HD21	3:B:373:MET:HG2	1.89	0.53
1:C:380:HIS:CD2	1:C:408:LEU:HG	2.43	0.53
3:B:277:SER:OG	3:B:281:GLN:HB2	2.09	0.53
3:B:291:LEU:HD21	3:B:373:MET:HG2	1.89	0.53
1:C:380:HIS:CD2	1:C:408:LEU:HG	2.43	0.53
3:B:277:SER:OG	3:B:281:GLN:HB2	2.09	0.53
3:B:291:LEU:HD21	3:B:373:MET:HG2	1.89	0.53
1:C:380:HIS:CD2	1:C:408:LEU:HG	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:380:HIS:CD2	1:C:408:LEU:HG	2.44	0.53
2:A:177:VAL:HG13	3:B:329:ASP:HB3	1.90	0.53
2:A:269:LEU:HD13	2:A:303:VAL:HG11	1.90	0.53
2:A:319:TYR:HB3	2:A:323:VAL:HG21	1.91	0.53
2:A:177:VAL:HG13	3:B:329:ASP:HB3	1.90	0.53
2:A:269:LEU:HD13	2:A:303:VAL:HG11	1.90	0.53
2:A:319:TYR:HB3	2:A:323:VAL:HG21	1.91	0.53
2:A:177:VAL:HG13	3:B:329:ASP:HB3	1.90	0.53
2:A:269:LEU:HD13	2:A:303:VAL:HG11	1.90	0.53
2:A:319:TYR:HB3	2:A:323:VAL:HG21	1.91	0.53
2:A:177:VAL:HG13	3:B:329:ASP:HB3	1.90	0.53
2:A:269:LEU:HD13	2:A:303:VAL:HG11	1.90	0.53
2:A:319:TYR:HB3	2:A:323:VAL:HG21	1.91	0.53
2:A:177:VAL:HG13	3:B:329:ASP:HB3	1.90	0.53
2:A:269:LEU:HD13	2:A:303:VAL:HG11	1.90	0.53
2:A:319:TYR:HB3	2:A:323:VAL:HG21	1.91	0.53
2:A:179:THR:CG2	4:A:500:GTP:O2'	2.57	0.53
2:A:179:THR:CG2	4:A:500:GTP:O2'	2.57	0.53
2:A:179:THR:CG2	4:A:500:GTP:O2'	2.57	0.53
2:A:179:THR:CG2	4:A:500:GTP:O2'	2.57	0.53
1:C:155:ILE:HG23	1:C:405:LEU:HA	1.91	0.53
2:A:179:THR:CG2	4:A:500:GTP:O2'	2.57	0.53
1:C:155:ILE:HG23	1:C:405:LEU:HA	1.91	0.53
1:C:155:ILE:HG23	1:C:405:LEU:HA	1.91	0.53
1:C:155:ILE:HG23	1:C:405:LEU:HA	1.92	0.52
1:C:155:ILE:HG23	1:C:405:LEU:HA	1.91	0.52
3:B:382:THR:HA	3:B:432:TYR:CD2	2.43	0.52
3:B:382:THR:HA	3:B:432:TYR:CD2	2.43	0.52
3:B:382:THR:HA	3:B:432:TYR:CD2	2.43	0.52
1:C:90:GLU:O	1:C:91:ASN:HB2	2.09	0.52
3:B:382:THR:HA	3:B:432:TYR:CD2	2.43	0.52
1:C:90:GLU:O	1:C:91:ASN:HB2	2.09	0.52
3:B:382:THR:HA	3:B:432:TYR:CD2	2.43	0.52
1:C:90:GLU:O	1:C:91:ASN:HB2	2.09	0.52
1:C:90:GLU:O	1:C:91:ASN:HB2	2.09	0.52
1:C:328:LEU:HD13	1:C:340:VAL:CG1	2.39	0.52
1:C:90:GLU:O	1:C:91:ASN:HB2	2.09	0.52
1:C:424:LYS:HZ1	3:B:163:ASP:HA	1.74	0.52
1:C:120:PHE:HB3	1:C:122:PHE:HE2	1.75	0.52
3:B:310:GLY:HA3	3:B:383:ALA:HB2	1.91	0.52
1:C:120:PHE:HB3	1:C:122:PHE:HE2	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:310:GLY:HA3	3:B:383:ALA:HB2	1.91	0.52
3:B:310:GLY:HA3	3:B:383:ALA:HB2	1.91	0.52
1:C:120:PHE:HB3	1:C:122:PHE:HE2	1.75	0.52
3:B:310:GLY:HA3	3:B:383:ALA:HB2	1.91	0.52
1:C:120:PHE:HB3	1:C:122:PHE:HE2	1.75	0.52
3:B:310:GLY:HA3	3:B:383:ALA:HB2	1.91	0.52
1:C:120:PHE:HB3	1:C:122:PHE:HE2	1.75	0.52
2:A:174:ALA:HB1	2:A:207:GLU:HB2	1.90	0.52
2:A:174:ALA:HB1	2:A:207:GLU:HB2	1.90	0.52
2:A:174:ALA:HB1	2:A:207:GLU:HB2	1.90	0.52
2:A:174:ALA:HB1	2:A:207:GLU:HB2	1.90	0.52
2:A:174:ALA:HB1	2:A:207:GLU:HB2	1.90	0.52
1:C:143:MET:HG3	1:C:153:TRP:CD2	2.44	0.52
3:B:2:ARG:HD2	3:B:133:GLN:OE1	2.10	0.52
3:B:31:ASP:HB3	3:B:34:GLY:HA3	1.90	0.52
3:B:2:ARG:HD2	3:B:133:GLN:OE1	2.10	0.52
3:B:31:ASP:HB3	3:B:34:GLY:HA3	1.90	0.52
1:C:332:GLU:HB2	3:B:420:GLU:OE1	2.10	0.52
3:B:2:ARG:HD2	3:B:133:GLN:OE1	2.10	0.52
3:B:31:ASP:HB3	3:B:34:GLY:HA3	1.90	0.52
3:B:2:ARG:HD2	3:B:133:GLN:OE1	2.10	0.52
3:B:31:ASP:HB3	3:B:34:GLY:HA3	1.90	0.52
1:C:316:LEU:HD22	1:C:344:ASN:HB3	1.92	0.52
3:B:2:ARG:HD2	3:B:133:GLN:OE1	2.10	0.52
3:B:31:ASP:HB3	3:B:34:GLY:HA3	1.90	0.52
1:C:143:MET:HG3	1:C:153:TRP:CD2	2.44	0.52
1:C:143:MET:HG3	1:C:153:TRP:CD2	2.44	0.52
1:C:143:MET:HG3	1:C:153:TRP:CD2	2.44	0.52
1:C:316:LEU:HD22	1:C:344:ASN:HB3	1.92	0.52
1:C:422:ARG:HA	1:C:422:ARG:NE	2.25	0.52
1:C:143:MET:HG3	1:C:153:TRP:CD2	2.44	0.52
1:C:413:ARG:HD2	1:C:413:ARG:C	2.34	0.52
1:C:455:LEU:HD11	3:B:434:GLN:HG3	1.91	0.52
1:C:316:LEU:HD22	1:C:344:ASN:HB3	1.92	0.52
1:C:316:LEU:HD22	1:C:344:ASN:HB3	1.92	0.52
1:C:316:LEU:HD22	1:C:344:ASN:HB3	1.92	0.52
2:A:203:MET:HG3	2:A:267:PHE:HB3	1.91	0.51
2:A:203:MET:HG3	2:A:267:PHE:HB3	1.91	0.51
2:A:203:MET:HG3	2:A:267:PHE:HB3	1.91	0.51
2:A:203:MET:HG3	2:A:267:PHE:HB3	1.91	0.51
2:A:203:MET:HG3	2:A:267:PHE:HB3	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:330:LEU:HD13	1:C:465:ARG:HB3	1.91	0.51
1:C:330:LEU:HD13	1:C:465:ARG:HB3	1.91	0.51
1:C:330:LEU:HD13	1:C:465:ARG:HB3	1.91	0.51
1:C:86:CYS:SG	1:C:487:ALA:HA	2.50	0.51
1:C:86:CYS:SG	1:C:487:ALA:HA	2.50	0.51
1:C:330:LEU:HD13	1:C:465:ARG:HB3	1.91	0.51
1:C:330:LEU:HD13	1:C:465:ARG:HB3	1.91	0.51
2:A:179:THR:CG2	4:A:500:GTP:H3'	2.39	0.51
2:A:303:VAL:HG13	2:A:305:CYS:H	1.75	0.51
2:A:179:THR:CG2	4:A:500:GTP:H3'	2.39	0.51
2:A:303:VAL:HG13	2:A:305:CYS:H	1.75	0.51
1:C:86:CYS:SG	1:C:487:ALA:HA	2.50	0.51
2:A:179:THR:CG2	4:A:500:GTP:H3'	2.39	0.51
2:A:303:VAL:HG13	2:A:305:CYS:H	1.75	0.51
1:C:413:ARG:HD2	1:C:413:ARG:C	2.35	0.51
2:A:179:THR:CG2	4:A:500:GTP:H3'	2.39	0.51
2:A:303:VAL:HG13	2:A:305:CYS:H	1.75	0.51
2:A:179:THR:CG2	4:A:500:GTP:H3'	2.39	0.51
2:A:303:VAL:HG13	2:A:305:CYS:H	1.75	0.51
1:C:86:CYS:SG	1:C:487:ALA:HA	2.50	0.51
1:C:135:PHE:HZ	1:C:480:ILE:HG12	1.76	0.51
1:C:413:ARG:HD3	2:A:414:GLU:OE1	2.10	0.51
2:A:273:ALA:HB2	2:A:375:VAL:HB	1.93	0.51
2:A:273:ALA:HB2	2:A:375:VAL:HB	1.93	0.51
1:C:135:PHE:HZ	1:C:480:ILE:HG12	1.76	0.51
2:A:273:ALA:HB2	2:A:375:VAL:HB	1.93	0.51
1:C:135:PHE:HZ	1:C:480:ILE:HG12	1.76	0.51
2:A:273:ALA:HB2	2:A:375:VAL:HB	1.93	0.51
1:C:86:CYS:SG	1:C:487:ALA:HA	2.50	0.51
1:C:158:TYR:CE1	1:C:410:GLY:HA2	2.46	0.51
2:A:273:ALA:HB2	2:A:375:VAL:HB	1.93	0.51
1:C:135:PHE:HZ	1:C:480:ILE:HG12	1.76	0.51
1:C:135:PHE:HZ	1:C:480:ILE:HG12	1.76	0.51
2:A:137:VAL:HB	2:A:168:GLU:HB3	1.93	0.51
2:A:137:VAL:HB	2:A:168:GLU:HB3	1.93	0.51
1:C:455:LEU:HD11	3:B:434:GLN:HG3	1.92	0.51
2:A:137:VAL:HB	2:A:168:GLU:HB3	1.93	0.51
2:A:137:VAL:HB	2:A:168:GLU:HB3	1.93	0.51
2:A:137:VAL:HB	2:A:168:GLU:HB3	1.93	0.51
1:C:136:PHE:CE1	1:C:181:GLN:HG2	2.46	0.51
1:C:411:SER:HB3	1:C:433:LEU:HD23	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:122:ILE:HD12	2:A:157:LEU:HD21	1.91	0.51
1:C:136:PHE:CE1	1:C:181:GLN:HG2	2.46	0.51
2:A:122:ILE:HD12	2:A:157:LEU:HD21	1.91	0.51
1:C:136:PHE:CE1	1:C:181:GLN:HG2	2.46	0.51
2:A:122:ILE:HD12	2:A:157:LEU:HD21	1.91	0.51
1:C:136:PHE:CE1	1:C:181:GLN:HG2	2.46	0.51
2:A:122:ILE:HD12	2:A:157:LEU:HD21	1.91	0.51
1:C:136:PHE:CE1	1:C:181:GLN:HG2	2.46	0.51
2:A:122:ILE:HD12	2:A:157:LEU:HD21	1.91	0.51
2:A:144:GLY:H	4:A:500:GTP:PG	2.34	0.50
2:A:185:TYR:HD2	2:A:398:MET:HE3	1.76	0.50
3:B:179:ASP:OD2	6:B:600:GDP:C3'	2.59	0.50
2:A:144:GLY:H	4:A:500:GTP:PG	2.34	0.50
2:A:185:TYR:HD2	2:A:398:MET:HE3	1.76	0.50
3:B:179:ASP:OD2	6:B:600:GDP:C3'	2.59	0.50
2:A:144:GLY:H	4:A:500:GTP:PG	2.34	0.50
2:A:185:TYR:HD2	2:A:398:MET:HE3	1.76	0.50
3:B:179:ASP:OD2	6:B:600:GDP:C3'	2.59	0.50
2:A:144:GLY:H	4:A:500:GTP:PG	2.34	0.50
2:A:185:TYR:HD2	2:A:398:MET:HE3	1.76	0.50
3:B:179:ASP:OD2	6:B:600:GDP:C3'	2.59	0.50
2:A:144:GLY:H	4:A:500:GTP:PG	2.34	0.50
2:A:185:TYR:HD2	2:A:398:MET:HE3	1.76	0.50
3:B:179:ASP:OD2	6:B:600:GDP:C3'	2.59	0.50
1:C:332:GLU:HB2	3:B:420:GLU:OE1	2.11	0.50
2:A:388:TRP:CE3	2:A:388:TRP:HA	2.46	0.50
2:A:388:TRP:CE3	2:A:388:TRP:HA	2.46	0.50
1:C:118:HIS:NE2	1:C:502:LEU:HD11	2.25	0.50
2:A:388:TRP:CE3	2:A:388:TRP:HA	2.46	0.50
1:C:402:GLU:O	1:C:402:GLU:HG3	2.10	0.50
2:A:388:TRP:CE3	2:A:388:TRP:HA	2.46	0.50
1:C:402:GLU:O	1:C:402:GLU:HG3	2.10	0.50
2:A:388:TRP:CE3	2:A:388:TRP:HA	2.46	0.50
1:C:402:GLU:O	1:C:402:GLU:HG3	2.10	0.50
1:C:402:GLU:O	1:C:402:GLU:HG3	2.10	0.50
1:C:402:GLU:O	1:C:402:GLU:HG3	2.10	0.50
1:C:455:LEU:HD11	3:B:434:GLN:HG3	1.92	0.50
3:B:288:VAL:HG21	3:B:327:GLU:HG3	1.92	0.50
1:C:332:GLU:HB2	3:B:420:GLU:OE1	2.12	0.50
3:B:288:VAL:HG21	3:B:327:GLU:HG3	1.92	0.50
3:B:288:VAL:HG21	3:B:327:GLU:HG3	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:288:VAL:HG21	3:B:327:GLU:HG3	1.92	0.50
3:B:288:VAL:HG21	3:B:327:GLU:HG3	1.92	0.50
3:B:276:THR:O	7:B:601:TA1:O06	2.29	0.50
3:B:276:THR:O	7:B:601:TA1:O06	2.29	0.50
3:B:276:THR:O	7:B:601:TA1:O06	2.29	0.50
3:B:276:THR:O	7:B:601:TA1:O06	2.29	0.50
3:B:276:THR:O	7:B:601:TA1:O06	2.29	0.50
1:C:422:ARG:HA	1:C:422:ARG:NE	2.27	0.50
1:C:453:GLN:HB2	3:B:434:GLN:CD	2.36	0.50
2:A:174:ALA:HB3	2:A:177:VAL:O	2.12	0.50
2:A:269:LEU:O	2:A:378:LEU:HA	2.11	0.50
2:A:174:ALA:HB3	2:A:177:VAL:O	2.12	0.50
2:A:269:LEU:O	2:A:378:LEU:HA	2.11	0.50
2:A:174:ALA:HB3	2:A:177:VAL:O	2.12	0.50
2:A:269:LEU:O	2:A:378:LEU:HA	2.11	0.50
2:A:174:ALA:HB3	2:A:177:VAL:O	2.12	0.50
2:A:269:LEU:O	2:A:378:LEU:HA	2.11	0.50
1:C:332:GLU:HB2	3:B:420:GLU:OE1	2.12	0.50
2:A:174:ALA:HB3	2:A:177:VAL:O	2.12	0.50
2:A:269:LEU:O	2:A:378:LEU:HA	2.11	0.50
3:B:323:MET:HE2	3:B:328:VAL:HG22	1.93	0.49
3:B:323:MET:HE2	3:B:328:VAL:HG22	1.93	0.49
3:B:323:MET:HE2	3:B:328:VAL:HG22	1.93	0.49
3:B:323:MET:HE2	3:B:328:VAL:HG22	1.93	0.49
3:B:323:MET:HE2	3:B:328:VAL:HG22	1.93	0.49
2:A:188:ILE:HG23	2:A:425:MET:HG3	1.93	0.49
3:B:233:ALA:O	7:B:601:TA1:C39	2.61	0.49
2:A:188:ILE:HG23	2:A:425:MET:HG3	1.93	0.49
3:B:233:ALA:O	7:B:601:TA1:C39	2.61	0.49
2:A:188:ILE:HG23	2:A:425:MET:HG3	1.93	0.49
3:B:233:ALA:O	7:B:601:TA1:C39	2.61	0.49
2:A:188:ILE:HG23	2:A:425:MET:HG3	1.93	0.49
3:B:233:ALA:O	7:B:601:TA1:C39	2.61	0.49
2:A:188:ILE:HG23	2:A:425:MET:HG3	1.93	0.49
3:B:233:ALA:O	7:B:601:TA1:C39	2.61	0.49
2:A:188:ILE:HG23	2:A:425:MET:HG3	1.93	0.49
3:B:233:ALA:O	7:B:601:TA1:C39	2.61	0.49
1:C:118:HIS:NE2	1:C:502:LEU:HD11	2.27	0.49
1:C:307:ILE:HB	1:C:312:LEU:HD23	1.93	0.49
1:C:307:ILE:HB	1:C:312:LEU:HD23	1.93	0.49
1:C:453:GLN:HB2	3:B:434:GLN:CD	2.36	0.49
2:A:174:ALA:CB	2:A:207:GLU:HB2	2.42	0.49
2:A:174:ALA:CB	2:A:207:GLU:HB2	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:174:ALA:CB	2:A:207:GLU:HB2	2.42	0.49
1:C:307:ILE:HB	1:C:312:LEU:HD23	1.93	0.49
2:A:174:ALA:CB	2:A:207:GLU:HB2	2.42	0.49
1:C:307:ILE:HB	1:C:312:LEU:HD23	1.93	0.49
2:A:174:ALA:CB	2:A:207:GLU:HB2	2.42	0.49
1:C:307:ILE:HB	1:C:312:LEU:HD23	1.93	0.49
2:A:100:ALA:O	4:A:500:GTP:O1G	2.29	0.49
2:A:100:ALA:O	4:A:500:GTP:O1G	2.29	0.49
2:A:100:ALA:O	4:A:500:GTP:O1G	2.29	0.49
2:A:100:ALA:O	4:A:500:GTP:O1G	2.29	0.49
2:A:100:ALA:O	4:A:500:GTP:O1G	2.29	0.49
2:A:184:PRO:HG2	2:A:398:MET:HE1	1.93	0.49
3:B:115:VAL:HG21	3:B:152:LEU:HD23	1.95	0.49
3:B:268:PHE:HD1	3:B:380:ASN:HB2	1.77	0.49
1:C:400:ILE:HG23	1:C:400:ILE:O	2.12	0.49
2:A:184:PRO:HG2	2:A:398:MET:HE1	1.93	0.49
3:B:115:VAL:HG21	3:B:152:LEU:HD23	1.95	0.49
3:B:268:PHE:HD1	3:B:380:ASN:HB2	1.77	0.49
1:C:400:ILE:HG23	1:C:400:ILE:O	2.12	0.49
2:A:184:PRO:HG2	2:A:398:MET:HE1	1.93	0.49
3:B:115:VAL:HG21	3:B:152:LEU:HD23	1.95	0.49
3:B:268:PHE:HD1	3:B:380:ASN:HB2	1.77	0.49
1:C:400:ILE:HG23	1:C:400:ILE:O	2.12	0.49
2:A:184:PRO:HG2	2:A:398:MET:HE1	1.93	0.49
3:B:115:VAL:HG21	3:B:152:LEU:HD23	1.95	0.49
3:B:268:PHE:HD1	3:B:380:ASN:HB2	1.77	0.49
1:C:400:ILE:HG23	1:C:400:ILE:O	2.12	0.49
1:C:455:LEU:HD11	3:B:434:GLN:HG3	1.94	0.49
2:A:224:TYR:CE1	4:A:500:GTP:C6	2.91	0.49
1:C:391:GLN:CD	1:C:391:GLN:H	2.20	0.49
2:A:224:TYR:CE1	4:A:500:GTP:C6	2.91	0.49
2:A:224:TYR:CE1	4:A:500:GTP:C6	2.91	0.49
1:C:391:GLN:CD	1:C:391:GLN:H	2.20	0.49
1:C:400:ILE:HG23	1:C:400:ILE:O	2.12	0.49
2:A:224:TYR:CE1	4:A:500:GTP:C6	2.91	0.49
1:C:391:GLN:CD	1:C:391:GLN:H	2.20	0.49
2:A:224:TYR:CE1	4:A:500:GTP:C6	2.91	0.49
1:C:64:VAL:O	1:C:64:VAL:HG13	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:143:MET:HG3	1:C:153:TRP:CG	2.48	0.49
1:C:391:GLN:CD	1:C:391:GLN:H	2.20	0.49
2:A:184:PRO:HG2	2:A:398:MET:CE	2.43	0.49
1:C:64:VAL:O	1:C:64:VAL:HG13	2.12	0.49
1:C:143:MET:HG3	1:C:153:TRP:CG	2.48	0.49
2:A:184:PRO:HG2	2:A:398:MET:CE	2.43	0.49
1:C:64:VAL:O	1:C:64:VAL:HG13	2.12	0.49
1:C:391:GLN:CD	1:C:391:GLN:H	2.20	0.49
2:A:184:PRO:HG2	2:A:398:MET:CE	2.43	0.49
2:A:184:PRO:HG2	2:A:398:MET:CE	2.43	0.49
1:C:64:VAL:O	1:C:64:VAL:HG13	2.12	0.49
2:A:184:PRO:HG2	2:A:398:MET:CE	2.43	0.49
1:C:143:MET:HG3	1:C:153:TRP:CG	2.48	0.49
1:C:64:VAL:O	1:C:64:VAL:HG13	2.12	0.49
1:C:143:MET:HG3	1:C:153:TRP:CG	2.48	0.49
1:C:143:MET:HG3	1:C:153:TRP:CG	2.48	0.49
1:C:70:ILE:HG12	1:C:125:ILE:HD11	1.95	0.48
1:C:449:ASN:ND2	1:C:451:SER:H	2.10	0.48
2:A:262:TYR:HB3	2:A:263:PRO:HD2	1.95	0.48
3:B:370:GLY:O	7:B:601:TA1:C44	2.58	0.48
1:C:70:ILE:HG12	1:C:125:ILE:HD11	1.95	0.48
2:A:262:TYR:HB3	2:A:263:PRO:HD2	1.95	0.48
3:B:370:GLY:O	7:B:601:TA1:C44	2.58	0.48
1:C:301:TRP:NE1	1:C:345:TRP:HA	2.28	0.48
1:C:453:GLN:HB2	3:B:434:GLN:CD	2.37	0.48
2:A:262:TYR:HB3	2:A:263:PRO:HD2	1.95	0.48
3:B:370:GLY:O	7:B:601:TA1:C44	2.58	0.48
1:C:70:ILE:HG12	1:C:125:ILE:HD11	1.95	0.48
1:C:332:GLU:HB2	3:B:420:GLU:OE1	2.13	0.48
2:A:262:TYR:HB3	2:A:263:PRO:HD2	1.95	0.48
3:B:370:GLY:O	7:B:601:TA1:C44	2.58	0.48
1:C:70:ILE:HG12	1:C:125:ILE:HD11	1.95	0.48
2:A:262:TYR:HB3	2:A:263:PRO:HD2	1.95	0.48
3:B:370:GLY:O	7:B:601:TA1:C44	2.58	0.48
1:C:301:TRP:NE1	1:C:345:TRP:HA	2.28	0.48
1:C:301:TRP:NE1	1:C:345:TRP:HA	2.28	0.48
1:C:70:ILE:HG12	1:C:125:ILE:HD11	1.95	0.48
1:C:301:TRP:NE1	1:C:345:TRP:HA	2.28	0.48
1:C:301:TRP:NE1	1:C:345:TRP:HA	2.28	0.48
2:A:276:ILE:HG23	2:A:369:ALA:HB3	1.95	0.48
2:A:286:LEU:HG	2:A:290:GLU:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:276:ILE:HG23	2:A:369:ALA:HB3	1.95	0.48
2:A:286:LEU:HG	2:A:290:GLU:HB3	1.96	0.48
2:A:276:ILE:HG23	2:A:369:ALA:HB3	1.95	0.48
2:A:286:LEU:HG	2:A:290:GLU:HB3	1.96	0.48
2:A:276:ILE:HG23	2:A:369:ALA:HB3	1.95	0.48
2:A:286:LEU:HG	2:A:290:GLU:HB3	1.96	0.48
2:A:276:ILE:HG23	2:A:369:ALA:HB3	1.95	0.48
2:A:286:LEU:HG	2:A:290:GLU:HB3	1.96	0.48
3:B:320:ARG:HB2	3:B:358:ILE:O	2.12	0.48
3:B:320:ARG:HB2	3:B:358:ILE:O	2.12	0.48
3:B:320:ARG:HB2	3:B:358:ILE:O	2.12	0.48
3:B:320:ARG:HB2	3:B:358:ILE:O	2.12	0.48
3:B:320:ARG:HB2	3:B:358:ILE:O	2.12	0.48
3:B:328:VAL:O	3:B:332:MET:HG2	2.14	0.48
3:B:328:VAL:O	3:B:332:MET:HG2	2.14	0.48
3:B:328:VAL:O	3:B:332:MET:HG2	2.14	0.48
3:B:328:VAL:O	3:B:332:MET:HG2	2.14	0.48
3:B:328:VAL:O	3:B:332:MET:HG2	2.14	0.48
1:C:411:SER:HB3	1:C:433:LEU:CD2	2.43	0.48
3:B:8:GLN:CD	3:B:17:GLY:HA3	2.39	0.48
3:B:8:GLN:CD	3:B:17:GLY:HA3	2.39	0.48
1:C:362:ARG:HA	1:C:365:GLN:HG3	1.94	0.48
3:B:8:GLN:CD	3:B:17:GLY:HA3	2.39	0.48
3:B:8:GLN:CD	3:B:17:GLY:HA3	2.39	0.48
1:C:118:HIS:NE2	1:C:502:LEU:HD11	2.28	0.48
3:B:8:GLN:CD	3:B:17:GLY:HA3	2.39	0.48
1:C:362:ARG:HA	1:C:365:GLN:HG3	1.94	0.48
1:C:455:LEU:CD1	3:B:431:GLU:HA	2.44	0.48
1:C:127:GLY:H	1:C:130:VAL:HB	1.79	0.48
2:A:273:ALA:HB3	2:A:274:PRO:HD3	1.94	0.48
1:C:127:GLY:H	1:C:130:VAL:HB	1.79	0.48
2:A:273:ALA:HB3	2:A:274:PRO:HD3	1.94	0.48
1:C:127:GLY:H	1:C:130:VAL:HB	1.79	0.48
2:A:273:ALA:HB3	2:A:274:PRO:HD3	1.94	0.48
1:C:127:GLY:H	1:C:130:VAL:HB	1.79	0.48
2:A:273:ALA:HB3	2:A:274:PRO:HD3	1.94	0.48
1:C:127:GLY:H	1:C:130:VAL:HB	1.79	0.48
1:C:362:ARG:HA	1:C:365:GLN:HG3	1.94	0.48
2:A:273:ALA:HB3	2:A:274:PRO:HD3	1.94	0.48
1:C:362:ARG:HA	1:C:365:GLN:HG3	1.94	0.47
1:C:362:ARG:HA	1:C:365:GLN:HG3	1.94	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:333:ASP:HB2	1:C:339:TYR:HE2	1.79	0.47
1:C:333:ASP:HB2	1:C:339:TYR:HE2	1.79	0.47
1:C:455:LEU:CD1	3:B:431:GLU:HA	2.45	0.47
1:C:333:ASP:HB2	1:C:339:TYR:HE2	1.79	0.47
1:C:333:ASP:HB2	1:C:339:TYR:HE2	1.79	0.47
1:C:333:ASP:HB2	1:C:339:TYR:HE2	1.79	0.47
2:A:286:LEU:HG	2:A:290:GLU:CB	2.44	0.47
3:B:12:CYS:SG	6:B:600:GDP:N9	2.87	0.47
1:C:333:ASP:HB2	1:C:339:TYR:CE2	2.49	0.47
2:A:286:LEU:HG	2:A:290:GLU:CB	2.44	0.47
3:B:12:CYS:SG	6:B:600:GDP:N9	2.87	0.47
2:A:286:LEU:HG	2:A:290:GLU:CB	2.44	0.47
3:B:12:CYS:SG	6:B:600:GDP:N9	2.87	0.47
1:C:147:VAL:HG21	1:C:403:LEU:HD12	1.95	0.47
2:A:286:LEU:HG	2:A:290:GLU:CB	2.44	0.47
3:B:12:CYS:SG	6:B:600:GDP:N9	2.87	0.47
1:C:333:ASP:HB2	1:C:339:TYR:CE2	2.49	0.47
2:A:286:LEU:HG	2:A:290:GLU:CB	2.44	0.47
3:B:12:CYS:SG	6:B:600:GDP:N9	2.87	0.47
1:C:147:VAL:HG21	1:C:403:LEU:HD12	1.95	0.47
1:C:333:ASP:HB2	1:C:339:TYR:CE2	2.49	0.47
2:A:201:ALA:HB3	2:A:267:PHE:CD2	2.50	0.47
1:C:147:VAL:HG21	1:C:403:LEU:HD12	1.95	0.47
2:A:201:ALA:HB3	2:A:267:PHE:CD2	2.50	0.47
1:C:147:VAL:HG21	1:C:403:LEU:HD12	1.95	0.47
1:C:333:ASP:HB2	1:C:339:TYR:CE2	2.50	0.47
2:A:201:ALA:HB3	2:A:267:PHE:CD2	2.50	0.47
1:C:333:ASP:HB2	1:C:339:TYR:CE2	2.49	0.47
2:A:201:ALA:HB3	2:A:267:PHE:CD2	2.50	0.47
1:C:147:VAL:HG21	1:C:403:LEU:HD12	1.95	0.47
2:A:201:ALA:HB3	2:A:267:PHE:CD2	2.50	0.47
2:A:362:VAL:HG11	2:A:368:LEU:HB2	1.97	0.47
2:A:362:VAL:HG11	2:A:368:LEU:HB2	1.97	0.47
2:A:362:VAL:HG11	2:A:368:LEU:HB2	1.97	0.47
2:A:362:VAL:HG11	2:A:368:LEU:HB2	1.97	0.47
2:A:362:VAL:HG11	2:A:368:LEU:HB2	1.97	0.47
1:C:449:ASN:HD22	1:C:451:SER:H	1.63	0.47
3:B:180:THR:O	3:B:183:GLU:HB2	2.14	0.47
3:B:326:LYS:HG3	3:B:327:GLU:N	2.29	0.47
1:C:453:GLN:HB2	3:B:434:GLN:CD	2.39	0.47
3:B:180:THR:O	3:B:183:GLU:HB2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:326:LYS:HG3	3:B:327:GLU:N	2.29	0.47
3:B:180:THR:O	3:B:183:GLU:HB2	2.14	0.47
3:B:326:LYS:HG3	3:B:327:GLU:N	2.29	0.47
1:C:327:THR:HG23	1:C:328:LEU:N	2.30	0.47
3:B:180:THR:O	3:B:183:GLU:HB2	2.14	0.47
3:B:326:LYS:HG3	3:B:327:GLU:N	2.29	0.47
3:B:180:THR:O	3:B:183:GLU:HB2	2.14	0.47
3:B:326:LYS:HG3	3:B:327:GLU:N	2.29	0.47
2:A:415:GLU:HA	2:A:418:PHE:HD2	1.79	0.47
3:B:243:ARG:NH1	3:B:251:ASP:HB2	2.30	0.47
2:A:415:GLU:HA	2:A:418:PHE:HD2	1.79	0.47
3:B:243:ARG:NH1	3:B:251:ASP:HB2	2.30	0.47
2:A:415:GLU:HA	2:A:418:PHE:HD2	1.79	0.47
3:B:243:ARG:NH1	3:B:251:ASP:HB2	2.30	0.47
2:A:415:GLU:HA	2:A:418:PHE:HD2	1.79	0.47
3:B:243:ARG:NH1	3:B:251:ASP:HB2	2.30	0.47
2:A:415:GLU:HA	2:A:418:PHE:HD2	1.79	0.47
3:B:243:ARG:NH1	3:B:251:ASP:HB2	2.30	0.47
3:B:360:PRO:HD2	3:B:371:LEU:HB3	1.95	0.47
3:B:360:PRO:HD2	3:B:371:LEU:HB3	1.95	0.47
3:B:360:PRO:HD2	3:B:371:LEU:HB3	1.95	0.47
1:C:311:LEU:HD12	1:C:327:THR:CG2	2.44	0.47
3:B:360:PRO:HD2	3:B:371:LEU:HB3	1.95	0.47
3:B:360:PRO:HD2	3:B:371:LEU:HB3	1.95	0.47
3:B:278:ARG:HG3	7:B:601:TA1:O08	2.15	0.47
3:B:278:ARG:HG3	7:B:601:TA1:O08	2.15	0.47
1:C:455:LEU:CD1	3:B:431:GLU:HA	2.46	0.47
3:B:278:ARG:HG3	7:B:601:TA1:O08	2.15	0.47
3:B:278:ARG:HG3	7:B:601:TA1:O08	2.15	0.47
3:B:278:ARG:HG3	7:B:601:TA1:O08	2.15	0.47
2:A:118:VAL:HG21	2:A:149:PHE:HZ	1.80	0.46
2:A:137:VAL:HB	2:A:168:GLU:CB	2.45	0.46
2:A:118:VAL:HG21	2:A:149:PHE:HZ	1.80	0.46
2:A:137:VAL:HB	2:A:168:GLU:CB	2.45	0.46
2:A:118:VAL:HG21	2:A:149:PHE:HZ	1.80	0.46
2:A:137:VAL:HB	2:A:168:GLU:CB	2.45	0.46
2:A:118:VAL:HG21	2:A:149:PHE:HZ	1.80	0.46
2:A:137:VAL:HB	2:A:168:GLU:CB	2.45	0.46
2:A:118:VAL:HG21	2:A:149:PHE:HZ	1.80	0.46
2:A:137:VAL:HB	2:A:168:GLU:CB	2.45	0.46
1:C:74:LEU:HB3	1:C:77:GLU:HG3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:111:GLY:O	3:B:115:VAL:HG23	2.16	0.46
3:B:168:THR:O	3:B:201:THR:HA	2.16	0.46
3:B:111:GLY:O	3:B:115:VAL:HG23	2.16	0.46
3:B:168:THR:O	3:B:201:THR:HA	2.16	0.46
3:B:111:GLY:O	3:B:115:VAL:HG23	2.16	0.46
3:B:168:THR:O	3:B:201:THR:HA	2.16	0.46
1:C:74:LEU:HB3	1:C:77:GLU:HG3	1.97	0.46
3:B:111:GLY:O	3:B:115:VAL:HG23	2.16	0.46
3:B:168:THR:O	3:B:201:THR:HA	2.16	0.46
1:C:430:ASN:HD22	2:A:412:GLY:HA2	1.81	0.46
3:B:111:GLY:O	3:B:115:VAL:HG23	2.16	0.46
3:B:168:THR:O	3:B:201:THR:HA	2.16	0.46
2:A:11:GLN:HB3	4:A:500:GTP:O2B	2.14	0.46
3:B:132:LEU:O	3:B:164:ARG:HD2	2.15	0.46
3:B:151:THR:HG23	3:B:193:GLN:HG2	1.97	0.46
3:B:183:GLU:N	3:B:184:PRO:HD2	2.31	0.46
1:C:74:LEU:HB3	1:C:77:GLU:HG3	1.98	0.46
2:A:11:GLN:HB3	4:A:500:GTP:O2B	2.14	0.46
3:B:132:LEU:O	3:B:164:ARG:HD2	2.15	0.46
3:B:151:THR:HG23	3:B:193:GLN:HG2	1.97	0.46
3:B:183:GLU:N	3:B:184:PRO:HD2	2.31	0.46
2:A:11:GLN:HB3	4:A:500:GTP:O2B	2.14	0.46
3:B:132:LEU:O	3:B:164:ARG:HD2	2.15	0.46
3:B:151:THR:HG23	3:B:193:GLN:HG2	1.97	0.46
3:B:183:GLU:N	3:B:184:PRO:HD2	2.31	0.46
1:C:86:CYS:HB3	1:C:485:PRO:O	2.15	0.46
2:A:11:GLN:HB3	4:A:500:GTP:O2B	2.14	0.46
3:B:132:LEU:O	3:B:164:ARG:HD2	2.15	0.46
3:B:151:THR:HG23	3:B:193:GLN:HG2	1.97	0.46
3:B:183:GLU:N	3:B:184:PRO:HD2	2.31	0.46
1:C:74:LEU:HB3	1:C:77:GLU:HG3	1.98	0.46
2:A:11:GLN:HB3	4:A:500:GTP:O2B	2.14	0.46
3:B:132:LEU:O	3:B:164:ARG:HD2	2.15	0.46
3:B:151:THR:HG23	3:B:193:GLN:HG2	1.97	0.46
3:B:183:GLU:N	3:B:184:PRO:HD2	2.31	0.46
2:A:179:THR:CG2	4:A:500:GTP:C3'	2.93	0.46
1:C:86:CYS:HB3	1:C:485:PRO:O	2.15	0.46
2:A:179:THR:CG2	4:A:500:GTP:C3'	2.93	0.46
1:C:74:LEU:HB3	1:C:77:GLU:HG3	1.98	0.46
1:C:86:CYS:HB3	1:C:485:PRO:O	2.16	0.46
2:A:179:THR:CG2	4:A:500:GTP:C3'	2.93	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:453:GLN:HB2	3:B:434:GLN:CD	2.39	0.46
2:A:179:THR:CG2	4:A:500:GTP:C3'	2.93	0.46
2:A:179:THR:CG2	4:A:500:GTP:C3'	2.93	0.46
1:C:86:CYS:HB3	1:C:485:PRO:O	2.16	0.46
1:C:154:LEU:CD2	1:C:404:SER:HB2	2.46	0.46
1:C:430:ASN:HD22	2:A:412:GLY:HA2	1.81	0.46
1:C:86:CYS:HB3	1:C:485:PRO:O	2.16	0.46
1:C:154:LEU:CD2	1:C:404:SER:HB2	2.46	0.46
1:C:378:ARG:O	1:C:379:SER:HB2	2.14	0.46
1:C:92:THR:HA	1:C:125:ILE:HG22	1.96	0.46
1:C:154:LEU:CD2	1:C:404:SER:HB2	2.46	0.46
2:A:243:ARG:HE	2:A:243:ARG:HA	1.81	0.46
2:A:243:ARG:HE	2:A:243:ARG:HA	1.81	0.46
1:C:92:THR:HA	1:C:125:ILE:HG22	1.96	0.46
1:C:154:LEU:CD2	1:C:404:SER:HB2	2.46	0.46
2:A:243:ARG:HE	2:A:243:ARG:HA	1.81	0.46
1:C:154:LEU:CD2	1:C:404:SER:HB2	2.46	0.46
2:A:243:ARG:HE	2:A:243:ARG:HA	1.81	0.46
1:C:92:THR:HA	1:C:125:ILE:HG22	1.96	0.46
2:A:243:ARG:HE	2:A:243:ARG:HA	1.81	0.46
1:C:312:LEU:HB2	1:C:328:LEU:HD23	1.97	0.46
3:B:203:CYS:SG	3:B:384:ILE:HD11	2.55	0.46
1:C:92:THR:HA	1:C:125:ILE:HG22	1.96	0.46
3:B:203:CYS:SG	3:B:384:ILE:HD11	2.55	0.46
3:B:203:CYS:SG	3:B:384:ILE:HD11	2.55	0.46
1:C:92:THR:HA	1:C:125:ILE:HG22	1.96	0.46
3:B:203:CYS:SG	3:B:384:ILE:HD11	2.55	0.46
3:B:203:CYS:SG	3:B:384:ILE:HD11	2.55	0.46
2:A:97:GLU:HB2	2:A:110:ILE:HD11	1.97	0.46
2:A:184:PRO:HA	2:A:187:SER:OG	2.15	0.46
3:B:78:VAL:O	3:B:84:GLY:HA3	2.16	0.46
2:A:97:GLU:HB2	2:A:110:ILE:HD11	1.97	0.46
2:A:184:PRO:HA	2:A:187:SER:OG	2.15	0.46
3:B:78:VAL:O	3:B:84:GLY:HA3	2.16	0.46
1:C:317:GLU:N	1:C:318:PRO:HD3	2.30	0.46
2:A:97:GLU:HB2	2:A:110:ILE:HD11	1.97	0.46
2:A:184:PRO:HA	2:A:187:SER:OG	2.15	0.46
3:B:78:VAL:O	3:B:84:GLY:HA3	2.16	0.46
2:A:97:GLU:HB2	2:A:110:ILE:HD11	1.97	0.46
2:A:184:PRO:HA	2:A:187:SER:OG	2.15	0.46
3:B:78:VAL:O	3:B:84:GLY:HA3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:97:GLU:HB2	2:A:110:ILE:HD11	1.97	0.46
2:A:184:PRO:HA	2:A:187:SER:OG	2.15	0.46
3:B:78:VAL:O	3:B:84:GLY:HA3	2.16	0.46
2:A:431:ASP:O	2:A:435:VAL:HG23	2.16	0.46
3:B:209:LEU:HB3	3:B:227:LEU:HD22	1.98	0.46
2:A:431:ASP:O	2:A:435:VAL:HG23	2.16	0.46
3:B:209:LEU:HB3	3:B:227:LEU:HD22	1.98	0.46
2:A:431:ASP:O	2:A:435:VAL:HG23	2.16	0.46
3:B:209:LEU:HB3	3:B:227:LEU:HD22	1.98	0.46
2:A:431:ASP:O	2:A:435:VAL:HG23	2.16	0.46
3:B:209:LEU:HB3	3:B:227:LEU:HD22	1.98	0.46
2:A:431:ASP:O	2:A:435:VAL:HG23	2.16	0.46
3:B:209:LEU:HB3	3:B:227:LEU:HD22	1.98	0.46
1:C:86:CYS:HA	1:C:98:GLN:O	2.16	0.45
3:B:103:TRP:CZ2	3:B:151:THR:HG21	2.50	0.45
1:C:424:LYS:O	1:C:428:ASN:HB2	2.16	0.45
3:B:103:TRP:CZ2	3:B:151:THR:HG21	2.50	0.45
1:C:86:CYS:HA	1:C:98:GLN:O	2.16	0.45
3:B:103:TRP:CZ2	3:B:151:THR:HG21	2.50	0.45
1:C:86:CYS:HA	1:C:98:GLN:O	2.16	0.45
1:C:424:LYS:O	1:C:428:ASN:HB2	2.16	0.45
1:C:455:LEU:CD1	3:B:431:GLU:HA	2.47	0.45
3:B:103:TRP:CZ2	3:B:151:THR:HG21	2.50	0.45
3:B:103:TRP:CZ2	3:B:151:THR:HG21	2.50	0.45
1:C:62:GLU:CD	1:C:474:ARG:HH22	2.24	0.45
1:C:424:LYS:O	1:C:428:ASN:HB2	2.16	0.45
2:A:118:VAL:HG21	2:A:149:PHE:CZ	2.51	0.45
3:B:188:THR:HG23	3:B:425:MET:HE3	1.97	0.45
2:A:118:VAL:HG21	2:A:149:PHE:CZ	2.51	0.45
3:B:188:THR:HG23	3:B:425:MET:HE3	1.97	0.45
1:C:424:LYS:O	1:C:428:ASN:HB2	2.16	0.45
2:A:118:VAL:HG21	2:A:149:PHE:CZ	2.51	0.45
3:B:188:THR:HG23	3:B:425:MET:HE3	1.97	0.45
2:A:118:VAL:HG21	2:A:149:PHE:CZ	2.51	0.45
3:B:188:THR:HG23	3:B:425:MET:HE3	1.97	0.45
1:C:86:CYS:HA	1:C:98:GLN:O	2.16	0.45
2:A:118:VAL:HG21	2:A:149:PHE:CZ	2.51	0.45
3:B:188:THR:HG23	3:B:425:MET:HE3	1.97	0.45
1:C:302:ILE:HA	1:C:384:SER:O	2.17	0.45
1:C:62:GLU:CD	1:C:474:ARG:HH22	2.25	0.45
1:C:86:CYS:HA	1:C:98:GLN:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:302:ILE:HA	1:C:384:SER:O	2.17	0.45
1:C:62:GLU:CD	1:C:474:ARG:HH22	2.25	0.45
1:C:302:ILE:HA	1:C:384:SER:O	2.17	0.45
1:C:62:GLU:CD	1:C:474:ARG:HH22	2.25	0.45
1:C:413:ARG:HD2	1:C:413:ARG:O	2.16	0.45
1:C:430:ASN:HD22	2:A:412:GLY:HA2	1.82	0.45
1:C:62:GLU:CD	1:C:474:ARG:HH22	2.25	0.45
1:C:302:ILE:HA	1:C:384:SER:O	2.17	0.45
1:C:424:LYS:O	1:C:428:ASN:HB2	2.17	0.45
1:C:389:HIS:NE2	1:C:399:LYS:HG2	2.31	0.45
1:C:389:HIS:NE2	1:C:399:LYS:HG2	2.31	0.45
1:C:389:HIS:NE2	1:C:399:LYS:HG2	2.31	0.45
1:C:302:ILE:HA	1:C:384:SER:O	2.17	0.45
1:C:389:HIS:NE2	1:C:399:LYS:HG2	2.31	0.45
1:C:389:HIS:NE2	1:C:399:LYS:HG2	2.31	0.45
2:A:70:LEU:HB3	2:A:98:ASP:O	2.16	0.45
2:A:70:LEU:HB3	2:A:98:ASP:O	2.16	0.45
1:C:158:TYR:CE1	1:C:410:GLY:HA2	2.52	0.45
2:A:70:LEU:HB3	2:A:98:ASP:O	2.16	0.45
2:A:70:LEU:HB3	2:A:98:ASP:O	2.16	0.45
2:A:70:LEU:HB3	2:A:98:ASP:O	2.16	0.45
2:A:155:GLU:O	2:A:159:VAL:HG23	2.17	0.45
2:A:188:ILE:HG13	2:A:395:PHE:CG	2.51	0.45
3:B:31:ASP:CG	3:B:32:PRO:HD2	2.41	0.45
2:A:155:GLU:O	2:A:159:VAL:HG23	2.17	0.45
2:A:188:ILE:HG13	2:A:395:PHE:CG	2.51	0.45
3:B:31:ASP:CG	3:B:32:PRO:HD2	2.41	0.45
2:A:155:GLU:O	2:A:159:VAL:HG23	2.17	0.45
2:A:188:ILE:HG13	2:A:395:PHE:CG	2.51	0.45
3:B:31:ASP:CG	3:B:32:PRO:HD2	2.41	0.45
2:A:155:GLU:O	2:A:159:VAL:HG23	2.17	0.45
2:A:188:ILE:HG13	2:A:395:PHE:CG	2.51	0.45
3:B:31:ASP:CG	3:B:32:PRO:HD2	2.41	0.45
1:C:424:LYS:O	1:C:424:LYS:HG3	2.17	0.45
1:C:163:SER:HA	1:C:484:ASN:OD1	2.17	0.45
1:C:424:LYS:O	1:C:424:LYS:HG3	2.17	0.45
3:B:360:PRO:O	7:B:601:TA1:C28	2.65	0.45
1:C:455:LEU:CD1	3:B:431:GLU:HA	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:360:PRO:O	7:B:601:TA1:C28	2.65	0.45
3:B:360:PRO:O	7:B:601:TA1:C28	2.65	0.45
1:C:424:LYS:O	1:C:424:LYS:HG3	2.17	0.45
3:B:360:PRO:O	7:B:601:TA1:C28	2.65	0.45
1:C:424:LYS:O	1:C:424:LYS:HG3	2.17	0.45
3:B:360:PRO:O	7:B:601:TA1:C28	2.65	0.45
1:C:163:SER:HA	1:C:484:ASN:OD1	2.17	0.45
2:A:191:THR:O	2:A:195:LEU:HB2	2.16	0.45
3:B:201:THR:OG1	3:B:265:LEU:HD11	2.17	0.45
3:B:255:LEU:HG	3:B:259:MET:HE2	1.98	0.45
1:C:163:SER:HA	1:C:484:ASN:OD1	2.17	0.45
1:C:424:LYS:O	1:C:424:LYS:HG3	2.17	0.45
2:A:191:THR:O	2:A:195:LEU:HB2	2.16	0.45
3:B:201:THR:OG1	3:B:265:LEU:HD11	2.17	0.45
3:B:255:LEU:HG	3:B:259:MET:HE2	1.98	0.45
1:C:163:SER:HA	1:C:484:ASN:OD1	2.17	0.45
2:A:191:THR:O	2:A:195:LEU:HB2	2.16	0.45
3:B:201:THR:OG1	3:B:265:LEU:HD11	2.17	0.45
3:B:255:LEU:HG	3:B:259:MET:HE2	1.98	0.45
1:C:328:LEU:HB3	1:C:340:VAL:HG12	1.98	0.45
2:A:191:THR:O	2:A:195:LEU:HB2	2.16	0.45
3:B:201:THR:OG1	3:B:265:LEU:HD11	2.17	0.45
3:B:255:LEU:HG	3:B:259:MET:HE2	1.98	0.45
2:A:191:THR:O	2:A:195:LEU:HB2	2.16	0.45
3:B:201:THR:OG1	3:B:265:LEU:HD11	2.17	0.45
3:B:255:LEU:HG	3:B:259:MET:HE2	1.98	0.45
2:A:16:ILE:HA	2:A:228:ASN:HB3	1.99	0.45
1:C:430:ASN:HD22	2:A:412:GLY:HA2	1.82	0.45
2:A:16:ILE:HA	2:A:228:ASN:HB3	1.99	0.45
2:A:16:ILE:HA	2:A:228:ASN:HB3	1.99	0.45
1:C:163:SER:HA	1:C:484:ASN:OD1	2.17	0.45
2:A:16:ILE:HA	2:A:228:ASN:HB3	1.99	0.45
2:A:16:ILE:HA	2:A:228:ASN:HB3	1.99	0.45
1:C:316:LEU:HB3	1:C:344:ASN:HB2	1.99	0.44
1:C:316:LEU:HB3	1:C:344:ASN:HB2	1.99	0.44
1:C:423:LEU:HD13	3:B:163:ASP:HB3	1.97	0.44
1:C:167:TYR:O	1:C:171:GLY:HA2	2.18	0.44
1:C:316:LEU:HD11	1:C:346:ILE:HG22	1.99	0.44
1:C:316:LEU:HB3	1:C:344:ASN:HB2	1.99	0.44
1:C:362:ARG:C	1:C:365:GLN:HG3	2.42	0.44
1:C:362:ARG:C	1:C:365:GLN:HG3	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:316:LEU:HB3	1:C:344:ASN:HB2	1.99	0.44
1:C:362:ARG:C	1:C:365:GLN:HG3	2.42	0.44
1:C:362:ARG:C	1:C:365:GLN:HG3	2.42	0.44
1:C:430:ASN:HD22	2:A:412:GLY:HA2	1.83	0.44
1:C:167:TYR:O	1:C:171:GLY:HA2	2.18	0.44
1:C:316:LEU:HD11	1:C:346:ILE:HG22	1.99	0.44
1:C:167:TYR:O	1:C:171:GLY:HA2	2.18	0.44
1:C:316:LEU:HD11	1:C:346:ILE:HG22	1.99	0.44
1:C:362:ARG:C	1:C:365:GLN:HG3	2.42	0.44
1:C:167:TYR:O	1:C:171:GLY:HA2	2.18	0.44
1:C:316:LEU:HD11	1:C:346:ILE:HG22	1.99	0.44
1:C:316:LEU:HB3	1:C:344:ASN:HB2	1.99	0.44
1:C:500:SER:O	1:C:501:ALA:HB3	2.18	0.44
1:C:167:TYR:O	1:C:171:GLY:HA2	2.18	0.44
2:A:395:PHE:HA	2:A:398:MET:HE2	1.99	0.44
2:A:395:PHE:HA	2:A:398:MET:HE2	1.99	0.44
2:A:395:PHE:HA	2:A:398:MET:HE2	1.99	0.44
1:C:318:PRO:HG2	1:C:364:ASN:ND2	2.32	0.44
1:C:383:PHE:O	1:C:404:SER:HA	2.18	0.44
2:A:395:PHE:HA	2:A:398:MET:HE2	1.99	0.44
1:C:316:LEU:HD11	1:C:346:ILE:HG22	2.00	0.44
1:C:383:PHE:O	1:C:404:SER:HA	2.18	0.44
2:A:395:PHE:HA	2:A:398:MET:HE2	1.99	0.44
1:C:135:PHE:CZ	1:C:480:ILE:HG12	2.52	0.44
1:C:383:PHE:O	1:C:404:SER:HA	2.18	0.44
1:C:135:PHE:CZ	1:C:480:ILE:HG12	2.52	0.44
1:C:383:PHE:O	1:C:404:SER:HA	2.18	0.44
1:C:135:PHE:CZ	1:C:480:ILE:HG12	2.52	0.44
1:C:383:PHE:O	1:C:404:SER:HA	2.18	0.44
1:C:360:VAL:CG1	1:C:361:GLY:N	2.81	0.44
1:C:360:VAL:CG1	1:C:361:GLY:N	2.81	0.44
2:A:225:THR:O	2:A:229:ARG:HG3	2.17	0.44
3:B:8:GLN:OE1	3:B:14:ASN:HA	2.17	0.44
2:A:225:THR:O	2:A:229:ARG:HG3	2.17	0.44
3:B:8:GLN:OE1	3:B:14:ASN:HA	2.17	0.44
1:C:360:VAL:CG1	1:C:361:GLY:N	2.81	0.44
2:A:225:THR:O	2:A:229:ARG:HG3	2.17	0.44
3:B:8:GLN:OE1	3:B:14:ASN:HA	2.17	0.44
1:C:135:PHE:CZ	1:C:480:ILE:HG12	2.52	0.44
2:A:225:THR:O	2:A:229:ARG:HG3	2.17	0.44
3:B:8:GLN:OE1	3:B:14:ASN:HA	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:135:PHE:CZ	1:C:480:ILE:HG12	2.52	0.44
1:C:360:VAL:CG1	1:C:361:GLY:N	2.81	0.44
2:A:225:THR:O	2:A:229:ARG:HG3	2.17	0.44
3:B:8:GLN:OE1	3:B:14:ASN:HA	2.17	0.44
1:C:328:LEU:HD12	1:C:342:ASP:HB3	2.00	0.44
1:C:158:TYR:HE2	1:C:496:ALA:HA	1.83	0.44
1:C:360:VAL:CG1	1:C:361:GLY:N	2.81	0.44
1:C:158:TYR:HE2	1:C:496:ALA:HA	1.83	0.44
1:C:158:TYR:HE2	1:C:496:ALA:HA	1.83	0.44
1:C:158:TYR:HE2	1:C:496:ALA:HA	1.83	0.44
1:C:158:TYR:HE2	1:C:496:ALA:HA	1.83	0.44
2:A:69:ASP:HA	2:A:145:THR:HG21	2.00	0.44
3:B:301:MET:HG3	3:B:307:PRO:HD3	1.99	0.44
2:A:69:ASP:HA	2:A:145:THR:HG21	2.00	0.44
3:B:301:MET:HG3	3:B:307:PRO:HD3	1.99	0.44
2:A:69:ASP:HA	2:A:145:THR:HG21	2.00	0.44
3:B:301:MET:HG3	3:B:307:PRO:HD3	1.99	0.44
2:A:69:ASP:HA	2:A:145:THR:HG21	2.00	0.44
3:B:301:MET:HG3	3:B:307:PRO:HD3	1.99	0.44
2:A:69:ASP:HA	2:A:145:THR:HG21	2.00	0.44
3:B:301:MET:HG3	3:B:307:PRO:HD3	1.99	0.44
1:C:331:CYS:SG	1:C:332:GLU:N	2.91	0.43
1:C:308:TYR:OH	1:C:422:ARG:HG3	2.18	0.43
1:C:331:CYS:SG	1:C:332:GLU:N	2.91	0.43
1:C:331:CYS:SG	1:C:332:GLU:N	2.91	0.43
1:C:331:CYS:SG	1:C:332:GLU:N	2.92	0.43
2:A:204:VAL:HG11	2:A:231:ILE:CD1	2.48	0.43
1:C:331:CYS:SG	1:C:332:GLU:N	2.92	0.43
2:A:204:VAL:HG11	2:A:231:ILE:CD1	2.48	0.43
2:A:204:VAL:HG11	2:A:231:ILE:CD1	2.48	0.43
2:A:204:VAL:HG11	2:A:231:ILE:CD1	2.48	0.43
1:C:155:ILE:CG2	1:C:405:LEU:HA	2.48	0.43
2:A:204:VAL:HG11	2:A:231:ILE:CD1	2.48	0.43
2:A:201:ALA:O	2:A:268:PRO:HD2	2.18	0.43
2:A:224:TYR:HD1	2:A:227:LEU:HD12	1.83	0.43
1:C:155:ILE:CG2	1:C:405:LEU:HA	2.48	0.43
2:A:201:ALA:O	2:A:268:PRO:HD2	2.18	0.43
2:A:224:TYR:HD1	2:A:227:LEU:HD12	1.83	0.43
1:C:155:ILE:CG2	1:C:405:LEU:HA	2.48	0.43
2:A:201:ALA:O	2:A:268:PRO:HD2	2.18	0.43
2:A:224:TYR:HD1	2:A:227:LEU:HD12	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:155:ILE:CG2	1:C:405:LEU:HA	2.48	0.43
2:A:201:ALA:O	2:A:268:PRO:HD2	2.18	0.43
2:A:224:TYR:HD1	2:A:227:LEU:HD12	1.83	0.43
1:C:154:LEU:HD22	1:C:404:SER:O	2.18	0.43
2:A:201:ALA:O	2:A:268:PRO:HD2	2.18	0.43
2:A:224:TYR:HD1	2:A:227:LEU:HD12	1.83	0.43
1:C:154:LEU:HD22	1:C:404:SER:O	2.18	0.43
1:C:155:ILE:CG2	1:C:405:LEU:HA	2.48	0.43
1:C:380:HIS:HA	1:C:407:ASP:O	2.19	0.43
2:A:11:GLN:HA	2:A:74:VAL:HG11	2.01	0.43
2:A:88:HIS:O	2:A:91:GLN:HG3	2.18	0.43
2:A:386:GLU:O	2:A:390:ARG:HG2	2.18	0.43
3:B:211:ASP:O	3:B:215:ARG:HG2	2.18	0.43
3:B:269:MET:HG3	3:B:384:ILE:HD12	1.99	0.43
3:B:270:PRO:HD2	3:B:302:MET:HB3	2.00	0.43
3:B:276:THR:HB	3:B:281:GLN:HB3	2.00	0.43
1:C:154:LEU:HD22	1:C:404:SER:O	2.18	0.43
1:C:380:HIS:HA	1:C:407:ASP:O	2.19	0.43
2:A:11:GLN:HA	2:A:74:VAL:HG11	2.01	0.43
2:A:88:HIS:O	2:A:91:GLN:HG3	2.18	0.43
2:A:386:GLU:O	2:A:390:ARG:HG2	2.18	0.43
3:B:211:ASP:O	3:B:215:ARG:HG2	2.18	0.43
3:B:269:MET:HG3	3:B:384:ILE:HD12	1.99	0.43
3:B:270:PRO:HD2	3:B:302:MET:HB3	2.00	0.43
3:B:276:THR:HB	3:B:281:GLN:HB3	2.00	0.43
1:C:154:LEU:HD22	1:C:404:SER:O	2.18	0.43
2:A:11:GLN:HA	2:A:74:VAL:HG11	2.01	0.43
2:A:88:HIS:O	2:A:91:GLN:HG3	2.18	0.43
2:A:386:GLU:O	2:A:390:ARG:HG2	2.18	0.43
3:B:211:ASP:O	3:B:215:ARG:HG2	2.18	0.43
3:B:269:MET:HG3	3:B:384:ILE:HD12	1.99	0.43
3:B:270:PRO:HD2	3:B:302:MET:HB3	2.00	0.43
3:B:276:THR:HB	3:B:281:GLN:HB3	2.00	0.43
1:C:154:LEU:HD22	1:C:404:SER:O	2.18	0.43
1:C:380:HIS:HA	1:C:407:ASP:O	2.19	0.43
2:A:11:GLN:HA	2:A:74:VAL:HG11	2.01	0.43
2:A:88:HIS:O	2:A:91:GLN:HG3	2.18	0.43
2:A:386:GLU:O	2:A:390:ARG:HG2	2.18	0.43
3:B:211:ASP:O	3:B:215:ARG:HG2	2.18	0.43
3:B:269:MET:HG3	3:B:384:ILE:HD12	1.99	0.43
3:B:270:PRO:HD2	3:B:302:MET:HB3	2.00	0.43
3:B:276:THR:HB	3:B:281:GLN:HB3	2.00	0.43
1:C:154:LEU:HD22	1:C:404:SER:O	2.18	0.43
1:C:380:HIS:HA	1:C:407:ASP:O	2.19	0.43
2:A:11:GLN:HA	2:A:74:VAL:HG11	2.01	0.43
2:A:88:HIS:O	2:A:91:GLN:HG3	2.18	0.43
2:A:386:GLU:O	2:A:390:ARG:HG2	2.18	0.43
3:B:211:ASP:O	3:B:215:ARG:HG2	2.18	0.43
3:B:269:MET:HG3	3:B:384:ILE:HD12	1.99	0.43
3:B:270:PRO:HD2	3:B:302:MET:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:276:THR:HB	3:B:281:GLN:HB3	2.00	0.43
2:A:11:GLN:HA	2:A:74:VAL:HG11	2.01	0.43
2:A:88:HIS:O	2:A:91:GLN:HG3	2.18	0.43
2:A:386:GLU:O	2:A:390:ARG:HG2	2.18	0.43
3:B:211:ASP:O	3:B:215:ARG:HG2	2.18	0.43
3:B:269:MET:HG3	3:B:384:ILE:HD12	1.99	0.43
3:B:270:PRO:HD2	3:B:302:MET:HB3	2.00	0.43
3:B:276:THR:HB	3:B:281:GLN:HB3	2.00	0.43
2:A:133:GLN:HG2	2:A:252:LEU:HB2	1.99	0.43
2:A:371:VAL:HG12	2:A:372:GLN:N	2.34	0.43
7:B:601:TA1:H463	7:B:601:TA1:C26	2.46	0.43
1:C:140:MET:O	1:C:144:VAL:HG23	2.18	0.43
2:A:133:GLN:HG2	2:A:252:LEU:HB2	1.99	0.43
2:A:371:VAL:HG12	2:A:372:GLN:N	2.34	0.43
7:B:601:TA1:H463	7:B:601:TA1:C26	2.46	0.43
1:C:140:MET:O	1:C:144:VAL:HG23	2.18	0.43
1:C:380:HIS:HA	1:C:407:ASP:O	2.19	0.43
2:A:133:GLN:HG2	2:A:252:LEU:HB2	1.99	0.43
2:A:371:VAL:HG12	2:A:372:GLN:N	2.34	0.43
7:B:601:TA1:H463	7:B:601:TA1:C26	2.46	0.43
2:A:133:GLN:HG2	2:A:252:LEU:HB2	1.99	0.43
2:A:371:VAL:HG12	2:A:372:GLN:N	2.34	0.43
7:B:601:TA1:H463	7:B:601:TA1:C26	2.46	0.43
2:A:133:GLN:HG2	2:A:252:LEU:HB2	1.99	0.43
2:A:371:VAL:HG12	2:A:372:GLN:N	2.34	0.43
7:B:601:TA1:H463	7:B:601:TA1:C26	2.46	0.43
1:C:140:MET:O	1:C:144:VAL:HG23	2.18	0.43
1:C:140:MET:O	1:C:144:VAL:HG23	2.18	0.43
1:C:140:MET:O	1:C:144:VAL:HG23	2.18	0.43
1:C:380:HIS:HA	1:C:407:ASP:O	2.19	0.43
1:C:319:PRO:HA	1:C:364:ASN:CG	2.44	0.43
1:C:312:LEU:HB2	1:C:328:LEU:CD2	2.49	0.43
1:C:332:GLU:HA	1:C:338:PRO:HA	2.01	0.43
3:B:288:VAL:N	3:B:289:PRO:HD2	2.33	0.43
1:C:332:GLU:HA	1:C:338:PRO:HA	2.01	0.43
3:B:288:VAL:N	3:B:289:PRO:HD2	2.33	0.43
1:C:332:GLU:HA	1:C:338:PRO:HA	2.01	0.43
3:B:288:VAL:N	3:B:289:PRO:HD2	2.33	0.43
3:B:288:VAL:N	3:B:289:PRO:HD2	2.33	0.43
1:C:332:GLU:HA	1:C:338:PRO:HA	2.01	0.43
3:B:288:VAL:N	3:B:289:PRO:HD2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:385:GLN:HB2	3:B:429:VAL:HG13	2.01	0.42
1:C:100:PRO:O	1:C:487:ALA:HB1	2.19	0.42
3:B:385:GLN:HB2	3:B:429:VAL:HG13	2.01	0.42
3:B:385:GLN:HB2	3:B:429:VAL:HG13	2.01	0.42
1:C:100:PRO:O	1:C:487:ALA:HB1	2.19	0.42
1:C:158:TYR:CE1	1:C:410:GLY:HA2	2.54	0.42
1:C:332:GLU:HA	1:C:338:PRO:HA	2.01	0.42
3:B:385:GLN:HB2	3:B:429:VAL:HG13	2.01	0.42
1:C:100:PRO:O	1:C:487:ALA:HB1	2.19	0.42
1:C:456:ILE:HA	1:C:457:PRO:HD3	1.74	0.42
3:B:385:GLN:HB2	3:B:429:VAL:HG13	2.01	0.42
1:C:100:PRO:O	1:C:487:ALA:HB1	2.19	0.42
1:C:358:LEU:HD23	1:C:362:ARG:NH1	2.35	0.42
1:C:456:ILE:HA	1:C:457:PRO:HD3	1.74	0.42
2:A:66:VAL:HG12	2:A:91:GLN:HB3	2.01	0.42
2:A:273:ALA:H	2:A:274:PRO:HD2	1.83	0.42
1:C:500:SER:O	1:C:501:ALA:HB3	2.19	0.42
2:A:66:VAL:HG12	2:A:91:GLN:HB3	2.01	0.42
2:A:273:ALA:H	2:A:274:PRO:HD2	1.83	0.42
1:C:100:PRO:O	1:C:487:ALA:HB1	2.19	0.42
2:A:66:VAL:HG12	2:A:91:GLN:HB3	2.01	0.42
2:A:273:ALA:H	2:A:274:PRO:HD2	1.83	0.42
1:C:311:LEU:CD1	1:C:327:THR:HG21	2.49	0.42
1:C:456:ILE:HA	1:C:457:PRO:HD3	1.74	0.42
2:A:66:VAL:HG12	2:A:91:GLN:HB3	2.01	0.42
2:A:273:ALA:H	2:A:274:PRO:HD2	1.83	0.42
2:A:66:VAL:HG12	2:A:91:GLN:HB3	2.01	0.42
2:A:273:ALA:H	2:A:274:PRO:HD2	1.83	0.42
1:C:66:VAL:HA	1:C:479:MET:HB3	2.02	0.42
1:C:66:VAL:HA	1:C:479:MET:HB3	2.02	0.42
1:C:358:LEU:HD23	1:C:362:ARG:NH1	2.35	0.42
1:C:165:LYS:O	1:C:169:ILE:HG22	2.20	0.42
1:C:358:LEU:HD23	1:C:362:ARG:NH1	2.35	0.42
1:C:456:ILE:HA	1:C:457:PRO:HD3	1.74	0.42
1:C:165:LYS:O	1:C:169:ILE:HG22	2.20	0.42
1:C:358:LEU:HD23	1:C:362:ARG:NH1	2.35	0.42
1:C:413:ARG:HH12	2:A:417:GLU:CD	2.26	0.42
1:C:456:ILE:HA	1:C:457:PRO:HD3	1.74	0.42
1:C:66:VAL:HA	1:C:479:MET:HB3	2.02	0.42
1:C:165:LYS:O	1:C:169:ILE:HG22	2.20	0.42
1:C:358:LEU:HD23	1:C:362:ARG:NH1	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:450:ARG:HE	1:C:450:ARG:HB3	1.66	0.42
1:C:66:VAL:HA	1:C:479:MET:HB3	2.02	0.42
1:C:66:VAL:HA	1:C:479:MET:HB3	2.02	0.42
1:C:165:LYS:O	1:C:169:ILE:HG22	2.20	0.42
1:C:378:ARG:HH12	1:C:412:GLU:CG	2.32	0.42
1:C:500:SER:O	1:C:501:ALA:HB3	2.20	0.42
1:C:165:LYS:O	1:C:169:ILE:HG22	2.20	0.42
2:A:227:LEU:O	2:A:231:ILE:HG12	2.20	0.42
2:A:227:LEU:O	2:A:231:ILE:HG12	2.20	0.42
1:C:156:TYR:HB3	1:C:479:MET:HA	2.01	0.42
2:A:227:LEU:O	2:A:231:ILE:HG12	2.20	0.42
1:C:389:HIS:C	1:C:390:LEU:HD12	2.44	0.42
2:A:227:LEU:O	2:A:231:ILE:HG12	2.20	0.42
2:A:227:LEU:O	2:A:231:ILE:HG12	2.20	0.42
1:C:156:TYR:HB3	1:C:479:MET:HA	2.01	0.42
1:C:389:HIS:C	1:C:390:LEU:HD12	2.44	0.42
3:B:268:PHE:CD1	3:B:380:ASN:HB2	2.54	0.42
1:C:156:TYR:HB3	1:C:479:MET:HA	2.01	0.42
1:C:389:HIS:C	1:C:390:LEU:HD12	2.44	0.42
3:B:268:PHE:CD1	3:B:380:ASN:HB2	2.54	0.42
1:C:389:HIS:C	1:C:390:LEU:HD12	2.44	0.42
3:B:268:PHE:CD1	3:B:380:ASN:HB2	2.54	0.42
1:C:156:TYR:HB3	1:C:479:MET:HA	2.01	0.42
3:B:268:PHE:CD1	3:B:380:ASN:HB2	2.54	0.42
1:C:156:TYR:HB3	1:C:479:MET:HA	2.01	0.42
1:C:389:HIS:C	1:C:390:LEU:HD12	2.44	0.42
3:B:268:PHE:CD1	3:B:380:ASN:HB2	2.54	0.42
2:A:407:TRP:CG	3:B:257:VAL:HG13	2.54	0.42
3:B:93:VAL:HG11	3:B:118:VAL:HG22	2.01	0.42
3:B:230:LEU:HD13	7:B:601:TA1:C08	2.47	0.42
1:C:316:LEU:C	1:C:318:PRO:HD3	2.44	0.42
2:A:407:TRP:CG	3:B:257:VAL:HG13	2.54	0.42
3:B:93:VAL:HG11	3:B:118:VAL:HG22	2.01	0.42
3:B:230:LEU:HD13	7:B:601:TA1:C08	2.47	0.42
2:A:407:TRP:CG	3:B:257:VAL:HG13	2.54	0.42
3:B:93:VAL:HG11	3:B:118:VAL:HG22	2.01	0.42
3:B:230:LEU:HD13	7:B:601:TA1:C08	2.47	0.42
2:A:407:TRP:CG	3:B:257:VAL:HG13	2.54	0.42
3:B:93:VAL:HG11	3:B:118:VAL:HG22	2.01	0.42
3:B:230:LEU:HD13	7:B:601:TA1:C08	2.47	0.42
2:A:407:TRP:CG	3:B:257:VAL:HG13	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:93:VAL:HG11	3:B:118:VAL:HG22	2.01	0.42
3:B:230:LEU:HD13	7:B:601:TA1:C08	2.47	0.42
1:C:330:LEU:HD13	1:C:465:ARG:CB	2.50	0.42
3:B:195:VAL:HG23	3:B:265:LEU:HB3	2.01	0.42
1:C:330:LEU:HD13	1:C:465:ARG:CB	2.50	0.42
3:B:195:VAL:HG23	3:B:265:LEU:HB3	2.01	0.42
1:C:330:LEU:HD13	1:C:465:ARG:CB	2.50	0.42
3:B:195:VAL:HG23	3:B:265:LEU:HB3	2.01	0.42
1:C:330:LEU:HD13	1:C:465:ARG:CB	2.50	0.42
3:B:195:VAL:HG23	3:B:265:LEU:HB3	2.01	0.42
1:C:500:SER:O	1:C:501:ALA:HB3	2.20	0.42
3:B:195:VAL:HG23	3:B:265:LEU:HB3	2.01	0.42
2:A:427:ALA:O	2:A:431:ASP:HB2	2.20	0.42
2:A:427:ALA:O	2:A:431:ASP:HB2	2.20	0.42
2:A:427:ALA:O	2:A:431:ASP:HB2	2.20	0.42
2:A:427:ALA:O	2:A:431:ASP:HB2	2.20	0.42
1:C:330:LEU:HD13	1:C:465:ARG:CB	2.50	0.42
2:A:427:ALA:O	2:A:431:ASP:HB2	2.20	0.42
1:C:456:ILE:H	1:C:456:ILE:HG12	1.53	0.41
1:C:494:LEU:HG	1:C:498:LYS:HE3	2.01	0.41
3:B:230:LEU:HB2	7:B:601:TA1:HC71	2.01	0.41
1:C:330:LEU:CD1	1:C:465:ARG:HB2	2.50	0.41
3:B:230:LEU:HB2	7:B:601:TA1:HC71	2.01	0.41
1:C:311:LEU:HD13	1:C:311:LEU:HA	1.90	0.41
3:B:230:LEU:HB2	7:B:601:TA1:HC71	2.01	0.41
3:B:230:LEU:HB2	7:B:601:TA1:HC71	2.01	0.41
3:B:230:LEU:HB2	7:B:601:TA1:HC71	2.01	0.41
1:C:311:LEU:HD13	1:C:311:LEU:HA	1.90	0.41
1:C:330:LEU:CD1	1:C:465:ARG:HB2	2.50	0.41
2:A:183:GLU:HB3	2:A:184:PRO:CD	2.50	0.41
3:B:156:LYS:HA	3:B:156:LYS:HD3	1.89	0.41
3:B:396:THR:HA	3:B:399:PHE:HB3	2.01	0.41
1:C:75:THR:O	1:C:79:ASP:HB2	2.20	0.41
1:C:311:LEU:HD13	1:C:311:LEU:HA	1.90	0.41
2:A:183:GLU:HB3	2:A:184:PRO:CD	2.50	0.41
3:B:156:LYS:HA	3:B:156:LYS:HD3	1.89	0.41
3:B:396:THR:HA	3:B:399:PHE:HB3	2.01	0.41
1:C:95:LEU:HD11	1:C:125:ILE:HB	2.01	0.41
2:A:183:GLU:HB3	2:A:184:PRO:CD	2.50	0.41
3:B:156:LYS:HA	3:B:156:LYS:HD3	1.89	0.41
3:B:396:THR:HA	3:B:399:PHE:HB3	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:330:LEU:CD1	1:C:465:ARG:HB2	2.50	0.41
1:C:423:LEU:CD1	3:B:163:ASP:HB2	2.48	0.41
1:C:424:LYS:HZ3	3:B:163:ASP:HA	1.84	0.41
1:C:494:LEU:HG	1:C:498:LYS:HE3	2.01	0.41
2:A:183:GLU:HB3	2:A:184:PRO:CD	2.50	0.41
3:B:156:LYS:HA	3:B:156:LYS:HD3	1.89	0.41
3:B:396:THR:HA	3:B:399:PHE:HB3	2.01	0.41
1:C:95:LEU:HD11	1:C:125:ILE:HB	2.01	0.41
1:C:149:LYS:HB3	1:C:149:LYS:HE2	1.89	0.41
1:C:311:LEU:HD13	1:C:311:LEU:HA	1.90	0.41
1:C:330:LEU:CD1	1:C:465:ARG:HB2	2.50	0.41
1:C:456:ILE:H	1:C:456:ILE:HG12	1.53	0.41
1:C:494:LEU:HG	1:C:498:LYS:HE3	2.01	0.41
2:A:183:GLU:HB3	2:A:184:PRO:CD	2.50	0.41
3:B:156:LYS:HA	3:B:156:LYS:HD3	1.89	0.41
3:B:396:THR:HA	3:B:399:PHE:HB3	2.01	0.41
1:C:75:THR:O	1:C:79:ASP:HB2	2.21	0.41
1:C:149:LYS:HB3	1:C:149:LYS:HE2	1.89	0.41
1:C:154:LEU:HG	1:C:467:PHE:HE1	1.85	0.41
2:A:224:TYR:HE1	4:A:500:GTP:C4	2.34	0.41
1:C:95:LEU:HD11	1:C:125:ILE:HB	2.01	0.41
1:C:456:ILE:H	1:C:456:ILE:HG12	1.53	0.41
1:C:494:LEU:HG	1:C:498:LYS:HE3	2.01	0.41
2:A:224:TYR:HE1	4:A:500:GTP:C4	2.34	0.41
1:C:75:THR:O	1:C:79:ASP:HB2	2.21	0.41
1:C:330:LEU:CD1	1:C:465:ARG:HB2	2.50	0.41
1:C:494:LEU:HG	1:C:498:LYS:HE3	2.01	0.41
2:A:224:TYR:HE1	4:A:500:GTP:C4	2.34	0.41
1:C:75:THR:O	1:C:79:ASP:HB2	2.21	0.41
1:C:95:LEU:HD11	1:C:125:ILE:HB	2.01	0.41
1:C:311:LEU:HD13	1:C:311:LEU:HA	1.90	0.41
2:A:224:TYR:HE1	4:A:500:GTP:C4	2.34	0.41
2:A:224:TYR:HE1	4:A:500:GTP:C4	2.34	0.41
1:C:95:LEU:HD11	1:C:125:ILE:HB	2.01	0.41
1:C:100:PRO:HD2	1:C:487:ALA:CB	2.51	0.41
1:C:455:LEU:HD13	3:B:431:GLU:HG2	2.02	0.41
1:C:149:LYS:HB3	1:C:149:LYS:HE2	1.89	0.41
1:C:149:LYS:HB3	1:C:149:LYS:HE2	1.89	0.41
1:C:456:ILE:H	1:C:456:ILE:HG12	1.53	0.41
1:C:413:ARG:O	1:C:413:ARG:NH1	2.41	0.41
1:C:75:THR:O	1:C:79:ASP:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:154:LEU:HG	1:C:467:PHE:HE1	1.85	0.41
1:C:100:PRO:HD2	1:C:487:ALA:CB	2.51	0.41
1:C:154:LEU:HG	1:C:467:PHE:HE1	1.85	0.41
1:C:100:PRO:HD2	1:C:487:ALA:CB	2.51	0.41
1:C:154:LEU:HG	1:C:467:PHE:HE1	1.85	0.41
1:C:100:PRO:HD2	1:C:487:ALA:CB	2.51	0.41
1:C:149:LYS:HB3	1:C:149:LYS:HE2	1.89	0.41
1:C:154:LEU:HG	1:C:467:PHE:HE1	1.85	0.41
1:C:456:ILE:H	1:C:456:ILE:HG12	1.53	0.41
1:C:100:PRO:HD2	1:C:487:ALA:CB	2.51	0.41
1:C:158:TYR:CE1	1:C:410:GLY:HA2	2.55	0.41
2:A:243:ARG:HH22	2:A:251:ASP:CG	2.28	0.41
2:A:371:VAL:HG12	2:A:372:GLN:H	1.85	0.41
2:A:243:ARG:HH22	2:A:251:ASP:CG	2.28	0.41
2:A:371:VAL:HG12	2:A:372:GLN:H	1.85	0.41
2:A:243:ARG:HH22	2:A:251:ASP:CG	2.28	0.41
2:A:371:VAL:HG12	2:A:372:GLN:H	1.85	0.41
1:C:81:GLN:HE21	1:C:81:GLN:HB2	1.74	0.41
1:C:465:ARG:O	1:C:468:GLN:HB3	2.21	0.41
2:A:243:ARG:HH22	2:A:251:ASP:CG	2.28	0.41
2:A:371:VAL:HG12	2:A:372:GLN:H	1.85	0.41
1:C:81:GLN:HE21	1:C:81:GLN:HB2	1.74	0.41
1:C:465:ARG:O	1:C:468:GLN:HB3	2.21	0.41
2:A:243:ARG:HH22	2:A:251:ASP:CG	2.28	0.41
2:A:371:VAL:HG12	2:A:372:GLN:H	1.85	0.41
1:C:81:GLN:HE21	1:C:81:GLN:HB2	1.74	0.41
1:C:465:ARG:O	1:C:468:GLN:HB3	2.21	0.41
2:A:188:ILE:HD11	2:A:392:ASP:HA	2.02	0.41
1:C:81:GLN:HE21	1:C:81:GLN:HB2	1.74	0.41
1:C:465:ARG:O	1:C:468:GLN:HB3	2.21	0.41
2:A:188:ILE:HD11	2:A:392:ASP:HA	2.02	0.41
1:C:81:GLN:HE21	1:C:81:GLN:HB2	1.74	0.41
2:A:188:ILE:HD11	2:A:392:ASP:HA	2.02	0.41
1:C:311:LEU:HD12	1:C:327:THR:HG21	2.02	0.41
2:A:188:ILE:HD11	2:A:392:ASP:HA	2.02	0.41
2:A:188:ILE:HD11	2:A:392:ASP:HA	2.02	0.41
1:C:99:ALA:HA	1:C:100:PRO:HD3	1.75	0.41
1:C:449:ASN:CG	1:C:450:ARG:N	2.79	0.41
2:A:205:ASP:CB	2:A:303:VAL:HA	2.51	0.41
3:B:205:ASP:HB3	3:B:208:ALA:HB3	2.02	0.41
3:B:243:ARG:HA	3:B:243:ARG:HD3	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:99:ALA:HA	1:C:100:PRO:HD3	1.75	0.41
2:A:205:ASP:CB	2:A:303:VAL:HA	2.51	0.41
3:B:205:ASP:HB3	3:B:208:ALA:HB3	2.02	0.41
3:B:243:ARG:HA	3:B:243:ARG:HD3	1.86	0.41
1:C:99:ALA:HA	1:C:100:PRO:HD3	1.75	0.41
1:C:465:ARG:O	1:C:468:GLN:HB3	2.21	0.41
2:A:205:ASP:CB	2:A:303:VAL:HA	2.51	0.41
3:B:205:ASP:HB3	3:B:208:ALA:HB3	2.02	0.41
3:B:243:ARG:HA	3:B:243:ARG:HD3	1.86	0.41
1:C:99:ALA:HA	1:C:100:PRO:HD3	1.75	0.41
2:A:205:ASP:CB	2:A:303:VAL:HA	2.51	0.41
3:B:205:ASP:HB3	3:B:208:ALA:HB3	2.02	0.41
3:B:243:ARG:HA	3:B:243:ARG:HD3	1.86	0.41
1:C:99:ALA:HA	1:C:100:PRO:HD3	1.75	0.41
1:C:312:LEU:O	1:C:328:LEU:HD13	2.20	0.41
1:C:378:ARG:NH1	1:C:412:GLU:OE1	2.44	0.41
2:A:205:ASP:CB	2:A:303:VAL:HA	2.51	0.41
3:B:205:ASP:HB3	3:B:208:ALA:HB3	2.02	0.41
3:B:243:ARG:HA	3:B:243:ARG:HD3	1.86	0.41
1:C:154:LEU:HG	1:C:467:PHE:CE1	2.56	0.41
1:C:337:ASN:HA	1:C:338:PRO:HD3	1.85	0.41
2:A:24:TYR:OH	2:A:239:THR:HB	2.21	0.41
2:A:339:ARG:HA	2:A:339:ARG:HD3	1.84	0.41
1:C:154:LEU:HG	1:C:467:PHE:CE1	2.56	0.41
1:C:337:ASN:HA	1:C:338:PRO:HD3	1.85	0.41
2:A:24:TYR:OH	2:A:239:THR:HB	2.21	0.41
2:A:339:ARG:HA	2:A:339:ARG:HD3	1.84	0.41
1:C:154:LEU:HG	1:C:467:PHE:CE1	2.56	0.41
2:A:24:TYR:OH	2:A:239:THR:HB	2.21	0.41
2:A:339:ARG:HA	2:A:339:ARG:HD3	1.84	0.41
1:C:154:LEU:HG	1:C:467:PHE:CE1	2.56	0.41
2:A:24:TYR:OH	2:A:239:THR:HB	2.21	0.41
2:A:339:ARG:HA	2:A:339:ARG:HD3	1.84	0.41
1:C:154:LEU:HG	1:C:467:PHE:CE1	2.56	0.41
1:C:337:ASN:HA	1:C:338:PRO:HD3	1.85	0.41
1:C:455:LEU:HD13	3:B:431:GLU:HG2	2.03	0.41
2:A:24:TYR:OH	2:A:239:THR:HB	2.21	0.41
2:A:339:ARG:HA	2:A:339:ARG:HD3	1.84	0.41
1:C:92:THR:HB	1:C:124:GLN:OE1	2.21	0.41
2:A:221:ARG:N	2:A:222:PRO:HD3	2.36	0.41
2:A:260:VAL:HA	2:A:261:PRO:HD3	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:362:VAL:CG1	2:A:368:LEU:HB2	2.52	0.41
2:A:433:GLU:HG3	2:A:437:VAL:HG21	2.03	0.41
1:C:92:THR:HB	1:C:124:GLN:OE1	2.21	0.41
2:A:221:ARG:N	2:A:222:PRO:HD3	2.36	0.41
2:A:260:VAL:HA	2:A:261:PRO:HD3	1.89	0.41
2:A:362:VAL:CG1	2:A:368:LEU:HB2	2.52	0.41
2:A:433:GLU:HG3	2:A:437:VAL:HG21	2.03	0.41
1:C:337:ASN:HA	1:C:338:PRO:HD3	1.85	0.41
2:A:221:ARG:N	2:A:222:PRO:HD3	2.36	0.41
2:A:260:VAL:HA	2:A:261:PRO:HD3	1.89	0.41
2:A:362:VAL:CG1	2:A:368:LEU:HB2	2.52	0.41
2:A:433:GLU:HG3	2:A:437:VAL:HG21	2.03	0.41
1:C:337:ASN:HA	1:C:338:PRO:HD3	1.85	0.41
2:A:221:ARG:N	2:A:222:PRO:HD3	2.36	0.41
2:A:260:VAL:HA	2:A:261:PRO:HD3	1.89	0.41
2:A:362:VAL:CG1	2:A:368:LEU:HB2	2.52	0.41
2:A:433:GLU:HG3	2:A:437:VAL:HG21	2.03	0.41
1:C:92:THR:HB	1:C:124:GLN:OE1	2.21	0.41
2:A:221:ARG:N	2:A:222:PRO:HD3	2.36	0.41
2:A:260:VAL:HA	2:A:261:PRO:HD3	1.89	0.41
2:A:362:VAL:CG1	2:A:368:LEU:HB2	2.52	0.41
2:A:433:GLU:HG3	2:A:437:VAL:HG21	2.03	0.41
1:C:413:ARG:HH11	2:A:414:GLU:CD	2.29	0.40
1:C:92:THR:HB	1:C:124:GLN:OE1	2.21	0.40
1:C:455:LEU:HD13	3:B:431:GLU:HG2	2.03	0.40
1:C:92:THR:HB	1:C:124:GLN:OE1	2.21	0.40
2:A:391:LEU:HD12	2:A:391:LEU:HA	1.98	0.40
2:A:391:LEU:HD12	2:A:391:LEU:HA	1.98	0.40
2:A:391:LEU:HD12	2:A:391:LEU:HA	1.98	0.40
2:A:391:LEU:HD12	2:A:391:LEU:HA	1.98	0.40
2:A:391:LEU:HD12	2:A:391:LEU:HA	1.98	0.40
3:B:136:GLN:HA	3:B:167:ASN:O	2.21	0.40
3:B:360:PRO:HB3	7:B:601:TA1:C37	2.51	0.40
3:B:136:GLN:HA	3:B:167:ASN:O	2.21	0.40
3:B:360:PRO:HB3	7:B:601:TA1:C37	2.51	0.40
3:B:136:GLN:HA	3:B:167:ASN:O	2.21	0.40
3:B:360:PRO:HB3	7:B:601:TA1:C37	2.51	0.40
1:C:169:ILE:HA	1:C:178:ILE:HG22	2.03	0.40
3:B:136:GLN:HA	3:B:167:ASN:O	2.21	0.40
3:B:360:PRO:HB3	7:B:601:TA1:C37	2.51	0.40
1:C:169:ILE:HA	1:C:178:ILE:HG22	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:136:GLN:HA	3:B:167:ASN:O	2.21	0.40
3:B:360:PRO:HB3	7:B:601:TA1:C37	2.51	0.40
2:A:201:ALA:O	2:A:267:PHE:HA	2.21	0.40
2:A:292:THR:HG22	2:A:296:PHE:HE2	1.87	0.40
3:B:228:ASN:CG	6:B:600:GDP:HN1	2.21	0.40
1:C:169:ILE:HA	1:C:178:ILE:HG22	2.03	0.40
2:A:201:ALA:O	2:A:267:PHE:HA	2.21	0.40
2:A:292:THR:HG22	2:A:296:PHE:HE2	1.87	0.40
3:B:228:ASN:CG	6:B:600:GDP:HN1	2.21	0.40
2:A:201:ALA:O	2:A:267:PHE:HA	2.21	0.40
2:A:292:THR:HG22	2:A:296:PHE:HE2	1.87	0.40
3:B:228:ASN:CG	6:B:600:GDP:HN1	2.21	0.40
2:A:201:ALA:O	2:A:267:PHE:HA	2.21	0.40
2:A:292:THR:HG22	2:A:296:PHE:HE2	1.87	0.40
3:B:228:ASN:CG	6:B:600:GDP:HN1	2.21	0.40
1:C:378:ARG:HD3	1:C:378:ARG:HA	1.82	0.40
2:A:201:ALA:O	2:A:267:PHE:HA	2.21	0.40
2:A:292:THR:HG22	2:A:296:PHE:HE2	1.87	0.40
3:B:228:ASN:CG	6:B:600:GDP:HN1	2.21	0.40
1:C:169:ILE:HA	1:C:178:ILE:HG22	2.04	0.40
2:A:369:ALA:O	2:A:370:LYS:HB3	2.21	0.40
2:A:369:ALA:O	2:A:370:LYS:HB3	2.21	0.40
1:C:169:ILE:HA	1:C:178:ILE:HG22	2.04	0.40
2:A:369:ALA:O	2:A:370:LYS:HB3	2.21	0.40
2:A:369:ALA:O	2:A:370:LYS:HB3	2.21	0.40
2:A:369:ALA:O	2:A:370:LYS:HB3	2.21	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	1-C	282/501 (56%)	267 (95%)	10 (4%)	5 (2%)	6	34
1	2-C	282/501 (56%)	265 (94%)	14 (5%)	3 (1%)	11	46
1	3-C	281/501 (56%)	266 (95%)	10 (4%)	5 (2%)	6	34
1	4-C	282/501 (56%)	266 (94%)	12 (4%)	4 (1%)	9	40
1	5-C	282/501 (56%)	265 (94%)	11 (4%)	6 (2%)	5	29
2	1-A	408/451 (90%)	366 (90%)	38 (9%)	4 (1%)	12	48
2	2-A	408/451 (90%)	366 (90%)	38 (9%)	4 (1%)	12	48
2	3-A	408/451 (90%)	366 (90%)	38 (9%)	4 (1%)	12	48
2	4-A	408/451 (90%)	366 (90%)	38 (9%)	4 (1%)	12	48
2	5-A	408/451 (90%)	366 (90%)	38 (9%)	4 (1%)	12	48
3	1-B	424/445 (95%)	379 (89%)	38 (9%)	7 (2%)	7	36
3	2-B	424/445 (95%)	379 (89%)	38 (9%)	7 (2%)	7	36
3	3-B	424/445 (95%)	379 (89%)	38 (9%)	7 (2%)	7	36
3	4-B	424/445 (95%)	379 (89%)	38 (9%)	7 (2%)	7	36
3	5-B	424/445 (95%)	379 (89%)	38 (9%)	7 (2%)	7	36
All	All	5569/6985 (80%)	5054 (91%)	437 (8%)	78 (1%)	11	40

All (78) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	1-C	317	GLU
3	1-B	288	VAL
3	2-B	288	VAL
1	3-C	379	SER
3	3-B	288	VAL
3	4-B	288	VAL
1	5-C	317	GLU
3	5-B	288	VAL
1	1-C	297	ARG
1	1-C	501	ALA
2	1-A	279	GLU
1	2-C	297	ARG
2	2-A	279	GLU
1	3-C	297	ARG
2	3-A	279	GLU
1	4-C	297	ARG
1	4-C	501	ALA
2	4-A	279	GLU

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Mol	Chain	Res	Type
1	5-C	297	ARG
1	5-C	501	ALA
2	5-A	279	GLU
1	1-C	73	PHE
3	1-B	56	ALA
1	2-C	73	PHE
3	2-B	56	ALA
1	3-C	73	PHE
1	3-C	501	ALA
3	3-B	56	ALA
1	4-C	73	PHE
3	4-B	56	ALA
1	5-C	73	PHE
3	5-B	56	ALA
3	1-B	344	VAL
3	1-B	403	ALA
3	2-B	344	VAL
3	2-B	403	ALA
3	3-B	344	VAL
3	3-B	403	ALA
3	4-B	344	VAL
3	4-B	403	ALA
1	5-C	379	SER
3	5-B	344	VAL
3	5-B	403	ALA
2	1-A	273	ALA
2	1-A	348	PRO
3	1-B	266	HIS
2	2-A	273	ALA
2	2-A	348	PRO
3	2-B	266	HIS
2	3-A	273	ALA
2	3-A	348	PRO
3	3-B	266	HIS
2	4-A	273	ALA
2	4-A	348	PRO
3	4-B	266	HIS
2	5-A	273	ALA
2	5-A	348	PRO
3	5-B	266	HIS
1	1-C	160	VAL
1	2-C	160	VAL

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Mol	Chain	Res	Type
1	3-C	160	VAL
1	4-C	160	VAL
1	5-C	160	VAL
2	1-A	437	VAL
3	1-B	142	GLY
3	1-B	412	GLY
2	2-A	437	VAL
3	2-B	142	GLY
3	2-B	412	GLY
2	3-A	437	VAL
3	3-B	142	GLY
3	3-B	412	GLY
2	4-A	437	VAL
3	4-B	142	GLY
3	4-B	412	GLY
2	5-A	437	VAL
3	5-B	142	GLY
3	5-B	412	GLY

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	1-C	265/447 (59%)	224 (84%)	41 (16%)	2	11
1	2-C	265/447 (59%)	224 (84%)	41 (16%)	2	11
1	3-C	264/447 (59%)	223 (84%)	41 (16%)	2	11
1	4-C	265/447 (59%)	224 (84%)	41 (16%)	2	11
1	5-C	265/447 (59%)	224 (84%)	41 (16%)	2	11
2	1-A	347/377 (92%)	311 (90%)	36 (10%)	7	22
2	2-A	347/377 (92%)	311 (90%)	36 (10%)	7	22
2	3-A	347/377 (92%)	311 (90%)	36 (10%)	7	22
2	4-A	347/377 (92%)	311 (90%)	36 (10%)	7	22
2	5-A	347/377 (92%)	311 (90%)	36 (10%)	7	22

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	1-B	367/381 (96%)	314 (86%)	53 (14%)	3	13
3	2-B	367/381 (96%)	314 (86%)	53 (14%)	3	13
3	3-B	367/381 (96%)	314 (86%)	53 (14%)	3	13
3	4-B	367/381 (96%)	314 (86%)	53 (14%)	3	13
3	5-B	367/381 (96%)	314 (86%)	53 (14%)	3	13
All	All	4894/6025 (81%)	4244 (87%)	650 (13%)	6	14

All (650) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	1-C	63	LYS
1	1-C	69	ARG
1	1-C	75	THR
1	1-C	76	SER
1	1-C	79	ASP
1	1-C	81	GLN
1	1-C	84	GLN
1	1-C	90	GLU
1	1-C	117	THR
1	1-C	125	ILE
1	1-C	138	LEU
1	1-C	139	THR
1	1-C	146	ASP
1	1-C	160	VAL
1	1-C	169	ILE
1	1-C	172	THR
1	1-C	173	SER
1	1-C	178	ILE
1	1-C	181	GLN
1	1-C	185	LEU
1	1-C	188	ASN
1	1-C	307	ILE
1	1-C	311	LEU
1	1-C	315	LEU
1	1-C	334	GLN
1	1-C	352	GLU
1	1-C	357	LEU
1	1-C	378	ARG
1	1-C	381	SER
1	1-C	390	LEU

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Mol	Chain	Res	Type
1	1-C	399	LYS
1	1-C	424	LYS
1	1-C	456	ILE
1	1-C	464	THR
1	1-C	471	PHE
1	1-C	472	THR
1	1-C	476	ARG
1	1-C	477	SER
1	1-C	489	THR
1	1-C	492	GLU
1	1-C	500	SER
2	1-A	22	GLU
2	1-A	82	THR
2	1-A	91	GLN
2	1-A	93	ILE
2	1-A	94	THR
2	1-A	101	ASN
2	1-A	109	THR
2	1-A	136	SER
2	1-A	140	SER
2	1-A	150	THR
2	1-A	170	SER
2	1-A	178	SER
2	1-A	192	HIS
2	1-A	194	THR
2	1-A	200	CYS
2	1-A	217	LEU
2	1-A	223	THR
2	1-A	224	TYR
2	1-A	239	THR
2	1-A	243	ARG
2	1-A	253	THR
2	1-A	255	PHE
2	1-A	272	TYR
2	1-A	286	LEU
2	1-A	287	SER
2	1-A	290	GLU
2	1-A	315	CYS
2	1-A	349	THR
2	1-A	356	ASN
2	1-A	361	THR
2	1-A	376	CYS

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Mol	Chain	Res	Type
2	1-A	382	THR
2	1-A	415	GLU
2	1-A	424	ASP
2	1-A	425	MET
2	1-A	439	SER
3	1-B	2	ARG
3	1-B	25	SER
3	1-B	35	SER
3	1-B	40	SER
3	1-B	41	ASP
3	1-B	76	ASP
3	1-B	77	SER
3	1-B	116	ASP
3	1-B	128	SER
3	1-B	130	ASP
3	1-B	133	GLN
3	1-B	138	THR
3	1-B	145	THR
3	1-B	147	SER
3	1-B	158	ARG
3	1-B	165	ILE
3	1-B	174	SER
3	1-B	180	THR
3	1-B	183	GLU
3	1-B	190	SER
3	1-B	199	ASP
3	1-B	201	THR
3	1-B	209	LEU
3	1-B	216	THR
3	1-B	223	THR
3	1-B	239	THR
3	1-B	240	THR
3	1-B	251	ASP
3	1-B	275	LEU
3	1-B	280	SER
3	1-B	287	THR
3	1-B	288	VAL
3	1-B	292	THR
3	1-B	299	LYS
3	1-B	311	ARG
3	1-B	314	THR
3	1-B	322	ARG

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Mol	Chain	Res	Type
3	1-B	325	MET
3	1-B	326	LYS
3	1-B	337	ASN
3	1-B	340	SER
3	1-B	343	PHE
3	1-B	353	THR
3	1-B	369	ARG
3	1-B	374	SER
3	1-B	376	THR
3	1-B	382	THR
3	1-B	409	THR
3	1-B	413	MET
3	1-B	419	THR
3	1-B	425	MET
3	1-B	427	ASP
3	1-B	430	SER
1	2-C	63	LYS
1	2-C	69	ARG
1	2-C	75	THR
1	2-C	76	SER
1	2-C	79	ASP
1	2-C	81	GLN
1	2-C	84	GLN
1	2-C	90	GLU
1	2-C	117	THR
1	2-C	125	ILE
1	2-C	138	LEU
1	2-C	139	THR
1	2-C	146	ASP
1	2-C	160	VAL
1	2-C	169	ILE
1	2-C	172	THR
1	2-C	173	SER
1	2-C	178	ILE
1	2-C	181	GLN
1	2-C	185	LEU
1	2-C	188	ASN
1	2-C	307	ILE
1	2-C	311	LEU
1	2-C	315	LEU
1	2-C	334	GLN
1	2-C	352	GLU

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Mol	Chain	Res	Type
1	2-C	357	LEU
1	2-C	378	ARG
1	2-C	381	SER
1	2-C	390	LEU
1	2-C	399	LYS
1	2-C	424	LYS
1	2-C	456	ILE
1	2-C	464	THR
1	2-C	471	PHE
1	2-C	472	THR
1	2-C	476	ARG
1	2-C	477	SER
1	2-C	489	THR
1	2-C	492	GLU
1	2-C	500	SER
2	2-A	22	GLU
2	2-A	82	THR
2	2-A	91	GLN
2	2-A	93	ILE
2	2-A	94	THR
2	2-A	101	ASN
2	2-A	109	THR
2	2-A	136	SER
2	2-A	140	SER
2	2-A	150	THR
2	2-A	170	SER
2	2-A	178	SER
2	2-A	192	HIS
2	2-A	194	THR
2	2-A	200	CYS
2	2-A	217	LEU
2	2-A	223	THR
2	2-A	224	TYR
2	2-A	239	THR
2	2-A	243	ARG
2	2-A	253	THR
2	2-A	255	PHE
2	2-A	272	TYR
2	2-A	286	LEU
2	2-A	287	SER
2	2-A	290	GLU
2	2-A	315	CYS

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Mol	Chain	Res	Type
2	2-A	349	THR
2	2-A	356	ASN
2	2-A	361	THR
2	2-A	376	CYS
2	2-A	382	THR
2	2-A	415	GLU
2	2-A	424	ASP
2	2-A	425	MET
2	2-A	439	SER
3	2-B	2	ARG
3	2-B	25	SER
3	2-B	35	SER
3	2-B	40	SER
3	2-B	41	ASP
3	2-B	76	ASP
3	2-B	77	SER
3	2-B	116	ASP
3	2-B	128	SER
3	2-B	130	ASP
3	2-B	133	GLN
3	2-B	138	THR
3	2-B	145	THR
3	2-B	147	SER
3	2-B	158	ARG
3	2-B	165	ILE
3	2-B	174	SER
3	2-B	180	THR
3	2-B	183	GLU
3	2-B	190	SER
3	2-B	199	ASP
3	2-B	201	THR
3	2-B	209	LEU
3	2-B	216	THR
3	2-B	223	THR
3	2-B	239	THR
3	2-B	240	THR
3	2-B	251	ASP
3	2-B	275	LEU
3	2-B	280	SER
3	2-B	287	THR
3	2-B	288	VAL
3	2-B	292	THR

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Mol	Chain	Res	Type
3	2-B	299	LYS
3	2-B	311	ARG
3	2-B	314	THR
3	2-B	322	ARG
3	2-B	325	MET
3	2-B	326	LYS
3	2-B	337	ASN
3	2-B	340	SER
3	2-B	343	PHE
3	2-B	353	THR
3	2-B	369	ARG
3	2-B	374	SER
3	2-B	376	THR
3	2-B	382	THR
3	2-B	409	THR
3	2-B	413	MET
3	2-B	419	THR
3	2-B	425	MET
3	2-B	427	ASP
3	2-B	430	SER
1	3-C	63	LYS
1	3-C	69	ARG
1	3-C	75	THR
1	3-C	76	SER
1	3-C	79	ASP
1	3-C	81	GLN
1	3-C	84	GLN
1	3-C	90	GLU
1	3-C	117	THR
1	3-C	125	ILE
1	3-C	138	LEU
1	3-C	139	THR
1	3-C	146	ASP
1	3-C	160	VAL
1	3-C	169	ILE
1	3-C	172	THR
1	3-C	173	SER
1	3-C	178	ILE
1	3-C	181	GLN
1	3-C	185	LEU
1	3-C	188	ASN
1	3-C	307	ILE

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Mol	Chain	Res	Type
1	3-C	311	LEU
1	3-C	315	LEU
1	3-C	334	GLN
1	3-C	352	GLU
1	3-C	357	LEU
1	3-C	378	ARG
1	3-C	381	SER
1	3-C	390	LEU
1	3-C	399	LYS
1	3-C	424	LYS
1	3-C	456	ILE
1	3-C	464	THR
1	3-C	471	PHE
1	3-C	472	THR
1	3-C	476	ARG
1	3-C	477	SER
1	3-C	489	THR
1	3-C	492	GLU
1	3-C	500	SER
2	3-A	22	GLU
2	3-A	82	THR
2	3-A	91	GLN
2	3-A	93	ILE
2	3-A	94	THR
2	3-A	101	ASN
2	3-A	109	THR
2	3-A	136	SER
2	3-A	140	SER
2	3-A	150	THR
2	3-A	170	SER
2	3-A	178	SER
2	3-A	192	HIS
2	3-A	194	THR
2	3-A	200	CYS
2	3-A	217	LEU
2	3-A	223	THR
2	3-A	224	TYR
2	3-A	239	THR
2	3-A	243	ARG
2	3-A	253	THR
2	3-A	255	PHE
2	3-A	272	TYR

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Mol	Chain	Res	Type
2	3-A	286	LEU
2	3-A	287	SER
2	3-A	290	GLU
2	3-A	315	CYS
2	3-A	349	THR
2	3-A	356	ASN
2	3-A	361	THR
2	3-A	376	CYS
2	3-A	382	THR
2	3-A	415	GLU
2	3-A	424	ASP
2	3-A	425	MET
2	3-A	439	SER
3	3-B	2	ARG
3	3-B	25	SER
3	3-B	35	SER
3	3-B	40	SER
3	3-B	41	ASP
3	3-B	76	ASP
3	3-B	77	SER
3	3-B	116	ASP
3	3-B	128	SER
3	3-B	130	ASP
3	3-B	133	GLN
3	3-B	138	THR
3	3-B	145	THR
3	3-B	147	SER
3	3-B	158	ARG
3	3-B	165	ILE
3	3-B	174	SER
3	3-B	180	THR
3	3-B	183	GLU
3	3-B	190	SER
3	3-B	199	ASP
3	3-B	201	THR
3	3-B	209	LEU
3	3-B	216	THR
3	3-B	223	THR
3	3-B	239	THR
3	3-B	240	THR
3	3-B	251	ASP
3	3-B	275	LEU

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Mol	Chain	Res	Type
3	3-B	280	SER
3	3-B	287	THR
3	3-B	288	VAL
3	3-B	292	THR
3	3-B	299	LYS
3	3-B	311	ARG
3	3-B	314	THR
3	3-B	322	ARG
3	3-B	325	MET
3	3-B	326	LYS
3	3-B	337	ASN
3	3-B	340	SER
3	3-B	343	PHE
3	3-B	353	THR
3	3-B	369	ARG
3	3-B	374	SER
3	3-B	376	THR
3	3-B	382	THR
3	3-B	409	THR
3	3-B	413	MET
3	3-B	419	THR
3	3-B	425	MET
3	3-B	427	ASP
3	3-B	430	SER
1	4-C	63	LYS
1	4-C	69	ARG
1	4-C	75	THR
1	4-C	76	SER
1	4-C	79	ASP
1	4-C	81	GLN
1	4-C	84	GLN
1	4-C	90	GLU
1	4-C	117	THR
1	4-C	125	ILE
1	4-C	138	LEU
1	4-C	139	THR
1	4-C	146	ASP
1	4-C	160	VAL
1	4-C	169	ILE
1	4-C	172	THR
1	4-C	173	SER
1	4-C	178	ILE

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Mol	Chain	Res	Type
1	4-C	181	GLN
1	4-C	185	LEU
1	4-C	188	ASN
1	4-C	307	ILE
1	4-C	311	LEU
1	4-C	315	LEU
1	4-C	334	GLN
1	4-C	352	GLU
1	4-C	357	LEU
1	4-C	378	ARG
1	4-C	381	SER
1	4-C	390	LEU
1	4-C	399	LYS
1	4-C	424	LYS
1	4-C	456	ILE
1	4-C	464	THR
1	4-C	471	PHE
1	4-C	472	THR
1	4-C	476	ARG
1	4-C	477	SER
1	4-C	489	THR
1	4-C	492	GLU
1	4-C	500	SER
2	4-A	22	GLU
2	4-A	82	THR
2	4-A	91	GLN
2	4-A	93	ILE
2	4-A	94	THR
2	4-A	101	ASN
2	4-A	109	THR
2	4-A	136	SER
2	4-A	140	SER
2	4-A	150	THR
2	4-A	170	SER
2	4-A	178	SER
2	4-A	192	HIS
2	4-A	194	THR
2	4-A	200	CYS
2	4-A	217	LEU
2	4-A	223	THR
2	4-A	224	TYR
2	4-A	239	THR

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Mol	Chain	Res	Type
2	4-A	243	ARG
2	4-A	253	THR
2	4-A	255	PHE
2	4-A	272	TYR
2	4-A	286	LEU
2	4-A	287	SER
2	4-A	290	GLU
2	4-A	315	CYS
2	4-A	349	THR
2	4-A	356	ASN
2	4-A	361	THR
2	4-A	376	CYS
2	4-A	382	THR
2	4-A	415	GLU
2	4-A	424	ASP
2	4-A	425	MET
2	4-A	439	SER
3	4-B	2	ARG
3	4-B	25	SER
3	4-B	35	SER
3	4-B	40	SER
3	4-B	41	ASP
3	4-B	76	ASP
3	4-B	77	SER
3	4-B	116	ASP
3	4-B	128	SER
3	4-B	130	ASP
3	4-B	133	GLN
3	4-B	138	THR
3	4-B	145	THR
3	4-B	147	SER
3	4-B	158	ARG
3	4-B	165	ILE
3	4-B	174	SER
3	4-B	180	THR
3	4-B	183	GLU
3	4-B	190	SER
3	4-B	199	ASP
3	4-B	201	THR
3	4-B	209	LEU
3	4-B	216	THR
3	4-B	223	THR

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Mol	Chain	Res	Type
3	4-B	239	THR
3	4-B	240	THR
3	4-B	251	ASP
3	4-B	275	LEU
3	4-B	280	SER
3	4-B	287	THR
3	4-B	288	VAL
3	4-B	292	THR
3	4-B	299	LYS
3	4-B	311	ARG
3	4-B	314	THR
3	4-B	322	ARG
3	4-B	325	MET
3	4-B	326	LYS
3	4-B	337	ASN
3	4-B	340	SER
3	4-B	343	PHE
3	4-B	353	THR
3	4-B	369	ARG
3	4-B	374	SER
3	4-B	376	THR
3	4-B	382	THR
3	4-B	409	THR
3	4-B	413	MET
3	4-B	419	THR
3	4-B	425	MET
3	4-B	427	ASP
3	4-B	430	SER
1	5-C	63	LYS
1	5-C	69	ARG
1	5-C	75	THR
1	5-C	76	SER
1	5-C	79	ASP
1	5-C	81	GLN
1	5-C	84	GLN
1	5-C	90	GLU
1	5-C	117	THR
1	5-C	125	ILE
1	5-C	138	LEU
1	5-C	139	THR
1	5-C	146	ASP
1	5-C	160	VAL

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Mol	Chain	Res	Type
1	5-C	169	ILE
1	5-C	172	THR
1	5-C	173	SER
1	5-C	178	ILE
1	5-C	181	GLN
1	5-C	185	LEU
1	5-C	188	ASN
1	5-C	307	ILE
1	5-C	311	LEU
1	5-C	315	LEU
1	5-C	334	GLN
1	5-C	352	GLU
1	5-C	357	LEU
1	5-C	378	ARG
1	5-C	381	SER
1	5-C	390	LEU
1	5-C	399	LYS
1	5-C	424	LYS
1	5-C	456	ILE
1	5-C	464	THR
1	5-C	471	PHE
1	5-C	472	THR
1	5-C	476	ARG
1	5-C	477	SER
1	5-C	489	THR
1	5-C	492	GLU
1	5-C	500	SER
2	5-A	22	GLU
2	5-A	82	THR
2	5-A	91	GLN
2	5-A	93	ILE
2	5-A	94	THR
2	5-A	101	ASN
2	5-A	109	THR
2	5-A	136	SER
2	5-A	140	SER
2	5-A	150	THR
2	5-A	170	SER
2	5-A	178	SER
2	5-A	192	HIS
2	5-A	194	THR
2	5-A	200	CYS

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Mol	Chain	Res	Type
2	5-A	217	LEU
2	5-A	223	THR
2	5-A	224	TYR
2	5-A	239	THR
2	5-A	243	ARG
2	5-A	253	THR
2	5-A	255	PHE
2	5-A	272	TYR
2	5-A	286	LEU
2	5-A	287	SER
2	5-A	290	GLU
2	5-A	315	CYS
2	5-A	349	THR
2	5-A	356	ASN
2	5-A	361	THR
2	5-A	376	CYS
2	5-A	382	THR
2	5-A	415	GLU
2	5-A	424	ASP
2	5-A	425	MET
2	5-A	439	SER
3	5-B	2	ARG
3	5-B	25	SER
3	5-B	35	SER
3	5-B	40	SER
3	5-B	41	ASP
3	5-B	76	ASP
3	5-B	77	SER
3	5-B	116	ASP
3	5-B	128	SER
3	5-B	130	ASP
3	5-B	133	GLN
3	5-B	138	THR
3	5-B	145	THR
3	5-B	147	SER
3	5-B	158	ARG
3	5-B	165	ILE
3	5-B	174	SER
3	5-B	180	THR
3	5-B	183	GLU
3	5-B	190	SER
3	5-B	199	ASP

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Mol	Chain	Res	Type
3	5-B	201	THR
3	5-B	209	LEU
3	5-B	216	THR
3	5-B	223	THR
3	5-B	239	THR
3	5-B	240	THR
3	5-B	251	ASP
3	5-B	275	LEU
3	5-B	280	SER
3	5-B	287	THR
3	5-B	288	VAL
3	5-B	292	THR
3	5-B	299	LYS
3	5-B	311	ARG
3	5-B	314	THR
3	5-B	322	ARG
3	5-B	325	MET
3	5-B	326	LYS
3	5-B	337	ASN
3	5-B	340	SER
3	5-B	343	PHE
3	5-B	353	THR
3	5-B	369	ARG
3	5-B	374	SER
3	5-B	376	THR
3	5-B	382	THR
3	5-B	409	THR
3	5-B	413	MET
3	5-B	419	THR
3	5-B	425	MET
3	5-B	427	ASP
3	5-B	430	SER

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (93) such sidechains are listed below:

Mol	Chain	Res	Type
1	1-C	84	GLN
1	1-C	115	GLN
1	1-C	132	GLN
1	1-C	181	GLN
1	1-C	364	ASN
1	1-C	365	GLN

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Mol	Chain	Res	Type
1	1-C	449	ASN
1	1-C	468	GLN
2	1-A	8	HIS
2	1-A	11	GLN
2	1-A	107	HIS
2	1-A	197	HIS
2	1-A	233	GLN
2	1-A	300	ASN
3	1-B	43	GLN
3	1-B	102	ASN
3	1-B	206	ASN
3	1-B	337	ASN
3	1-B	434	GLN
1	2-C	84	GLN
1	2-C	115	GLN
1	2-C	132	GLN
1	2-C	181	GLN
1	2-C	365	GLN
1	2-C	445	GLN
1	2-C	468	GLN
2	2-A	8	HIS
2	2-A	11	GLN
2	2-A	107	HIS
2	2-A	197	HIS
2	2-A	233	GLN
2	2-A	300	ASN
3	2-B	43	GLN
3	2-B	102	ASN
3	2-B	206	ASN
3	2-B	337	ASN
3	2-B	434	GLN
1	3-C	84	GLN
1	3-C	115	GLN
1	3-C	132	GLN
1	3-C	181	GLN
1	3-C	365	GLN
1	3-C	445	GLN
1	3-C	468	GLN
2	3-A	8	HIS
2	3-A	11	GLN
2	3-A	107	HIS
2	3-A	197	HIS

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Mol	Chain	Res	Type
2	3-A	233	GLN
2	3-A	300	ASN
3	3-B	43	GLN
3	3-B	102	ASN
3	3-B	206	ASN
3	3-B	337	ASN
3	3-B	434	GLN
1	4-C	84	GLN
1	4-C	115	GLN
1	4-C	118	HIS
1	4-C	132	GLN
1	4-C	181	GLN
1	4-C	365	GLN
1	4-C	445	GLN
1	4-C	449	ASN
1	4-C	468	GLN
2	4-A	8	HIS
2	4-A	11	GLN
2	4-A	107	HIS
2	4-A	197	HIS
2	4-A	233	GLN
2	4-A	300	ASN
3	4-B	43	GLN
3	4-B	102	ASN
3	4-B	206	ASN
3	4-B	337	ASN
3	4-B	434	GLN
1	5-C	84	GLN
1	5-C	115	GLN
1	5-C	132	GLN
1	5-C	181	GLN
1	5-C	365	GLN
1	5-C	445	GLN
1	5-C	468	GLN
2	5-A	8	HIS
2	5-A	11	GLN
2	5-A	107	HIS
2	5-A	197	HIS
2	5-A	233	GLN
2	5-A	300	ASN
3	5-B	43	GLN
3	5-B	102	ASN

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Mol	Chain	Res	Type
3	5-B	206	ASN
3	5-B	337	ASN
3	5-B	434	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 20 ligands modelled in this entry, 5 are monoatomic - leaving 15 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
4	GTP	2-A	500	5	33,34,34	1.90	3 (9%)	50,54,54	0.94	4 (8%)
4	GTP	4-A	500	5	33,34,34	1.90	3 (9%)	50,54,54	0.94	4 (8%)
7	TA1	1-B	601	-	68,68,68	2.19	25 (36%)	105,105,105	1.50	14 (13%)
4	GTP	1-A	500	5	33,34,34	1.90	3 (9%)	50,54,54	0.94	4 (8%)
7	TA1	3-B	601	-	68,68,68	2.19	25 (36%)	105,105,105	1.50	14 (13%)
6	GDP	1-B	600	-	29,30,30	2.86	11 (37%)	45,47,47	3.48	16 (35%)
6	GDP	5-B	600	-	29,30,30	2.86	11 (37%)	45,47,47	3.48	16 (35%)
7	TA1	5-B	601	-	68,68,68	2.19	25 (36%)	105,105,105	1.50	14 (13%)
4	GTP	5-A	500	5	33,34,34	1.90	3 (9%)	50,54,54	0.94	4 (8%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
6	GDP	4-B	600	-	29,30,30	2.86	11 (37%)	45,47,47	3.48	16 (35%)
7	TA1	2-B	601	-	68,68,68	2.19	25 (36%)	105,105,105	1.50	14 (13%)
6	GDP	2-B	600	-	29,30,30	2.86	11 (37%)	45,47,47	3.48	16 (35%)
4	GTP	3-A	500	5	33,34,34	1.90	3 (9%)	50,54,54	0.94	4 (8%)
7	TA1	4-B	601	-	68,68,68	2.19	25 (36%)	105,105,105	1.50	14 (13%)
6	GDP	3-B	600	-	29,30,30	2.86	11 (37%)	45,47,47	3.48	16 (35%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	GTP	2-A	500	5	-	3/22/38/38	0/3/3/3
4	GTP	4-A	500	5	-	3/22/38/38	0/3/3/3
7	TA1	1-B	601	-	-	9/41/127/127	0/7/7/7
4	GTP	1-A	500	5	-	3/22/38/38	0/3/3/3
7	TA1	3-B	601	-	-	9/41/127/127	0/7/7/7
6	GDP	1-B	600	-	-	4/16/32/32	0/3/3/3
6	GDP	5-B	600	-	-	4/16/32/32	0/3/3/3
7	TA1	5-B	601	-	-	9/41/127/127	0/7/7/7
4	GTP	5-A	500	5	-	3/22/38/38	0/3/3/3
6	GDP	4-B	600	-	-	4/16/32/32	0/3/3/3
7	TA1	2-B	601	-	-	9/41/127/127	0/7/7/7
6	GDP	2-B	600	-	-	4/16/32/32	0/3/3/3
4	GTP	3-A	500	5	-	3/22/38/38	0/3/3/3
7	TA1	4-B	601	-	-	9/41/127/127	0/7/7/7
6	GDP	3-B	600	-	-	4/16/32/32	0/3/3/3

All (195) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	1-B	600	GDP	PA-O3A	7.65	1.67	1.59
6	2-B	600	GDP	PA-O3A	7.65	1.67	1.59
6	3-B	600	GDP	PA-O3A	7.65	1.67	1.59
6	4-B	600	GDP	PA-O3A	7.65	1.67	1.59
6	5-B	600	GDP	PA-O3A	7.65	1.67	1.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	1-B	601	TA1	C06-C05	6.53	1.50	1.38
7	2-B	601	TA1	C06-C05	6.53	1.50	1.38
7	3-B	601	TA1	C06-C05	6.53	1.50	1.38
7	4-B	601	TA1	C06-C05	6.53	1.50	1.38
7	5-B	601	TA1	C06-C05	6.53	1.50	1.38
4	1-A	500	GTP	PA-O3A	-6.06	1.53	1.59
4	2-A	500	GTP	PA-O3A	-6.06	1.53	1.59
4	3-A	500	GTP	PA-O3A	-6.06	1.53	1.59
4	4-A	500	GTP	PA-O3A	-6.06	1.53	1.59
4	5-A	500	GTP	PA-O3A	-6.06	1.53	1.59
6	1-B	600	GDP	O6-C6	5.92	1.34	1.23
6	2-B	600	GDP	O6-C6	5.92	1.34	1.23
6	3-B	600	GDP	O6-C6	5.92	1.34	1.23
6	4-B	600	GDP	O6-C6	5.92	1.34	1.23
6	5-B	600	GDP	O6-C6	5.92	1.34	1.23
6	1-B	600	GDP	C8-N9	5.81	1.50	1.37
6	2-B	600	GDP	C8-N9	5.81	1.50	1.37
6	3-B	600	GDP	C8-N9	5.81	1.50	1.37
6	4-B	600	GDP	C8-N9	5.81	1.50	1.37
6	5-B	600	GDP	C8-N9	5.81	1.50	1.37
4	1-A	500	GTP	PB-O3A	-5.63	1.53	1.59
4	2-A	500	GTP	PB-O3A	-5.63	1.53	1.59
4	3-A	500	GTP	PB-O3A	-5.63	1.53	1.59
4	4-A	500	GTP	PB-O3A	-5.63	1.53	1.59
4	5-A	500	GTP	PB-O3A	-5.63	1.53	1.59
7	1-B	601	TA1	C08-C07	-5.60	1.25	1.38
7	2-B	601	TA1	C08-C07	-5.60	1.25	1.38
7	3-B	601	TA1	C08-C07	-5.60	1.25	1.38
7	4-B	601	TA1	C08-C07	-5.60	1.25	1.38
7	5-B	601	TA1	C08-C07	-5.60	1.25	1.38
7	1-B	601	TA1	C18-C10	5.34	1.69	1.57
7	2-B	601	TA1	C18-C10	5.34	1.69	1.57
7	3-B	601	TA1	C18-C10	5.34	1.69	1.57
7	4-B	601	TA1	C18-C10	5.34	1.69	1.57
7	5-B	601	TA1	C18-C10	5.34	1.69	1.57
4	1-A	500	GTP	PB-O3B	5.33	1.65	1.59
4	2-A	500	GTP	PB-O3B	5.33	1.65	1.59
4	3-A	500	GTP	PB-O3B	5.33	1.65	1.59
4	4-A	500	GTP	PB-O3B	5.33	1.65	1.59
4	5-A	500	GTP	PB-O3B	5.33	1.65	1.59
7	1-B	601	TA1	C05-C04	4.84	1.46	1.39
7	2-B	601	TA1	C05-C04	4.84	1.46	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	3-B	601	TA1	C05-C04	4.84	1.46	1.39
7	4-B	601	TA1	C05-C04	4.84	1.46	1.39
7	5-B	601	TA1	C05-C04	4.84	1.46	1.39
6	1-B	600	GDP	C2-N1	4.80	1.49	1.37
6	2-B	600	GDP	C2-N1	4.80	1.49	1.37
6	3-B	600	GDP	C2-N1	4.80	1.49	1.37
6	4-B	600	GDP	C2-N1	4.80	1.49	1.37
6	5-B	600	GDP	C2-N1	4.80	1.49	1.37
7	1-B	601	TA1	C45-C24	4.26	1.61	1.54
7	2-B	601	TA1	C45-C24	4.26	1.61	1.54
7	3-B	601	TA1	C45-C24	4.26	1.61	1.54
7	4-B	601	TA1	C45-C24	4.26	1.61	1.54
7	5-B	601	TA1	C45-C24	4.26	1.61	1.54
6	1-B	600	GDP	PB-O2B	-3.94	1.40	1.54
6	2-B	600	GDP	PB-O2B	-3.94	1.40	1.54
6	3-B	600	GDP	PB-O2B	-3.94	1.40	1.54
6	4-B	600	GDP	PB-O2B	-3.94	1.40	1.54
6	5-B	600	GDP	PB-O2B	-3.94	1.40	1.54
7	1-B	601	TA1	C36-C31	3.69	1.45	1.39
7	2-B	601	TA1	C36-C31	3.69	1.45	1.39
7	3-B	601	TA1	C36-C31	3.69	1.45	1.39
7	4-B	601	TA1	C36-C31	3.69	1.45	1.39
7	5-B	601	TA1	C36-C31	3.69	1.45	1.39
7	1-B	601	TA1	O02-C03	3.58	1.42	1.34
7	2-B	601	TA1	O02-C03	3.58	1.42	1.34
7	3-B	601	TA1	O02-C03	3.58	1.42	1.34
7	4-B	601	TA1	O02-C03	3.58	1.42	1.34
7	5-B	601	TA1	O02-C03	3.58	1.42	1.34
6	1-B	600	GDP	O4'-C1'	3.44	1.50	1.42
6	2-B	600	GDP	O4'-C1'	3.44	1.50	1.42
6	3-B	600	GDP	O4'-C1'	3.44	1.50	1.42
6	4-B	600	GDP	O4'-C1'	3.44	1.50	1.42
6	5-B	600	GDP	O4'-C1'	3.44	1.50	1.42
7	1-B	601	TA1	C25-C24	3.35	1.39	1.34
7	2-B	601	TA1	C25-C24	3.35	1.39	1.34
7	3-B	601	TA1	C25-C24	3.35	1.39	1.34
7	4-B	601	TA1	C25-C24	3.35	1.39	1.34
7	5-B	601	TA1	C25-C24	3.35	1.39	1.34
7	1-B	601	TA1	C46-C45	3.24	1.60	1.53
7	2-B	601	TA1	C46-C45	3.24	1.60	1.53
7	3-B	601	TA1	C46-C45	3.24	1.60	1.53
7	4-B	601	TA1	C46-C45	3.24	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	5-B	601	TA1	C46-C45	3.24	1.60	1.53
7	1-B	601	TA1	C43-C01	3.19	1.60	1.54
7	2-B	601	TA1	C43-C01	3.19	1.60	1.54
7	3-B	601	TA1	C43-C01	3.19	1.60	1.54
7	4-B	601	TA1	C43-C01	3.19	1.60	1.54
7	5-B	601	TA1	C43-C01	3.19	1.60	1.54
7	1-B	601	TA1	C11-C10	3.14	1.61	1.54
7	2-B	601	TA1	C11-C10	3.14	1.61	1.54
7	3-B	601	TA1	C11-C10	3.14	1.61	1.54
7	4-B	601	TA1	C11-C10	3.14	1.61	1.54
7	5-B	601	TA1	C11-C10	3.14	1.61	1.54
6	1-B	600	GDP	C8-N7	2.98	1.40	1.32
6	2-B	600	GDP	C8-N7	2.98	1.40	1.32
6	3-B	600	GDP	C8-N7	2.98	1.40	1.32
6	4-B	600	GDP	C8-N7	2.98	1.40	1.32
6	5-B	600	GDP	C8-N7	2.98	1.40	1.32
7	1-B	601	TA1	C43-C26	2.83	1.58	1.52
7	2-B	601	TA1	C43-C26	2.83	1.58	1.52
7	3-B	601	TA1	C43-C26	2.83	1.58	1.52
7	4-B	601	TA1	C43-C26	2.83	1.58	1.52
7	5-B	601	TA1	C43-C26	2.83	1.58	1.52
6	1-B	600	GDP	C5-N7	-2.81	1.33	1.39
6	2-B	600	GDP	C5-N7	-2.81	1.33	1.39
6	3-B	600	GDP	C5-N7	-2.81	1.33	1.39
6	4-B	600	GDP	C5-N7	-2.81	1.33	1.39
6	5-B	600	GDP	C5-N7	-2.81	1.33	1.39
6	1-B	600	GDP	C5-C4	2.65	1.46	1.38
6	2-B	600	GDP	C5-C4	2.65	1.46	1.38
6	3-B	600	GDP	C5-C4	2.65	1.46	1.38
6	4-B	600	GDP	C5-C4	2.65	1.46	1.38
6	5-B	600	GDP	C5-C4	2.65	1.46	1.38
7	1-B	601	TA1	C26-C25	2.56	1.56	1.51
7	2-B	601	TA1	C26-C25	2.56	1.56	1.51
7	3-B	601	TA1	C26-C25	2.56	1.56	1.51
7	4-B	601	TA1	C26-C25	2.56	1.56	1.51
7	5-B	601	TA1	C26-C25	2.56	1.56	1.51
7	1-B	601	TA1	C01-C45	2.52	1.66	1.56
7	2-B	601	TA1	C01-C45	2.52	1.66	1.56
7	3-B	601	TA1	C01-C45	2.52	1.66	1.56
7	4-B	601	TA1	C01-C45	2.52	1.66	1.56
7	5-B	601	TA1	C01-C45	2.52	1.66	1.56
7	1-B	601	TA1	C18-C20	2.49	1.62	1.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	2-B	601	TA1	C18-C20	2.49	1.62	1.55
7	3-B	601	TA1	C18-C20	2.49	1.62	1.55
7	4-B	601	TA1	C18-C20	2.49	1.62	1.55
7	5-B	601	TA1	C18-C20	2.49	1.62	1.55
6	1-B	600	GDP	C2-N3	-2.47	1.27	1.33
6	2-B	600	GDP	C2-N3	-2.47	1.27	1.33
6	3-B	600	GDP	C2-N3	-2.47	1.27	1.33
6	4-B	600	GDP	C2-N3	-2.47	1.27	1.33
6	5-B	600	GDP	C2-N3	-2.47	1.27	1.33
7	1-B	601	TA1	C04-C03	-2.47	1.44	1.50
7	2-B	601	TA1	C04-C03	-2.47	1.44	1.50
7	3-B	601	TA1	C04-C03	-2.47	1.44	1.50
7	4-B	601	TA1	C04-C03	-2.47	1.44	1.50
7	5-B	601	TA1	C04-C03	-2.47	1.44	1.50
6	1-B	600	GDP	PB-O3B	2.46	1.64	1.54
6	2-B	600	GDP	PB-O3B	2.46	1.64	1.54
6	3-B	600	GDP	PB-O3B	2.46	1.64	1.54
6	4-B	600	GDP	PB-O3B	2.46	1.64	1.54
6	5-B	600	GDP	PB-O3B	2.46	1.64	1.54
7	1-B	601	TA1	C16-C15	2.33	1.57	1.52
7	2-B	601	TA1	C16-C15	2.33	1.57	1.52
7	3-B	601	TA1	C16-C15	2.33	1.57	1.52
7	4-B	601	TA1	C16-C15	2.33	1.57	1.52
7	5-B	601	TA1	C16-C15	2.33	1.57	1.52
7	1-B	601	TA1	C41-C42	2.25	1.42	1.38
7	2-B	601	TA1	C41-C42	2.25	1.42	1.38
7	3-B	601	TA1	C41-C42	2.25	1.42	1.38
7	4-B	601	TA1	C41-C42	2.25	1.42	1.38
7	5-B	601	TA1	C41-C42	2.25	1.42	1.38
7	1-B	601	TA1	C33-C32	2.17	1.42	1.38
7	2-B	601	TA1	C33-C32	2.17	1.42	1.38
7	3-B	601	TA1	C33-C32	2.17	1.42	1.38
7	4-B	601	TA1	C33-C32	2.17	1.42	1.38
7	5-B	601	TA1	C33-C32	2.17	1.42	1.38
7	1-B	601	TA1	O09-C21	2.16	1.49	1.44
7	2-B	601	TA1	O09-C21	2.16	1.49	1.44
7	3-B	601	TA1	O09-C21	2.16	1.49	1.44
7	4-B	601	TA1	O09-C21	2.16	1.49	1.44
7	5-B	601	TA1	O09-C21	2.16	1.49	1.44
7	1-B	601	TA1	C10-C02	2.15	1.62	1.57
7	2-B	601	TA1	C10-C02	2.15	1.62	1.57
7	3-B	601	TA1	C10-C02	2.15	1.62	1.57

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	4-B	601	TA1	C10-C02	2.15	1.62	1.57
7	5-B	601	TA1	C10-C02	2.15	1.62	1.57
7	1-B	601	TA1	C37-C29	2.10	1.54	1.52
7	2-B	601	TA1	C37-C29	2.10	1.54	1.52
7	3-B	601	TA1	C37-C29	2.10	1.54	1.52
7	4-B	601	TA1	C37-C29	2.10	1.54	1.52
7	5-B	601	TA1	C37-C29	2.10	1.54	1.52
7	1-B	601	TA1	C39-C38	2.09	1.42	1.38
7	2-B	601	TA1	C39-C38	2.09	1.42	1.38
7	3-B	601	TA1	C39-C38	2.09	1.42	1.38
7	4-B	601	TA1	C39-C38	2.09	1.42	1.38
7	5-B	601	TA1	C39-C38	2.09	1.42	1.38
7	1-B	601	TA1	C07-C06	2.04	1.42	1.38
7	2-B	601	TA1	C07-C06	2.04	1.42	1.38
7	3-B	601	TA1	C07-C06	2.04	1.42	1.38
7	4-B	601	TA1	C07-C06	2.04	1.42	1.38
7	5-B	601	TA1	C07-C06	2.04	1.42	1.38
7	1-B	601	TA1	C08-C09	2.04	1.42	1.38
7	2-B	601	TA1	C08-C09	2.04	1.42	1.38
7	3-B	601	TA1	C08-C09	2.04	1.42	1.38
7	4-B	601	TA1	C08-C09	2.04	1.42	1.38
7	5-B	601	TA1	C08-C09	2.04	1.42	1.38

All (170) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	1-B	600	GDP	N9-C8-N7	-10.74	93.48	113.40
6	2-B	600	GDP	N9-C8-N7	-10.74	93.48	113.40
6	3-B	600	GDP	N9-C8-N7	-10.74	93.48	113.40
6	4-B	600	GDP	N9-C8-N7	-10.74	93.48	113.40
6	5-B	600	GDP	N9-C8-N7	-10.74	93.48	113.40
6	1-B	600	GDP	C8-N7-C5	9.23	120.71	104.26
6	2-B	600	GDP	C8-N7-C5	9.23	120.71	104.26
6	3-B	600	GDP	C8-N7-C5	9.23	120.71	104.26
6	4-B	600	GDP	C8-N7-C5	9.23	120.71	104.26
6	5-B	600	GDP	C8-N7-C5	9.23	120.71	104.26
6	1-B	600	GDP	C6-C5-N7	8.58	145.91	130.29
6	2-B	600	GDP	C6-C5-N7	8.58	145.91	130.29
6	3-B	600	GDP	C6-C5-N7	8.58	145.91	130.29
6	4-B	600	GDP	C6-C5-N7	8.58	145.91	130.29
6	5-B	600	GDP	C6-C5-N7	8.58	145.91	130.29
6	1-B	600	GDP	N2-C2-N3	6.31	131.99	119.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	2-B	600	GDP	N2-C2-N3	6.31	131.99	119.67
6	3-B	600	GDP	N2-C2-N3	6.31	131.99	119.67
6	4-B	600	GDP	N2-C2-N3	6.31	131.99	119.67
6	5-B	600	GDP	N2-C2-N3	6.31	131.99	119.67
6	1-B	600	GDP	C6-C5-C4	-6.14	109.59	118.83
6	2-B	600	GDP	C6-C5-C4	-6.14	109.59	118.83
6	3-B	600	GDP	C6-C5-C4	-6.14	109.59	118.83
6	4-B	600	GDP	C6-C5-C4	-6.14	109.59	118.83
6	5-B	600	GDP	C6-C5-C4	-6.14	109.59	118.83
7	1-B	601	TA1	C06-C05-C04	-5.89	114.58	120.36
7	2-B	601	TA1	C06-C05-C04	-5.89	114.58	120.36
7	3-B	601	TA1	C06-C05-C04	-5.89	114.58	120.36
7	4-B	601	TA1	C06-C05-C04	-5.89	114.58	120.36
7	5-B	601	TA1	C06-C05-C04	-5.89	114.58	120.36
6	1-B	600	GDP	C8-N9-C4	5.88	117.05	106.03
6	2-B	600	GDP	C8-N9-C4	5.88	117.05	106.03
6	3-B	600	GDP	C8-N9-C4	5.88	117.05	106.03
6	4-B	600	GDP	C8-N9-C4	5.88	117.05	106.03
6	5-B	600	GDP	C8-N9-C4	5.88	117.05	106.03
7	1-B	601	TA1	C07-C08-C09	5.78	127.38	120.24
7	2-B	601	TA1	C07-C08-C09	5.78	127.38	120.24
7	3-B	601	TA1	C07-C08-C09	5.78	127.38	120.24
7	4-B	601	TA1	C07-C08-C09	5.78	127.38	120.24
7	5-B	601	TA1	C07-C08-C09	5.78	127.38	120.24
6	1-B	600	GDP	C5-C6-N1	4.48	124.66	113.25
6	2-B	600	GDP	C5-C6-N1	4.48	124.66	113.25
6	3-B	600	GDP	C5-C6-N1	4.48	124.66	113.25
6	4-B	600	GDP	C5-C6-N1	4.48	124.66	113.25
6	5-B	600	GDP	C5-C6-N1	4.48	124.66	113.25
6	1-B	600	GDP	N2-C2-N1	-4.27	107.75	116.76
6	2-B	600	GDP	N2-C2-N1	-4.27	107.75	116.76
6	3-B	600	GDP	N2-C2-N1	-4.27	107.75	116.76
6	4-B	600	GDP	N2-C2-N1	-4.27	107.75	116.76
6	5-B	600	GDP	N2-C2-N1	-4.27	107.75	116.76
6	1-B	600	GDP	C2-N3-C4	4.11	119.39	112.30
6	2-B	600	GDP	C2-N3-C4	4.11	119.39	112.30
6	3-B	600	GDP	C2-N3-C4	4.11	119.39	112.30
6	4-B	600	GDP	C2-N3-C4	4.11	119.39	112.30
6	5-B	600	GDP	C2-N3-C4	4.11	119.39	112.30
7	1-B	601	TA1	C05-C04-C03	-4.07	111.44	120.40
7	2-B	601	TA1	C05-C04-C03	-4.07	111.44	120.40
7	3-B	601	TA1	C05-C04-C03	-4.07	111.44	120.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
7	4-B	601	TA1	C05-C04-C03	-4.07	111.44	120.40
7	5-B	601	TA1	C05-C04-C03	-4.07	111.44	120.40
6	1-B	600	GDP	O6-C6-C5	-3.95	116.11	126.53
6	2-B	600	GDP	O6-C6-C5	-3.95	116.11	126.53
6	3-B	600	GDP	O6-C6-C5	-3.95	116.11	126.53
6	4-B	600	GDP	O6-C6-C5	-3.95	116.11	126.53
6	5-B	600	GDP	O6-C6-C5	-3.95	116.11	126.53
6	1-B	600	GDP	C4-C5-N7	-3.90	104.50	110.67
6	2-B	600	GDP	C4-C5-N7	-3.90	104.50	110.67
6	3-B	600	GDP	C4-C5-N7	-3.90	104.50	110.67
6	4-B	600	GDP	C4-C5-N7	-3.90	104.50	110.67
6	5-B	600	GDP	C4-C5-N7	-3.90	104.50	110.67
6	1-B	600	GDP	C2-N1-C6	-3.79	118.23	125.11
6	2-B	600	GDP	C2-N1-C6	-3.79	118.23	125.11
6	3-B	600	GDP	C2-N1-C6	-3.79	118.23	125.11
6	4-B	600	GDP	C2-N1-C6	-3.79	118.23	125.11
6	5-B	600	GDP	C2-N1-C6	-3.79	118.23	125.11
7	1-B	601	TA1	C09-C04-C03	3.64	128.42	120.40
7	2-B	601	TA1	C09-C04-C03	3.64	128.42	120.40
7	3-B	601	TA1	C09-C04-C03	3.64	128.42	120.40
7	4-B	601	TA1	C09-C04-C03	3.64	128.42	120.40
7	5-B	601	TA1	C09-C04-C03	3.64	128.42	120.40
6	1-B	600	GDP	C2'-C3'-C4'	3.42	109.22	102.61
6	2-B	600	GDP	C2'-C3'-C4'	3.42	109.22	102.61
6	3-B	600	GDP	C2'-C3'-C4'	3.42	109.22	102.61
6	4-B	600	GDP	C2'-C3'-C4'	3.42	109.22	102.61
6	5-B	600	GDP	C2'-C3'-C4'	3.42	109.22	102.61
7	1-B	601	TA1	C17-C18-C20	3.25	109.88	102.58
7	2-B	601	TA1	C17-C18-C20	3.25	109.88	102.58
7	3-B	601	TA1	C17-C18-C20	3.25	109.88	102.58
7	4-B	601	TA1	C17-C18-C20	3.25	109.88	102.58
7	5-B	601	TA1	C17-C18-C20	3.25	109.88	102.58
7	1-B	601	TA1	O04-C11-C14	-3.01	101.75	108.13
7	2-B	601	TA1	O04-C11-C14	-3.01	101.75	108.13
7	3-B	601	TA1	O04-C11-C14	-3.01	101.75	108.13
7	4-B	601	TA1	O04-C11-C14	-3.01	101.75	108.13
7	5-B	601	TA1	O04-C11-C14	-3.01	101.75	108.13
7	1-B	601	TA1	C45-C01-C02	2.96	115.18	111.93
7	2-B	601	TA1	C45-C01-C02	2.96	115.18	111.93
7	3-B	601	TA1	C45-C01-C02	2.96	115.18	111.93
7	4-B	601	TA1	C45-C01-C02	2.96	115.18	111.93
7	5-B	601	TA1	C45-C01-C02	2.96	115.18	111.93

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	1-B	600	GDP	C1'-N9-C8	-2.65	119.20	126.73
6	2-B	600	GDP	C1'-N9-C8	-2.65	119.20	126.73
6	3-B	600	GDP	C1'-N9-C8	-2.65	119.20	126.73
6	4-B	600	GDP	C1'-N9-C8	-2.65	119.20	126.73
6	5-B	600	GDP	C1'-N9-C8	-2.65	119.20	126.73
7	1-B	601	TA1	O01-C01-C43	2.48	113.38	107.04
7	2-B	601	TA1	O01-C01-C43	2.48	113.38	107.04
7	3-B	601	TA1	O01-C01-C43	2.48	113.38	107.04
7	4-B	601	TA1	O01-C01-C43	2.48	113.38	107.04
7	5-B	601	TA1	O01-C01-C43	2.48	113.38	107.04
4	1-A	500	GTP	O3A-PB-O1B	-2.44	103.38	110.70
4	2-A	500	GTP	O3A-PB-O1B	-2.44	103.38	110.70
4	3-A	500	GTP	O3A-PB-O1B	-2.44	103.38	110.70
4	4-A	500	GTP	O3A-PB-O1B	-2.44	103.38	110.70
4	5-A	500	GTP	O3A-PB-O1B	-2.44	103.38	110.70
6	1-B	600	GDP	O2'-C2'-C3'	2.28	119.13	111.82
6	2-B	600	GDP	O2'-C2'-C3'	2.28	119.13	111.82
6	3-B	600	GDP	O2'-C2'-C3'	2.28	119.13	111.82
6	4-B	600	GDP	O2'-C2'-C3'	2.28	119.13	111.82
6	5-B	600	GDP	O2'-C2'-C3'	2.28	119.13	111.82
7	1-B	601	TA1	C08-C09-C04	-2.28	118.12	120.36
7	2-B	601	TA1	C08-C09-C04	-2.28	118.12	120.36
7	3-B	601	TA1	C08-C09-C04	-2.28	118.12	120.36
7	4-B	601	TA1	C08-C09-C04	-2.28	118.12	120.36
7	5-B	601	TA1	C08-C09-C04	-2.28	118.12	120.36
7	1-B	601	TA1	C10-C18-C17	-2.22	102.33	106.55
7	2-B	601	TA1	C10-C18-C17	-2.22	102.33	106.55
7	3-B	601	TA1	C10-C18-C17	-2.22	102.33	106.55
7	4-B	601	TA1	C10-C18-C17	-2.22	102.33	106.55
7	5-B	601	TA1	C10-C18-C17	-2.22	102.33	106.55
7	1-B	601	TA1	C14-C11-C15	-2.20	83.10	85.38
7	2-B	601	TA1	C14-C11-C15	-2.20	83.10	85.38
7	3-B	601	TA1	C14-C11-C15	-2.20	83.10	85.38
7	4-B	601	TA1	C14-C11-C15	-2.20	83.10	85.38
7	5-B	601	TA1	C14-C11-C15	-2.20	83.10	85.38
7	1-B	601	TA1	O06-C15-C11	2.19	92.98	90.58
7	2-B	601	TA1	O06-C15-C11	2.19	92.98	90.58
7	3-B	601	TA1	O06-C15-C11	2.19	92.98	90.58
7	4-B	601	TA1	O06-C15-C11	2.19	92.98	90.58
7	5-B	601	TA1	O06-C15-C11	2.19	92.98	90.58
4	1-A	500	GTP	O2B-PB-O3A	2.17	113.12	107.27
4	2-A	500	GTP	O2B-PB-O3A	2.17	113.12	107.27

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	3-A	500	GTP	O2B-PB-O3A	2.17	113.12	107.27
4	4-A	500	GTP	O2B-PB-O3A	2.17	113.12	107.27
4	5-A	500	GTP	O2B-PB-O3A	2.17	113.12	107.27
4	1-A	500	GTP	O5'-C5'-C4'	2.10	116.13	108.99
4	2-A	500	GTP	O5'-C5'-C4'	2.10	116.13	108.99
4	3-A	500	GTP	O5'-C5'-C4'	2.10	116.13	108.99
4	4-A	500	GTP	O5'-C5'-C4'	2.10	116.13	108.99
4	5-A	500	GTP	O5'-C5'-C4'	2.10	116.13	108.99
6	1-B	600	GDP	C4'-O4'-C1'	2.05	113.99	109.47
6	2-B	600	GDP	C4'-O4'-C1'	2.05	113.99	109.47
6	3-B	600	GDP	C4'-O4'-C1'	2.05	113.99	109.47
6	4-B	600	GDP	C4'-O4'-C1'	2.05	113.99	109.47
6	5-B	600	GDP	C4'-O4'-C1'	2.05	113.99	109.47
7	1-B	601	TA1	C21-O09-C22	2.03	120.13	115.95
7	2-B	601	TA1	C21-O09-C22	2.03	120.13	115.95
7	3-B	601	TA1	C21-O09-C22	2.03	120.13	115.95
7	4-B	601	TA1	C21-O09-C22	2.03	120.13	115.95
7	5-B	601	TA1	C21-O09-C22	2.03	120.13	115.95
4	1-A	500	GTP	O3G-PG-O3B	2.02	111.40	104.64
4	2-A	500	GTP	O3G-PG-O3B	2.02	111.40	104.64
4	3-A	500	GTP	O3G-PG-O3B	2.02	111.40	104.64
4	4-A	500	GTP	O3G-PG-O3B	2.02	111.40	104.64
4	5-A	500	GTP	O3G-PG-O3B	2.02	111.40	104.64
7	1-B	601	TA1	O11-C27-O12	2.01	127.59	123.95
7	2-B	601	TA1	O11-C27-O12	2.01	127.59	123.95
7	3-B	601	TA1	O11-C27-O12	2.01	127.59	123.95
7	4-B	601	TA1	O11-C27-O12	2.01	127.59	123.95
7	5-B	601	TA1	O11-C27-O12	2.01	127.59	123.95

There are no chirality outliers.

All (80) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
6	1-B	600	GDP	PA-O3A-PB-O2B
6	1-B	600	GDP	C5'-O5'-PA-O3A
6	1-B	600	GDP	C5'-O5'-PA-O1A
6	2-B	600	GDP	PA-O3A-PB-O2B
6	2-B	600	GDP	C5'-O5'-PA-O3A
6	2-B	600	GDP	C5'-O5'-PA-O1A
6	3-B	600	GDP	PA-O3A-PB-O2B
6	3-B	600	GDP	C5'-O5'-PA-O3A
6	3-B	600	GDP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
6	4-B	600	GDP	PA-O3A-PB-O2B
6	4-B	600	GDP	C5'-O5'-PA-O3A
6	4-B	600	GDP	C5'-O5'-PA-O1A
6	5-B	600	GDP	PA-O3A-PB-O2B
6	5-B	600	GDP	C5'-O5'-PA-O3A
6	5-B	600	GDP	C5'-O5'-PA-O1A
7	1-B	601	TA1	O02-C03-C04-C05
7	2-B	601	TA1	O02-C03-C04-C05
7	3-B	601	TA1	O02-C03-C04-C05
7	4-B	601	TA1	O02-C03-C04-C05
7	5-B	601	TA1	O02-C03-C04-C05
7	1-B	601	TA1	O02-C03-C04-C09
7	2-B	601	TA1	O02-C03-C04-C09
7	3-B	601	TA1	O02-C03-C04-C09
7	4-B	601	TA1	O02-C03-C04-C09
7	5-B	601	TA1	O02-C03-C04-C09
7	1-B	601	TA1	O03-C03-C04-C09
7	2-B	601	TA1	O03-C03-C04-C09
7	3-B	601	TA1	O03-C03-C04-C09
7	4-B	601	TA1	O03-C03-C04-C09
7	5-B	601	TA1	O03-C03-C04-C09
7	1-B	601	TA1	O03-C03-C04-C05
7	2-B	601	TA1	O03-C03-C04-C05
7	3-B	601	TA1	O03-C03-C04-C05
7	4-B	601	TA1	O03-C03-C04-C05
7	5-B	601	TA1	O03-C03-C04-C05
7	1-B	601	TA1	N01-C30-C31-C36
7	2-B	601	TA1	N01-C30-C31-C36
7	3-B	601	TA1	N01-C30-C31-C36
7	4-B	601	TA1	N01-C30-C31-C36
7	5-B	601	TA1	N01-C30-C31-C36
7	1-B	601	TA1	O14-C30-C31-C36
7	2-B	601	TA1	O14-C30-C31-C36
7	3-B	601	TA1	O14-C30-C31-C36
7	4-B	601	TA1	O14-C30-C31-C36
7	5-B	601	TA1	O14-C30-C31-C36
7	1-B	601	TA1	N01-C30-C31-C32
7	2-B	601	TA1	N01-C30-C31-C32
7	3-B	601	TA1	N01-C30-C31-C32
7	4-B	601	TA1	N01-C30-C31-C32
7	5-B	601	TA1	N01-C30-C31-C32
7	1-B	601	TA1	O14-C30-C31-C32

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Mol	Chain	Res	Type	Atoms
7	2-B	601	TA1	O14-C30-C31-C32
7	3-B	601	TA1	O14-C30-C31-C32
7	4-B	601	TA1	O14-C30-C31-C32
7	5-B	601	TA1	O14-C30-C31-C32
4	1-A	500	GTP	C3'-C4'-C5'-O5'
4	2-A	500	GTP	C3'-C4'-C5'-O5'
4	3-A	500	GTP	C3'-C4'-C5'-O5'
4	4-A	500	GTP	C3'-C4'-C5'-O5'
4	5-A	500	GTP	C3'-C4'-C5'-O5'
4	1-A	500	GTP	O4'-C4'-C5'-O5'
4	2-A	500	GTP	O4'-C4'-C5'-O5'
4	3-A	500	GTP	O4'-C4'-C5'-O5'
4	4-A	500	GTP	O4'-C4'-C5'-O5'
4	5-A	500	GTP	O4'-C4'-C5'-O5'
6	1-B	600	GDP	PA-O3A-PB-O3B
6	2-B	600	GDP	PA-O3A-PB-O3B
6	3-B	600	GDP	PA-O3A-PB-O3B
6	4-B	600	GDP	PA-O3A-PB-O3B
6	5-B	600	GDP	PA-O3A-PB-O3B
4	1-A	500	GTP	PG-O3B-PB-O1B
4	2-A	500	GTP	PG-O3B-PB-O1B
4	3-A	500	GTP	PG-O3B-PB-O1B
4	4-A	500	GTP	PG-O3B-PB-O1B
4	5-A	500	GTP	PG-O3B-PB-O1B
7	1-B	601	TA1	C15-C11-O04-C12
7	2-B	601	TA1	C15-C11-O04-C12
7	3-B	601	TA1	C15-C11-O04-C12
7	4-B	601	TA1	C15-C11-O04-C12
7	5-B	601	TA1	C15-C11-O04-C12

There are no ring outliers.

15 monomers are involved in 285 short contacts:

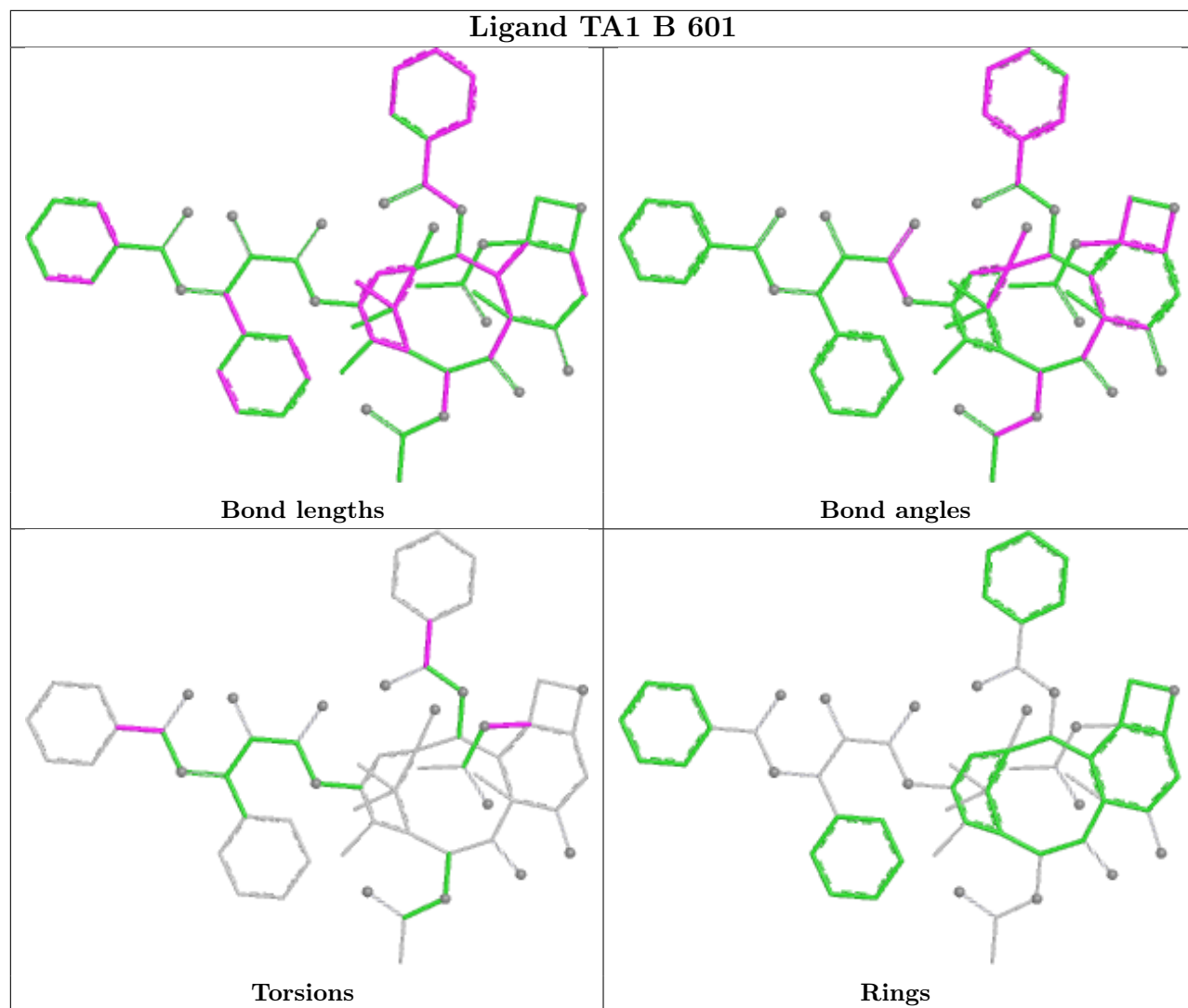
Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	2-A	500	GTP	26	0
4	4-A	500	GTP	26	0
7	1-B	601	TA1	19	0
4	1-A	500	GTP	26	0
7	3-B	601	TA1	19	0
6	1-B	600	GDP	12	0
6	5-B	600	GDP	12	0
7	5-B	601	TA1	19	0

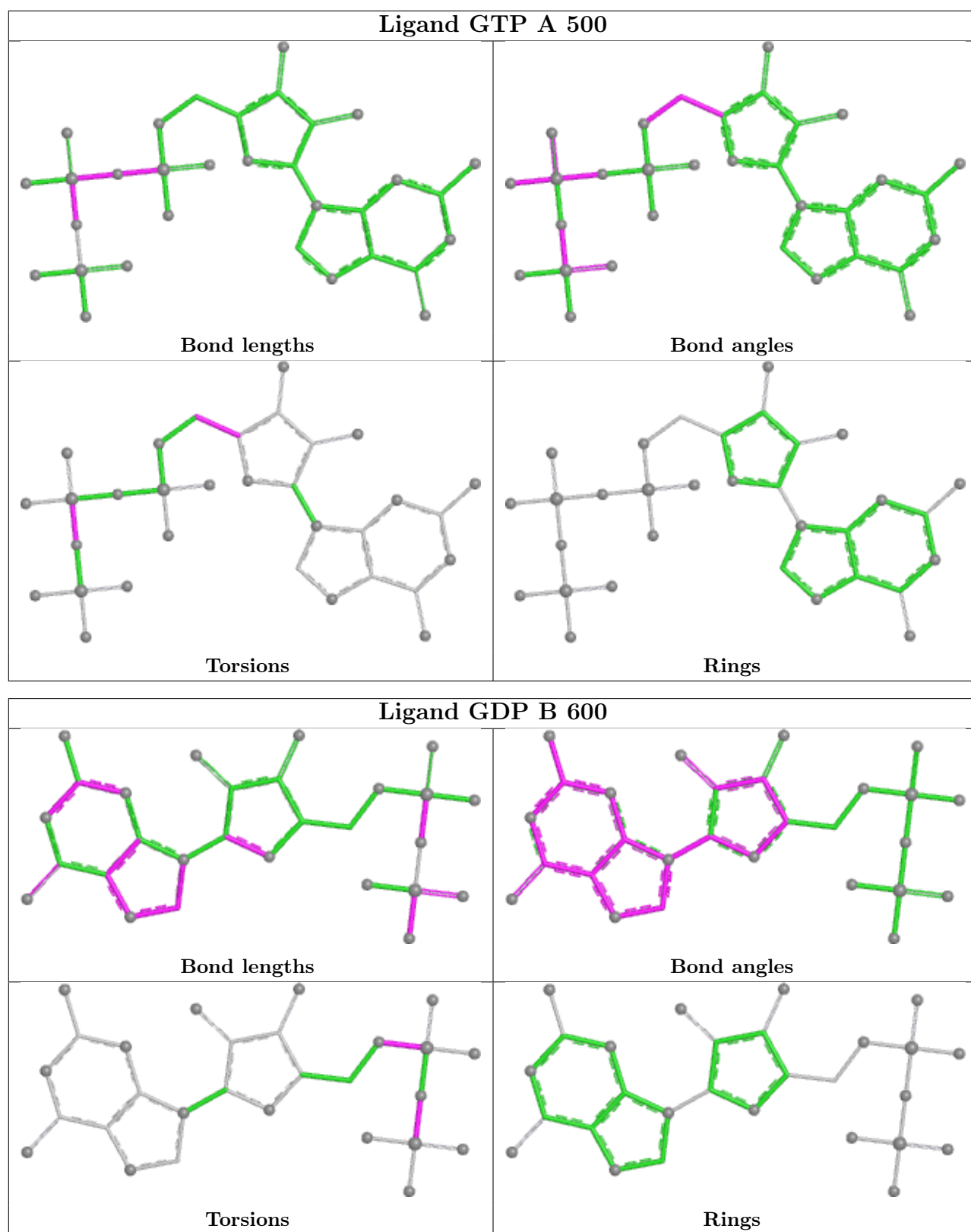
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Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	5-A	500	GTP	26	0
6	4-B	600	GDP	12	0
7	2-B	601	TA1	19	0
6	2-B	600	GDP	12	0
4	3-A	500	GTP	26	0
7	4-B	601	TA1	19	0
6	3-B	600	GDP	12	0

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





5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

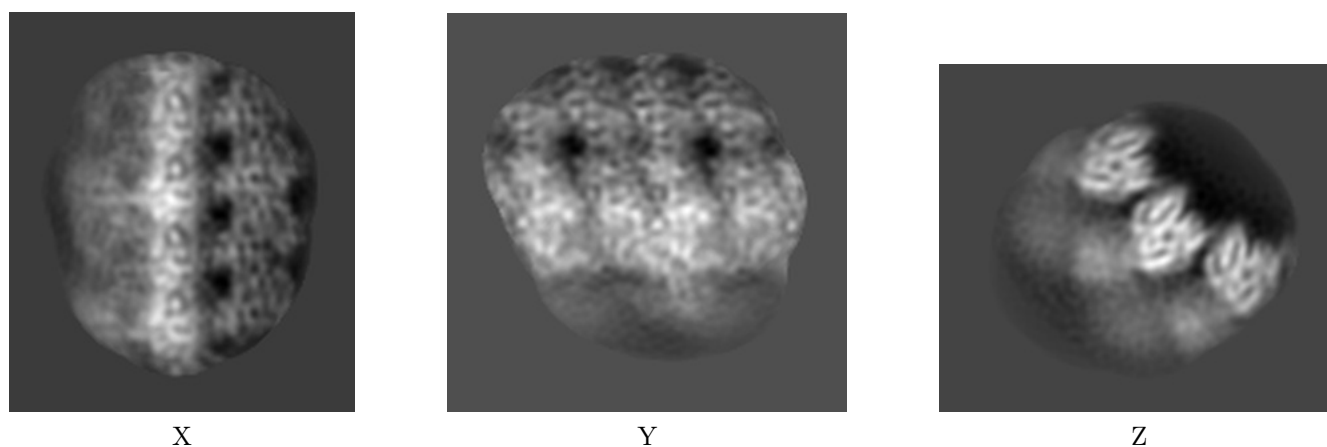
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-3621. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

6.1 Orthogonal projections [i](#)

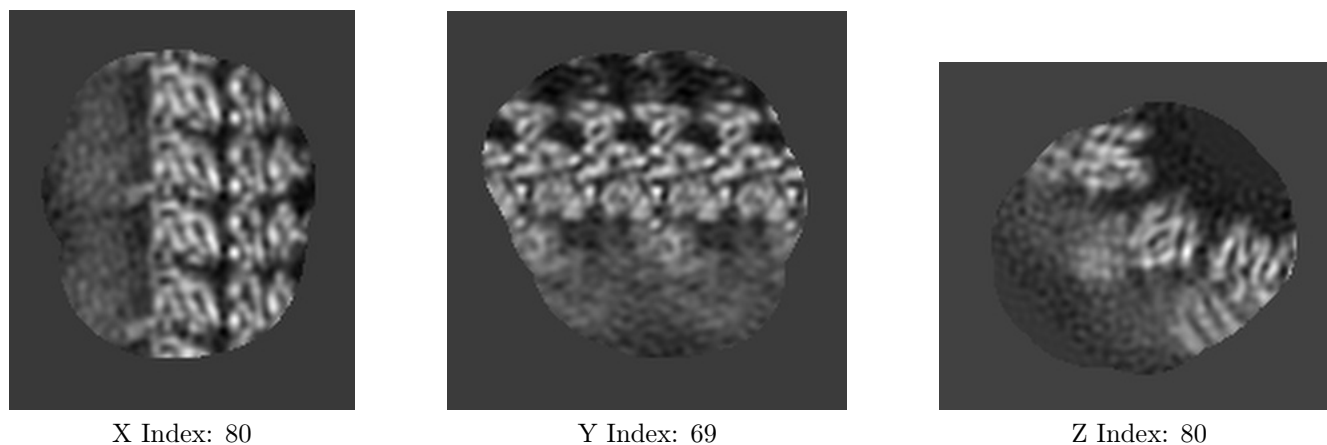
6.1.1 Primary map



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

6.2 Central slices [i](#)

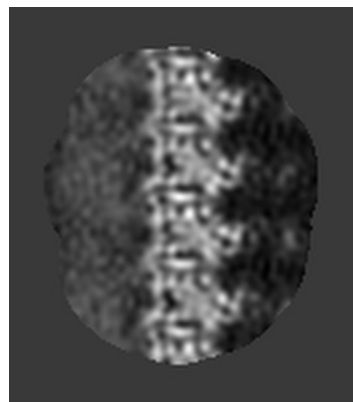
6.2.1 Primary map



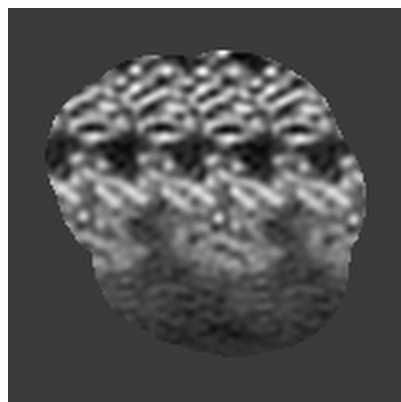
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

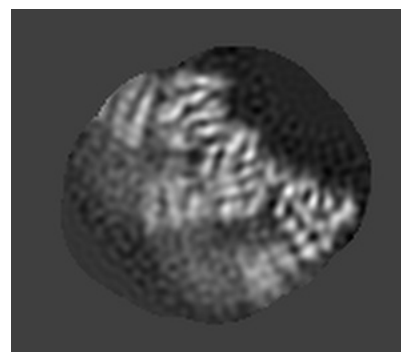
6.3.1 Primary map



X Index: 87



Y Index: 59

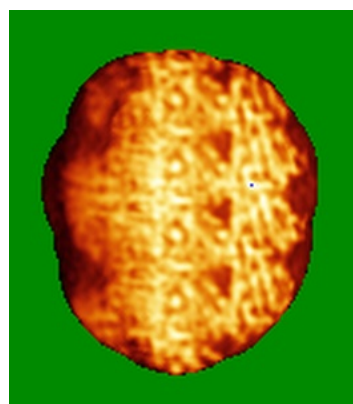


Z Index: 91

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

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

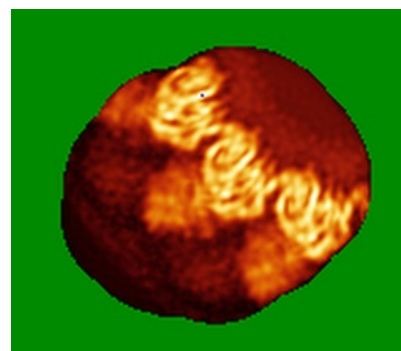
6.4.1 Primary map



X



Y



Z

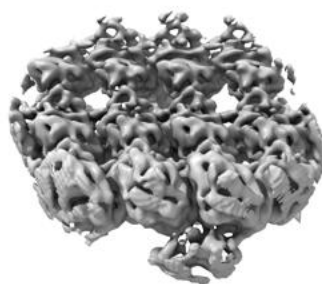
The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views [i](#)

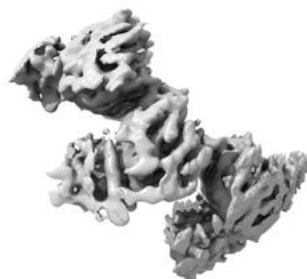
6.5.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.0321. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

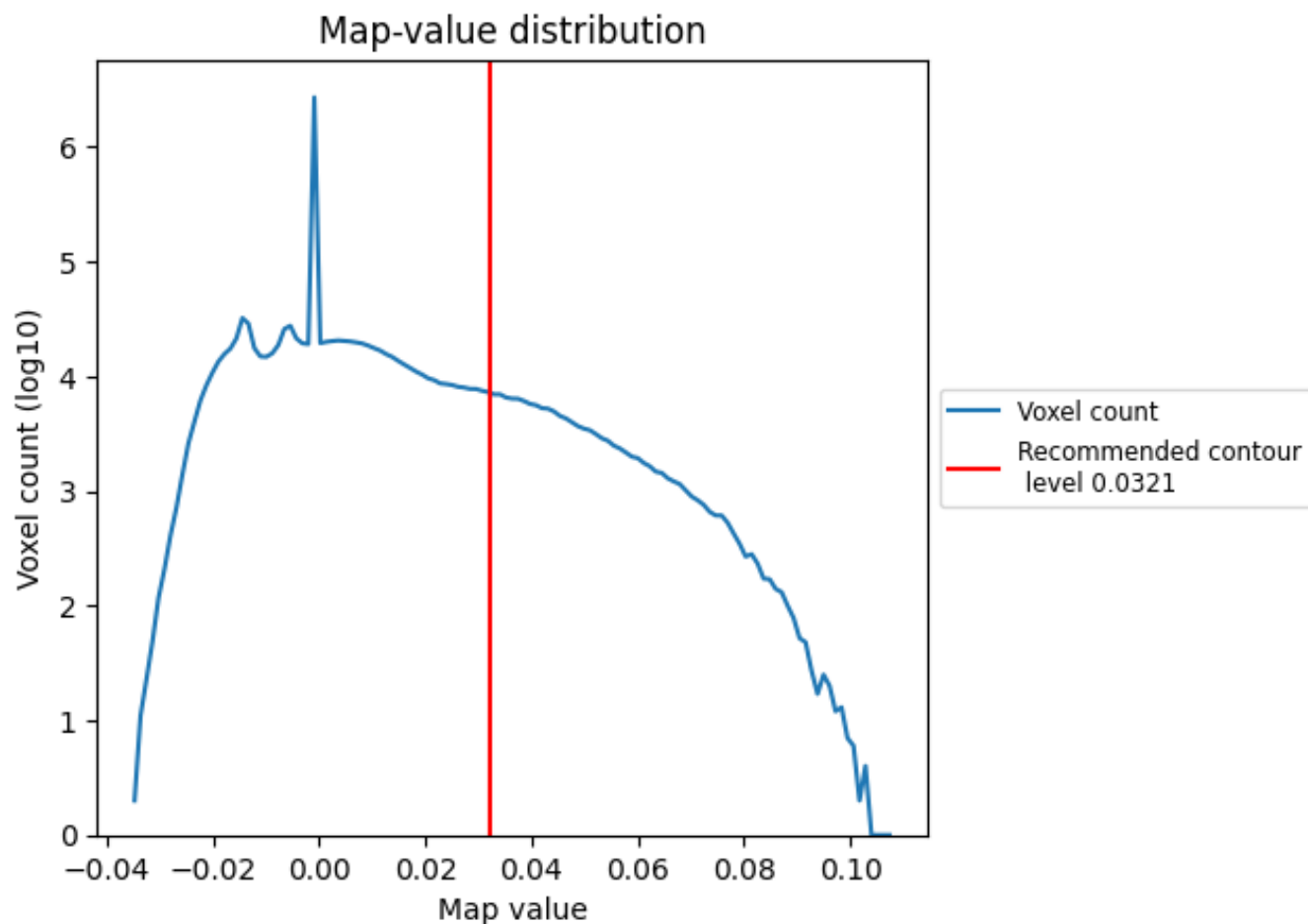
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

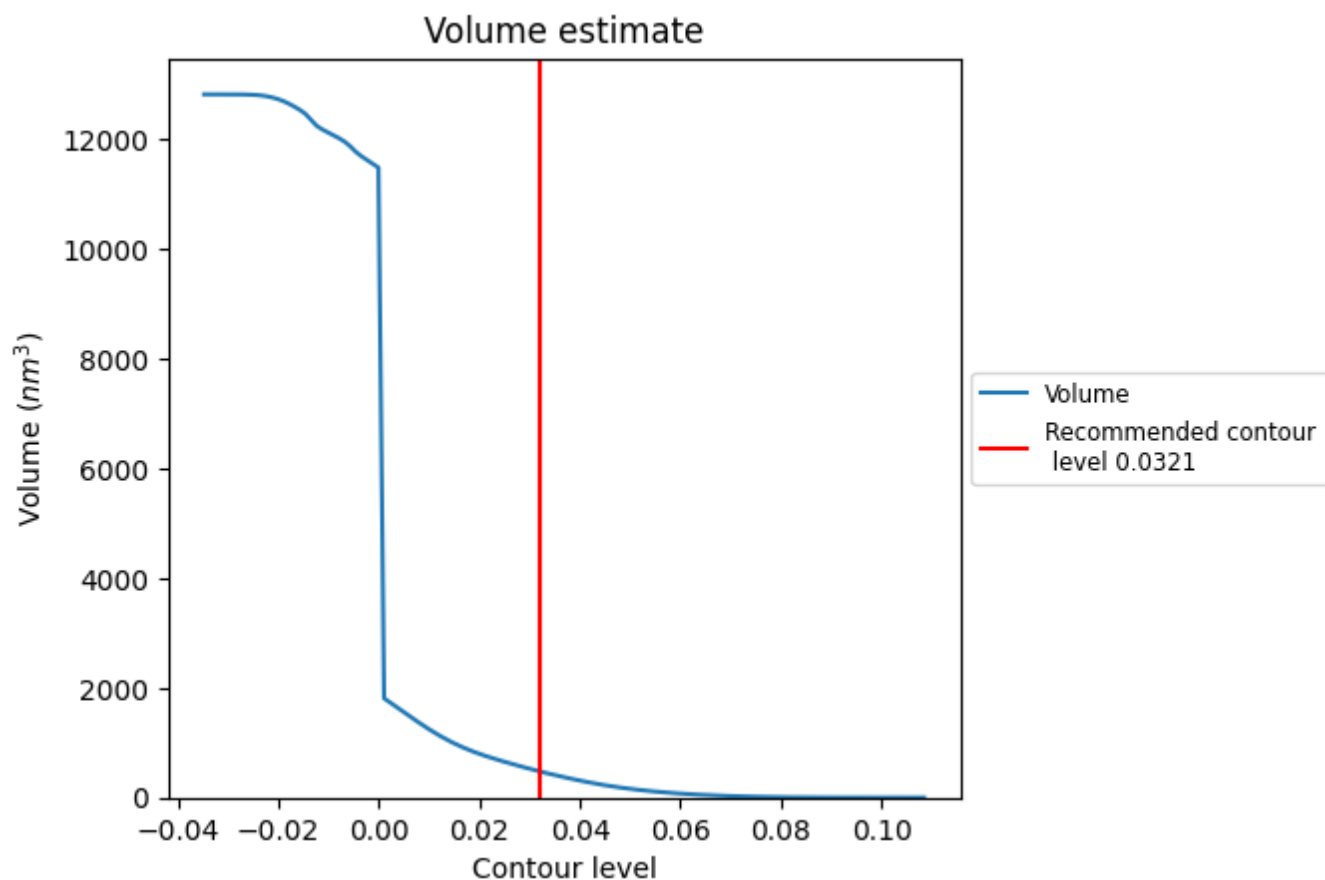
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

7.2 Volume estimate [i](#)



The volume at the recommended contour level is 476 nm³; this corresponds to an approximate mass of 430 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](#)

This section was not generated. The rotationally averaged power spectrum is only generated for cubic maps.

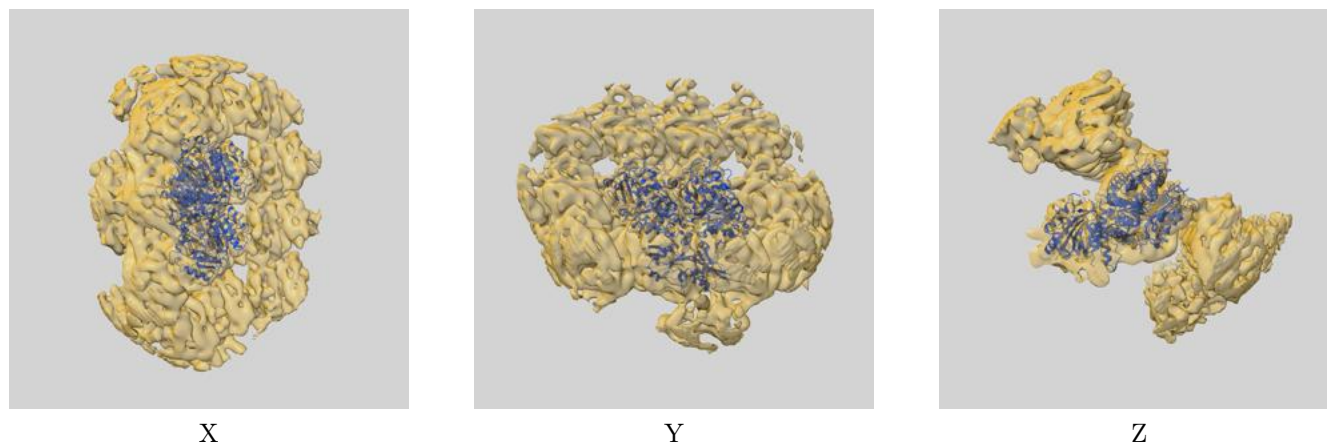
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

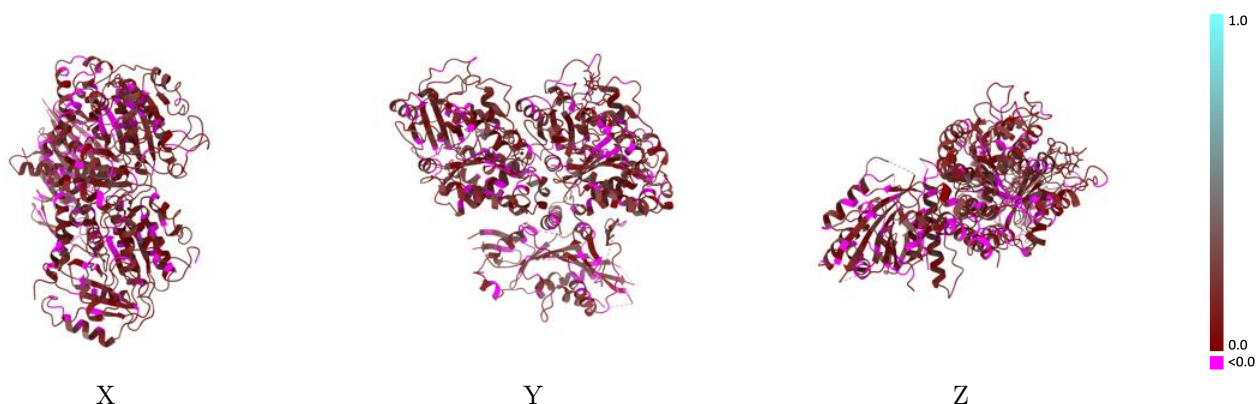
This section contains information regarding the fit between EMDB map EMD-3621 and PDB model 5ND3. Per-residue inclusion information can be found in section [3](#) on page [8](#).

9.1 Map-model overlay [i](#)



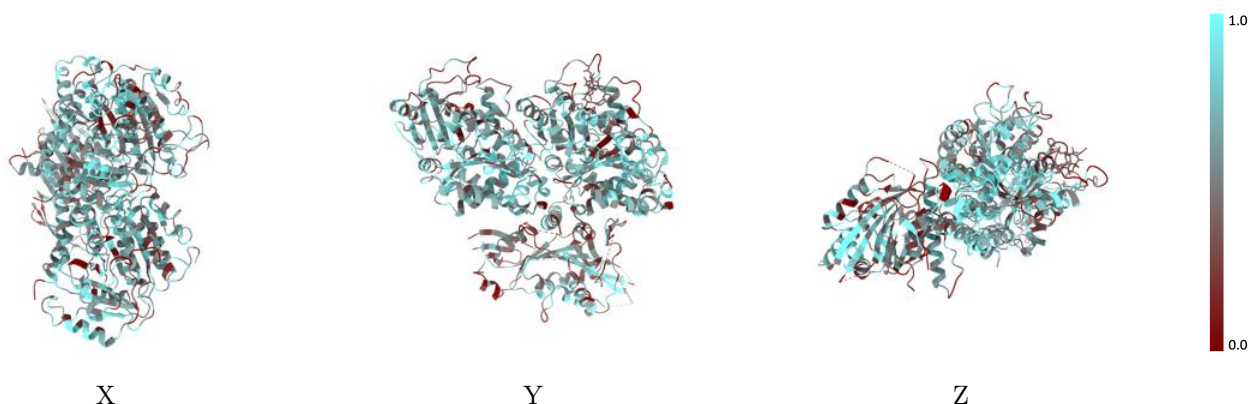
The images above show the 3D surface view of the map at the recommended contour level 0.0321 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



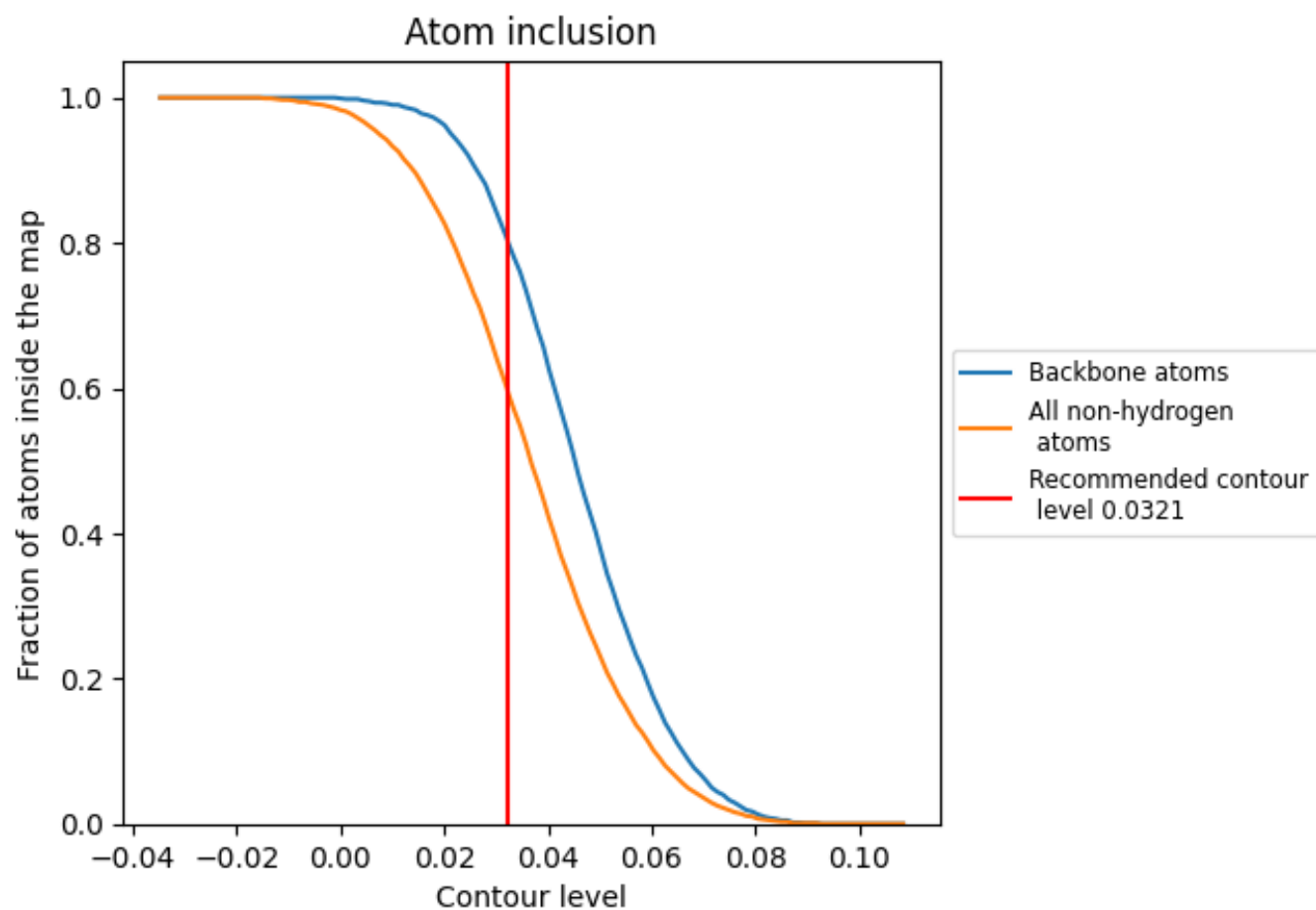
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.0321).

9.4 Atom inclusion [i](#)



At the recommended contour level, 81% of all backbone atoms, 60% 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 (0.0321) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6000	0.1270
A	0.6390	0.1310
B	0.6320	0.1360
C	0.4980	0.1070

