Full wwPDB EM Validation Report ⓘ

Nov 19, 2022 – 03:41 pm GMT

PDB ID	:	5ND7
EMDB ID	:	EMD-3623
Title	:	Microtubule-bound MKLP2 motor domain in the presence of AMPPNP
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	:	7.90 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:

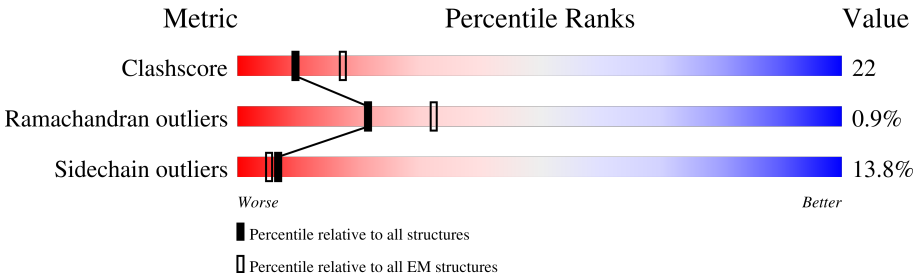
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.4, CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.9
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.31.2

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 7.90 Å.

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



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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=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	20% 26% 28% 5% 40%
1	2-C	501	25% 30% 5% 40%
1	3-C	501	25% 30% 5% 40%
1	4-C	501	25% 30% 5% 40%
1	5-C	501	26% 29% 5% 40%
2	1-A	451	20% 59% 29% • 9%
2	2-A	451	59% 29% • 9%
2	3-A	451	59% 29% • 9%

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Mol	Chain	Length	Quality of chain
2	4-A	451	59% 29% 9%
2	5-A	451	59% 29% 9%
3	1-B	445	22% 57% 34%
3	2-B	445	57% 34%
3	3-B	445	57% 34%
3	4-B	445	57% 34%
3	5-B	445	57% 34%

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
6	GTP	1-A	500	-	-	X	-
6	GTP	2-A	500	-	-	X	-
6	GTP	3-A	500	-	-	X	-
6	GTP	4-A	500	-	-	X	-
6	GTP	5-A	500	-	-	X	-
7	GDP	1-B	600	-	-	X	-
7	GDP	2-B	600	-	-	X	-
7	GDP	3-B	600	-	-	X	-
7	GDP	4-B	600	-	-	X	-
7	GDP	5-B	600	-	-	X	-

2 Entry composition (i)

There are 8 unique types of molecules in this entry. The entry contains 45700 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	300	Total	C	N	O	S	0	0
			2407	1531	425	440	11		
1	2-C	300	Total	C	N	O	S	0	0
			2407	1531	425	440	11		
1	3-C	300	Total	C	N	O	S	0	0
			2407	1531	425	440	11		
1	4-C	300	Total	C	N	O	S	0	0
			2407	1531	425	440	11		
1	5-C	300	Total	C	N	O	S	0	0
			2407	1531	425	440	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 3351	C 2105	N 575	O 646	S 25	0	0
3	2-B	426	Total 3351	C 2105	N 575	O 646	S 25	0	0
3	3-B	426	Total 3351	C 2105	N 575	O 646	S 25	0	0
3	4-B	426	Total 3351	C 2105	N 575	O 646	S 25	0	0
3	5-B	426	Total 3351	C 2105	N 575	O 646	S 25	0	0

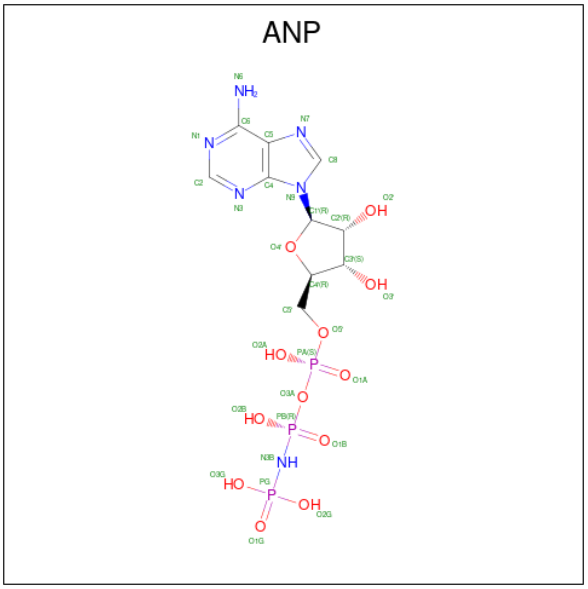
There are 4 discrepancies between the modelled and reference sequences:

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 MAGNESIUM ION (three-letter code: MG) (formula: Mg).

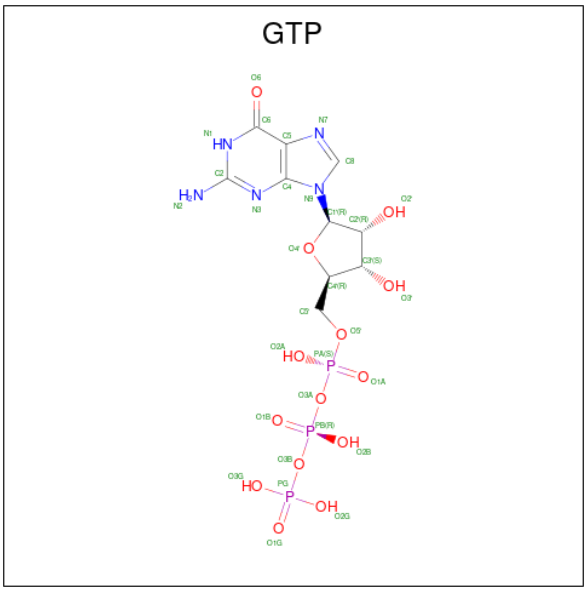
Mol	Chain	Residues	Atoms		AltConf
4	1-C	1	Total 1	Mg 1	0
4	2-C	1	Total 1	Mg 1	0
4	3-C	1	Total 1	Mg 1	0
4	4-C	1	Total 1	Mg 1	0
4	5-C	1	Total 1	Mg 1	0
4	1-A	1	Total 1	Mg 1	0
4	2-A	1	Total 1	Mg 1	0
4	3-A	1	Total 1	Mg 1	0
4	4-A	1	Total 1	Mg 1	0
4	5-A	1	Total 1	Mg 1	0

- Molecule 5 is PHOSPHOAMINOPHOSPHONIC ACID-ADENYLATE ESTER (three-letter code: ANP) (formula: $C_{10}H_{17}N_6O_{12}P_3$).



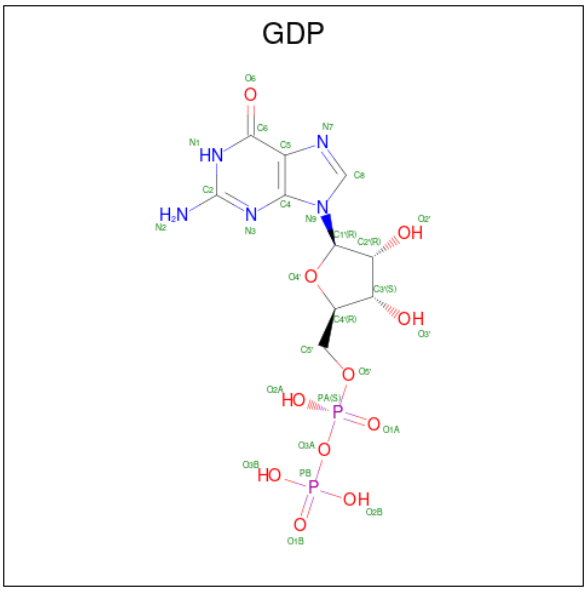
Mol	Chain	Residues	Atoms					AltConf
5	1-C	1	Total	C	N	O	P	0
			31	10	6	12	3	
5	2-C	1	Total	C	N	O	P	0
			31	10	6	12	3	
5	3-C	1	Total	C	N	O	P	0
			31	10	6	12	3	
5	4-C	1	Total	C	N	O	P	0
			31	10	6	12	3	
5	5-C	1	Total	C	N	O	P	0
			31	10	6	12	3	

- Molecule 6 is GUANOSINE-5'-TRIPHOSPHATE (three-letter code: GTP) (formula: $C_{10}H_{16}N_5O_{14}P_3$).



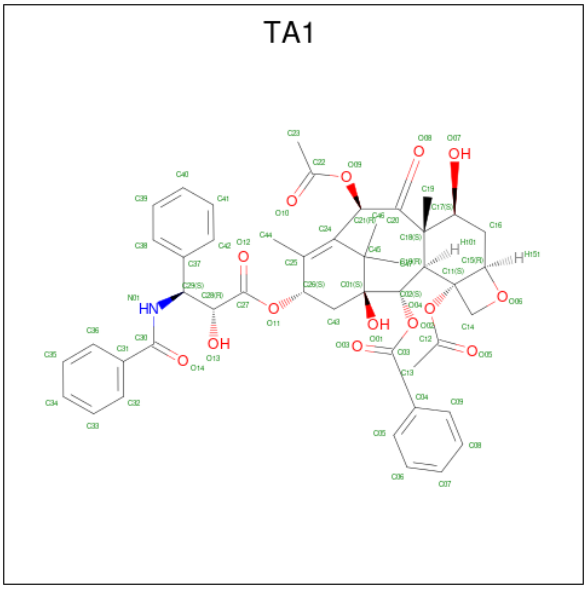
Mol	Chain	Residues	Atoms					AltConf
6	1-A	1	Total	C	N	O	P	0
			32	10	5	14	3	
6	2-A	1	Total	C	N	O	P	0
			32	10	5	14	3	
6	3-A	1	Total	C	N	O	P	0
			32	10	5	14	3	
6	4-A	1	Total	C	N	O	P	0
			32	10	5	14	3	
6	5-A	1	Total	C	N	O	P	0
			32	10	5	14	3	

- Molecule 7 is GUANOSINE-5'-DIPHOSPHATE (three-letter code: GDP) (formula: $C_{10}H_{15}N_5O_{11}P_2$).



Mol	Chain	Residues	Atoms					AltConf
7	1-B	1	Total	C	N	O	P	0
			28	10	5	11	2	
7	2-B	1	Total	C	N	O	P	0
			28	10	5	11	2	
7	3-B	1	Total	C	N	O	P	0
			28	10	5	11	2	
7	4-B	1	Total	C	N	O	P	0
			28	10	5	11	2	
7	5-B	1	Total	C	N	O	P	0
			28	10	5	11	2	

- Molecule 8 is TAXOL (three-letter code: TA1) (formula: $C_{47}H_{51}NO_{14}$).



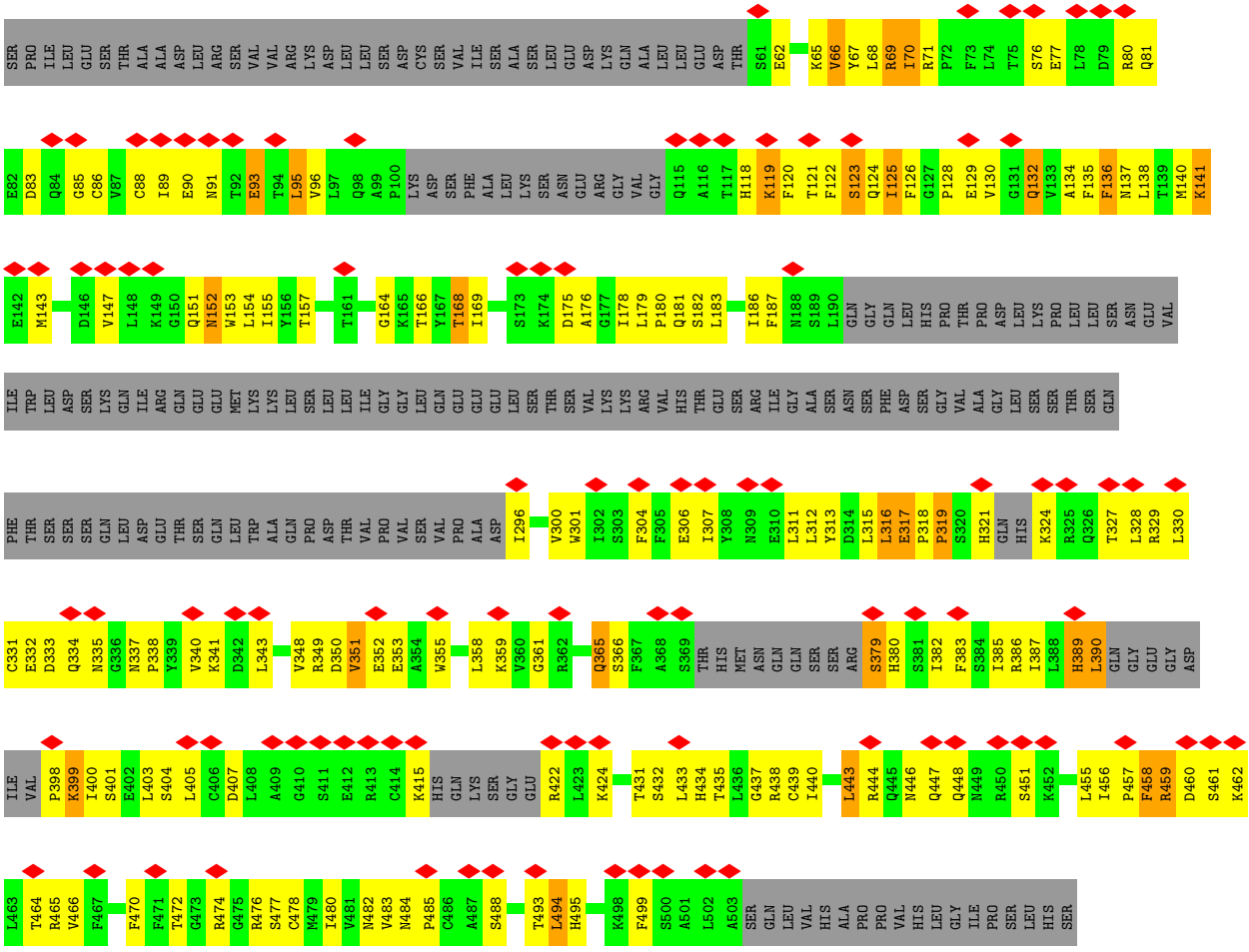
Mol	Chain	Residues	Atoms				AltConf
8	1-B	1	Total	C	N	O	0
			62	47	1	14	
8	2-B	1	Total	C	N	O	0
			62	47	1	14	
8	3-B	1	Total	C	N	O	0
			62	47	1	14	
8	4-B	1	Total	C	N	O	0
			62	47	1	14	
8	5-B	1	Total	C	N	O	0
			62	47	1	14	

3 Residue-property plots (i)

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

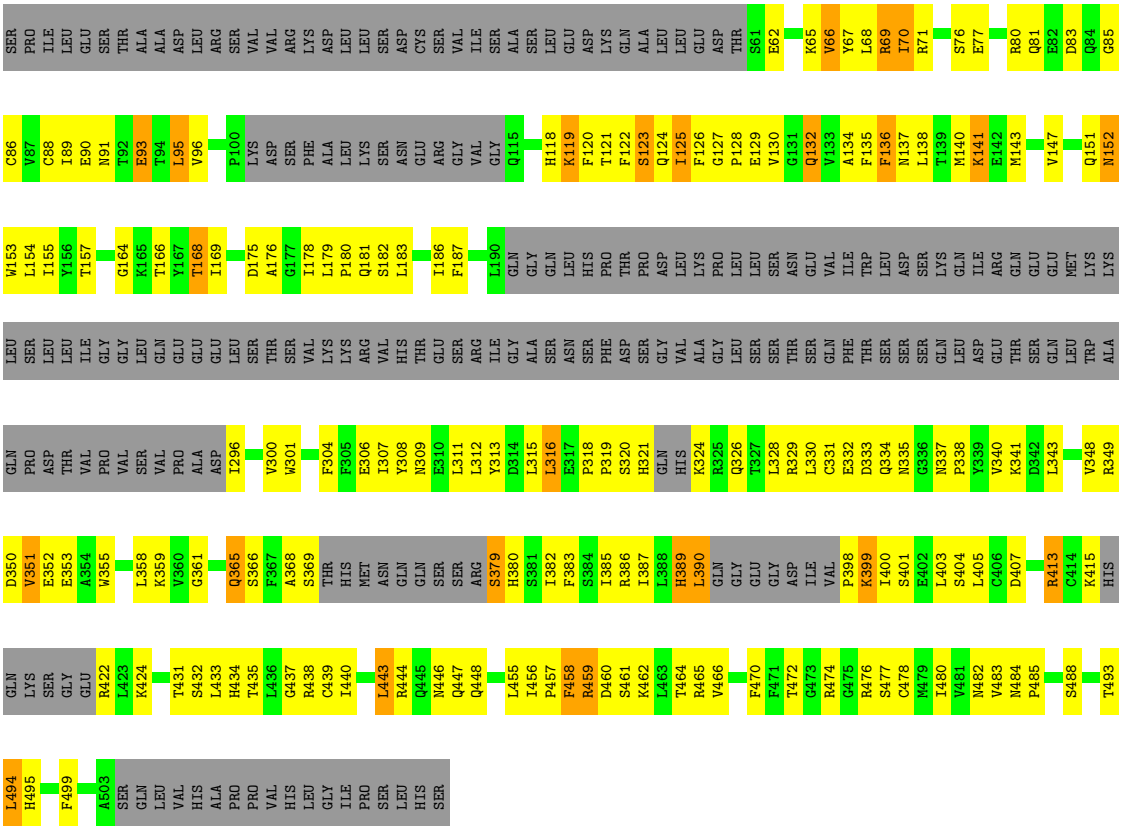
• Molecule 1: Kinesin-like protein KIF20A

Chain 1-C:

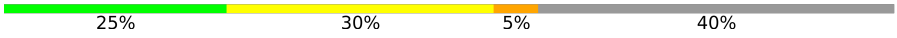


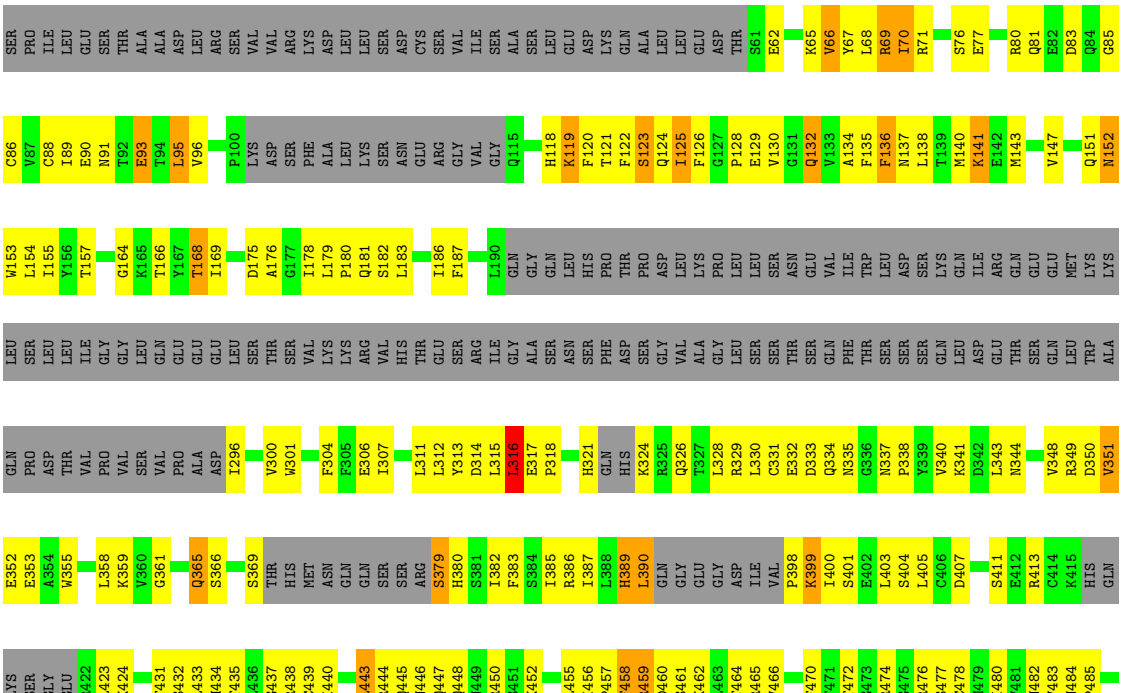
• Molecule 1: Kinesin-like protein KIF20A

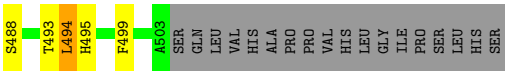
Chain 2-C:



• Molecule 1: Kinesin-like protein KIFC2A

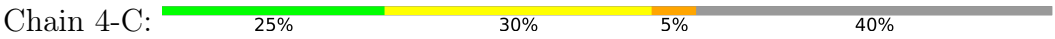
Chain 3-C: 

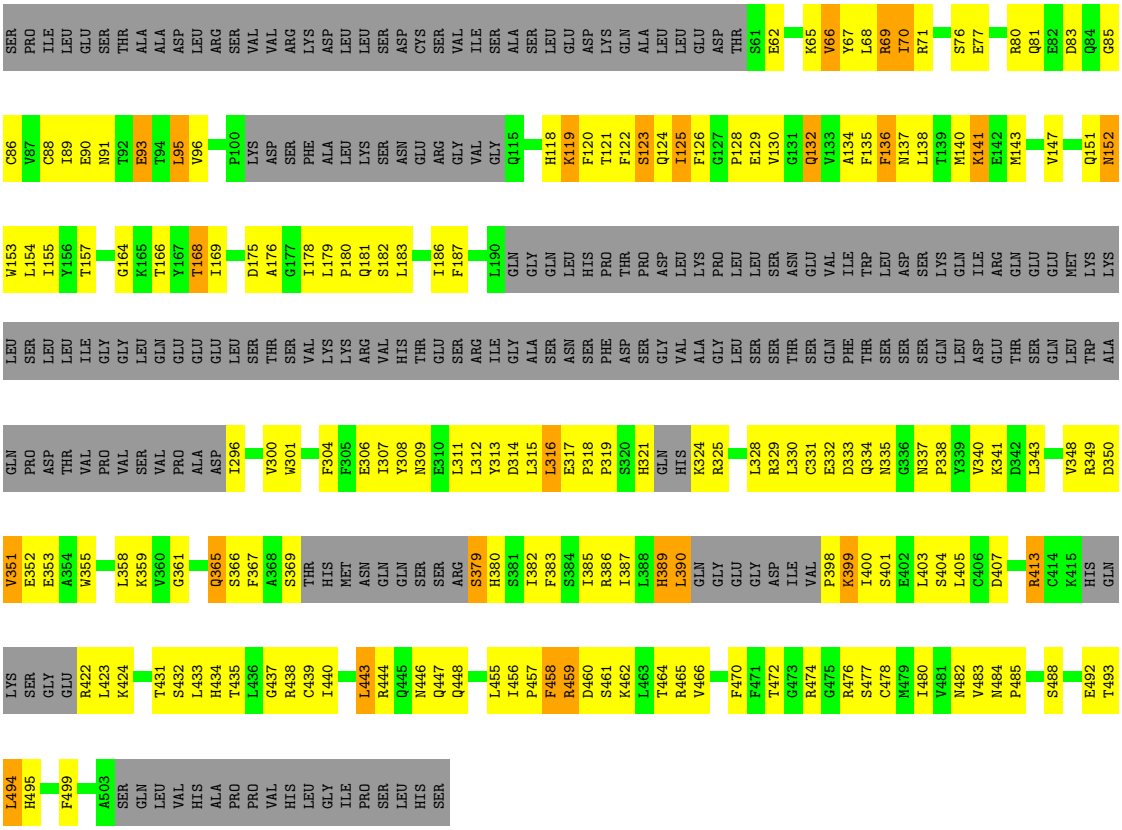


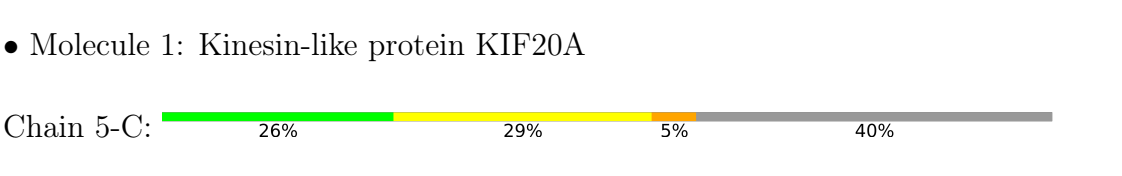


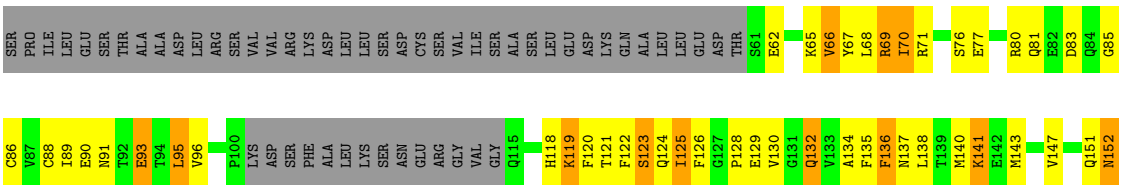
• Molecule 1: Kinesin-like protein KIF20A

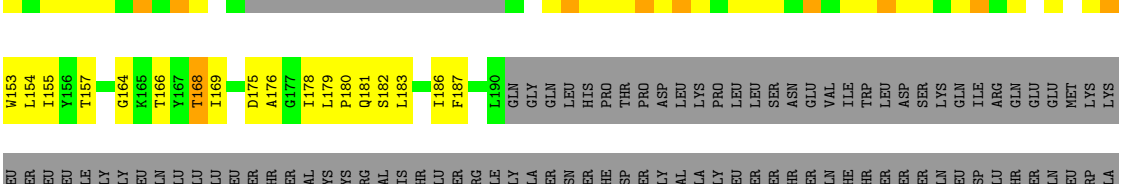
Chain 4-C:

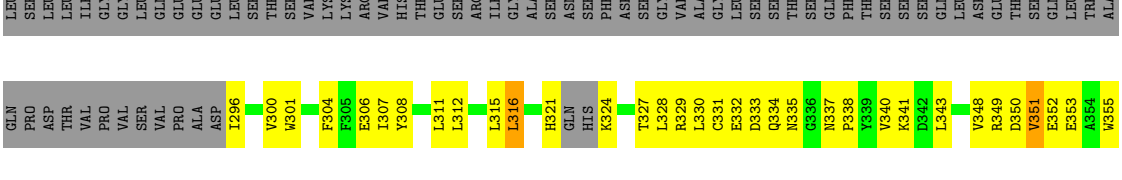






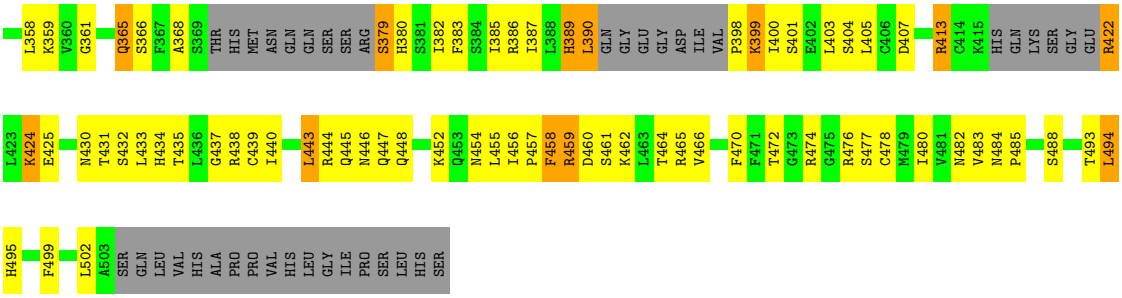






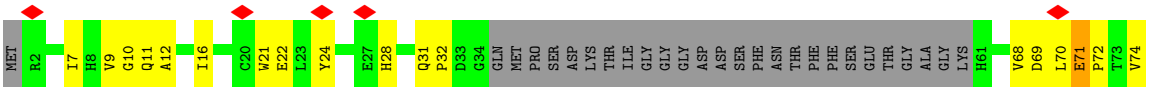
• Molecule 1: Kinesin-like protein KIF20A

Chain 5-C:



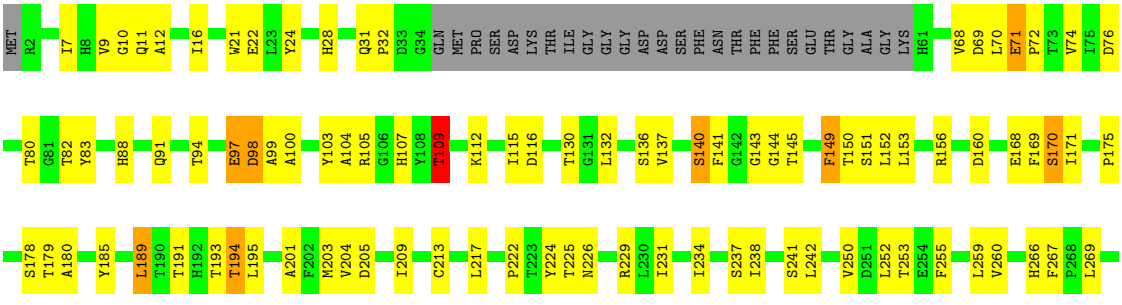
• Molecule 2: Tubulin alpha chain

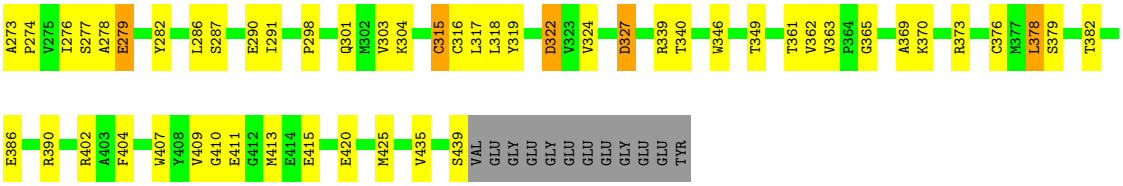
Chain 1-A:



• Molecule 2: Tubulin alpha chain

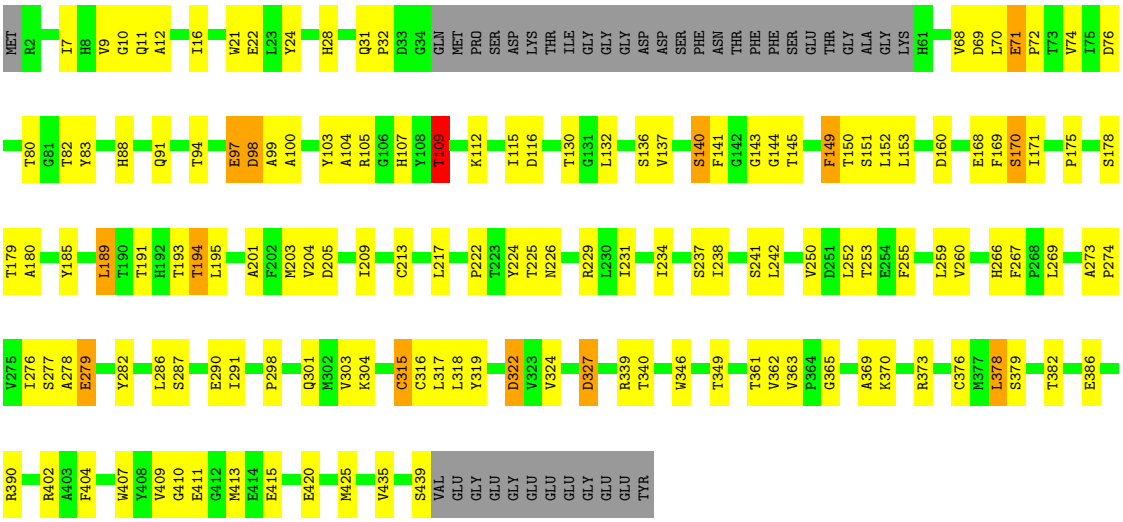
Chain 2-A:





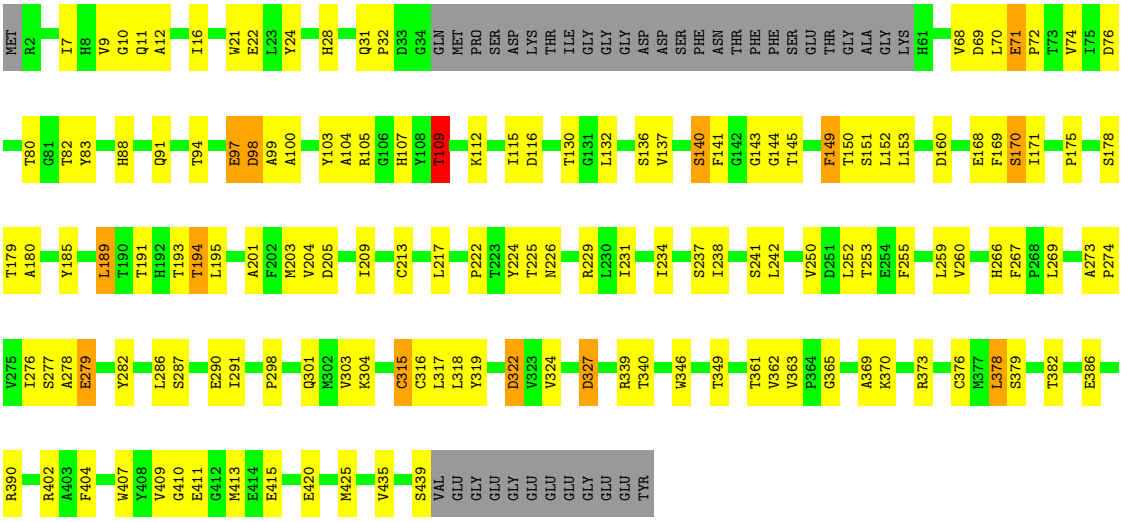
• Molecule 2: Tubulin alpha chain

Chain 3-A:



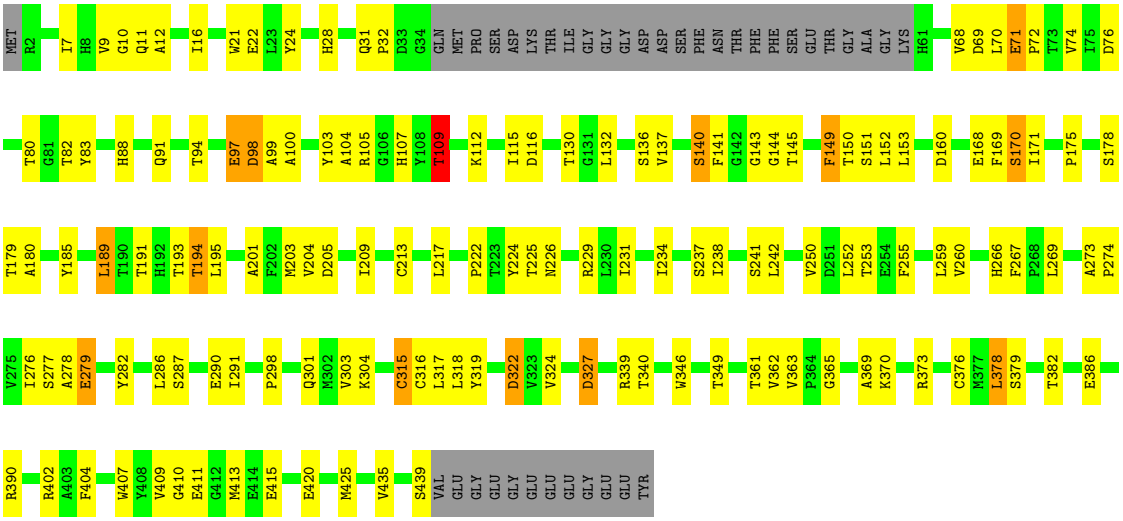
• Molecule 2: Tubulin alpha chain

Chain 4-A:



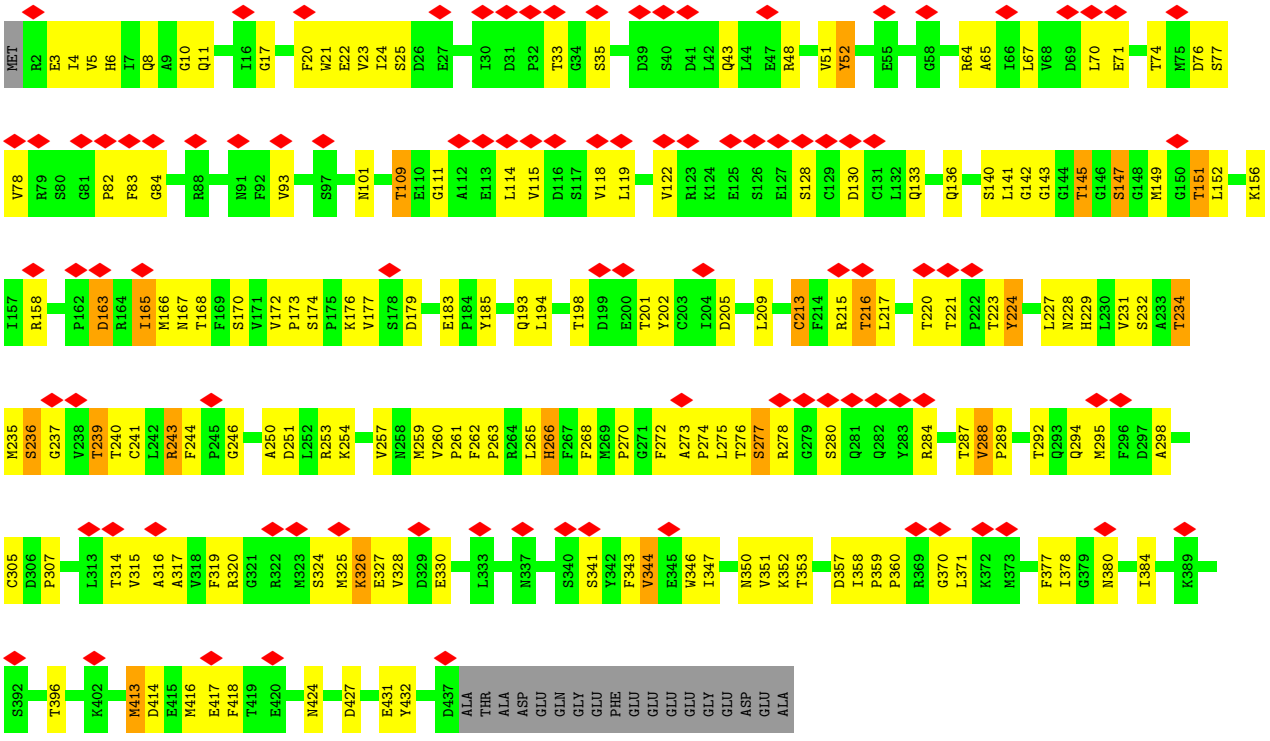
• Molecule 2: Tubulin alpha chain

Chain 5-A:



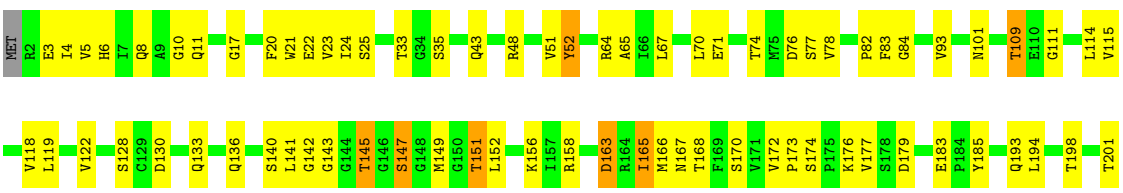
• Molecule 3: Tubulin beta-2B chain

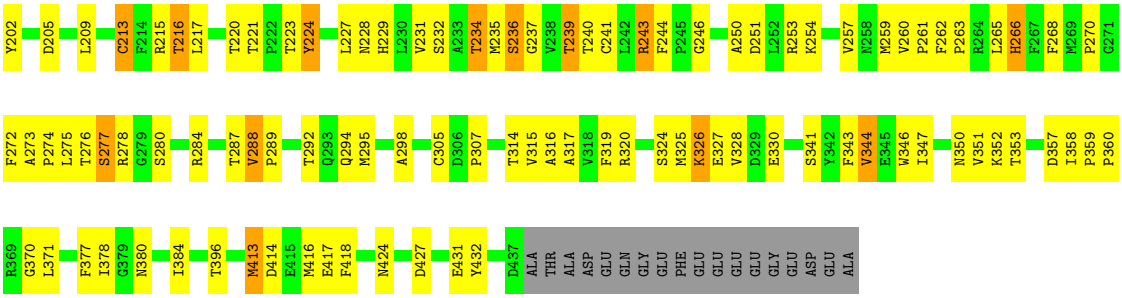
Chain 1-B:



• Molecule 3: Tubulin beta-2B chain

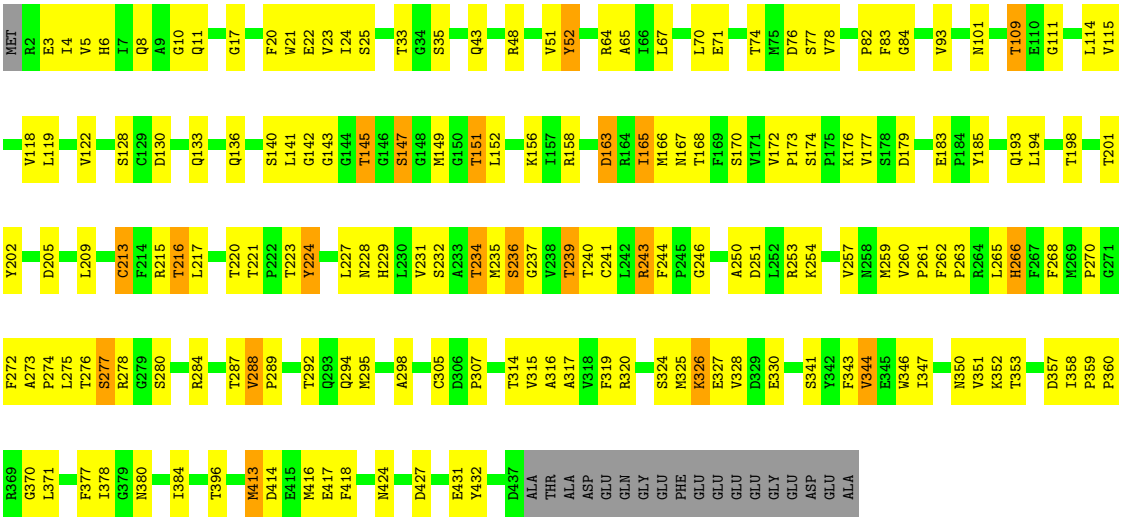
Chain 2-B:





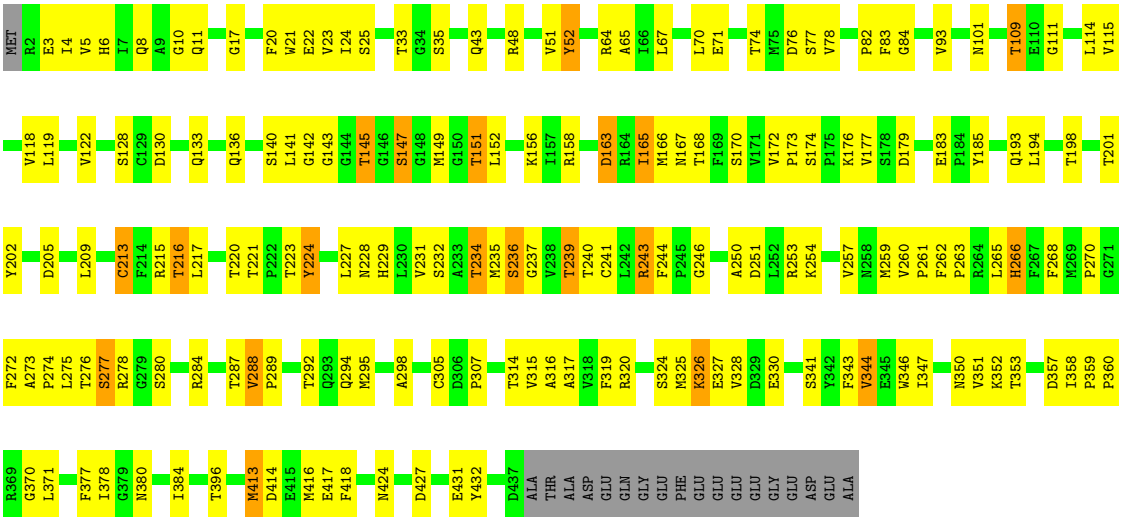
• Molecule 3: Tubulin beta-2B chain

Chain 3-B:



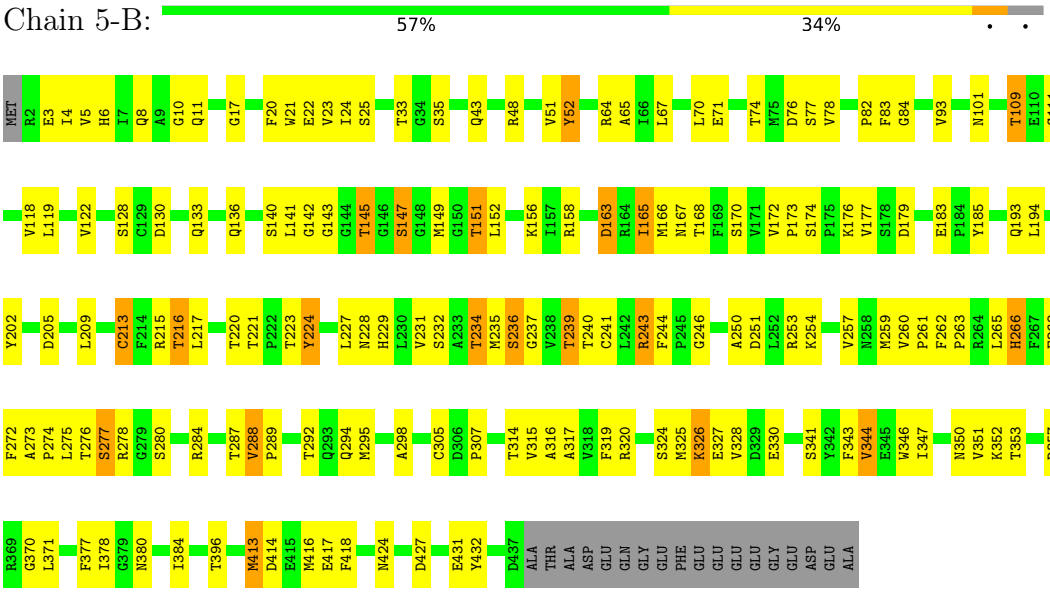
• Molecule 3: Tubulin beta-2B chain

Chain 4-B:



• Molecule 3: Tubulin beta-2B chain

Chain 5-B:


57%
34%
MET R2 E3 I4 V5 H6 I7 Q8 A9 G10 Q11 G17 F20 W21 E22 V23 I24 S25 T33 G34 S35 Q43 R48 V51 V52 R64 A65 I66 L67 L70 E71 T74 M75 D76 S77 V78 P82 F83 G84 V93 N101 T109 E110 G111 L114 V115
V118 L119 V122 S128 C129 D130 Q133 Q136 S140 L141 G142 G143 G144 T145 G146 S147 G148 M149 G150 T151 L152 K156 I157 R158 D163 R164 I165 M166 N167 T168 F169 S170 V171 V172 P173 S174 P175 K176 V177 S178 D179 E183 P184 Y185 Q193 L194 T198 T201
Y202 D205 L209 C213 F214 R215 T216 L217 T220 T221 P222 T223 Y224 L227 N228 H229 L230 V231 S232 A233 T234 M235 S236 G237 V238 T239 T240 C241 L242 R243 F244 P245 G246 A250 D251 L252 R253 K254 V257 N258 M259 V260 P261 F262 P263 R264 L265 H266 F267 F268 M269 P270 G271
F272 A273 P274 L275 T276 S277 R278 G279 S280 R284 T287 V288 P289 T292 Q293 Q294 M295 A298 C305 D306 P307 T314 V315 A316 A317 V318 F319 R320 S324 M325 K326 E327 V328 D329 E330 S341 Y342 F343 V344 E345 W346 I347 N350 V351 K352 T353 D357 I358 P359 P360
R369 G370 L371 F377 I378 G379 N380 I384 T396 M413 D414 E415 M416 E417 F418 N424 D427 E431 Y432 D437 ALA THR ALA ASP GLU GLN GLY GLU GLU PHE GLU GLU GLU GLU GLU GLY GLU ASP GLU ALA

4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	10858	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TECNAI F20	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/Å^2$)	20	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	0.084	Depositor
Minimum map value	-0.031	Depositor
Average map value	0.003	Depositor
Map value standard deviation	0.011	Depositor
Recommended contour level	0.0322	Depositor
Map size (Å)	246.4, 214.06, 247.93999	wwPDB
Map dimensions	160, 139, 161	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.54, 1.54, 1.54	Depositor

5 Model quality

5.1 Standard geometry

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

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	0.55	0/2450	0.71	3/3299 (0.1%)
1	2-C	0.56	0/2450	0.74	4/3299 (0.1%)
1	3-C	0.56	0/2450	0.73	3/3299 (0.1%)
1	4-C	0.57	0/2450	0.76	3/3299 (0.1%)
1	5-C	0.57	0/2450	0.73	2/3299 (0.1%)
2	1-A	0.27	0/3300	0.40	0/4482
2	2-A	0.27	0/3300	0.40	0/4482
2	3-A	0.27	0/3300	0.40	0/4482
2	4-A	0.27	0/3300	0.40	0/4482
2	5-A	0.27	0/3300	0.40	0/4482
3	1-B	0.29	0/3426	0.43	0/4642
3	2-B	0.29	0/3426	0.43	0/4642
3	3-B	0.29	0/3426	0.43	0/4642
3	4-B	0.29	0/3426	0.43	0/4642
3	5-B	0.29	0/3426	0.43	0/4642
All	All	0.38	0/45880	0.52	15/62115 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	5-C	0	2

There are no bond length outliers.

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	5-C	459	ARG	NE-CZ-NH1	9.50	125.05	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	1-C	459	ARG	NE-CZ-NH1	9.48	125.04	120.30
1	2-C	459	ARG	NE-CZ-NH1	9.44	125.02	120.30
1	4-C	459	ARG	NE-CZ-NH1	9.41	125.01	120.30
1	3-C	459	ARG	NE-CZ-NH1	9.35	124.97	120.30
1	2-C	318	PRO	N-CA-C	6.58	129.20	112.10
1	1-C	459	ARG	NE-CZ-NH2	-6.19	117.20	120.30
1	5-C	459	ARG	NE-CZ-NH2	-6.14	117.23	120.30
1	2-C	459	ARG	NE-CZ-NH2	-6.11	117.24	120.30
1	4-C	459	ARG	NE-CZ-NH2	-6.11	117.24	120.30
1	3-C	459	ARG	NE-CZ-NH2	-6.00	117.30	120.30
1	3-C	316	LEU	C-N-CA	5.58	135.64	121.70
1	4-C	318	PRO	N-CA-C	5.38	126.10	112.10
1	2-C	318	PRO	CA-C-N	5.23	131.75	117.10
1	1-C	319	PRO	N-CA-C	5.07	125.27	112.10

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	5-C	413	ARG	Sidechain
1	5-C	422	ARG	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	1-C	2407	0	2419	181	0
1	2-C	2407	0	2419	191	0
1	3-C	2407	0	2419	185	0
1	4-C	2407	0	2419	189	0
1	5-C	2407	0	2419	182	0
2	1-A	3227	0	3141	121	0
2	2-A	3227	0	3141	124	0
2	3-A	3227	0	3141	119	0
2	4-A	3227	0	3141	118	0
2	5-A	3227	0	3141	118	0
3	1-B	3351	0	3229	147	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	2-B	3351	0	3229	143	0
3	3-B	3351	0	3229	141	0
3	4-B	3351	0	3229	144	0
3	5-B	3351	0	3229	144	0
4	1-A	1	0	0	0	0
4	1-C	1	0	0	0	0
4	2-A	1	0	0	0	0
4	2-C	1	0	0	0	0
4	3-A	1	0	0	0	0
4	3-C	1	0	0	0	0
4	4-A	1	0	0	0	0
4	4-C	1	0	0	0	0
4	5-A	1	0	0	0	0
4	5-C	1	0	0	0	0
5	1-C	31	0	13	2	0
5	2-C	31	0	13	2	0
5	3-C	31	0	13	2	0
5	4-C	31	0	13	2	0
5	5-C	31	0	13	2	0
6	1-A	32	0	12	28	0
6	2-A	32	0	12	27	0
6	3-A	32	0	12	28	0
6	4-A	32	0	12	27	0
6	5-A	32	0	12	27	0
7	1-B	28	0	12	9	0
7	2-B	28	0	12	9	0
7	3-B	28	0	12	9	0
7	4-B	28	0	12	9	0
7	5-B	28	0	12	9	0
8	1-B	62	0	51	14	0
8	2-B	62	0	51	14	0
8	3-B	62	0	51	14	0
8	4-B	62	0	51	14	0
8	5-B	62	0	51	14	0
All	All	45700	0	44385	2005	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 22.

All (2005) 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:CB	6:A:500:GTP:H3'	1.62	1.27
2:A:179:THR:CB	6:A:500:GTP:H3'	1.62	1.27
2:A:179:THR:CB	6:A:500:GTP:H3'	1.62	1.27
2:A:179:THR:CB	6:A:500:GTP:H3'	1.62	1.27
2:A:179:THR:CB	6:A:500:GTP:H3'	1.62	1.27
1:C:369:SER:CB	1:C:413:ARG:HH12	1.46	1.27
1:C:460:ASP:OD2	3:B:263:PRO:HG3	1.33	1.26
1:C:460:ASP:OD2	3:B:263:PRO:HG3	1.36	1.24
1:C:460:ASP:OD2	3:B:263:PRO:HG3	1.37	1.23
1:C:460:ASP:OD2	3:B:263:PRO:HG3	1.38	1.23
1:C:460:ASP:OD2	3:B:263:PRO:HG3	1.37	1.22
2:A:11:GLN:HB3	6:A:500:GTP:O2B	1.53	1.07
2:A:11:GLN:HB3	6:A:500:GTP:O2B	1.53	1.07
2:A:11:GLN:HB3	6:A:500:GTP:O2B	1.53	1.07
2:A:11:GLN:HB3	6:A:500:GTP:O2B	1.53	1.07
2:A:11:GLN:HB3	6:A:500:GTP:O2B	1.53	1.07
1:C:369:SER:OG	1:C:422:ARG:NH1	1.88	1.07
1:C:369:SER:O	1:C:413:ARG:NE	1.88	1.05
1:C:369:SER:CB	1:C:413:ARG:NH1	2.19	1.05
2:A:179:THR:HB	6:A:500:GTP:H3'	1.34	1.02
2:A:179:THR:HB	6:A:500:GTP:H3'	1.34	1.02
2:A:179:THR:HB	6:A:500:GTP:H3'	1.34	1.02
2:A:179:THR:HB	6:A:500:GTP:H3'	1.34	1.02
2:A:179:THR:HB	6:A:500:GTP:H3'	1.34	1.02
1:C:333:ASP:HA	3:B:416:MET:SD	2.02	1.00
2:A:179:THR:CB	6:A:500:GTP:C3'	2.39	0.99
2:A:179:THR:CB	6:A:500:GTP:C3'	2.39	0.99
2:A:179:THR:CB	6:A:500:GTP:C3'	2.39	0.99
2:A:179:THR:CB	6:A:500:GTP:C3'	2.39	0.99
2:A:179:THR:CB	6:A:500:GTP:C3'	2.39	0.99
1:C:333:ASP:HA	3:B:416:MET:SD	2.03	0.99
1:C:333:ASP:HA	3:B:416:MET:SD	2.03	0.98
1:C:333:ASP:HA	3:B:416:MET:SD	2.03	0.98
1:C:333:ASP:HA	3:B:416:MET:SD	2.04	0.97
2:A:179:THR:OG1	6:A:500:GTP:C3'	2.12	0.96
2:A:179:THR:OG1	6:A:500:GTP:C3'	2.12	0.96
2:A:179:THR:OG1	6:A:500:GTP:C3'	2.12	0.96
2:A:179:THR:OG1	6:A:500:GTP:C3'	2.12	0.96
2:A:179:THR:OG1	6:A:500:GTP:C3'	2.12	0.96
1:C:334:GLN:N	3:B:416:MET:SD	2.38	0.96
1:C:334:GLN:N	3:B:416:MET:SD	2.40	0.94
2:A:179:THR:CG2	6:A:500:GTP:H3'	1.98	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:179:THR:CG2	6:A:500:GTP:H3'	1.98	0.93
2:A:179:THR:CG2	6:A:500:GTP:H3'	1.98	0.93
2:A:179:THR:CG2	6:A:500:GTP:H3'	1.98	0.93
2:A:179:THR:CG2	6:A:500:GTP:H3'	1.98	0.93
1:C:334:GLN:N	3:B:416:MET:SD	2.41	0.93
1:C:334:GLN:N	3:B:416:MET:SD	2.41	0.93
2:A:11:GLN:CB	6:A:500:GTP:O2B	2.17	0.92
2:A:11:GLN:CB	6:A:500:GTP:O2B	2.17	0.92
2:A:11:GLN:CB	6:A:500:GTP:O2B	2.17	0.92
2:A:11:GLN:CB	6:A:500:GTP:O2B	2.17	0.92
2:A:11:GLN:CB	6:A:500:GTP:O2B	2.17	0.92
3:B:10:GLY:HA2	3:B:145:THR:HB	1.54	0.90
3:B:10:GLY:HA2	3:B:145:THR:HB	1.54	0.90
3:B:10:GLY:HA2	3:B:145:THR:HB	1.54	0.90
3:B:10:GLY:HA2	3:B:145:THR:HB	1.54	0.90
3:B:10:GLY:HA2	3:B:145:THR:HB	1.54	0.90
1:C:334:GLN:N	3:B:416:MET:SD	2.44	0.89
1:C:301:TRP:HB2	1:C:386:ARG:HG3	1.51	0.89
1:C:301:TRP:HB2	1:C:386:ARG:HG3	1.51	0.89
1:C:301:TRP:HB2	1:C:386:ARG:HG3	1.51	0.89
1:C:301:TRP:HB2	1:C:386:ARG:HG3	1.51	0.89
1:C:301:TRP:HB2	1:C:386:ARG:HG3	1.51	0.89
1:C:330:LEU:HD11	1:C:466:VAL:HG12	1.53	0.88
1:C:459:ARG:HD3	3:B:427:ASP:OD2	1.71	0.88
1:C:330:LEU:HD11	1:C:466:VAL:HG12	1.54	0.88
1:C:330:LEU:HD11	1:C:466:VAL:HG12	1.53	0.88
1:C:330:LEU:HD11	1:C:466:VAL:HG12	1.53	0.88
1:C:330:LEU:HD11	1:C:466:VAL:HG12	1.53	0.88
1:C:313:TYR:HA	1:C:326:GLN:HE22	1.38	0.88
2:A:278:ALA:HB2	2:A:369:ALA:HA	1.54	0.87
2:A:278:ALA:HB2	2:A:369:ALA:HA	1.54	0.87
2:A:278:ALA:HB2	2:A:369:ALA:HA	1.54	0.87
2:A:278:ALA:HB2	2:A:369:ALA:HA	1.54	0.87
2:A:278:ALA:HB2	2:A:369:ALA:HA	1.54	0.87
1:C:88:CYS:HB2	1:C:96:VAL:HG13	1.57	0.86
1:C:88:CYS:HB2	1:C:96:VAL:HG13	1.57	0.86
1:C:88:CYS:HB2	1:C:96:VAL:HG13	1.57	0.86
1:C:88:CYS:HB2	1:C:96:VAL:HG13	1.57	0.86
1:C:88:CYS:HB2	1:C:96:VAL:HG13	1.57	0.86
1:C:459:ARG:HD3	3:B:427:ASP:OD2	1.73	0.86
1:C:459:ARG:HD3	3:B:427:ASP:OD2	1.73	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:334:GLN:HG2	3:B:416:MET:HE3	1.58	0.86
3:B:173:PRO:HB3	3:B:183:GLU:HG2	1.55	0.86
3:B:173:PRO:HB3	3:B:183:GLU:HG2	1.55	0.86
3:B:173:PRO:HB3	3:B:183:GLU:HG2	1.55	0.86
3:B:173:PRO:HB3	3:B:183:GLU:HG2	1.55	0.86
3:B:173:PRO:HB3	3:B:183:GLU:HG2	1.55	0.86
1:C:415:LYS:HD3	2:A:156:ARG:HH21	1.40	0.85
1:C:334:GLN:HG2	3:B:416:MET:HE3	1.59	0.85
1:C:369:SER:HB3	1:C:413:ARG:NH1	1.91	0.85
1:C:334:GLN:HG2	3:B:416:MET:HE3	1.59	0.84
1:C:459:ARG:HD3	3:B:427:ASP:OD2	1.75	0.84
2:A:70:LEU:HB2	2:A:99:ALA:HB2	1.58	0.83
2:A:70:LEU:HB2	2:A:99:ALA:HB2	1.58	0.83
2:A:70:LEU:HB2	2:A:99:ALA:HB2	1.58	0.83
2:A:70:LEU:HB2	2:A:99:ALA:HB2	1.58	0.83
2:A:70:LEU:HB2	2:A:99:ALA:HB2	1.58	0.83
1:C:459:ARG:HD3	3:B:427:ASP:OD2	1.77	0.83
3:B:250:ALA:HA	3:B:254:LYS:HD2	1.60	0.83
3:B:250:ALA:HA	3:B:254:LYS:HD2	1.60	0.83
3:B:250:ALA:HA	3:B:254:LYS:HD2	1.60	0.83
3:B:250:ALA:HA	3:B:254:LYS:HD2	1.60	0.83
1:C:334:GLN:HG2	3:B:416:MET:HE3	1.61	0.83
3:B:250:ALA:HA	3:B:254:LYS:HD2	1.60	0.83
1:C:308:TYR:HE1	1:C:368:ALA:HA	1.42	0.83
1:C:330:LEU:CD1	1:C:466:VAL:HG12	2.08	0.82
1:C:330:LEU:CD1	1:C:466:VAL:HG12	2.08	0.82
1:C:330:LEU:CD1	1:C:466:VAL:HG12	2.08	0.82
1:C:330:LEU:CD1	1:C:466:VAL:HG12	2.08	0.82
1:C:330:LEU:CD1	1:C:466:VAL:HG12	2.08	0.82
1:C:313:TYR:HE1	1:C:324:LYS:HE3	1.43	0.82
1:C:424:LYS:NZ	3:B:163:ASP:OD1	2.13	0.82
1:C:424:LYS:CG	3:B:163:ASP:OD2	2.28	0.82
3:B:246:GLY:HA2	3:B:357:ASP:HB2	1.62	0.82
3:B:246:GLY:HA2	3:B:357:ASP:HB2	1.62	0.82
3:B:246:GLY:HA2	3:B:357:ASP:HB2	1.62	0.82
3:B:246:GLY:HA2	3:B:357:ASP:HB2	1.62	0.82
1:C:424:LYS:NZ	3:B:163:ASP:OD1	2.13	0.82
3:B:246:GLY:HA2	3:B:357:ASP:HB2	1.62	0.82
1:C:334:GLN:HG2	3:B:416:MET:HE3	1.63	0.81
1:C:460:ASP:OD2	3:B:263:PRO:CG	2.25	0.81
2:A:179:THR:HG1	6:A:500:GTP:C3'	1.91	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:179:THR:HG1	6:A:500:GTP:C3'	1.91	0.81
2:A:179:THR:HG1	6:A:500:GTP:C3'	1.91	0.81
2:A:179:THR:HG1	6:A:500:GTP:C3'	1.91	0.81
2:A:179:THR:HG1	6:A:500:GTP:C3'	1.91	0.81
1:C:460:ASP:CG	3:B:263:PRO:HG3	2.01	0.81
1:C:424:LYS:NZ	3:B:163:ASP:OD1	2.15	0.80
1:C:460:ASP:CG	3:B:263:PRO:HG3	2.02	0.80
1:C:460:ASP:CG	3:B:263:PRO:HG3	2.02	0.80
1:C:424:LYS:NZ	3:B:163:ASP:OD1	2.14	0.80
1:C:424:LYS:CG	3:B:163:ASP:OD2	2.29	0.80
1:C:424:LYS:HG2	3:B:163:ASP:OD2	1.82	0.80
1:C:460:ASP:CG	3:B:263:PRO:HG3	2.02	0.80
2:A:115:ILE:HD12	2:A:152:LEU:HD13	1.64	0.80
2:A:115:ILE:HD12	2:A:152:LEU:HD13	1.64	0.80
2:A:115:ILE:HD12	2:A:152:LEU:HD13	1.64	0.80
2:A:115:ILE:HD12	2:A:152:LEU:HD13	1.64	0.80
2:A:115:ILE:HD12	2:A:152:LEU:HD13	1.64	0.80
1:C:424:LYS:CG	3:B:163:ASP:OD2	2.30	0.80
1:C:424:LYS:HG2	3:B:163:ASP:OD2	1.82	0.79
1:C:308:TYR:CE1	1:C:368:ALA:HA	2.16	0.79
1:C:460:ASP:CG	3:B:263:PRO:HG3	2.03	0.79
1:C:424:LYS:CG	3:B:163:ASP:OD2	2.30	0.79
1:C:424:LYS:HG2	3:B:163:ASP:OD2	1.83	0.79
1:C:460:ASP:OD2	3:B:263:PRO:CG	2.27	0.79
1:C:80:ARG:HG3	1:C:81:GLN:HG2	1.65	0.79
1:C:80:ARG:HG3	1:C:81:GLN:HG2	1.65	0.79
1:C:80:ARG:HG3	1:C:81:GLN:HG2	1.65	0.79
3:B:224:TYR:OH	7:B:600:GDP:O2'	2.00	0.79
3:B:224:TYR:OH	7:B:600:GDP:O2'	2.00	0.79
3:B:224:TYR:OH	7:B:600:GDP:O2'	2.00	0.79
3:B:224:TYR:OH	7:B:600:GDP:O2'	2.00	0.79
1:C:460:ASP:OD2	3:B:263:PRO:CG	2.27	0.79
3:B:224:TYR:OH	7:B:600:GDP:O2'	2.00	0.79
1:C:80:ARG:HG3	1:C:81:GLN:HG2	1.65	0.78
1:C:80:ARG:HG3	1:C:81:GLN:HG2	1.65	0.78
1:C:459:ARG:NH1	3:B:424:ASN:HA	1.97	0.78
1:C:330:LEU:CD2	1:C:340:VAL:HG22	2.14	0.78
1:C:424:LYS:NZ	3:B:163:ASP:OD1	2.17	0.78
1:C:330:LEU:CD2	1:C:340:VAL:HG22	2.14	0.78
1:C:330:LEU:CD2	1:C:340:VAL:HG22	2.14	0.78
1:C:330:LEU:CD2	1:C:340:VAL:HG22	2.14	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:424:LYS:CG	3:B:163:ASP:OD2	2.31	0.78
1:C:330:LEU:CD2	1:C:340:VAL:HG22	2.14	0.78
1:C:460:ASP:OD2	3:B:263:PRO:CG	2.28	0.78
1:C:459:ARG:NH1	3:B:424:ASN:HA	1.99	0.78
1:C:313:TYR:CE1	1:C:324:LYS:HE2	2.18	0.77
1:C:460:ASP:OD2	3:B:263:PRO:CG	2.28	0.77
1:C:459:ARG:NH1	3:B:424:ASN:HA	1.99	0.77
1:C:176:ALA:HB3	1:C:181:GLN:HG2	1.67	0.77
1:C:176:ALA:HB3	1:C:181:GLN:HG2	1.67	0.77
1:C:176:ALA:HB3	1:C:181:GLN:HG2	1.67	0.77
1:C:176:ALA:HB3	1:C:181:GLN:HG2	1.67	0.77
1:C:424:LYS:HG2	3:B:163:ASP:OD2	1.84	0.77
1:C:369:SER:HB2	1:C:413:ARG:HH12	1.47	0.77
1:C:459:ARG:NH1	3:B:424:ASN:HA	1.99	0.77
1:C:176:ALA:HB3	1:C:181:GLN:HG2	1.67	0.77
3:B:224:TYR:HH	7:B:600:GDP:HO2'	1.29	0.77
3:B:224:TYR:HH	7:B:600:GDP:HO2'	1.29	0.77
3:B:224:TYR:HH	7:B:600:GDP:HO2'	1.29	0.77
3:B:224:TYR:HH	7:B:600:GDP:HO2'	1.29	0.77
3:B:224:TYR:HH	7:B:600:GDP:HO2'	1.29	0.77
1:C:95:LEU:HB2	1:C:120:PHE:HB2	1.67	0.76
1:C:95:LEU:HB2	1:C:120:PHE:HB2	1.67	0.76
1:C:424:LYS:HG2	3:B:163:ASP:OD2	1.85	0.76
1:C:95:LEU:HB2	1:C:120:PHE:HB2	1.67	0.76
1:C:95:LEU:HB2	1:C:120:PHE:HB2	1.68	0.76
1:C:95:LEU:HB2	1:C:120:PHE:HB2	1.68	0.76
1:C:459:ARG:NH1	3:B:424:ASN:HA	2.00	0.76
1:C:313:TYR:CE1	1:C:324:LYS:HE3	2.20	0.76
2:A:269:LEU:HD22	2:A:303:VAL:HG11	1.67	0.76
2:A:269:LEU:HD22	2:A:303:VAL:HG11	1.67	0.76
2:A:269:LEU:HD22	2:A:303:VAL:HG11	1.67	0.76
2:A:269:LEU:HD22	2:A:303:VAL:HG11	1.67	0.76
2:A:269:LEU:HD22	2:A:303:VAL:HG11	1.67	0.76
1:C:333:ASP:CA	3:B:416:MET:SD	2.74	0.75
1:C:434:HIS:HB2	2:A:409:VAL:HG11	1.67	0.75
2:A:69:ASP:HA	2:A:145:THR:HG21	1.67	0.75
2:A:204:VAL:HG11	2:A:231:ILE:HD12	1.69	0.75
2:A:69:ASP:HA	2:A:145:THR:HG21	1.67	0.75
2:A:204:VAL:HG11	2:A:231:ILE:HD12	1.69	0.75
2:A:69:ASP:HA	2:A:145:THR:HG21	1.67	0.75
2:A:204:VAL:HG11	2:A:231:ILE:HD12	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:69:ASP:HA	2:A:145:THR:HG21	1.67	0.75
2:A:204:VAL:HG11	2:A:231:ILE:HD12	1.69	0.75
2:A:69:ASP:HA	2:A:145:THR:HG21	1.67	0.75
2:A:204:VAL:HG11	2:A:231:ILE:HD12	1.69	0.75
3:B:23:VAL:HG13	8:B:601:TA1:C32	2.17	0.75
1:C:147:VAL:HG12	1:C:387:ILE:HG12	1.69	0.75
1:C:434:HIS:HB2	2:A:409:VAL:HG11	1.69	0.75
3:B:23:VAL:HG13	8:B:601:TA1:C32	2.17	0.75
1:C:147:VAL:HG12	1:C:387:ILE:HG12	1.69	0.75
3:B:23:VAL:HG13	8:B:601:TA1:C32	2.17	0.75
3:B:23:VAL:HG13	8:B:601:TA1:C32	2.17	0.75
1:C:333:ASP:CA	3:B:416:MET:SD	2.75	0.75
3:B:23:VAL:HG13	8:B:601:TA1:C32	2.17	0.75
1:C:147:VAL:HG12	1:C:387:ILE:HG12	1.69	0.74
1:C:147:VAL:HG12	1:C:387:ILE:HG12	1.69	0.74
1:C:147:VAL:HG12	1:C:387:ILE:HG12	1.70	0.74
1:C:333:ASP:CA	3:B:416:MET:SD	2.75	0.74
1:C:333:ASP:CA	3:B:416:MET:SD	2.75	0.74
1:C:434:HIS:HB2	2:A:409:VAL:HG11	1.69	0.74
1:C:434:HIS:HB2	2:A:409:VAL:HG11	1.69	0.74
2:A:316:CYS:HB3	2:A:378:LEU:HG	1.70	0.73
2:A:316:CYS:HB3	2:A:378:LEU:HG	1.70	0.73
2:A:316:CYS:HB3	2:A:378:LEU:HG	1.70	0.73
2:A:316:CYS:HB3	2:A:378:LEU:HG	1.70	0.73
2:A:316:CYS:HB3	2:A:378:LEU:HG	1.70	0.73
2:A:179:THR:HG21	6:A:500:GTP:H3’	1.68	0.73
3:B:93:VAL:HG11	3:B:118:VAL:HG22	1.70	0.73
2:A:179:THR:HG21	6:A:500:GTP:H3’	1.68	0.73
3:B:93:VAL:HG11	3:B:118:VAL:HG22	1.70	0.73
2:A:179:THR:HG21	6:A:500:GTP:H3’	1.68	0.73
3:B:93:VAL:HG11	3:B:118:VAL:HG22	1.70	0.73
2:A:179:THR:HG21	6:A:500:GTP:H3’	1.68	0.73
3:B:93:VAL:HG11	3:B:118:VAL:HG22	1.70	0.73
2:A:179:THR:HG21	6:A:500:GTP:H3’	1.68	0.73
3:B:93:VAL:HG11	3:B:118:VAL:HG22	1.70	0.73
1:C:333:ASP:CA	3:B:416:MET:SD	2.76	0.73
1:C:434:HIS:HB2	2:A:409:VAL:HG11	1.70	0.73
2:A:242:LEU:HD21	2:A:250:VAL:HB	1.71	0.73
2:A:242:LEU:HD21	2:A:250:VAL:HB	1.71	0.73
2:A:242:LEU:HD21	2:A:250:VAL:HB	1.71	0.73
1:C:314:ASP:HB3	1:C:325:ARG:HH12	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:242:LEU:HD21	2:A:250:VAL:HB	1.71	0.73
2:A:242:LEU:HD21	2:A:250:VAL:HB	1.71	0.73
3:B:268:PHE:HD1	3:B:380:ASN:HB2	1.54	0.72
3:B:268:PHE:HD1	3:B:380:ASN:HB2	1.54	0.72
3:B:268:PHE:HD1	3:B:380:ASN:HB2	1.54	0.72
3:B:268:PHE:HD1	3:B:380:ASN:HB2	1.54	0.72
3:B:268:PHE:HD1	3:B:380:ASN:HB2	1.54	0.72
1:C:321:HIS:CD2	1:C:366:SER:OG	2.42	0.72
1:C:434:HIS:CE1	2:A:409:VAL:HG21	2.25	0.72
2:A:404:PHE:HB3	2:A:407:TRP:HD1	1.54	0.71
2:A:404:PHE:HB3	2:A:407:TRP:HD1	1.54	0.71
2:A:404:PHE:HB3	2:A:407:TRP:HD1	1.54	0.71
2:A:404:PHE:HB3	2:A:407:TRP:HD1	1.54	0.71
2:A:404:PHE:HB3	2:A:407:TRP:HD1	1.54	0.71
1:C:313:TYR:HA	1:C:326:GLN:NE2	2.06	0.71
1:C:369:SER:HB2	1:C:413:ARG:NH1	2.05	0.71
2:A:260:VAL:HG12	2:A:266:HIS:HB2	1.71	0.71
2:A:260:VAL:HG12	2:A:266:HIS:HB2	1.71	0.71
2:A:260:VAL:HG12	2:A:266:HIS:HB2	1.71	0.71
2:A:260:VAL:HG12	2:A:266:HIS:HB2	1.71	0.71
2:A:260:VAL:HG12	2:A:266:HIS:HB2	1.71	0.71
1:C:494:LEU:HD11	2:A:420:GLU:CD	2.12	0.70
3:B:236:SER:HB2	8:B:601:TA1:H401	1.74	0.70
3:B:236:SER:HB2	8:B:601:TA1:H401	1.74	0.70
3:B:236:SER:HB2	8:B:601:TA1:H401	1.74	0.70
3:B:236:SER:HB2	8:B:601:TA1:H401	1.74	0.70
3:B:236:SER:HB2	8:B:601:TA1:H401	1.74	0.70
1:C:434:HIS:CB	2:A:409:VAL:HG11	2.22	0.70
1:C:315:LEU:HB3	1:C:361:GLY:HA2	1.74	0.69
1:C:315:LEU:HB3	1:C:361:GLY:HA2	1.74	0.69
1:C:315:LEU:HB3	1:C:361:GLY:HA2	1.74	0.69
1:C:315:LEU:HB3	1:C:361:GLY:HA2	1.74	0.69
1:C:315:LEU:HB3	1:C:361:GLY:HA2	1.75	0.69
1:C:330:LEU:HD22	1:C:340:VAL:HG22	1.74	0.69
1:C:176:ALA:HB1	1:C:180:PRO:HB2	1.75	0.68
1:C:330:LEU:HD22	1:C:340:VAL:HG22	1.74	0.68
1:C:330:LEU:HD22	1:C:340:VAL:HG22	1.74	0.68
1:C:330:LEU:HD22	1:C:340:VAL:HG22	1.74	0.68
1:C:176:ALA:HB1	1:C:180:PRO:HB2	1.75	0.68
1:C:176:ALA:HB1	1:C:180:PRO:HB2	1.75	0.68
1:C:176:ALA:HB1	1:C:180:PRO:HB2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:176:ALA:HB1	1:C:180:PRO:HB2	1.75	0.68
1:C:330:LEU:HD22	1:C:340:VAL:HG22	1.74	0.68
1:C:494:LEU:HD11	2:A:420:GLU:CD	2.14	0.68
1:C:330:LEU:CD2	1:C:340:VAL:HG13	2.23	0.68
1:C:330:LEU:CD2	1:C:340:VAL:HG13	2.23	0.68
1:C:330:LEU:CD2	1:C:340:VAL:HG13	2.23	0.68
2:A:11:GLN:HA	2:A:74:VAL:HG11	1.76	0.68
3:B:414:ASP:HB2	3:B:417:GLU:CG	2.24	0.68
2:A:11:GLN:HA	2:A:74:VAL:HG11	1.76	0.68
3:B:414:ASP:HB2	3:B:417:GLU:CG	2.24	0.68
2:A:11:GLN:HA	2:A:74:VAL:HG11	1.76	0.68
3:B:414:ASP:HB2	3:B:417:GLU:CG	2.24	0.68
1:C:330:LEU:CD2	1:C:340:VAL:HG13	2.24	0.68
2:A:11:GLN:HA	2:A:74:VAL:HG11	1.76	0.68
3:B:414:ASP:HB2	3:B:417:GLU:CG	2.24	0.68
2:A:11:GLN:HA	2:A:74:VAL:HG11	1.76	0.68
3:B:414:ASP:HB2	3:B:417:GLU:CG	2.24	0.68
1:C:333:ASP:C	3:B:416:MET:SD	2.73	0.68
1:C:330:LEU:HD11	1:C:466:VAL:CG1	2.24	0.68
1:C:330:LEU:CD2	1:C:340:VAL:HG13	2.24	0.68
1:C:330:LEU:HD11	1:C:466:VAL:CG1	2.24	0.68
1:C:330:LEU:HD11	1:C:466:VAL:CG1	2.24	0.68
1:C:330:LEU:HD11	1:C:466:VAL:CG1	2.24	0.68
1:C:330:LEU:HD11	1:C:466:VAL:CG1	2.24	0.68
2:A:179:THR:HG21	6:A:500:GTP:C2'	2.23	0.67
1:C:494:LEU:HD11	2:A:420:GLU:CD	2.14	0.67
2:A:179:THR:HG21	6:A:500:GTP:C2'	2.23	0.67
2:A:179:THR:HG21	6:A:500:GTP:C2'	2.23	0.67
2:A:179:THR:HG21	6:A:500:GTP:C2'	2.23	0.67
2:A:179:THR:HG21	6:A:500:GTP:C2'	2.23	0.67
1:C:434:HIS:CB	2:A:409:VAL:HG11	2.24	0.67
1:C:456:ILE:HG13	1:C:457:PRO:HD2	1.76	0.67
1:C:456:ILE:HG13	1:C:457:PRO:HD2	1.76	0.67
1:C:456:ILE:HG13	1:C:457:PRO:HD2	1.76	0.67
1:C:456:ILE:HG13	1:C:457:PRO:HD2	1.76	0.67
1:C:456:ILE:HG13	1:C:457:PRO:HD2	1.76	0.67
2:A:179:THR:HG21	6:A:500:GTP:C3'	2.25	0.67
2:A:179:THR:HG21	6:A:500:GTP:C3'	2.25	0.67
2:A:179:THR:HG21	6:A:500:GTP:C3'	2.25	0.67
1:C:434:HIS:CB	2:A:409:VAL:HG11	2.24	0.67
2:A:179:THR:HG21	6:A:500:GTP:C3'	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:179:THR:HG21	6:A:500:GTP:C3'	2.25	0.67
2:A:10:GLY:HA2	2:A:145:THR:HB	1.77	0.67
2:A:10:GLY:HA2	2:A:145:THR:HB	1.77	0.67
2:A:10:GLY:HA2	2:A:145:THR:HB	1.77	0.67
2:A:10:GLY:HA2	2:A:145:THR:HB	1.77	0.67
2:A:10:GLY:HA2	2:A:145:THR:HB	1.77	0.67
1:C:306:GLU:HA	1:C:380:HIS:O	1.95	0.67
1:C:306:GLU:HA	1:C:380:HIS:O	1.95	0.67
1:C:308:TYR:OH	1:C:368:ALA:HB3	1.94	0.67
1:C:306:GLU:HA	1:C:380:HIS:O	1.95	0.67
1:C:306:GLU:HA	1:C:380:HIS:O	1.95	0.67
1:C:306:GLU:HA	1:C:380:HIS:O	1.95	0.67
2:A:224:TYR:CD2	6:A:500:GTP:C5	2.83	0.67
3:B:23:VAL:HG13	8:B:601:TA1:H321	1.76	0.67
2:A:224:TYR:CD2	6:A:500:GTP:C5	2.83	0.67
3:B:23:VAL:HG13	8:B:601:TA1:H321	1.76	0.67
2:A:224:TYR:CD2	6:A:500:GTP:C5	2.83	0.67
3:B:23:VAL:HG13	8:B:601:TA1:H321	1.76	0.67
2:A:224:TYR:CD2	6:A:500:GTP:C5	2.83	0.67
3:B:23:VAL:HG13	8:B:601:TA1:H321	1.76	0.67
2:A:224:TYR:CD2	6:A:500:GTP:C5	2.83	0.67
3:B:23:VAL:HG13	8:B:601:TA1:H321	1.76	0.67
1:C:494:LEU:HD11	2:A:420:GLU:CD	2.15	0.66
1:C:434:HIS:CE1	2:A:409:VAL:HG21	2.30	0.66
1:C:333:ASP:C	3:B:416:MET:SD	2.74	0.66
1:C:434:HIS:CB	2:A:409:VAL:HG11	2.25	0.66
1:C:434:HIS:CG	2:A:409:VAL:HG11	2.31	0.66
1:C:434:HIS:CE1	2:A:409:VAL:HG21	2.31	0.66
1:C:494:LEU:HD11	2:A:420:GLU:CD	2.16	0.66
1:C:434:HIS:CE1	2:A:409:VAL:HG21	2.31	0.66
2:A:105:ARG:HA	2:A:109:THR:OG1	1.96	0.66
3:B:5:VAL:HG12	3:B:64:ARG:HD2	1.78	0.66
2:A:105:ARG:HA	2:A:109:THR:OG1	1.96	0.66
3:B:5:VAL:HG12	3:B:64:ARG:HD2	1.78	0.66
2:A:105:ARG:HA	2:A:109:THR:OG1	1.96	0.66
3:B:5:VAL:HG12	3:B:64:ARG:HD2	1.78	0.66
2:A:105:ARG:HA	2:A:109:THR:OG1	1.96	0.66
3:B:5:VAL:HG12	3:B:64:ARG:HD2	1.78	0.66
2:A:105:ARG:HA	2:A:109:THR:OG1	1.96	0.66
3:B:5:VAL:HG12	3:B:64:ARG:HD2	1.78	0.66
1:C:424:LYS:HG3	3:B:163:ASP:OD2	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:209:LEU:HB3	3:B:227:LEU:HD22	1.78	0.66
3:B:209:LEU:HB3	3:B:227:LEU:HD22	1.78	0.66
3:B:209:LEU:HB3	3:B:227:LEU:HD22	1.78	0.66
3:B:209:LEU:HB3	3:B:227:LEU:HD22	1.78	0.66
3:B:209:LEU:HB3	3:B:227:LEU:HD22	1.78	0.66
3:B:371:LEU:HD13	8:B:601:TA1:H442	1.77	0.66
3:B:371:LEU:HD13	8:B:601:TA1:H442	1.77	0.66
1:C:179:LEU:HB3	1:C:180:PRO:HD3	1.77	0.66
3:B:371:LEU:HD13	8:B:601:TA1:H442	1.77	0.66
1:C:179:LEU:HB3	1:C:180:PRO:HD3	1.77	0.66
3:B:371:LEU:HD13	8:B:601:TA1:H442	1.77	0.66
1:C:179:LEU:HB3	1:C:180:PRO:HD3	1.77	0.66
3:B:371:LEU:HD13	8:B:601:TA1:H442	1.77	0.66
1:C:179:LEU:HB3	1:C:180:PRO:HD3	1.78	0.65
1:C:179:LEU:HB3	1:C:180:PRO:HD3	1.78	0.65
1:C:333:ASP:C	3:B:416:MET:SD	2.75	0.65
1:C:434:HIS:CB	2:A:409:VAL:HG11	2.26	0.65
3:B:115:VAL:HG21	3:B:152:LEU:HD23	1.79	0.65
3:B:209:LEU:HD23	3:B:227:LEU:HB3	1.77	0.65
3:B:115:VAL:HG21	3:B:152:LEU:HD23	1.79	0.65
3:B:209:LEU:HD23	3:B:227:LEU:HB3	1.77	0.65
3:B:115:VAL:HG21	3:B:152:LEU:HD23	1.79	0.65
3:B:209:LEU:HD23	3:B:227:LEU:HB3	1.77	0.65
3:B:115:VAL:HG21	3:B:152:LEU:HD23	1.79	0.65
3:B:209:LEU:HD23	3:B:227:LEU:HB3	1.77	0.65
3:B:115:VAL:HG21	3:B:152:LEU:HD23	1.79	0.65
3:B:209:LEU:HD23	3:B:227:LEU:HB3	1.77	0.65
2:A:273:ALA:HB3	2:A:274:PRO:HD3	1.79	0.65
2:A:273:ALA:HB3	2:A:274:PRO:HD3	1.79	0.65
2:A:273:ALA:HB3	2:A:274:PRO:HD3	1.79	0.65
1:C:333:ASP:C	3:B:416:MET:SD	2.75	0.65
2:A:273:ALA:HB3	2:A:274:PRO:HD3	1.79	0.65
2:A:273:ALA:HB3	2:A:274:PRO:HD3	1.79	0.65
1:C:434:HIS:CE1	2:A:409:VAL:HG21	2.32	0.65
1:C:307:ILE:HB	1:C:380:HIS:HB2	1.78	0.65
1:C:307:ILE:HB	1:C:380:HIS:HB2	1.78	0.64
1:C:307:ILE:HB	1:C:380:HIS:HB2	1.79	0.64
1:C:307:ILE:HB	1:C:380:HIS:HB2	1.79	0.64
1:C:307:ILE:HB	1:C:380:HIS:HB2	1.79	0.64
2:A:100:ALA:HB2	3:B:253:ARG:HB3	1.80	0.64
2:A:100:ALA:HB2	3:B:253:ARG:HB3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:100:ALA:HB2	3:B:253:ARG:HB3	1.80	0.64
2:A:100:ALA:HB2	3:B:253:ARG:HB3	1.80	0.64
2:A:100:ALA:HB2	3:B:253:ARG:HB3	1.80	0.64
8:B:601:TA1:H463	8:B:601:TA1:H261	1.80	0.64
8:B:601:TA1:H463	8:B:601:TA1:H261	1.80	0.64
8:B:601:TA1:H463	8:B:601:TA1:H261	1.80	0.64
8:B:601:TA1:H463	8:B:601:TA1:H261	1.80	0.64
8:B:601:TA1:H463	8:B:601:TA1:H261	1.80	0.64
1:C:415:LYS:HD3	2:A:156:ARG:NH2	2.13	0.64
1:C:126:PHE:HB3	1:C:130:VAL:HG21	1.78	0.64
1:C:126:PHE:HB3	1:C:130:VAL:HG21	1.78	0.64
1:C:434:HIS:NE2	2:A:409:VAL:HG21	2.13	0.63
1:C:126:PHE:HB3	1:C:130:VAL:HG21	1.78	0.63
1:C:333:ASP:C	3:B:416:MET:SD	2.77	0.63
1:C:126:PHE:HB3	1:C:130:VAL:HG21	1.78	0.63
1:C:126:PHE:HB3	1:C:130:VAL:HG21	1.79	0.63
1:C:413:ARG:HH12	1:C:430:ASN:HD21	1.47	0.63
1:C:328:LEU:HB2	1:C:341:LYS:O	1.99	0.63
1:C:328:LEU:HB2	1:C:341:LYS:O	1.99	0.63
1:C:328:LEU:HB2	1:C:341:LYS:O	1.99	0.63
1:C:328:LEU:HB2	1:C:341:LYS:O	1.99	0.63
1:C:328:LEU:HB2	1:C:341:LYS:O	1.99	0.63
3:B:11:GLN:CB	7:B:600:GDP:O2B	2.47	0.63
3:B:11:GLN:CB	7:B:600:GDP:O2B	2.47	0.63
3:B:11:GLN:CB	7:B:600:GDP:O2B	2.47	0.63
3:B:11:GLN:CB	7:B:600:GDP:O2B	2.47	0.63
3:B:11:GLN:CB	7:B:600:GDP:O2B	2.47	0.63
1:C:440:ILE:HD12	1:C:499:PHE:HZ	1.63	0.62
1:C:440:ILE:HD12	1:C:499:PHE:HZ	1.63	0.62
1:C:440:ILE:HD12	1:C:499:PHE:HZ	1.63	0.62
1:C:440:ILE:HD12	1:C:499:PHE:HZ	1.63	0.62
3:B:316:ALA:HB3	3:B:378:ILE:HB	1.80	0.62
1:C:415:LYS:HE2	2:A:112:LYS:NZ	2.14	0.62
3:B:316:ALA:HB3	3:B:378:ILE:HB	1.80	0.62
3:B:316:ALA:HB3	3:B:378:ILE:HB	1.80	0.62
3:B:316:ALA:HB3	3:B:378:ILE:HB	1.80	0.62
1:C:440:ILE:HD12	1:C:499:PHE:HZ	1.63	0.62
3:B:316:ALA:HB3	3:B:378:ILE:HB	1.80	0.62
2:A:179:THR:HG21	6:A:500:GTP:H2'	1.80	0.62
2:A:179:THR:HG21	6:A:500:GTP:H2'	1.80	0.62
2:A:179:THR:HG21	6:A:500:GTP:H2'	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:179:THR:HG21	6:A:500:GTP:H2'	1.80	0.62
2:A:179:THR:HG21	6:A:500:GTP:H2'	1.80	0.62
1:C:434:HIS:CD2	2:A:409:VAL:HG21	2.34	0.62
1:C:424:LYS:HG3	3:B:163:ASP:OD2	2.00	0.61
1:C:366:SER:HB2	1:C:379:SER:OG	2.00	0.61
1:C:126:PHE:HZ	1:C:138:LEU:HD22	1.65	0.61
1:C:330:LEU:HD21	1:C:340:VAL:HG22	1.82	0.61
1:C:330:LEU:HD21	1:C:340:VAL:HG22	1.82	0.61
1:C:126:PHE:HZ	1:C:138:LEU:HD22	1.65	0.61
1:C:126:PHE:HZ	1:C:138:LEU:HD22	1.65	0.61
1:C:330:LEU:HD21	1:C:340:VAL:HG22	1.82	0.61
1:C:330:LEU:HD21	1:C:340:VAL:HG22	1.82	0.61
1:C:434:HIS:CG	2:A:409:VAL:HG11	2.35	0.61
1:C:424:LYS:HG3	3:B:163:ASP:OD2	2.00	0.61
1:C:126:PHE:HZ	1:C:138:LEU:HD22	1.65	0.61
1:C:126:PHE:HZ	1:C:138:LEU:HD22	1.65	0.61
1:C:424:LYS:HG3	3:B:163:ASP:OD2	2.00	0.61
1:C:330:LEU:HD23	1:C:340:VAL:HG13	1.82	0.61
1:C:330:LEU:HD21	1:C:340:VAL:HG22	1.82	0.61
1:C:330:LEU:HD23	1:C:340:VAL:HG13	1.82	0.61
2:A:21:TRP:HA	2:A:24:TYR:HB2	1.82	0.61
3:B:10:GLY:CA	3:B:145:THR:HB	2.28	0.61
1:C:434:HIS:CG	2:A:409:VAL:HG11	2.35	0.61
2:A:21:TRP:HA	2:A:24:TYR:HB2	1.82	0.61
3:B:10:GLY:CA	3:B:145:THR:HB	2.28	0.61
2:A:21:TRP:HA	2:A:24:TYR:HB2	1.82	0.61
3:B:10:GLY:CA	3:B:145:THR:HB	2.28	0.61
2:A:21:TRP:HA	2:A:24:TYR:HB2	1.82	0.61
3:B:10:GLY:CA	3:B:145:THR:HB	2.28	0.61
2:A:21:TRP:HA	2:A:24:TYR:HB2	1.82	0.61
3:B:10:GLY:CA	3:B:145:THR:HB	2.28	0.61
1:C:330:LEU:HD23	1:C:340:VAL:HG13	1.82	0.61
1:C:330:LEU:HD23	1:C:340:VAL:HG13	1.82	0.61
1:C:330:LEU:HD23	1:C:340:VAL:HG13	1.82	0.61
2:A:9:VAL:HG21	2:A:149:PHE:HB3	1.82	0.60
2:A:9:VAL:HG21	2:A:149:PHE:HB3	1.82	0.60
2:A:9:VAL:HG21	2:A:149:PHE:HB3	1.82	0.60
1:C:321:HIS:HB3	1:C:366:SER:OG	2.01	0.60
2:A:9:VAL:HG21	2:A:149:PHE:HB3	1.82	0.60
2:A:9:VAL:HG21	2:A:149:PHE:HB3	1.82	0.60
1:C:434:HIS:CG	2:A:409:VAL:HG11	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:424:LYS:HG3	3:B:163:ASP:OD2	2.01	0.60
1:C:422:ARG:HH11	1:C:425:GLU:HB2	1.67	0.60
3:B:142:GLY:HA3	3:B:183:GLU:HG3	1.84	0.60
3:B:142:GLY:HA3	3:B:183:GLU:HG3	1.84	0.60
3:B:142:GLY:HA3	3:B:183:GLU:HG3	1.84	0.60
3:B:142:GLY:HA3	3:B:183:GLU:HG3	1.84	0.60
3:B:142:GLY:HA3	3:B:183:GLU:HG3	1.84	0.60
1:C:313:TYR:OH	1:C:319:PRO:HG2	2.01	0.60
1:C:434:HIS:CD2	2:A:409:VAL:HG21	2.36	0.60
1:C:434:HIS:CD2	2:A:409:VAL:HG21	2.36	0.59
1:C:434:HIS:NE2	2:A:409:VAL:HG21	2.17	0.59
1:C:304:PHE:HB3	1:C:316:LEU:HD13	1.84	0.59
1:C:455:LEU:HD23	3:B:431:GLU:CD	2.23	0.59
1:C:304:PHE:HB3	1:C:316:LEU:HD13	1.84	0.59
1:C:304:PHE:HB3	1:C:316:LEU:HD13	1.84	0.59
1:C:304:PHE:HB3	1:C:316:LEU:HD13	1.84	0.59
1:C:434:HIS:CG	2:A:409:VAL:HG11	2.37	0.59
1:C:70:ILE:HD12	1:C:89:ILE:HD11	1.83	0.59
2:A:179:THR:HB	6:A:500:GTP:C3’	2.17	0.59
2:A:179:THR:HB	6:A:500:GTP:C3’	2.17	0.59
1:C:70:ILE:HD12	1:C:89:ILE:HD11	1.83	0.59
2:A:179:THR:HB	6:A:500:GTP:C3’	2.17	0.59
2:A:179:THR:HB	6:A:500:GTP:C3’	2.17	0.59
1:C:304:PHE:HB3	1:C:316:LEU:HD13	1.84	0.59
2:A:179:THR:HB	6:A:500:GTP:C3’	2.17	0.59
1:C:70:ILE:HD12	1:C:89:ILE:HD11	1.83	0.59
1:C:70:ILE:HD12	1:C:89:ILE:HD11	1.83	0.59
1:C:434:HIS:NE2	2:A:409:VAL:HG21	2.18	0.59
1:C:70:ILE:HD12	1:C:89:ILE:HD11	1.83	0.59
1:C:321:HIS:CG	1:C:366:SER:OG	2.56	0.58
3:B:23:VAL:HA	8:B:601:TA1:C33	2.33	0.58
3:B:228:ASN:CG	7:B:600:GDP:HN1	2.07	0.58
3:B:23:VAL:HA	8:B:601:TA1:C33	2.33	0.58
3:B:228:ASN:CG	7:B:600:GDP:HN1	2.07	0.58
3:B:23:VAL:HA	8:B:601:TA1:C33	2.33	0.58
3:B:228:ASN:CG	7:B:600:GDP:HN1	2.07	0.58
3:B:23:VAL:HA	8:B:601:TA1:C33	2.33	0.58
3:B:228:ASN:CG	7:B:600:GDP:HN1	2.07	0.58
3:B:23:VAL:HA	8:B:601:TA1:C33	2.33	0.58
3:B:228:ASN:CG	7:B:600:GDP:HN1	2.07	0.58
1:C:437:GLY:HA2	1:C:499:PHE:CE1	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:437:GLY:HA2	1:C:499:PHE:CE1	2.39	0.58
1:C:437:GLY:HA2	1:C:499:PHE:CE1	2.39	0.58
1:C:437:GLY:HA2	1:C:499:PHE:CE1	2.39	0.58
1:C:309:ASN:HD21	1:C:422:ARG:HH22	1.52	0.58
1:C:437:GLY:HA2	1:C:499:PHE:CE1	2.39	0.58
1:C:434:HIS:CD2	2:A:409:VAL:HG21	2.38	0.58
1:C:313:TYR:CE1	1:C:324:LYS:HD2	2.39	0.58
1:C:62:GLU:OE2	1:C:65:LYS:HE2	2.04	0.58
1:C:434:HIS:NE2	2:A:409:VAL:HG21	2.19	0.57
1:C:62:GLU:OE2	1:C:65:LYS:HE2	2.04	0.57
1:C:62:GLU:OE2	1:C:65:LYS:HE2	2.04	0.57
1:C:62:GLU:OE2	1:C:65:LYS:HE2	2.04	0.57
1:C:62:GLU:OE2	1:C:65:LYS:HE2	2.04	0.57
2:A:151:SER:HB3	2:A:193:THR:HG21	1.85	0.57
2:A:151:SER:HB3	2:A:193:THR:HG21	1.85	0.57
1:C:434:HIS:CD2	2:A:409:VAL:HG21	2.38	0.57
2:A:151:SER:HB3	2:A:193:THR:HG21	1.85	0.57
2:A:151:SER:HB3	2:A:193:THR:HG21	1.85	0.57
2:A:151:SER:HB3	2:A:193:THR:HG21	1.85	0.57
1:C:459:ARG:NH1	3:B:424:ASN:HD22	2.03	0.57
2:A:7:ILE:HD11	2:A:137:VAL:HG22	1.86	0.57
2:A:7:ILE:HD11	2:A:137:VAL:HG22	1.86	0.57
2:A:7:ILE:HD11	2:A:137:VAL:HG22	1.86	0.57
2:A:7:ILE:HD11	2:A:137:VAL:HG22	1.86	0.57
2:A:7:ILE:HD11	2:A:137:VAL:HG22	1.86	0.57
1:C:183:LEU:HD21	1:C:383:PHE:HE2	1.69	0.57
3:B:11:GLN:HB3	7:B:600:GDP:O2B	2.05	0.57
3:B:11:GLN:HB3	7:B:600:GDP:O2B	2.05	0.57
3:B:11:GLN:HB3	7:B:600:GDP:O2B	2.05	0.57
3:B:11:GLN:HB3	7:B:600:GDP:O2B	2.05	0.57
3:B:11:GLN:HB3	7:B:600:GDP:O2B	2.05	0.57
1:C:183:LEU:HD21	1:C:383:PHE:HE2	1.69	0.57
1:C:183:LEU:HD21	1:C:383:PHE:HE2	1.69	0.57
1:C:183:LEU:HD21	1:C:383:PHE:HE2	1.69	0.57
1:C:434:HIS:NE2	2:A:409:VAL:HG21	2.20	0.57
1:C:183:LEU:HD21	1:C:383:PHE:HE2	1.69	0.57
2:A:237:SER:HA	2:A:241:SER:OG	2.05	0.57
2:A:237:SER:HA	2:A:241:SER:OG	2.05	0.57
2:A:237:SER:HA	2:A:241:SER:OG	2.05	0.57
2:A:237:SER:HA	2:A:241:SER:OG	2.05	0.57
2:A:237:SER:HA	2:A:241:SER:OG	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:459:ARG:HE	1:C:465:ARG:NH1	2.02	0.57
1:C:330:LEU:CD2	1:C:340:VAL:HA	2.35	0.56
1:C:455:LEU:HD23	3:B:431:GLU:CD	2.26	0.56
1:C:459:ARG:HE	1:C:465:ARG:NH1	2.02	0.56
1:C:459:ARG:HE	1:C:465:ARG:NH1	2.02	0.56
1:C:459:ARG:HE	1:C:465:ARG:NH1	2.02	0.56
1:C:330:LEU:CD2	1:C:340:VAL:HA	2.35	0.56
1:C:330:LEU:CD2	1:C:340:VAL:HA	2.35	0.56
1:C:330:LEU:CD2	1:C:340:VAL:HA	2.35	0.56
1:C:390:LEU:HG	1:C:398:PRO:HB3	1.87	0.56
2:A:100:ALA:O	6:A:500:GTP:O1G	2.23	0.56
2:A:191:THR:HA	2:A:194:THR:HG22	1.87	0.56
2:A:298:PRO:HA	2:A:301:GLN:OE1	2.05	0.56
1:C:390:LEU:HG	1:C:398:PRO:HB3	1.87	0.56
1:C:455:LEU:HD23	3:B:431:GLU:CD	2.26	0.56
2:A:100:ALA:O	6:A:500:GTP:O1G	2.23	0.56
2:A:191:THR:HA	2:A:194:THR:HG22	1.87	0.56
2:A:298:PRO:HA	2:A:301:GLN:OE1	2.05	0.56
1:C:70:ILE:HD11	1:C:128:PRO:HD3	1.87	0.56
1:C:390:LEU:HG	1:C:398:PRO:HB3	1.87	0.56
1:C:459:ARG:HE	1:C:465:ARG:NH1	2.02	0.56
2:A:100:ALA:O	6:A:500:GTP:O1G	2.23	0.56
2:A:191:THR:HA	2:A:194:THR:HG22	1.87	0.56
2:A:298:PRO:HA	2:A:301:GLN:OE1	2.05	0.56
1:C:309:ASN:HD21	1:C:422:ARG:HH22	1.54	0.56
2:A:100:ALA:O	6:A:500:GTP:O1G	2.23	0.56
2:A:191:THR:HA	2:A:194:THR:HG22	1.87	0.56
2:A:298:PRO:HA	2:A:301:GLN:OE1	2.05	0.56
1:C:70:ILE:HD11	1:C:128:PRO:HD3	1.87	0.56
1:C:330:LEU:CD2	1:C:340:VAL:HA	2.35	0.56
1:C:390:LEU:HG	1:C:398:PRO:HB3	1.87	0.56
2:A:100:ALA:O	6:A:500:GTP:O1G	2.23	0.56
2:A:191:THR:HA	2:A:194:THR:HG22	1.87	0.56
2:A:298:PRO:HA	2:A:301:GLN:OE1	2.05	0.56
2:A:234:ILE:O	2:A:238:ILE:HG12	2.06	0.56
2:A:234:ILE:O	2:A:238:ILE:HG12	2.06	0.56
2:A:234:ILE:O	2:A:238:ILE:HG12	2.06	0.56
1:C:390:LEU:HG	1:C:398:PRO:HB3	1.87	0.56
2:A:234:ILE:O	2:A:238:ILE:HG12	2.06	0.56
2:A:234:ILE:O	2:A:238:ILE:HG12	2.06	0.56
1:C:70:ILE:HD11	1:C:128:PRO:HD3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:70:ILE:HD11	1:C:128:PRO:HD3	1.88	0.56
1:C:70:ILE:HD11	1:C:128:PRO:HD3	1.88	0.56
3:B:241:CYS:SG	3:B:320:ARG:HB3	2.46	0.56
3:B:241:CYS:SG	3:B:320:ARG:HB3	2.46	0.56
3:B:241:CYS:SG	3:B:320:ARG:HB3	2.46	0.56
3:B:241:CYS:SG	3:B:320:ARG:HB3	2.46	0.56
3:B:241:CYS:SG	3:B:320:ARG:HB3	2.46	0.56
2:A:112:LYS:HD3	2:A:115:ILE:HG21	1.88	0.56
3:B:52:TYR:OH	3:B:136:GLN:HG3	2.05	0.56
3:B:424:ASN:O	3:B:427:ASP:HB3	2.06	0.56
2:A:112:LYS:HD3	2:A:115:ILE:HG21	1.88	0.56
3:B:52:TYR:OH	3:B:136:GLN:HG3	2.05	0.56
3:B:424:ASN:O	3:B:427:ASP:HB3	2.06	0.56
2:A:112:LYS:HD3	2:A:115:ILE:HG21	1.88	0.56
3:B:52:TYR:OH	3:B:136:GLN:HG3	2.05	0.56
3:B:424:ASN:O	3:B:427:ASP:HB3	2.06	0.56
2:A:112:LYS:HD3	2:A:115:ILE:HG21	1.88	0.56
3:B:52:TYR:OH	3:B:136:GLN:HG3	2.05	0.56
3:B:424:ASN:O	3:B:427:ASP:HB3	2.06	0.56
2:A:112:LYS:HD3	2:A:115:ILE:HG21	1.88	0.56
3:B:52:TYR:OH	3:B:136:GLN:HG3	2.05	0.56
3:B:424:ASN:O	3:B:427:ASP:HB3	2.06	0.56
1:C:340:VAL:HB	1:C:343:LEU:HD11	1.87	0.56
1:C:340:VAL:HB	1:C:343:LEU:HD11	1.87	0.56
1:C:340:VAL:HB	1:C:343:LEU:HD11	1.87	0.56
1:C:459:ARG:HH12	3:B:424:ASN:HA	1.70	0.56
1:C:157:THR:HA	1:C:480:ILE:HB	1.88	0.56
1:C:340:VAL:HB	1:C:343:LEU:HD11	1.87	0.56
1:C:340:VAL:HB	1:C:343:LEU:HD11	1.87	0.56
2:A:175:PRO:HG3	2:A:304:LYS:HG2	1.88	0.55
1:C:157:THR:HA	1:C:480:ILE:HB	1.88	0.55
2:A:175:PRO:HG3	2:A:304:LYS:HG2	1.88	0.55
2:A:175:PRO:HG3	2:A:304:LYS:HG2	1.88	0.55
1:C:157:THR:HA	1:C:480:ILE:HB	1.88	0.55
2:A:175:PRO:HG3	2:A:304:LYS:HG2	1.88	0.55
1:C:157:THR:HA	1:C:480:ILE:HB	1.88	0.55
2:A:175:PRO:HG3	2:A:304:LYS:HG2	1.88	0.55
1:C:157:THR:HA	1:C:480:ILE:HB	1.88	0.55
1:C:457:PRO:O	1:C:460:ASP:HB2	2.07	0.55
1:C:457:PRO:O	1:C:460:ASP:HB2	2.07	0.55
1:C:457:PRO:O	1:C:460:ASP:HB2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:457:PRO:O	1:C:460:ASP:HB2	2.07	0.55
2:A:22:GLU:HA	2:A:83:TYR:CE2	2.41	0.55
1:C:457:PRO:O	1:C:460:ASP:HB2	2.07	0.55
2:A:22:GLU:HA	2:A:83:TYR:CE2	2.41	0.55
2:A:22:GLU:HA	2:A:83:TYR:CE2	2.41	0.55
2:A:22:GLU:HA	2:A:83:TYR:CE2	2.41	0.55
2:A:22:GLU:HA	2:A:83:TYR:CE2	2.41	0.55
1:C:136:PHE:HB2	1:C:178:ILE:HA	1.89	0.55
1:C:136:PHE:HB2	1:C:178:ILE:HA	1.89	0.55
1:C:136:PHE:HB2	1:C:178:ILE:HA	1.89	0.55
1:C:389:HIS:HB3	1:C:399:LYS:HG3	1.88	0.55
1:C:179:LEU:HD23	1:C:405:LEU:HG	1.88	0.55
1:C:179:LEU:HD23	1:C:405:LEU:HG	1.88	0.55
1:C:333:ASP:HA	3:B:416:MET:CG	2.36	0.55
1:C:389:HIS:HB3	1:C:399:LYS:HG3	1.88	0.55
1:C:136:PHE:HB2	1:C:178:ILE:HA	1.89	0.55
1:C:136:PHE:HB2	1:C:178:ILE:HA	1.89	0.55
1:C:330:LEU:HD23	1:C:340:VAL:HA	1.89	0.55
1:C:179:LEU:HD23	1:C:405:LEU:HG	1.88	0.55
1:C:330:LEU:HD23	1:C:340:VAL:HA	1.89	0.55
1:C:179:LEU:HD23	1:C:405:LEU:HG	1.88	0.55
1:C:389:HIS:HB3	1:C:399:LYS:HG3	1.88	0.55
1:C:179:LEU:HD23	1:C:405:LEU:HG	1.88	0.55
1:C:389:HIS:HB3	1:C:399:LYS:HG3	1.88	0.55
1:C:389:HIS:HB3	1:C:399:LYS:HG3	1.88	0.55
3:B:3:GLU:HB3	3:B:64:ARG:NH2	2.22	0.55
3:B:3:GLU:HB3	3:B:64:ARG:NH2	2.22	0.55
1:C:330:LEU:HD23	1:C:340:VAL:HA	1.89	0.55
3:B:3:GLU:HB3	3:B:64:ARG:NH2	2.22	0.55
1:C:330:LEU:HD23	1:C:340:VAL:HA	1.89	0.55
3:B:3:GLU:HB3	3:B:64:ARG:NH2	2.22	0.55
3:B:3:GLU:HB3	3:B:64:ARG:NH2	2.22	0.55
3:B:3:GLU:HA	3:B:51:VAL:HA	1.89	0.55
3:B:3:GLU:HA	3:B:51:VAL:HA	1.89	0.55
3:B:3:GLU:HA	3:B:51:VAL:HA	1.89	0.55
3:B:3:GLU:HA	3:B:51:VAL:HA	1.89	0.55
1:C:330:LEU:HD23	1:C:340:VAL:HA	1.89	0.55
3:B:3:GLU:HA	3:B:51:VAL:HA	1.89	0.55
1:C:459:ARG:NH1	3:B:424:ASN:HD22	2.05	0.55
1:C:77:GLU:O	1:C:80:ARG:HG2	2.06	0.54
2:A:137:VAL:HB	2:A:168:GLU:CB	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:459:ARG:NH1	3:B:424:ASN:HD22	2.05	0.54
2:A:137:VAL:HB	2:A:168:GLU:CB	2.37	0.54
2:A:137:VAL:HB	2:A:168:GLU:CB	2.37	0.54
2:A:137:VAL:HB	2:A:168:GLU:CB	2.37	0.54
1:C:455:LEU:HD23	3:B:431:GLU:CD	2.28	0.54
2:A:137:VAL:HB	2:A:168:GLU:CB	2.37	0.54
2:A:224:TYR:CE2	6:A:500:GTP:C5	2.95	0.54
2:A:224:TYR:CE2	6:A:500:GTP:C5	2.95	0.54
2:A:224:TYR:CE2	6:A:500:GTP:C5	2.95	0.54
2:A:224:TYR:CE2	6:A:500:GTP:C5	2.95	0.54
2:A:224:TYR:CE2	6:A:500:GTP:C5	2.95	0.54
1:C:77:GLU:O	1:C:80:ARG:HG2	2.06	0.54
1:C:77:GLU:O	1:C:80:ARG:HG2	2.06	0.54
1:C:77:GLU:O	1:C:80:ARG:HG2	2.06	0.54
1:C:296:ILE:HG13	1:C:390:LEU:O	2.06	0.54
1:C:77:GLU:O	1:C:80:ARG:HG2	2.06	0.54
1:C:296:ILE:HG13	1:C:390:LEU:O	2.06	0.54
1:C:187:PHE:HB2	1:C:351:VAL:HB	1.89	0.54
1:C:296:ILE:HG13	1:C:390:LEU:O	2.06	0.54
2:A:224:TYR:CD2	6:A:500:GTP:C6	2.95	0.54
3:B:360:PRO:HD2	3:B:371:LEU:HB3	1.89	0.54
1:C:187:PHE:HB2	1:C:351:VAL:HB	1.89	0.54
1:C:296:ILE:HG13	1:C:390:LEU:O	2.07	0.54
2:A:224:TYR:CD2	6:A:500:GTP:C6	2.95	0.54
3:B:360:PRO:HD2	3:B:371:LEU:HB3	1.89	0.54
1:C:455:LEU:HD23	3:B:431:GLU:CD	2.28	0.54
2:A:224:TYR:CD2	6:A:500:GTP:C6	2.95	0.54
3:B:360:PRO:HD2	3:B:371:LEU:HB3	1.89	0.54
1:C:187:PHE:HB2	1:C:351:VAL:HB	1.89	0.54
1:C:296:ILE:HG13	1:C:390:LEU:O	2.07	0.54
2:A:224:TYR:CD2	6:A:500:GTP:C6	2.95	0.54
3:B:360:PRO:HD2	3:B:371:LEU:HB3	1.89	0.54
1:C:187:PHE:HB2	1:C:351:VAL:HB	1.89	0.54
2:A:224:TYR:CD2	6:A:500:GTP:C6	2.95	0.54
3:B:360:PRO:HD2	3:B:371:LEU:HB3	1.89	0.54
1:C:301:TRP:HB2	1:C:386:ARG:CG	2.32	0.54
3:B:228:ASN:OD1	7:B:600:GDP:N1	2.34	0.54
1:C:459:ARG:HH12	3:B:424:ASN:HA	1.72	0.54
3:B:228:ASN:OD1	7:B:600:GDP:N1	2.34	0.54
1:C:187:PHE:HB2	1:C:351:VAL:HB	1.89	0.54
3:B:228:ASN:OD1	7:B:600:GDP:N1	2.34	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:228:ASN:OD1	7:B:600:GDP:N1	2.34	0.54
3:B:228:ASN:OD1	7:B:600:GDP:N1	2.34	0.54
3:B:371:LEU:HD13	8:B:601:TA1:C44	2.36	0.54
1:C:301:TRP:HB2	1:C:386:ARG:CG	2.32	0.54
1:C:455:LEU:CD2	3:B:431:GLU:HG3	2.38	0.54
3:B:371:LEU:HD13	8:B:601:TA1:C44	2.36	0.54
1:C:301:TRP:HB2	1:C:386:ARG:CG	2.32	0.54
3:B:371:LEU:HD13	8:B:601:TA1:C44	2.36	0.54
1:C:301:TRP:HB2	1:C:386:ARG:CG	2.32	0.54
3:B:371:LEU:HD13	8:B:601:TA1:C44	2.36	0.54
3:B:371:LEU:HD13	8:B:601:TA1:C44	2.36	0.54
2:A:324:VAL:HB	2:A:327:ASP:HB2	1.89	0.54
3:B:141:LEU:HD22	3:B:172:VAL:HG12	1.90	0.54
2:A:324:VAL:HB	2:A:327:ASP:HB2	1.89	0.54
3:B:141:LEU:HD22	3:B:172:VAL:HG12	1.90	0.54
2:A:324:VAL:HB	2:A:327:ASP:HB2	1.89	0.54
3:B:141:LEU:HD22	3:B:172:VAL:HG12	1.90	0.54
2:A:324:VAL:HB	2:A:327:ASP:HB2	1.89	0.54
3:B:141:LEU:HD22	3:B:172:VAL:HG12	1.90	0.54
1:C:301:TRP:HB2	1:C:386:ARG:CG	2.32	0.54
2:A:324:VAL:HB	2:A:327:ASP:HB2	1.89	0.54
3:B:141:LEU:HD22	3:B:172:VAL:HG12	1.90	0.54
1:C:319:PRO:HG2	1:C:325:ARG:HH21	1.73	0.54
1:C:455:LEU:CD2	3:B:431:GLU:HG3	2.38	0.54
1:C:455:LEU:CD2	3:B:431:GLU:HG3	2.38	0.53
1:C:459:ARG:HH12	3:B:424:ASN:HA	1.73	0.53
1:C:333:ASP:HA	3:B:416:MET:CG	2.38	0.53
1:C:68:LEU:HD13	1:C:95:LEU:HD13	1.89	0.53
1:C:314:ASP:HB3	1:C:326:GLN:HE22	1.73	0.53
1:C:68:LEU:HD13	1:C:95:LEU:HD13	1.90	0.53
1:C:333:ASP:HA	3:B:416:MET:CG	2.38	0.53
1:C:68:LEU:HD13	1:C:95:LEU:HD13	1.90	0.53
1:C:438:ARG:HD3	2:A:402:ARG:HG3	1.90	0.53
1:C:438:ARG:HD3	2:A:402:ARG:HG3	1.90	0.53
1:C:68:LEU:HD13	1:C:95:LEU:HD13	1.90	0.53
1:C:459:ARG:NH1	3:B:424:ASN:HD22	2.07	0.53
1:C:68:LEU:HD13	1:C:95:LEU:HD13	1.90	0.53
1:C:365:GLN:HG3	1:C:366:SER:O	2.09	0.53
1:C:494:LEU:HD11	2:A:420:GLU:OE1	2.09	0.53
3:B:262:PHE:HB3	3:B:263:PRO:HD2	1.90	0.53
3:B:262:PHE:HB3	3:B:263:PRO:HD2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:262:PHE:HB3	3:B:263:PRO:HD2	1.90	0.53
3:B:262:PHE:HB3	3:B:263:PRO:HD2	1.90	0.53
3:B:262:PHE:HB3	3:B:263:PRO:HD2	1.90	0.53
1:C:333:ASP:HA	3:B:416:MET:CG	2.38	0.53
1:C:369:SER:CB	1:C:422:ARG:NH1	2.70	0.53
1:C:459:ARG:HH12	3:B:424:ASN:HA	1.73	0.53
2:A:286:LEU:HG	2:A:290:GLU:HB2	1.91	0.53
3:B:43:GLN:HA	3:B:244:PHE:CE1	2.44	0.53
3:B:119:LEU:HA	3:B:122:VAL:HG22	1.90	0.53
3:B:326:LYS:O	3:B:330:GLU:HB2	2.09	0.53
2:A:286:LEU:HG	2:A:290:GLU:HB2	1.91	0.53
3:B:43:GLN:HA	3:B:244:PHE:CE1	2.44	0.53
3:B:119:LEU:HA	3:B:122:VAL:HG22	1.90	0.53
3:B:326:LYS:O	3:B:330:GLU:HB2	2.09	0.53
2:A:286:LEU:HG	2:A:290:GLU:HB2	1.91	0.53
3:B:43:GLN:HA	3:B:244:PHE:CE1	2.44	0.53
3:B:119:LEU:HA	3:B:122:VAL:HG22	1.90	0.53
3:B:326:LYS:O	3:B:330:GLU:HB2	2.09	0.53
1:C:438:ARG:HD3	2:A:402:ARG:HG3	1.90	0.53
2:A:286:LEU:HG	2:A:290:GLU:HB2	1.91	0.53
3:B:43:GLN:HA	3:B:244:PHE:CE1	2.44	0.53
3:B:119:LEU:HA	3:B:122:VAL:HG22	1.90	0.53
3:B:326:LYS:O	3:B:330:GLU:HB2	2.09	0.53
2:A:286:LEU:HG	2:A:290:GLU:HB2	1.91	0.53
3:B:43:GLN:HA	3:B:244:PHE:CE1	2.44	0.53
3:B:119:LEU:HA	3:B:122:VAL:HG22	1.90	0.53
3:B:326:LYS:O	3:B:330:GLU:HB2	2.09	0.53
1:C:334:GLN:N	3:B:416:MET:CE	2.71	0.53
1:C:321:HIS:ND1	1:C:366:SER:OG	2.39	0.53
1:C:348:VAL:HG12	1:C:353:GLU:HG2	1.91	0.53
1:C:348:VAL:HG12	1:C:353:GLU:HG2	1.91	0.53
1:C:459:ARG:HH12	3:B:424:ASN:HA	1.74	0.52
1:C:348:VAL:HG12	1:C:353:GLU:HG2	1.91	0.52
1:C:455:LEU:CD2	3:B:431:GLU:HG3	2.39	0.52
1:C:348:VAL:HG12	1:C:353:GLU:HG2	1.91	0.52
1:C:313:TYR:HE1	1:C:324:LYS:HD2	1.73	0.52
1:C:348:VAL:HG12	1:C:353:GLU:HG2	1.91	0.52
1:C:438:ARG:HD3	2:A:402:ARG:HG3	1.91	0.52
3:B:215:ARG:HG3	3:B:216:THR:N	2.23	0.52
3:B:215:ARG:HG3	3:B:216:THR:N	2.23	0.52
3:B:215:ARG:HG3	3:B:216:THR:N	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:215:ARG:HG3	3:B:216:THR:N	2.23	0.52
3:B:215:ARG:HG3	3:B:216:THR:N	2.23	0.52
1:C:321:HIS:NE2	1:C:366:SER:OG	2.43	0.52
1:C:89:ILE:HD12	1:C:125:ILE:HD11	1.92	0.52
1:C:89:ILE:HD12	1:C:125:ILE:HD11	1.92	0.52
1:C:89:ILE:HD12	1:C:125:ILE:HD11	1.92	0.52
1:C:445:GLN:HB2	1:C:450:ARG:NH2	2.25	0.52
1:C:187:PHE:CE1	1:C:300:VAL:HG11	2.45	0.52
3:B:315:VAL:HB	3:B:351:VAL:HG22	1.90	0.52
1:C:494:LEU:HD11	2:A:420:GLU:OE1	2.10	0.52
3:B:315:VAL:HB	3:B:351:VAL:HG22	1.90	0.52
3:B:315:VAL:HB	3:B:351:VAL:HG22	1.90	0.52
3:B:315:VAL:HB	3:B:351:VAL:HG22	1.90	0.52
3:B:315:VAL:HB	3:B:351:VAL:HG22	1.90	0.52
1:C:382:ILE:HA	1:C:405:LEU:O	2.10	0.52
2:A:22:GLU:HA	2:A:83:TYR:HE2	1.75	0.52
2:A:88:HIS:HB2	2:A:91:GLN:HG3	1.92	0.52
1:C:89:ILE:HD12	1:C:125:ILE:HD11	1.92	0.52
1:C:187:PHE:CE1	1:C:300:VAL:HG11	2.45	0.52
1:C:415:LYS:HE2	2:A:112:LYS:HZ2	1.74	0.52
2:A:22:GLU:HA	2:A:83:TYR:HE2	1.75	0.52
2:A:88:HIS:HB2	2:A:91:GLN:HG3	1.92	0.52
1:C:187:PHE:CE1	1:C:300:VAL:HG11	2.45	0.52
1:C:445:GLN:NE2	1:C:452:LYS:HD3	2.25	0.52
2:A:22:GLU:HA	2:A:83:TYR:HE2	1.75	0.52
2:A:88:HIS:HB2	2:A:91:GLN:HG3	1.92	0.52
1:C:187:PHE:CE1	1:C:300:VAL:HG11	2.45	0.52
2:A:22:GLU:HA	2:A:83:TYR:HE2	1.75	0.52
2:A:88:HIS:HB2	2:A:91:GLN:HG3	1.92	0.52
1:C:89:ILE:HD12	1:C:125:ILE:HD11	1.92	0.52
1:C:187:PHE:CE1	1:C:300:VAL:HG11	2.45	0.52
2:A:22:GLU:HA	2:A:83:TYR:HE2	1.75	0.52
2:A:88:HIS:HB2	2:A:91:GLN:HG3	1.92	0.52
2:A:269:LEU:O	2:A:378:LEU:HA	2.09	0.52
2:A:269:LEU:O	2:A:378:LEU:HA	2.09	0.52
1:C:459:ARG:NH1	3:B:424:ASN:HD22	2.08	0.52
2:A:269:LEU:O	2:A:378:LEU:HA	2.09	0.52
2:A:269:LEU:O	2:A:378:LEU:HA	2.09	0.52
1:C:382:ILE:HA	1:C:405:LEU:O	2.10	0.52
1:C:455:LEU:CD2	3:B:431:GLU:HG3	2.40	0.52
2:A:269:LEU:O	2:A:378:LEU:HA	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:334:GLN:N	3:B:416:MET:CE	2.73	0.52
1:C:382:ILE:HA	1:C:405:LEU:O	2.10	0.52
1:C:382:ILE:HA	1:C:405:LEU:O	2.10	0.52
1:C:382:ILE:HA	1:C:405:LEU:O	2.10	0.52
1:C:321:HIS:ND1	1:C:366:SER:OG	2.42	0.52
1:C:494:LEU:HD11	2:A:420:GLU:OE1	2.10	0.52
1:C:423:LEU:HG	1:C:424:LYS:N	2.25	0.51
1:C:494:LEU:HD11	2:A:420:GLU:OE1	2.10	0.51
3:B:176:LYS:HG3	3:B:177:VAL:HG23	1.92	0.51
3:B:176:LYS:HG3	3:B:177:VAL:HG23	1.92	0.51
3:B:176:LYS:HG3	3:B:177:VAL:HG23	1.92	0.51
3:B:176:LYS:HG3	3:B:177:VAL:HG23	1.92	0.51
3:B:176:LYS:HG3	3:B:177:VAL:HG23	1.92	0.51
3:B:251:ASP:H	3:B:254:LYS:HB2	1.76	0.51
1:C:183:LEU:HA	1:C:186:ILE:HG22	1.92	0.51
3:B:251:ASP:H	3:B:254:LYS:HB2	1.76	0.51
1:C:183:LEU:HA	1:C:186:ILE:HG22	1.92	0.51
3:B:251:ASP:H	3:B:254:LYS:HB2	1.76	0.51
3:B:251:ASP:H	3:B:254:LYS:HB2	1.76	0.51
1:C:135:PHE:CE2	1:C:168:THR:HB	2.45	0.51
3:B:251:ASP:H	3:B:254:LYS:HB2	1.76	0.51
1:C:183:LEU:HA	1:C:186:ILE:HG22	1.92	0.51
2:A:362:VAL:HB	2:A:370:LYS:HD3	1.93	0.51
2:A:362:VAL:HB	2:A:370:LYS:HD3	1.93	0.51
1:C:333:ASP:HA	3:B:416:MET:CG	2.40	0.51
2:A:362:VAL:HB	2:A:370:LYS:HD3	1.93	0.51
1:C:183:LEU:HA	1:C:186:ILE:HG22	1.92	0.51
2:A:362:VAL:HB	2:A:370:LYS:HD3	1.93	0.51
1:C:183:LEU:HA	1:C:186:ILE:HG22	1.92	0.51
2:A:362:VAL:HB	2:A:370:LYS:HD3	1.93	0.51
1:C:330:LEU:CD1	1:C:466:VAL:HA	2.40	0.51
1:C:330:LEU:CD1	1:C:466:VAL:HA	2.40	0.51
1:C:330:LEU:CD1	1:C:466:VAL:HA	2.40	0.51
1:C:314:ASP:HB3	1:C:325:ARG:NH1	2.25	0.51
1:C:334:GLN:N	3:B:416:MET:CE	2.73	0.51
1:C:330:LEU:CD1	1:C:466:VAL:HA	2.40	0.51
2:A:315:CYS:HA	2:A:379:SER:HB3	1.92	0.51
3:B:20:PHE:HA	3:B:232:SER:HB2	1.91	0.51
3:B:70:LEU:HG	3:B:145:THR:HG23	1.93	0.51
2:A:315:CYS:HA	2:A:379:SER:HB3	1.92	0.51
3:B:20:PHE:HA	3:B:232:SER:HB2	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:70:LEU:HG	3:B:145:THR:HG23	1.93	0.51
2:A:315:CYS:HA	2:A:379:SER:HB3	1.92	0.51
3:B:20:PHE:HA	3:B:232:SER:HB2	1.91	0.51
3:B:70:LEU:HG	3:B:145:THR:HG23	1.93	0.51
1:C:330:LEU:CD1	1:C:466:VAL:HA	2.40	0.51
2:A:315:CYS:HA	2:A:379:SER:HB3	1.92	0.51
3:B:20:PHE:HA	3:B:232:SER:HB2	1.91	0.51
3:B:70:LEU:HG	3:B:145:THR:HG23	1.93	0.51
2:A:315:CYS:HA	2:A:379:SER:HB3	1.92	0.51
3:B:20:PHE:HA	3:B:232:SER:HB2	1.91	0.51
3:B:70:LEU:HG	3:B:145:THR:HG23	1.93	0.51
3:B:133:GLN:HG3	3:B:165:ILE:HD11	1.92	0.51
1:C:135:PHE:CE2	1:C:168:THR:HB	2.46	0.51
1:C:329:ARG:NH1	1:C:331:CYS:HB2	2.26	0.51
3:B:133:GLN:HG3	3:B:165:ILE:HD11	1.92	0.51
3:B:133:GLN:HG3	3:B:165:ILE:HD11	1.92	0.51
3:B:133:GLN:HG3	3:B:165:ILE:HD11	1.92	0.51
1:C:329:ARG:NH1	1:C:331:CYS:HB2	2.26	0.51
3:B:133:GLN:HG3	3:B:165:ILE:HD11	1.92	0.51
1:C:329:ARG:NH1	1:C:331:CYS:HB2	2.26	0.51
2:A:191:THR:O	2:A:195:LEU:HB2	2.10	0.51
2:A:191:THR:O	2:A:195:LEU:HB2	2.10	0.51
2:A:191:THR:O	2:A:195:LEU:HB2	2.10	0.51
1:C:329:ARG:NH1	1:C:331:CYS:HB2	2.26	0.51
2:A:191:THR:O	2:A:195:LEU:HB2	2.10	0.51
2:A:191:THR:O	2:A:195:LEU:HB2	2.10	0.51
1:C:85:GLY:HA2	1:C:485:PRO:HB3	1.92	0.51
1:C:137:ASN:O	1:C:141:LYS:HB2	2.11	0.51
2:A:224:TYR:CG	6:A:500:GTP:C6	2.98	0.51
1:C:137:ASN:O	1:C:141:LYS:HB2	2.11	0.51
2:A:224:TYR:CG	6:A:500:GTP:C6	2.98	0.51
1:C:85:GLY:HA2	1:C:485:PRO:HB3	1.92	0.51
1:C:329:ARG:NH1	1:C:331:CYS:HB2	2.26	0.51
1:C:443:LEU:HD13	1:C:456:ILE:HD12	1.93	0.51
1:C:494:LEU:HD11	2:A:420:GLU:OE1	2.11	0.51
2:A:224:TYR:CG	6:A:500:GTP:C6	2.98	0.51
2:A:224:TYR:CG	6:A:500:GTP:C6	2.98	0.51
2:A:224:TYR:CG	6:A:500:GTP:C6	2.98	0.51
1:C:70:ILE:HG22	1:C:483:VAL:HG12	1.93	0.50
1:C:443:LEU:HD13	1:C:456:ILE:HD12	1.93	0.50
1:C:70:ILE:HG22	1:C:483:VAL:HG12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:443:LEU:HD13	1:C:456:ILE:HD12	1.93	0.50
1:C:70:ILE:HG22	1:C:483:VAL:HG12	1.93	0.50
1:C:137:ASN:O	1:C:141:LYS:HB2	2.11	0.50
1:C:137:ASN:O	1:C:141:LYS:HB2	2.11	0.50
1:C:443:LEU:HD13	1:C:456:ILE:HD12	1.93	0.50
1:C:70:ILE:HG22	1:C:483:VAL:HG12	1.93	0.50
1:C:137:ASN:O	1:C:141:LYS:HB2	2.11	0.50
1:C:334:GLN:N	3:B:416:MET:CE	2.73	0.50
2:A:7:ILE:HG13	2:A:137:VAL:HA	1.93	0.50
3:B:11:GLN:HB2	7:B:600:GDP:O2B	2.11	0.50
1:C:85:GLY:HA2	1:C:485:PRO:HB3	1.92	0.50
2:A:7:ILE:HG13	2:A:137:VAL:HA	1.93	0.50
3:B:11:GLN:HB2	7:B:600:GDP:O2B	2.11	0.50
1:C:135:PHE:CE2	1:C:168:THR:HB	2.46	0.50
2:A:7:ILE:HG13	2:A:137:VAL:HA	1.93	0.50
3:B:11:GLN:HB2	7:B:600:GDP:O2B	2.11	0.50
1:C:70:ILE:HG22	1:C:483:VAL:HG12	1.94	0.50
1:C:85:GLY:HA2	1:C:485:PRO:HB3	1.92	0.50
2:A:7:ILE:HG13	2:A:137:VAL:HA	1.93	0.50
3:B:11:GLN:HB2	7:B:600:GDP:O2B	2.11	0.50
1:C:85:GLY:HA2	1:C:485:PRO:HB3	1.92	0.50
1:C:443:LEU:HD13	1:C:456:ILE:HD12	1.93	0.50
2:A:7:ILE:HG13	2:A:137:VAL:HA	1.93	0.50
3:B:11:GLN:HB2	7:B:600:GDP:O2B	2.11	0.50
1:C:135:PHE:CE2	1:C:168:THR:HB	2.46	0.50
1:C:438:ARG:HD3	2:A:402:ARG:HG3	1.92	0.50
3:B:277:SER:O	8:B:601:TA1:H191	2.11	0.50
3:B:277:SER:O	8:B:601:TA1:H191	2.11	0.50
3:B:277:SER:O	8:B:601:TA1:H191	2.11	0.50
3:B:277:SER:O	8:B:601:TA1:H191	2.11	0.50
3:B:277:SER:O	8:B:601:TA1:H191	2.11	0.50
2:A:140:SER:HA	2:A:171:ILE:HB	1.92	0.50
2:A:179:THR:OG1	6:A:500:GTP:O2'	2.17	0.50
2:A:286:LEU:HD23	2:A:291:ILE:HG23	1.93	0.50
3:B:3:GLU:HB3	3:B:64:ARG:HH22	1.76	0.50
3:B:237:GLY:HA2	3:B:241:CYS:HB3	1.92	0.50
1:C:365:GLN:HG3	1:C:366:SER:O	2.12	0.50
2:A:140:SER:HA	2:A:171:ILE:HB	1.92	0.50
2:A:179:THR:OG1	6:A:500:GTP:O2'	2.17	0.50
2:A:286:LEU:HD23	2:A:291:ILE:HG23	1.93	0.50
3:B:3:GLU:HB3	3:B:64:ARG:HH22	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:237:GLY:HA2	3:B:241:CYS:HB3	1.92	0.50
2:A:140:SER:HA	2:A:171:ILE:HB	1.92	0.50
2:A:179:THR:OG1	6:A:500:GTP:O2'	2.17	0.50
2:A:286:LEU:HD23	2:A:291:ILE:HG23	1.93	0.50
3:B:3:GLU:HB3	3:B:64:ARG:HH22	1.76	0.50
3:B:237:GLY:HA2	3:B:241:CYS:HB3	1.92	0.50
1:C:135:PHE:CE2	1:C:168:THR:HB	2.46	0.50
2:A:140:SER:HA	2:A:171:ILE:HB	1.92	0.50
2:A:179:THR:OG1	6:A:500:GTP:O2'	2.17	0.50
2:A:286:LEU:HD23	2:A:291:ILE:HG23	1.93	0.50
3:B:3:GLU:HB3	3:B:64:ARG:HH22	1.76	0.50
3:B:237:GLY:HA2	3:B:241:CYS:HB3	1.92	0.50
2:A:140:SER:HA	2:A:171:ILE:HB	1.92	0.50
2:A:179:THR:OG1	6:A:500:GTP:O2'	2.17	0.50
2:A:286:LEU:HD23	2:A:291:ILE:HG23	1.93	0.50
3:B:3:GLU:HB3	3:B:64:ARG:HH22	1.76	0.50
3:B:237:GLY:HA2	3:B:241:CYS:HB3	1.92	0.50
2:A:179:THR:OG1	6:A:500:GTP:C2'	2.59	0.50
2:A:179:THR:OG1	6:A:500:GTP:C2'	2.59	0.50
2:A:179:THR:OG1	6:A:500:GTP:C2'	2.59	0.50
2:A:179:THR:OG1	6:A:500:GTP:C2'	2.59	0.50
2:A:179:THR:OG1	6:A:500:GTP:C2'	2.59	0.50
3:B:232:SER:HA	3:B:235:MET:SD	2.51	0.50
3:B:232:SER:HA	3:B:235:MET:SD	2.51	0.50
3:B:232:SER:HA	3:B:235:MET:SD	2.51	0.50
3:B:232:SER:HA	3:B:235:MET:SD	2.51	0.50
3:B:232:SER:HA	3:B:235:MET:SD	2.51	0.50
2:A:224:TYR:CE2	6:A:500:GTP:C8	2.99	0.50
3:B:21:TRP:HA	3:B:24:ILE:HG22	1.93	0.50
2:A:224:TYR:CE2	6:A:500:GTP:C8	2.99	0.50
3:B:21:TRP:HA	3:B:24:ILE:HG22	1.93	0.50
2:A:224:TYR:CE2	6:A:500:GTP:C8	2.99	0.50
3:B:21:TRP:HA	3:B:24:ILE:HG22	1.93	0.50
2:A:224:TYR:CE2	6:A:500:GTP:C8	2.99	0.50
3:B:21:TRP:HA	3:B:24:ILE:HG22	1.93	0.50
1:C:153:TRP:HZ2	1:C:478:CYS:HG	1.60	0.50
2:A:224:TYR:CE2	6:A:500:GTP:C8	2.99	0.50
3:B:21:TRP:HA	3:B:24:ILE:HG22	1.93	0.50
1:C:334:GLN:HA	3:B:416:MET:HE1	1.94	0.50
2:A:137:VAL:HB	2:A:168:GLU:HB3	1.94	0.50
3:B:414:ASP:HB2	3:B:417:GLU:HG3	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:70:ILE:HD13	1:C:70:ILE:H	1.77	0.50
2:A:137:VAL:HB	2:A:168:GLU:HB3	1.94	0.50
3:B:414:ASP:HB2	3:B:417:GLU:HG3	1.92	0.50
2:A:137:VAL:HB	2:A:168:GLU:HB3	1.94	0.50
3:B:414:ASP:HB2	3:B:417:GLU:HG3	1.92	0.50
2:A:137:VAL:HB	2:A:168:GLU:HB3	1.94	0.50
3:B:414:ASP:HB2	3:B:417:GLU:HG3	1.92	0.50
2:A:137:VAL:HB	2:A:168:GLU:HB3	1.94	0.50
3:B:414:ASP:HB2	3:B:417:GLU:HG3	1.92	0.50
1:C:166:THR:HA	1:C:169:ILE:HG22	1.93	0.49
3:B:101:ASN:ND2	3:B:143:GLY:HA2	2.27	0.49
3:B:198:THR:HG23	3:B:265:LEU:HD13	1.94	0.49
3:B:101:ASN:ND2	3:B:143:GLY:HA2	2.27	0.49
3:B:198:THR:HG23	3:B:265:LEU:HD13	1.94	0.49
1:C:334:GLN:N	3:B:416:MET:CE	2.75	0.49
3:B:101:ASN:ND2	3:B:143:GLY:HA2	2.27	0.49
3:B:198:THR:HG23	3:B:265:LEU:HD13	1.94	0.49
3:B:101:ASN:ND2	3:B:143:GLY:HA2	2.27	0.49
3:B:198:THR:HG23	3:B:265:LEU:HD13	1.94	0.49
3:B:101:ASN:ND2	3:B:143:GLY:HA2	2.27	0.49
3:B:198:THR:HG23	3:B:265:LEU:HD13	1.94	0.49
1:C:70:ILE:HD13	1:C:70:ILE:H	1.77	0.49
1:C:120:PHE:HB3	1:C:122:PHE:CE1	2.46	0.49
1:C:327:THR:HG23	1:C:327:THR:O	2.12	0.49
1:C:166:THR:HA	1:C:169:ILE:HG22	1.93	0.49
1:C:431:THR:O	1:C:435:THR:HG22	2.12	0.49
1:C:120:PHE:HB3	1:C:122:PHE:CE1	2.46	0.49
1:C:166:THR:HA	1:C:169:ILE:HG22	1.93	0.49
1:C:70:ILE:HD13	1:C:70:ILE:H	1.77	0.49
1:C:166:THR:HA	1:C:169:ILE:HG22	1.93	0.49
1:C:166:THR:HA	1:C:169:ILE:HG22	1.93	0.49
1:C:67:TYR:HA	1:C:124:GLN:O	2.12	0.49
1:C:431:THR:O	1:C:435:THR:HG22	2.12	0.49
3:B:6:HIS:O	3:B:65:ALA:HA	2.12	0.49
3:B:274:PRO:O	8:B:601:TA1:H151	2.13	0.49
1:C:120:PHE:HB3	1:C:122:PHE:CE1	2.46	0.49
1:C:147:VAL:HG22	1:C:403:LEU:HD21	1.94	0.49
1:C:415:LYS:CD	2:A:156:ARG:HH21	2.19	0.49
3:B:6:HIS:O	3:B:65:ALA:HA	2.12	0.49
3:B:274:PRO:O	8:B:601:TA1:H151	2.13	0.49
1:C:70:ILE:HD13	1:C:70:ILE:H	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:6:HIS:O	3:B:65:ALA:HA	2.12	0.49
3:B:274:PRO:O	8:B:601:TA1:H151	2.13	0.49
1:C:120:PHE:HB3	1:C:122:PHE:CE1	2.46	0.49
3:B:6:HIS:O	3:B:65:ALA:HA	2.12	0.49
3:B:274:PRO:O	8:B:601:TA1:H151	2.13	0.49
1:C:67:TYR:HA	1:C:124:GLN:O	2.12	0.49
1:C:70:ILE:HD13	1:C:70:ILE:H	1.77	0.49
1:C:120:PHE:HB3	1:C:122:PHE:CE1	2.46	0.49
1:C:431:THR:O	1:C:435:THR:HG22	2.12	0.49
3:B:6:HIS:O	3:B:65:ALA:HA	2.12	0.49
3:B:274:PRO:O	8:B:601:TA1:H151	2.13	0.49
2:A:224:TYR:CE2	6:A:500:GTP:N7	2.80	0.49
1:C:67:TYR:HA	1:C:124:GLN:O	2.12	0.49
2:A:224:TYR:CE2	6:A:500:GTP:N7	2.80	0.49
1:C:67:TYR:HA	1:C:124:GLN:O	2.12	0.49
1:C:147:VAL:HG22	1:C:403:LEU:HD21	1.94	0.49
1:C:431:THR:O	1:C:435:THR:HG22	2.12	0.49
2:A:224:TYR:CE2	6:A:500:GTP:N7	2.80	0.49
1:C:67:TYR:HA	1:C:124:GLN:O	2.12	0.49
1:C:431:THR:O	1:C:435:THR:HG22	2.12	0.49
2:A:224:TYR:CE2	6:A:500:GTP:N7	2.80	0.49
2:A:224:TYR:CE2	6:A:500:GTP:N7	2.80	0.49
1:C:147:VAL:HG22	1:C:403:LEU:HD21	1.94	0.49
1:C:307:ILE:HA	1:C:311:LEU:O	2.12	0.49
1:C:424:LYS:NZ	3:B:163:ASP:CG	2.66	0.49
1:C:424:LYS:HZ2	3:B:163:ASP:CG	2.15	0.49
3:B:259:MET:O	3:B:261:PRO:HD3	2.13	0.49
3:B:295:MET:HG2	3:B:377:PHE:HB2	1.94	0.49
3:B:259:MET:O	3:B:261:PRO:HD3	2.13	0.49
3:B:295:MET:HG2	3:B:377:PHE:HB2	1.94	0.49
3:B:259:MET:O	3:B:261:PRO:HD3	2.13	0.49
3:B:295:MET:HG2	3:B:377:PHE:HB2	1.94	0.49
1:C:147:VAL:HG22	1:C:403:LEU:HD21	1.94	0.49
3:B:259:MET:O	3:B:261:PRO:HD3	2.13	0.49
3:B:295:MET:HG2	3:B:377:PHE:HB2	1.94	0.49
3:B:259:MET:O	3:B:261:PRO:HD3	2.13	0.49
3:B:295:MET:HG2	3:B:377:PHE:HB2	1.94	0.49
1:C:455:LEU:HD23	3:B:431:GLU:CG	2.42	0.49
3:B:119:LEU:HD11	3:B:156:LYS:HD3	1.93	0.49
1:C:307:ILE:HA	1:C:311:LEU:O	2.12	0.49
1:C:455:LEU:HD23	3:B:431:GLU:CG	2.43	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:119:LEU:HD11	3:B:156:LYS:HD3	1.93	0.49
1:C:140:MET:CE	1:C:178:ILE:HB	2.42	0.49
3:B:119:LEU:HD11	3:B:156:LYS:HD3	1.93	0.49
1:C:140:MET:CE	1:C:178:ILE:HB	2.42	0.49
3:B:119:LEU:HD11	3:B:156:LYS:HD3	1.93	0.49
1:C:307:ILE:HA	1:C:311:LEU:O	2.12	0.49
3:B:119:LEU:HD11	3:B:156:LYS:HD3	1.93	0.49
1:C:140:MET:CE	1:C:178:ILE:HB	2.43	0.49
2:A:205:ASP:O	2:A:209:ILE:HG13	2.12	0.49
1:C:140:MET:CE	1:C:178:ILE:HB	2.42	0.49
1:C:495:HIS:HE1	2:A:415:GLU:HB3	1.76	0.49
2:A:205:ASP:O	2:A:209:ILE:HG13	2.12	0.49
1:C:307:ILE:HA	1:C:311:LEU:O	2.12	0.49
2:A:205:ASP:O	2:A:209:ILE:HG13	2.12	0.49
1:C:307:ILE:HA	1:C:311:LEU:O	2.12	0.49
2:A:205:ASP:O	2:A:209:ILE:HG13	2.12	0.49
1:C:140:MET:CE	1:C:178:ILE:HB	2.43	0.49
1:C:147:VAL:HG22	1:C:403:LEU:HD21	1.95	0.49
1:C:495:HIS:HE1	2:A:415:GLU:HB3	1.76	0.49
2:A:205:ASP:O	2:A:209:ILE:HG13	2.12	0.49
1:C:455:LEU:HD23	3:B:431:GLU:OE2	2.12	0.49
1:C:415:LYS:HE2	2:A:156:ARG:HH21	1.77	0.49
1:C:68:LEU:HD12	1:C:122:PHE:CZ	2.48	0.49
1:C:68:LEU:HD12	1:C:122:PHE:CZ	2.48	0.49
1:C:68:LEU:HD12	1:C:122:PHE:CZ	2.48	0.49
1:C:68:LEU:HD12	1:C:122:PHE:CZ	2.48	0.49
1:C:68:LEU:HD12	1:C:122:PHE:CZ	2.48	0.48
1:C:155:ILE:HB	1:C:405:LEU:HD13	1.95	0.48
1:C:330:LEU:HD21	1:C:340:VAL:HG13	1.95	0.48
1:C:455:LEU:HD23	3:B:431:GLU:OE2	2.13	0.48
1:C:444:ARG:CZ	1:C:502:LEU:HD21	2.42	0.48
1:C:313:TYR:OH	1:C:318:PRO:HB2	2.13	0.48
3:B:234:THR:HG21	3:B:270:PRO:HB2	1.95	0.48
3:B:234:THR:HG21	3:B:270:PRO:HB2	1.95	0.48
3:B:234:THR:HG21	3:B:270:PRO:HB2	1.95	0.48
1:C:155:ILE:HB	1:C:405:LEU:HD13	1.95	0.48
1:C:455:LEU:HD23	3:B:431:GLU:CG	2.43	0.48
3:B:234:THR:HG21	3:B:270:PRO:HB2	1.95	0.48
3:B:234:THR:HG21	3:B:270:PRO:HB2	1.95	0.48
1:C:183:LEU:HD21	1:C:383:PHE:CE2	2.48	0.48
1:C:155:ILE:HB	1:C:405:LEU:HD13	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:317:GLU:HG3	1:C:344:ASN:ND2	2.29	0.48
1:C:330:LEU:HD21	1:C:340:VAL:HG13	1.95	0.48
1:C:155:ILE:HB	1:C:405:LEU:HD13	1.95	0.48
1:C:155:ILE:HB	1:C:405:LEU:HD13	1.95	0.48
1:C:330:LEU:HD21	1:C:340:VAL:HG13	1.95	0.48
1:C:495:HIS:HE1	2:A:415:GLU:HB3	1.77	0.48
1:C:330:LEU:HD21	1:C:340:VAL:HG13	1.95	0.48
1:C:455:LEU:HD23	3:B:431:GLU:CG	2.43	0.48
1:C:495:HIS:HE1	2:A:415:GLU:HB3	1.77	0.48
1:C:413:ARG:HH22	1:C:492:GLU:CG	2.26	0.48
1:C:183:LEU:HD21	1:C:383:PHE:CE2	2.48	0.48
1:C:330:LEU:HD21	1:C:340:VAL:HG13	1.95	0.48
1:C:183:LEU:HD21	1:C:383:PHE:CE2	2.48	0.48
1:C:183:LEU:HD21	1:C:383:PHE:CE2	2.48	0.48
1:C:495:HIS:HE1	2:A:415:GLU:HB3	1.77	0.48
1:C:332:GLU:O	3:B:416:MET:HG3	2.13	0.48
1:C:183:LEU:HD21	1:C:383:PHE:CE2	2.48	0.48
1:C:444:ARG:O	1:C:448:GLN:HG3	2.12	0.48
1:C:327:THR:HG23	1:C:327:THR:O	2.14	0.48
1:C:444:ARG:O	1:C:448:GLN:HG3	2.12	0.48
1:C:444:ARG:O	1:C:448:GLN:HG3	2.12	0.48
1:C:444:ARG:O	1:C:448:GLN:HG3	2.12	0.48
1:C:444:ARG:O	1:C:448:GLN:HG3	2.12	0.48
3:B:147:SER:O	3:B:151:THR:HB	2.14	0.48
3:B:147:SER:O	3:B:151:THR:HB	2.14	0.48
3:B:147:SER:O	3:B:151:THR:HB	2.14	0.48
1:C:369:SER:CB	1:C:422:ARG:HH11	2.26	0.48
3:B:147:SER:O	3:B:151:THR:HB	2.14	0.48
3:B:147:SER:O	3:B:151:THR:HB	2.14	0.48
1:C:365:GLN:HG3	1:C:366:SER:N	2.29	0.48
1:C:455:LEU:HD23	3:B:431:GLU:OE2	2.14	0.48
1:C:314:ASP:H	1:C:326:GLN:HE22	1.62	0.48
1:C:317:GLU:CB	1:C:318:PRO:HD2	2.43	0.48
1:C:424:LYS:NZ	3:B:163:ASP:CG	2.67	0.48
1:C:332:GLU:O	3:B:416:MET:HG3	2.14	0.48
1:C:154:LEU:HD22	1:C:470:PHE:HB3	1.96	0.48
1:C:154:LEU:HD22	1:C:470:PHE:HB3	1.96	0.48
1:C:67:TYR:CE1	1:C:69:ARG:HB2	2.49	0.47
3:B:288:VAL:HB	3:B:289:PRO:CD	2.44	0.47
1:C:154:LEU:HD22	1:C:470:PHE:HB3	1.96	0.47
3:B:288:VAL:HB	3:B:289:PRO:CD	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:154:LEU:HD22	1:C:470:PHE:HB3	1.97	0.47
1:C:424:LYS:HZ2	3:B:163:ASP:CG	2.17	0.47
3:B:288:VAL:HB	3:B:289:PRO:CD	2.44	0.47
1:C:334:GLN:HA	3:B:416:MET:HE1	1.96	0.47
3:B:288:VAL:HB	3:B:289:PRO:CD	2.44	0.47
3:B:288:VAL:HB	3:B:289:PRO:CD	2.44	0.47
1:C:365:GLN:HG3	1:C:366:SER:N	2.29	0.47
2:A:180:ALA:HA	3:B:352:LYS:HG2	1.95	0.47
2:A:201:ALA:HB3	2:A:267:PHE:CD1	2.49	0.47
2:A:346:TRP:HZ2	2:A:435:VAL:HG13	1.79	0.47
2:A:407:TRP:CD1	3:B:257:VAL:HA	2.49	0.47
3:B:295:MET:HB3	3:B:377:PHE:CD1	2.50	0.47
1:C:67:TYR:CE1	1:C:69:ARG:HB2	2.49	0.47
2:A:180:ALA:HA	3:B:352:LYS:HG2	1.95	0.47
2:A:201:ALA:HB3	2:A:267:PHE:CD1	2.49	0.47
2:A:346:TRP:HZ2	2:A:435:VAL:HG13	1.79	0.47
2:A:407:TRP:CD1	3:B:257:VAL:HA	2.49	0.47
3:B:295:MET:HB3	3:B:377:PHE:CD1	2.50	0.47
2:A:180:ALA:HA	3:B:352:LYS:HG2	1.95	0.47
2:A:201:ALA:HB3	2:A:267:PHE:CD1	2.49	0.47
2:A:346:TRP:HZ2	2:A:435:VAL:HG13	1.79	0.47
2:A:407:TRP:CD1	3:B:257:VAL:HA	2.49	0.47
3:B:295:MET:HB3	3:B:377:PHE:CD1	2.50	0.47
1:C:67:TYR:CE1	1:C:69:ARG:HB2	2.49	0.47
1:C:154:LEU:HD22	1:C:470:PHE:HB3	1.97	0.47
2:A:180:ALA:HA	3:B:352:LYS:HG2	1.95	0.47
2:A:201:ALA:HB3	2:A:267:PHE:CD1	2.49	0.47
2:A:346:TRP:HZ2	2:A:435:VAL:HG13	1.79	0.47
2:A:407:TRP:CD1	3:B:257:VAL:HA	2.49	0.47
3:B:295:MET:HB3	3:B:377:PHE:CD1	2.50	0.47
2:A:180:ALA:HA	3:B:352:LYS:HG2	1.95	0.47
2:A:201:ALA:HB3	2:A:267:PHE:CD1	2.49	0.47
2:A:346:TRP:HZ2	2:A:435:VAL:HG13	1.79	0.47
2:A:407:TRP:CD1	3:B:257:VAL:HA	2.49	0.47
3:B:295:MET:HB3	3:B:377:PHE:CD1	2.50	0.47
1:C:67:TYR:CE1	1:C:69:ARG:HB2	2.49	0.47
1:C:91:ASN:HB3	1:C:93:GLU:OE2	2.15	0.47
1:C:67:TYR:CE1	1:C:69:ARG:HB2	2.49	0.47
1:C:71:ARG:HH22	1:C:77:GLU:HG2	1.79	0.47
1:C:321:HIS:NE2	1:C:324:LYS:HD3	2.30	0.47
1:C:455:LEU:HD23	3:B:431:GLU:CG	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:71:ARG:HH22	1:C:77:GLU:HG2	1.79	0.47
1:C:91:ASN:HB3	1:C:93:GLU:OE2	2.15	0.47
1:C:335:ASN:HB2	1:C:337:ASN:OD1	2.13	0.47
3:B:194:LEU:O	3:B:198:THR:HG22	2.15	0.47
1:C:71:ARG:HH22	1:C:77:GLU:HG2	1.79	0.47
1:C:91:ASN:HB3	1:C:93:GLU:OE2	2.15	0.47
3:B:194:LEU:O	3:B:198:THR:HG22	2.15	0.47
3:B:194:LEU:O	3:B:198:THR:HG22	2.15	0.47
1:C:71:ARG:HH22	1:C:77:GLU:HG2	1.79	0.47
1:C:335:ASN:HB2	1:C:337:ASN:OD1	2.13	0.47
3:B:194:LEU:O	3:B:198:THR:HG22	2.15	0.47
1:C:91:ASN:HB3	1:C:93:GLU:OE2	2.15	0.47
1:C:132:GLN:NE2	1:C:168:THR:HA	2.29	0.47
1:C:330:LEU:HD11	1:C:466:VAL:CB	2.45	0.47
1:C:335:ASN:HB2	1:C:337:ASN:OD1	2.13	0.47
1:C:424:LYS:HZ2	3:B:163:ASP:CG	2.18	0.47
3:B:194:LEU:O	3:B:198:THR:HG22	2.15	0.47
1:C:318:PRO:HA	1:C:319:PRO:HD3	1.73	0.47
1:C:330:LEU:HD11	1:C:466:VAL:CB	2.45	0.47
1:C:169:ILE:HA	1:C:178:ILE:HG12	1.97	0.47
1:C:330:LEU:HD11	1:C:466:VAL:CB	2.45	0.47
1:C:335:ASN:HB2	1:C:337:ASN:OD1	2.13	0.47
1:C:71:ARG:HH22	1:C:77:GLU:HG2	1.79	0.47
1:C:169:ILE:HA	1:C:178:ILE:HG12	1.97	0.47
1:C:330:LEU:HD11	1:C:466:VAL:CB	2.45	0.47
1:C:335:ASN:HB2	1:C:337:ASN:OD1	2.13	0.47
1:C:91:ASN:HB3	1:C:93:GLU:OE2	2.15	0.47
1:C:169:ILE:HA	1:C:178:ILE:HG12	1.97	0.47
1:C:330:LEU:HD11	1:C:466:VAL:CB	2.45	0.47
1:C:169:ILE:HA	1:C:178:ILE:HG12	1.97	0.47
1:C:424:LYS:NZ	3:B:163:ASP:CG	2.68	0.47
1:C:169:ILE:HA	1:C:178:ILE:HG12	1.97	0.47
3:B:275:LEU:HD12	3:B:275:LEU:HA	1.80	0.47
3:B:324:SER:O	3:B:328:VAL:HG23	2.14	0.47
1:C:334:GLN:HA	3:B:416:MET:HE1	1.97	0.47
1:C:383:PHE:O	1:C:404:SER:HA	2.15	0.47
3:B:275:LEU:HD12	3:B:275:LEU:HA	1.80	0.47
3:B:324:SER:O	3:B:328:VAL:HG23	2.14	0.47
3:B:275:LEU:HD12	3:B:275:LEU:HA	1.80	0.47
3:B:324:SER:O	3:B:328:VAL:HG23	2.14	0.47
1:C:440:ILE:HD12	1:C:499:PHE:CZ	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:275:LEU:HD12	3:B:275:LEU:HA	1.80	0.47
3:B:324:SER:O	3:B:328:VAL:HG23	2.14	0.47
1:C:440:ILE:HD12	1:C:499:PHE:CZ	2.47	0.47
3:B:275:LEU:HD12	3:B:275:LEU:HA	1.80	0.47
3:B:324:SER:O	3:B:328:VAL:HG23	2.14	0.47
1:C:383:PHE:O	1:C:404:SER:HA	2.15	0.47
3:B:229:HIS:NE2	8:B:601:TA1:H361	2.29	0.47
3:B:229:HIS:NE2	8:B:601:TA1:H361	2.29	0.47
3:B:229:HIS:NE2	8:B:601:TA1:H361	2.29	0.47
1:C:383:PHE:O	1:C:404:SER:HA	2.15	0.47
3:B:229:HIS:NE2	8:B:601:TA1:H361	2.29	0.47
3:B:229:HIS:NE2	8:B:601:TA1:H361	2.29	0.47
2:A:70:LEU:HB2	2:A:99:ALA:CB	2.38	0.47
2:A:238:ILE:HD13	2:A:318:LEU:HD12	1.97	0.47
2:A:317:LEU:HB3	2:A:319:TYR:CE1	2.49	0.47
2:A:70:LEU:HB2	2:A:99:ALA:CB	2.38	0.47
2:A:238:ILE:HD13	2:A:318:LEU:HD12	1.97	0.47
2:A:317:LEU:HB3	2:A:319:TYR:CE1	2.49	0.47
1:C:383:PHE:O	1:C:404:SER:HA	2.15	0.47
2:A:70:LEU:HB2	2:A:99:ALA:CB	2.38	0.47
2:A:238:ILE:HD13	2:A:318:LEU:HD12	1.97	0.47
2:A:317:LEU:HB3	2:A:319:TYR:CE1	2.49	0.47
2:A:70:LEU:HB2	2:A:99:ALA:CB	2.38	0.47
2:A:238:ILE:HD13	2:A:318:LEU:HD12	1.97	0.47
2:A:317:LEU:HB3	2:A:319:TYR:CE1	2.49	0.47
1:C:383:PHE:O	1:C:404:SER:HA	2.15	0.47
2:A:70:LEU:HB2	2:A:99:ALA:CB	2.38	0.47
2:A:238:ILE:HD13	2:A:318:LEU:HD12	1.97	0.47
2:A:317:LEU:HB3	2:A:319:TYR:CE1	2.49	0.47
1:C:455:LEU:CD2	3:B:431:GLU:CG	2.93	0.47
2:A:105:ARG:HA	2:A:109:THR:HG1	1.80	0.47
3:B:151:THR:HG23	3:B:193:GLN:HG2	1.97	0.47
3:B:413:MET:HG2	3:B:418:PHE:CE2	2.49	0.47
1:C:132:GLN:NE2	1:C:168:THR:HA	2.30	0.47
2:A:105:ARG:HA	2:A:109:THR:HG1	1.80	0.47
3:B:151:THR:HG23	3:B:193:GLN:HG2	1.97	0.47
3:B:413:MET:HG2	3:B:418:PHE:CE2	2.49	0.47
2:A:105:ARG:HA	2:A:109:THR:HG1	1.80	0.47
3:B:151:THR:HG23	3:B:193:GLN:HG2	1.97	0.47
3:B:413:MET:HG2	3:B:418:PHE:CE2	2.49	0.47
2:A:105:ARG:HA	2:A:109:THR:HG1	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:151:THR:HG23	3:B:193:GLN:HG2	1.97	0.47
3:B:413:MET:HG2	3:B:418:PHE:CE2	2.49	0.47
1:C:334:GLN:HA	3:B:416:MET:HE1	1.97	0.47
2:A:105:ARG:HA	2:A:109:THR:HG1	1.80	0.47
3:B:151:THR:HG23	3:B:193:GLN:HG2	1.97	0.47
3:B:413:MET:HG2	3:B:418:PHE:CE2	2.49	0.47
1:C:455:LEU:HD22	3:B:431:GLU:HB2	1.97	0.46
3:B:111:GLY:HA2	3:B:149:MET:HE2	1.97	0.46
3:B:326:LYS:HG3	3:B:327:GLU:N	2.30	0.46
3:B:111:GLY:HA2	3:B:149:MET:HE2	1.97	0.46
3:B:326:LYS:HG3	3:B:327:GLU:N	2.30	0.46
1:C:332:GLU:O	3:B:416:MET:HG3	2.15	0.46
3:B:111:GLY:HA2	3:B:149:MET:HE2	1.97	0.46
3:B:326:LYS:HG3	3:B:327:GLU:N	2.30	0.46
3:B:111:GLY:HA2	3:B:149:MET:HE2	1.97	0.46
3:B:326:LYS:HG3	3:B:327:GLU:N	2.30	0.46
1:C:306:GLU:HB2	1:C:379:SER:CB	2.45	0.46
3:B:111:GLY:HA2	3:B:149:MET:HE2	1.97	0.46
3:B:326:LYS:HG3	3:B:327:GLU:N	2.30	0.46
1:C:306:GLU:HB2	1:C:379:SER:CB	2.45	0.46
2:A:222:PRO:HD2	3:B:326:LYS:HG2	1.97	0.46
2:A:409:VAL:HA	2:A:413:MET:O	2.14	0.46
2:A:222:PRO:HD2	3:B:326:LYS:HG2	1.97	0.46
2:A:409:VAL:HA	2:A:413:MET:O	2.14	0.46
1:C:306:GLU:HB2	1:C:379:SER:CB	2.45	0.46
2:A:222:PRO:HD2	3:B:326:LYS:HG2	1.97	0.46
2:A:409:VAL:HA	2:A:413:MET:O	2.14	0.46
1:C:306:GLU:HB2	1:C:379:SER:CB	2.45	0.46
2:A:222:PRO:HD2	3:B:326:LYS:HG2	1.97	0.46
2:A:409:VAL:HA	2:A:413:MET:O	2.14	0.46
2:A:222:PRO:HD2	3:B:326:LYS:HG2	1.97	0.46
2:A:409:VAL:HA	2:A:413:MET:O	2.14	0.46
2:A:179:THR:CG2	6:A:500:GTP:C3'	2.75	0.46
2:A:213:CYS:HA	2:A:217:LEU:HB2	1.97	0.46
3:B:114:LEU:O	3:B:118:VAL:HG23	2.16	0.46
3:B:167:ASN:HD21	3:B:202:TYR:HE1	1.62	0.46
1:C:306:GLU:HB2	1:C:379:SER:CB	2.45	0.46
1:C:332:GLU:O	3:B:416:MET:HG3	2.15	0.46
2:A:179:THR:CG2	6:A:500:GTP:C3'	2.75	0.46
2:A:213:CYS:HA	2:A:217:LEU:HB2	1.97	0.46
3:B:114:LEU:O	3:B:118:VAL:HG23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:167:ASN:HD21	3:B:202:TYR:HE1	1.62	0.46
2:A:179:THR:CG2	6:A:500:GTP:C3'	2.75	0.46
2:A:213:CYS:HA	2:A:217:LEU:HB2	1.97	0.46
3:B:114:LEU:O	3:B:118:VAL:HG23	2.16	0.46
3:B:167:ASN:HD21	3:B:202:TYR:HE1	1.62	0.46
1:C:424:LYS:HZ2	3:B:163:ASP:CG	2.18	0.46
2:A:179:THR:CG2	6:A:500:GTP:C3'	2.75	0.46
2:A:213:CYS:HA	2:A:217:LEU:HB2	1.97	0.46
3:B:114:LEU:O	3:B:118:VAL:HG23	2.16	0.46
3:B:167:ASN:HD21	3:B:202:TYR:HE1	1.62	0.46
2:A:179:THR:CG2	6:A:500:GTP:C3'	2.75	0.46
2:A:213:CYS:HA	2:A:217:LEU:HB2	1.97	0.46
3:B:114:LEU:O	3:B:118:VAL:HG23	2.16	0.46
3:B:167:ASN:HD21	3:B:202:TYR:HE1	1.62	0.46
1:C:132:GLN:NE2	1:C:168:THR:HA	2.30	0.46
1:C:132:GLN:NE2	1:C:168:THR:HA	2.30	0.46
2:A:363:VAL:HG12	2:A:365:GLY:H	1.80	0.46
1:C:368:ALA:O	1:C:422:ARG:NH1	2.48	0.46
1:C:424:LYS:NZ	3:B:163:ASP:CG	2.69	0.46
2:A:363:VAL:HG12	2:A:365:GLY:H	1.80	0.46
1:C:330:LEU:HD12	1:C:466:VAL:HG12	1.96	0.46
2:A:363:VAL:HG12	2:A:365:GLY:H	1.80	0.46
2:A:363:VAL:HG12	2:A:365:GLY:H	1.80	0.46
1:C:330:LEU:HD12	1:C:466:VAL:HG12	1.96	0.46
2:A:363:VAL:HG12	2:A:365:GLY:H	1.80	0.46
1:C:455:LEU:HD23	3:B:431:GLU:OE2	2.16	0.46
1:C:330:LEU:HD12	1:C:466:VAL:HG12	1.96	0.46
1:C:330:LEU:HD12	1:C:466:VAL:HG12	1.96	0.46
2:A:276:ILE:HG23	2:A:369:ALA:HB3	1.97	0.46
1:C:330:LEU:HD12	1:C:466:VAL:HG12	1.96	0.46
2:A:276:ILE:HG23	2:A:369:ALA:HB3	1.97	0.46
2:A:276:ILE:HG23	2:A:369:ALA:HB3	1.97	0.46
2:A:276:ILE:HG23	2:A:369:ALA:HB3	1.97	0.46
2:A:276:ILE:HG23	2:A:369:ALA:HB3	1.97	0.46
3:B:288:VAL:H	3:B:289:PRO:HD2	1.81	0.46
1:C:369:SER:HB3	1:C:413:ARG:CZ	2.44	0.46
3:B:288:VAL:H	3:B:289:PRO:HD2	1.81	0.46
1:C:153:TRP:O	1:C:403:LEU:HA	2.16	0.46
3:B:288:VAL:H	3:B:289:PRO:HD2	1.81	0.46
1:C:153:TRP:O	1:C:403:LEU:HA	2.16	0.46
1:C:332:GLU:O	3:B:416:MET:HG3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:288:VAL:H	3:B:289:PRO:HD2	1.81	0.46
1:C:153:TRP:O	1:C:403:LEU:HA	2.16	0.46
1:C:455:LEU:HD23	3:B:431:GLU:OE2	2.16	0.46
3:B:288:VAL:H	3:B:289:PRO:HD2	1.81	0.46
1:C:153:TRP:O	1:C:403:LEU:HA	2.16	0.46
2:A:179:THR:CB	6:A:500:GTP:HO3'	2.19	0.46
3:B:265:LEU:HG	3:B:266:HIS:N	2.31	0.46
1:C:153:TRP:O	1:C:403:LEU:HA	2.16	0.46
1:C:455:LEU:CD2	3:B:431:GLU:CG	2.94	0.46
3:B:265:LEU:HG	3:B:266:HIS:N	2.31	0.46
2:A:179:THR:CB	6:A:500:GTP:HO3'	2.19	0.46
3:B:265:LEU:HG	3:B:266:HIS:N	2.31	0.46
3:B:265:LEU:HG	3:B:266:HIS:N	2.31	0.46
1:C:494:LEU:HD11	2:A:420:GLU:OE2	2.16	0.46
3:B:265:LEU:HG	3:B:266:HIS:N	2.31	0.46
1:C:153:TRP:HA	1:C:476:ARG:O	2.17	0.45
1:C:153:TRP:HA	1:C:476:ARG:O	2.17	0.45
1:C:369:SER:HG	1:C:422:ARG:HH12	1.58	0.45
1:C:455:LEU:CD2	3:B:431:GLU:CG	2.94	0.45
1:C:153:TRP:HA	1:C:476:ARG:O	2.17	0.45
3:B:288:VAL:HB	3:B:289:PRO:HD3	1.97	0.45
3:B:288:VAL:HB	3:B:289:PRO:HD3	1.97	0.45
3:B:288:VAL:HB	3:B:289:PRO:HD3	1.97	0.45
3:B:288:VAL:HB	3:B:289:PRO:HD3	1.97	0.45
1:C:153:TRP:HA	1:C:476:ARG:O	2.17	0.45
3:B:288:VAL:HB	3:B:289:PRO:HD3	1.97	0.45
2:A:317:LEU:HB3	2:A:319:TYR:HE1	1.82	0.45
2:A:317:LEU:HB3	2:A:319:TYR:HE1	1.82	0.45
2:A:317:LEU:HB3	2:A:319:TYR:HE1	1.82	0.45
1:C:153:TRP:HA	1:C:476:ARG:O	2.17	0.45
2:A:317:LEU:HB3	2:A:319:TYR:HE1	1.82	0.45
2:A:317:LEU:HB3	2:A:319:TYR:HE1	1.82	0.45
1:C:153:TRP:HZ2	1:C:478:CYS:HG	1.60	0.45
1:C:164:GLY:HA2	5:C:602:ANP:O2A	2.16	0.45
1:C:439:CYS:HB3	1:C:456:ILE:HD11	1.97	0.45
3:B:305:CYS:SG	3:B:384:ILE:HD12	2.57	0.45
1:C:169:ILE:HA	1:C:178:ILE:CG1	2.46	0.45
1:C:439:CYS:HB3	1:C:456:ILE:HD11	1.97	0.45
3:B:305:CYS:SG	3:B:384:ILE:HD12	2.57	0.45
1:C:439:CYS:HB3	1:C:456:ILE:HD11	1.97	0.45
3:B:305:CYS:SG	3:B:384:ILE:HD12	2.57	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:153:TRP:HZ2	1:C:478:CYS:HG	1.60	0.45
1:C:169:ILE:HA	1:C:178:ILE:CG1	2.46	0.45
3:B:305:CYS:SG	3:B:384:ILE:HD12	2.57	0.45
3:B:305:CYS:SG	3:B:384:ILE:HD12	2.57	0.45
1:C:483:VAL:HG21	1:C:493:THR:HG23	1.98	0.45
1:C:494:LEU:HD11	2:A:420:GLU:OE2	2.16	0.45
1:C:164:GLY:HA2	5:C:602:ANP:O2A	2.16	0.45
1:C:153:TRP:HZ2	1:C:478:CYS:HG	1.60	0.45
1:C:164:GLY:HA2	5:C:602:ANP:O2A	2.16	0.45
1:C:164:GLY:HA2	5:C:602:ANP:O2A	2.16	0.45
1:C:164:GLY:HA2	5:C:602:ANP:O2A	2.16	0.45
1:C:169:ILE:HA	1:C:178:ILE:CG1	2.46	0.45
1:C:169:ILE:HA	1:C:178:ILE:CG1	2.46	0.45
2:A:252:LEU:O	2:A:255:PHE:HB2	2.16	0.45
1:C:153:TRP:HZ2	1:C:478:CYS:HG	1.60	0.45
1:C:440:ILE:HD12	1:C:499:PHE:CZ	2.47	0.45
1:C:483:VAL:HG21	1:C:493:THR:HG23	1.98	0.45
2:A:252:LEU:O	2:A:255:PHE:HB2	2.16	0.45
1:C:440:ILE:HD12	1:C:499:PHE:CZ	2.47	0.45
1:C:483:VAL:HG21	1:C:493:THR:HG23	1.98	0.45
2:A:252:LEU:O	2:A:255:PHE:HB2	2.16	0.45
1:C:483:VAL:HG21	1:C:493:THR:HG23	1.98	0.45
2:A:252:LEU:O	2:A:255:PHE:HB2	2.16	0.45
1:C:483:VAL:HG21	1:C:493:THR:HG23	1.98	0.45
2:A:252:LEU:O	2:A:255:PHE:HB2	2.16	0.45
1:C:440:ILE:HD12	1:C:499:PHE:CZ	2.47	0.45
3:B:78:VAL:O	3:B:84:GLY:HA3	2.17	0.45
3:B:78:VAL:O	3:B:84:GLY:HA3	2.17	0.45
1:C:169:ILE:HA	1:C:178:ILE:CG1	2.47	0.45
3:B:78:VAL:O	3:B:84:GLY:HA3	2.17	0.45
1:C:132:GLN:NE2	1:C:168:THR:HA	2.32	0.45
1:C:439:CYS:HB3	1:C:456:ILE:HD11	1.97	0.45
3:B:78:VAL:O	3:B:84:GLY:HA3	2.17	0.45
1:C:439:CYS:HB3	1:C:456:ILE:HD11	1.97	0.45
3:B:78:VAL:O	3:B:84:GLY:HA3	2.17	0.45
2:A:205:ASP:CB	2:A:303:VAL:HA	2.47	0.45
3:B:347:ILE:HB	3:B:350:ASN:OD1	2.16	0.45
2:A:205:ASP:CB	2:A:303:VAL:HA	2.47	0.45
3:B:347:ILE:HB	3:B:350:ASN:OD1	2.16	0.45
2:A:205:ASP:CB	2:A:303:VAL:HA	2.47	0.45
3:B:347:ILE:HB	3:B:350:ASN:OD1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:424:LYS:NZ	3:B:163:ASP:CG	2.70	0.45
2:A:205:ASP:CB	2:A:303:VAL:HA	2.47	0.45
3:B:347:ILE:HB	3:B:350:ASN:OD1	2.16	0.45
2:A:205:ASP:CB	2:A:303:VAL:HA	2.47	0.45
3:B:347:ILE:HB	3:B:350:ASN:OD1	2.16	0.45
1:C:365:GLN:HG3	1:C:366:SER:N	2.32	0.45
1:C:455:LEU:CD2	3:B:431:GLU:CG	2.95	0.45
1:C:435:THR:HG21	1:C:461:SER:HB3	1.99	0.44
1:C:321:HIS:CG	1:C:366:SER:OG	2.71	0.44
1:C:70:ILE:HG22	1:C:483:VAL:CG1	2.47	0.44
3:B:239:THR:O	3:B:243:ARG:HG2	2.16	0.44
3:B:239:THR:O	3:B:243:ARG:HG2	2.16	0.44
1:C:317:GLU:HB3	1:C:318:PRO:CD	2.47	0.44
3:B:239:THR:O	3:B:243:ARG:HG2	2.16	0.44
1:C:70:ILE:HG22	1:C:483:VAL:CG1	2.47	0.44
3:B:239:THR:O	3:B:243:ARG:HG2	2.16	0.44
1:C:70:ILE:HG22	1:C:483:VAL:CG1	2.47	0.44
1:C:435:THR:HG21	1:C:461:SER:HB3	1.99	0.44
3:B:239:THR:O	3:B:243:ARG:HG2	2.16	0.44
1:C:337:ASN:HA	1:C:338:PRO:HD3	1.87	0.44
1:C:435:THR:HG21	1:C:461:SER:HB3	1.99	0.44
1:C:462:LYS:O	1:C:466:VAL:HG13	2.17	0.44
3:B:268:PHE:CD1	3:B:380:ASN:HB2	2.43	0.44
1:C:70:ILE:HG22	1:C:483:VAL:CG1	2.47	0.44
1:C:143:MET:SD	1:C:155:ILE:HD11	2.56	0.44
1:C:462:LYS:O	1:C:466:VAL:HG13	2.17	0.44
3:B:268:PHE:CD1	3:B:380:ASN:HB2	2.43	0.44
1:C:70:ILE:HG22	1:C:483:VAL:CG1	2.47	0.44
1:C:337:ASN:HA	1:C:338:PRO:HD3	1.87	0.44
1:C:435:THR:HG21	1:C:461:SER:HB3	1.99	0.44
1:C:462:LYS:O	1:C:466:VAL:HG13	2.17	0.44
3:B:268:PHE:CD1	3:B:380:ASN:HB2	2.43	0.44
1:C:337:ASN:HA	1:C:338:PRO:HD3	1.87	0.44
1:C:435:THR:HG21	1:C:461:SER:HB3	1.99	0.44
1:C:462:LYS:O	1:C:466:VAL:HG13	2.17	0.44
3:B:268:PHE:CD1	3:B:380:ASN:HB2	2.43	0.44
1:C:143:MET:SD	1:C:155:ILE:HD11	2.56	0.44
3:B:268:PHE:CD1	3:B:380:ASN:HB2	2.43	0.44
1:C:143:MET:SD	1:C:155:ILE:HD11	2.56	0.44
1:C:494:LEU:HD11	2:A:420:GLU:OE2	2.17	0.44
1:C:143:MET:SD	1:C:155:ILE:HD11	2.56	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:143:MET:SD	1:C:155:ILE:HD11	2.56	0.44
1:C:308:TYR:CZ	1:C:367:PHE:HB2	2.52	0.44
1:C:337:ASN:HA	1:C:338:PRO:HD3	1.87	0.44
1:C:462:LYS:O	1:C:466:VAL:HG13	2.17	0.44
1:C:317:GLU:CB	1:C:318:PRO:HD3	2.48	0.44
1:C:431:THR:OG1	2:A:410:GLY:HA2	2.18	0.44
2:A:259:LEU:HD11	2:A:378:LEU:HD12	1.99	0.44
1:C:337:ASN:HA	1:C:338:PRO:HD3	1.87	0.44
2:A:259:LEU:HD11	2:A:378:LEU:HD12	1.99	0.44
2:A:259:LEU:HD11	2:A:378:LEU:HD12	1.99	0.44
2:A:259:LEU:HD11	2:A:378:LEU:HD12	1.99	0.44
2:A:259:LEU:HD11	2:A:378:LEU:HD12	1.99	0.44
2:A:72:PRO:HA	2:A:94:THR:CG2	2.47	0.44
1:C:136:PHE:HA	1:C:178:ILE:HG22	1.98	0.44
2:A:72:PRO:HA	2:A:94:THR:CG2	2.47	0.44
1:C:317:GLU:HB3	1:C:318:PRO:HD2	1.99	0.44
2:A:72:PRO:HA	2:A:94:THR:CG2	2.47	0.44
1:C:136:PHE:HA	1:C:178:ILE:HG22	1.98	0.44
2:A:72:PRO:HA	2:A:94:THR:CG2	2.47	0.44
1:C:136:PHE:HA	1:C:178:ILE:HG22	1.98	0.44
2:A:72:PRO:HA	2:A:94:THR:CG2	2.47	0.44
1:C:136:PHE:HA	1:C:178:ILE:HG22	1.98	0.44
2:A:104:ALA:HB1	2:A:411:GLU:HB2	1.99	0.44
2:A:104:ALA:HB1	2:A:411:GLU:HB2	1.99	0.44
1:C:136:PHE:HA	1:C:178:ILE:HG22	1.99	0.44
1:C:455:LEU:HD23	3:B:431:GLU:HG3	1.99	0.44
1:C:494:LEU:HD11	2:A:420:GLU:OE2	2.18	0.44
2:A:104:ALA:HB1	2:A:411:GLU:HB2	1.99	0.44
2:A:104:ALA:HB1	2:A:411:GLU:HB2	1.99	0.44
2:A:104:ALA:HB1	2:A:411:GLU:HB2	1.99	0.44
2:A:31:GLN:HB3	2:A:32:PRO:HD2	1.99	0.44
3:B:23:VAL:HG13	8:B:601:TA1:C31	2.48	0.44
2:A:31:GLN:HB3	2:A:32:PRO:HD2	1.99	0.44
3:B:23:VAL:HG13	8:B:601:TA1:C31	2.48	0.44
2:A:31:GLN:HB3	2:A:32:PRO:HD2	1.99	0.44
3:B:23:VAL:HG13	8:B:601:TA1:C31	2.48	0.44
1:C:413:ARG:HH22	1:C:492:GLU:HG3	1.82	0.44
2:A:31:GLN:HB3	2:A:32:PRO:HD2	1.99	0.44
3:B:23:VAL:HG13	8:B:601:TA1:C31	2.48	0.44
2:A:31:GLN:HB3	2:A:32:PRO:HD2	1.99	0.44
3:B:23:VAL:HG13	8:B:601:TA1:C31	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:97:GLU:HB3	2:A:98:ASP:H	1.70	0.43
2:A:97:GLU:HB3	2:A:98:ASP:H	1.70	0.43
2:A:97:GLU:HB3	2:A:98:ASP:H	1.70	0.43
2:A:97:GLU:HB3	2:A:98:ASP:H	1.70	0.43
1:C:455:LEU:CD2	3:B:431:GLU:CG	2.96	0.43
2:A:97:GLU:HB3	2:A:98:ASP:H	1.70	0.43
1:C:178:ILE:O	1:C:182:SER:HB2	2.18	0.43
3:B:101:ASN:HD21	3:B:143:GLY:HA2	1.83	0.43
3:B:101:ASN:HD21	3:B:143:GLY:HA2	1.83	0.43
1:C:178:ILE:O	1:C:182:SER:HB2	2.18	0.43
3:B:101:ASN:HD21	3:B:143:GLY:HA2	1.83	0.43
1:C:178:ILE:O	1:C:182:SER:HB2	2.18	0.43
3:B:101:ASN:HD21	3:B:143:GLY:HA2	1.83	0.43
1:C:178:ILE:O	1:C:182:SER:HB2	2.18	0.43
3:B:101:ASN:HD21	3:B:143:GLY:HA2	1.83	0.43
3:B:224:TYR:CE1	7:B:600:GDP:C2	3.06	0.43
1:C:178:ILE:O	1:C:182:SER:HB2	2.18	0.43
3:B:224:TYR:CE1	7:B:600:GDP:C2	3.06	0.43
3:B:224:TYR:CE1	7:B:600:GDP:C2	3.06	0.43
1:C:431:THR:OG1	2:A:410:GLY:HA2	2.18	0.43
3:B:224:TYR:CE1	7:B:600:GDP:C2	3.06	0.43
1:C:187:PHE:CB	1:C:351:VAL:HB	2.48	0.43
1:C:365:GLN:HG3	1:C:366:SER:N	2.33	0.43
3:B:224:TYR:CE1	7:B:600:GDP:C2	3.06	0.43
1:C:333:ASP:HA	3:B:416:MET:HG2	2.00	0.43
2:A:224:TYR:HB3	6:A:500:GTP:O6	2.18	0.43
3:B:213:CYS:HA	3:B:217:LEU:HB2	2.00	0.43
3:B:371:LEU:HD12	3:B:371:LEU:HA	1.82	0.43
1:C:455:LEU:HD23	3:B:431:GLU:HG3	1.99	0.43
2:A:224:TYR:HB3	6:A:500:GTP:O6	2.18	0.43
3:B:213:CYS:HA	3:B:217:LEU:HB2	2.00	0.43
3:B:371:LEU:HD12	3:B:371:LEU:HA	1.82	0.43
2:A:224:TYR:HB3	6:A:500:GTP:O6	2.18	0.43
3:B:213:CYS:HA	3:B:217:LEU:HB2	2.00	0.43
3:B:371:LEU:HD12	3:B:371:LEU:HA	1.82	0.43
1:C:187:PHE:CB	1:C:351:VAL:HB	2.48	0.43
2:A:224:TYR:HB3	6:A:500:GTP:O6	2.18	0.43
3:B:213:CYS:HA	3:B:217:LEU:HB2	2.00	0.43
3:B:371:LEU:HD12	3:B:371:LEU:HA	1.82	0.43
2:A:224:TYR:HB3	6:A:500:GTP:O6	2.18	0.43
3:B:213:CYS:HA	3:B:217:LEU:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:371:LEU:HD12	3:B:371:LEU:HA	1.82	0.43
1:C:187:PHE:CB	1:C:351:VAL:HB	2.48	0.43
2:A:98:ASP:HB2	3:B:253:ARG:HG3	2.01	0.43
3:B:8:GLN:HG2	3:B:17:GLY:HA3	2.00	0.43
1:C:187:PHE:CB	1:C:351:VAL:HB	2.48	0.43
1:C:431:THR:OG1	2:A:410:GLY:HA2	2.18	0.43
2:A:98:ASP:HB2	3:B:253:ARG:HG3	2.01	0.43
3:B:8:GLN:HG2	3:B:17:GLY:HA3	2.00	0.43
1:C:183:LEU:HB3	1:C:351:VAL:HG23	2.01	0.43
1:C:334:GLN:HA	3:B:416:MET:HE1	2.01	0.43
2:A:98:ASP:HB2	3:B:253:ARG:HG3	2.01	0.43
3:B:8:GLN:HG2	3:B:17:GLY:HA3	2.00	0.43
2:A:98:ASP:HB2	3:B:253:ARG:HG3	2.01	0.43
3:B:8:GLN:HG2	3:B:17:GLY:HA3	2.00	0.43
1:C:132:GLN:CD	1:C:168:THR:HA	2.38	0.43
1:C:502:LEU:N	1:C:502:LEU:HD22	2.34	0.43
2:A:98:ASP:HB2	3:B:253:ARG:HG3	2.01	0.43
3:B:8:GLN:HG2	3:B:17:GLY:HA3	2.00	0.43
3:B:317:ALA:HB1	3:B:319:PHE:HE1	1.84	0.43
3:B:317:ALA:HB1	3:B:319:PHE:HE1	1.84	0.43
1:C:187:PHE:CB	1:C:351:VAL:HB	2.48	0.43
3:B:317:ALA:HB1	3:B:319:PHE:HE1	1.84	0.43
3:B:317:ALA:HB1	3:B:319:PHE:HE1	1.84	0.43
1:C:183:LEU:HB3	1:C:351:VAL:HG23	2.01	0.43
3:B:317:ALA:HB1	3:B:319:PHE:HE1	1.84	0.43
2:A:11:GLN:HB2	6:A:500:GTP:O2B	2.11	0.43
2:A:339:ARG:HD3	2:A:339:ARG:HA	1.85	0.43
1:C:183:LEU:HB3	1:C:351:VAL:HG23	2.01	0.43
2:A:11:GLN:HB2	6:A:500:GTP:O2B	2.11	0.43
2:A:339:ARG:HD3	2:A:339:ARG:HA	1.85	0.43
1:C:152:ASN:N	1:C:152:ASN:HD22	2.17	0.43
2:A:11:GLN:HB2	6:A:500:GTP:O2B	2.11	0.43
2:A:339:ARG:HD3	2:A:339:ARG:HA	1.85	0.43
1:C:494:LEU:HD11	2:A:420:GLU:OE2	2.19	0.43
2:A:11:GLN:HB2	6:A:500:GTP:O2B	2.11	0.43
2:A:339:ARG:HD3	2:A:339:ARG:HA	1.85	0.43
2:A:11:GLN:HB2	6:A:500:GTP:O2B	2.11	0.43
2:A:339:ARG:HD3	2:A:339:ARG:HA	1.85	0.43
1:C:152:ASN:N	1:C:152:ASN:HD22	2.17	0.43
1:C:183:LEU:HB3	1:C:351:VAL:HG23	2.01	0.43
1:C:306:GLU:HB2	1:C:379:SER:HB3	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:313:TYR:CG	1:C:321:HIS:NE2	2.82	0.43
1:C:334:GLN:HG2	3:B:416:MET:CE	2.41	0.43
8:B:601:TA1:H463	8:B:601:TA1:C26	2.46	0.43
1:C:132:GLN:CD	1:C:168:THR:HA	2.38	0.43
8:B:601:TA1:H463	8:B:601:TA1:C26	2.46	0.43
1:C:306:GLU:HB2	1:C:379:SER:HB3	1.99	0.43
8:B:601:TA1:H463	8:B:601:TA1:C26	2.46	0.43
1:C:152:ASN:N	1:C:152:ASN:HD22	2.17	0.43
1:C:183:LEU:HB3	1:C:351:VAL:HG23	2.01	0.43
8:B:601:TA1:H463	8:B:601:TA1:C26	2.46	0.43
1:C:306:GLU:HB2	1:C:379:SER:HB3	1.99	0.43
8:B:601:TA1:H463	8:B:601:TA1:C26	2.46	0.43
2:A:225:THR:O	2:A:229:ARG:HG2	2.19	0.43
1:C:152:ASN:N	1:C:152:ASN:HD22	2.17	0.43
2:A:225:THR:O	2:A:229:ARG:HG2	2.19	0.43
2:A:225:THR:O	2:A:229:ARG:HG2	2.19	0.43
1:C:306:GLU:HB2	1:C:379:SER:HB3	1.99	0.43
2:A:225:THR:O	2:A:229:ARG:HG2	2.19	0.43
2:A:225:THR:O	2:A:229:ARG:HG2	2.19	0.43
1:C:132:GLN:CD	1:C:168:THR:HA	2.38	0.43
1:C:306:GLU:HB2	1:C:379:SER:HB3	2.00	0.43
1:C:152:ASN:N	1:C:152:ASN:HD22	2.17	0.43
1:C:132:GLN:CD	1:C:168:THR:HA	2.38	0.42
1:C:314:ASP:H	1:C:326:GLN:NE2	2.17	0.42
1:C:183:LEU:HD22	1:C:187:PHE:HE2	1.84	0.42
1:C:183:LEU:HD22	1:C:187:PHE:HE2	1.84	0.42
1:C:183:LEU:HD22	1:C:187:PHE:HE2	1.84	0.42
1:C:183:LEU:HD22	1:C:187:PHE:HE2	1.85	0.42
3:B:23:VAL:HA	8:B:601:TA1:C32	2.49	0.42
3:B:23:VAL:HA	8:B:601:TA1:C32	2.49	0.42
3:B:23:VAL:HA	8:B:601:TA1:C32	2.49	0.42
3:B:23:VAL:HA	8:B:601:TA1:C32	2.49	0.42
3:B:23:VAL:HA	8:B:601:TA1:C32	2.49	0.42
1:C:66:VAL:O	1:C:122:PHE:HB3	2.20	0.42
1:C:77:GLU:HA	1:C:80:ARG:HG2	2.01	0.42
2:A:12:ALA:O	2:A:16:ILE:HG22	2.19	0.42
2:A:107:HIS:HA	2:A:152:LEU:HD23	2.01	0.42
3:B:260:VAL:HG12	3:B:262:PHE:O	2.18	0.42
1:C:66:VAL:O	1:C:122:PHE:HB3	2.20	0.42
2:A:12:ALA:O	2:A:16:ILE:HG22	2.19	0.42
2:A:107:HIS:HA	2:A:152:LEU:HD23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:260:VAL:HG12	3:B:262:PHE:O	2.18	0.42
1:C:66:VAL:O	1:C:122:PHE:HB3	2.20	0.42
1:C:77:GLU:HA	1:C:80:ARG:HG2	2.01	0.42
1:C:350:ASP:OD2	1:C:352:GLU:HB3	2.20	0.42
2:A:12:ALA:O	2:A:16:ILE:HG22	2.19	0.42
2:A:107:HIS:HA	2:A:152:LEU:HD23	2.01	0.42
3:B:260:VAL:HG12	3:B:262:PHE:O	2.18	0.42
1:C:317:GLU:HB2	1:C:325:ARG:HH22	1.84	0.42
1:C:334:GLN:HG2	3:B:416:MET:CE	2.41	0.42
1:C:455:LEU:HD23	3:B:431:GLU:HG3	2.00	0.42
2:A:12:ALA:O	2:A:16:ILE:HG22	2.19	0.42
2:A:107:HIS:HA	2:A:152:LEU:HD23	2.01	0.42
3:B:260:VAL:HG12	3:B:262:PHE:O	2.18	0.42
1:C:77:GLU:HA	1:C:80:ARG:HG2	2.01	0.42
1:C:183:LEU:HD22	1:C:187:PHE:HE2	1.85	0.42
1:C:422:ARG:NH1	1:C:425:GLU:HB2	2.33	0.42
2:A:12:ALA:O	2:A:16:ILE:HG22	2.19	0.42
2:A:107:HIS:HA	2:A:152:LEU:HD23	2.01	0.42
3:B:260:VAL:HG12	3:B:262:PHE:O	2.18	0.42
1:C:118:HIS:CD2	1:C:119:LYS:H	2.38	0.42
3:B:344:VAL:HG13	3:B:346:TRP:H	1.83	0.42
1:C:118:HIS:CD2	1:C:119:LYS:H	2.38	0.42
1:C:350:ASP:OD2	1:C:352:GLU:HB3	2.20	0.42
3:B:344:VAL:HG13	3:B:346:TRP:H	1.83	0.42
3:B:344:VAL:HG13	3:B:346:TRP:H	1.83	0.42
1:C:66:VAL:O	1:C:122:PHE:HB3	2.20	0.42
1:C:118:HIS:CD2	1:C:119:LYS:H	2.38	0.42
3:B:344:VAL:HG13	3:B:346:TRP:H	1.83	0.42
1:C:66:VAL:O	1:C:122:PHE:HB3	2.20	0.42
1:C:118:HIS:CD2	1:C:119:LYS:H	2.38	0.42
1:C:130:VAL:HB	1:C:134:ALA:CB	2.49	0.42
3:B:344:VAL:HG13	3:B:346:TRP:H	1.83	0.42
1:C:90:GLU:HB2	1:C:96:VAL:HG12	2.01	0.42
1:C:130:VAL:HB	1:C:134:ALA:CB	2.50	0.42
2:A:9:VAL:HA	2:A:68:VAL:O	2.19	0.42
3:B:20:PHE:HA	3:B:232:SER:CB	2.50	0.42
1:C:77:GLU:HA	1:C:80:ARG:HG2	2.02	0.42
1:C:130:VAL:HB	1:C:134:ALA:CB	2.50	0.42
1:C:312:LEU:HD13	1:C:328:LEU:HD11	2.01	0.42
2:A:9:VAL:HA	2:A:68:VAL:O	2.19	0.42
3:B:20:PHE:HA	3:B:232:SER:CB	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:130:VAL:HB	1:C:134:ALA:CB	2.50	0.42
2:A:9:VAL:HA	2:A:68:VAL:O	2.19	0.42
3:B:20:PHE:HA	3:B:232:SER:CB	2.50	0.42
1:C:77:GLU:HA	1:C:80:ARG:HG2	2.02	0.42
1:C:130:VAL:HB	1:C:134:ALA:CB	2.50	0.42
1:C:312:LEU:HD13	1:C:328:LEU:HD11	2.01	0.42
1:C:350:ASP:OD2	1:C:352:GLU:HB3	2.20	0.42
2:A:9:VAL:HA	2:A:68:VAL:O	2.19	0.42
3:B:20:PHE:HA	3:B:232:SER:CB	2.50	0.42
1:C:350:ASP:OD2	1:C:352:GLU:HB3	2.20	0.42
2:A:9:VAL:HA	2:A:68:VAL:O	2.19	0.42
3:B:20:PHE:HA	3:B:232:SER:CB	2.50	0.42
1:C:312:LEU:HD13	1:C:328:LEU:HD11	2.01	0.42
1:C:350:ASP:OD2	1:C:352:GLU:HB3	2.20	0.42
2:A:144:GLY:H	6:A:500:GTP:PG	2.43	0.42
1:C:130:VAL:HB	1:C:134:ALA:HB3	2.01	0.42
1:C:143:MET:O	1:C:147:VAL:HG23	2.19	0.42
1:C:455:LEU:HD22	3:B:431:GLU:HB2	2.01	0.42
2:A:144:GLY:H	6:A:500:GTP:PG	2.43	0.42
1:C:90:GLU:HB2	1:C:96:VAL:HG12	2.01	0.42
1:C:118:HIS:CD2	1:C:119:LYS:H	2.38	0.42
1:C:312:LEU:HD13	1:C:328:LEU:HD11	2.01	0.42
2:A:144:GLY:H	6:A:500:GTP:PG	2.43	0.42
1:C:66:VAL:O	1:C:123:SER:HB2	2.19	0.42
2:A:144:GLY:H	6:A:500:GTP:PG	2.43	0.42
1:C:90:GLU:HB2	1:C:96:VAL:HG12	2.01	0.42
1:C:312:LEU:HD13	1:C:328:LEU:HD11	2.01	0.42
1:C:431:THR:OG1	2:A:410:GLY:HA2	2.19	0.42
1:C:452:LYS:HE3	1:C:454:ASN:HD21	1.85	0.42
1:C:455:LEU:HD23	3:B:431:GLU:HG3	2.01	0.42
2:A:144:GLY:H	6:A:500:GTP:PG	2.43	0.42
1:C:130:VAL:HB	1:C:134:ALA:HB3	2.01	0.42
1:C:143:MET:O	1:C:147:VAL:HG23	2.19	0.42
3:B:43:GLN:HA	3:B:244:PHE:HE1	1.84	0.42
1:C:66:VAL:O	1:C:123:SER:HB2	2.19	0.42
1:C:90:GLU:HB2	1:C:96:VAL:HG12	2.01	0.42
3:B:43:GLN:HA	3:B:244:PHE:HE1	1.84	0.42
1:C:130:VAL:HB	1:C:134:ALA:HB3	2.01	0.42
1:C:143:MET:O	1:C:147:VAL:HG23	2.19	0.42
3:B:43:GLN:HA	3:B:244:PHE:HE1	1.84	0.42
1:C:90:GLU:HB2	1:C:96:VAL:HG12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:130:VAL:HB	1:C:134:ALA:HB3	2.01	0.42
1:C:455:LEU:HD22	3:B:431:GLU:HB2	2.01	0.42
3:B:43:GLN:HA	3:B:244:PHE:HE1	1.84	0.42
1:C:66:VAL:O	1:C:123:SER:HB2	2.19	0.42
1:C:130:VAL:HB	1:C:134:ALA:HB3	2.01	0.42
3:B:43:GLN:HA	3:B:244:PHE:HE1	1.84	0.42
1:C:66:VAL:O	1:C:123:SER:HB2	2.19	0.42
3:B:215:ARG:HG3	3:B:216:THR:H	1.85	0.42
3:B:298:ALA:HA	3:B:307:PRO:HD2	2.00	0.42
1:C:316:LEU:HD12	1:C:316:LEU:HA	1.89	0.42
3:B:215:ARG:HG3	3:B:216:THR:H	1.85	0.42
3:B:298:ALA:HA	3:B:307:PRO:HD2	2.00	0.42
1:C:66:VAL:O	1:C:123:SER:HB2	2.19	0.42
1:C:316:LEU:HD12	1:C:316:LEU:HA	1.89	0.42
3:B:215:ARG:HG3	3:B:216:THR:H	1.85	0.42
3:B:298:ALA:HA	3:B:307:PRO:HD2	2.00	0.42
1:C:143:MET:O	1:C:147:VAL:HG23	2.19	0.42
1:C:316:LEU:HD12	1:C:316:LEU:HA	1.89	0.42
1:C:365:GLN:HG3	1:C:366:SER:N	2.35	0.42
1:C:423:LEU:HB3	1:C:424:LYS:H	1.68	0.42
3:B:215:ARG:HG3	3:B:216:THR:H	1.85	0.42
3:B:298:ALA:HA	3:B:307:PRO:HD2	2.00	0.42
1:C:143:MET:O	1:C:147:VAL:HG23	2.20	0.42
1:C:316:LEU:HD12	1:C:316:LEU:HA	1.89	0.42
3:B:215:ARG:HG3	3:B:216:THR:H	1.85	0.42
3:B:298:ALA:HA	3:B:307:PRO:HD2	2.00	0.42
2:A:71:GLU:HB3	2:A:74:VAL:HG23	2.01	0.42
1:C:313:TYR:CE1	1:C:324:LYS:HE3	2.55	0.42
2:A:71:GLU:HB3	2:A:74:VAL:HG23	2.01	0.42
1:C:314:ASP:CB	1:C:326:GLN:HE22	2.33	0.42
2:A:71:GLU:HB3	2:A:74:VAL:HG23	2.01	0.42
2:A:71:GLU:HB3	2:A:74:VAL:HG23	2.01	0.42
2:A:71:GLU:HB3	2:A:74:VAL:HG23	2.01	0.42
2:A:143:GLY:HA3	6:A:500:GTP:O1B	2.20	0.41
1:C:334:GLN:HG2	3:B:416:MET:CE	2.42	0.41
1:C:415:LYS:HE2	2:A:112:LYS:HZ1	1.84	0.41
2:A:143:GLY:HA3	6:A:500:GTP:O1B	2.20	0.41
2:A:143:GLY:HA3	6:A:500:GTP:O1B	2.20	0.41
2:A:143:GLY:HA3	6:A:500:GTP:O1B	2.20	0.41
2:A:143:GLY:HA3	6:A:500:GTP:O1B	2.20	0.41
1:C:424:LYS:NZ	3:B:163:ASP:OD2	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:439:CYS:SG	1:C:457:PRO:HG2	2.61	0.41
2:A:170:SER:O	2:A:203:MET:HA	2.21	0.41
2:A:386:GLU:O	2:A:390:ARG:HG2	2.20	0.41
2:A:170:SER:O	2:A:203:MET:HA	2.21	0.41
2:A:386:GLU:O	2:A:390:ARG:HG2	2.20	0.41
1:C:439:CYS:SG	1:C:457:PRO:HG2	2.61	0.41
2:A:170:SER:O	2:A:203:MET:HA	2.21	0.41
2:A:386:GLU:O	2:A:390:ARG:HG2	2.20	0.41
2:A:170:SER:O	2:A:203:MET:HA	2.21	0.41
2:A:386:GLU:O	2:A:390:ARG:HG2	2.20	0.41
1:C:439:CYS:SG	1:C:457:PRO:HG2	2.61	0.41
2:A:170:SER:O	2:A:203:MET:HA	2.21	0.41
2:A:386:GLU:O	2:A:390:ARG:HG2	2.20	0.41
1:C:455:LEU:HD23	3:B:431:GLU:HG3	2.01	0.41
2:A:205:ASP:HB3	2:A:303:VAL:HA	2.02	0.41
3:B:370:GLY:O	8:B:601:TA1:H443	2.20	0.41
2:A:205:ASP:HB3	2:A:303:VAL:HA	2.02	0.41
3:B:370:GLY:O	8:B:601:TA1:H443	2.20	0.41
2:A:205:ASP:HB3	2:A:303:VAL:HA	2.02	0.41
3:B:370:GLY:O	8:B:601:TA1:H443	2.20	0.41
1:C:169:ILE:HG21	1:C:407:ASP:HB2	2.02	0.41
1:C:439:CYS:SG	1:C:457:PRO:HG2	2.61	0.41
2:A:205:ASP:HB3	2:A:303:VAL:HA	2.02	0.41
3:B:370:GLY:O	8:B:601:TA1:H443	2.20	0.41
2:A:205:ASP:HB3	2:A:303:VAL:HA	2.02	0.41
3:B:370:GLY:O	8:B:601:TA1:H443	2.20	0.41
2:A:152:LEU:HD12	2:A:153:LEU:N	2.36	0.41
1:C:169:ILE:HG21	1:C:407:ASP:HB2	2.02	0.41
1:C:439:CYS:SG	1:C:457:PRO:HG2	2.61	0.41
2:A:152:LEU:HD12	2:A:153:LEU:N	2.36	0.41
1:C:169:ILE:HG21	1:C:407:ASP:HB2	2.02	0.41
2:A:152:LEU:HD12	2:A:153:LEU:N	2.36	0.41
1:C:132:GLN:CD	1:C:168:THR:HA	2.40	0.41
2:A:152:LEU:HD12	2:A:153:LEU:N	2.36	0.41
1:C:169:ILE:HG21	1:C:407:ASP:HB2	2.02	0.41
2:A:152:LEU:HD12	2:A:153:LEU:N	2.36	0.41
1:C:169:ILE:HG21	1:C:407:ASP:HB2	2.02	0.41
2:A:103:TYR:CD1	2:A:189:LEU:HD13	2.55	0.41
2:A:322:ASP:O	2:A:373:ARG:HD3	2.20	0.41
3:B:273:ALA:O	3:B:294:GLN:HG2	2.20	0.41
2:A:103:TYR:CD1	2:A:189:LEU:HD13	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:322:ASP:O	2:A:373:ARG:HD3	2.20	0.41
3:B:273:ALA:O	3:B:294:GLN:HG2	2.20	0.41
2:A:103:TYR:CD1	2:A:189:LEU:HD13	2.55	0.41
2:A:322:ASP:O	2:A:373:ARG:HD3	2.20	0.41
3:B:273:ALA:O	3:B:294:GLN:HG2	2.20	0.41
2:A:103:TYR:CD1	2:A:189:LEU:HD13	2.55	0.41
2:A:322:ASP:O	2:A:373:ARG:HD3	2.20	0.41
3:B:273:ALA:O	3:B:294:GLN:HG2	2.20	0.41
1:C:136:PHE:CG	1:C:181:GLN:HB3	2.56	0.41
1:C:333:ASP:HA	3:B:416:MET:HG2	2.02	0.41
1:C:455:LEU:HD22	3:B:431:GLU:HB2	2.02	0.41
2:A:103:TYR:CD1	2:A:189:LEU:HD13	2.55	0.41
2:A:322:ASP:O	2:A:373:ARG:HD3	2.20	0.41
3:B:273:ALA:O	3:B:294:GLN:HG2	2.20	0.41
1:C:136:PHE:CG	1:C:181:GLN:HB3	2.56	0.41
3:B:4:ILE:HG21	3:B:136:GLN:HG2	2.01	0.41
1:C:136:PHE:CG	1:C:181:GLN:HB3	2.56	0.41
3:B:4:ILE:HG21	3:B:136:GLN:HG2	2.01	0.41
1:C:66:VAL:HG23	1:C:122:PHE:O	2.21	0.41
1:C:313:TYR:CZ	1:C:324:LYS:HE2	2.55	0.41
3:B:4:ILE:HG21	3:B:136:GLN:HG2	2.01	0.41
1:C:136:PHE:CG	1:C:181:GLN:HB3	2.56	0.41
3:B:4:ILE:HG21	3:B:136:GLN:HG2	2.01	0.41
1:C:387:ILE:O	1:C:387:ILE:HG13	2.20	0.41
3:B:4:ILE:HG21	3:B:136:GLN:HG2	2.01	0.41
1:C:66:VAL:HG23	1:C:122:PHE:O	2.21	0.41
1:C:387:ILE:O	1:C:387:ILE:HG13	2.20	0.41
1:C:434:HIS:CG	2:A:409:VAL:HG21	2.56	0.41
3:B:22:GLU:HG3	3:B:83:PHE:CD1	2.56	0.41
3:B:228:ASN:ND2	7:B:600:GDP:HN1	2.19	0.41
1:C:313:TYR:CE2	1:C:321:HIS:HB2	2.56	0.41
3:B:22:GLU:HG3	3:B:83:PHE:CD1	2.56	0.41
3:B:228:ASN:ND2	7:B:600:GDP:HN1	2.19	0.41
1:C:136:PHE:CG	1:C:181:GLN:HB3	2.56	0.41
3:B:22:GLU:HG3	3:B:83:PHE:CD1	2.56	0.41
3:B:228:ASN:ND2	7:B:600:GDP:HN1	2.19	0.41
1:C:66:VAL:HG23	1:C:122:PHE:O	2.21	0.41
1:C:333:ASP:HA	3:B:416:MET:HG2	2.02	0.41
3:B:22:GLU:HG3	3:B:83:PHE:CD1	2.56	0.41
3:B:228:ASN:ND2	7:B:600:GDP:HN1	2.19	0.41
1:C:66:VAL:HG23	1:C:122:PHE:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:22:GLU:HG3	3:B:83:PHE:CD1	2.56	0.41
3:B:228:ASN:ND2	7:B:600:GDP:HN1	2.19	0.41
1:C:458:PHE:HE2	1:C:472:THR:HG1	1.68	0.41
3:B:209:LEU:HD21	3:B:231:VAL:CG2	2.51	0.41
3:B:358:ILE:HA	3:B:359:PRO:HD3	1.81	0.41
1:C:66:VAL:HG23	1:C:122:PHE:O	2.21	0.41
3:B:209:LEU:HD21	3:B:231:VAL:CG2	2.51	0.41
3:B:358:ILE:HA	3:B:359:PRO:HD3	1.81	0.41
1:C:387:ILE:O	1:C:387:ILE:HG13	2.21	0.41
3:B:209:LEU:HD21	3:B:231:VAL:CG2	2.51	0.41
3:B:358:ILE:HA	3:B:359:PRO:HD3	1.81	0.41
1:C:313:TYR:CE2	1:C:321:HIS:HB2	2.56	0.41
1:C:387:ILE:O	1:C:387:ILE:HG13	2.21	0.41
3:B:209:LEU:HD21	3:B:231:VAL:CG2	2.51	0.41
3:B:358:ILE:HA	3:B:359:PRO:HD3	1.81	0.41
1:C:458:PHE:HE2	1:C:472:THR:HG1	1.68	0.41
3:B:209:LEU:HD21	3:B:231:VAL:CG2	2.51	0.41
3:B:358:ILE:HA	3:B:359:PRO:HD3	1.81	0.41
1:C:143:MET:HG3	1:C:153:TRP:CG	2.55	0.41
1:C:164:GLY:CA	5:C:602:ANP:H8	2.51	0.41
2:A:201:ALA:O	2:A:267:PHE:HA	2.21	0.41
2:A:213:CYS:HA	2:A:217:LEU:CB	2.51	0.41
3:B:320:ARG:HD3	3:B:360:PRO:HG3	2.02	0.41
1:C:143:MET:HG3	1:C:153:TRP:CG	2.55	0.41
1:C:333:ASP:HA	3:B:416:MET:HG2	2.02	0.41
1:C:387:ILE:O	1:C:387:ILE:HG13	2.21	0.41
1:C:458:PHE:HE2	1:C:472:THR:HG1	1.68	0.41
2:A:201:ALA:O	2:A:267:PHE:HA	2.21	0.41
2:A:213:CYS:HA	2:A:217:LEU:CB	2.51	0.41
3:B:320:ARG:HD3	3:B:360:PRO:HG3	2.02	0.41
1:C:140:MET:HE3	1:C:178:ILE:HB	2.02	0.41
1:C:313:TYR:HE1	1:C:324:LYS:HB3	1.86	0.41
1:C:431:THR:OG1	2:A:410:GLY:HA2	2.21	0.41
1:C:458:PHE:HE2	1:C:472:THR:HG1	1.68	0.41
2:A:201:ALA:O	2:A:267:PHE:HA	2.21	0.41
2:A:213:CYS:HA	2:A:217:LEU:CB	2.51	0.41
3:B:320:ARG:HD3	3:B:360:PRO:HG3	2.02	0.41
1:C:143:MET:HG3	1:C:153:TRP:CG	2.55	0.41
1:C:484:ASN:HA	1:C:485:PRO:HD3	1.82	0.41
2:A:201:ALA:O	2:A:267:PHE:HA	2.21	0.41
2:A:213:CYS:HA	2:A:217:LEU:CB	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:320:ARG:HD3	3:B:360:PRO:HG3	2.02	0.41
2:A:201:ALA:O	2:A:267:PHE:HA	2.21	0.41
2:A:213:CYS:HA	2:A:217:LEU:CB	2.51	0.41
3:B:320:ARG:HD3	3:B:360:PRO:HG3	2.02	0.41
1:C:355:TRP:NE1	1:C:359:LYS:HE3	2.36	0.41
1:C:484:ASN:HA	1:C:485:PRO:HD3	1.82	0.41
2:A:407:TRP:HZ2	3:B:260:VAL:HB	1.85	0.41
3:B:11:GLN:HG3	3:B:74:THR:HG21	2.03	0.41
1:C:164:GLY:CA	5:C:602:ANP:H8	2.51	0.41
1:C:355:TRP:NE1	1:C:359:LYS:HE3	2.36	0.41
2:A:407:TRP:HZ2	3:B:260:VAL:HB	1.85	0.41
3:B:11:GLN:HG3	3:B:74:THR:HG21	2.03	0.41
1:C:143:MET:HG3	1:C:153:TRP:CG	2.55	0.41
1:C:355:TRP:NE1	1:C:359:LYS:HE3	2.36	0.41
2:A:407:TRP:HZ2	3:B:260:VAL:HB	1.85	0.41
3:B:11:GLN:HG3	3:B:74:THR:HG21	2.03	0.41
1:C:458:PHE:HE2	1:C:472:THR:HG1	1.68	0.41
2:A:407:TRP:HZ2	3:B:260:VAL:HB	1.85	0.41
3:B:11:GLN:HG3	3:B:74:THR:HG21	2.03	0.41
1:C:143:MET:HG3	1:C:153:TRP:CG	2.55	0.41
1:C:445:GLN:NE2	1:C:452:LYS:HE2	2.36	0.41
1:C:484:ASN:HA	1:C:485:PRO:HD3	1.82	0.41
2:A:407:TRP:HZ2	3:B:260:VAL:HB	1.85	0.41
3:B:11:GLN:HG3	3:B:74:THR:HG21	2.03	0.41
1:C:459:ARG:CZ	3:B:424:ASN:ND2	2.84	0.40
3:B:115:VAL:O	3:B:119:LEU:HG	2.20	0.40
3:B:115:VAL:O	3:B:119:LEU:HG	2.20	0.40
1:C:164:GLY:CA	5:C:602:ANP:H8	2.51	0.40
1:C:484:ASN:HA	1:C:485:PRO:HD3	1.82	0.40
3:B:115:VAL:O	3:B:119:LEU:HG	2.20	0.40
1:C:164:GLY:CA	5:C:602:ANP:H8	2.51	0.40
1:C:355:TRP:NE1	1:C:359:LYS:HE3	2.36	0.40
3:B:115:VAL:O	3:B:119:LEU:HG	2.20	0.40
1:C:164:GLY:CA	5:C:602:ANP:H8	2.51	0.40
1:C:355:TRP:NE1	1:C:359:LYS:HE3	2.36	0.40
3:B:115:VAL:O	3:B:119:LEU:HG	2.20	0.40
1:C:179:LEU:HD23	1:C:405:LEU:CG	2.51	0.40
3:B:168:THR:O	3:B:201:THR:HA	2.21	0.40
3:B:237:GLY:HA2	3:B:241:CYS:CB	2.50	0.40
1:C:484:ASN:HA	1:C:485:PRO:HD3	1.82	0.40
3:B:168:THR:O	3:B:201:THR:HA	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:237:GLY:HA2	3:B:241:CYS:CB	2.50	0.40
3:B:168:THR:O	3:B:201:THR:HA	2.21	0.40
3:B:237:GLY:HA2	3:B:241:CYS:CB	2.50	0.40
3:B:168:THR:O	3:B:201:THR:HA	2.21	0.40
3:B:237:GLY:HA2	3:B:241:CYS:CB	2.50	0.40
1:C:179:LEU:HD23	1:C:405:LEU:CG	2.51	0.40
1:C:334:GLN:HG2	3:B:416:MET:CE	2.43	0.40
3:B:168:THR:O	3:B:201:THR:HA	2.21	0.40
3:B:237:GLY:HA2	3:B:241:CYS:CB	2.50	0.40
2:A:402:ARG:HA	2:A:402:ARG:HD3	1.93	0.40
3:B:156:LYS:HE2	3:B:156:LYS:HA	2.03	0.40
2:A:402:ARG:HA	2:A:402:ARG:HD3	1.93	0.40
3:B:156:LYS:HE2	3:B:156:LYS:HA	2.03	0.40
1:C:179:LEU:HD23	1:C:405:LEU:CG	2.51	0.40
2:A:402:ARG:HA	2:A:402:ARG:HD3	1.93	0.40
3:B:156:LYS:HE2	3:B:156:LYS:HA	2.03	0.40
1:C:179:LEU:HD23	1:C:405:LEU:CG	2.51	0.40
2:A:402:ARG:HA	2:A:402:ARG:HD3	1.93	0.40
3:B:156:LYS:HE2	3:B:156:LYS:HA	2.03	0.40
2:A:402:ARG:HA	2:A:402:ARG:HD3	1.93	0.40
3:B:156:LYS:HE2	3:B:156:LYS:HA	2.03	0.40
1:C:179:LEU:HD23	1:C:405:LEU:CG	2.51	0.40
1:C:179:LEU:HD21	1:C:383:PHE:CD2	2.56	0.40
1:C:369:SER:HA	1:C:411:SER:CB	2.51	0.40
1:C:179:LEU:HD21	1:C:383:PHE:CD2	2.56	0.40
1:C:179:LEU:HD21	1:C:383:PHE:CD2	2.56	0.40
1:C:179:LEU:HD21	1:C:383:PHE:CD2	2.57	0.40
1:C:334:GLN:N	3:B:416:MET:HE1	2.36	0.40
2:A:362:VAL:HG21	2:A:370:LYS:HA	2.04	0.40
1:C:70:ILE:HD11	1:C:127:GLY:HA2	2.04	0.40
2:A:362:VAL:HG21	2:A:370:LYS:HA	2.04	0.40
1:C:179:LEU:HD21	1:C:383:PHE:CD2	2.57	0.40
2:A:362:VAL:HG21	2:A:370:LYS:HA	2.04	0.40
2:A:362:VAL:HG21	2:A:370:LYS:HA	2.04	0.40
1:C:355:TRP:HA	1:C:355:TRP:CE3	2.57	0.40
2:A:362:VAL:HG21	2:A:370:LYS:HA	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	1-C	286/501 (57%)	273 (96%)	11 (4%)	2 (1%)	22	63
1	2-C	286/501 (57%)	272 (95%)	12 (4%)	2 (1%)	22	63
1	3-C	286/501 (57%)	270 (94%)	15 (5%)	1 (0%)	41	77
1	4-C	286/501 (57%)	270 (94%)	15 (5%)	1 (0%)	41	77
1	5-C	286/501 (57%)	271 (95%)	13 (4%)	2 (1%)	22	63
2	1-A	408/451 (90%)	367 (90%)	39 (10%)	2 (0%)	29	69
2	2-A	408/451 (90%)	367 (90%)	39 (10%)	2 (0%)	29	69
2	3-A	408/451 (90%)	367 (90%)	39 (10%)	2 (0%)	29	69
2	4-A	408/451 (90%)	367 (90%)	39 (10%)	2 (0%)	29	69
2	5-A	408/451 (90%)	367 (90%)	39 (10%)	2 (0%)	29	69
3	1-B	424/445 (95%)	384 (91%)	34 (8%)	6 (1%)	11	46
3	2-B	424/445 (95%)	384 (91%)	34 (8%)	6 (1%)	11	46
3	3-B	424/445 (95%)	384 (91%)	34 (8%)	6 (1%)	11	46
3	4-B	424/445 (95%)	384 (91%)	34 (8%)	6 (1%)	11	46
3	5-B	424/445 (95%)	384 (91%)	34 (8%)	6 (1%)	11	46
All	All	5590/6985 (80%)	5111 (91%)	431 (8%)	48 (1%)	21	57

All (48) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	1-C	123	SER
1	1-C	451	SER
1	2-C	123	SER
1	3-C	123	SER
1	4-C	123	SER
1	5-C	123	SER
3	1-B	109	THR
3	1-B	344	VAL

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Mol	Chain	Res	Type
3	2-B	109	THR
3	2-B	344	VAL
3	3-B	109	THR
3	3-B	344	VAL
3	4-B	109	THR
3	4-B	344	VAL
3	5-B	109	THR
3	5-B	344	VAL
2	1-A	109	THR
3	1-B	82	PRO
3	1-B	288	VAL
1	2-C	320	SER
2	2-A	109	THR
3	2-B	82	PRO
3	2-B	288	VAL
2	3-A	109	THR
3	3-B	82	PRO
3	3-B	288	VAL
2	4-A	109	THR
3	4-B	82	PRO
3	4-B	288	VAL
2	5-A	109	THR
3	5-B	82	PRO
3	5-B	288	VAL
2	1-A	279	GLU
2	2-A	279	GLU
2	3-A	279	GLU
2	4-A	279	GLU
2	5-A	279	GLU
3	1-B	266	HIS
3	2-B	266	HIS
3	3-B	266	HIS
3	4-B	266	HIS
1	5-C	424	LYS
3	5-B	266	HIS
3	1-B	278	ARG
3	2-B	278	ARG
3	3-B	278	ARG
3	4-B	278	ARG
3	5-B	278	ARG

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	1-C	268/447 (60%)	223 (83%)	45 (17%)	2	12
1	2-C	268/447 (60%)	224 (84%)	44 (16%)	2	12
1	3-C	268/447 (60%)	225 (84%)	43 (16%)	2	13
1	4-C	268/447 (60%)	224 (84%)	44 (16%)	2	12
1	5-C	268/447 (60%)	225 (84%)	43 (16%)	2	13
2	1-A	347/377 (92%)	307 (88%)	40 (12%)	5	21
2	2-A	347/377 (92%)	307 (88%)	40 (12%)	5	21
2	3-A	347/377 (92%)	307 (88%)	40 (12%)	5	21
2	4-A	347/377 (92%)	307 (88%)	40 (12%)	5	21
2	5-A	347/377 (92%)	307 (88%)	40 (12%)	5	21
3	1-B	367/381 (96%)	315 (86%)	52 (14%)	3	16
3	2-B	367/381 (96%)	315 (86%)	52 (14%)	3	16
3	3-B	367/381 (96%)	315 (86%)	52 (14%)	3	16
3	4-B	367/381 (96%)	315 (86%)	52 (14%)	3	16
3	5-B	367/381 (96%)	315 (86%)	52 (14%)	3	16
All	All	4910/6025 (82%)	4231 (86%)	679 (14%)	7	17

All (679) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	1-C	66	VAL
1	1-C	69	ARG
1	1-C	70	ILE
1	1-C	76	SER
1	1-C	83	ASP
1	1-C	86	CYS
1	1-C	93	GLU
1	1-C	95	LEU
1	1-C	119	LYS
1	1-C	121	THR

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Mol	Chain	Res	Type
1	1-C	125	ILE
1	1-C	129	GLU
1	1-C	132	GLN
1	1-C	136	PHE
1	1-C	141	LYS
1	1-C	151	GLN
1	1-C	152	ASN
1	1-C	168	THR
1	1-C	175	ASP
1	1-C	316	LEU
1	1-C	317	GLU
1	1-C	349	ARG
1	1-C	351	VAL
1	1-C	358	LEU
1	1-C	365	GLN
1	1-C	379	SER
1	1-C	385	ILE
1	1-C	389	HIS
1	1-C	390	LEU
1	1-C	399	LYS
1	1-C	400	ILE
1	1-C	401	SER
1	1-C	422	ARG
1	1-C	432	SER
1	1-C	433	LEU
1	1-C	443	LEU
1	1-C	446	ASN
1	1-C	447	GLN
1	1-C	458	PHE
1	1-C	464	THR
1	1-C	474	ARG
1	1-C	477	SER
1	1-C	482	ASN
1	1-C	488	SER
1	1-C	494	LEU
2	1-A	28	HIS
2	1-A	71	GLU
2	1-A	76	ASP
2	1-A	80	THR
2	1-A	82	THR
2	1-A	97	GLU
2	1-A	98	ASP

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Mol	Chain	Res	Type
2	1-A	109	THR
2	1-A	116	ASP
2	1-A	130	THR
2	1-A	132	LEU
2	1-A	136	SER
2	1-A	140	SER
2	1-A	141	PHE
2	1-A	149	PHE
2	1-A	150	THR
2	1-A	160	ASP
2	1-A	169	PHE
2	1-A	170	SER
2	1-A	178	SER
2	1-A	185	TYR
2	1-A	189	LEU
2	1-A	194	THR
2	1-A	226	ASN
2	1-A	253	THR
2	1-A	277	SER
2	1-A	279	GLU
2	1-A	282	TYR
2	1-A	287	SER
2	1-A	315	CYS
2	1-A	322	ASP
2	1-A	327	ASP
2	1-A	340	THR
2	1-A	349	THR
2	1-A	361	THR
2	1-A	376	CYS
2	1-A	378	LEU
2	1-A	382	THR
2	1-A	425	MET
2	1-A	439	SER
3	1-B	25	SER
3	1-B	33	THR
3	1-B	35	SER
3	1-B	48	ARG
3	1-B	52	TYR
3	1-B	67	LEU
3	1-B	71	GLU
3	1-B	76	ASP
3	1-B	77	SER

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Mol	Chain	Res	Type
3	1-B	109	THR
3	1-B	128	SER
3	1-B	130	ASP
3	1-B	140	SER
3	1-B	145	THR
3	1-B	147	SER
3	1-B	151	THR
3	1-B	158	ARG
3	1-B	163	ASP
3	1-B	165	ILE
3	1-B	166	MET
3	1-B	170	SER
3	1-B	174	SER
3	1-B	179	ASP
3	1-B	185	TYR
3	1-B	205	ASP
3	1-B	213	CYS
3	1-B	216	THR
3	1-B	220	THR
3	1-B	221	THR
3	1-B	223	THR
3	1-B	224	TYR
3	1-B	234	THR
3	1-B	236	SER
3	1-B	239	THR
3	1-B	240	THR
3	1-B	243	ARG
3	1-B	272	PHE
3	1-B	276	THR
3	1-B	277	SER
3	1-B	280	SER
3	1-B	284	ARG
3	1-B	287	THR
3	1-B	292	THR
3	1-B	314	THR
3	1-B	325	MET
3	1-B	326	LYS
3	1-B	341	SER
3	1-B	343	PHE
3	1-B	353	THR
3	1-B	396	THR
3	1-B	413	MET

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Mol	Chain	Res	Type
3	1-B	432	TYR
1	2-C	66	VAL
1	2-C	69	ARG
1	2-C	70	ILE
1	2-C	76	SER
1	2-C	83	ASP
1	2-C	86	CYS
1	2-C	93	GLU
1	2-C	95	LEU
1	2-C	119	LYS
1	2-C	121	THR
1	2-C	125	ILE
1	2-C	129	GLU
1	2-C	132	GLN
1	2-C	136	PHE
1	2-C	141	LYS
1	2-C	151	GLN
1	2-C	152	ASN
1	2-C	168	THR
1	2-C	175	ASP
1	2-C	316	LEU
1	2-C	349	ARG
1	2-C	351	VAL
1	2-C	358	LEU
1	2-C	365	GLN
1	2-C	379	SER
1	2-C	385	ILE
1	2-C	389	HIS
1	2-C	390	LEU
1	2-C	399	LYS
1	2-C	400	ILE
1	2-C	401	SER
1	2-C	413	ARG
1	2-C	432	SER
1	2-C	433	LEU
1	2-C	443	LEU
1	2-C	446	ASN
1	2-C	447	GLN
1	2-C	458	PHE
1	2-C	464	THR
1	2-C	474	ARG
1	2-C	477	SER

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Mol	Chain	Res	Type
1	2-C	482	ASN
1	2-C	488	SER
1	2-C	494	LEU
2	2-A	28	HIS
2	2-A	71	GLU
2	2-A	76	ASP
2	2-A	80	THR
2	2-A	82	THR
2	2-A	97	GLU
2	2-A	98	ASP
2	2-A	109	THR
2	2-A	116	ASP
2	2-A	130	THR
2	2-A	132	LEU
2	2-A	136	SER
2	2-A	140	SER
2	2-A	141	PHE
2	2-A	149	PHE
2	2-A	150	THR
2	2-A	160	ASP
2	2-A	169	PHE
2	2-A	170	SER
2	2-A	178	SER
2	2-A	185	TYR
2	2-A	189	LEU
2	2-A	194	THR
2	2-A	226	ASN
2	2-A	253	THR
2	2-A	277	SER
2	2-A	279	GLU
2	2-A	282	TYR
2	2-A	287	SER
2	2-A	315	CYS
2	2-A	322	ASP
2	2-A	327	ASP
2	2-A	340	THR
2	2-A	349	THR
2	2-A	361	THR
2	2-A	376	CYS
2	2-A	378	LEU
2	2-A	382	THR
2	2-A	425	MET

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Mol	Chain	Res	Type
2	2-A	439	SER
3	2-B	25	SER
3	2-B	33	THR
3	2-B	35	SER
3	2-B	48	ARG
3	2-B	52	TYR
3	2-B	67	LEU
3	2-B	71	GLU
3	2-B	76	ASP
3	2-B	77	SER
3	2-B	109	THR
3	2-B	128	SER
3	2-B	130	ASP
3	2-B	140	SER
3	2-B	145	THR
3	2-B	147	SER
3	2-B	151	THR
3	2-B	158	ARG
3	2-B	163	ASP
3	2-B	165	ILE
3	2-B	166	MET
3	2-B	170	SER
3	2-B	174	SER
3	2-B	179	ASP
3	2-B	185	TYR
3	2-B	205	ASP
3	2-B	213	CYS
3	2-B	216	THR
3	2-B	220	THR
3	2-B	221	THR
3	2-B	223	THR
3	2-B	224	TYR
3	2-B	234	THR
3	2-B	236	SER
3	2-B	239	THR
3	2-B	240	THR
3	2-B	243	ARG
3	2-B	272	PHE
3	2-B	276	THR
3	2-B	277	SER
3	2-B	280	SER
3	2-B	284	ARG

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Mol	Chain	Res	Type
3	2-B	287	THR
3	2-B	292	THR
3	2-B	314	THR
3	2-B	325	MET
3	2-B	326	LYS
3	2-B	341	SER
3	2-B	343	PHE
3	2-B	353	THR
3	2-B	396	THR
3	2-B	413	MET
3	2-B	432	TYR
1	3-C	66	VAL
1	3-C	69	ARG
1	3-C	70	ILE
1	3-C	76	SER
1	3-C	83	ASP
1	3-C	86	CYS
1	3-C	93	GLU
1	3-C	95	LEU
1	3-C	119	LYS
1	3-C	121	THR
1	3-C	125	ILE
1	3-C	129	GLU
1	3-C	132	GLN
1	3-C	136	PHE
1	3-C	141	LYS
1	3-C	151	GLN
1	3-C	152	ASN
1	3-C	168	THR
1	3-C	175	ASP
1	3-C	316	LEU
1	3-C	349	ARG
1	3-C	351	VAL
1	3-C	358	LEU
1	3-C	365	GLN
1	3-C	379	SER
1	3-C	385	ILE
1	3-C	389	HIS
1	3-C	390	LEU
1	3-C	399	LYS
1	3-C	400	ILE
1	3-C	401	SER

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Mol	Chain	Res	Type
1	3-C	432	SER
1	3-C	433	LEU
1	3-C	443	LEU
1	3-C	446	ASN
1	3-C	447	GLN
1	3-C	458	PHE
1	3-C	464	THR
1	3-C	474	ARG
1	3-C	477	SER
1	3-C	482	ASN
1	3-C	488	SER
1	3-C	494	LEU
2	3-A	28	HIS
2	3-A	71	GLU
2	3-A	76	ASP
2	3-A	80	THR
2	3-A	82	THR
2	3-A	97	GLU
2	3-A	98	ASP
2	3-A	109	THR
2	3-A	116	ASP
2	3-A	130	THR
2	3-A	132	LEU
2	3-A	136	SER
2	3-A	140	SER
2	3-A	141	PHE
2	3-A	149	PHE
2	3-A	150	THR
2	3-A	160	ASP
2	3-A	169	PHE
2	3-A	170	SER
2	3-A	178	SER
2	3-A	185	TYR
2	3-A	189	LEU
2	3-A	194	THR
2	3-A	226	ASN
2	3-A	253	THR
2	3-A	277	SER
2	3-A	279	GLU
2	3-A	282	TYR
2	3-A	287	SER
2	3-A	315	CYS

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Mol	Chain	Res	Type
2	3-A	322	ASP
2	3-A	327	ASP
2	3-A	340	THR
2	3-A	349	THR
2	3-A	361	THR
2	3-A	376	CYS
2	3-A	378	LEU
2	3-A	382	THR
2	3-A	425	MET
2	3-A	439	SER
3	3-B	25	SER
3	3-B	33	THR
3	3-B	35	SER
3	3-B	48	ARG
3	3-B	52	TYR
3	3-B	67	LEU
3	3-B	71	GLU
3	3-B	76	ASP
3	3-B	77	SER
3	3-B	109	THR
3	3-B	128	SER
3	3-B	130	ASP
3	3-B	140	SER
3	3-B	145	THR
3	3-B	147	SER
3	3-B	151	THR
3	3-B	158	ARG
3	3-B	163	ASP
3	3-B	165	ILE
3	3-B	166	MET
3	3-B	170	SER
3	3-B	174	SER
3	3-B	179	ASP
3	3-B	185	TYR
3	3-B	205	ASP
3	3-B	213	CYS
3	3-B	216	THR
3	3-B	220	THR
3	3-B	221	THR
3	3-B	223	THR
3	3-B	224	TYR
3	3-B	234	THR

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Mol	Chain	Res	Type
3	3-B	236	SER
3	3-B	239	THR
3	3-B	240	THR
3	3-B	243	ARG
3	3-B	272	PHE
3	3-B	276	THR
3	3-B	277	SER
3	3-B	280	SER
3	3-B	284	ARG
3	3-B	287	THR
3	3-B	292	THR
3	3-B	314	THR
3	3-B	325	MET
3	3-B	326	LYS
3	3-B	341	SER
3	3-B	343	PHE
3	3-B	353	THR
3	3-B	396	THR
3	3-B	413	MET
3	3-B	432	TYR
1	4-C	66	VAL
1	4-C	69	ARG
1	4-C	70	ILE
1	4-C	76	SER
1	4-C	83	ASP
1	4-C	86	CYS
1	4-C	93	GLU
1	4-C	95	LEU
1	4-C	119	LYS
1	4-C	121	THR
1	4-C	125	ILE
1	4-C	129	GLU
1	4-C	132	GLN
1	4-C	136	PHE
1	4-C	141	LYS
1	4-C	151	GLN
1	4-C	152	ASN
1	4-C	168	THR
1	4-C	175	ASP
1	4-C	316	LEU
1	4-C	349	ARG
1	4-C	351	VAL

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Mol	Chain	Res	Type
1	4-C	358	LEU
1	4-C	365	GLN
1	4-C	379	SER
1	4-C	385	ILE
1	4-C	389	HIS
1	4-C	390	LEU
1	4-C	399	LYS
1	4-C	400	ILE
1	4-C	401	SER
1	4-C	413	ARG
1	4-C	432	SER
1	4-C	433	LEU
1	4-C	443	LEU
1	4-C	446	ASN
1	4-C	447	GLN
1	4-C	458	PHE
1	4-C	464	THR
1	4-C	474	ARG
1	4-C	477	SER
1	4-C	482	ASN
1	4-C	488	SER
1	4-C	494	LEU
2	4-A	28	HIS
2	4-A	71	GLU
2	4-A	76	ASP
2	4-A	80	THR
2	4-A	82	THR
2	4-A	97	GLU
2	4-A	98	ASP
2	4-A	109	THR
2	4-A	116	ASP
2	4-A	130	THR
2	4-A	132	LEU
2	4-A	136	SER
2	4-A	140	SER
2	4-A	141	PHE
2	4-A	149	PHE
2	4-A	150	THR
2	4-A	160	ASP
2	4-A	169	PHE
2	4-A	170	SER
2	4-A	178	SER

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Mol	Chain	Res	Type
2	4-A	185	TYR
2	4-A	189	LEU
2	4-A	194	THR
2	4-A	226	ASN
2	4-A	253	THR
2	4-A	277	SER
2	4-A	279	GLU
2	4-A	282	TYR
2	4-A	287	SER
2	4-A	315	CYS
2	4-A	322	ASP
2	4-A	327	ASP
2	4-A	340	THR
2	4-A	349	THR
2	4-A	361	THR
2	4-A	376	CYS
2	4-A	378	LEU
2	4-A	382	THR
2	4-A	425	MET
2	4-A	439	SER
3	4-B	25	SER
3	4-B	33	THR
3	4-B	35	SER
3	4-B	48	ARG
3	4-B	52	TYR
3	4-B	67	LEU
3	4-B	71	GLU
3	4-B	76	ASP
3	4-B	77	SER
3	4-B	109	THR
3	4-B	128	SER
3	4-B	130	ASP
3	4-B	140	SER
3	4-B	145	THR
3	4-B	147	SER
3	4-B	151	THR
3	4-B	158	ARG
3	4-B	163	ASP
3	4-B	165	ILE
3	4-B	166	MET
3	4-B	170	SER
3	4-B	174	SER

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Mol	Chain	Res	Type
3	4-B	179	ASP
3	4-B	185	TYR
3	4-B	205	ASP
3	4-B	213	CYS
3	4-B	216	THR
3	4-B	220	THR
3	4-B	221	THR
3	4-B	223	THR
3	4-B	224	TYR
3	4-B	234	THR
3	4-B	236	SER
3	4-B	239	THR
3	4-B	240	THR
3	4-B	243	ARG
3	4-B	272	PHE
3	4-B	276	THR
3	4-B	277	SER
3	4-B	280	SER
3	4-B	284	ARG
3	4-B	287	THR
3	4-B	292	THR
3	4-B	314	THR
3	4-B	325	MET
3	4-B	326	LYS
3	4-B	341	SER
3	4-B	343	PHE
3	4-B	353	THR
3	4-B	396	THR
3	4-B	413	MET
3	4-B	432	TYR
1	5-C	66	VAL
1	5-C	69	ARG
1	5-C	70	ILE
1	5-C	76	SER
1	5-C	83	ASP
1	5-C	86	CYS
1	5-C	93	GLU
1	5-C	95	LEU
1	5-C	119	LYS
1	5-C	121	THR
1	5-C	125	ILE
1	5-C	129	GLU

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Mol	Chain	Res	Type
1	5-C	132	GLN
1	5-C	136	PHE
1	5-C	141	LYS
1	5-C	151	GLN
1	5-C	152	ASN
1	5-C	168	THR
1	5-C	175	ASP
1	5-C	316	LEU
1	5-C	349	ARG
1	5-C	351	VAL
1	5-C	358	LEU
1	5-C	365	GLN
1	5-C	379	SER
1	5-C	385	ILE
1	5-C	389	HIS
1	5-C	390	LEU
1	5-C	399	LYS
1	5-C	400	ILE
1	5-C	401	SER
1	5-C	432	SER
1	5-C	433	LEU
1	5-C	443	LEU
1	5-C	446	ASN
1	5-C	447	GLN
1	5-C	458	PHE
1	5-C	464	THR
1	5-C	474	ARG
1	5-C	477	SER
1	5-C	482	ASN
1	5-C	488	SER
1	5-C	494	LEU
2	5-A	28	HIS
2	5-A	71	GLU
2	5-A	76	ASP
2	5-A	80	THR
2	5-A	82	THR
2	5-A	97	GLU
2	5-A	98	ASP
2	5-A	109	THR
2	5-A	116	ASP
2	5-A	130	THR
2	5-A	132	LEU

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Mol	Chain	Res	Type
2	5-A	136	SER
2	5-A	140	SER
2	5-A	141	PHE
2	5-A	149	PHE
2	5-A	150	THR
2	5-A	160	ASP
2	5-A	169	PHE
2	5-A	170	SER
2	5-A	178	SER
2	5-A	185	TYR
2	5-A	189	LEU
2	5-A	194	THR
2	5-A	226	ASN
2	5-A	253	THR
2	5-A	277	SER
2	5-A	279	GLU
2	5-A	282	TYR
2	5-A	287	SER
2	5-A	315	CYS
2	5-A	322	ASP
2	5-A	327	ASP
2	5-A	340	THR
2	5-A	349	THR
2	5-A	361	THR
2	5-A	376	CYS
2	5-A	378	LEU
2	5-A	382	THR
2	5-A	425	MET
2	5-A	439	SER
3	5-B	25	SER
3	5-B	33	THR
3	5-B	35	SER
3	5-B	48	ARG
3	5-B	52	TYR
3	5-B	67	LEU
3	5-B	71	GLU
3	5-B	76	ASP
3	5-B	77	SER
3	5-B	109	THR
3	5-B	128	SER
3	5-B	130	ASP
3	5-B	140	SER

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Mol	Chain	Res	Type
3	5-B	145	THR
3	5-B	147	SER
3	5-B	151	THR
3	5-B	158	ARG
3	5-B	163	ASP
3	5-B	165	ILE
3	5-B	166	MET
3	5-B	170	SER
3	5-B	174	SER
3	5-B	179	ASP
3	5-B	185	TYR
3	5-B	205	ASP
3	5-B	213	CYS
3	5-B	216	THR
3	5-B	220	THR
3	5-B	221	THR
3	5-B	223	THR
3	5-B	224	TYR
3	5-B	234	THR
3	5-B	236	SER
3	5-B	239	THR
3	5-B	240	THR
3	5-B	243	ARG
3	5-B	272	PHE
3	5-B	276	THR
3	5-B	277	SER
3	5-B	280	SER
3	5-B	284	ARG
3	5-B	287	THR
3	5-B	292	THR
3	5-B	314	THR
3	5-B	325	MET
3	5-B	326	LYS
3	5-B	341	SER
3	5-B	343	PHE
3	5-B	353	THR
3	5-B	396	THR
3	5-B	413	MET
3	5-B	432	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (77) such sidechains are listed below:

Mol	Chain	Res	Type
1	1-C	118	HIS
1	1-C	132	GLN
1	1-C	152	ASN
1	1-C	170	GLN
1	1-C	309	ASN
1	1-C	344	ASN
1	1-C	430	ASN
1	1-C	449	ASN
1	1-C	495	HIS
2	1-A	192	HIS
3	1-B	11	GLN
3	1-B	167	ASN
3	1-B	300	ASN
3	1-B	337	ASN
3	1-B	424	ASN
1	2-C	118	HIS
1	2-C	132	GLN
1	2-C	152	ASN
1	2-C	170	GLN
1	2-C	309	ASN
1	2-C	326	GLN
1	2-C	344	ASN
1	2-C	380	HIS
1	2-C	430	ASN
1	2-C	449	ASN
1	2-C	495	HIS
2	2-A	192	HIS
3	2-B	11	GLN
3	2-B	167	ASN
3	2-B	300	ASN
3	2-B	337	ASN
3	2-B	424	ASN
1	3-C	118	HIS
1	3-C	132	GLN
1	3-C	152	ASN
1	3-C	170	GLN
1	3-C	309	ASN
1	3-C	344	ASN
1	3-C	430	ASN
1	3-C	445	GLN
1	3-C	449	ASN
1	3-C	495	HIS
2	3-A	192	HIS

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Mol	Chain	Res	Type
3	3-B	11	GLN
3	3-B	167	ASN
3	3-B	300	ASN
3	3-B	337	ASN
3	3-B	424	ASN
1	4-C	118	HIS
1	4-C	132	GLN
1	4-C	152	ASN
1	4-C	170	GLN
1	4-C	309	ASN
1	4-C	344	ASN
1	4-C	430	ASN
1	4-C	495	HIS
2	4-A	192	HIS
3	4-B	11	GLN
3	4-B	167	ASN
3	4-B	300	ASN
3	4-B	337	ASN
3	4-B	424	ASN
1	5-C	118	HIS
1	5-C	132	GLN
1	5-C	152	ASN
1	5-C	170	GLN
1	5-C	344	ASN
1	5-C	380	HIS
1	5-C	430	ASN
1	5-C	449	ASN
1	5-C	495	HIS
2	5-A	192	HIS
3	5-B	11	GLN
3	5-B	167	ASN
3	5-B	300	ASN
3	5-B	337	ASN
3	5-B	424	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 30 ligands modelled in this entry, 10 are monoatomic - leaving 20 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	$\#\|Z\|>2$
6	GTP	2-A	500	2,4	26,34,34	1.33	4 (15%)	32,54,54	1.02	2 (6%)
7	GDP	4-B	600	-	24,30,30	2.58	9 (37%)	30,47,47	2.92	8 (26%)
8	TA1	1-B	601	-	68,68,68	2.01	19 (27%)	105,105,105	1.39	11 (10%)
7	GDP	1-B	600	-	24,30,30	2.58	9 (37%)	30,47,47	2.92	8 (26%)
6	GTP	4-A	500	2,4	26,34,34	1.33	4 (15%)	32,54,54	1.02	2 (6%)
6	GTP	1-A	500	2,4	26,34,34	1.33	4 (15%)	32,54,54	1.02	2 (6%)
7	GDP	3-B	600	-	24,30,30	2.58	9 (37%)	30,47,47	2.92	8 (26%)
7	GDP	5-B	600	-	24,30,30	2.58	9 (37%)	30,47,47	2.92	8 (26%)
5	ANP	5-C	602	4	29,33,33	2.10	8 (27%)	31,52,52	3.42	15 (48%)
6	GTP	3-A	500	2,4	26,34,34	1.33	4 (15%)	32,54,54	1.02	2 (6%)
7	GDP	2-B	600	-	24,30,30	2.58	9 (37%)	30,47,47	2.92	8 (26%)
8	TA1	2-B	601	-	68,68,68	2.01	19 (27%)	105,105,105	1.39	11 (10%)
8	TA1	3-B	601	-	68,68,68	2.01	19 (27%)	105,105,105	1.39	11 (10%)
6	GTP	5-A	500	2,4	26,34,34	1.33	4 (15%)	32,54,54	1.02	2 (6%)
5	ANP	1-C	602	4	29,33,33	2.10	9 (31%)	31,52,52	3.42	15 (48%)
5	ANP	3-C	602	4	29,33,33	2.09	8 (27%)	31,52,52	3.42	15 (48%)
8	TA1	5-B	601	-	68,68,68	2.01	19 (27%)	105,105,105	1.39	11 (10%)
8	TA1	4-B	601	-	68,68,68	2.01	19 (27%)	105,105,105	1.39	11 (10%)
5	ANP	4-C	602	4	29,33,33	2.10	9 (31%)	31,52,52	3.42	15 (48%)
5	ANP	2-C	602	4	29,33,33	2.09	9 (31%)	31,52,52	3.42	15 (48%)

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
6	GTP	2-A	500	2,4	-	3/18/38/38	0/3/3/3
7	GDP	4-B	600	-	-	4/12/32/32	0/3/3/3
8	TA1	1-B	601	-	-	9/41/127/127	0/7/7/7
7	GDP	1-B	600	-	-	4/12/32/32	0/3/3/3
6	GTP	4-A	500	2,4	-	3/18/38/38	0/3/3/3
6	GTP	1-A	500	2,4	-	3/18/38/38	0/3/3/3
7	GDP	3-B	600	-	-	4/12/32/32	0/3/3/3
7	GDP	5-B	600	-	-	4/12/32/32	0/3/3/3
5	ANP	5-C	602	4	-	9/14/38/38	0/3/3/3
6	GTP	3-A	500	2,4	-	3/18/38/38	0/3/3/3
7	GDP	2-B	600	-	-	4/12/32/32	0/3/3/3
8	TA1	2-B	601	-	-	9/41/127/127	0/7/7/7
8	TA1	3-B	601	-	-	9/41/127/127	0/7/7/7
6	GTP	5-A	500	2,4	-	3/18/38/38	0/3/3/3
5	ANP	1-C	602	4	-	9/14/38/38	0/3/3/3
5	ANP	3-C	602	4	-	9/14/38/38	0/3/3/3
8	TA1	5-B	601	-	-	9/41/127/127	0/7/7/7
8	TA1	4-B	601	-	-	9/41/127/127	0/7/7/7
5	ANP	4-C	602	4	-	9/14/38/38	0/3/3/3
5	ANP	2-C	602	4	-	9/14/38/38	0/3/3/3

All (203) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	4-C	602	ANP	PB-O2B	-6.23	1.40	1.56
5	2-C	602	ANP	PB-O2B	-6.21	1.40	1.56
5	5-C	602	ANP	PB-O2B	-6.21	1.40	1.56
5	1-C	602	ANP	PB-O2B	-6.19	1.40	1.56
7	1-B	600	GDP	O4'-C1'	6.18	1.49	1.41
7	2-B	600	GDP	O4'-C1'	6.18	1.49	1.41
7	3-B	600	GDP	O4'-C1'	6.18	1.49	1.41
7	4-B	600	GDP	O4'-C1'	6.18	1.49	1.41
7	5-B	600	GDP	O4'-C1'	6.18	1.49	1.41
5	3-C	602	ANP	PB-O2B	-6.15	1.40	1.56
7	1-B	600	GDP	O6-C6	5.66	1.34	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	2-B	600	GDP	O6-C6	5.66	1.34	1.23
7	3-B	600	GDP	O6-C6	5.66	1.34	1.23
7	4-B	600	GDP	O6-C6	5.66	1.34	1.23
7	5-B	600	GDP	O6-C6	5.66	1.34	1.23
8	1-B	601	TA1	C06-C05	5.27	1.50	1.38
8	2-B	601	TA1	C06-C05	5.27	1.50	1.38
8	3-B	601	TA1	C06-C05	5.27	1.50	1.38
8	4-B	601	TA1	C06-C05	5.27	1.50	1.38
8	5-B	601	TA1	C06-C05	5.27	1.50	1.38
8	1-B	601	TA1	C18-C10	5.11	1.69	1.57
8	2-B	601	TA1	C18-C10	5.11	1.69	1.57
8	3-B	601	TA1	C18-C10	5.11	1.69	1.57
8	4-B	601	TA1	C18-C10	5.11	1.69	1.57
8	5-B	601	TA1	C18-C10	5.11	1.69	1.57
5	1-C	602	ANP	PB-O3A	5.00	1.65	1.59
5	4-C	602	ANP	PB-O3A	4.96	1.65	1.59
5	5-C	602	ANP	PB-O3A	4.93	1.65	1.59
5	2-C	602	ANP	PB-O3A	4.91	1.65	1.59
5	3-C	602	ANP	PB-O3A	4.88	1.65	1.59
7	1-B	600	GDP	C2-N1	4.64	1.49	1.37
7	2-B	600	GDP	C2-N1	4.64	1.49	1.37
7	3-B	600	GDP	C2-N1	4.64	1.49	1.37
7	4-B	600	GDP	C2-N1	4.64	1.49	1.37
7	5-B	600	GDP	C2-N1	4.64	1.49	1.37
8	1-B	601	TA1	C08-C07	-4.63	1.25	1.38
8	2-B	601	TA1	C08-C07	-4.63	1.25	1.38
8	3-B	601	TA1	C08-C07	-4.63	1.25	1.38
8	4-B	601	TA1	C08-C07	-4.63	1.25	1.38
8	5-B	601	TA1	C08-C07	-4.63	1.25	1.38
8	1-B	601	TA1	C05-C04	4.33	1.46	1.39
8	2-B	601	TA1	C05-C04	4.33	1.46	1.39
8	3-B	601	TA1	C05-C04	4.33	1.46	1.39
8	4-B	601	TA1	C05-C04	4.33	1.46	1.39
8	5-B	601	TA1	C05-C04	4.33	1.46	1.39
8	1-B	601	TA1	C45-C24	3.99	1.61	1.54
8	2-B	601	TA1	C45-C24	3.99	1.61	1.54
8	3-B	601	TA1	C45-C24	3.99	1.61	1.54
8	4-B	601	TA1	C45-C24	3.99	1.61	1.54
8	5-B	601	TA1	C45-C24	3.99	1.61	1.54
5	5-C	602	ANP	PG-O2G	-3.77	1.46	1.56
5	1-C	602	ANP	PG-O2G	-3.76	1.46	1.56
7	1-B	600	GDP	PB-O2B	-3.76	1.40	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	2-B	600	GDP	PB-O2B	-3.76	1.40	1.54
7	3-B	600	GDP	PB-O2B	-3.76	1.40	1.54
7	4-B	600	GDP	PB-O2B	-3.76	1.40	1.54
7	5-B	600	GDP	PB-O2B	-3.76	1.40	1.54
5	2-C	602	ANP	PG-O2G	-3.74	1.46	1.56
5	4-C	602	ANP	PG-O2G	-3.74	1.46	1.56
5	3-C	602	ANP	PG-O2G	-3.74	1.46	1.56
6	1-A	500	GTP	C5-C6	-3.72	1.39	1.47
6	2-A	500	GTP	C5-C6	-3.72	1.39	1.47
6	3-A	500	GTP	C5-C6	-3.72	1.39	1.47
6	4-A	500	GTP	C5-C6	-3.72	1.39	1.47
6	5-A	500	GTP	C5-C6	-3.72	1.39	1.47
8	1-B	601	TA1	O02-C03	3.55	1.41	1.34
8	2-B	601	TA1	O02-C03	3.55	1.41	1.34
8	3-B	601	TA1	O02-C03	3.55	1.41	1.34
8	4-B	601	TA1	O02-C03	3.55	1.41	1.34
8	5-B	601	TA1	O02-C03	3.55	1.41	1.34
7	1-B	600	GDP	C8-N7	3.50	1.41	1.35
7	2-B	600	GDP	C8-N7	3.50	1.41	1.35
7	3-B	600	GDP	C8-N7	3.50	1.41	1.35
7	4-B	600	GDP	C8-N7	3.50	1.41	1.35
7	5-B	600	GDP	C8-N7	3.50	1.41	1.35
8	1-B	601	TA1	C36-C31	3.41	1.45	1.39
8	2-B	601	TA1	C36-C31	3.41	1.45	1.39
8	3-B	601	TA1	C36-C31	3.41	1.45	1.39
8	4-B	601	TA1	C36-C31	3.41	1.45	1.39
8	5-B	601	TA1	C36-C31	3.41	1.45	1.39
8	1-B	601	TA1	C25-C24	3.24	1.39	1.34
8	2-B	601	TA1	C25-C24	3.24	1.39	1.34
8	3-B	601	TA1	C25-C24	3.24	1.39	1.34
8	4-B	601	TA1	C25-C24	3.24	1.39	1.34
8	5-B	601	TA1	C25-C24	3.24	1.39	1.34
8	1-B	601	TA1	C46-C45	3.14	1.60	1.53
8	2-B	601	TA1	C46-C45	3.14	1.60	1.53
8	3-B	601	TA1	C46-C45	3.14	1.60	1.53
8	4-B	601	TA1	C46-C45	3.14	1.60	1.53
8	5-B	601	TA1	C46-C45	3.14	1.60	1.53
8	1-B	601	TA1	C43-C01	3.12	1.61	1.54
8	2-B	601	TA1	C43-C01	3.12	1.61	1.54
8	3-B	601	TA1	C43-C01	3.12	1.61	1.54
8	4-B	601	TA1	C43-C01	3.12	1.61	1.54
8	5-B	601	TA1	C43-C01	3.12	1.61	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
8	1-B	601	TA1	C11-C10	2.98	1.61	1.54
8	2-B	601	TA1	C11-C10	2.98	1.61	1.54
8	3-B	601	TA1	C11-C10	2.98	1.61	1.54
8	4-B	601	TA1	C11-C10	2.98	1.61	1.54
8	5-B	601	TA1	C11-C10	2.98	1.61	1.54
7	1-B	600	GDP	C5-C6	-2.84	1.41	1.47
7	2-B	600	GDP	C5-C6	-2.84	1.41	1.47
7	3-B	600	GDP	C5-C6	-2.84	1.41	1.47
7	4-B	600	GDP	C5-C6	-2.84	1.41	1.47
7	5-B	600	GDP	C5-C6	-2.84	1.41	1.47
5	3-C	602	ANP	C2-N1	2.79	1.39	1.33
5	3-C	602	ANP	PG-O1G	2.76	1.50	1.46
5	5-C	602	ANP	PG-O1G	2.76	1.50	1.46
5	5-C	602	ANP	C2-N1	2.74	1.39	1.33
5	4-C	602	ANP	PG-O1G	2.74	1.50	1.46
5	1-C	602	ANP	C2-N1	2.73	1.39	1.33
5	2-C	602	ANP	PG-O1G	2.73	1.50	1.46
5	4-C	602	ANP	C2-N1	2.71	1.39	1.33
8	1-B	601	TA1	C43-C26	2.71	1.58	1.52
8	2-B	601	TA1	C43-C26	2.71	1.58	1.52
8	3-B	601	TA1	C43-C26	2.71	1.58	1.52
8	4-B	601	TA1	C43-C26	2.71	1.58	1.52
8	5-B	601	TA1	C43-C26	2.71	1.58	1.52
5	1-C	602	ANP	PG-O1G	2.70	1.50	1.46
5	2-C	602	ANP	C2-N1	2.70	1.38	1.33
6	1-A	500	GTP	C6-N1	2.61	1.41	1.37
6	2-A	500	GTP	C6-N1	2.61	1.41	1.37
6	3-A	500	GTP	C6-N1	2.61	1.41	1.37
6	4-A	500	GTP	C6-N1	2.61	1.41	1.37
6	5-A	500	GTP	C6-N1	2.61	1.41	1.37
8	1-B	601	TA1	C26-C25	2.48	1.56	1.51
8	2-B	601	TA1	C26-C25	2.48	1.56	1.51
8	3-B	601	TA1	C26-C25	2.48	1.56	1.51
8	4-B	601	TA1	C26-C25	2.48	1.56	1.51
8	5-B	601	TA1	C26-C25	2.48	1.56	1.51
5	1-C	602	ANP	PG-O3G	-2.43	1.50	1.56
7	1-B	600	GDP	C2-N3	-2.41	1.27	1.33
7	2-B	600	GDP	C2-N3	-2.41	1.27	1.33
7	3-B	600	GDP	C2-N3	-2.41	1.27	1.33
7	4-B	600	GDP	C2-N3	-2.41	1.27	1.33
7	5-B	600	GDP	C2-N3	-2.41	1.27	1.33
5	3-C	602	ANP	PG-O3G	-2.41	1.50	1.56

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	2-C	602	ANP	PG-O3G	-2.41	1.50	1.56
8	1-B	601	TA1	C18-C20	2.41	1.62	1.55
8	2-B	601	TA1	C18-C20	2.41	1.62	1.55
8	3-B	601	TA1	C18-C20	2.41	1.62	1.55
8	4-B	601	TA1	C18-C20	2.41	1.62	1.55
8	5-B	601	TA1	C18-C20	2.41	1.62	1.55
5	5-C	602	ANP	PG-O3G	-2.40	1.50	1.56
5	4-C	602	ANP	PG-O3G	-2.40	1.50	1.56
7	1-B	600	GDP	PB-O3B	2.38	1.64	1.54
7	2-B	600	GDP	PB-O3B	2.38	1.64	1.54
7	3-B	600	GDP	PB-O3B	2.38	1.64	1.54
7	4-B	600	GDP	PB-O3B	2.38	1.64	1.54
7	5-B	600	GDP	PB-O3B	2.38	1.64	1.54
6	1-A	500	GTP	C8-N7	-2.36	1.31	1.35
6	2-A	500	GTP	C8-N7	-2.36	1.31	1.35
6	3-A	500	GTP	C8-N7	-2.36	1.31	1.35
6	4-A	500	GTP	C8-N7	-2.36	1.31	1.35
6	5-A	500	GTP	C8-N7	-2.36	1.31	1.35
8	1-B	601	TA1	C04-C03	-2.35	1.44	1.50
8	2-B	601	TA1	C04-C03	-2.35	1.44	1.50
8	3-B	601	TA1	C04-C03	-2.35	1.44	1.50
8	4-B	601	TA1	C04-C03	-2.35	1.44	1.50
8	5-B	601	TA1	C04-C03	-2.35	1.44	1.50
8	1-B	601	TA1	C01-C45	2.33	1.66	1.56
8	2-B	601	TA1	C01-C45	2.33	1.66	1.56
8	3-B	601	TA1	C01-C45	2.33	1.66	1.56
8	4-B	601	TA1	C01-C45	2.33	1.66	1.56
8	5-B	601	TA1	C01-C45	2.33	1.66	1.56
5	1-C	602	ANP	C5'-C4'	2.33	1.58	1.51
5	3-C	602	ANP	C5'-C4'	2.30	1.58	1.51
5	4-C	602	ANP	C5'-C4'	2.29	1.58	1.51
5	5-C	602	ANP	C5'-C4'	2.28	1.58	1.51
5	2-C	602	ANP	C5'-C4'	2.27	1.58	1.51
8	1-B	601	TA1	C16-C15	2.26	1.56	1.52
8	2-B	601	TA1	C16-C15	2.26	1.56	1.52
8	3-B	601	TA1	C16-C15	2.26	1.56	1.52
8	4-B	601	TA1	C16-C15	2.26	1.56	1.52
8	5-B	601	TA1	C16-C15	2.26	1.56	1.52
6	1-A	500	GTP	O4'-C1'	2.14	1.44	1.41
6	2-A	500	GTP	O4'-C1'	2.14	1.44	1.41
6	3-A	500	GTP	O4'-C1'	2.14	1.44	1.41
6	4-A	500	GTP	O4'-C1'	2.14	1.44	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	5-A	500	GTP	O4'-C1'	2.14	1.44	1.41
8	1-B	601	TA1	C10-C02	2.11	1.62	1.57
8	2-B	601	TA1	C10-C02	2.11	1.62	1.57
8	3-B	601	TA1	C10-C02	2.11	1.62	1.57
8	4-B	601	TA1	C10-C02	2.11	1.62	1.57
8	5-B	601	TA1	C10-C02	2.11	1.62	1.57
8	1-B	601	TA1	C37-C29	2.10	1.54	1.52
8	2-B	601	TA1	C37-C29	2.10	1.54	1.52
8	3-B	601	TA1	C37-C29	2.10	1.54	1.52
8	4-B	601	TA1	C37-C29	2.10	1.54	1.52
8	5-B	601	TA1	C37-C29	2.10	1.54	1.52
5	4-C	602	ANP	C2'-C1'	-2.09	1.50	1.53
5	3-C	602	ANP	C6-N6	-2.05	1.26	1.34
5	2-C	602	ANP	C2'-C1'	-2.03	1.50	1.53
5	2-C	602	ANP	C6-N6	-2.03	1.26	1.34
5	5-C	602	ANP	C6-N6	-2.03	1.26	1.34
5	4-C	602	ANP	C6-N6	-2.02	1.26	1.34
7	1-B	600	GDP	O3'-C3'	2.02	1.47	1.43
7	2-B	600	GDP	O3'-C3'	2.02	1.47	1.43
7	3-B	600	GDP	O3'-C3'	2.02	1.47	1.43
7	4-B	600	GDP	O3'-C3'	2.02	1.47	1.43
7	5-B	600	GDP	O3'-C3'	2.02	1.47	1.43
5	1-C	602	ANP	C6-N6	-2.02	1.26	1.34
5	1-C	602	ANP	C2'-C1'	-2.01	1.50	1.53

All (180) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	1-B	600	GDP	C8-N7-C5	9.26	120.62	102.99
7	2-B	600	GDP	C8-N7-C5	9.26	120.62	102.99
7	3-B	600	GDP	C8-N7-C5	9.26	120.62	102.99
7	4-B	600	GDP	C8-N7-C5	9.26	120.62	102.99
7	5-B	600	GDP	C8-N7-C5	9.26	120.62	102.99
5	3-C	602	ANP	O2B-PB-O1B	8.81	128.39	109.92
5	1-C	602	ANP	O2B-PB-O1B	8.78	128.33	109.92
5	5-C	602	ANP	O2B-PB-O1B	8.78	128.33	109.92
5	4-C	602	ANP	O2B-PB-O1B	8.78	128.32	109.92
5	2-C	602	ANP	O2B-PB-O1B	8.75	128.26	109.92
5	5-C	602	ANP	O5'-PA-O1A	-8.05	77.61	109.07
5	1-C	602	ANP	O5'-PA-O1A	-8.05	77.62	109.07
5	4-C	602	ANP	O5'-PA-O1A	-8.05	77.62	109.07
5	2-C	602	ANP	O5'-PA-O1A	-8.04	77.64	109.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	3-C	602	ANP	O5'-PA-O1A	-8.03	77.68	109.07
7	1-B	600	GDP	N2-C2-N3	6.28	131.96	119.74
7	2-B	600	GDP	N2-C2-N3	6.28	131.96	119.74
7	3-B	600	GDP	N2-C2-N3	6.28	131.96	119.74
7	4-B	600	GDP	N2-C2-N3	6.28	131.96	119.74
7	5-B	600	GDP	N2-C2-N3	6.28	131.96	119.74
5	2-C	602	ANP	O2B-PB-O3A	-6.25	83.79	104.64
5	1-C	602	ANP	O2B-PB-O3A	-6.24	83.81	104.64
5	3-C	602	ANP	O2B-PB-O3A	-6.23	83.84	104.64
5	5-C	602	ANP	O2B-PB-O3A	-6.23	83.85	104.64
5	4-C	602	ANP	O2B-PB-O3A	-6.22	83.88	104.64
5	5-C	602	ANP	O3A-PB-N3B	-6.10	89.66	106.59
5	1-C	602	ANP	O3A-PB-N3B	-6.10	89.67	106.59
5	3-C	602	ANP	O3A-PB-N3B	-6.09	89.68	106.59
5	2-C	602	ANP	O3A-PB-N3B	-6.09	89.70	106.59
5	4-C	602	ANP	O3A-PB-N3B	-6.08	89.73	106.59
5	2-C	602	ANP	O2A-PA-O5'	-6.07	79.53	107.75
5	4-C	602	ANP	O2A-PA-O5'	-6.07	79.54	107.75
5	1-C	602	ANP	O2A-PA-O5'	-6.07	79.55	107.75
5	5-C	602	ANP	O2A-PA-O5'	-6.07	79.57	107.75
7	1-B	600	GDP	C5-C6-N1	6.06	124.66	113.95
7	2-B	600	GDP	C5-C6-N1	6.06	124.66	113.95
7	3-B	600	GDP	C5-C6-N1	6.06	124.66	113.95
7	4-B	600	GDP	C5-C6-N1	6.06	124.66	113.95
7	5-B	600	GDP	C5-C6-N1	6.06	124.66	113.95
5	3-C	602	ANP	O2A-PA-O5'	-6.06	79.59	107.75
8	1-B	601	TA1	C06-C05-C04	-4.83	114.62	120.34
8	2-B	601	TA1	C06-C05-C04	-4.83	114.62	120.34
8	3-B	601	TA1	C06-C05-C04	-4.83	114.62	120.34
8	4-B	601	TA1	C06-C05-C04	-4.83	114.62	120.34
8	5-B	601	TA1	C06-C05-C04	-4.83	114.62	120.34
5	2-C	602	ANP	C5-C6-N6	4.79	127.63	120.35
5	5-C	602	ANP	C5-C6-N6	4.78	127.62	120.35
5	1-C	602	ANP	C5-C6-N6	4.77	127.60	120.35
5	4-C	602	ANP	C5-C6-N6	4.74	127.56	120.35
5	3-C	602	ANP	C5-C6-N6	4.74	127.56	120.35
8	1-B	601	TA1	C07-C08-C09	4.72	127.38	120.19
8	2-B	601	TA1	C07-C08-C09	4.72	127.38	120.19
8	3-B	601	TA1	C07-C08-C09	4.72	127.38	120.19
8	4-B	601	TA1	C07-C08-C09	4.72	127.38	120.19
8	5-B	601	TA1	C07-C08-C09	4.72	127.38	120.19
7	1-B	600	GDP	O6-C6-C5	-4.24	116.09	124.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	2-B	600	GDP	O6-C6-C5	-4.24	116.09	124.37
7	3-B	600	GDP	O6-C6-C5	-4.24	116.09	124.37
7	4-B	600	GDP	O6-C6-C5	-4.24	116.09	124.37
7	5-B	600	GDP	O6-C6-C5	-4.24	116.09	124.37
7	1-B	600	GDP	N2-C2-N1	-4.19	107.80	116.71
7	2-B	600	GDP	N2-C2-N1	-4.19	107.80	116.71
7	3-B	600	GDP	N2-C2-N1	-4.19	107.80	116.71
7	4-B	600	GDP	N2-C2-N1	-4.19	107.80	116.71
7	5-B	600	GDP	N2-C2-N1	-4.19	107.80	116.71
8	1-B	601	TA1	C05-C04-C03	-3.93	111.53	120.40
8	2-B	601	TA1	C05-C04-C03	-3.93	111.53	120.40
8	3-B	601	TA1	C05-C04-C03	-3.93	111.53	120.40
8	4-B	601	TA1	C05-C04-C03	-3.93	111.53	120.40
8	5-B	601	TA1	C05-C04-C03	-3.93	111.53	120.40
7	1-B	600	GDP	C2-N1-C6	-3.71	118.26	125.10
7	2-B	600	GDP	C2-N1-C6	-3.71	118.26	125.10
7	3-B	600	GDP	C2-N1-C6	-3.71	118.26	125.10
7	4-B	600	GDP	C2-N1-C6	-3.71	118.26	125.10
7	5-B	600	GDP	C2-N1-C6	-3.71	118.26	125.10
5	4-C	602	ANP	N3-C2-N1	-3.58	123.08	128.68
5	2-C	602	ANP	N3-C2-N1	-3.56	123.12	128.68
5	5-C	602	ANP	N3-C2-N1	-3.55	123.14	128.68
5	1-C	602	ANP	N3-C2-N1	-3.53	123.15	128.68
5	2-C	602	ANP	C5-C6-N1	-3.53	112.34	120.35
5	3-C	602	ANP	N3-C2-N1	-3.52	123.17	128.68
5	5-C	602	ANP	C5-C6-N1	-3.52	112.38	120.35
5	3-C	602	ANP	C5-C6-N1	-3.51	112.39	120.35
8	1-B	601	TA1	C09-C04-C03	3.51	128.33	120.40
8	2-B	601	TA1	C09-C04-C03	3.51	128.33	120.40
8	3-B	601	TA1	C09-C04-C03	3.51	128.33	120.40
8	4-B	601	TA1	C09-C04-C03	3.51	128.33	120.40
8	5-B	601	TA1	C09-C04-C03	3.51	128.33	120.40
5	4-C	602	ANP	C5-C6-N1	-3.50	112.41	120.35
5	1-C	602	ANP	C5-C6-N1	-3.49	112.44	120.35
7	1-B	600	GDP	C2'-C3'-C4'	3.38	109.22	102.64
7	2-B	600	GDP	C2'-C3'-C4'	3.38	109.22	102.64
7	3-B	600	GDP	C2'-C3'-C4'	3.38	109.22	102.64
7	4-B	600	GDP	C2'-C3'-C4'	3.38	109.22	102.64
7	5-B	600	GDP	C2'-C3'-C4'	3.38	109.22	102.64
5	2-C	602	ANP	C2-N1-C6	3.22	124.26	118.75
5	4-C	602	ANP	C2-N1-C6	3.22	124.26	118.75
5	1-C	602	ANP	C2-N1-C6	3.20	124.22	118.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	5-C	602	ANP	C2-N1-C6	3.19	124.21	118.75
5	3-C	602	ANP	C2-N1-C6	3.19	124.21	118.75
8	1-B	601	TA1	C17-C18-C20	3.13	109.82	102.59
8	2-B	601	TA1	C17-C18-C20	3.13	109.82	102.59
8	3-B	601	TA1	C17-C18-C20	3.13	109.82	102.59
8	4-B	601	TA1	C17-C18-C20	3.13	109.82	102.59
8	5-B	601	TA1	C17-C18-C20	3.13	109.82	102.59
8	1-B	601	TA1	C45-C01-C02	3.06	115.25	111.91
8	2-B	601	TA1	C45-C01-C02	3.06	115.25	111.91
8	3-B	601	TA1	C45-C01-C02	3.06	115.25	111.91
8	4-B	601	TA1	C45-C01-C02	3.06	115.25	111.91
8	5-B	601	TA1	C45-C01-C02	3.06	115.25	111.91
5	2-C	602	ANP	O4'-C4'-C3'	-2.98	99.21	105.11
5	5-C	602	ANP	O4'-C4'-C3'	-2.98	99.22	105.11
5	1-C	602	ANP	O4'-C4'-C3'	-2.98	99.22	105.11
5	3-C	602	ANP	O4'-C4'-C3'	-2.96	99.25	105.11
5	4-C	602	ANP	O4'-C4'-C3'	-2.95	99.27	105.11
8	1-B	601	TA1	O04-C11-C14	-2.93	101.69	108.09
8	2-B	601	TA1	O04-C11-C14	-2.93	101.69	108.09
8	3-B	601	TA1	O04-C11-C14	-2.93	101.69	108.09
8	4-B	601	TA1	O04-C11-C14	-2.93	101.69	108.09
8	5-B	601	TA1	O04-C11-C14	-2.93	101.69	108.09
8	1-B	601	TA1	O01-C01-C43	2.52	113.34	107.03
8	2-B	601	TA1	O01-C01-C43	2.52	113.34	107.03
8	3-B	601	TA1	O01-C01-C43	2.52	113.34	107.03
8	4-B	601	TA1	O01-C01-C43	2.52	113.34	107.03
8	5-B	601	TA1	O01-C01-C43	2.52	113.34	107.03
5	2-C	602	ANP	O1B-PB-N3B	2.39	115.29	111.77
5	3-C	602	ANP	O1B-PB-N3B	2.39	115.29	111.77
5	5-C	602	ANP	O1B-PB-N3B	2.38	115.27	111.77
5	1-C	602	ANP	O1B-PB-N3B	2.36	115.25	111.77
5	4-C	602	ANP	O5'-C5'-C4'	-2.36	100.86	108.99
5	3-C	602	ANP	O2A-PA-O1A	2.36	123.91	112.24
5	4-C	602	ANP	O1B-PB-N3B	2.35	115.23	111.77
5	2-C	602	ANP	O5'-C5'-C4'	-2.35	100.89	108.99
5	5-C	602	ANP	O2A-PA-O1A	2.35	123.86	112.24
5	5-C	602	ANP	O5'-C5'-C4'	-2.35	100.90	108.99
5	1-C	602	ANP	O5'-C5'-C4'	-2.35	100.91	108.99
5	1-C	602	ANP	O2A-PA-O1A	2.35	123.83	112.24
5	3-C	602	ANP	O5'-C5'-C4'	-2.34	100.92	108.99
5	2-C	602	ANP	O2A-PA-O1A	2.34	123.81	112.24
5	4-C	602	ANP	O2A-PA-O1A	2.34	123.80	112.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	1-B	600	GDP	O2'-C2'-C3'	2.27	119.18	111.82
7	2-B	600	GDP	O2'-C2'-C3'	2.27	119.18	111.82
7	3-B	600	GDP	O2'-C2'-C3'	2.27	119.18	111.82
7	4-B	600	GDP	O2'-C2'-C3'	2.27	119.18	111.82
7	5-B	600	GDP	O2'-C2'-C3'	2.27	119.18	111.82
8	1-B	601	TA1	C14-C11-C15	-2.22	83.04	85.40
8	2-B	601	TA1	C14-C11-C15	-2.22	83.04	85.40
8	3-B	601	TA1	C14-C11-C15	-2.22	83.04	85.40
8	4-B	601	TA1	C14-C11-C15	-2.22	83.04	85.40
8	5-B	601	TA1	C14-C11-C15	-2.22	83.04	85.40
5	4-C	602	ANP	O3G-PG-O1G	-2.20	107.92	113.45
5	3-C	602	ANP	O2G-PG-O1G	-2.18	107.97	113.45
5	3-C	602	ANP	O3G-PG-O1G	-2.18	107.98	113.45
5	1-C	602	ANP	O3G-PG-O1G	-2.18	107.98	113.45
5	2-C	602	ANP	O3G-PG-O1G	-2.17	107.99	113.45
5	5-C	602	ANP	O3G-PG-O1G	-2.17	107.99	113.45
5	2-C	602	ANP	O2G-PG-O1G	-2.17	108.01	113.45
8	1-B	601	TA1	C10-C18-C17	-2.17	102.33	106.54
8	2-B	601	TA1	C10-C18-C17	-2.17	102.33	106.54
8	3-B	601	TA1	C10-C18-C17	-2.17	102.33	106.54
8	4-B	601	TA1	C10-C18-C17	-2.17	102.33	106.54
8	5-B	601	TA1	C10-C18-C17	-2.17	102.33	106.54
5	5-C	602	ANP	O2G-PG-O1G	-2.16	108.01	113.45
5	4-C	602	ANP	O2G-PG-O1G	-2.16	108.02	113.45
8	1-B	601	TA1	O06-C15-C11	2.16	93.01	90.58
8	2-B	601	TA1	O06-C15-C11	2.16	93.01	90.58
8	3-B	601	TA1	O06-C15-C11	2.16	93.01	90.58
8	4-B	601	TA1	O06-C15-C11	2.16	93.01	90.58
8	5-B	601	TA1	O06-C15-C11	2.16	93.01	90.58
5	1-C	602	ANP	O2G-PG-O1G	-2.16	108.03	113.45
6	1-A	500	GTP	O5'-C5'-C4'	2.11	116.24	108.99
6	2-A	500	GTP	O5'-C5'-C4'	2.11	116.24	108.99
6	3-A	500	GTP	O5'-C5'-C4'	2.11	116.24	108.99
6	4-A	500	GTP	O5'-C5'-C4'	2.11	116.24	108.99
6	5-A	500	GTP	O5'-C5'-C4'	2.11	116.24	108.99
6	1-A	500	GTP	O3G-PG-O3B	2.03	111.43	104.64
6	2-A	500	GTP	O3G-PG-O3B	2.03	111.43	104.64
6	3-A	500	GTP	O3G-PG-O3B	2.03	111.43	104.64
6	4-A	500	GTP	O3G-PG-O3B	2.03	111.43	104.64
6	5-A	500	GTP	O3G-PG-O3B	2.03	111.43	104.64

There are no chirality outliers.

All (125) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	1-C	602	ANP	PG-N3B-PB-O1B
5	1-C	602	ANP	PA-O3A-PB-O1B
5	1-C	602	ANP	PA-O3A-PB-O2B
5	1-C	602	ANP	C5'-O5'-PA-O1A
5	1-C	602	ANP	C5'-O5'-PA-O2A
5	1-C	602	ANP	C5'-O5'-PA-O3A
5	2-C	602	ANP	PG-N3B-PB-O1B
5	2-C	602	ANP	PA-O3A-PB-O1B
5	2-C	602	ANP	PA-O3A-PB-O2B
5	2-C	602	ANP	C5'-O5'-PA-O1A
5	2-C	602	ANP	C5'-O5'-PA-O2A
5	2-C	602	ANP	C5'-O5'-PA-O3A
5	3-C	602	ANP	PG-N3B-PB-O1B
5	3-C	602	ANP	PA-O3A-PB-O1B
5	3-C	602	ANP	PA-O3A-PB-O2B
5	3-C	602	ANP	C5'-O5'-PA-O1A
5	3-C	602	ANP	C5'-O5'-PA-O2A
5	3-C	602	ANP	C5'-O5'-PA-O3A
5	4-C	602	ANP	PG-N3B-PB-O1B
5	4-C	602	ANP	PA-O3A-PB-O1B
5	4-C	602	ANP	PA-O3A-PB-O2B
5	4-C	602	ANP	C5'-O5'-PA-O1A
5	4-C	602	ANP	C5'-O5'-PA-O2A
5	4-C	602	ANP	C5'-O5'-PA-O3A
5	5-C	602	ANP	PG-N3B-PB-O1B
5	5-C	602	ANP	PA-O3A-PB-O1B
5	5-C	602	ANP	PA-O3A-PB-O2B
5	5-C	602	ANP	C5'-O5'-PA-O1A
5	5-C	602	ANP	C5'-O5'-PA-O2A
5	5-C	602	ANP	C5'-O5'-PA-O3A
7	1-B	600	GDP	PA-O3A-PB-O2B
7	1-B	600	GDP	C5'-O5'-PA-O3A
7	1-B	600	GDP	C5'-O5'-PA-O1A
7	2-B	600	GDP	PA-O3A-PB-O2B
7	2-B	600	GDP	C5'-O5'-PA-O3A
7	2-B	600	GDP	C5'-O5'-PA-O1A
7	3-B	600	GDP	PA-O3A-PB-O2B
7	3-B	600	GDP	C5'-O5'-PA-O3A
7	3-B	600	GDP	C5'-O5'-PA-O1A
7	4-B	600	GDP	PA-O3A-PB-O2B
7	4-B	600	GDP	C5'-O5'-PA-O3A
7	4-B	600	GDP	C5'-O5'-PA-O1A

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Mol	Chain	Res	Type	Atoms
7	5-B	600	GDP	PA-O3A-PB-O2B
7	5-B	600	GDP	C5'-O5'-PA-O3A
7	5-B	600	GDP	C5'-O5'-PA-O1A
8	1-B	601	TA1	O02-C03-C04-C05
8	2-B	601	TA1	O02-C03-C04-C05
8	3-B	601	TA1	O02-C03-C04-C05
8	4-B	601	TA1	O02-C03-C04-C05
8	5-B	601	TA1	O02-C03-C04-C05
8	1-B	601	TA1	O02-C03-C04-C09
8	2-B	601	TA1	O02-C03-C04-C09
8	3-B	601	TA1	O02-C03-C04-C09
8	4-B	601	TA1	O02-C03-C04-C09
8	5-B	601	TA1	O02-C03-C04-C09
8	1-B	601	TA1	O03-C03-C04-C09
8	2-B	601	TA1	O03-C03-C04-C09
8	3-B	601	TA1	O03-C03-C04-C09
8	4-B	601	TA1	O03-C03-C04-C09
8	5-B	601	TA1	O03-C03-C04-C09
5	1-C	602	ANP	C3'-C4'-C5'-O5'
5	2-C	602	ANP	C3'-C4'-C5'-O5'
5	3-C	602	ANP	C3'-C4'-C5'-O5'
5	4-C	602	ANP	C3'-C4'-C5'-O5'
5	5-C	602	ANP	C3'-C4'-C5'-O5'
8	1-B	601	TA1	O03-C03-C04-C05
8	2-B	601	TA1	O03-C03-C04-C05
8	3-B	601	TA1	O03-C03-C04-C05
8	4-B	601	TA1	O03-C03-C04-C05
8	5-B	601	TA1	O03-C03-C04-C05
8	1-B	601	TA1	N01-C30-C31-C36
8	2-B	601	TA1	N01-C30-C31-C36
8	3-B	601	TA1	N01-C30-C31-C36
8	4-B	601	TA1	N01-C30-C31-C36
8	5-B	601	TA1	N01-C30-C31-C36
8	1-B	601	TA1	O14-C30-C31-C36
8	2-B	601	TA1	O14-C30-C31-C36
8	3-B	601	TA1	O14-C30-C31-C36
8	4-B	601	TA1	O14-C30-C31-C36
8	5-B	601	TA1	O14-C30-C31-C36
5	1-C	602	ANP	O4'-C4'-C5'-O5'
5	2-C	602	ANP	O4'-C4'-C5'-O5'
5	3-C	602	ANP	O4'-C4'-C5'-O5'
5	4-C	602	ANP	O4'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
5	5-C	602	ANP	O4'-C4'-C5'-O5'
8	1-B	601	TA1	N01-C30-C31-C32
8	2-B	601	TA1	N01-C30-C31-C32
8	3-B	601	TA1	N01-C30-C31-C32
8	4-B	601	TA1	N01-C30-C31-C32
8	5-B	601	TA1	N01-C30-C31-C32
8	1-B	601	TA1	O14-C30-C31-C32
8	2-B	601	TA1	O14-C30-C31-C32
8	3-B	601	TA1	O14-C30-C31-C32
8	4-B	601	TA1	O14-C30-C31-C32
8	5-B	601	TA1	O14-C30-C31-C32
6	1-A	500	GTP	C3'-C4'-C5'-O5'
6	2-A	500	GTP	C3'-C4'-C5'-O5'
6	3-A	500	GTP	C3'-C4'-C5'-O5'
6	4-A	500	GTP	C3'-C4'-C5'-O5'
6	5-A	500	GTP	C3'-C4'-C5'-O5'
6	1-A	500	GTP	O4'-C4'-C5'-O5'
6	2-A	500	GTP	O4'-C4'-C5'-O5'
6	3-A	500	GTP	O4'-C4'-C5'-O5'
6	4-A	500	GTP	O4'-C4'-C5'-O5'
6	5-A	500	GTP	O4'-C4'-C5'-O5'
7	1-B	600	GDP	PA-O3A-PB-O3B
7	2-B	600	GDP	PA-O3A-PB-O3B
7	3-B	600	GDP	PA-O3A-PB-O3B
7	4-B	600	GDP	PA-O3A-PB-O3B
7	5-B	600	GDP	PA-O3A-PB-O3B
5	1-C	602	ANP	PB-O3A-PA-O1A
5	2-C	602	ANP	PB-O3A-PA-O1A
5	3-C	602	ANP	PB-O3A-PA-O1A
5	4-C	602	ANP	PB-O3A-PA-O1A
5	5-C	602	ANP	PB-O3A-PA-O1A
6	1-A	500	GTP	PG-O3B-PB-O1B
6	2-A	500	GTP	PG-O3B-PB-O1B
6	3-A	500	GTP	PG-O3B-PB-O1B
6	4-A	500	GTP	PG-O3B-PB-O1B
6	5-A	500	GTP	PG-O3B-PB-O1B
8	1-B	601	TA1	C15-C11-O04-C12
8	2-B	601	TA1	C15-C11-O04-C12
8	3-B	601	TA1	C15-C11-O04-C12
8	4-B	601	TA1	C15-C11-O04-C12
8	5-B	601	TA1	C15-C11-O04-C12

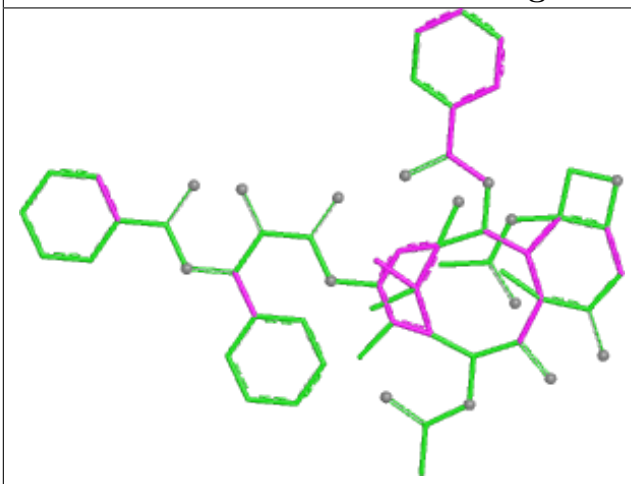
There are no ring outliers.

20 monomers are involved in 262 short contacts:

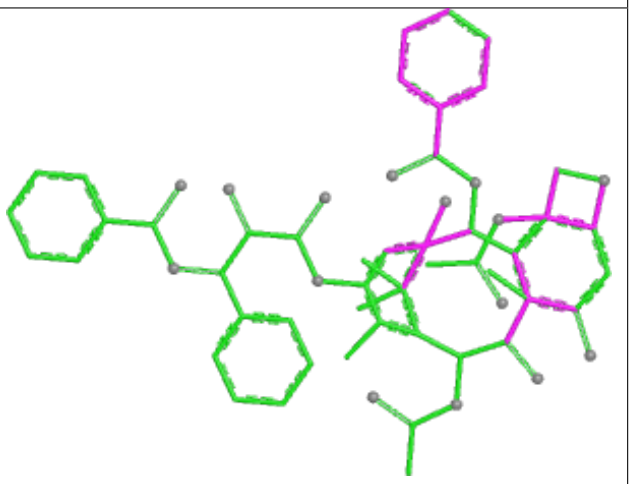
Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	2-A	500	GTP	27	0
7	4-B	600	GDP	9	0
8	1-B	601	TA1	14	0
7	1-B	600	GDP	9	0
6	4-A	500	GTP	27	0
6	1-A	500	GTP	28	0
7	3-B	600	GDP	9	0
7	5-B	600	GDP	9	0
5	5-C	602	ANP	2	0
6	3-A	500	GTP	28	0
7	2-B	600	GDP	9	0
8	2-B	601	TA1	14	0
8	3-B	601	TA1	14	0
6	5-A	500	GTP	27	0
5	1-C	602	ANP	2	0
5	3-C	602	ANP	2	0
8	5-B	601	TA1	14	0
8	4-B	601	TA1	14	0
5	4-C	602	ANP	2	0
5	2-C	602	ANP	2	0

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

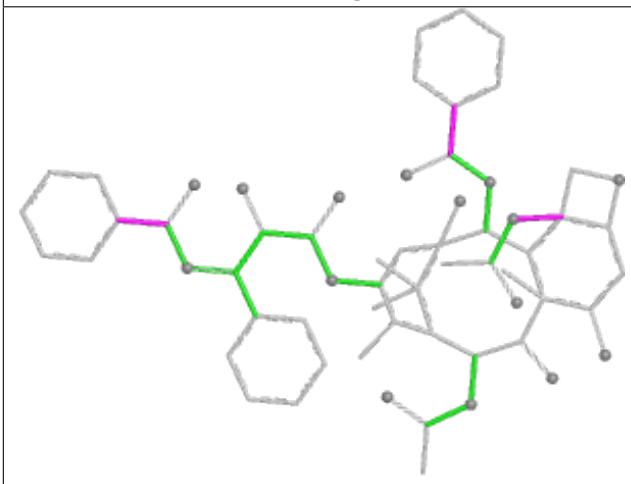
Ligand TA1 B 601



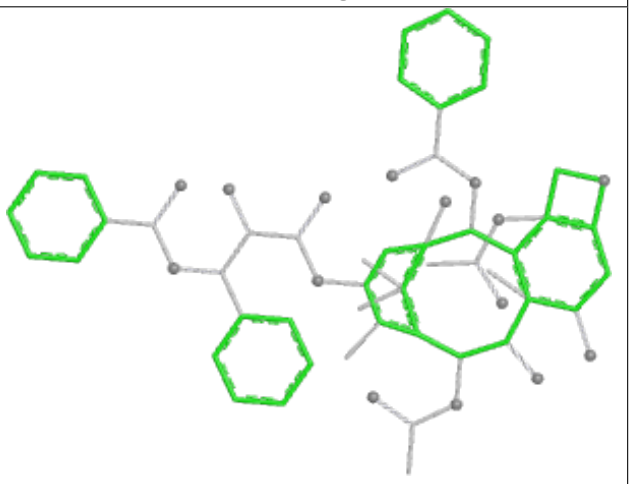
Bond lengths



Bond angles

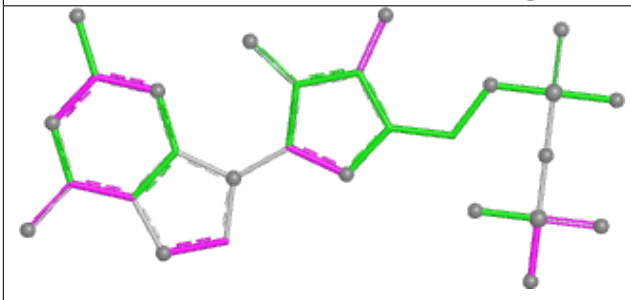


Torsions

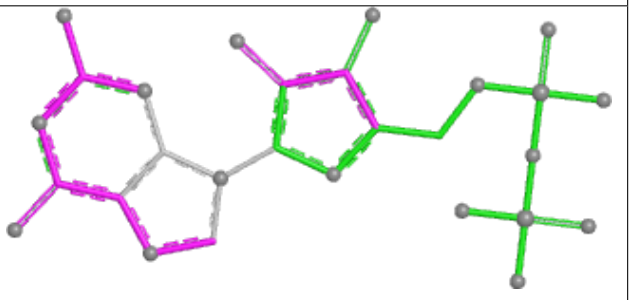


Rings

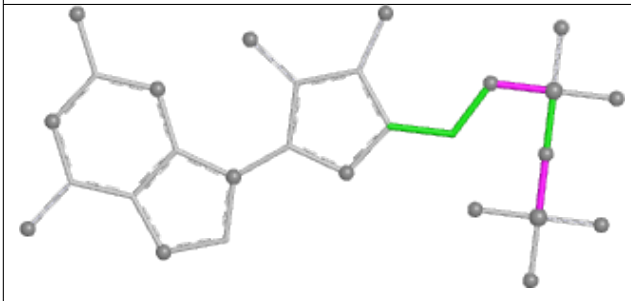
Ligand GDP B 600



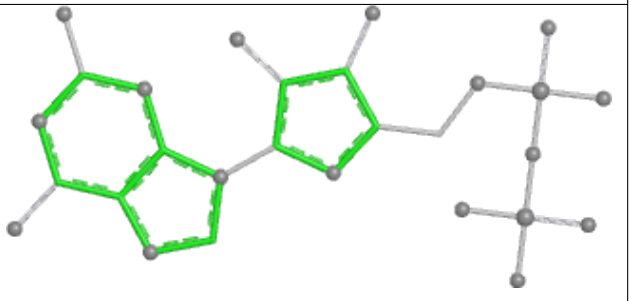
Bond lengths



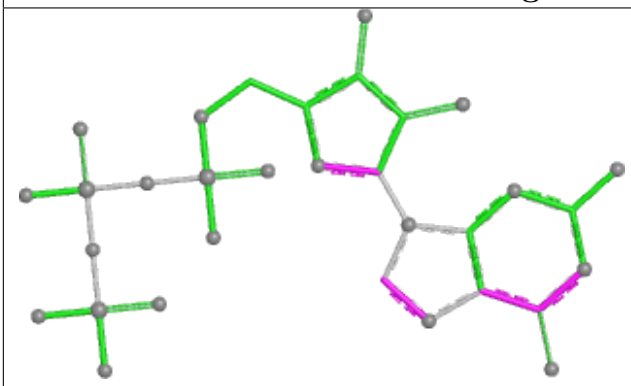
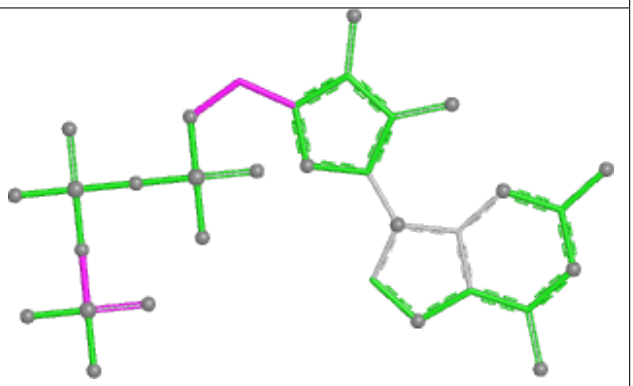
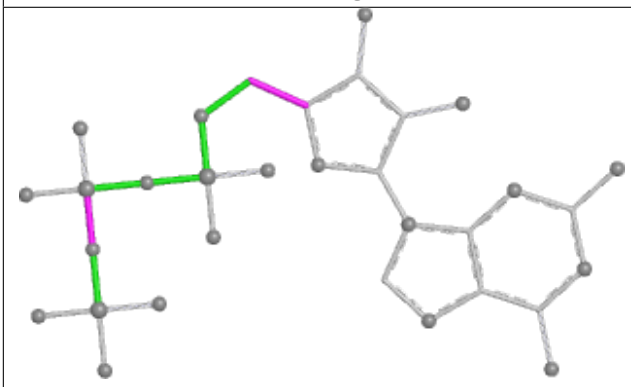
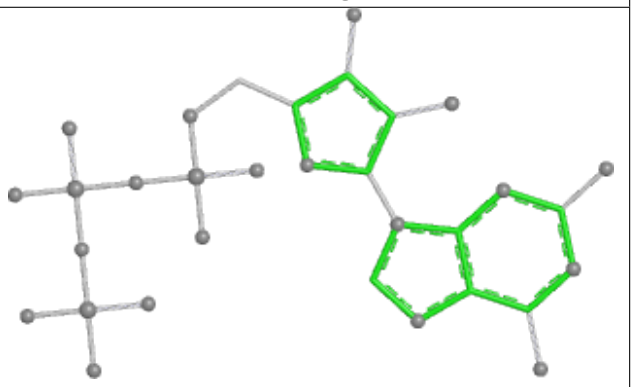
Bond angles



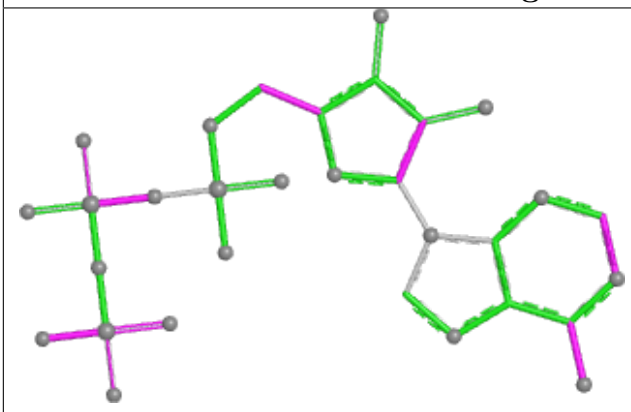
Torsions



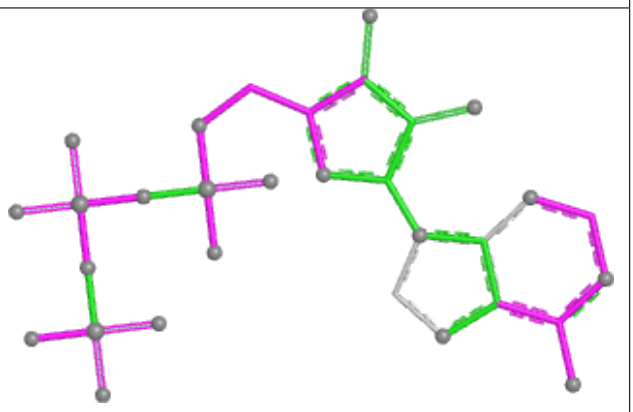
Rings

Ligand GTP A 500	
 Bond lengths	 Bond angles
 Torsions	 Rings

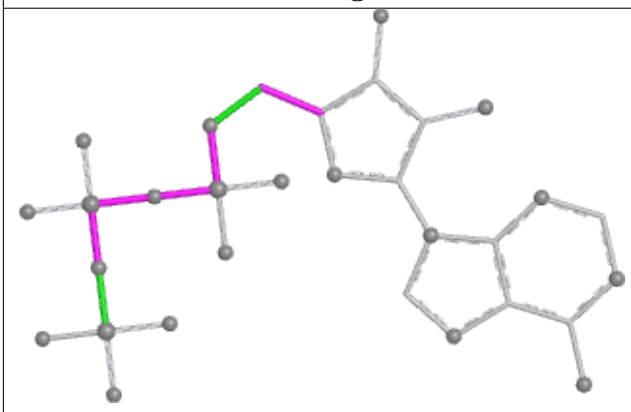
Ligand ANP C 602



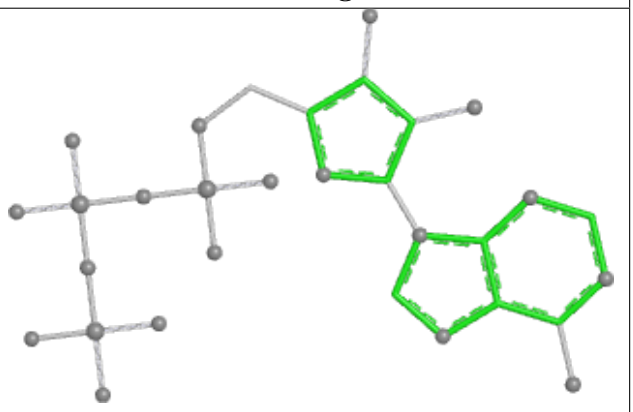
Bond lengths



Bond angles



Torsions



Rings

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

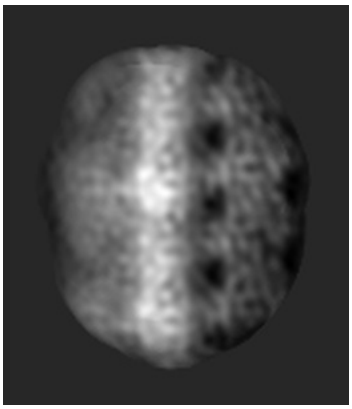
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-3623. These allow visual inspection of the internal detail of the map and identification of artifacts.

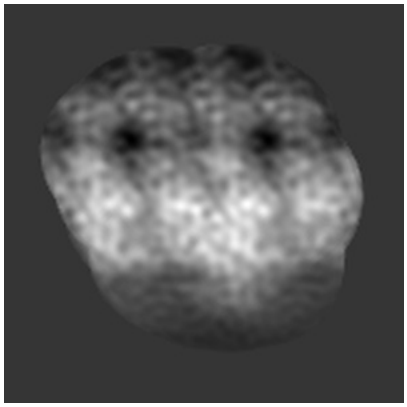
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

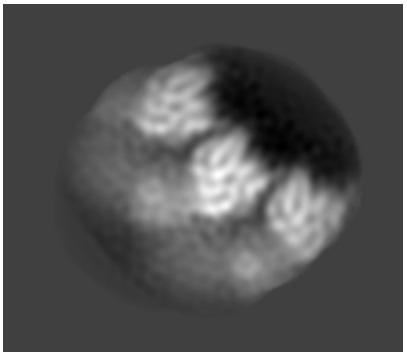
6.1.1 Primary map



X



Y

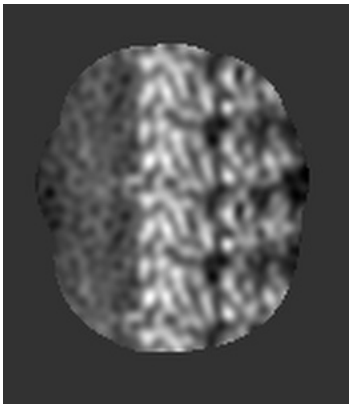


Z

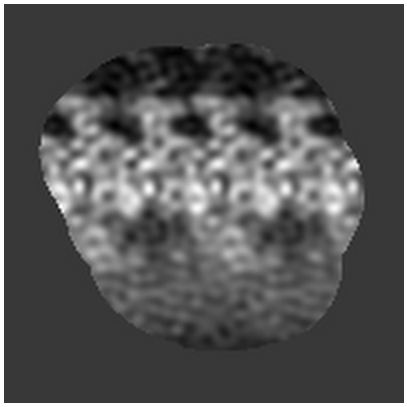
The images above show the map projected in three orthogonal directions.

6.2 Central slices

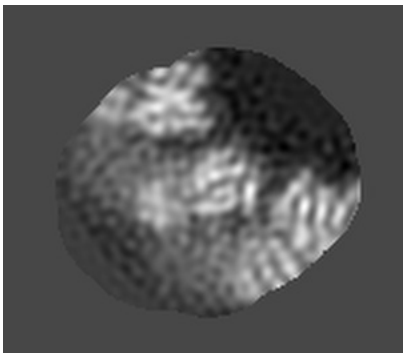
6.2.1 Primary map



X Index: 80



Y Index: 69

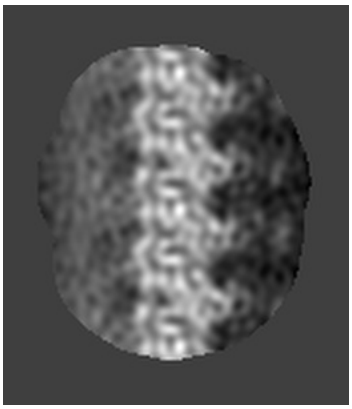


Z Index: 80

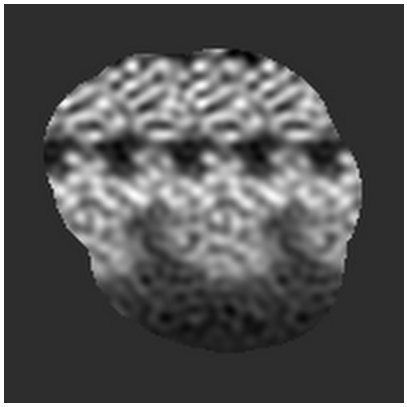
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

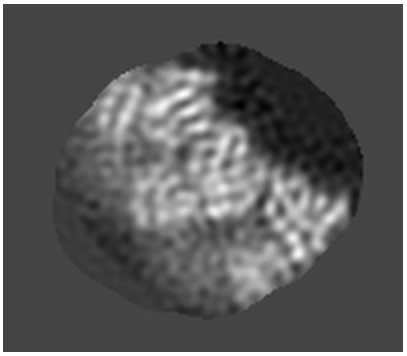
6.3.1 Primary map



X Index: 85



Y Index: 57

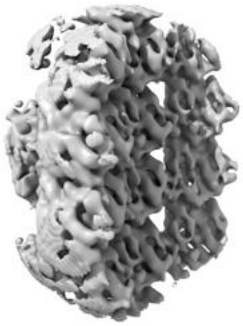


Z Index: 92

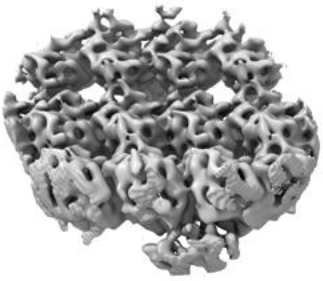
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal surface views (i)

6.4.1 Primary map



X



Y

Z

The images above show the 3D surface view of the map at the recommended contour level 0.0322. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

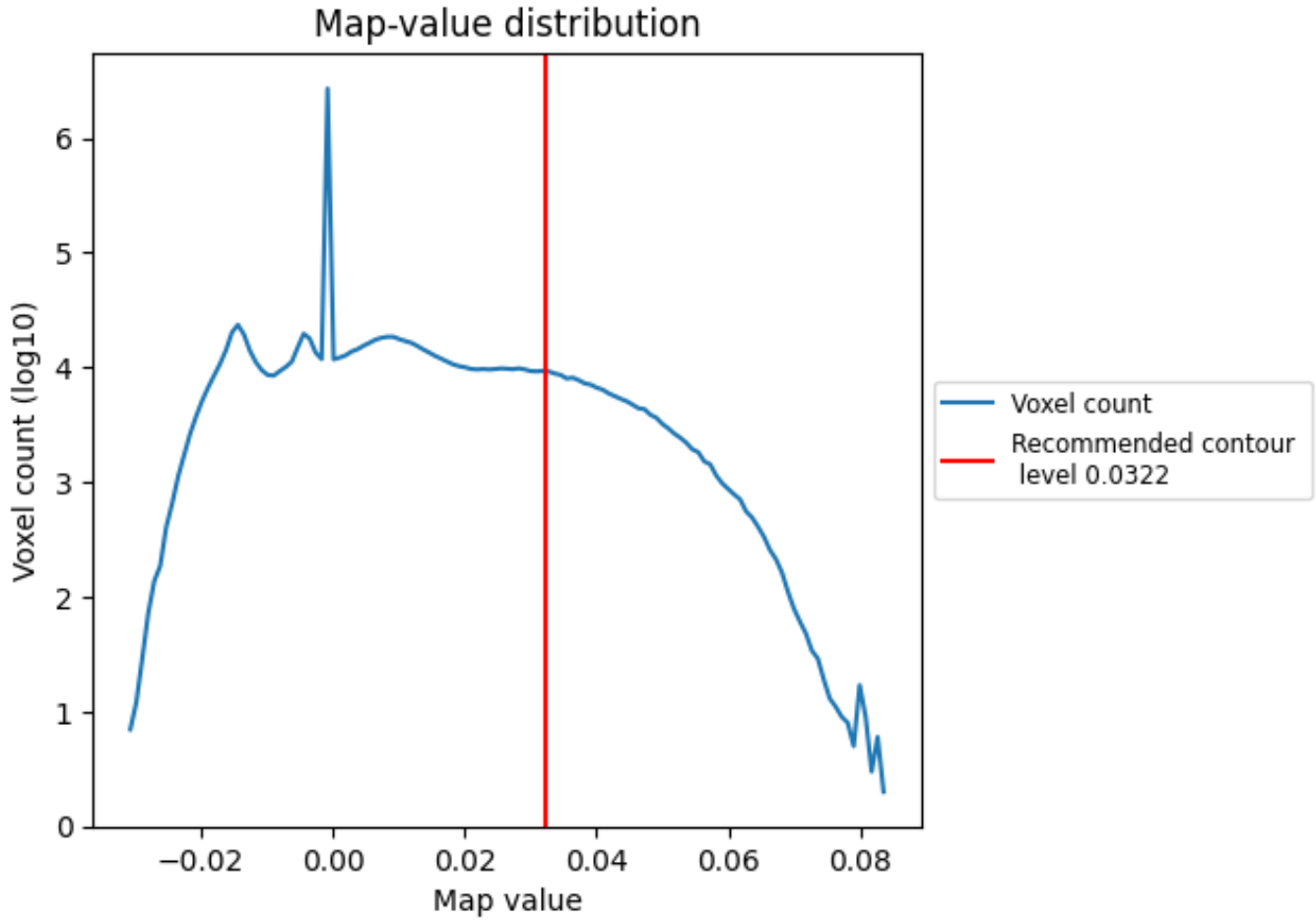
6.5 Mask visualisation (i)

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

7 Map analysis

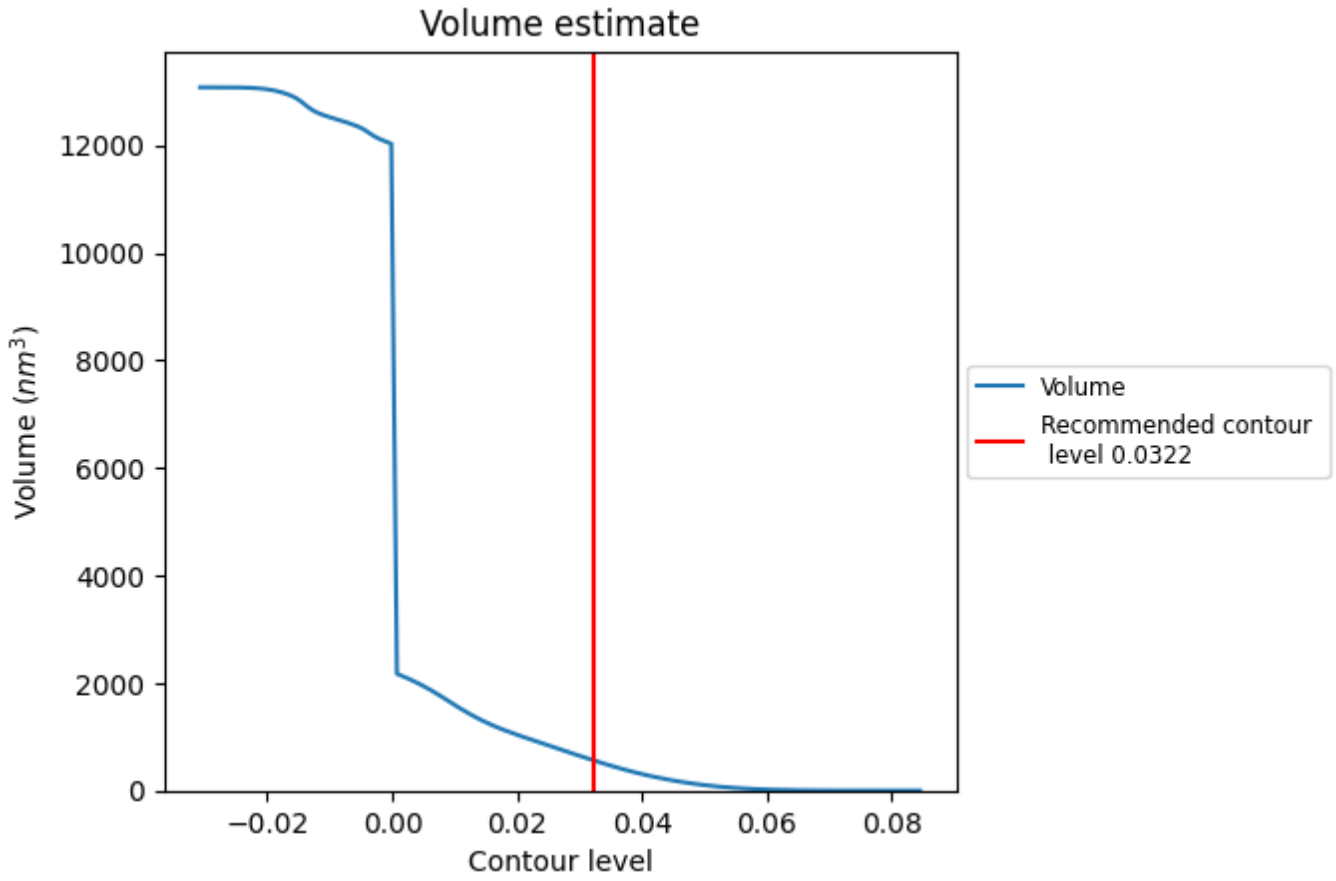
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

7.2 Volume estimate



The volume at the recommended contour level is 563 nm^3; this corresponds to an approximate mass of 509 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

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

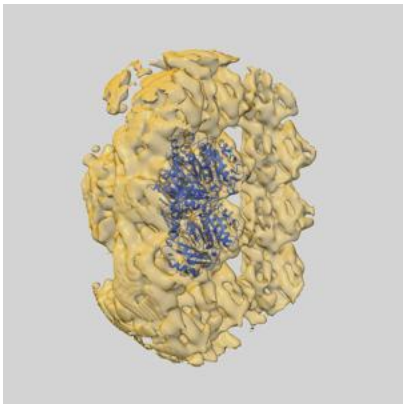
8 Fourier-Shell correlation (i)

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

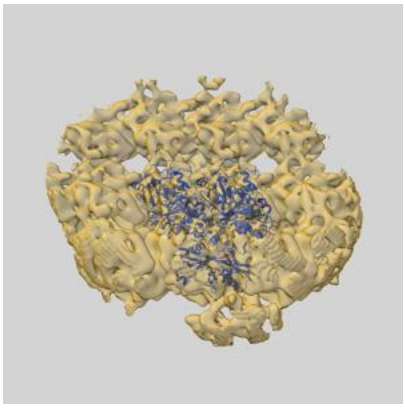
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-3623 and PDB model 5ND7. Per-residue inclusion information can be found in section 3 on page 10.

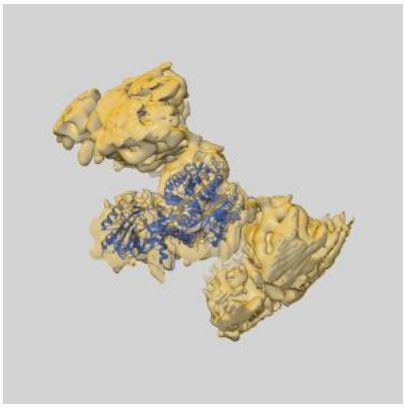
9.1 Map-model overlay



X



Y



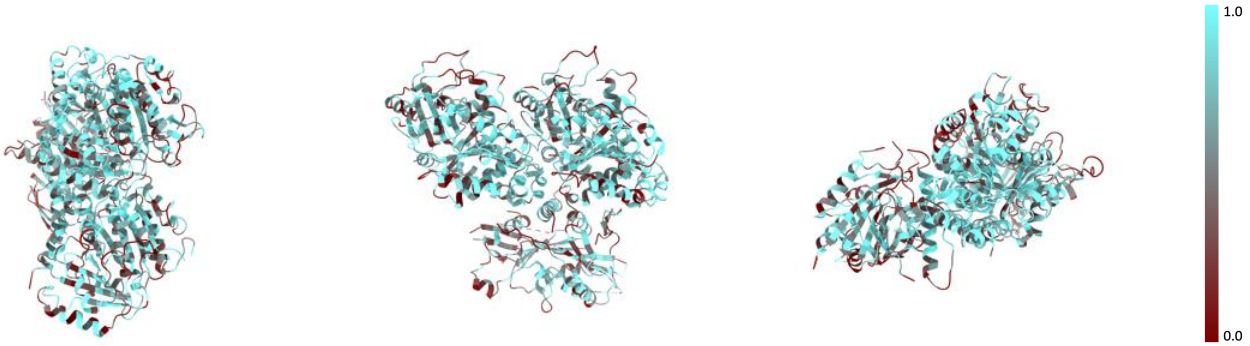
Z

The images above show the 3D surface view of the map at the recommended contour level 0.0322 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

This section was not generated.

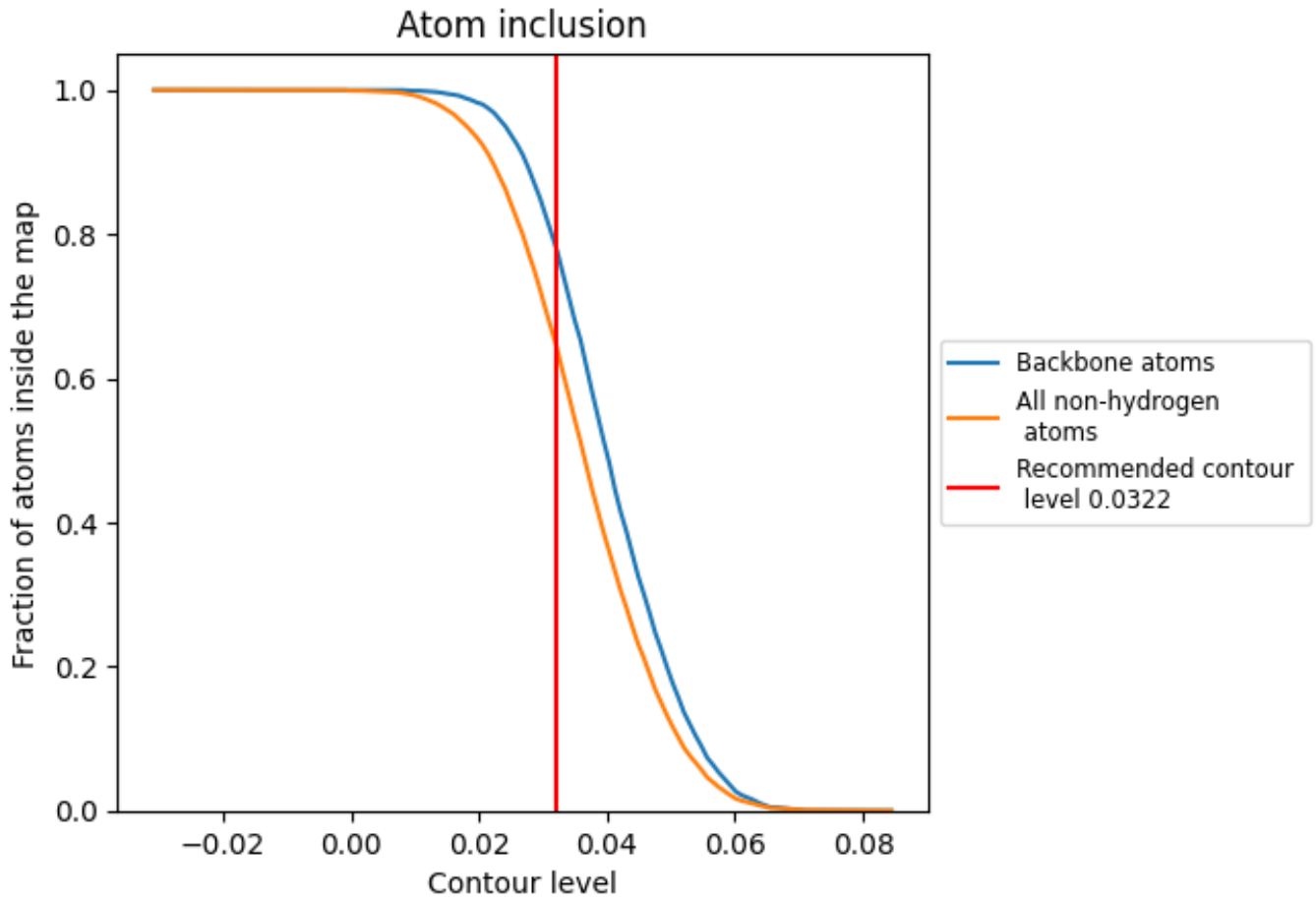
9.3 Atom inclusion mapped to coordinate model



X Y Z

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 (0.0322).

9.4 Atom inclusion (i)



At the recommended contour level, 78% of all backbone atoms, 64% 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 (0.0322) and Q-score for the entire model and for each chain.

Chain	Atom inclusion
All	0.6427
A	0.6755
B	0.6686
C	0.5621