



Full wwPDB EM Validation Report ⓘ

Apr 5, 2022 – 01:24 pm BST

PDB ID : 7O7S
EMDB ID : EMD-12755
Title : (h-alpha2M)4 plasmin-activated II state
Authors : Luque, D.; Goulas, T.; Mata, C.P.; Mendes, S.R.; Gomis-Ruth, F.X.; Caston, J.R.
Deposited on : 2021-04-13
Resolution : 4.30 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 following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

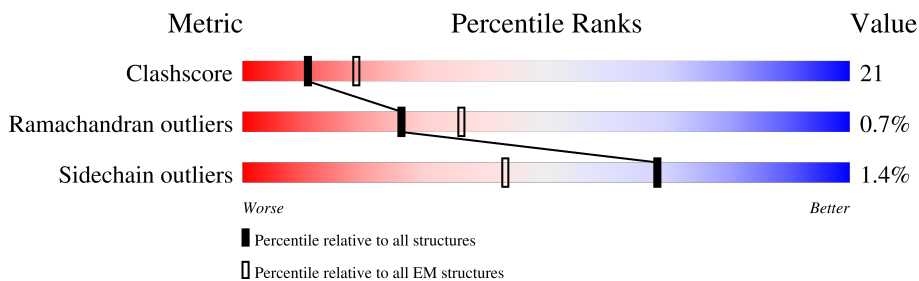
EMDB validation analysis : 0.0.0.dev97
Mogul : 1.8.4, CSD as541be (2020)
MolProbity : 4.02b-467
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.27

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 4.30 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 $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	1474	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">19%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red 19%, orange 19%, yellow 50%, green 50%, grey 100%);"></div> <div style="text-align: center;">50%</div> <div style="text-align: center;">36%</div> <div style="text-align: center;">• 13%</div> </div>
1	B	1474	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">24%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red 24%, orange 24%, yellow 53%, green 53%, grey 100%);"></div> <div style="text-align: center;">53%</div> <div style="text-align: center;">33%</div> <div style="text-align: center;">• 13%</div> </div>
1	C	1474	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">32%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red 32%, orange 32%, yellow 52%, green 52%, grey 100%);"></div> <div style="text-align: center;">52%</div> <div style="text-align: center;">34%</div> <div style="text-align: center;">• 13%</div> </div>
1	D	1474	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">48%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red 48%, orange 48%, yellow 61%, green 61%, grey 100%);"></div> <div style="text-align: center;">61%</div> <div style="text-align: center;">33%</div> <div style="text-align: center;">• 5%</div> </div>
2	E	2	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">50%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red 50%, orange 50%, green 100%);"></div> <div style="text-align: center;">100%</div> </div>
2	G	2	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">100%</div> </div>
2	I	2	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">50%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, red 50%, orange 50%, yellow 100%);"></div> <div style="text-align: center;">50%</div> </div>
2	K	2	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">50%</div> <div style="width: 100%; height: 15px; background: linear-gradient(to right, green 50%, yellow 100%);"></div> <div style="text-align: center;">50%</div> </div>

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Mol	Chain	Length	Quality of chain
3	F	3	
3	H	3	
3	J	3	
3	M	3	
4	L	4	

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
5	NAG	C	2004	-	-	X	-

2 Entry composition [i](#)

There are 5 unique types of molecules in this entry. The entry contains 41466 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 Alpha-2-macroglobulin.

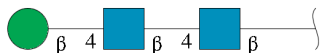
Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	1276	9958	6331	1672	1912	43	0	0
1	B	1276	9958	6331	1672	1912	43	0	0
1	C	1277	9967	6336	1673	1915	43	0	0
1	D	1407	10985	6988	1836	2113	48	0	0

- Molecule 2 is an oligosaccharide called 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.



Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
2	E	2	28	16	2	10	0	0
2	G	2	28	16	2	10	0	0
2	I	2	28	16	2	10	0	0
2	K	2	28	16	2	10	0	0

- Molecule 3 is an oligosaccharide called beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.



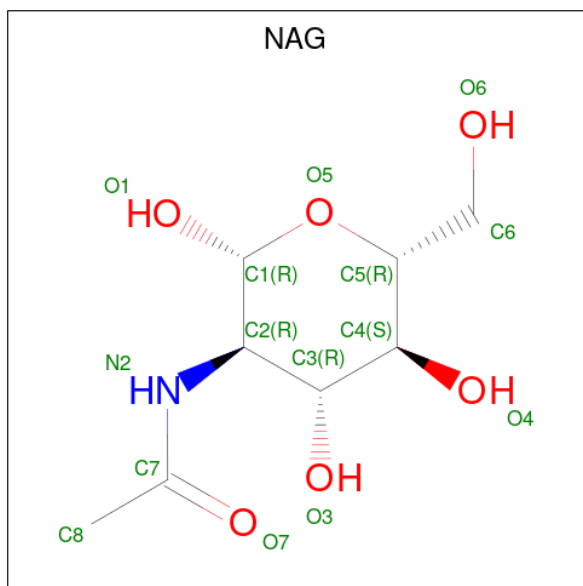
Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
3	F	3	39	22	2	15	0	0
3	H	3	39	22	2	15	0	0
3	J	3	39	22	2	15	0	0
3	M	3	39	22	2	15	0	0

- Molecule 4 is an oligosaccharide called alpha-D-mannopyranose-(1-6)-beta-D-mannopyranos e-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose.



Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O		
4	L	4	50	28	2	20	0	0

- Molecule 5 is 2-acetamido-2-deoxy-beta-D-glucopyranose (three-letter code: NAG) (formula: C₈H₁₅NO₆).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
5	A	1	70	40	5	25	0

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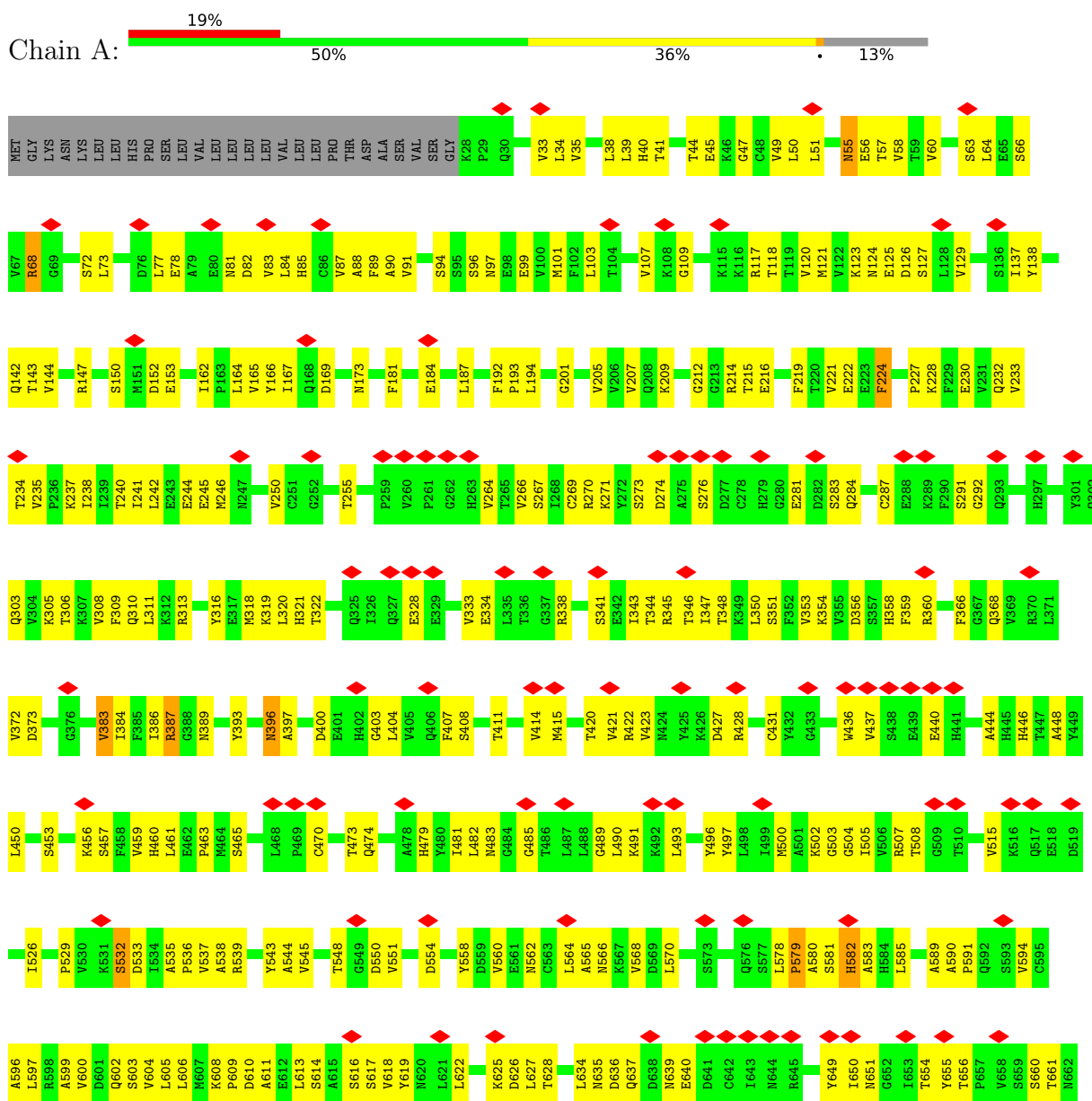
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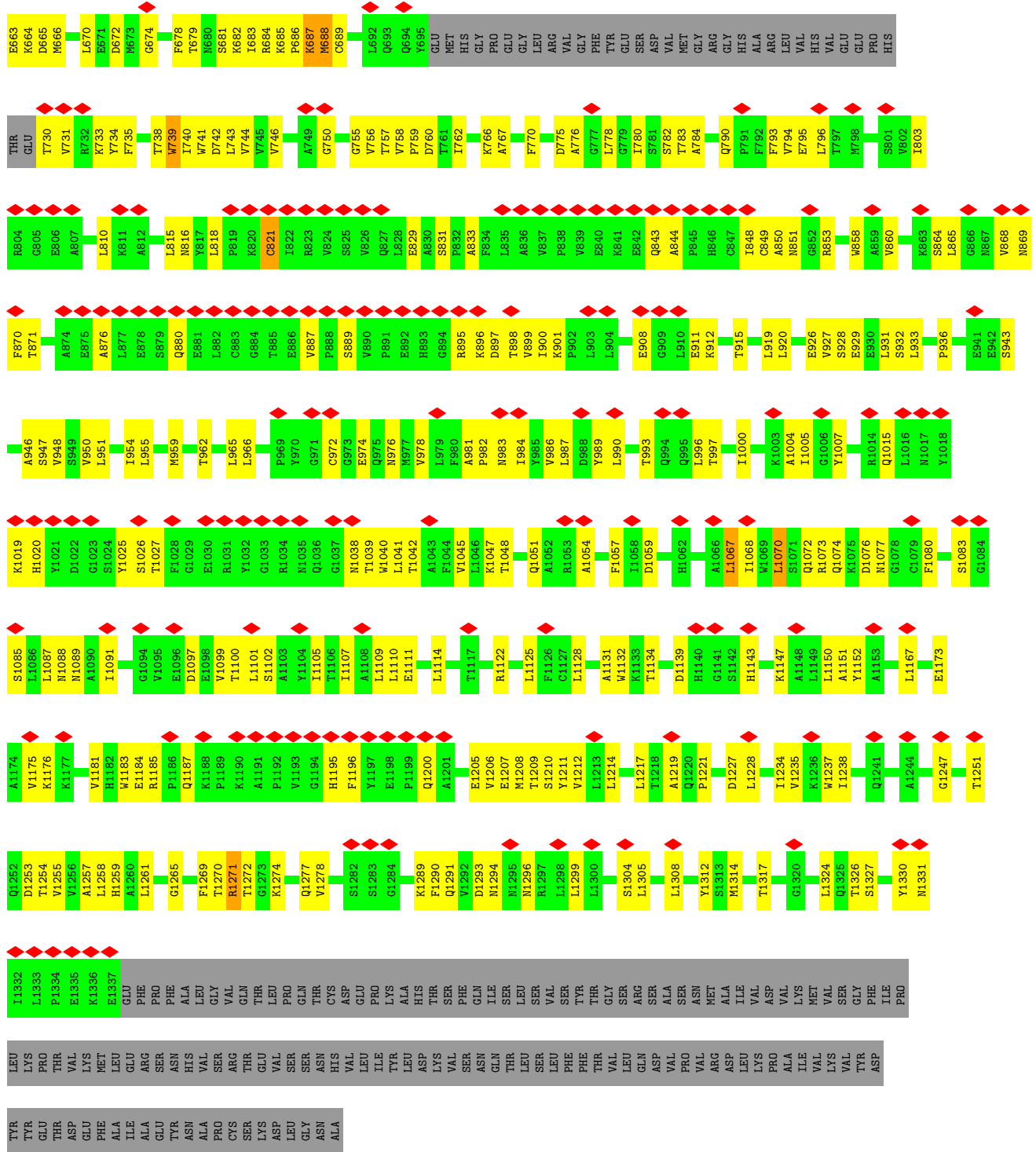
Mol	Chain	Residues	Atoms				AltConf
5	A	1	Total 70	C 40	N 5	O 25	0
5	A	1	Total 70	C 40	N 5	O 25	0
5	A	1	Total 70	C 40	N 5	O 25	0
5	A	1	Total 70	C 40	N 5	O 25	0
5	B	1	Total 70	C 40	N 5	O 25	0
5	B	1	Total 70	C 40	N 5	O 25	0
5	B	1	Total 70	C 40	N 5	O 25	0
5	B	1	Total 70	C 40	N 5	O 25	0
5	B	1	Total 70	C 40	N 5	O 25	0
5	B	1	Total 70	C 40	N 5	O 25	0
5	C	1	Total 70	C 40	N 5	O 25	0
5	C	1	Total 70	C 40	N 5	O 25	0
5	C	1	Total 70	C 40	N 5	O 25	0
5	C	1	Total 70	C 40	N 5	O 25	0
5	C	1	Total 70	C 40	N 5	O 25	0
5	D	1	Total 70	C 40	N 5	O 25	0
5	D	1	Total 70	C 40	N 5	O 25	0
5	D	1	Total 70	C 40	N 5	O 25	0
5	D	1	Total 70	C 40	N 5	O 25	0
5	D	1	Total 70	C 40	N 5	O 25	0

3 Residue-property plots

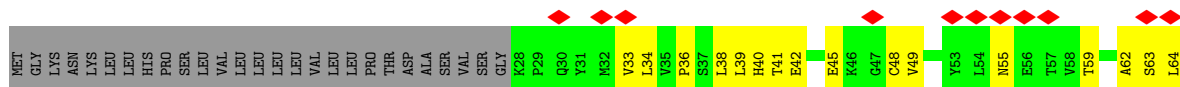
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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: Alpha-2-macroglobulin

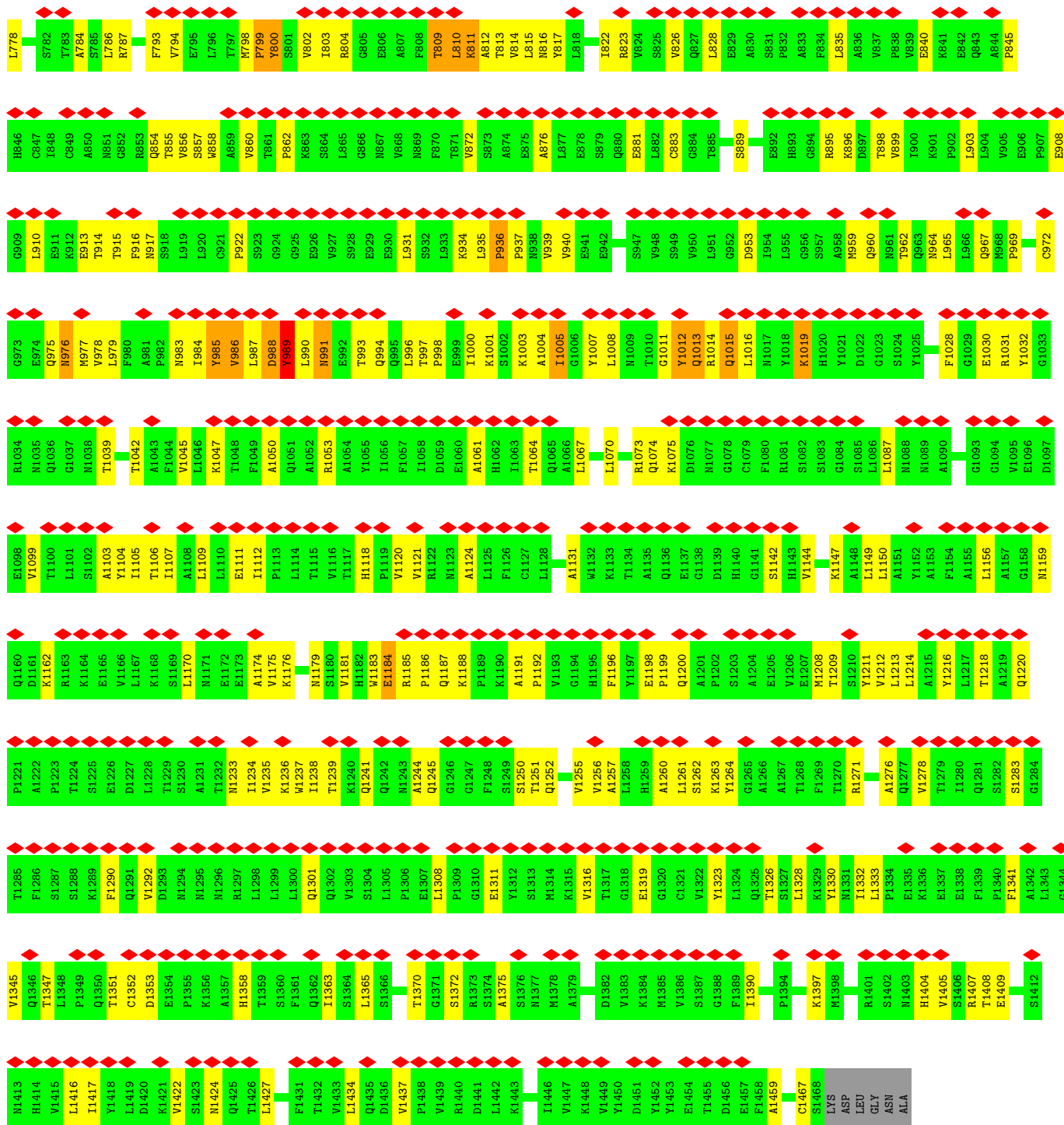




• Molecule 1: Alpha-2-macroglobulin







● Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



◆ NAG1
NAG2

- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain G:  100%


MAG1
MAG2

- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain I:  50% 50% 50%


MAG1
MAG2

- Molecule 2: 2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain K:  50% 50%


MAG1
MAG2

- Molecule 3: beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain F:  33% 67% 33%


MAG1
MAG2
BMA3

- Molecule 3: beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

Chain H:  33% 33% 33% 33%


MAG1
MAG2
BMA3

- Molecule 3: beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose

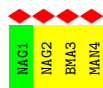
Chain J:  33% 67%


MAG1
MAG2
BMA3

- Molecule 3: beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



- Molecule 4: alpha-D-mannopyranose-(1-6)-beta-D-mannopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose-(1-4)-2-acetamido-2-deoxy-beta-D-glucopyranose



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	466082	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	38.7	Depositor
Minimum defocus (nm)	1300	Depositor
Maximum defocus (nm)	3700	Depositor
Magnification	130000	Depositor
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.104	Depositor
Minimum map value	-0.003	Depositor
Average map value	-0.000	Depositor
Map value standard deviation	0.003	Depositor
Recommended contour level	0.013	Depositor
Map size (\AA)	336.64, 336.64, 336.64	wwPDB
Map dimensions	320, 320, 320	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	1.052, 1.052, 1.052	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

Bond lengths and bond angles in the following residue types are not validated in this section: MAN, NAG, BMA

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.49	0/10179	0.74	4/13829 (0.0%)
1	B	0.42	0/10179	0.71	5/13829 (0.0%)
1	C	0.46	0/10188	0.74	5/13841 (0.0%)
1	D	0.39	0/11230	0.67	1/15261 (0.0%)
All	All	0.44	0/41776	0.71	15/56760 (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	D	0	1

There are no bond length outliers.

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
1	B	1120	VAL	CG1-CB-CG2	7.29	122.56	110.90
1	B	1120	VAL	CA-CB-CG2	7.28	121.82	110.90
1	D	989	TYR	CB-CA-C	-6.94	96.52	110.40
1	A	1070	LEU	CA-CB-CG	6.74	130.80	115.30
1	C	598	ARG	NE-CZ-NH1	6.25	123.42	120.30
1	B	277	ASP	CB-CG-OD1	6.15	123.83	118.30
1	B	1067	LEU	CA-CB-CG	5.95	129.00	115.30
1	B	1109	LEU	CA-CB-CG	5.92	128.92	115.30
1	A	796	LEU	CA-CB-CG	5.89	128.84	115.30
1	A	68	ARG	NE-CZ-NH1	5.82	123.21	120.30
1	A	1067	LEU	CA-CB-CG	5.66	128.32	115.30
1	C	1008	LEU	CA-CB-CG	5.54	128.05	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	128	LEU	CA-CB-CG	5.22	127.31	115.30
1	C	187	LEU	CA-CB-CG	5.15	127.15	115.30
1	C	488	LEU	CA-CB-CG	5.13	127.09	115.30

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	D	985	TYR	Mainchain

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	9958	0	9859	452	0
1	B	9958	0	9859	413	0
1	C	9967	0	9865	436	0
1	D	10985	0	10870	439	0
2	E	28	0	25	0	0
2	G	28	0	25	0	0
2	I	28	0	25	1	0
2	K	28	0	25	0	0
3	F	39	0	34	0	0
3	H	39	0	34	3	0
3	J	39	0	34	1	0
3	M	39	0	34	2	0
4	L	50	0	43	2	0
5	A	70	0	65	2	0
5	B	70	0	65	3	0
5	C	70	0	65	11	0
5	D	70	0	65	1	0
All	All	41466	0	40992	1717	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 21.

All (1717) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1118:HIS:ND1	1:B:1119:PRO:HD2	1.49	1.26
1:B:1118:HIS:HB2	1:B:1119:PRO:HD3	1.24	1.11
1:B:1118:HIS:ND1	1:B:1119:PRO:CD	2.20	1.03
1:B:101:MET:HG3	1:B:122:VAL:HG13	1.36	1.03
1:B:1118:HIS:CB	1:B:1119:PRO:HD3	1.90	1.01
1:D:989:TYR:HA	1:D:1262:SER:HB3	1.41	1.01
3:H:2:NAG:H3	3:H:2:NAG:H83	1.42	0.99
1:D:1185:ARG:HB3	1:D:1186:PRO:HD2	1.47	0.96
1:B:39:LEU:HB2	1:B:122:VAL:HG12	1.49	0.93
1:D:914:THR:HG21	1:D:935:LEU:HD22	1.49	0.93
1:B:950:VAL:HG13	1:B:1324:LEU:HD11	1.51	0.92
1:A:954:ILE:HD11	1:A:993:THR:HG22	1.51	0.90
1:D:1013:GLN:HA	1:D:1013:GLN:HE21	1.38	0.89
1:A:387:ARG:HB2	1:A:420:THR:HG23	1.54	0.89
1:A:1181:VAL:HG23	1:A:1234:ILE:HG23	1.56	0.87
1:D:990:LEU:HG	1:D:998:PRO:HB3	1.57	0.86
1:C:136:SER:HB2	1:C:608:LYS:HD3	1.54	0.86
1:B:1118:HIS:HB2	1:B:1119:PRO:CD	2.05	0.85
1:D:1175:VAL:HG21	1:D:1186:PRO:HD3	1.56	0.85
1:C:254:TYR:O	1:C:787:ARG:NH2	2.11	0.84
1:D:1000:ILE:HG23	1:D:1001:LYS:HD2	1.60	0.84
1:C:1047:LYS:NZ	1:C:1211:TYR:OH	2.10	0.84
1:B:1118:HIS:CB	1:B:1119:PRO:CD	2.56	0.84
1:C:108:LYS:HE2	1:C:108:LYS:HA	1.59	0.83
1:B:153:GLU:O	1:B:502:LYS:NZ	2.11	0.83
1:B:62:ALA:HB1	1:B:103:LEU:HD11	1.59	0.83
1:C:394:TYR:O	5:C:2004:NAG:O6	1.97	0.82
1:C:1152:TYR:OH	1:C:1263:LYS:NZ	2.13	0.82
1:C:637:GLN:O	1:C:684:ARG:NH2	2.13	0.81
1:A:153:GLU:O	1:A:502:LYS:NZ	2.11	0.81
1:C:39:LEU:HD12	1:C:120:VAL:HG11	1.62	0.81
1:A:581:SER:O	1:A:756:VAL:HA	1.81	0.80
1:D:597:LEU:HD11	1:D:744:VAL:HG13	1.61	0.80
1:A:1067:LEU:HD12	1:A:1070:LEU:HD12	1.62	0.79
1:B:1103:ALA:HB3	1:B:1149:LEU:HD23	1.62	0.79
1:C:135:LYS:NZ	1:C:738:THR:OG1	2.15	0.79
1:B:45:GLU:N	1:B:89:PHE:O	2.16	0.79
1:B:354:LYS:NZ	1:B:463:PRO:O	2.15	0.79
1:D:507:ARG:NH2	1:D:529:PRO:O	2.17	0.78
1:C:576:GLN:NE2	1:C:580:ALA:O	2.17	0.78
1:A:420:THR:OG1	1:A:422:ARG:NH1	2.17	0.78
1:B:912:LYS:NZ	1:B:913:GLU:O	2.17	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:571:SER:N	1:C:586:ARG:O	2.16	0.78
1:A:507:ARG:NH1	1:A:529:PRO:O	2.16	0.78
1:C:394:TYR:HD2	5:C:2004:NAG:C6	1.96	0.78
1:B:350:LEU:N	1:B:442:GLU:OE1	2.17	0.77
1:A:1038:ASN:ND2	1:A:1083:SER:O	2.18	0.77
1:C:394:TYR:HD2	5:C:2004:NAG:O6	1.67	0.77
1:A:1122:ARG:NH1	1:C:65:GLU:OE1	2.18	0.77
1:C:319:LYS:NZ	1:C:340:SER:OG	2.13	0.77
1:B:1118:HIS:CG	1:B:1119:PRO:HD3	2.20	0.77
1:A:1278:VAL:O	1:A:1289:LYS:NZ	2.18	0.76
1:D:1179:ASN:ND2	1:D:1233:ASN:O	2.18	0.76
1:A:73:LEU:HD12	1:A:91:VAL:HG22	1.66	0.76
1:D:457:SER:OG	1:D:483:ASN:OD1	2.01	0.76
1:B:1077:ASN:O	1:D:117:ARG:N	2.19	0.76
1:A:539:ARG:NH1	1:A:672:ASP:O	2.18	0.76
1:B:966:LEU:HD13	1:B:1000:ILE:HD11	1.67	0.76
1:C:392:ASN:OD1	1:C:413:ASN:ND2	2.19	0.76
1:A:232:GLN:OE1	1:A:338:ARG:NH1	2.18	0.75
1:A:1070:LEU:HD11	1:A:1109:LEU:HD21	1.68	0.75
1:C:507:ARG:NH1	1:C:529:PRO:O	2.19	0.75
1:C:590:ALA:O	1:C:593:SER:OG	2.01	0.75
1:B:1111:GLU:OE2	1:B:1152:TYR:OH	2.04	0.75
1:C:64:LEU:HD13	1:C:103:LEU:HD13	1.68	0.75
1:B:1299:LEU:O	1:B:1301:GLN:NE2	2.20	0.75
1:C:624:GLU:HB3	1:C:627:LEU:HD12	1.69	0.75
1:B:1072:GLN:OE1	1:D:635:ASN:N	2.19	0.75
1:C:915:THR:OG1	1:C:1326:THR:O	2.05	0.75
1:D:953:ASP:O	1:D:1264:TYR:OH	2.05	0.75
1:A:147:ARG:NH2	1:A:742:ASP:O	2.20	0.74
1:B:1118:HIS:CG	1:B:1119:PRO:CD	2.70	0.74
1:D:1179:ASN:ND2	1:D:1233:ASN:OD1	2.20	0.74
1:B:816:ASN:O	1:B:851:ASN:N	2.20	0.74
1:B:637:GLN:OE1	1:B:684:ARG:NH1	2.20	0.74
1:D:493:LEU:HD21	1:D:544:ALA:HB1	1.68	0.74
1:D:626:ASP:OD1	1:D:628:THR:OG1	2.06	0.74
1:B:94:SER:OG	1:B:96:SER:O	2.06	0.73
1:A:313:ARG:N	1:B:274:ASP:OD2	2.20	0.73
1:C:46:LYS:NZ	1:C:533:ASP:OD2	2.21	0.73
1:D:267:SER:OG	1:D:269:CYS:SG	2.46	0.73
1:C:101:MET:O	1:C:120:VAL:N	2.21	0.73
1:A:1272:THR:O	1:A:1274:LYS:NZ	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:66:SER:OG	1:C:100:VAL:O	2.06	0.73
1:D:501:ALA:N	1:D:504:GLY:O	2.21	0.73
1:D:978:VAL:O	1:D:1252:GLN:NE2	2.21	0.73
1:D:1283:SER:N	1:D:1311:GLU:OE2	2.21	0.73
1:A:96:SER:O	1:A:124:ASN:ND2	2.21	0.73
1:B:1072:GLN:O	1:B:1074:GLN:N	2.22	0.73
1:A:926:GLU:OE2	1:A:928:SER:OG	2.03	0.73
1:C:986:VAL:HG22	1:C:1258:LEU:HD13	1.69	0.73
1:A:356:ASP:O	1:A:446:HIS:NE2	2.22	0.73
1:A:978:VAL:HG13	1:A:1251:THR:HG21	1.71	0.72
1:A:829:GLU:O	1:A:871:THR:OG1	2.08	0.72
1:A:1005:ILE:HD13	1:C:1057:PHE:CE1	2.24	0.72
1:B:169:ASP:N	1:B:173:ASN:O	2.22	0.72
1:B:276:SER:OG	1:B:278:CYS:O	2.05	0.72
1:C:847:CYS:N	1:C:854:GLN:OE1	2.21	0.72
1:B:955:LEU:HB2	1:B:1298:LEU:HD13	1.72	0.72
1:D:622:LEU:O	1:D:625:LYS:NZ	2.17	0.72
1:B:101:MET:O	1:B:120:VAL:N	2.23	0.72
1:A:1235:VAL:HG22	1:A:1261:LEU:HD23	1.71	0.71
1:C:259:PRO:O	1:C:817:TYR:OH	2.08	0.71
1:A:45:GLU:N	1:A:89:PHE:O	2.23	0.71
1:A:581:SER:HB2	1:A:756:VAL:HG13	1.72	0.71
1:A:1099:VAL:O	1:A:1102:SER:OG	2.06	0.71
1:B:321:HIS:ND1	1:B:334:GLU:OE2	2.24	0.71
1:B:1075:LYS:O	1:D:118:THR:OG1	2.06	0.71
1:C:1100:THR:HG22	1:C:1149:LEU:HD23	1.71	0.71
1:D:201:GLY:N	1:D:221:VAL:O	2.23	0.71
1:B:1098:GLU:O	1:B:1102:SER:OG	2.07	0.71
1:C:635:ASN:OD1	1:C:636:ASP:N	2.23	0.71
1:C:415:MET:SD	1:C:416:GLY:N	2.64	0.71
1:D:139:LYS:NZ	1:D:142:GLN:OE1	2.22	0.71
1:B:1277:GLN:N	1:B:1317:THR:O	2.24	0.71
1:D:594:VAL:HG12	1:D:745:VAL:HG22	1.73	0.71
1:D:1159:ASN:O	1:D:1162:LYS:NZ	2.23	0.71
1:A:931:LEU:HD11	1:A:933:LEU:HD21	1.73	0.70
1:A:976:ASN:ND2	1:A:1015:GLN:OE1	2.24	0.70
1:C:473:THR:OG1	1:C:528:ILE:O	2.09	0.70
1:C:394:TYR:CD2	5:C:2004:NAG:O6	2.43	0.70
1:D:580:ALA:O	1:D:757:THR:OG1	2.08	0.70
1:C:205:VAL:O	1:C:217:HIS:N	2.24	0.70
1:D:739:TRP:NE1	1:D:756:VAL:O	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1073:ARG:O	1:D:1075:LYS:NZ	2.25	0.70
1:D:1236:LYS:O	1:D:1239:THR:OG1	2.09	0.70
1:D:1050:ALA:O	1:D:1053:ARG:NH1	2.25	0.69
1:A:125:GLU:N	1:A:125:GLU:OE1	2.25	0.69
1:A:1183:TRP:CE3	1:A:1209:THR:HG22	2.27	0.69
1:C:1277:GLN:NE2	1:C:1291:GLN:OE1	2.24	0.69
1:A:570:LEU:HD21	1:A:784:ALA:HB2	1.74	0.69
1:B:657:PRO:O	1:C:656:THR:OG1	2.10	0.69
1:B:1019:LYS:NZ	1:B:1020:HIS:O	2.24	0.69
1:D:812:ALA:N	1:D:856:VAL:O	2.25	0.69
1:B:929:GLU:O	1:B:1314:MET:N	2.26	0.69
1:A:954:ILE:CD1	1:A:993:THR:HG22	2.21	0.69
1:C:153:GLU:O	1:C:502:LYS:NZ	2.24	0.69
1:C:183:LEU:HD13	1:C:186:GLY:HA2	1.74	0.69
1:C:354:LYS:NZ	1:C:463:PRO:O	2.25	0.69
1:C:373:ASP:N	1:C:377:VAL:O	2.26	0.69
1:C:949:SER:N	1:C:1325:GLN:O	2.25	0.69
1:C:1070:LEU:HD13	1:C:1109:LEU:HD21	1.73	0.69
1:D:412:THR:O	1:D:412:THR:HG22	1.91	0.69
1:D:1175:VAL:CG2	1:D:1186:PRO:HD3	2.21	0.69
1:A:414:VAL:HG12	1:D:651:ASN:HB3	1.75	0.69
1:B:911:GLU:OE2	1:B:1331:ASN:ND2	2.26	0.69
1:D:555:SER:N	1:D:672:ASP:OD2	2.26	0.69
1:A:400:ASP:OD1	1:A:404:LEU:N	2.26	0.69
1:C:320:LEU:O	1:C:321:HIS:ND1	2.27	0.68
1:D:965:LEU:HD13	1:D:1000:ILE:HD11	1.75	0.68
1:A:1205:GLU:HG3	1:A:1206:VAL:HG23	1.74	0.68
1:B:1073:ARG:O	1:D:637:GLN:NE2	2.26	0.68
1:C:111:THR:HB	5:C:2001:NAG:H2	1.73	0.68
1:B:1291:GLN:NE2	1:B:1293:ASP:OD1	2.26	0.68
1:C:851:ASN:O	1:C:853:ARG:NH1	2.27	0.68
1:D:800:TYR:O	1:D:802:VAL:HG13	1.94	0.68
1:A:876:ALA:O	1:A:895:ARG:NH2	2.26	0.68
1:A:635:ASN:OD1	1:C:1072:GLN:NE2	2.25	0.68
1:A:775:ASP:OD1	1:A:776:ALA:N	2.27	0.68
1:A:1152:TYR:CZ	1:A:1214:LEU:HD22	2.29	0.68
1:B:295:ASN:ND2	1:B:297:HIS:O	2.27	0.68
1:B:345:ARG:O	1:B:440:GLU:N	2.27	0.68
1:B:602:GLN:N	1:B:764:GLU:O	2.27	0.68
1:B:1109:LEU:HD21	1:B:1120:VAL:HB	1.75	0.68
1:B:1120:VAL:HA	1:D:119:THR:HG21	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1265:GLY:O	1:A:1269:PHE:N	2.27	0.67
1:B:389:ASN:ND2	1:B:418:SER:O	2.27	0.67
1:B:883:CYS:SG	1:B:884:GLY:N	2.66	0.67
1:B:1298:LEU:HD23	1:B:1298:LEU:O	1.94	0.67
1:D:631:PRO:HB2	1:D:634:LEU:HD13	1.75	0.67
1:D:773:SER:OG	1:D:775:ASP:OD1	2.09	0.67
1:C:394:TYR:CD2	5:C:2004:NAG:C6	2.77	0.67
1:C:53:TYR:N	1:C:81:ASN:OD1	2.27	0.67
1:C:230:GLU:OE2	1:C:232:GLN:NE2	2.26	0.67
1:C:594:VAL:HG23	1:C:745:VAL:HG22	1.75	0.67
1:C:773:SER:N	1:C:777:GLY:O	2.27	0.67
1:D:1013:GLN:HA	1:D:1013:GLN:NE2	2.08	0.67
1:D:1185:ARG:HB3	1:D:1186:PRO:CD	2.21	0.67
1:A:962:THR:HG21	1:A:989:TYR:CE2	2.30	0.67
1:C:497:TYR:HB3	1:C:542:ILE:HD12	1.76	0.67
1:A:1125:LEU:HD23	1:A:1128:LEU:HD12	1.77	0.67
1:A:450:LEU:O	1:A:664:LYS:N	2.27	0.67
1:A:1238:ILE:HD12	1:A:1257:ALA:HB1	1.77	0.67
1:B:112:GLN:HB2	5:B:2001:NAG:H83	1.76	0.67
1:B:968:MET:HG3	1:B:969:PRO:HD2	1.77	0.67
1:C:808:PHE:O	1:C:860:VAL:N	2.27	0.67
1:C:1103:ALA:O	1:C:1107:ILE:HG22	1.95	0.67
1:D:988:ASP:OD1	1:D:988:ASP:N	2.28	0.67
1:C:136:SER:O	1:C:220:THR:OG1	2.10	0.66
1:A:1041:LEU:O	1:A:1045:VAL:HG23	1.95	0.66
3:M:1:NAG:H62	3:M:2:NAG:HN2	1.60	0.66
1:C:38:LEU:HD12	1:C:121:MET:CE	2.25	0.66
1:C:381:ASN:N	1:C:399:THR:OG1	2.28	0.66
1:C:170:PRO:HG3	1:C:202:SER:O	1.95	0.66
1:A:1107:ILE:HA	1:A:1110:LEU:HD12	1.78	0.66
1:A:428:ARG:NH2	1:A:440:GLU:OE2	2.29	0.66
1:B:101:MET:N	1:B:120:VAL:O	2.29	0.66
1:D:563:CYS:O	1:D:619:TYR:OH	2.12	0.66
1:A:581:SER:CB	1:A:756:VAL:HG13	2.26	0.66
1:A:688:MET:HE3	1:A:688:MET:H	1.59	0.66
1:A:929:GLU:O	1:A:1314:MET:N	2.29	0.66
1:B:736:PRO:C	1:B:738:THR:H	2.00	0.66
1:C:388:GLY:CA	1:C:391:ALA:HB3	2.26	0.66
1:A:578:LEU:O	1:A:580:ALA:N	2.27	0.66
1:A:986:VAL:HG12	1:A:990:LEU:HD13	1.78	0.66
1:B:593:SER:O	1:B:745:VAL:HG13	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1282:SER:OG	1:B:1286:PHE:O	2.11	0.66
1:C:103:LEU:HD23	1:C:118:THR:HG23	1.78	0.66
1:C:492:LYS:NZ	1:C:494:SER:OG	2.28	0.66
1:C:1232:THR:HG21	1:C:1323:TYR:CD2	2.31	0.66
1:D:93:LYS:NZ	1:D:125:GLU:O	2.23	0.66
1:A:68:ARG:NH1	1:C:1113:PRO:O	2.28	0.66
1:B:1180:SER:OG	1:B:1181:VAL:N	2.29	0.66
1:C:1109:LEU:HD13	1:C:1112:ILE:HD11	1.78	0.66
1:D:399:THR:OG1	1:D:400:ASP:O	2.13	0.65
1:D:452:PHE:O	1:D:454:PRO:HD3	1.97	0.65
1:A:688:MET:H	1:A:688:MET:CE	2.08	0.65
1:B:428:ARG:NE	1:B:439:GLU:O	2.29	0.65
1:D:400:ASP:OD1	1:D:404:LEU:N	2.28	0.65
1:C:38:LEU:HD12	1:C:121:MET:HE3	1.79	0.65
1:C:965:LEU:HD13	1:C:1247:GLY:N	2.12	0.65
1:D:1016:LEU:HD23	1:D:1016:LEU:C	2.17	0.65
1:D:571:SER:O	1:D:586:ARG:N	2.29	0.65
1:B:350:LEU:HD11	1:B:444:ALA:HB2	1.79	0.65
1:B:928:SER:OG	1:B:1314:MET:O	2.14	0.65
1:B:1163:ARG:NH2	1:B:1215:ALA:O	2.28	0.65
1:C:1070:LEU:CD1	1:C:1109:LEU:HD21	2.27	0.65
1:D:64:LEU:HD23	1:D:100:VAL:HG22	1.76	0.65
1:D:1070:LEU:O	1:D:1074:GLN:N	2.29	0.65
1:D:1200:GLN:NE2	1:D:1375:ALA:O	2.29	0.65
1:A:965:LEU:HD11	1:A:1247:GLY:N	2.12	0.65
1:B:1073:ARG:O	1:B:1074:GLN:NE2	2.30	0.65
1:D:747:ASN:OD1	1:D:750:GLY:N	2.30	0.65
1:C:38:LEU:HD13	1:C:627:LEU:HD21	1.78	0.65
1:C:1025:TYR:HB2	1:C:1042:THR:HG22	1.79	0.65
1:B:400:ASP:OD1	1:B:404:LEU:N	2.30	0.64
1:D:539:ARG:NE	1:D:626:ASP:OD2	2.29	0.64
1:A:843:GLN:NE2	1:A:844:ALA:O	2.30	0.64
1:B:1236:LYS:NZ	1:B:1325:GLN:OE1	2.29	0.64
1:C:966:LEU:HD11	1:C:1000:ILE:HD11	1.79	0.64
1:A:864:SER:OG	1:A:865:LEU:N	2.30	0.64
1:A:912:LYS:O	1:A:1330:TYR:N	2.29	0.64
1:C:1208:MET:O	1:C:1212:VAL:HG23	1.96	0.64
1:D:470:CYS:SG	1:D:471:GLY:N	2.71	0.64
1:B:1152:TYR:CE1	1:B:1156:LEU:HD23	2.33	0.64
1:D:233:VAL:HG23	1:D:250:VAL:HG22	1.79	0.64
1:A:564:LEU:HD21	1:A:780:ILE:HD13	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:64:LEU:HD12	1:C:102:PHE:O	1.97	0.64
1:C:143:THR:HG22	1:C:193:PRO:HB3	1.80	0.64
1:C:237:LYS:O	1:C:238:ILE:HD13	1.98	0.64
1:D:983:ASN:HB3	1:D:1008:LEU:HD21	1.79	0.64
1:D:1005:ILE:HA	1:D:1008:LEU:HD12	1.80	0.64
1:B:1038:ASN:O	1:B:1042:THR:OG1	2.15	0.64
1:C:497:TYR:HD1	1:C:499:ILE:HD11	1.63	0.64
1:D:129:VAL:HG23	1:D:215:THR:HG21	1.80	0.64
1:A:532:SER:OG	1:A:565:ALA:N	2.31	0.63
1:D:764:GLU:OE2	1:D:786:LEU:N	2.31	0.63
1:A:1040:TRP:HB2	1:A:1101:LEU:HD11	1.79	0.63
1:C:64:LEU:HD11	1:C:120:VAL:HB	1.80	0.63
1:C:388:GLY:N	1:C:393:TYR:O	2.31	0.63
1:A:39:LEU:N	1:A:121:MET:O	2.31	0.63
1:A:538:ALA:O	1:A:558:TYR:N	2.30	0.63
1:B:270:ARG:NH2	1:B:315:GLU:O	2.30	0.63
1:B:507:ARG:NH2	1:B:532:SER:O	2.31	0.63
1:A:276:SER:OG	1:A:281:GLU:OE1	2.15	0.63
1:A:284:GLN:NE2	1:A:287:CYS:SG	2.71	0.63
1:A:947:SER:OG	1:A:1327:SER:OG	2.16	0.63
1:C:158:LEU:HD12	1:C:159:ASN:H	1.62	0.63
1:D:367:GLY:N	1:D:407:PHE:O	2.31	0.63
1:D:1372:SER:HB2	1:D:1422:VAL:HG13	1.79	0.63
1:A:305:LYS:HE3	1:A:308:VAL:HG23	1.81	0.63
1:C:101:MET:N	1:C:120:VAL:O	2.31	0.63
1:C:412:THR:HG22	1:C:412:THR:O	1.99	0.63
1:C:594:VAL:CG2	1:C:745:VAL:HG22	2.28	0.63
1:C:1100:THR:HG21	1:C:1145:TYR:CD2	2.33	0.63
1:C:1110:LEU:HD22	1:C:1116:VAL:HG12	1.80	0.63
1:D:599:ALA:HB3	1:D:740:ILE:HG13	1.80	0.63
1:A:637:GLN:O	1:A:684:ARG:NH1	2.31	0.63
1:A:1139:ASP:O	1:A:1143:HIS:NE2	2.31	0.63
1:C:39:LEU:CD1	1:C:120:VAL:HG11	2.29	0.63
1:C:982:PRO:O	1:C:986:VAL:HG23	1.99	0.63
1:C:917:ASN:ND2	1:C:1323:TYR:OH	2.31	0.63
1:A:60:VAL:HG23	1:A:107:VAL:HG23	1.81	0.62
1:B:253:LEU:HD21	1:B:606:LEU:HD21	1.80	0.62
1:C:235:VAL:HG12	1:C:236:PRO:HD2	1.81	0.62
1:C:1105:ILE:O	1:C:1109:LEU:HD23	1.99	0.62
1:A:400:ASP:OD1	1:A:403:GLY:N	2.32	0.62
1:D:816:ASN:OD1	1:D:817:TYR:N	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1099:VAL:HG11	1:D:1131:ALA:HB2	1.81	0.62
1:D:1186:PRO:O	1:D:1188:LYS:HD3	1.98	0.62
1:A:1076:ASP:OD1	1:A:1077:ASN:N	2.32	0.62
1:D:810:LEU:HD13	1:D:860:VAL:HG12	1.81	0.62
1:B:33:VAL:HG12	1:B:49:VAL:HG23	1.81	0.62
1:D:258:LYS:NZ	1:D:815:LEU:HD21	2.14	0.62
1:D:964:ASN:ND2	1:D:1244:ALA:O	2.31	0.62
1:A:224:PHE:CE1	1:A:604:VAL:HG11	2.35	0.62
1:C:564:LEU:HD13	1:C:619:TYR:OH	2.00	0.62
1:C:592:GLN:OE1	1:C:748:SER:OG	2.18	0.62
1:A:321:HIS:ND1	1:A:334:GLU:OE2	2.31	0.62
1:B:264:VAL:HG21	1:B:300:PHE:CE2	2.34	0.62
1:C:1208:MET:O	1:C:1212:VAL:N	2.32	0.62
1:B:571:SER:N	1:B:586:ARG:O	2.32	0.62
1:B:590:ALA:HB2	1:B:776:ALA:HB3	1.81	0.62
1:A:1088:ASN:HD21	1:A:1091:ILE:HD12	1.65	0.62
1:B:295:ASN:ND2	1:B:299:CYS:O	2.32	0.62
1:C:345:ARG:O	1:C:440:GLU:N	2.32	0.62
1:D:914:THR:CG2	1:D:935:LEU:HD22	2.26	0.62
1:D:965:LEU:O	1:D:967:GLN:NE2	2.32	0.62
1:D:989:TYR:CA	1:D:1262:SER:HB3	2.23	0.62
3:H:2:NAG:H83	3:H:2:NAG:C3	2.21	0.62
1:A:291:SER:OG	1:A:292:GLY:N	2.33	0.61
1:A:359:PHE:CZ	1:A:450:LEU:HD23	2.34	0.61
1:B:1044:PHE:HZ	1:B:1255:VAL:HG21	1.64	0.61
1:B:1154:PHE:O	1:B:1158:GLY:N	2.32	0.61
1:C:1099:VAL:HG13	1:C:1131:ALA:HB1	1.82	0.61
1:A:368:GLN:HG2	1:A:404:LEU:HD22	1.81	0.61
1:B:141:GLY:N	1:B:195:SER:O	2.33	0.61
1:C:133:THR:HG22	1:C:146:PHE:HB2	1.82	0.61
1:A:250:VAL:HG11	1:A:264:VAL:HG21	1.83	0.61
1:A:532:SER:OG	1:A:533:ASP:N	2.32	0.61
1:A:915:THR:OG1	1:A:1326:THR:O	2.10	0.61
1:C:138:TYR:HD2	1:C:142:GLN:HB3	1.64	0.61
1:C:235:VAL:HG12	1:C:236:PRO:CD	2.30	0.61
1:C:502:LYS:HB2	1:C:535:ALA:HB2	1.83	0.61
1:D:50:LEU:HD23	1:D:84:LEU:HD21	1.82	0.61
1:D:476:VAL:HB	1:D:526:ILE:HG23	1.82	0.61
1:A:138:TYR:CZ	1:A:144:VAL:HG23	2.36	0.61
1:A:626:ASP:O	1:A:628:THR:HG22	2.01	0.61
1:A:870:PHE:N	1:A:901:LYS:O	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:352:PHE:CZ	1:B:444:ALA:HB1	2.36	0.61
1:B:1155:ALA:HB1	1:B:1218:THR:OG1	2.01	0.61
1:A:636:ASP:O	1:C:1072:GLN:NE2	2.34	0.61
1:A:650:ILE:HD12	1:A:656:THR:CG2	2.30	0.61
1:B:382:LYS:O	1:B:399:THR:HG23	2.01	0.61
1:C:159:ASN:OD1	1:C:186:GLY:N	2.34	0.61
1:C:1292:VAL:HA	1:C:1296:ASN:HD21	1.66	0.61
1:D:470:CYS:O	1:D:472:HIS:ND1	2.33	0.61
1:D:969:PRO:HD3	1:D:979:LEU:HD11	1.81	0.60
1:D:318:MET:O	1:D:319:LYS:NZ	2.33	0.60
1:A:1183:TRP:CZ2	1:A:1212:VAL:HG21	2.36	0.60
1:C:575:SER:OG	1:C:787:ARG:N	2.33	0.60
1:D:570:LEU:HD13	1:D:585:LEU:HD11	1.82	0.60
1:D:1008:LEU:O	1:D:1012:TYR:N	2.21	0.60
1:A:660:SER:OG	1:A:661:THR:N	2.35	0.60
1:C:437:VAL:HG11	1:D:278:CYS:HB2	1.83	0.60
1:C:554:ASP:N	1:C:554:ASP:OD1	2.33	0.60
1:D:347:ILE:HG22	1:D:348:THR:HG23	1.83	0.60
1:D:570:LEU:HD11	1:D:784:ALA:CB	2.32	0.60
1:A:73:LEU:CD1	1:A:91:VAL:HG22	2.32	0.60
1:A:103:LEU:HB2	1:A:120:VAL:HG21	1.83	0.60
1:A:1253:ASP:OD1	1:A:1254:THR:N	2.35	0.60
1:B:319:LYS:C	1:B:320:LEU:HD12	2.22	0.60
1:B:920:LEU:HD13	1:B:927:VAL:HG12	1.83	0.60
1:C:966:LEU:HD13	1:C:1003:LYS:NZ	2.17	0.60
1:D:1235:VAL:O	1:D:1239:THR:HG23	2.02	0.60
1:A:360:ARG:NH2	1:A:459:VAL:O	2.34	0.60
1:A:997:THR:HG23	1:A:1000:ILE:HB	1.82	0.60
1:D:994:GLN:O	1:D:994:GLN:NE2	2.35	0.60
1:B:36:PRO:HB3	1:B:503:GLY:O	2.02	0.60
1:B:241:ILE:HG13	1:B:347:ILE:HD11	1.84	0.60
1:C:1024:SER:OG	1:C:1042:THR:HG21	2.01	0.60
1:C:1110:LEU:HD22	1:C:1156:LEU:HD12	1.83	0.60
1:B:775:ASP:OD1	1:B:776:ALA:N	2.34	0.60
1:D:39:LEU:HD12	1:D:122:VAL:HA	1.83	0.60
1:A:237:LYS:O	1:A:238:ILE:HD13	2.02	0.60
1:B:614:SER:O	1:B:617:SER:OG	2.08	0.60
1:C:478:ALA:N	1:C:524:PHE:O	2.35	0.60
1:D:1179:ASN:OD1	1:D:1236:LYS:NZ	2.34	0.60
1:A:47:GLY:HA2	1:A:505:ILE:HD12	1.84	0.59
1:A:50:LEU:O	1:A:51:LEU:HD22	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:68:ARG:HD2	1:C:1114:LEU:HD21	1.84	0.59
1:A:457:SER:OG	1:A:483:ASN:N	2.34	0.59
1:C:189:GLN:OE1	1:C:741:TRP:NE1	2.35	0.59
1:D:1147:LYS:HG2	1:D:1170:LEU:HD22	1.84	0.59
1:B:877:LEU:O	1:B:889:SER:OG	2.09	0.59
1:C:1157:ALA:HB3	1:C:1159:ASN:HB2	1.83	0.59
1:D:631:PRO:HG2	1:D:634:LEU:HD22	1.84	0.59
1:D:1039:THR:HG21	1:D:1105:ILE:HG22	1.84	0.59
1:D:1185:ARG:CB	1:D:1186:PRO:HD2	2.29	0.59
1:A:328:GLU:OE2	1:A:853:ARG:NE	2.34	0.59
1:A:366:PHE:HB3	1:A:408:SER:HB2	1.83	0.59
1:A:733:LYS:N	1:A:760:ASP:OD2	2.35	0.59
1:A:1251:THR:O	1:A:1255:VAL:HG23	2.02	0.59
1:C:1217:LEU:HD21	1:C:1228:LEU:HD21	1.84	0.59
1:D:793:PHE:CZ	1:D:815:LEU:HD23	2.36	0.59
1:D:1106:THR:HG21	1:D:1124:ALA:HB2	1.84	0.59
1:D:1150:LEU:CD1	1:D:1170:LEU:HD21	2.32	0.59
1:A:271:LYS:NZ	1:A:283:SER:OG	2.29	0.59
1:B:156:HIS:ND1	1:B:774:GLU:OE2	2.34	0.59
1:C:520:MET:N	1:C:520:MET:SD	2.76	0.59
1:D:810:LEU:CD1	1:D:860:VAL:HG12	2.33	0.59
1:B:39:LEU:HD12	1:B:122:VAL:CG1	2.33	0.59
1:B:466:HIS:O	1:B:468:LEU:HD12	2.02	0.59
1:B:497:TYR:HB2	1:B:540:LEU:HD11	1.84	0.59
1:C:823:ARG:NH1	1:C:845:PRO:O	2.36	0.59
1:D:498:LEU:O	1:D:541:LEU:N	2.36	0.59
1:D:1067:LEU:HD13	1:D:1112:ILE:HG21	1.84	0.59
1:A:387:ARG:HG2	1:A:387:ARG:HH11	1.66	0.59
1:A:954:ILE:HG23	1:A:955:LEU:HG	1.85	0.59
1:B:499:ILE:HG22	1:B:534:ILE:HD12	1.84	0.59
1:B:1100:THR:HG21	1:B:1145:TYR:CE2	2.38	0.59
1:A:579:PRO:HA	1:A:757:THR:HG21	1.85	0.59
1:A:816:ASN:ND2	1:A:848:ILE:O	2.35	0.59
1:C:50:LEU:O	1:C:51:LEU:HD22	2.02	0.59
1:C:139:LYS:HG2	1:C:142:GLN:HG3	1.85	0.59
1:D:554:ASP:OD1	1:D:555:SER:N	2.36	0.59
1:D:814:VAL:HG23	1:D:856:VAL:HG21	1.85	0.59
1:D:1014:ARG:CB	1:D:1014:ARG:HH11	2.15	0.59
1:A:201:GLY:N	1:A:221:VAL:O	2.34	0.59
1:A:273:SER:OG	1:A:274:ASP:N	2.35	0.59
1:A:948:VAL:HG12	1:A:1326:THR:HA	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1207:GLU:O	1:A:1210:SER:OG	2.09	0.59
1:B:815:LEU:HD21	1:B:853:ARG:CZ	2.32	0.59
1:B:1213:LEU:HD13	1:B:1234:ILE:CG2	2.33	0.59
1:A:760:ASP:HB3	1:A:899:VAL:HG13	1.85	0.59
1:A:816:ASN:O	1:A:851:ASN:N	2.36	0.59
1:B:352:PHE:CE1	1:B:444:ALA:HB1	2.38	0.59
1:B:984:ILE:HG13	1:B:1008:LEU:HD21	1.85	0.59
1:C:816:ASN:O	1:C:851:ASN:N	2.34	0.59
1:C:869:ASN:HD22	1:C:869:ASN:N	2.01	0.59
1:A:614:SER:O	1:A:617:SER:OG	2.12	0.58
1:B:39:LEU:CB	1:B:122:VAL:HG12	2.28	0.58
1:B:804:ARG:NE	1:B:863:LYS:O	2.35	0.58
1:B:1323:TYR:OH	1:B:1325:GLN:OE1	2.12	0.58
1:B:208:GLN:NE2	1:B:209:LYS:O	2.36	0.58
1:B:617:SER:O	1:B:621:LEU:HD13	2.02	0.58
1:B:1208:MET:O	1:B:1212:VAL:N	2.32	0.58
1:C:1185:ARG:O	1:C:1187:GLN:N	2.32	0.58
1:D:268:ILE:HD12	1:D:309:PHE:CZ	2.38	0.58
1:D:597:LEU:CD1	1:D:744:VAL:HG13	2.33	0.58
1:C:384:ILE:HD11	1:C:405:VAL:CG1	2.33	0.58
1:D:241:ILE:O	1:D:311:LEU:HD13	2.03	0.58
1:A:735:PHE:CE2	1:A:738:THR:HB	2.37	0.58
1:B:650:ILE:HG23	1:C:650:ILE:HD11	1.84	0.58
1:C:238:ILE:HD12	1:C:342:GLU:HB2	1.85	0.58
1:D:174:ARG:O	1:D:1003:LYS:HG3	2.03	0.58
1:D:293:GLN:NE2	1:D:293:GLN:O	2.36	0.58
1:D:1039:THR:HG21	1:D:1105:ILE:HA	1.84	0.58
1:A:38:LEU:HD22	1:A:40:HIS:CE1	2.39	0.58
1:B:241:ILE:HG22	1:B:242:LEU:HD22	1.85	0.58
1:B:878:GLU:OE2	1:B:879:SER:N	2.36	0.58
1:C:1226:GLU:O	1:C:1229:THR:OG1	2.18	0.58
1:D:575:SER:OG	1:D:787:ARG:O	2.09	0.58
1:A:608:LYS:NZ	1:A:609:PRO:O	2.25	0.58
1:B:400:ASP:OD1	1:B:403:GLY:N	2.36	0.58
1:C:1046:LEU:HD12	1:C:1049:PHE:CD2	2.38	0.58
1:B:503:GLY:HA3	1:B:627:LEU:HD23	1.85	0.58
1:B:822:ILE:HG21	1:B:876:ALA:HB1	1.84	0.58
1:C:598:ARG:O	1:C:768:GLY:N	2.36	0.58
1:C:945:ARG:O	1:C:1329:LYS:N	2.35	0.58
1:C:1296:ASN:HD22	1:C:1299:LEU:HD23	1.69	0.58
1:D:854:GLN:O	1:D:856:VAL:HG23	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:595:CYS:C	1:C:743:LEU:HD23	2.24	0.58
1:C:927:VAL:HG12	1:C:928:SER:H	1.68	0.58
1:D:658:VAL:HG21	1:D:688:MET:SD	2.44	0.58
1:B:532:SER:OG	1:B:533:ASP:N	2.37	0.58
1:B:1150:LEU:HD12	1:B:1154:PHE:CE2	2.38	0.58
1:C:31:TYR:O	1:C:679:THR:HG22	2.04	0.58
1:C:966:LEU:CD1	1:C:1000:ILE:HD11	2.34	0.58
1:D:1208:MET:SD	1:D:1209:THR:N	2.77	0.58
1:B:1173:GLU:O	1:B:1183:TRP:NE1	2.36	0.57
1:C:66:SER:OG	1:C:67:VAL:N	2.36	0.57
1:C:167:ILE:HD12	1:C:176:ALA:HB3	1.86	0.57
1:D:916:PHE:HB3	1:D:931:LEU:HD11	1.85	0.57
1:C:187:LEU:HD21	1:C:596:ALA:HB2	1.86	0.57
1:C:870:PHE:N	1:C:901:LYS:O	2.37	0.57
1:D:826:VAL:HG11	1:D:856:VAL:HG11	1.86	0.57
1:D:960:GLN:OE1	1:D:960:GLN:N	2.35	0.57
1:A:387:ARG:HB2	1:A:420:THR:CG2	2.31	0.57
1:C:949:SER:O	1:C:1325:GLN:N	2.34	0.57
1:D:129:VAL:CG2	1:D:215:THR:HG21	2.35	0.57
1:D:234:THR:N	1:D:249:SER:O	2.38	0.57
1:A:1291:GLN:O	1:A:1296:ASN:ND2	2.37	0.57
1:C:127:SER:O	1:C:209:LYS:NZ	2.38	0.57
1:C:597:LEU:HB3	1:C:740:ILE:HG21	1.85	0.57
1:C:908:GLU:O	1:C:1331:ASN:ND2	2.38	0.57
1:C:1278:VAL:O	1:C:1289:LYS:NZ	2.38	0.57
1:D:1255:VAL:HG23	1:D:1256:VAL:HG23	1.85	0.57
1:B:815:LEU:HD23	1:B:817:TYR:HE1	1.67	0.57
1:B:1252:GLN:O	1:B:1256:VAL:HG22	2.05	0.57
1:B:1297:ARG:O	1:B:1297:ARG:HD2	2.05	0.57
1:C:976:ASN:ND2	1:C:1015:GLN:OE1	2.36	0.57
1:D:889:SER:O	1:D:895:ARG:NH1	2.36	0.57
1:A:538:ALA:HB3	1:A:558:TYR:HB2	1.86	0.57
1:A:821:CYS:SG	1:A:849:CYS:N	2.78	0.57
1:C:596:ALA:C	1:C:597:LEU:HD12	2.25	0.57
1:D:845:PRO:HB3	1:D:856:VAL:HG22	1.86	0.57
1:B:1281:GLN:N	1:B:1313:SER:O	2.38	0.57
1:D:386:ILE:HD12	1:D:395:SER:O	2.04	0.57
1:D:475:THR:OG1	1:D:477:GLN:NE2	2.37	0.57
1:D:1347:THR:HA	1:D:1363:ILE:HG23	1.87	0.57
1:A:946:ALA:O	1:A:1304:SER:OG	2.22	0.57
1:D:799:PRO:O	1:D:800:TYR:HB2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:38:LEU:HD23	1:A:39:LEU:N	2.20	0.57
1:A:368:GLN:CG	1:A:404:LEU:HD22	2.34	0.57
1:A:810:LEU:HD23	1:A:858:TRP:HB2	1.86	0.57
1:A:1125:LEU:HD23	1:A:1128:LEU:CD1	2.35	0.57
1:C:347:ILE:HG21	1:C:439:GLU:CD	2.24	0.57
1:C:442:GLU:OE1	1:C:444:ALA:N	2.37	0.57
1:A:389:ASN:OD1	1:A:420:THR:HG22	2.05	0.56
1:A:1147:LYS:HA	1:A:1150:LEU:HD12	1.87	0.56
1:B:549:GLY:O	1:B:682:LYS:N	2.38	0.56
1:B:387:ARG:HB2	1:B:420:THR:HG23	1.86	0.56
1:B:538:ALA:HB3	1:B:558:TYR:HB2	1.86	0.56
1:B:1100:THR:HG23	1:B:1146:THR:HG22	1.86	0.56
1:C:67:VAL:HG12	1:C:100:VAL:O	2.05	0.56
1:C:476:VAL:N	1:C:526:ILE:O	2.38	0.56
1:D:605:LEU:HD12	1:D:608:LYS:O	2.05	0.56
1:A:58:VAL:HG22	1:A:109:GLY:HA2	1.87	0.56
1:A:581:SER:HB2	1:A:756:VAL:CG1	2.34	0.56
1:A:1038:ASN:ND2	1:A:1085:SER:OG	2.37	0.56
1:B:1110:LEU:O	1:B:1112:ILE:HG22	2.05	0.56
1:C:593:SER:O	1:C:746:VAL:N	2.38	0.56
1:D:241:ILE:HG22	1:D:242:LEU:HD22	1.87	0.56
1:D:1000:ILE:O	1:D:1004:ALA:N	2.38	0.56
1:D:126:ASP:OD1	1:D:126:ASP:N	2.37	0.56
1:D:1370:THR:HG23	1:D:1424:ASN:HB3	1.86	0.56
1:C:648:VAL:CG2	1:C:658:VAL:HG22	2.36	0.56
1:A:596:ALA:HB1	1:A:741:TRP:CZ3	2.41	0.56
1:A:596:ALA:HB1	1:A:741:TRP:HZ3	1.70	0.56
1:C:103:LEU:HD22	1:C:120:VAL:HG21	1.87	0.56
1:C:187:LEU:HG	1:C:772:LEU:HD11	1.87	0.56
1:D:809:THR:CG2	1:D:1437:VAL:HG13	2.36	0.56
1:A:610:ASP:OD1	1:A:611:ALA:N	2.37	0.56
1:B:1232:THR:HG21	1:B:1323:TYR:CG	2.41	0.56
1:A:1111:GLU:OE1	1:A:1152:TYR:OH	2.09	0.56
1:B:203:TYR:N	1:B:219:PHE:O	2.36	0.56
1:C:889:SER:O	1:C:895:ARG:NH1	2.38	0.56
1:D:80:GLU:OE1	1:D:80:GLU:N	2.39	0.56
1:D:1352:CYS:N	1:D:1467:CYS:SG	2.78	0.56
1:C:347:ILE:HG23	1:C:348:THR:HG23	1.88	0.56
1:D:1278:VAL:HG22	1:D:1316:VAL:CG1	2.36	0.56
1:A:77:LEU:HD13	1:A:87:VAL:HB	1.87	0.56
1:A:227:PRO:O	1:A:603:SER:OG	2.24	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:650:ILE:HD12	1:A:656:THR:HG21	1.88	0.56
1:A:666:MET:HB3	1:A:683:ILE:HG23	1.88	0.56
1:B:39:LEU:CD1	1:B:122:VAL:HG12	2.36	0.56
1:B:339:GLN:OE1	1:B:339:GLN:N	2.38	0.56
1:B:583:ALA:HB3	1:B:755:GLY:C	2.26	0.56
1:C:661:THR:OG1	1:C:662:ASN:N	2.39	0.56
1:C:948:VAL:HA	1:C:1326:THR:HG23	1.86	0.56
1:A:602:GLN:HA	1:A:605:LEU:HB3	1.88	0.55
1:B:1128:LEU:CD1	1:B:1150:LEU:HD13	2.36	0.55
1:D:1183:TRP:CZ3	1:D:1184:GLU:HG2	2.41	0.55
1:A:152:ASP:N	1:A:152:ASP:OD1	2.39	0.55
1:A:966:LEU:HD21	1:A:1004:ALA:HB2	1.87	0.55
1:B:827:GLN:N	1:B:873:SER:O	2.36	0.55
1:C:1025:TYR:CE2	1:C:1045:VAL:HG11	2.41	0.55
1:C:1219:ALA:HB1	1:C:1222:ALA:N	2.20	0.55
1:D:405:VAL:HG13	1:D:407:PHE:CE2	2.42	0.55
1:D:656:THR:HG22	1:D:657:PRO:O	2.05	0.55
1:A:1217:LEU:O	1:A:1219:ALA:N	2.39	0.55
1:C:493:LEU:HD12	1:C:494:SER:H	1.69	0.55
1:C:497:TYR:CD1	1:C:499:ILE:HD11	2.40	0.55
1:D:223:GLU:N	1:D:223:GLU:OE2	2.40	0.55
1:A:81:ASN:O	1:A:83:VAL:HG23	2.07	0.55
1:A:103:LEU:CB	1:A:120:VAL:HG21	2.36	0.55
1:A:230:GLU:HA	1:A:606:LEU:HD11	1.88	0.55
1:A:350:LEU:HD12	1:A:351:SER:N	2.21	0.55
1:B:1093:GLY:O	1:B:1204:ALA:HB2	2.07	0.55
1:A:596:ALA:N	1:A:770:PHE:O	2.37	0.55
1:B:238:ILE:HG23	1:B:342:GLU:HB2	1.88	0.55
1:C:1127:CYS:O	1:C:1130:SER:OG	2.18	0.55
1:A:493:LEU:HD11	1:A:544:ALA:HB1	1.87	0.55
1:A:762:ILE:HD11	1:A:795:GLU:OE2	2.06	0.55
1:A:1208:MET:O	1:A:1212:VAL:N	2.38	0.55
1:B:101:MET:CG	1:B:122:VAL:HG13	2.24	0.55
1:B:1150:LEU:HD12	1:B:1154:PHE:CZ	2.41	0.55
1:D:359:PHE:O	1:D:664:LYS:NZ	2.39	0.55
1:D:1278:VAL:HG22	1:D:1316:VAL:HG12	1.88	0.55
1:D:1352:CYS:SG	1:D:1358:HIS:N	2.80	0.55
1:A:735:PHE:HE2	1:A:738:THR:HB	1.71	0.55
1:B:1026:SER:OG	1:B:1027:THR:N	2.40	0.55
1:C:387:ARG:HD3	1:C:420:THR:HG23	1.89	0.55
1:C:980:PHE:CE1	1:C:1008:LEU:HD22	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:270:ARG:NH1	1:B:309:PHE:O	2.40	0.55
1:B:736:PRO:O	1:B:738:THR:N	2.39	0.55
1:C:352:PHE:HD1	1:C:369:VAL:HG22	1.71	0.55
1:D:387:ARG:HB2	1:D:420:THR:HG23	1.89	0.55
1:D:1106:THR:HG21	1:D:1124:ALA:CB	2.37	0.55
1:A:84:LEU:HD23	1:A:508:THR:OG1	2.06	0.55
1:A:144:VAL:HG21	1:A:219:PHE:CZ	2.42	0.55
1:A:481:ILE:N	1:A:482:LEU:HD12	2.22	0.55
1:D:744:VAL:HG11	1:D:753:GLU:OE2	2.06	0.55
1:A:981:ALA:HB3	1:A:982:PRO:HD3	1.89	0.55
1:B:1152:TYR:HE1	1:B:1156:LEU:HD23	1.71	0.55
1:D:504:GLY:O	1:D:505:ILE:HD13	2.07	0.55
1:A:931:LEU:CD1	1:A:933:LEU:HD21	2.37	0.54
1:A:965:LEU:HD11	1:A:1247:GLY:CA	2.37	0.54
1:B:241:ILE:CG1	1:B:347:ILE:HD11	2.37	0.54
1:C:514:LEU:HD23	1:C:515:VAL:N	2.22	0.54
1:C:778:LEU:HD23	1:C:778:LEU:H	1.72	0.54
1:D:896:LYS:HG3	1:D:898:THR:HG23	1.89	0.54
1:A:384:ILE:N	1:A:397:ALA:O	2.40	0.54
1:A:386:ILE:HD13	1:A:407:PHE:HB3	1.89	0.54
1:B:431:CYS:O	1:B:437:VAL:HG11	2.06	0.54
1:C:345:ARG:NH1	1:C:437:VAL:O	2.40	0.54
1:C:976:ASN:ND2	1:C:1011:GLY:O	2.39	0.54
1:D:538:ALA:HB2	1:D:560:VAL:HG23	1.90	0.54
1:B:385:PHE:N	1:B:422:ARG:O	2.41	0.54
1:C:103:LEU:HD22	1:C:120:VAL:CG2	2.37	0.54
1:C:187:LEU:HD11	1:C:743:LEU:HD21	1.90	0.54
1:C:475:THR:HG1	1:C:525:SER:HG	1.51	0.54
1:C:1181:VAL:HG22	1:C:1233:ASN:CB	2.37	0.54
1:D:617:SER:O	1:D:621:LEU:HD23	2.08	0.54
1:D:1363:ILE:HG22	1:D:1365:LEU:CD1	2.38	0.54
1:A:681:SER:OG	1:A:682:LYS:N	2.41	0.54
1:A:1097:ASP:O	1:A:1100:THR:N	2.39	0.54
1:B:39:LEU:HD12	1:B:122:VAL:HG13	1.89	0.54
1:B:214:ARG:NH1	1:B:959:MET:SD	2.80	0.54
1:B:1265:GLY:O	1:B:1269:PHE:N	2.40	0.54
1:C:356:ASP:OD1	1:C:358:HIS:N	2.39	0.54
1:C:1110:LEU:HD13	1:C:1156:LEU:HB3	1.89	0.54
1:D:739:TRP:O	1:D:740:ILE:HD13	2.07	0.54
1:B:996:LEU:HD23	1:B:996:LEU:H	1.72	0.54
1:C:206:VAL:HG13	1:C:216:GLU:CG	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1014:ARG:NH1	1:D:1014:ARG:HB2	2.22	0.54
1:A:137:ILE:HD11	1:A:222:GLU:N	2.22	0.54
1:A:688:MET:SD	1:A:688:MET:N	2.81	0.54
1:B:222:GLU:OE1	1:B:222:GLU:N	2.41	0.54
1:B:744:VAL:HG23	1:B:751:VAL:HG21	1.90	0.54
1:C:187:LEU:CG	1:C:772:LEU:HD11	2.37	0.54
1:C:197:GLU:O	1:C:945:ARG:NH1	2.41	0.54
1:C:1213:LEU:HG	1:C:1260:ALA:HB1	1.88	0.54
1:D:155:PHE:HB3	1:D:778:LEU:HD22	1.89	0.54
1:B:539:ARG:NH2	1:B:628:THR:OG1	2.41	0.54
1:B:1148:ALA:CB	1:B:1212:VAL:HG22	2.38	0.54
1:C:914:THR:HG21	1:C:935:LEU:HD11	1.90	0.54
1:D:64:LEU:HD22	1:D:73:LEU:HD23	1.89	0.54
1:A:650:ILE:HD11	1:D:653:ILE:HD11	1.89	0.54
1:A:1206:VAL:O	1:A:1209:THR:N	2.41	0.54
1:C:33:VAL:C	1:C:34:LEU:HD12	2.29	0.54
1:C:1147:LYS:O	1:C:1166:VAL:HG21	2.08	0.54
1:D:990:LEU:HD23	1:D:990:LEU:C	2.28	0.54
1:D:1107:ILE:HG21	1:D:1149:LEU:HD22	1.90	0.54
1:B:506:VAL:HG11	1:B:534:ILE:HD12	1.90	0.54
1:B:803:ILE:HD12	1:B:906:GLU:HB2	1.89	0.54
1:C:117:ARG:HB2	1:C:117:ARG:HH11	1.72	0.54
1:C:176:ALA:HB2	1:C:192:PHE:CD1	2.43	0.54
1:C:1181:VAL:HG23	1:C:1234:ILE:HG23	1.90	0.54
1:D:64:LEU:HD13	1:D:73:LEU:HB2	1.89	0.54
1:A:308:VAL:O	1:A:310:GLN:NE2	2.38	0.53
1:C:187:LEU:HD23	1:C:772:LEU:HD11	1.88	0.53
1:A:600:VAL:O	1:A:766:LYS:N	2.41	0.53
1:A:911:GLU:N	1:A:1331:ASN:OD1	2.41	0.53
1:A:1184:GLU:OE1	1:A:1187:GLN:NE2	2.36	0.53
1:B:237:LYS:O	1:B:238:ILE:HD13	2.07	0.53
1:B:267:SER:O	1:B:267:SER:OG	2.24	0.53
1:C:315:GLU:OE1	1:C:315:GLU:N	2.41	0.53
1:C:371:LEU:N	1:C:403:GLY:O	2.41	0.53
1:C:1110:LEU:CD2	1:C:1116:VAL:HG12	2.39	0.53
1:D:128:LEU:N	1:D:151:MET:O	2.37	0.53
1:D:265:THR:CB	1:D:291:SER:HB3	2.39	0.53
1:A:833:ALA:HB3	1:A:868:VAL:HG21	1.89	0.53
1:A:1125:LEU:HA	1:A:1128:LEU:HD12	1.89	0.53
1:B:49:VAL:O	1:B:84:LEU:HD12	2.08	0.53
1:B:381:ASN:N	1:B:399:THR:OG1	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:596:ALA:N	1:B:770:PHE:O	2.41	0.53
1:B:1050:ALA:HB1	1:B:1113:PRO:CG	2.39	0.53
1:D:47:GLY:N	1:D:87:VAL:O	2.39	0.53
1:D:144:VAL:HG22	1:D:192:PHE:O	2.08	0.53
1:B:318:MET:HE3	1:B:320:LEU:HD11	1.91	0.53
1:D:73:LEU:HD12	1:D:91:VAL:HG12	1.91	0.53
1:D:989:TYR:HD1	1:D:989:TYR:H	1.55	0.53
1:D:1211:TYR:HD1	1:D:1214:LEU:HD12	1.73	0.53
1:B:368:GLN:CD	1:B:404:LEU:HD22	2.29	0.53
1:B:336:THR:O	1:B:336:THR:OG1	2.23	0.53
1:B:356:ASP:OD2	1:B:366:PHE:N	2.41	0.53
1:B:372:VAL:HG12	1:B:373:ASP:H	1.73	0.53
1:B:648:VAL:HG11	1:C:653:ILE:HD13	1.90	0.53
1:B:1242:GLN:NE2	1:B:1247:GLY:O	2.38	0.53
1:C:205:VAL:N	1:C:217:HIS:O	2.41	0.53
1:A:665:ASP:OD1	1:A:666:MET:N	2.42	0.53
1:A:731:VAL:O	1:A:898:THR:OG1	2.26	0.53
1:B:1123:ASN:ND2	1:D:103:LEU:O	2.42	0.53
1:C:30:GLN:NE2	1:C:681:SER:OG	2.39	0.53
1:C:394:TYR:HD2	5:C:2004:NAG:H61	1.74	0.53
1:D:1183:TRP:CE3	1:D:1183:TRP:O	2.61	0.53
1:A:1070:LEU:CD1	1:A:1109:LEU:HD11	2.38	0.53
1:B:267:SER:OG	1:B:321:HIS:N	2.38	0.53
1:C:103:LEU:HD23	1:C:118:THR:CG2	2.38	0.53
1:C:388:GLY:HA2	1:C:391:ALA:HB3	1.89	0.53
1:C:653:ILE:O	1:C:654:THR:HG23	2.09	0.53
1:C:992:GLU:HG3	1:C:1266:ALA:HB2	1.91	0.53
1:C:1026:SER:OG	1:C:1027:THR:N	2.40	0.53
1:D:622:LEU:HD23	1:D:623:PRO:O	2.09	0.53
1:D:622:LEU:HD22	1:D:625:LYS:HG3	1.89	0.53
1:D:910:LEU:HB2	1:D:1333:LEU:HD23	1.89	0.53
5:D:2002:NAG:HO3	5:D:2002:NAG:C7	2.22	0.53
1:A:919:LEU:O	1:A:920:LEU:HD23	2.09	0.53
1:B:804:ARG:NH2	1:B:941:GLU:OE2	2.39	0.53
1:B:1047:LYS:O	1:B:1050:ALA:HB3	2.09	0.53
1:C:187:LEU:CD2	1:C:772:LEU:HD11	2.39	0.53
1:C:233:VAL:HG23	1:C:338:ARG:HH22	1.74	0.53
1:A:431:CYS:CB	1:A:437:VAL:HG11	2.39	0.53
1:B:129:VAL:HG12	1:B:149:VAL:O	2.09	0.53
1:B:570:LEU:N	1:B:781:SER:OG	2.42	0.53
1:A:496:TYR:N	1:A:543:TYR:O	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:899:VAL:HG12	1:A:901:LYS:HG2	1.90	0.52
1:C:38:LEU:O	1:C:38:LEU:HD23	2.08	0.52
1:C:541:LEU:HD22	1:C:673:MET:CE	2.39	0.52
1:C:1049:PHE:HD1	1:C:1058:ILE:HD11	1.74	0.52
1:C:1095:VAL:HG13	1:C:1201:ALA:HA	1.90	0.52
1:C:1106:THR:HG21	1:C:1124:ALA:HB1	1.90	0.52
1:D:405:VAL:HG13	1:D:407:PHE:HE2	1.74	0.52
1:D:914:THR:HG23	1:D:1330:TYR:HE1	1.74	0.52
1:A:333:VAL:HG12	1:A:334:GLU:H	1.74	0.52
1:A:955:LEU:HD21	1:A:993:THR:HB	1.91	0.52
1:B:288:GLU:N	1:B:288:GLU:OE1	2.42	0.52
1:B:637:GLN:O	1:B:684:ARG:NH1	2.40	0.52
1:B:1279:THR:O	1:B:1315:LYS:N	2.42	0.52
1:C:276:SER:OG	1:C:279:HIS:O	2.23	0.52
1:C:335:LEU:HD23	1:C:336:THR:N	2.23	0.52
1:C:1146:THR:O	1:C:1150:LEU:HD23	2.09	0.52
1:D:390:GLU:OE1	1:D:390:GLU:HA	2.09	0.52
1:A:266:VAL:HG22	1:A:322:THR:OG1	2.09	0.52
1:B:1072:GLN:NE2	1:D:634:LEU:HD23	2.24	0.52
1:C:974:GLU:OE1	1:C:1091:ILE:HD13	2.09	0.52
1:C:1041:LEU:O	1:C:1045:VAL:HG23	2.09	0.52
1:D:288:GLU:OE1	1:D:288:GLU:N	2.43	0.52
1:D:473:THR:OG1	1:D:528:ILE:O	2.27	0.52
1:B:329:GLU:CG	1:B:797:THR:HG21	2.38	0.52
1:C:238:ILE:HG23	1:C:342:GLU:HB2	1.91	0.52
1:C:1217:LEU:HD21	1:C:1228:LEU:CD2	2.40	0.52
1:D:1042:THR:HA	1:D:1045:VAL:HG12	1.92	0.52
1:A:581:SER:HB2	1:A:756:VAL:HG22	1.92	0.52
5:A:2003:NAG:H3	5:A:2003:NAG:H82	1.90	0.52
1:B:808:PHE:N	1:B:860:VAL:O	2.40	0.52
1:C:117:ARG:HB2	1:C:117:ARG:NH1	2.24	0.52
1:C:385:PHE:N	1:C:422:ARG:O	2.43	0.52
1:D:66:SER:OG	1:D:67:VAL:N	2.43	0.52
1:D:233:VAL:O	1:D:338:ARG:NH1	2.42	0.52
1:D:386:ILE:HD11	1:D:397:ALA:HB3	1.92	0.52
1:A:144:VAL:O	1:A:192:PHE:N	2.42	0.52
1:A:347:ILE:HG22	1:A:348:THR:H	1.73	0.52
1:B:747:ASN:ND2	1:B:750:GLY:O	2.43	0.52
1:C:176:ALA:HB1	1:C:178:TRP:CZ3	2.43	0.52
1:D:117:ARG:O	1:D:118:THR:OG1	2.28	0.52
1:D:268:ILE:HD11	1:D:290:PHE:HD1	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:122:VAL:HG23	1:B:122:VAL:O	2.08	0.52
1:C:798:MET:CB	1:C:810:LEU:HD22	2.40	0.52
1:C:1181:VAL:HG23	1:C:1234:ILE:CG2	2.40	0.52
1:D:292:GLY:HA3	1:D:300:PHE:HZ	1.75	0.52
1:B:743:LEU:HD11	1:B:745:VAL:HG22	1.92	0.52
1:B:1109:LEU:HD21	1:B:1120:VAL:CG1	2.39	0.52
1:B:1148:ALA:HB1	1:B:1212:VAL:HG22	1.92	0.52
1:C:499:ILE:HD13	1:C:507:ARG:HG3	1.90	0.52
1:D:290:PHE:CB	1:D:304:VAL:HG12	2.39	0.52
1:D:490:LEU:HD23	1:D:492:LYS:O	2.10	0.52
1:A:793:PHE:CZ	1:A:815:LEU:HD13	2.45	0.52
1:A:912:LYS:HG3	1:A:1330:TYR:CE1	2.45	0.52
1:A:1296:ASN:N	1:A:1296:ASN:OD1	2.42	0.52
1:B:329:GLU:HG2	1:B:797:THR:HG21	1.92	0.52
1:B:814:VAL:HG21	1:B:874:ALA:CB	2.40	0.52
1:B:1271:ARG:NE	1:B:1271:ARG:H	2.08	0.52
1:C:61:SER:O	1:C:61:SER:OG	2.26	0.52
1:C:363:ILE:HD13	1:C:481:ILE:HD11	1.92	0.52
1:D:620:ASN:O	1:D:625:LYS:NZ	2.23	0.52
1:D:913:GLU:OE2	1:D:1176:LYS:N	2.43	0.52
1:D:1011:GLY:HA2	1:D:1014:ARG:CZ	2.40	0.52
1:A:77:LEU:HD22	1:A:87:VAL:CG1	2.40	0.52
1:A:996:LEU:HD12	1:A:997:THR:H	1.75	0.52
1:A:1183:TRP:CH2	1:A:1212:VAL:HG11	2.45	0.52
1:B:450:LEU:O	1:B:664:LYS:N	2.41	0.52
1:C:319:LYS:CA	1:C:320:LEU:HD12	2.40	0.52
1:C:350:LEU:HD12	1:C:351:SER:N	2.25	0.52
1:C:1076:ASP:N	1:C:1076:ASP:OD1	2.43	0.52
1:D:165:VAL:CG2	1:D:207:VAL:HG22	2.40	0.52
1:A:742:ASP:N	1:A:742:ASP:OD1	2.43	0.51
1:A:1105:ILE:O	1:A:1109:LEU:HD23	2.09	0.51
1:A:1305:LEU:HD13	1:A:1312:TYR:CD1	2.46	0.51
1:B:911:GLU:N	1:B:1331:ASN:OD1	2.43	0.51
1:D:828:LEU:HD13	1:D:858:TRP:HB2	1.91	0.51
1:D:910:LEU:HD21	1:D:1183:TRP:CE2	2.44	0.51
1:A:60:VAL:HG23	1:A:107:VAL:CG2	2.39	0.51
1:A:372:VAL:HG12	1:A:373:ASP:H	1.74	0.51
1:B:626:ASP:O	1:B:628:THR:HG22	2.11	0.51
1:B:802:VAL:O	1:B:803:ILE:HD13	2.09	0.51
1:C:1022:ASP:OD1	1:C:1023:GLY:N	2.43	0.51
1:C:1253:ASP:N	1:C:1253:ASP:OD1	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:348:THR:OG1	1:D:441:HIS:ND1	2.37	0.51
1:A:869:ASN:HB3	1:A:900:ILE:CG2	2.39	0.51
1:A:1068:ILE:HD12	1:A:1072:GLN:HE22	1.75	0.51
1:B:1070:LEU:HD22	1:B:1120:VAL:CG1	2.40	0.51
1:D:233:VAL:HA	1:D:250:VAL:HG13	1.92	0.51
1:D:502:LYS:HA	1:D:535:ALA:HB2	1.92	0.51
1:D:1218:THR:HG23	1:D:1263:LYS:HZ2	1.76	0.51
2:I:2:NAG:C7	2:I:2:NAG:HO3	2.23	0.51
1:A:562:ASN:OD1	1:A:616:SER:OG	2.28	0.51
1:A:1088:ASN:ND2	1:A:1091:ILE:HD12	2.25	0.51
1:A:1210:SER:OG	1:A:1211:TYR:N	2.43	0.51
1:B:568:VAL:CG2	1:B:589:ALA:HB2	2.40	0.51
1:C:798:MET:HB2	1:C:810:LEU:HD22	1.91	0.51
1:C:1099:VAL:HG11	1:C:1146:THR:HG22	1.91	0.51
1:D:173:ASN:OD1	1:D:173:ASN:N	2.43	0.51
1:D:599:ALA:HB3	1:D:740:ILE:CG1	2.40	0.51
1:D:1251:THR:HG21	1:D:1407:ARG:CG	2.41	0.51
1:A:237:LYS:HB2	1:A:338:ARG:HG3	1.93	0.51
1:A:270:ARG:NE	1:A:316:TYR:O	2.38	0.51
1:B:39:LEU:CD1	1:B:122:VAL:CG1	2.88	0.51
1:B:64:LEU:HD13	1:B:103:LEU:HD13	1.92	0.51
1:B:660:SER:OG	1:B:687:LYS:NZ	2.22	0.51
1:C:112:GLN:NE2	1:C:112:GLN:HA	2.26	0.51
1:C:133:THR:HG22	1:C:146:PHE:CB	2.39	0.51
1:D:959:MET:N	1:D:959:MET:SD	2.84	0.51
1:A:415:MET:HG3	1:A:450:LEU:HD21	1.93	0.51
1:B:1044:PHE:CZ	1:B:1255:VAL:HG21	2.43	0.51
1:C:1210:SER:OG	1:C:1211:TYR:N	2.43	0.51
1:A:989:TYR:CE2	1:A:993:THR:HG21	2.46	0.51
1:B:501:ALA:O	1:B:504:GLY:N	2.43	0.51
1:C:148:VAL:HG22	1:C:149:VAL:H	1.74	0.51
1:C:400:ASP:OD1	1:C:404:LEU:N	2.39	0.51
1:D:35:VAL:HG22	1:D:677:ALA:HA	1.92	0.51
1:D:46:LYS:NZ	1:D:506:VAL:O	2.30	0.51
1:D:165:VAL:HG21	1:D:207:VAL:HG22	1.91	0.51
1:C:142:GLN:O	1:C:194:LEU:HG	2.10	0.51
1:C:270:ARG:NE	1:C:316:TYR:O	2.41	0.51
1:C:527:SER:O	1:C:528:ILE:HG23	2.10	0.51
1:A:184:GLU:OE1	1:A:184:GLU:N	2.44	0.51
1:A:345:ARG:O	1:A:440:GLU:N	2.43	0.51
1:A:431:CYS:HB2	1:A:437:VAL:HG11	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:871:THR:HG22	1:A:900:ILE:HG23	1.92	0.51
1:B:203:TYR:O	1:B:219:PHE:N	2.37	0.51
1:B:307:LYS:O	1:B:310:GLN:NE2	2.44	0.51
1:B:907:PRO:O	1:B:1331:ASN:ND2	2.44	0.51
1:C:975:GLN:O	1:C:979:LEU:HD23	2.11	0.51
1:A:78:GLU:OE2	1:A:85:HIS:ND1	2.42	0.51
1:A:767:ALA:HB3	1:A:783:THR:HA	1.93	0.51
1:A:950:VAL:HG22	1:A:1324:LEU:HD21	1.92	0.51
1:B:499:ILE:HG12	1:B:528:ILE:HD12	1.92	0.51
1:B:1027:THR:HG21	1:B:1087:LEU:CD1	2.42	0.51
1:C:147:ARG:NH1	1:C:742:ASP:O	2.40	0.51
1:C:451:VAL:HG23	1:C:664:LYS:C	2.31	0.51
1:C:1086:LEU:HD12	1:C:1087:LEU:N	2.26	0.51
1:C:1292:VAL:HA	1:C:1296:ASN:ND2	2.26	0.51
1:D:195:SER:OG	1:D:1244:ALA:O	2.16	0.51
1:D:321:HIS:HB3	1:D:336:THR:HG22	1.92	0.51
1:D:917:ASN:ND2	1:D:1323:TYR:OH	2.43	0.51
1:A:497:TYR:CE1	1:A:526:ILE:HD11	2.46	0.50
1:B:978:VAL:HG22	1:B:1251:THR:HG21	1.93	0.50
1:C:38:LEU:HD11	1:C:123:LYS:HD3	1.93	0.50
1:C:932:SER:OG	1:C:1310:GLY:O	2.20	0.50
1:D:538:ALA:O	1:D:558:TYR:N	2.40	0.50
1:D:763:THR:HG23	1:D:765:TRP:NE1	2.26	0.50
1:D:1019:LYS:O	1:D:1030:GLU:N	2.44	0.50
1:D:1150:LEU:HD12	1:D:1170:LEU:HD21	1.92	0.50
1:A:536:PRO:HA	1:A:560:VAL:HB	1.92	0.50
1:A:550:ASP:OD1	1:A:551:VAL:N	2.44	0.50
1:A:1067:LEU:HD12	1:A:1070:LEU:CD1	2.38	0.50
1:B:133:THR:HG23	1:B:217:HIS:CD2	2.45	0.50
1:B:236:PRO:HD2	1:B:248:VAL:HG22	1.93	0.50
1:D:142:GLN:NE2	1:D:737:GLU:OE1	2.44	0.50
1:D:399:THR:OG1	1:D:400:ASP:N	2.44	0.50
1:D:570:LEU:CB	1:D:587:VAL:HG22	2.41	0.50
1:A:94:SER:OG	1:A:124:ASN:ND2	2.41	0.50
1:A:270:ARG:NH1	1:A:309:PHE:O	2.44	0.50
1:B:129:VAL:HG12	1:B:150:SER:HB2	1.92	0.50
1:C:491:LYS:O	1:C:515:VAL:HG22	2.11	0.50
1:D:793:PHE:CE1	1:D:815:LEU:HD23	2.46	0.50
1:A:101:MET:O	1:A:120:VAL:N	2.40	0.50
1:B:1152:TYR:CE2	1:B:1214:LEU:HD13	2.46	0.50
1:C:239:ILE:CG2	1:C:343:ILE:HD11	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:578:LEU:O	1:C:580:ALA:N	2.45	0.50
1:D:1016:LEU:HD23	1:D:1016:LEU:O	2.10	0.50
1:D:1238:ILE:HD12	1:D:1257:ALA:O	2.11	0.50
1:A:164:LEU:O	1:A:207:VAL:HG23	2.12	0.50
1:A:984:ILE:HA	1:A:987:LEU:HD12	1.93	0.50
1:B:1160:GLN:OE1	1:B:1160:GLN:N	2.38	0.50
1:C:1115:THR:CB	1:C:1117:THR:HG22	2.41	0.50
1:C:1181:VAL:HG22	1:C:1233:ASN:HB3	1.93	0.50
1:C:1208:MET:SD	1:C:1209:THR:HG23	2.51	0.50
1:D:914:THR:OG1	1:D:935:LEU:HD13	2.11	0.50
1:A:44:THR:OG1	1:A:88:ALA:HB1	2.12	0.50
1:A:147:ARG:CD	1:A:743:LEU:HD11	2.42	0.50
1:B:369:VAL:N	1:B:405:VAL:O	2.44	0.50
1:B:590:ALA:O	1:B:593:SER:OG	2.28	0.50
1:B:969:PRO:HB2	1:B:1014:ARG:HD3	1.94	0.50
1:C:576:GLN:HE21	1:C:757:THR:HG21	1.76	0.50
1:C:1225:SER:O	1:C:1229:THR:HG23	2.12	0.50
1:A:639:ASN:OD1	1:A:640:GLU:N	2.43	0.50
1:B:59:THR:O	1:B:59:THR:OG1	2.27	0.50
1:B:1112:ILE:HG13	1:B:1117:THR:HG23	1.92	0.50
1:C:164:LEU:HD11	1:C:166:TYR:CD1	2.47	0.50
1:C:185:GLY:O	1:C:772:LEU:HD13	2.12	0.50
1:D:476:VAL:N	1:D:526:ILE:O	2.40	0.50
1:D:538:ALA:HB3	1:D:558:TYR:HB2	1.93	0.50
1:A:912:LYS:N	1:A:1330:TYR:O	2.40	0.50
1:B:1077:ASN:OD1	1:B:1078:GLY:N	2.45	0.50
1:C:495:PHE:O	1:C:511:HIS:N	2.44	0.50
1:C:1107:ILE:HD13	1:C:1153:ALA:HA	1.93	0.50
1:D:546:LEU:HD23	1:D:550:ASP:N	2.27	0.50
1:D:975:GLN:O	1:D:978:VAL:N	2.45	0.50
1:A:919:LEU:HD23	1:A:920:LEU:N	2.26	0.50
1:A:1257:ALA:O	1:A:1261:LEU:HD12	2.12	0.50
1:B:812:ALA:CB	1:B:872:VAL:HG11	2.42	0.50
1:D:934:LYS:NZ	1:D:1308:LEU:O	2.23	0.50
1:A:346:THR:O	1:A:347:ILE:HD13	2.12	0.49
1:A:966:LEU:HD11	1:A:1000:ILE:HG12	1.93	0.49
1:A:1152:TYR:OH	1:A:1214:LEU:HD22	2.11	0.49
1:B:812:ALA:HB2	1:B:872:VAL:HG11	1.94	0.49
1:D:168:GLN:NE2	1:D:169:ASP:O	2.44	0.49
1:D:318:MET:HB3	1:D:320:LEU:HD21	1.94	0.49
1:A:730:THR:OG1	1:A:896:LYS:O	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:167:ILE:HG23	1:B:204:LYS:O	2.11	0.49
1:C:565:ALA:HB3	1:C:776:ALA:O	2.12	0.49
1:D:881:GLU:OE1	1:D:881:GLU:N	2.46	0.49
1:A:1070:LEU:CD1	1:A:1109:LEU:HD21	2.40	0.49
1:B:581:SER:O	1:B:757:THR:N	2.41	0.49
1:D:42:GLU:N	1:D:91:VAL:O	2.39	0.49
1:C:744:VAL:HG23	1:C:751:VAL:HG11	1.94	0.49
1:A:33:VAL:C	1:A:34:LEU:HD12	2.33	0.49
1:A:305:LYS:CE	1:A:308:VAL:HG23	2.41	0.49
1:A:978:VAL:HG22	1:A:1251:THR:HG21	1.94	0.49
1:B:414:VAL:HG21	1:C:646:HIS:HB3	1.94	0.49
1:C:107:VAL:HG11	1:C:112:GLN:HG3	1.94	0.49
1:C:648:VAL:HG21	1:C:657:PRO:O	2.12	0.49
1:A:187:LEU:HD13	1:A:743:LEU:HD21	1.94	0.49
1:B:414:VAL:HG11	1:C:647:ASN:H	1.78	0.49
1:C:437:VAL:HG11	1:D:278:CYS:CB	2.41	0.49
1:C:535:ALA:HB1	1:C:536:PRO:HD2	1.95	0.49
1:C:1307:GLU:OE2	1:C:1312:TYR:OH	2.30	0.49
1:D:1416:LEU:O	1:D:1417:ILE:HD13	2.13	0.49
1:A:912:LYS:HG2	1:A:1330:TYR:O	2.12	0.49
1:B:122:VAL:O	1:B:122:VAL:CG2	2.60	0.49
1:B:151:MET:CE	1:B:778:LEU:HD13	2.43	0.49
1:D:1278:VAL:N	1:D:1290:PHE:O	2.45	0.49
1:A:911:GLU:OE2	1:A:1331:ASN:ND2	2.45	0.49
1:A:1235:VAL:HG22	1:A:1261:LEU:CD2	2.42	0.49
1:C:384:ILE:HD11	1:C:405:VAL:HG13	1.94	0.49
1:C:964:ASN:O	1:C:966:LEU:N	2.45	0.49
1:D:270:ARG:O	1:D:285:ALA:N	2.45	0.49
1:D:352:PHE:HA	1:D:369:VAL:HG22	1.94	0.49
1:D:650:ILE:HD11	1:D:659:SER:H	1.78	0.49
1:A:72:SER:O	1:A:73:LEU:HD23	2.12	0.49
1:A:267:SER:O	1:A:321:HIS:N	2.45	0.49
1:A:876:ALA:HB1	1:A:889:SER:OG	2.11	0.49
1:B:420:THR:OG1	1:B:422:ARG:NH1	2.45	0.49
1:B:735:PHE:CD1	1:B:735:PHE:O	2.66	0.49
1:C:32:MET:HG2	1:C:34:LEU:HD11	1.95	0.49
1:C:1103:ALA:HB3	1:C:1149:LEU:HD21	1.95	0.49
1:D:733:LYS:NZ	1:D:734:TYR:O	2.28	0.49
1:D:811:LYS:NZ	1:D:813:THR:OG1	2.45	0.49
1:D:936:PRO:HB2	1:D:939:VAL:HG11	1.94	0.49
1:D:1047:LYS:N	1:D:1111:GLU:OE1	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1390:ILE:O	1:D:1434:LEU:N	2.43	0.49
1:A:453:SER:OG	1:A:456:LYS:N	2.46	0.49
5:B:2001:NAG:O3	5:B:2001:NAG:H82	2.13	0.49
1:D:599:ALA:HB3	1:D:740:ILE:HB	1.95	0.49
1:D:975:GLN:CD	1:D:975:GLN:N	2.66	0.49
1:B:1042:THR:HA	1:B:1045:VAL:HG22	1.93	0.48
1:C:134:ASP:OD1	1:C:135:LYS:NZ	2.46	0.48
1:D:77:LEU:HD21	1:D:87:VAL:HG11	1.95	0.48
1:A:387:ARG:HG2	1:A:387:ARG:NH1	2.28	0.48
1:B:736:PRO:C	1:B:738:THR:N	2.66	0.48
1:B:870:PHE:HE2	1:B:872:VAL:HG13	1.78	0.48
1:B:1027:THR:HG21	1:B:1087:LEU:HD11	1.94	0.48
1:C:585:LEU:N	1:C:753:GLU:O	2.43	0.48
1:D:1175:VAL:O	1:D:1181:VAL:HG13	2.13	0.48
1:B:62:ALA:HB3	1:B:75:THR:HB	1.95	0.48
1:B:539:ARG:NH1	1:B:672:ASP:O	2.46	0.48
1:B:1226:GLU:O	1:B:1229:THR:OG1	2.26	0.48
1:C:357:SER:O	1:C:448:ALA:HB1	2.12	0.48
1:C:1118:HIS:CE1	1:C:1120:VAL:HG23	2.48	0.48
1:D:63:SER:C	1:D:64:LEU:HD12	2.33	0.48
1:D:103:LEU:HD23	1:D:104:THR:N	2.27	0.48
1:D:176:ALA:HB2	1:D:192:PHE:CE1	2.48	0.48
1:D:1103:ALA:HB1	1:D:1149:LEU:HD12	1.93	0.48
1:D:1208:MET:O	1:D:1212:VAL:HG23	2.13	0.48
1:C:493:LEU:N	1:C:513:LEU:O	2.43	0.48
1:C:806:GLU:OE2	1:C:806:GLU:N	2.45	0.48
1:D:464:MET:O	1:D:466:HIS:N	2.47	0.48
1:A:421:VAL:HG13	1:A:444:ALA:HB3	1.96	0.48
1:A:634:LEU:HD23	1:A:634:LEU:H	1.79	0.48
1:B:358:HIS:HA	1:B:448:ALA:HB1	1.96	0.48
1:B:571:SER:O	1:B:586:ARG:N	2.46	0.48
1:C:233:VAL:HG23	1:C:338:ARG:NH2	2.28	0.48
1:A:568:VAL:HG23	1:A:589:ALA:HB2	1.94	0.48
1:A:650:ILE:HD12	1:A:656:THR:HG22	1.94	0.48
1:A:831:SER:OG	1:A:868:VAL:HG22	2.13	0.48
1:B:1205:GLU:O	1:B:1209:THR:OG1	2.12	0.48
1:D:68:ARG:HA	1:D:68:ARG:NH1	2.29	0.48
1:A:463:PRO:O	1:A:465:SER:N	2.47	0.48
1:B:493:LEU:HD11	1:B:545:VAL:O	2.13	0.48
1:C:206:VAL:HG13	1:C:216:GLU:HG3	1.95	0.48
1:D:268:ILE:HA	1:D:320:LEU:HD22	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:381:ASN:H	1:D:399:THR:HG23	1.78	0.48
1:D:835:LEU:O	1:D:860:VAL:HG23	2.13	0.48
1:D:1276:ALA:HB3	1:D:1292:VAL:HB	1.96	0.48
1:B:927:VAL:O	1:B:1316:VAL:N	2.43	0.48
1:B:955:LEU:HD21	1:B:995:GLN:CD	2.34	0.48
1:B:1083:SER:N	1:D:638:ASP:OD2	2.47	0.48
1:D:386:ILE:HA	1:D:421:VAL:HG13	1.96	0.48
1:D:597:LEU:N	1:D:742:ASP:O	2.41	0.48
1:D:985:TYR:O	1:D:987:LEU:N	2.46	0.48
1:D:1301:GLN:OE1	1:D:1301:GLN:N	2.47	0.48
1:A:1227:ASP:OD1	1:A:1227:ASP:N	2.45	0.48
1:B:34:LEU:N	1:B:48:CYS:O	2.42	0.48
1:C:914:THR:HG21	1:C:935:LEU:CD1	2.43	0.48
1:C:1025:TYR:CB	1:C:1042:THR:HG22	2.44	0.48
1:D:382:LYS:O	1:D:398:THR:OG1	2.25	0.48
1:D:1012:TYR:C	1:D:1012:TYR:CD1	2.87	0.48
1:D:1390:ILE:N	1:D:1434:LEU:O	2.46	0.48
1:A:214:ARG:NH2	1:A:959:MET:SD	2.87	0.48
1:A:396:ASN:OD1	1:A:396:ASN:N	2.46	0.48
1:A:617:SER:OG	1:A:618:VAL:N	2.47	0.48
1:B:1180:SER:OG	1:B:1233:ASN:O	2.28	0.48
1:C:962:THR:O	1:C:963:GLN:NE2	2.45	0.48
1:D:33:VAL:HG12	1:D:678:PHE:HB2	1.95	0.48
1:D:1351:THR:OG1	1:D:1353:ASP:OD1	2.29	0.48
1:B:254:TYR:O	1:B:257:GLY:N	2.45	0.47
1:C:587:VAL:HG12	1:C:588:THR:N	2.29	0.47
1:C:1231:ALA:O	1:C:1235:VAL:HG23	2.14	0.47
1:D:642:CYS:SG	1:D:689:CYS:N	2.80	0.47
1:D:810:LEU:HG	1:D:810:LEU:O	2.14	0.47
1:D:903:LEU:O	1:D:903:LEU:HD12	2.13	0.47
1:D:1198:GLU:HB3	1:D:1199:PRO:HD2	1.96	0.47
1:C:493:LEU:O	1:C:513:LEU:N	2.45	0.47
1:D:58:VAL:O	1:D:79:ALA:HB3	2.14	0.47
1:D:167:ILE:HD12	1:D:176:ALA:HB3	1.96	0.47
1:D:803:ILE:HG22	1:D:804:ARG:H	1.79	0.47
1:D:1218:THR:HG23	1:D:1263:LYS:NZ	2.29	0.47
3:J:2:NAG:H3	3:J:2:NAG:H83	1.97	0.47
1:B:267:SER:HG	1:B:321:HIS:H	1.61	0.47
1:B:1123:ASN:ND2	1:D:119:THR:HG22	2.29	0.47
1:C:992:GLU:HA	1:C:992:GLU:OE1	2.13	0.47
1:D:914:THR:HG23	1:D:1330:TYR:CE1	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:320:LEU:N	1:A:320:LEU:HD12	2.30	0.47
1:A:348:THR:N	1:A:373:ASP:OD1	2.47	0.47
1:A:1025:TYR:CD2	1:A:1042:THR:HG22	2.49	0.47
1:B:318:MET:HB3	1:B:320:LEU:HD11	1.95	0.47
1:C:1109:LEU:HD13	1:C:1112:ILE:CD1	2.42	0.47
1:C:1213:LEU:HB2	1:C:1234:ILE:HD11	1.96	0.47
1:A:162:ILE:N	1:A:181:PHE:O	2.42	0.47
1:A:649:TYR:OH	1:A:651:ASN:ND2	2.47	0.47
1:A:947:SER:N	1:A:1327:SER:O	2.44	0.47
1:B:38:LEU:HD22	1:B:40:HIS:CD2	2.50	0.47
1:B:38:LEU:HD23	1:B:39:LEU:N	2.30	0.47
1:B:176:ALA:HB2	1:B:192:PHE:CE1	2.49	0.47
1:B:540:LEU:O	1:B:556:ALA:N	2.47	0.47
1:B:914:THR:O	1:B:1327:SER:OG	2.24	0.47
1:C:368:GLN:OE1	1:C:406:GLN:NE2	2.46	0.47
1:C:1142:SER:O	1:C:1144:VAL:HG22	2.14	0.47
1:D:270:ARG:NH1	1:D:309:PHE:O	2.44	0.47
1:D:353:VAL:HG21	1:D:404:LEU:HD23	1.96	0.47
1:D:986:VAL:HG23	1:D:987:LEU:HD22	1.96	0.47
1:A:55:ASN:C	1:A:57:THR:H	2.18	0.47
1:A:63:SER:C	1:A:64:LEU:HD12	2.35	0.47
1:A:118:THR:HG23	1:A:120:VAL:HG23	1.97	0.47
1:A:954:ILE:CG1	1:A:993:THR:HG22	2.44	0.47
1:A:1175:VAL:HG12	1:A:1175:VAL:O	2.14	0.47
1:D:608:LYS:NZ	1:D:611:ALA:HB3	2.29	0.47
1:A:1019:LYS:NZ	1:A:1020:HIS:O	2.37	0.47
1:A:1025:TYR:HB2	1:A:1041:LEU:HD21	1.96	0.47
1:B:165:VAL:HG21	1:B:181:PHE:CZ	2.49	0.47
1:C:311:LEU:HD23	1:C:311:LEU:H	1.80	0.47
1:C:336:THR:O	1:C:336:THR:OG1	2.29	0.47
1:C:614:SER:OG	1:C:617:SER:N	2.44	0.47
1:C:980:PHE:HE1	1:C:1008:LEU:HD22	1.79	0.47
1:C:1326:THR:HG22	1:C:1327:SER:N	2.30	0.47
1:D:854:GLN:O	1:D:856:VAL:N	2.48	0.47
1:D:1015:GLN:HA	1:D:1015:GLN:HE21	1.80	0.47
1:D:1191:ALA:HB3	1:D:1192:PRO:HD3	1.97	0.47
1:A:215:THR:HG22	1:A:216:GLU:H	1.79	0.47
1:A:974:GLU:HB3	1:A:1091:ILE:HD13	1.96	0.47
1:B:920:LEU:HD11	1:B:929:GLU:HB2	1.97	0.47
1:B:954:ILE:HD11	1:B:989:TYR:CE1	2.50	0.47
1:B:969:PRO:HG3	1:B:1010:THR:HG22	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:241:ILE:CG1	1:C:347:ILE:HD13	2.44	0.47
1:C:319:LYS:C	1:C:320:LEU:HD12	2.35	0.47
1:D:176:ALA:HB1	1:D:178:TRP:CZ3	2.50	0.47
1:D:826:VAL:HG11	1:D:856:VAL:CG1	2.44	0.47
1:A:143:THR:HA	1:A:193:PRO:HA	1.97	0.47
1:A:209:LYS:O	1:A:212:GLY:N	2.42	0.47
1:A:581:SER:O	1:A:582:HIS:C	2.53	0.47
1:A:920:LEU:HD22	1:A:927:VAL:HG12	1.97	0.47
1:B:127:SER:OG	1:B:128:LEU:N	2.47	0.47
1:B:368:GLN:OE1	1:B:404:LEU:HD22	2.15	0.47
1:B:1183:TRP:CE3	1:B:1212:VAL:HG11	2.50	0.47
1:B:1204:ALA:HB1	1:B:1207:GLU:OE2	2.15	0.47
1:C:41:THR:HG23	1:C:124:ASN:HA	1.96	0.47
1:A:919:LEU:HD13	1:A:1228:LEU:CB	2.45	0.47
1:A:1181:VAL:CG2	1:A:1234:ILE:HG23	2.35	0.47
1:B:272:TYR:N	1:B:283:SER:O	2.45	0.47
1:B:643:ILE:O	1:B:643:ILE:HG22	2.15	0.47
1:B:781:SER:OG	1:B:782:SER:N	2.45	0.47
1:B:1304:SER:C	1:B:1305:LEU:HD12	2.35	0.47
1:D:348:THR:HG1	1:D:441:HIS:CE1	2.30	0.47
1:D:1238:ILE:HD13	1:D:1241:GLN:OE1	2.15	0.47
1:A:622:LEU:HD23	1:A:625:LYS:HG2	1.98	0.46
1:B:102:PHE:CE1	1:B:119:THR:HG22	2.50	0.46
1:D:233:VAL:HG23	1:D:250:VAL:CG2	2.44	0.46
1:D:975:GLN:O	1:D:976:ASN:C	2.53	0.46
1:D:1013:GLN:HE21	1:D:1013:GLN:CA	2.09	0.46
1:A:1027:THR:CG2	1:A:1087:LEU:HD12	2.46	0.46
1:A:1070:LEU:HD22	1:A:1080:PHE:CZ	2.51	0.46
1:C:67:VAL:HG13	1:C:68:ARG:N	2.29	0.46
1:C:235:VAL:O	1:C:338:ARG:NE	2.49	0.46
1:C:319:LYS:HE3	1:C:339:GLN:HB2	1.96	0.46
1:C:1278:VAL:O	1:C:1279:THR:OG1	2.34	0.46
1:D:198:PRO:HG2	1:D:221:VAL:HG11	1.98	0.46
1:D:347:ILE:O	1:D:348:THR:OG1	2.33	0.46
1:D:597:LEU:HD21	1:D:753:GLU:HG3	1.97	0.46
1:D:766:LYS:NZ	1:D:767:ALA:O	2.49	0.46
1:D:798:MET:CE	1:D:1390:ILE:HD12	2.46	0.46
1:D:1142:SER:O	1:D:1144:VAL:HG22	2.16	0.46
1:A:602:GLN:CA	1:A:605:LEU:HB3	2.46	0.46
1:C:1151:ALA:HB2	1:C:1166:VAL:HG13	1.97	0.46
1:D:75:THR:HG21	1:D:89:PHE:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:344:THR:O	1:D:344:THR:OG1	2.31	0.46
1:D:601:ASP:OD1	1:D:602:GLN:N	2.44	0.46
1:A:483:ASN:O	1:A:485:GLY:N	2.44	0.46
1:C:816:ASN:HB2	1:C:848:ILE:HD12	1.97	0.46
1:A:144:VAL:N	1:A:192:PHE:O	2.46	0.46
1:A:989:TYR:CZ	1:A:993:THR:HG21	2.50	0.46
1:A:1025:TYR:CE2	1:A:1045:VAL:HG21	2.51	0.46
1:A:1051:GLN:O	1:A:1054:ALA:HB3	2.16	0.46
1:A:1072:GLN:OE1	1:C:635:ASN:ND2	2.48	0.46
1:B:360:ARG:HG2	1:B:451:VAL:HG12	1.97	0.46
1:B:793:PHE:O	1:B:814:VAL:HG23	2.15	0.46
1:B:892:GLU:O	1:B:895:ARG:N	2.48	0.46
1:B:1124:ALA:HA	1:D:117:ARG:HD3	1.98	0.46
1:C:767:ALA:HB3	1:C:784:ALA:HB3	1.98	0.46
1:C:1232:THR:OG1	1:C:1264:TYR:OH	2.30	0.46
1:D:119:THR:O	1:D:676:LYS:NZ	2.42	0.46
1:D:456:LYS:O	1:D:483:ASN:ND2	2.49	0.46
1:D:914:THR:O	1:D:1328:LEU:N	2.45	0.46
1:D:1156:LEU:O	1:D:1220:GLN:NE2	2.49	0.46
1:A:58:VAL:HG22	1:A:109:GLY:CA	2.45	0.46
1:B:388:GLY:O	1:B:393:TYR:N	2.47	0.46
1:B:570:LEU:HD22	1:B:784:ALA:HB2	1.98	0.46
1:B:664:LYS:NZ	1:B:665:ASP:O	2.46	0.46
1:B:954:ILE:HD11	1:B:989:TYR:HE1	1.81	0.46
1:B:1219:ALA:HB3	1:B:1222:ALA:C	2.36	0.46
1:D:262:GLY:O	1:D:294:LEU:N	2.48	0.46
1:D:546:LEU:HD23	1:D:550:ASP:H	1.81	0.46
1:D:975:GLN:O	1:D:978:VAL:HG22	2.16	0.46
1:A:164:LEU:HD12	1:A:165:VAL:H	1.81	0.46
1:B:111:THR:HB	5:B:2001:NAG:H2	1.98	0.46
1:B:563:CYS:N	1:B:619:TYR:OH	2.48	0.46
1:B:827:GLN:O	1:B:873:SER:N	2.47	0.46
1:B:1123:ASN:HD22	1:D:119:THR:HG22	1.81	0.46
1:B:1232:THR:OG1	1:B:1264:TYR:OH	2.34	0.46
1:D:167:ILE:HD12	1:D:176:ALA:CB	2.46	0.46
1:D:428:ARG:NH1	1:D:432:TYR:O	2.49	0.46
1:D:1147:LYS:NZ	1:D:1170:LEU:O	2.49	0.46
1:D:1214:LEU:O	1:D:1263:LYS:NZ	2.48	0.46
5:A:2005:NAG:H3	5:A:2005:NAG:H83	1.98	0.46
1:C:1259:HIS:O	1:C:1262:SER:OG	2.32	0.46
1:D:570:LEU:HB3	1:D:587:VAL:HG22	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:972:CYS:H	1:D:975:GLN:HG2	1.80	0.46
1:D:1061:ALA:HA	1:D:1064:THR:HG22	1.98	0.46
3:H:2:NAG:C8	3:H:2:NAG:C1	2.94	0.46
1:A:117:ARG:NE	1:C:1071:SER:O	2.45	0.46
1:A:810:LEU:HB2	1:A:860:VAL:HG12	1.97	0.46
1:B:596:ALA:HB1	1:B:741:TRP:CH2	2.50	0.46
1:C:763:THR:OG1	1:C:764:GLU:N	2.49	0.46
1:C:1099:VAL:CG1	1:C:1146:THR:HG22	2.46	0.46
1:D:454:PRO:O	1:D:456:LYS:NZ	2.45	0.46
1:D:794:VAL:HG21	1:D:872:VAL:HG11	1.98	0.46
1:D:1004:ALA:O	1:D:1008:LEU:HG	2.16	0.46
3:M:1:NAG:HO3	3:M:1:NAG:C7	2.29	0.46
1:A:241:ILE:HD11	1:A:345:ARG:HA	1.98	0.46
1:A:880:GLN:HG2	1:A:887:VAL:HG11	1.98	0.46
1:A:1070:LEU:HD22	1:A:1080:PHE:CE2	2.51	0.46
1:A:1088:ASN:OD1	1:A:1088:ASN:N	2.47	0.46
1:B:1161:ASP:N	1:B:1161:ASP:OD1	2.49	0.46
1:C:263:HIS:NE2	1:C:291:SER:OG	2.48	0.46
1:C:388:GLY:HA3	1:C:391:ALA:HB3	1.98	0.46
1:C:767:ALA:HB3	1:C:784:ALA:H	1.81	0.46
1:C:869:ASN:N	1:C:869:ASN:ND2	2.64	0.46
1:D:1014:ARG:CB	1:D:1014:ARG:NH1	2.79	0.46
1:D:1028:PHE:O	1:D:1031:ARG:NH2	2.49	0.46
1:D:1251:THR:HG21	1:D:1407:ARG:HE	1.81	0.46
1:D:1408:THR:HA	1:D:1417:ILE:HD11	1.97	0.46
1:A:51:LEU:O	1:A:82:ASP:N	2.41	0.45
1:B:1210:SER:O	1:B:1214:LEU:N	2.49	0.45
1:D:82:ASP:O	1:D:496:TYR:OH	2.25	0.45
1:D:633:PRO:C	1:D:634:LEU:HD12	2.36	0.45
1:D:917:ASN:OD1	1:D:1174:ALA:HB3	2.16	0.45
1:D:1251:THR:HG21	1:D:1407:ARG:HG2	1.96	0.45
1:D:1345:VAL:HG23	1:D:1365:LEU:CD1	2.46	0.45
1:A:164:LEU:HD21	1:A:166:TYR:CD1	2.52	0.45
1:A:386:ILE:HD13	1:A:407:PHE:CB	2.46	0.45
1:A:1208:MET:O	1:A:1212:VAL:HG23	2.17	0.45
1:B:241:ILE:HG21	1:B:439:GLU:OE1	2.16	0.45
1:C:275:ALA:O	1:C:276:SER:OG	2.35	0.45
1:C:1227:ASP:OD1	1:C:1227:ASP:N	2.49	0.45
1:D:351:SER:O	1:D:369:VAL:HG13	2.17	0.45
1:D:810:LEU:HD23	1:D:810:LEU:H	1.81	0.45
1:D:989:TYR:HD1	1:D:989:TYR:N	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:489:GLY:O	1:A:490:LEU:HD12	2.17	0.45
1:A:581:SER:CA	1:A:756:VAL:HG13	2.46	0.45
1:A:1070:LEU:HD11	1:A:1109:LEU:HD11	1.99	0.45
1:A:489:GLY:C	1:A:490:LEU:HD12	2.37	0.45
1:B:350:LEU:CD1	1:B:444:ALA:HB2	2.47	0.45
1:B:390:GLU:OE1	1:B:390:GLU:HA	2.16	0.45
1:B:596:ALA:HB1	1:B:741:TRP:HH2	1.81	0.45
1:B:1070:LEU:HD22	1:B:1120:VAL:HG11	1.97	0.45
1:B:1202:PRO:O	1:B:1203:SER:OG	2.30	0.45
1:C:384:ILE:HD11	1:C:405:VAL:HG11	1.99	0.45
5:C:2001:NAG:C7	5:C:2001:NAG:HO3	2.29	0.45
1:D:601:ASP:OD2	1:D:763:THR:HG21	2.16	0.45
1:D:1185:ARG:CB	1:D:1186:PRO:CD	2.90	0.45
1:A:127:SER:O	1:A:209:LYS:NZ	2.50	0.45
1:A:554:ASP:N	1:A:554:ASP:OD1	2.50	0.45
1:A:600:VAL:N	1:A:766:LYS:O	2.46	0.45
1:A:1039:THR:O	1:A:1042:THR:OG1	2.26	0.45
1:A:1057:PHE:CD1	1:C:1005:ILE:HD13	2.52	0.45
1:B:571:SER:OG	1:B:572:PHE:N	2.50	0.45
1:B:953:ASP:OD2	1:B:1264:TYR:OH	2.34	0.45
1:C:248:VAL:N	1:C:302:GLN:O	2.48	0.45
1:C:1205:GLU:HG3	1:C:1206:VAL:HG23	1.98	0.45
1:A:1278:VAL:HG22	1:A:1290:PHE:O	2.17	0.45
1:B:33:VAL:HG12	1:B:49:VAL:CG2	2.45	0.45
1:B:963:GLN:O	1:B:966:LEU:HD12	2.17	0.45
1:C:450:LEU:O	1:C:664:LYS:N	2.40	0.45
1:C:1333:LEU:HD13	1:C:1336:LYS:HE2	1.99	0.45
1:D:121:MET:SD	1:D:634:LEU:HD21	2.57	0.45
1:A:566:ASN:HB2	1:A:776:ALA:HB1	1.98	0.45
1:B:98:GLU:OE2	1:B:123:LYS:HE2	2.16	0.45
1:B:770:PHE:CE1	1:B:778:LEU:HD12	2.52	0.45
1:B:793:PHE:HZ	1:B:815:LEU:HD22	1.82	0.45
1:C:66:SER:HG	1:C:101:MET:HA	1.82	0.45
1:C:920:LEU:HD22	1:C:927:VAL:HG11	1.99	0.45
1:C:948:VAL:CG1	1:C:1305:LEU:HD11	2.47	0.45
1:C:992:GLU:O	1:C:1271:ARG:NH2	2.49	0.45
1:D:346:THR:O	1:D:347:ILE:HD13	2.17	0.45
1:D:989:TYR:N	1:D:989:TYR:CD1	2.84	0.45
1:A:686:PRO:O	1:A:687:LYS:C	2.54	0.45
1:A:972:CYS:O	1:A:976:ASN:N	2.39	0.45
1:B:792:PHE:CE2	1:B:824:VAL:HG21	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:955:LEU:HD21	1:B:995:GLN:NE2	2.32	0.45
1:C:41:THR:OG1	1:C:125:GLU:OE1	2.30	0.45
1:C:108:LYS:HA	1:C:108:LYS:CE	2.38	0.45
1:C:174:ARG:HG3	1:C:1298:LEU:HD23	1.99	0.45
1:C:585:LEU:HD21	1:C:587:VAL:CG2	2.46	0.45
1:C:597:LEU:CB	1:C:740:ILE:HG21	2.47	0.45
1:C:927:VAL:HG12	1:C:928:SER:N	2.31	0.45
1:D:1278:VAL:HG13	1:D:1316:VAL:HG12	1.99	0.45
1:D:1341:PHE:CB	1:D:1459:ALA:HB1	2.47	0.45
1:A:142:GLN:O	1:A:194:LEU:N	2.49	0.45
1:A:353:VAL:HG21	1:A:404:LEU:HD21	1.98	0.45
1:A:654:THR:OG1	1:A:655:TYR:N	2.50	0.45
1:B:319:LYS:CA	1:B:320:LEU:HD12	2.47	0.45
1:C:936:PRO:HA	1:C:939:VAL:HG11	1.98	0.45
1:D:325:GLN:OE1	1:D:325:GLN:N	2.49	0.45
1:A:237:LYS:HB2	1:A:338:ARG:CG	2.47	0.45
1:A:535:ALA:HB3	1:A:537:VAL:HG12	1.99	0.45
1:A:619:TYR:O	1:A:622:LEU:HB3	2.17	0.45
1:B:948:VAL:HG21	1:B:1324:LEU:HD23	1.99	0.45
1:C:914:THR:HG22	1:C:933:LEU:HD13	1.99	0.45
1:D:129:VAL:HG12	1:D:150:SER:CB	2.47	0.45
1:D:263:HIS:HA	1:D:293:GLN:HA	2.00	0.45
4:L:2:NAG:H3	4:L:2:NAG:H82	1.97	0.45
1:A:581:SER:HB2	1:A:756:VAL:CG2	2.47	0.44
1:B:372:VAL:HG12	1:B:373:ASP:N	2.32	0.44
1:B:917:ASN:OD1	1:B:917:ASN:N	2.50	0.44
1:D:922:PRO:HG3	1:D:1316:VAL:HG23	1.99	0.44
1:D:937:PRO:O	1:D:1332:ILE:HG22	2.17	0.44
1:B:155:PHE:HB3	1:B:778:LEU:HD22	1.98	0.44
1:B:1053:ARG:HG3	1:B:1058:ILE:HG22	2.00	0.44
1:C:247:ASN:OD1	1:C:247:ASN:N	2.49	0.44
1:C:1272:THR:HG22	1:C:1273:GLY:H	1.82	0.44
1:D:373:ASP:OD1	1:D:373:ASP:N	2.48	0.44
1:D:1213:LEU:HD23	1:D:1260:ALA:HA	2.00	0.44
1:D:1252:GLN:O	1:D:1255:VAL:HG13	2.16	0.44
1:A:129:VAL:HG12	1:A:150:SER:CB	2.48	0.44
1:A:137:ILE:HD11	1:A:222:GLU:H	1.81	0.44
1:A:245:GLU:OE1	1:A:246:MET:N	2.50	0.44
1:A:613:LEU:O	1:A:614:SER:OG	2.29	0.44
1:B:264:VAL:O	1:B:265:THR:OG1	2.25	0.44
1:B:914:THR:OG1	1:B:1328:LEU:O	2.34	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:540:LEU:HD23	1:C:558:TYR:HE2	1.82	0.44
5:C:2005:NAG:HO3	5:C:2005:NAG:C7	2.30	0.44
1:D:33:VAL:HG13	1:D:33:VAL:O	2.17	0.44
1:D:75:THR:HG21	1:D:89:PHE:CB	2.47	0.44
1:D:915:THR:OG1	1:D:1326:THR:O	2.32	0.44
1:D:1175:VAL:HG21	1:D:1186:PRO:CD	2.38	0.44
1:A:233:VAL:O	1:A:338:ARG:NH1	2.51	0.44
1:B:760:ASP:HB3	1:B:899:VAL:HG13	2.00	0.44
1:B:1051:GLN:O	1:B:1054:ALA:HB3	2.18	0.44
1:C:131:VAL:HG22	1:C:148:VAL:HB	1.98	0.44
1:D:570:LEU:HD11	1:D:784:ALA:HB1	1.98	0.44
1:D:599:ALA:HB3	1:D:740:ILE:CB	2.46	0.44
1:A:35:VAL:HG21	1:A:103:LEU:HD22	1.99	0.44
1:A:1293:ASP:N	1:A:1296:ASN:OD1	2.50	0.44
1:D:460:HIS:O	1:D:479:HIS:N	2.50	0.44
1:A:94:SER:N	1:A:124:ASN:OD1	2.50	0.44
1:A:318:MET:CG	1:A:320:LEU:HD11	2.47	0.44
1:A:1132:TRP:HD1	1:A:1150:LEU:HD13	1.81	0.44
1:A:1185:ARG:O	1:A:1187:GLN:N	2.43	0.44
1:B:1100:THR:CG2	1:B:1146:THR:HG22	2.45	0.44
1:C:353:VAL:HG13	1:C:370:ARG:HB2	1.99	0.44
1:C:1238:ILE:O	1:C:1242:GLN:N	2.46	0.44
1:D:996:LEU:HD23	1:D:997:THR:C	2.37	0.44
1:A:739:TRP:O	1:A:740:ILE:HD13	2.18	0.44
1:A:1047:LYS:HG3	1:A:1048:THR:HG23	2.00	0.44
1:B:323:GLU:N	1:B:323:GLU:OE2	2.51	0.44
1:B:570:LEU:HA	1:B:587:VAL:HG22	1.99	0.44
1:B:823:ARG:NH1	1:B:845:PRO:O	2.51	0.44
1:B:1088:ASN:N	1:B:1088:ASN:OD1	2.50	0.44
1:C:821:CYS:SG	1:C:849:CYS:N	2.91	0.44
1:C:946:ALA:HB1	1:C:1326:THR:HG21	1.99	0.44
1:C:948:VAL:HG22	1:C:1303:VAL:HG22	1.99	0.44
1:C:1128:LEU:HD11	1:C:1153:ALA:HB1	1.99	0.44
1:A:372:VAL:HG12	1:A:373:ASP:N	2.33	0.44
1:A:437:VAL:HG22	1:B:276:SER:HB2	1.98	0.44
1:A:818:LEU:O	1:A:850:ALA:N	2.50	0.44
1:B:370:ARG:HB3	1:B:404:LEU:HD23	1.99	0.44
1:B:1112:ILE:HG23	1:B:1112:ILE:O	2.17	0.44
1:C:890:VAL:HG13	1:C:890:VAL:O	2.18	0.44
1:C:910:LEU:HD22	1:C:912:LYS:HD2	1.99	0.44
1:C:1144:VAL:HG23	1:C:1145:TYR:N	2.33	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:609:PRO:O	1:D:611:ALA:N	2.50	0.44
1:D:763:THR:HG23	1:D:765:TRP:CE2	2.53	0.44
1:A:366:PHE:HB3	1:A:408:SER:CB	2.47	0.44
1:A:597:LEU:O	1:A:599:ALA:N	2.51	0.44
1:A:966:LEU:CD2	1:A:1004:ALA:HB2	2.48	0.44
1:B:151:MET:HE2	1:B:778:LEU:HD13	2.00	0.44
1:C:51:LEU:O	1:C:82:ASP:N	2.50	0.44
1:C:1181:VAL:HG22	1:C:1233:ASN:HB2	2.00	0.44
1:C:1250:SER:OG	1:C:1253:ASP:OD1	2.22	0.44
5:C:2003:NAG:H3	5:C:2003:NAG:H82	2.00	0.44
1:D:1187:GLN:CA	1:D:1187:GLN:NE2	2.81	0.44
1:D:1319:GLU:N	1:D:1319:GLU:OE1	2.51	0.44
1:A:358:HIS:N	1:A:448:ALA:HB1	2.33	0.43
1:A:1173:GLU:O	1:A:1176:LYS:NZ	2.46	0.43
1:A:1238:ILE:HG13	1:A:1261:LEU:HD11	2.00	0.43
1:B:173:ASN:N	1:B:173:ASN:OD1	2.51	0.43
1:B:240:THR:OG1	1:B:241:ILE:N	2.50	0.43
1:C:245:GLU:OE1	1:C:303:GLN:NE2	2.51	0.43
1:C:569:ASP:OD1	1:C:570:LEU:N	2.51	0.43
1:C:1038:ASN:O	1:C:1042:THR:HG23	2.18	0.43
1:D:493:LEU:HD12	1:D:494:SER:H	1.82	0.43
1:D:860:VAL:HG22	1:D:862:PRO:HD3	2.00	0.43
1:D:1104:TYR:HD1	1:D:1149:LEU:HD11	1.83	0.43
1:A:240:THR:HA	1:A:343:ILE:HG23	2.00	0.43
1:B:1327:SER:OG	1:B:1328:LEU:N	2.51	0.43
1:C:47:GLY:HA2	1:C:505:ILE:HD12	2.00	0.43
1:D:241:ILE:CD1	1:D:347:ILE:HD11	2.48	0.43
1:A:912:LYS:HG3	1:A:1330:TYR:CZ	2.53	0.43
1:B:120:VAL:HG12	1:B:121:MET:H	1.83	0.43
1:B:208:GLN:HB2	1:B:214:ARG:HE	1.83	0.43
1:B:264:VAL:HG21	1:B:300:PHE:CD2	2.54	0.43
1:B:746:VAL:HG13	1:B:750:GLY:HA2	2.00	0.43
1:B:948:VAL:HG23	1:B:1326:THR:OG1	2.18	0.43
1:B:998:PRO:HA	1:B:1001:LYS:HB3	1.99	0.43
1:B:1072:GLN:NE2	1:D:629:GLY:O	2.51	0.43
1:A:66:SER:OG	1:A:99:GLU:OE2	2.34	0.43
1:A:228:LYS:O	1:A:255:THR:HG23	2.18	0.43
1:A:1026:SER:OG	1:A:1027:THR:N	2.49	0.43
1:B:42:GLU:OE2	1:B:125:GLU:HB3	2.18	0.43
1:B:266:VAL:HG22	1:B:267:SER:N	2.33	0.43
1:B:390:GLU:HB3	1:B:414:VAL:HG22	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1100:THR:HG21	1:B:1145:TYR:CZ	2.53	0.43
1:C:762:ILE:HG21	1:C:789:PHE:C	2.38	0.43
1:C:814:VAL:HG11	1:C:824:VAL:HG21	2.00	0.43
1:D:306:THR:HG22	1:D:309:PHE:CD2	2.53	0.43
1:A:44:THR:HA	1:A:90:ALA:HB2	1.99	0.43
1:A:414:VAL:HG21	1:D:649:TYR:CD1	2.53	0.43
1:A:635:ASN:OD1	1:A:635:ASN:N	2.48	0.43
1:A:790:GLN:NE2	1:A:897:ASP:OD1	2.51	0.43
1:A:1067:LEU:CD1	1:A:1109:LEU:HD11	2.49	0.43
1:A:1131:ALA:HA	1:A:1134:THR:HG22	2.01	0.43
1:B:130:PHE:O	1:B:148:VAL:HG23	2.17	0.43
1:B:951:LEU:HD12	1:B:1298:LEU:CD2	2.48	0.43
1:B:1130:SER:O	1:B:1134:THR:HG23	2.17	0.43
1:C:118:THR:HG22	1:C:678:PHE:HZ	1.83	0.43
1:C:139:LYS:HG2	1:C:142:GLN:CG	2.48	0.43
1:C:497:TYR:CD2	1:C:526:ILE:HD11	2.54	0.43
1:C:546:LEU:HB3	1:C:548:THR:HG22	2.00	0.43
1:C:575:SER:OG	1:C:787:ARG:O	2.29	0.43
1:C:948:VAL:CG2	1:C:1303:VAL:HG22	2.49	0.43
1:A:233:VAL:HG11	1:A:250:VAL:HG23	1.99	0.43
1:A:503:GLY:HA2	1:A:627:LEU:HB3	2.01	0.43
1:A:810:LEU:N	1:A:858:TRP:O	2.46	0.43
1:A:1074:GLN:HB3	1:C:117:ARG:NH2	2.33	0.43
1:C:266:VAL:HG21	1:C:300:PHE:HE2	1.83	0.43
1:C:744:VAL:HB	1:C:751:VAL:HG21	2.01	0.43
1:C:796:LEU:HD23	1:C:872:VAL:HG21	2.00	0.43
1:C:1185:ARG:NH1	1:C:1201:ALA:HB1	2.33	0.43
1:C:1305:LEU:HD22	1:C:1312:TYR:CE2	2.54	0.43
1:D:492:LYS:NZ	1:D:513:LEU:HD12	2.33	0.43
1:A:932:SER:O	1:A:933:LEU:HD23	2.19	0.43
1:A:1073:ARG:NH1	1:C:636:ASP:OD1	2.51	0.43
1:B:41:THR:HG22	1:B:91:VAL:CG1	2.48	0.43
1:B:648:VAL:HG11	1:C:653:ILE:CD1	2.48	0.43
1:B:691:GLN:HG3	1:B:693:GLN:H	1.84	0.43
1:C:947:SER:C	1:C:1326:THR:HG23	2.39	0.43
1:C:996:LEU:HD12	1:C:996:LEU:HA	1.83	0.43
1:D:268:ILE:HD12	1:D:309:PHE:HZ	1.82	0.43
1:D:459:VAL:HG13	1:D:461:LEU:HD11	2.01	0.43
1:A:500:MET:HB2	1:A:504:GLY:O	2.19	0.43
1:A:570:LEU:CD2	1:A:784:ALA:HB2	2.46	0.43
1:A:678:PHE:O	1:A:679:THR:HG23	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:986:VAL:HG22	1:A:1258:LEU:HD21	2.00	0.43
1:C:28:LYS:N	1:C:547:PRO:O	2.51	0.43
1:C:371:LEU:HD13	1:C:399:THR:HG21	2.00	0.43
1:C:624:GLU:HB3	1:C:627:LEU:CD1	2.46	0.43
1:C:1115:THR:HB	1:C:1117:THR:HG22	2.01	0.43
1:D:1015:GLN:HE21	1:D:1015:GLN:CA	2.31	0.43
1:A:97:ASN:O	1:A:124:ASN:N	2.49	0.43
1:A:545:VAL:O	1:A:545:VAL:HG13	2.19	0.43
1:A:670:LEU:O	1:A:674:GLY:N	2.49	0.43
1:A:1025:TYR:CE2	1:A:1045:VAL:HG11	2.54	0.43
1:A:1074:GLN:HB3	1:C:117:ARG:HH21	1.84	0.43
1:B:66:SER:O	1:B:66:SER:OG	2.31	0.43
1:B:1224:THR:OG1	1:B:1227:ASP:OD2	2.24	0.43
1:C:568:VAL:HG23	1:C:588:THR:O	2.19	0.43
1:D:965:LEU:HD13	1:D:1000:ILE:CD1	2.44	0.43
1:A:427:ASP:OD1	1:A:428:ARG:N	2.52	0.43
1:A:548:THR:HG23	1:A:550:ASP:H	1.84	0.43
1:A:989:TYR:O	1:A:993:THR:HG23	2.19	0.43
1:B:985:TYR:CE2	1:B:1255:VAL:HG13	2.54	0.43
1:B:1268:THR:HG22	1:B:1321:CYS:SG	2.59	0.43
1:C:491:LYS:HD3	1:C:514:LEU:HD11	2.01	0.43
1:C:527:SER:OG	1:C:528:ILE:N	2.51	0.43
1:D:519:ASP:OD1	1:D:519:ASP:N	2.52	0.43
1:D:959:MET:O	1:D:962:THR:HG23	2.19	0.43
1:D:1001:LYS:HA	1:D:1004:ALA:HB3	2.01	0.43
1:A:358:HIS:CA	1:A:448:ALA:HB1	2.49	0.42
1:A:663:GLU:O	1:A:685:LYS:NZ	2.52	0.42
1:A:1039:THR:O	1:A:1042:THR:N	2.52	0.42
1:B:133:THR:HG23	1:B:217:HIS:NE2	2.34	0.42
1:C:820:LYS:NZ	1:C:822:ILE:HD11	2.34	0.42
1:C:1112:ILE:HG21	1:C:1114:LEU:HD12	2.01	0.42
1:C:1147:LYS:HB2	1:C:1170:LEU:HD21	2.00	0.42
1:D:246:MET:O	1:D:304:VAL:N	2.45	0.42
1:D:872:VAL:HG12	1:D:899:VAL:HB	2.01	0.42
1:D:1014:ARG:HH11	1:D:1014:ARG:HB3	1.84	0.42
1:D:1016:LEU:C	1:D:1016:LEU:CD2	2.87	0.42
1:D:1032:TYR:HE2	1:D:1087:LEU:HD11	1.83	0.42
1:A:169:ASP:N	1:A:173:ASN:O	2.48	0.42
1:A:235:VAL:O	1:A:237:LYS:N	2.48	0.42
1:A:281:GLU:N	1:A:281:GLU:OE2	2.52	0.42
1:B:62:ALA:O	1:B:75:THR:N	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:468:LEU:HD13	1:B:559:ASP:O	2.19	0.42
1:C:1055:TYR:C	1:C:1056:ILE:HG23	2.39	0.42
1:C:1102:SER:HA	1:C:1105:ILE:HD12	2.01	0.42
1:D:1070:LEU:HD22	1:D:1105:ILE:HB	2.00	0.42
1:D:1179:ASN:OD1	1:D:1237:TRP:N	2.52	0.42
1:D:1238:ILE:CG2	1:D:1261:LEU:HD23	2.49	0.42
1:A:125:GLU:HG2	1:A:126:ASP:O	2.19	0.42
1:A:237:LYS:O	1:A:341:SER:OG	2.30	0.42
1:A:614:SER:N	1:A:617:SER:OG	2.50	0.42
1:A:794:VAL:CG1	1:A:899:VAL:HG23	2.50	0.42
1:A:919:LEU:HD13	1:A:1228:LEU:HB2	2.00	0.42
1:B:42:GLU:CD	1:B:125:GLU:HB3	2.39	0.42
1:B:568:VAL:HG21	1:B:589:ALA:HB2	2.00	0.42
1:B:753:GLU:OE2	1:B:755:GLY:N	2.51	0.42
1:B:1213:LEU:HB2	1:B:1234:ILE:HG21	2.00	0.42
1:B:1253:ASP:OD1	1:B:1254:THR:N	2.52	0.42
1:D:595:CYS:SG	1:D:596:ALA:N	2.92	0.42
1:D:763:THR:OG1	1:D:764:GLU:N	2.52	0.42
1:D:810:LEU:HD13	1:D:860:VAL:CG1	2.49	0.42
1:A:55:ASN:O	1:A:58:VAL:HG23	2.19	0.42
1:B:744:VAL:HG21	1:B:753:GLU:HB2	2.01	0.42
1:B:1298:LEU:O	1:B:1298:LEU:CD2	2.66	0.42
1:C:77:LEU:HD13	1:C:87:VAL:HB	2.01	0.42
1:C:730:THR:OG1	1:C:896:LYS:O	2.32	0.42
1:D:908:GLU:HG3	1:D:940:VAL:HG11	2.02	0.42
1:A:393:TYR:CD2	1:A:393:TYR:O	2.72	0.42
1:B:498:LEU:HD22	1:B:505:ILE:CG2	2.49	0.42
1:C:868:VAL:O	1:C:903:LEU:N	2.52	0.42
1:C:1110:LEU:HD21	1:C:1116:VAL:HA	2.01	0.42
1:D:290:PHE:HB2	1:D:304:VAL:HG12	2.01	0.42
1:D:744:VAL:HG11	1:D:753:GLU:CD	2.39	0.42
4:L:3:BMA:H62	4:L:4:MAN:H2	1.85	0.42
1:A:234:THR:O	1:A:234:THR:OG1	2.38	0.42
1:A:353:VAL:HG23	1:A:354:LYS:H	1.85	0.42
1:A:566:ASN:HB2	1:A:776:ALA:CB	2.49	0.42
1:A:583:ALA:HB3	1:A:755:GLY:C	2.40	0.42
1:A:585:LEU:HD21	1:A:739:TRP:CH2	2.55	0.42
1:A:810:LEU:O	1:A:858:TRP:N	2.50	0.42
1:B:1005:ILE:O	1:B:1009:ASN:ND2	2.46	0.42
1:B:1181:VAL:HG22	1:B:1233:ASN:HB3	2.02	0.42
1:B:1277:GLN:HB2	1:B:1317:THR:HG23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:946:ALA:HB1	1:C:1326:THR:CG2	2.49	0.42
1:A:55:ASN:O	1:A:57:THR:N	2.52	0.42
1:A:343:ILE:O	1:A:344:THR:HG23	2.20	0.42
1:B:118:THR:HG21	1:B:676:LYS:HD3	2.02	0.42
1:B:468:LEU:HD21	1:B:558:TYR:HB3	2.02	0.42
1:B:823:ARG:NH1	1:B:825:SER:OG	2.52	0.42
1:B:868:VAL:HB	1:B:903:LEU:HD11	2.01	0.42
1:C:270:ARG:NH2	1:C:316:TYR:O	2.50	0.42
1:C:744:VAL:HG23	1:C:751:VAL:HG21	2.02	0.42
1:C:970:TYR:CE1	1:C:979:LEU:HD21	2.55	0.42
1:C:971:GLY:O	1:C:1018:TYR:OH	2.33	0.42
1:C:980:PHE:O	1:C:984:ILE:HD12	2.20	0.42
1:D:822:ILE:HG21	1:D:876:ALA:HB1	2.01	0.42
1:D:1363:ILE:HG22	1:D:1365:LEU:HD11	2.01	0.42
1:A:164:LEU:HD12	1:A:165:VAL:N	2.35	0.42
1:A:387:ARG:H	1:A:387:ARG:HD2	1.84	0.42
1:B:681:SER:OG	1:B:682:LYS:N	2.52	0.42
1:B:950:VAL:HG22	1:B:1324:LEU:HD21	2.02	0.42
1:B:1041:LEU:HD23	1:B:1042:THR:N	2.35	0.42
1:B:1146:THR:O	1:B:1150:LEU:HD23	2.20	0.42
1:C:187:LEU:CD2	1:C:596:ALA:HB2	2.49	0.42
1:C:493:LEU:HD12	1:C:494:SER:N	2.35	0.42
1:D:572:PHE:CD2	1:D:786:LEU:HD12	2.55	0.42
1:D:1187:GLN:NE2	1:D:1187:GLN:HA	2.34	0.42
1:A:123:LYS:HG2	1:A:125:GLU:HA	2.02	0.42
1:A:224:PHE:CD1	1:A:604:VAL:HG11	2.55	0.42
1:A:602:GLN:HB2	1:A:605:LEU:HD23	2.01	0.42
1:B:49:VAL:C	1:B:84:LEU:HD12	2.39	0.42
1:B:63:SER:O	1:B:103:LEU:HD12	2.19	0.42
1:B:158:LEU:HD11	1:B:160:GLU:OE2	2.20	0.42
1:B:238:ILE:HD12	1:B:342:GLU:HB2	2.02	0.42
1:B:746:VAL:HG12	1:B:747:ASN:O	2.20	0.42
1:C:43:THR:OG1	1:C:154:ASN:ND2	2.53	0.42
1:C:161:LEU:H	1:C:161:LEU:HD23	1.85	0.42
1:C:360:ARG:O	1:C:411:THR:OG1	2.34	0.42
1:D:50:LEU:CD2	1:D:84:LEU:HD21	2.50	0.42
1:D:1216:TYR:CE2	1:D:1234:ILE:HD12	2.54	0.42
1:A:1296:ASN:HB3	1:A:1299:LEU:HD23	2.02	0.42
1:B:201:GLY:N	1:B:221:VAL:O	2.45	0.42
1:B:857:SER:OG	1:B:858:TRP:N	2.53	0.42
1:C:889:SER:HG	1:C:895:ARG:HH22	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:295:ASN:N	1:D:295:ASN:OD1	2.53	0.42
1:D:1184:GLU:HG3	1:D:1185:ARG:N	2.35	0.42
1:A:33:VAL:HG12	1:A:49:VAL:HG13	2.02	0.41
1:A:303:GLN:OE1	1:A:303:GLN:HA	2.19	0.41
1:A:570:LEU:HD13	1:A:782:SER:O	2.20	0.41
1:B:34:LEU:N	1:B:34:LEU:HD12	2.35	0.41
1:B:319:LYS:N	1:B:320:LEU:HD12	2.36	0.41
1:B:793:PHE:CZ	1:B:815:LEU:HD22	2.55	0.41
1:B:1118:HIS:ND1	1:B:1119:PRO:HD3	2.15	0.41
1:C:614:SER:N	1:C:617:SER:OG	2.51	0.41
1:C:694:GLN:NE2	1:C:695:TYR:O	2.52	0.41
1:C:867:ASN:HD22	1:C:867:ASN:H	1.68	0.41
1:D:1109:LEU:HD13	1:D:1120:VAL:HG11	2.03	0.41
1:A:55:ASN:C	1:A:57:THR:N	2.73	0.41
1:A:94:SER:OG	1:A:96:SER:O	2.39	0.41
1:A:233:VAL:HG23	1:A:235:VAL:HG23	2.01	0.41
1:A:241:ILE:CG2	1:A:242:LEU:HD22	2.50	0.41
1:A:267:SER:N	1:A:321:HIS:O	2.44	0.41
1:A:538:ALA:HB2	1:A:560:VAL:CG2	2.51	0.41
1:A:746:VAL:HG13	1:A:750:GLY:HA2	2.02	0.41
1:B:517:GLN:NE2	1:B:518:GLU:OE2	2.53	0.41
1:B:824:VAL:HG23	1:B:875:GLU:O	2.20	0.41
1:B:968:MET:CG	1:B:969:PRO:HD2	2.49	0.41
1:B:1277:GLN:OE1	1:B:1289:LYS:NZ	2.32	0.41
1:C:40:HIS:HB2	1:C:43:THR:HG22	2.00	0.41
1:C:501:ALA:HB1	1:C:535:ALA:HB3	2.02	0.41
1:C:1046:LEU:HD11	1:C:1063:ILE:CG2	2.50	0.41
1:D:497:TYR:CG	1:D:526:ILE:HD11	2.55	0.41
1:D:593:SER:C	1:D:745:VAL:HG13	2.41	0.41
1:A:244:GLU:C	1:A:306:THR:HG22	2.41	0.41
1:A:578:LEU:C	1:A:580:ALA:H	2.21	0.41
1:A:603:SER:O	1:A:606:LEU:N	2.50	0.41
1:A:943:SER:OG	1:A:1308:LEU:HD11	2.20	0.41
1:B:290:PHE:O	1:B:302:GLN:NE2	2.48	0.41
1:B:595:CYS:H	1:B:743:LEU:HD13	1.84	0.41
1:B:946:ALA:HB2	1:B:1328:LEU:HB2	2.02	0.41
1:C:318:MET:SD	1:C:319:LYS:N	2.91	0.41
1:D:43:THR:HG21	1:D:153:GLU:HB2	2.02	0.41
1:D:679:THR:HG22	1:D:681:SER:H	1.85	0.41
1:A:41:THR:HG22	1:A:91:VAL:HG12	2.03	0.41
1:A:491:LYS:C	1:A:515:VAL:HG22	2.40	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:579:PRO:HB3	1:A:759:PRO:HG3	2.02	0.41
1:A:869:ASN:HB3	1:A:900:ILE:HG22	2.02	0.41
1:B:136:SER:OG	1:B:609:PRO:O	2.38	0.41
1:B:275:ALA:HB3	1:B:282:ASP:O	2.20	0.41
1:B:575:SER:OG	1:B:576:GLN:N	2.51	0.41
1:C:67:VAL:HG12	1:C:99:GLU:HG2	2.03	0.41
1:C:751:VAL:HG22	1:C:752:ALA:N	2.36	0.41
1:C:978:VAL:CG2	1:C:1251:THR:HG21	2.51	0.41
1:D:35:VAL:HG23	1:D:35:VAL:O	2.20	0.41
1:D:1103:ALA:CB	1:D:1149:LEU:HD12	2.51	0.41
1:D:1345:VAL:HG23	1:D:1365:LEU:HD11	2.02	0.41
1:A:383:VAL:O	1:A:423:VAL:HG23	2.19	0.41
1:A:460:HIS:NE2	1:A:461:LEU:O	2.53	0.41
1:B:268:ILE:HA	1:B:320:LEU:HD23	2.02	0.41
1:B:658:VAL:HG21	1:B:688:MET:CE	2.51	0.41
1:B:1144:VAL:HG12	1:B:1183:TRP:HD1	1.86	0.41
1:C:108:LYS:HG3	1:C:108:LYS:O	2.20	0.41
1:C:143:THR:HG22	1:C:193:PRO:CB	2.49	0.41
1:C:353:VAL:HG23	1:C:354:LYS:H	1.85	0.41
1:C:1144:VAL:HG11	1:C:1185:ARG:HA	2.02	0.41
1:D:103:LEU:HD11	1:D:120:VAL:HG23	2.02	0.41
1:D:292:GLY:HA3	1:D:300:PHE:CZ	2.53	0.41
1:D:384:ILE:HG22	1:D:423:VAL:HG22	2.02	0.41
1:D:855:THR:O	1:D:855:THR:HG23	2.21	0.41
1:D:991:ASN:O	1:D:991:ASN:ND2	2.54	0.41
1:A:129:VAL:HG22	1:A:209:LYS:HZ1	1.84	0.41
1:A:269:CYS:O	1:A:319:LYS:N	2.49	0.41
1:B:480:TYR:O	1:B:481:ILE:HG23	2.20	0.41
1:B:486:THR:HG23	1:B:486:THR:O	2.21	0.41
1:B:1128:LEU:HD11	1:B:1150:LEU:HD13	2.01	0.41
1:C:984:ILE:HG12	1:C:1052:ALA:HB2	2.02	0.41
1:D:68:ARG:HA	1:D:68:ARG:CZ	2.50	0.41
1:D:325:GLN:HA	1:D:332:VAL:HG13	2.02	0.41
1:D:501:ALA:CB	1:D:506:VAL:HG12	2.50	0.41
1:D:758:VAL:O	1:D:758:VAL:HG13	2.21	0.41
1:D:1007:TYR:O	1:D:1011:GLY:N	2.44	0.41
1:D:1067:LEU:CD1	1:D:1112:ILE:HG21	2.48	0.41
1:A:1270:THR:O	1:A:1271:ARG:C	2.59	0.41
1:B:275:ALA:HB1	1:B:281:GLU:HB3	2.02	0.41
1:B:389:ASN:C	1:B:391:ALA:H	2.24	0.41
1:B:545:VAL:C	1:B:546:LEU:HD23	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:965:LEU:HD12	1:B:1247:GLY:N	2.36	0.41
1:B:1072:GLN:O	1:B:1072:GLN:HG2	2.21	0.41
1:C:394:TYR:CD2	5:C:2004:NAG:H61	2.53	0.41
1:C:1238:ILE:HG23	1:C:1248:PHE:CE2	2.56	0.41
1:D:198:PRO:CG	1:D:221:VAL:HG11	2.50	0.41
1:D:258:LYS:HZ3	1:D:815:LEU:HD21	1.85	0.41
1:D:305:LYS:NZ	1:D:308:VAL:HG13	2.35	0.41
1:D:353:VAL:HG23	1:D:369:VAL:HA	2.02	0.41
1:D:453:SER:OG	1:D:455:SER:OG	2.38	0.41
1:D:1187:GLN:HA	1:D:1187:GLN:HE21	1.86	0.41
1:A:311:LEU:H	1:A:311:LEU:HD23	1.86	0.41
1:A:497:TYR:CD1	1:A:526:ILE:HD11	2.56	0.41
1:A:654:THR:HG21	1:D:659:SER:HB2	2.03	0.41
1:B:48:CYS:SG	1:B:498:LEU:HD21	2.61	0.41
1:B:233:VAL:HG22	1:B:234:THR:N	2.35	0.41
1:B:914:THR:C	1:B:1327:SER:HG	2.17	0.41
1:B:997:THR:HG23	1:B:1000:ILE:HG22	2.02	0.41
1:B:1271:ARG:N	1:B:1271:ARG:CD	2.84	0.41
1:C:118:THR:OG1	1:C:676:LYS:HG3	2.20	0.41
1:C:1107:ILE:HG21	1:C:1149:LEU:CD1	2.50	0.41
1:D:840:GLU:OE2	1:D:857:SER:N	2.50	0.41
1:D:1016:LEU:O	1:D:1019:LYS:HG2	2.20	0.41
1:A:63:SER:OG	1:A:64:LEU:N	2.54	0.41
1:A:215:THR:HG22	1:A:216:GLU:N	2.36	0.41
1:A:473:THR:O	1:A:474:GLN:NE2	2.54	0.41
1:A:491:LYS:HA	1:A:515:VAL:HG22	2.03	0.41
1:A:594:VAL:HG23	1:A:744:VAL:O	2.21	0.41
1:A:734:TYR:C	1:A:758:VAL:HG23	2.41	0.41
1:A:1209:THR:HG21	1:A:1237:TRP:CZ3	2.56	0.41
1:A:1293:ASP:OD1	1:A:1294:ASN:N	2.49	0.41
1:B:241:ILE:CD1	1:B:347:ILE:HD11	2.51	0.41
1:B:887:VAL:O	1:B:887:VAL:HG13	2.21	0.41
1:B:948:VAL:HG22	1:B:949:SER:N	2.36	0.41
1:B:1159:ASN:O	1:B:1163:ARG:N	2.47	0.41
1:B:1323:TYR:C	1:B:1324:LEU:HD12	2.40	0.41
1:C:372:VAL:HG12	1:C:373:ASP:N	2.36	0.41
1:C:920:LEU:HD11	1:C:929:GLU:HB2	2.03	0.41
1:C:928:SER:HA	1:C:1316:VAL:HG22	2.03	0.41
1:C:1217:LEU:O	1:C:1219:ALA:N	2.53	0.41
1:C:1251:THR:O	1:C:1255:VAL:HG23	2.21	0.41
1:D:452:PHE:C	1:D:454:PRO:HD3	2.41	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:650:ILE:HD11	1:D:659:SER:N	2.36	0.41
1:D:809:THR:HG22	1:D:1437:VAL:HG13	2.03	0.41
1:D:1105:ILE:HG13	1:D:1106:THR:HG23	2.02	0.41
1:A:407:PHE:CD2	1:A:407:PHE:C	2.93	0.41
1:A:564:LEU:HD21	1:A:780:ILE:CD1	2.50	0.41
1:A:581:SER:HA	1:A:756:VAL:HG13	2.02	0.41
1:A:803:ILE:HD12	1:A:908:GLU:HA	2.03	0.41
1:A:983:ASN:HB3	1:A:984:ILE:HD12	2.03	0.41
1:B:483:ASN:O	1:B:487:LEU:HD21	2.20	0.41
1:B:1121:VAL:O	1:B:1124:ALA:HB3	2.21	0.41
1:C:959:MET:O	1:C:962:THR:OG1	2.32	0.41
1:D:241:ILE:HG22	1:D:242:LEU:CD2	2.50	0.41
1:A:33:VAL:O	1:A:34:LEU:HD12	2.21	0.40
1:A:230:GLU:CA	1:A:606:LEU:HD11	2.50	0.40
1:A:887:VAL:O	1:A:887:VAL:HG13	2.20	0.40
1:A:1059:ASP:N	1:A:1059:ASP:OD1	2.55	0.40
1:B:239:ILE:HD11	1:B:243:GLU:HB3	2.04	0.40
1:B:383:VAL:HG13	1:B:423:VAL:HG23	2.03	0.40
1:B:390:GLU:N	1:B:390:GLU:CD	2.74	0.40
1:B:495:PHE:CD1	1:B:544:ALA:HB2	2.57	0.40
1:B:538:ALA:HB2	1:B:560:VAL:CG2	2.51	0.40
1:B:1214:LEU:HD21	1:B:1260:ALA:HB2	2.02	0.40
1:B:1311:GLU:N	1:B:1311:GLU:OE1	2.54	0.40
1:C:100:VAL:HG12	1:C:121:MET:HG3	2.03	0.40
1:C:139:LYS:CG	1:C:142:GLN:HG3	2.51	0.40
1:C:634:LEU:HD23	1:C:634:LEU:H	1.85	0.40
1:D:984:ILE:HG12	1:D:1045:VAL:HG23	2.04	0.40
1:D:1118:HIS:HA	1:D:1121:VAL:HG22	2.02	0.40
1:D:1216:TYR:HE2	1:D:1234:ILE:HD12	1.86	0.40
1:D:1250:SER:OG	1:D:1252:GLN:N	2.54	0.40
1:A:590:ALA:HB1	1:A:591:PRO:CD	2.50	0.40
1:A:1151:ALA:HB1	1:A:1167:LEU:HD11	2.03	0.40
1:B:733:LYS:N	1:B:760:ASP:OD2	2.55	0.40
1:B:1095:VAL:HG12	1:B:1145:TYR:HE2	1.87	0.40
1:C:349:LYS:NZ	1:C:372:VAL:HG11	2.36	0.40
1:C:1046:LEU:CD1	1:C:1063:ILE:HG22	2.50	0.40
1:C:1207:GLU:O	1:C:1210:SER:OG	2.16	0.40
1:D:76:ASP:OD1	1:D:77:LEU:N	2.54	0.40
1:D:290:PHE:O	1:D:302:GLN:HG2	2.21	0.40
1:D:800:TYR:C	1:D:802:VAL:HG13	2.40	0.40
1:D:975:GLN:O	1:D:977:MET:N	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1087:LEU:H	1:D:1087:LEU:HD12	1.86	0.40
1:D:1185:ARG:HD3	1:D:1196:PHE:HB3	2.03	0.40
1:D:1404:HIS:O	1:D:1405:VAL:HG13	2.20	0.40
1:A:966:LEU:HD22	1:A:1007:TYR:CE2	2.56	0.40
1:B:241:ILE:HD12	1:B:347:ILE:HD11	2.02	0.40
1:B:498:LEU:HD22	1:B:505:ILE:HG23	2.04	0.40
1:B:1166:VAL:O	1:B:1170:LEU:HD23	2.21	0.40
1:C:339:GLN:H	1:C:339:GLN:HG2	1.71	0.40
1:C:514:LEU:HD23	1:C:515:VAL:O	2.22	0.40
1:C:570:LEU:HD23	1:C:571:SER:N	2.36	0.40
1:C:1100:THR:CG2	1:C:1149:LEU:HD23	2.46	0.40
1:D:60:VAL:HG23	1:D:107:VAL:HA	2.02	0.40
1:D:162:ILE:HG22	1:D:181:PHE:O	2.21	0.40
1:D:993:THR:HG21	1:D:996:LEU:HD13	2.04	0.40
1:A:167:ILE:CG1	1:A:205:VAL:HG13	2.50	0.40
1:A:319:LYS:C	1:A:320:LEU:HD12	2.42	0.40
1:A:794:VAL:O	1:A:794:VAL:HG13	2.21	0.40
1:A:1067:LEU:HA	1:A:1070:LEU:HD12	2.02	0.40
1:A:1277:GLN:O	1:A:1317:THR:N	2.48	0.40
1:C:268:ILE:HD12	1:C:304:VAL:HG21	2.03	0.40
1:C:351:SER:O	1:C:370:ARG:N	2.48	0.40
1:C:964:ASN:ND2	1:C:1245:GLN:O	2.54	0.40
1:C:1148:ALA:HA	1:C:1170:LEU:HD11	2.03	0.40
1:C:1278:VAL:HG12	1:C:1279:THR:N	2.36	0.40
1:D:265:THR:OG1	1:D:291:SER:HB3	2.20	0.40
1:D:1427:LEU:H	1:D:1427:LEU:HD23	1.87	0.40
1:A:436:TRP:NE1	1:B:273:SER:O	2.46	0.40
1:A:459:VAL:HG23	1:A:479:HIS:O	2.21	0.40
1:A:1089:ASN:OD1	1:A:1200:GLN:NE2	2.55	0.40
1:A:1109:LEU:O	1:A:1114:LEU:HD11	2.22	0.40
1:B:792:PHE:CZ	1:B:824:VAL:HG21	2.56	0.40
1:C:538:ALA:N	1:C:558:TYR:O	2.53	0.40
1:C:1235:VAL:HG13	1:C:1261:LEU:CD2	2.52	0.40
1:D:540:LEU:HD12	1:D:541:LEU:H	1.87	0.40
1:D:1251:THR:HG22	1:D:1409:GLU:OE1	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	1272/1474 (86%)	986 (78%)	277 (22%)	9 (1%)	22	62
1	B	1272/1474 (86%)	1033 (81%)	230 (18%)	9 (1%)	22	62
1	C	1273/1474 (86%)	992 (78%)	274 (22%)	7 (0%)	29	68
1	D	1403/1474 (95%)	1122 (80%)	270 (19%)	11 (1%)	19	60
All	All	5220/5896 (88%)	4133 (79%)	1051 (20%)	36 (1%)	26	62

All (36) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	56	GLU
1	B	1118	HIS
1	C	339	GLN
1	C	412	THR
1	D	412	THR
1	D	800	TYR
1	A	55	ASN
1	A	579	PRO
1	B	736	PRO
1	D	532	SER
1	D	809	THR
1	D	976	ASN
1	A	687	LYS
1	A	1196	PHE
1	A	1221	PRO
1	B	70	ASN
1	D	95	SER
1	D	799	PRO
1	B	55	ASN
1	B	412	THR
1	B	532	SER
1	C	53	TYR

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Mol	Chain	Res	Type
1	C	338	ARG
1	C	1221	PRO
1	A	532	SER
1	A	582	HIS
1	B	994	GLN
1	B	1221	PRO
1	C	436	TRP
1	C	936	PRO
1	D	936	PRO
1	D	241	ILE
1	D	986	VAL
1	D	631	PRO
1	A	936	PRO
1	B	110	PRO

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	1114/1290 (86%)	1099 (99%)	15 (1%)	69 82
1	B	1114/1290 (86%)	1100 (99%)	14 (1%)	69 82
1	C	1115/1290 (86%)	1103 (99%)	12 (1%)	73 85
1	D	1234/1290 (96%)	1213 (98%)	21 (2%)	60 78
All	All	4577/5160 (89%)	4515 (99%)	62 (1%)	68 81

All (62) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	224	PHE
1	A	383	VAL
1	A	387	ARG
1	A	396	ASN
1	A	411	THR
1	A	470	CYS
1	A	688	MET

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Mol	Chain	Res	Type
1	A	689	CYS
1	A	739	TRP
1	A	778	LEU
1	A	821	CYS
1	A	951	LEU
1	A	1195	HIS
1	A	1259	HIS
1	A	1271	ARG
1	B	336	THR
1	B	409	ILE
1	B	410	ASN
1	B	412	THR
1	B	470	CYS
1	B	492	LYS
1	B	735	PHE
1	B	787	ARG
1	B	823	ARG
1	B	932	SER
1	B	1001	LYS
1	B	1118	HIS
1	B	1127	CYS
1	B	1271	ARG
1	C	55	ASN
1	C	56	GLU
1	C	58	VAL
1	C	108	LYS
1	C	113	GLU
1	C	520	MET
1	C	654	THR
1	C	867	ASN
1	C	869	ASN
1	C	1164	LYS
1	C	1195	HIS
1	C	1271	ARG
1	D	48	CYS
1	D	56	GLU
1	D	115	LYS
1	D	396	ASN
1	D	410	ASN
1	D	810	LEU
1	D	811	LYS
1	D	823	ARG

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Mol	Chain	Res	Type
1	D	883	CYS
1	D	988	ASP
1	D	989	TYR
1	D	991	ASN
1	D	1005	ILE
1	D	1012	TYR
1	D	1013	GLN
1	D	1015	GLN
1	D	1019	LYS
1	D	1184	GLU
1	D	1245	GLN
1	D	1271	ARG
1	D	1397	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (52) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	132	GLN
1	A	168	GLN
1	A	474	GLN
1	A	477	GLN
1	A	479	HIS
1	A	511	HIS
1	A	576	GLN
1	A	651	ASN
1	A	662	ASN
1	A	976	ASN
1	A	1038	ASN
1	A	1259	HIS
1	B	132	GLN
1	B	310	GLN
1	B	413	ASN
1	B	511	HIS
1	B	584	HIS
1	B	602	GLN
1	B	880	GLN
1	B	1015	GLN
1	B	1062	HIS
1	B	1123	ASN
1	B	1296	ASN
1	C	97	ASN
1	C	303	GLN

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Mol	Chain	Res	Type
1	C	368	GLN
1	C	406	GLN
1	C	413	ASN
1	C	511	HIS
1	C	584	HIS
1	C	620	ASN
1	C	647	ASN
1	C	867	ASN
1	C	1009	ASN
1	C	1179	ASN
1	C	1242	GLN
1	C	1243	ASN
1	D	179	GLN
1	D	217	HIS
1	D	293	GLN
1	D	327	GLN
1	D	406	GLN
1	D	424	ASN
1	D	477	GLN
1	D	843	GLN
1	D	964	ASN
1	D	967	GLN
1	D	1013	GLN
1	D	1015	GLN
1	D	1051	GLN
1	D	1259	HIS
1	D	1331	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

24 monosaccharides are modelled in this entry.

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
2	NAG	E	1	2,1	14,14,15	0.25	0	17,19,21	0.52	0
2	NAG	E	2	2	14,14,15	0.29	0	17,19,21	0.56	0
3	NAG	F	1	1,3	14,14,15	0.37	0	17,19,21	1.23	2 (11%)
3	NAG	F	2	3	14,14,15	0.35	0	17,19,21	0.76	0
3	BMA	F	3	3	11,11,12	0.24	0	15,15,17	0.76	0
2	NAG	G	1	2,1	14,14,15	0.32	0	17,19,21	0.60	0
2	NAG	G	2	2	14,14,15	0.29	0	17,19,21	0.63	0
3	NAG	H	1	1,3	14,14,15	0.37	0	17,19,21	1.03	2 (11%)
3	NAG	H	2	3	14,14,15	0.44	0	17,19,21	1.24	2 (11%)
3	BMA	H	3	3	11,11,12	0.22	0	15,15,17	0.52	0
2	NAG	I	1	2,1	14,14,15	0.32	0	17,19,21	0.48	0
2	NAG	I	2	2	14,14,15	0.29	0	17,19,21	0.52	0
3	NAG	J	1	1,3	14,14,15	0.33	0	17,19,21	0.93	1 (5%)
3	NAG	J	2	3	14,14,15	0.34	0	17,19,21	0.73	0
3	BMA	J	3	3	11,11,12	0.23	0	15,15,17	0.57	0
2	NAG	K	1	2,1	14,14,15	0.29	0	17,19,21	0.82	1 (5%)
2	NAG	K	2	2	14,14,15	0.30	0	17,19,21	0.64	0
4	NAG	L	1	1,4	14,14,15	0.32	0	17,19,21	0.50	0
4	NAG	L	2	4	14,14,15	0.37	0	17,19,21	0.79	0
4	BMA	L	3	4	11,11,12	0.24	0	15,15,17	0.55	0
4	MAN	L	4	4	11,11,12	0.26	0	15,15,17	0.60	0
3	NAG	M	1	1,3	14,14,15	0.37	0	17,19,21	0.80	0
3	NAG	M	2	3	14,14,15	0.37	0	17,19,21	0.68	0
3	BMA	M	3	3	11,11,12	0.22	0	15,15,17	0.63	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	NAG	E	1	2,1	-	5/6/23/26	0/1/1/1
2	NAG	E	2	2	-	4/6/23/26	0/1/1/1
3	NAG	F	1	1,3	-	4/6/23/26	0/1/1/1
3	NAG	F	2	3	-	3/6/23/26	0/1/1/1

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	BMA	F	3	3	-	0/2/19/22	0/1/1/1
2	NAG	G	1	2,1	-	2/6/23/26	0/1/1/1
2	NAG	G	2	2	-	5/6/23/26	0/1/1/1
3	NAG	H	1	1,3	-	5/6/23/26	0/1/1/1
3	NAG	H	2	3	-	4/6/23/26	0/1/1/1
3	BMA	H	3	3	-	0/2/19/22	0/1/1/1
2	NAG	I	1	2,1	-	4/6/23/26	0/1/1/1
2	NAG	I	2	2	-	3/6/23/26	0/1/1/1
3	NAG	J	1	1,3	-	2/6/23/26	0/1/1/1
3	NAG	J	2	3	-	3/6/23/26	0/1/1/1
3	BMA	J	3	3	-	0/2/19/22	0/1/1/1
2	NAG	K	1	2,1	-	2/6/23/26	0/1/1/1
2	NAG	K	2	2	-	2/6/23/26	0/1/1/1
4	NAG	L	1	1,4	-	4/6/23/26	0/1/1/1
4	NAG	L	2	4	-	3/6/23/26	0/1/1/1
4	BMA	L	3	4	-	2/2/19/22	0/1/1/1
4	MAN	L	4	4	-	1/2/19/22	0/1/1/1
3	NAG	M	1	1,3	-	3/6/23/26	0/1/1/1
3	NAG	M	2	3	-	4/6/23/26	0/1/1/1
3	BMA	M	3	3	-	1/2/19/22	0/1/1/1

There are no bond length outliers.

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	H	2	NAG	C1-O5-C5	3.65	117.14	112.19
3	F	1	NAG	C1-O5-C5	2.78	115.96	112.19
3	J	1	NAG	C1-O5-C5	2.58	115.69	112.19
3	H	1	NAG	C1-O5-C5	2.39	115.43	112.19
3	F	1	NAG	C3-C4-C5	2.31	114.36	110.24
2	K	1	NAG	C4-C3-C2	-2.17	107.83	111.02
3	H	2	NAG	C3-C4-C5	-2.11	106.48	110.24
3	H	1	NAG	O4-C4-C5	2.11	114.53	109.30

There are no chirality outliers.

All (66) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	E	2	NAG	C3-C2-N2-C7
2	G	1	NAG	C8-C7-N2-C2
2	G	1	NAG	O7-C7-N2-C2
2	G	2	NAG	C1-C2-N2-C7
2	G	2	NAG	C8-C7-N2-C2
2	G	2	NAG	O7-C7-N2-C2
2	I	1	NAG	C8-C7-N2-C2
2	I	1	NAG	O7-C7-N2-C2
2	I	2	NAG	C3-C2-N2-C7
2	I	2	NAG	C8-C7-N2-C2
2	I	2	NAG	O7-C7-N2-C2
2	K	1	NAG	C8-C7-N2-C2
2	K	1	NAG	O7-C7-N2-C2
2	K	2	NAG	C8-C7-N2-C2
2	K	2	NAG	O7-C7-N2-C2
3	F	1	NAG	C8-C7-N2-C2
3	F	1	NAG	O7-C7-N2-C2
3	F	2	NAG	C3-C2-N2-C7
3	F	2	NAG	C8-C7-N2-C2
3	F	2	NAG	O7-C7-N2-C2
3	H	1	NAG	C1-C2-N2-C7
3	H	1	NAG	C8-C7-N2-C2
3	H	1	NAG	O7-C7-N2-C2
3	H	2	NAG	C8-C7-N2-C2
3	H	2	NAG	O7-C7-N2-C2
3	J	1	NAG	C8-C7-N2-C2
3	J	1	NAG	O7-C7-N2-C2
3	J	2	NAG	C3-C2-N2-C7
3	J	2	NAG	C8-C7-N2-C2
3	J	2	NAG	O7-C7-N2-C2
3	M	1	NAG	C3-C2-N2-C7
3	M	1	NAG	C8-C7-N2-C2
3	M	1	NAG	O7-C7-N2-C2
3	M	2	NAG	C8-C7-N2-C2
3	M	2	NAG	O7-C7-N2-C2
4	L	1	NAG	C8-C7-N2-C2
4	L	1	NAG	O7-C7-N2-C2
4	L	2	NAG	C8-C7-N2-C2
4	L	2	NAG	O7-C7-N2-C2
2	E	2	NAG	C8-C7-N2-C2
2	E	2	NAG	O7-C7-N2-C2
2	E	1	NAG	C8-C7-N2-C2
2	E	1	NAG	O7-C7-N2-C2

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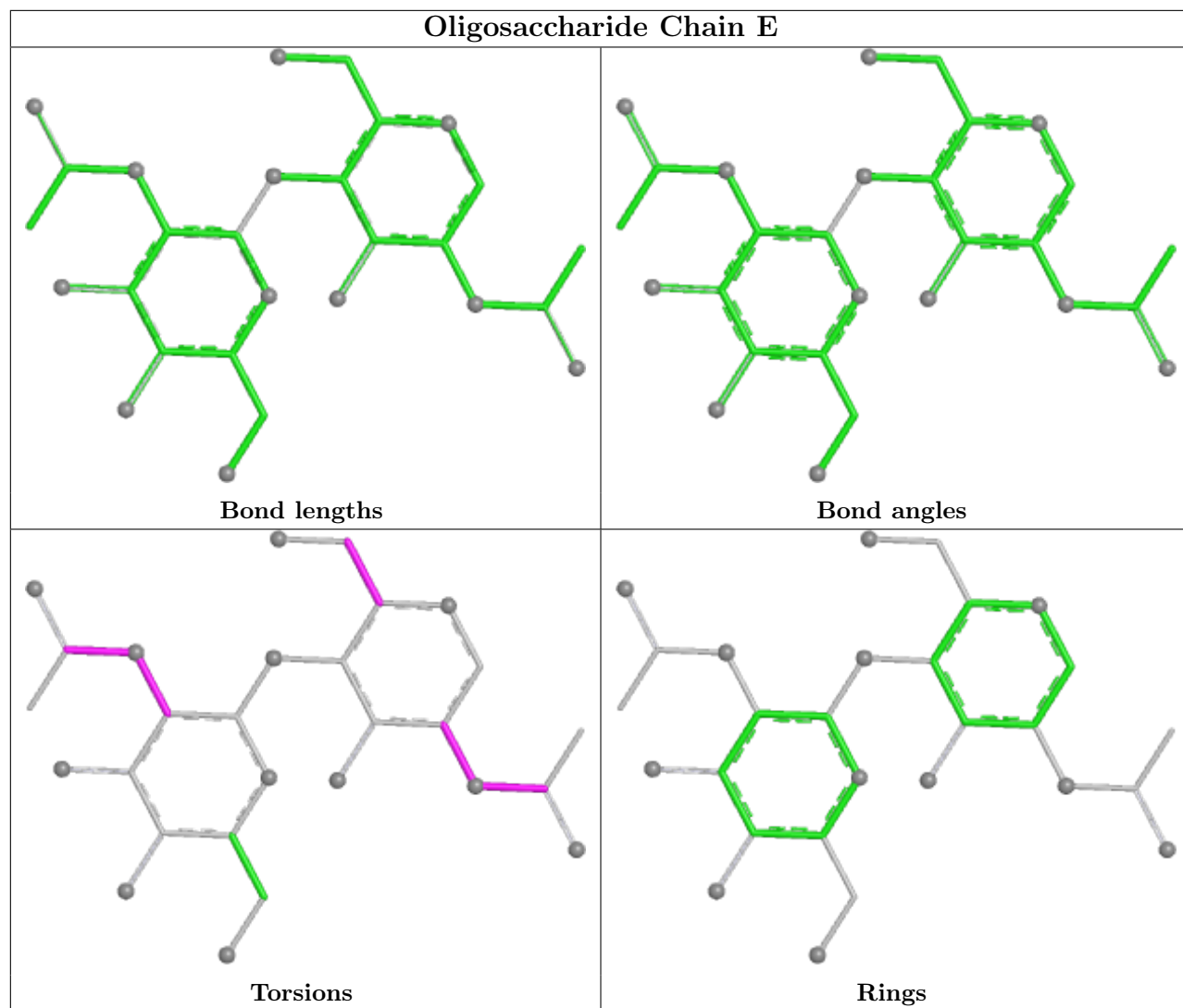
Mol	Chain	Res	Type	Atoms
3	H	1	NAG	O5-C5-C6-O6
3	M	2	NAG	C1-C2-N2-C7
4	L	3	BMA	O5-C5-C6-O6
2	E	1	NAG	C4-C5-C6-O6
4	L	1	NAG	C1-C2-N2-C7
3	H	1	NAG	C4-C5-C6-O6
3	F	1	NAG	C4-C5-C6-O6
2	E	1	NAG	C1-C2-N2-C7
2	E	2	NAG	C1-C2-N2-C7
3	M	3	BMA	O5-C5-C6-O6
4	L	4	MAN	O5-C5-C6-O6
2	E	1	NAG	O5-C5-C6-O6
3	H	2	NAG	O5-C5-C6-O6
2	G	2	NAG	O5-C5-C6-O6
3	H	2	NAG	C3-C2-N2-C7
3	M	2	NAG	C3-C2-N2-C7
2	I	1	NAG	C1-C2-N2-C7
4	L	3	BMA	C4-C5-C6-O6
2	G	2	NAG	C3-C2-N2-C7
3	F	1	NAG	O5-C5-C6-O6
2	I	1	NAG	C3-C2-N2-C7
4	L	1	NAG	C3-C2-N2-C7
4	L	2	NAG	C3-C2-N2-C7

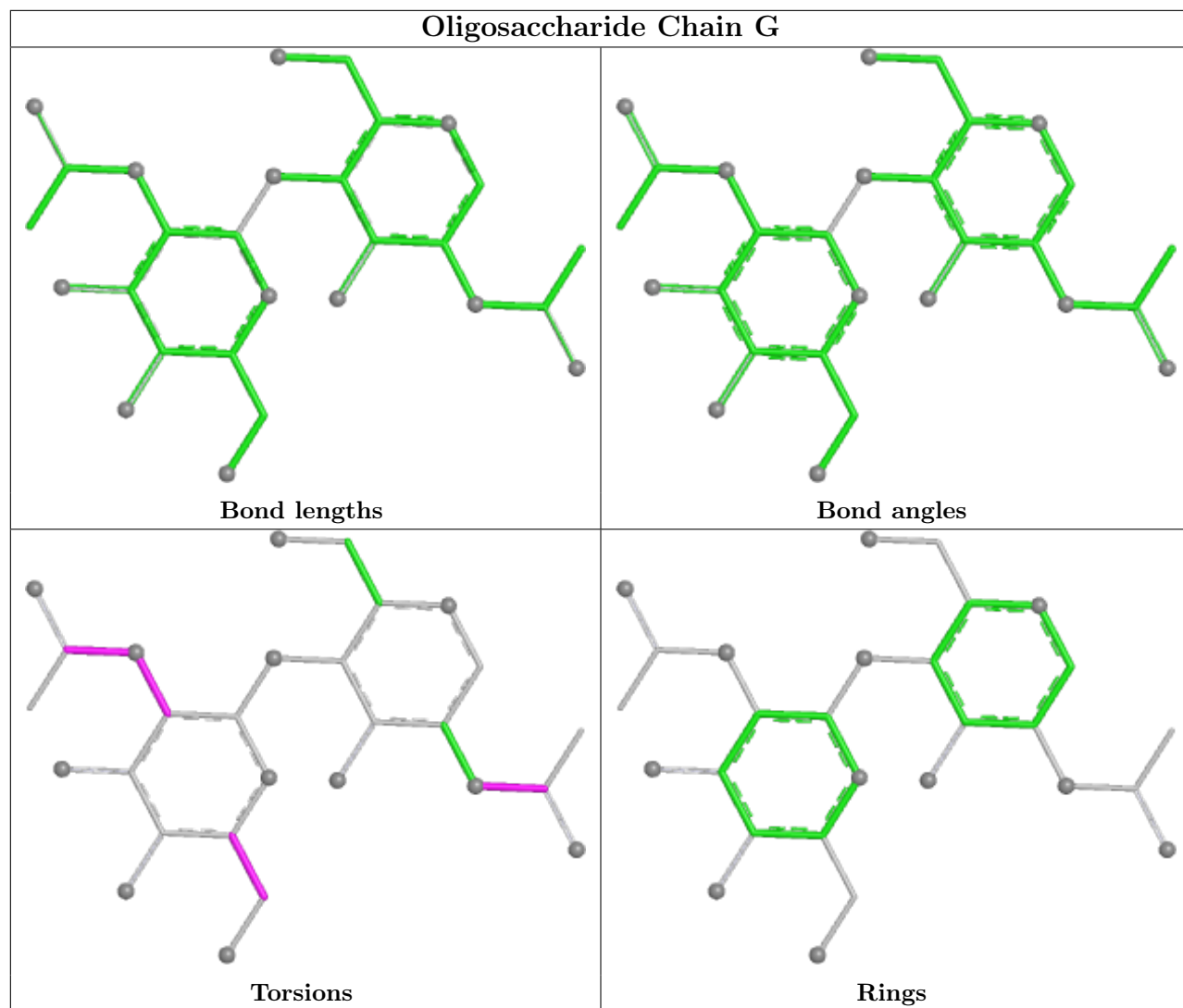
There are no ring outliers.

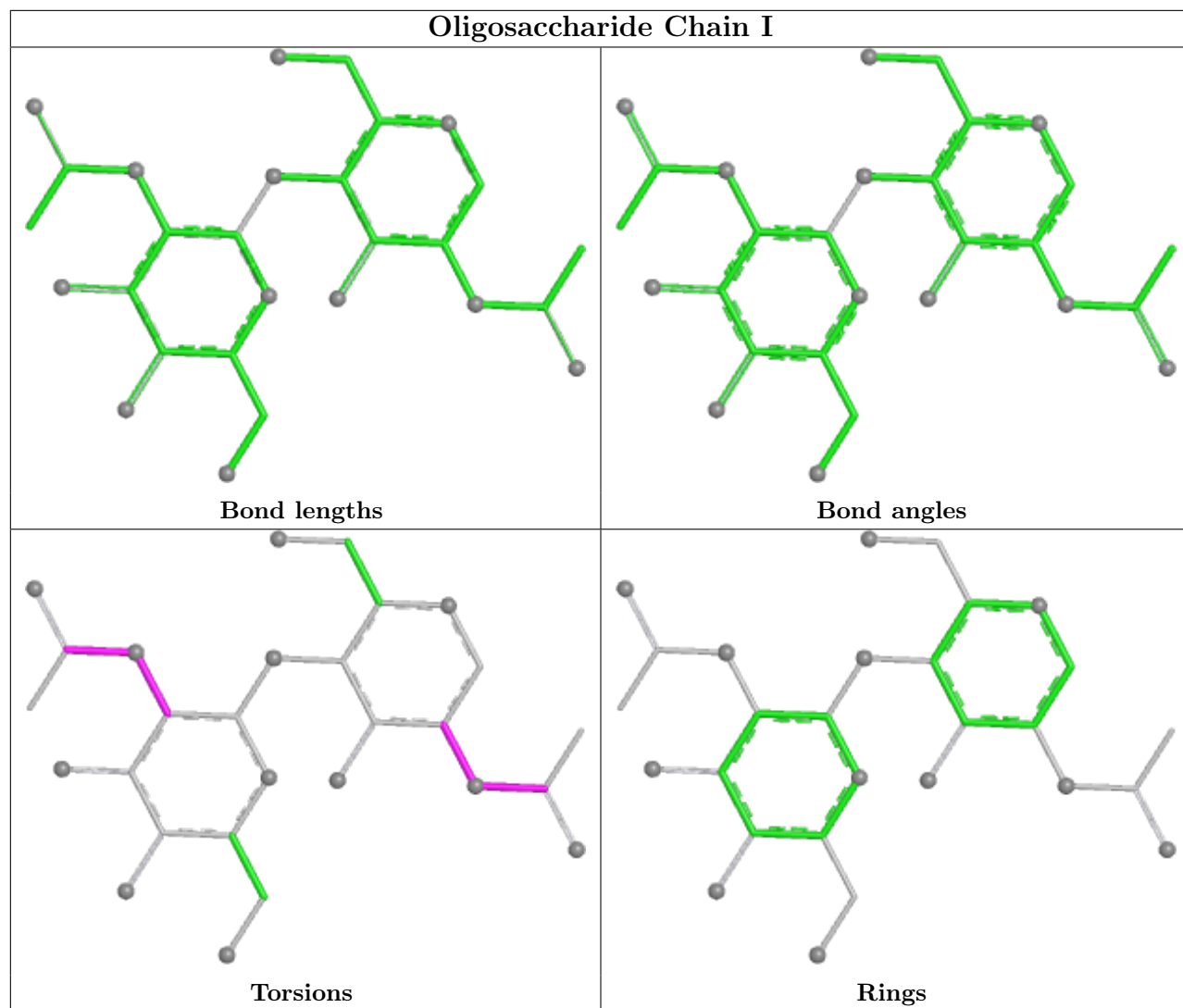
8 monomers are involved in 9 short contacts:

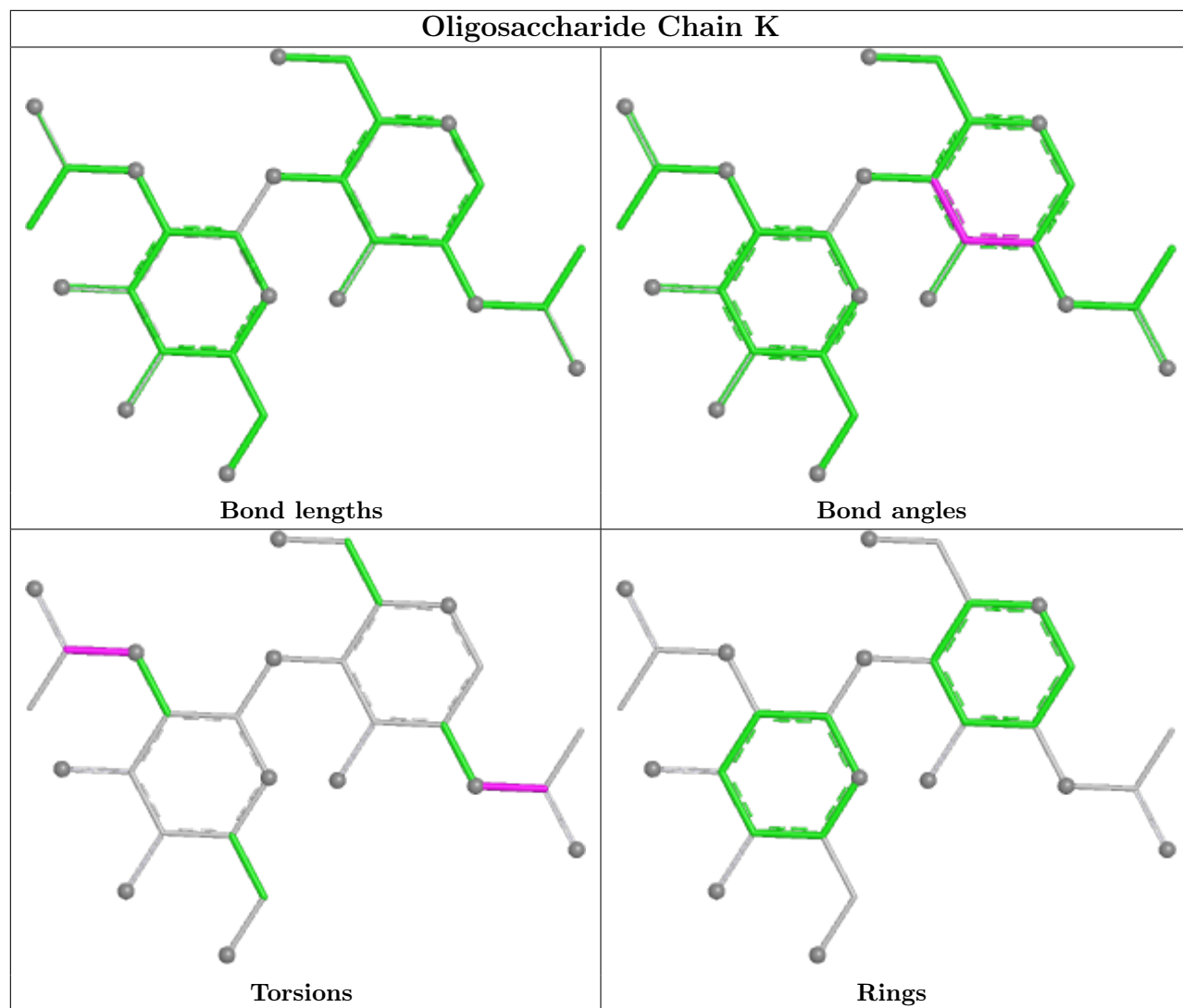
Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	L	2	NAG	1	0
4	L	4	MAN	1	0
3	J	2	NAG	1	0
3	M	2	NAG	1	0
4	L	3	BMA	1	0
2	I	2	NAG	1	0
3	H	2	NAG	3	0
3	M	1	NAG	2	0

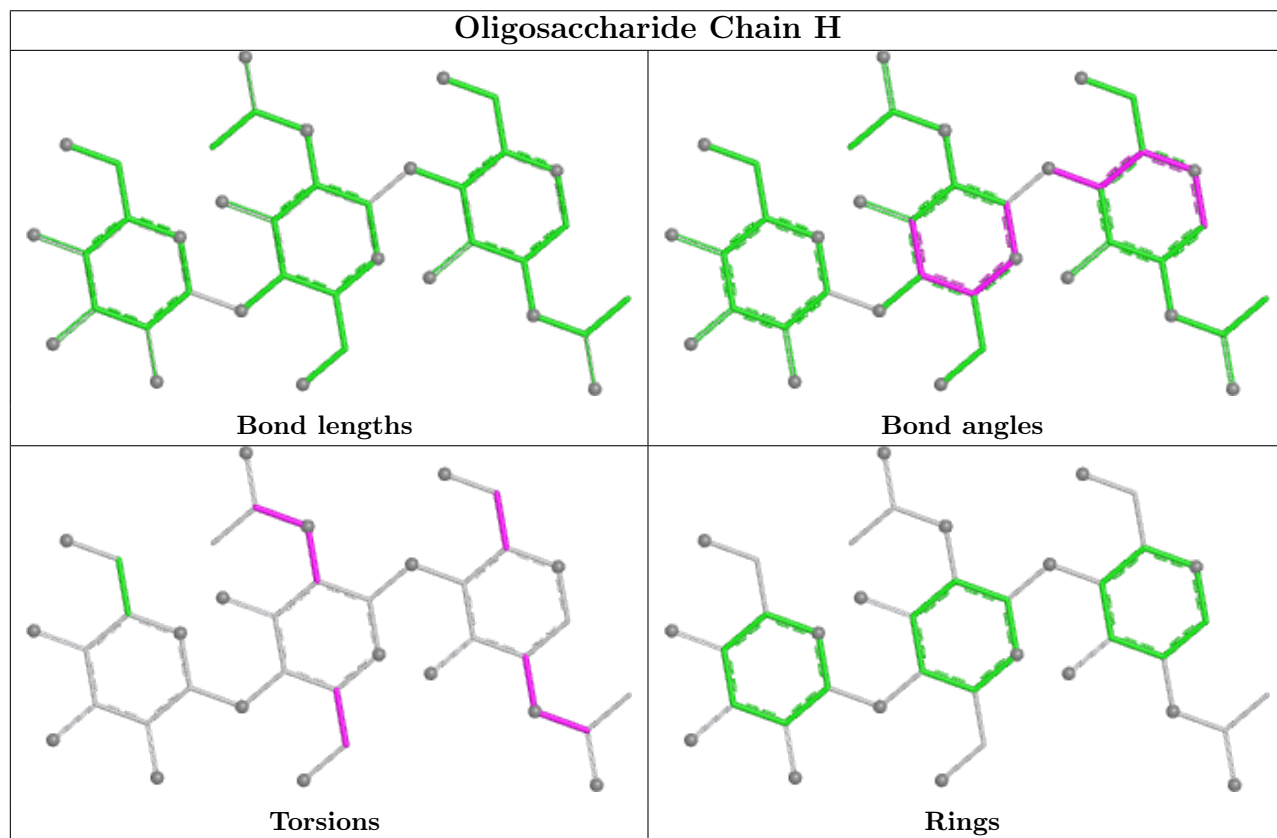
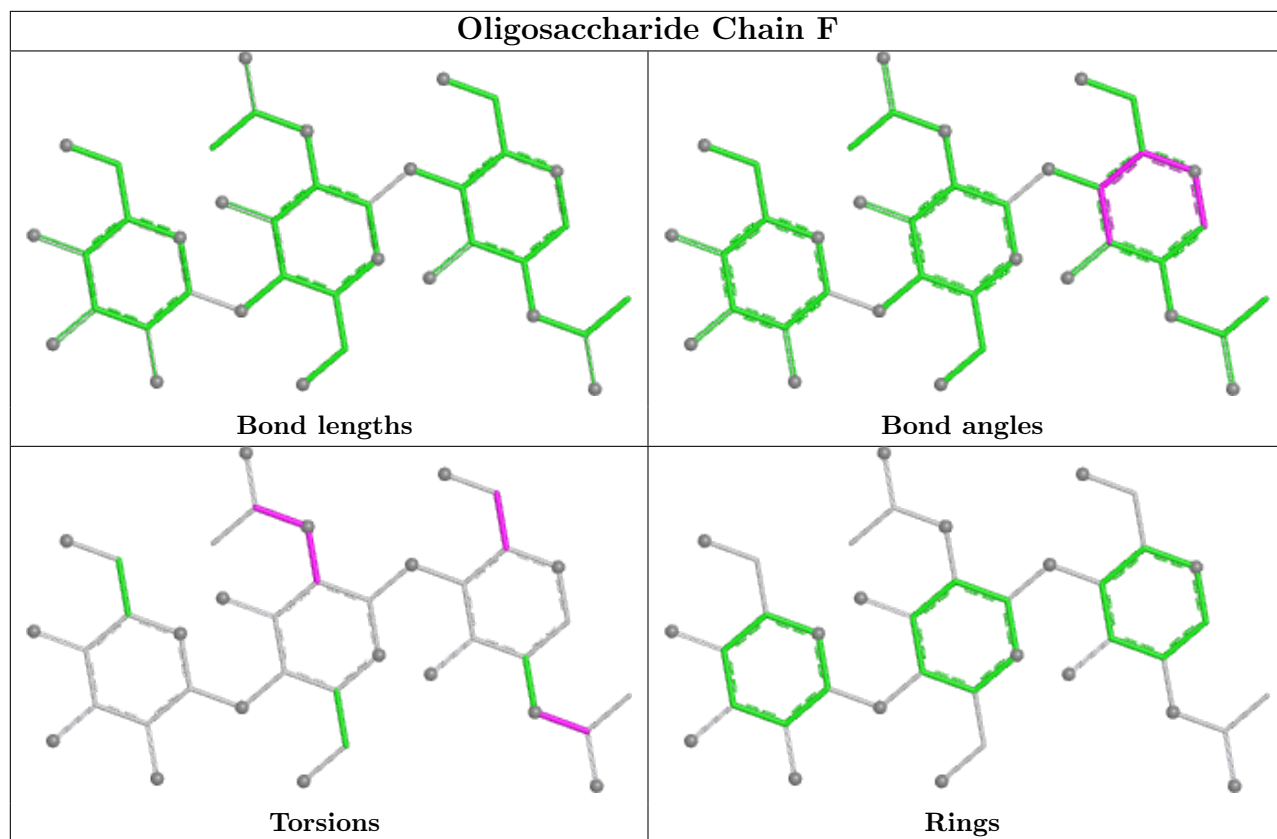
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for oligosaccharide.

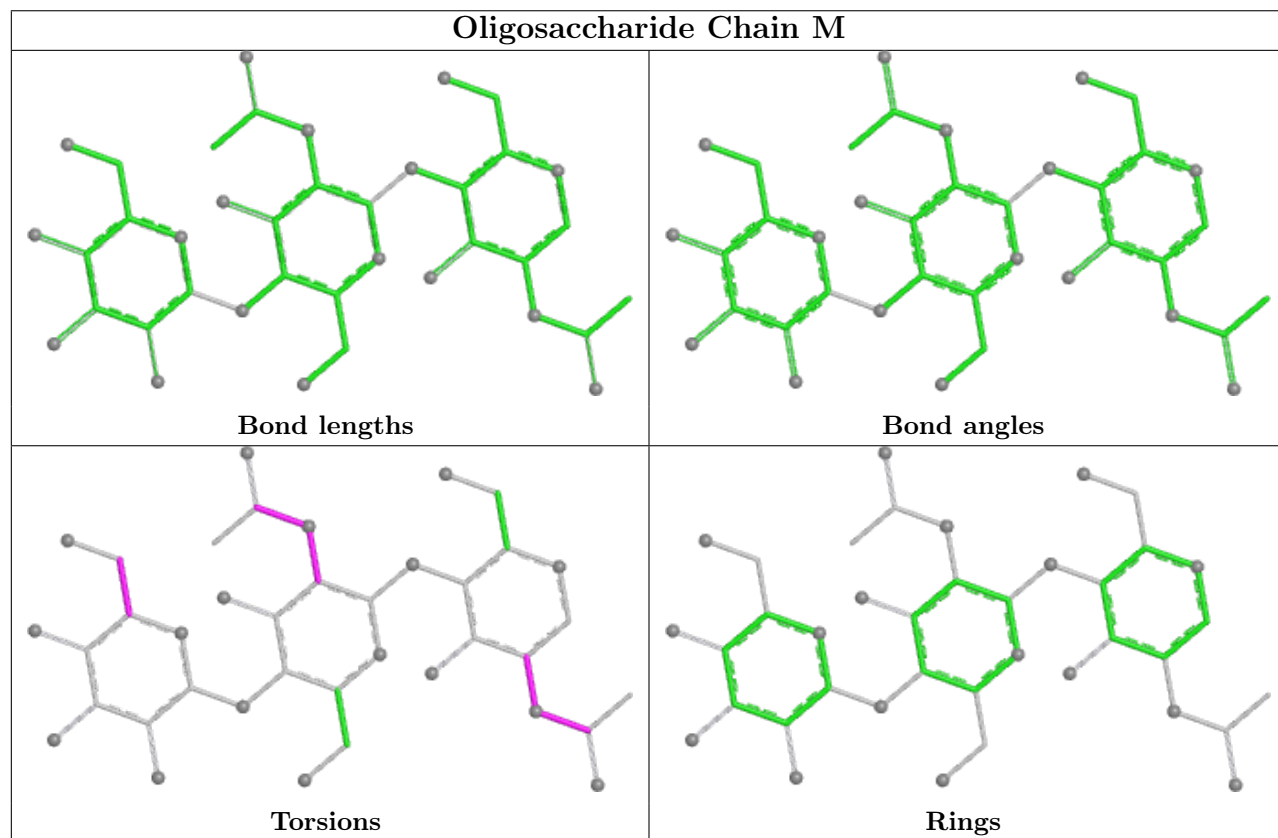
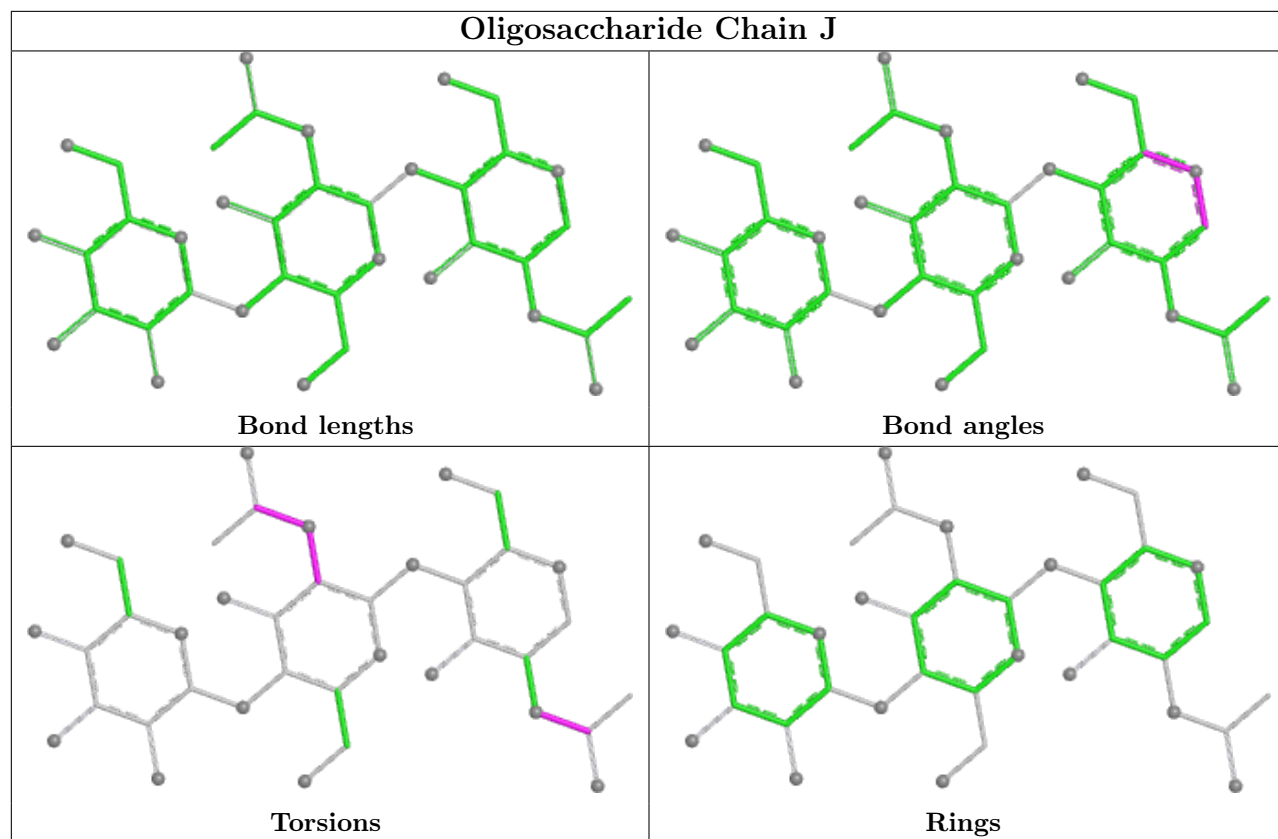


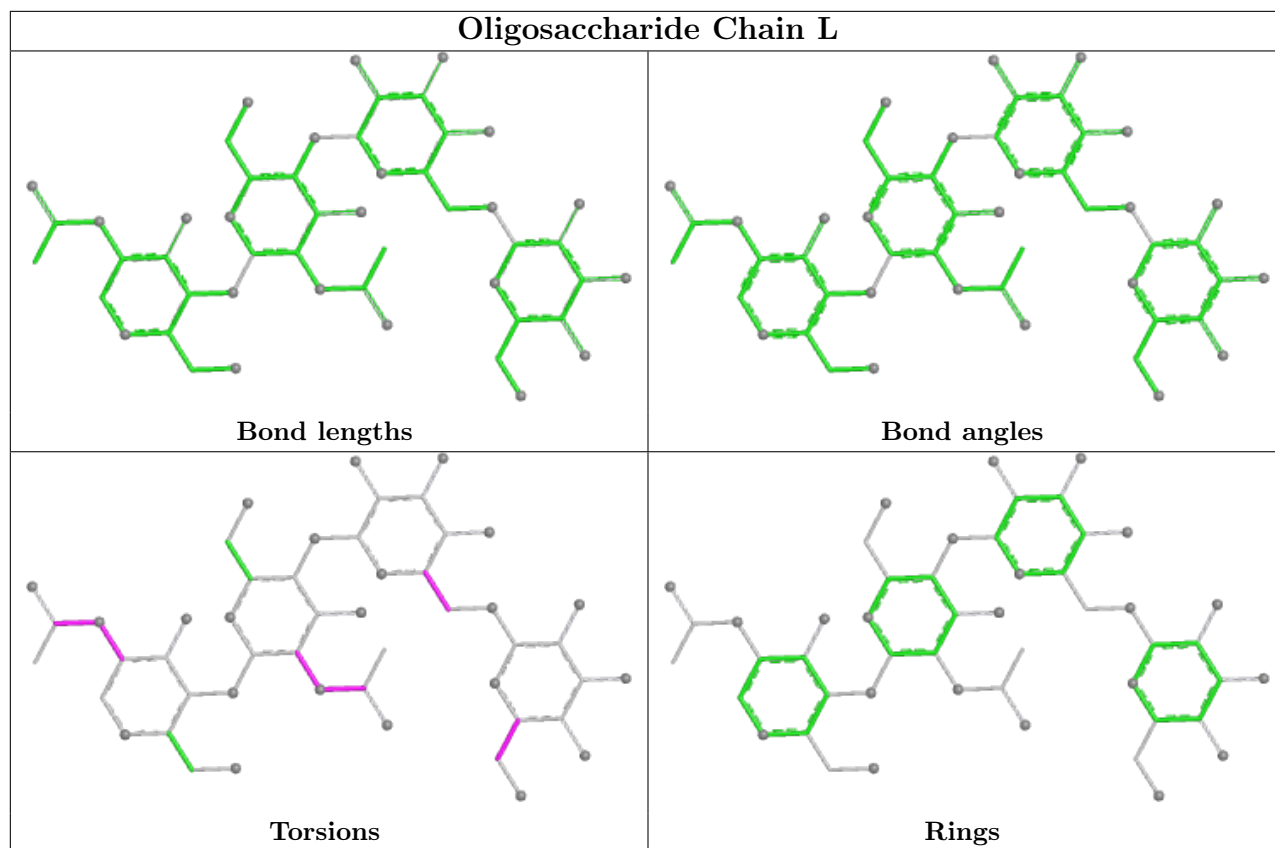












5.6 Ligand geometry [i](#)

20 ligands are modelled in this entry.

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$
5	NAG	C	2002	1	14,14,15	0.35	0	17,19,21	0.81	1 (5%)
5	NAG	C	2004	1	14,14,15	0.28	0	17,19,21	0.58	0
5	NAG	B	2001	1	14,14,15	0.33	0	17,19,21	0.73	0
5	NAG	A	2005	1	14,14,15	0.30	0	17,19,21	0.55	0
5	NAG	B	2004	1	14,14,15	0.27	0	17,19,21	0.65	0
5	NAG	B	2003	1	14,14,15	0.29	0	17,19,21	0.67	1 (5%)
5	NAG	A	2003	1	14,14,15	0.30	0	17,19,21	0.45	0
5	NAG	D	2001	1	14,14,15	0.28	0	17,19,21	0.69	1 (5%)
5	NAG	B	2005	1	14,14,15	0.29	0	17,19,21	0.62	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
5	NAG	D	2004	1	14,14,15	0.30	0	17,19,21	0.55	0
5	NAG	D	2005	1	14,14,15	0.27	0	17,19,21	0.52	0
5	NAG	A	2001	1	14,14,15	0.30	0	17,19,21	0.61	0
5	NAG	A	2004	1	14,14,15	0.30	0	17,19,21	0.57	0
5	NAG	D	2002	1	14,14,15	0.29	0	17,19,21	0.53	0
5	NAG	B	2002	1	14,14,15	0.29	0	17,19,21	0.66	0
5	NAG	C	2001	1	14,14,15	0.40	0	17,19,21	0.70	0
5	NAG	D	2003	1	14,14,15	0.29	0	17,19,21	0.53	0
5	NAG	A	2002	1	14,14,15	0.29	0	17,19,21	0.54	0
5	NAG	C	2005	1	14,14,15	0.29	0	17,19,21	0.54	0
5	NAG	C	2003	1	14,14,15	0.26	0	17,19,21	0.53	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	NAG	C	2002	1	-	4/6/23/26	0/1/1/1
5	NAG	C	2004	1	-	4/6/23/26	0/1/1/1
5	NAG	B	2001	1	-	4/6/23/26	0/1/1/1
5	NAG	A	2005	1	-	4/6/23/26	0/1/1/1
5	NAG	B	2004	1	-	5/6/23/26	0/1/1/1
5	NAG	B	2003	1	-	3/6/23/26	0/1/1/1
5	NAG	A	2003	1	-	3/6/23/26	0/1/1/1
5	NAG	D	2001	1	-	4/6/23/26	0/1/1/1
5	NAG	B	2005	1	-	3/6/23/26	0/1/1/1
5	NAG	D	2004	1	-	4/6/23/26	0/1/1/1
5	NAG	D	2005	1	-	4/6/23/26	0/1/1/1
5	NAG	A	2001	1	-	3/6/23/26	0/1/1/1
5	NAG	A	2004	1	-	3/6/23/26	0/1/1/1
5	NAG	D	2002	1	-	4/6/23/26	0/1/1/1
5	NAG	B	2002	1	-	4/6/23/26	0/1/1/1
5	NAG	C	2001	1	-	3/6/23/26	0/1/1/1
5	NAG	D	2003	1	-	2/6/23/26	0/1/1/1
5	NAG	A	2002	1	-	3/6/23/26	0/1/1/1
5	NAG	C	2005	1	-	4/6/23/26	0/1/1/1
5	NAG	C	2003	1	-	3/6/23/26	0/1/1/1

There are no bond length outliers.

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
5	C	2002	NAG	C1-O5-C5	2.17	115.13	112.19
5	B	2003	NAG	O5-C5-C6	2.10	110.49	107.20
5	D	2001	NAG	O5-C5-C6	2.00	110.35	107.20

There are no chirality outliers.

All (71) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	A	2001	NAG	C3-C2-N2-C7
5	A	2001	NAG	C8-C7-N2-C2
5	A	2001	NAG	O7-C7-N2-C2
5	A	2002	NAG	O7-C7-N2-C2
5	A	2003	NAG	C8-C7-N2-C2
5	A	2003	NAG	O7-C7-N2-C2
5	A	2004	NAG	C3-C2-N2-C7
5	A	2004	NAG	C8-C7-N2-C2
5	A	2004	NAG	O7-C7-N2-C2
5	A	2005	NAG	C3-C2-N2-C7
5	A	2005	NAG	C8-C7-N2-C2
5	A	2005	NAG	O7-C7-N2-C2
5	B	2001	NAG	C1-C2-N2-C7
5	B	2001	NAG	C8-C7-N2-C2
5	B	2001	NAG	O7-C7-N2-C2
5	B	2002	NAG	C8-C7-N2-C2
5	B	2002	NAG	O7-C7-N2-C2
5	B	2004	NAG	C3-C2-N2-C7
5	B	2004	NAG	C8-C7-N2-C2
5	B	2004	NAG	O7-C7-N2-C2
5	B	2005	NAG	C8-C7-N2-C2
5	B	2005	NAG	O7-C7-N2-C2
5	C	2001	NAG	C3-C2-N2-C7
5	C	2001	NAG	C8-C7-N2-C2
5	C	2001	NAG	O7-C7-N2-C2
5	C	2002	NAG	C3-C2-N2-C7
5	C	2003	NAG	C8-C7-N2-C2
5	C	2003	NAG	O7-C7-N2-C2
5	C	2004	NAG	C8-C7-N2-C2
5	C	2004	NAG	O7-C7-N2-C2
5	C	2005	NAG	C3-C2-N2-C7
5	C	2005	NAG	C8-C7-N2-C2

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Mol	Chain	Res	Type	Atoms
5	C	2005	NAG	O7-C7-N2-C2
5	D	2002	NAG	C3-C2-N2-C7
5	D	2002	NAG	C8-C7-N2-C2
5	D	2002	NAG	O7-C7-N2-C2
5	D	2003	NAG	C8-C7-N2-C2
5	D	2003	NAG	O7-C7-N2-C2
5	D	2004	NAG	C8-C7-N2-C2
5	D	2004	NAG	O7-C7-N2-C2
5	D	2005	NAG	O7-C7-N2-C2
5	A	2002	NAG	C8-C7-N2-C2
5	B	2003	NAG	C8-C7-N2-C2
5	B	2003	NAG	O7-C7-N2-C2
5	C	2002	NAG	C8-C7-N2-C2
5	C	2002	NAG	O7-C7-N2-C2
5	D	2005	NAG	C8-C7-N2-C2
5	C	2004	NAG	C1-C2-N2-C7
5	D	2004	NAG	C1-C2-N2-C7
5	A	2003	NAG	C1-C2-N2-C7
5	C	2003	NAG	C1-C2-N2-C7
5	B	2003	NAG	C1-C2-N2-C7
5	B	2004	NAG	C4-C5-C6-O6
5	D	2005	NAG	C1-C2-N2-C7
5	B	2005	NAG	O5-C5-C6-O6
5	D	2002	NAG	O5-C5-C6-O6
5	A	2005	NAG	O5-C5-C6-O6
5	A	2002	NAG	O5-C5-C6-O6
5	B	2002	NAG	O5-C5-C6-O6
5	C	2005	NAG	O5-C5-C6-O6
5	C	2002	NAG	O5-C5-C6-O6
5	D	2005	NAG	O5-C5-C6-O6
5	D	2004	NAG	C3-C2-N2-C7
5	D	2001	NAG	C8-C7-N2-C2
5	B	2004	NAG	O5-C5-C6-O6
5	D	2001	NAG	O7-C7-N2-C2
5	B	2001	NAG	C3-C2-N2-C7
5	B	2002	NAG	C3-C2-N2-C7
5	C	2004	NAG	C3-C2-N2-C7
5	D	2001	NAG	C1-C2-N2-C7
5	D	2001	NAG	C3-C2-N2-C7

There are no ring outliers.

8 monomers are involved in 17 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	C	2004	NAG	7	0
5	B	2001	NAG	3	0
5	A	2005	NAG	1	0
5	A	2003	NAG	1	0
5	D	2002	NAG	1	0
5	C	2001	NAG	2	0
5	C	2005	NAG	1	0
5	C	2003	NAG	1	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

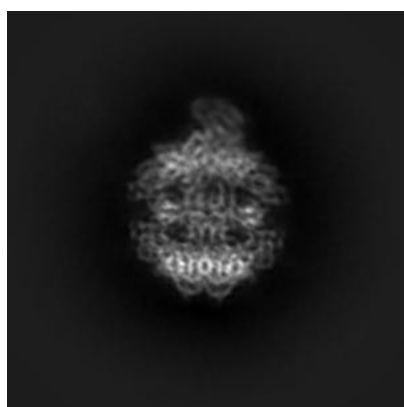
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-12755. These allow visual inspection of the internal detail of the map and identification of artifacts.

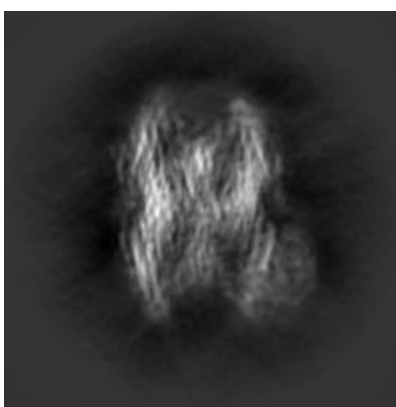
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

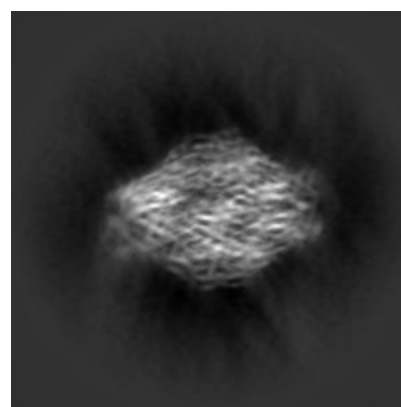
6.1.1 Primary map



X



Y

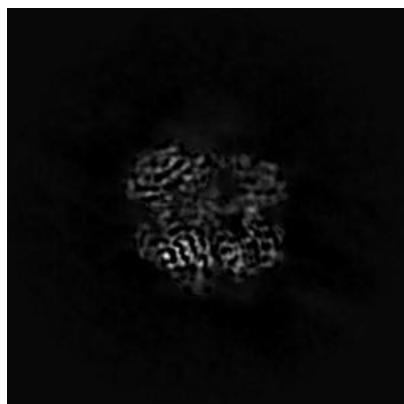


Z

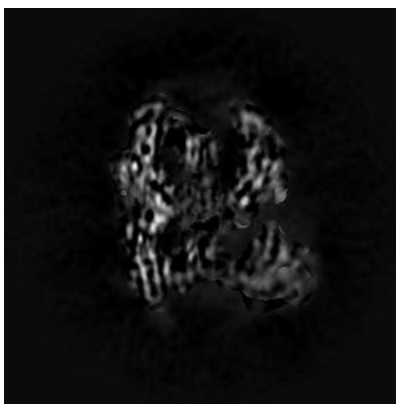
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

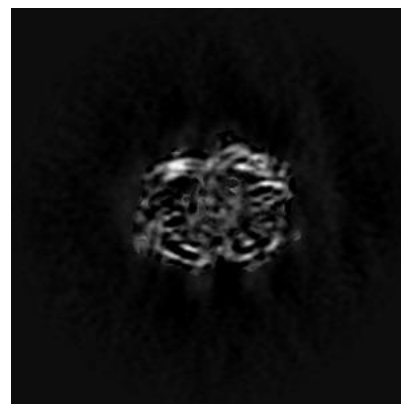
6.2.1 Primary map



X Index: 160



Y Index: 160

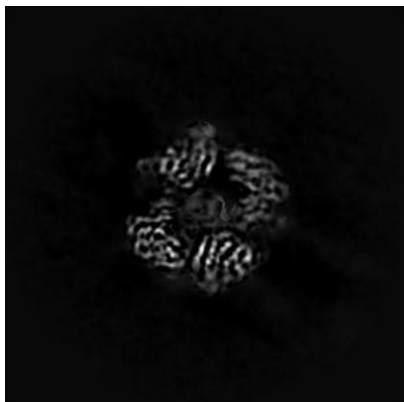


Z Index: 160

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

6.3 Largest variance slices [i](#)

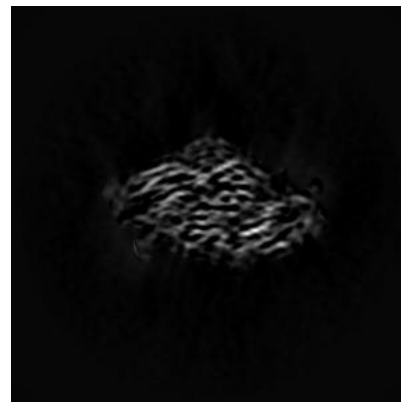
6.3.1 Primary map



X Index: 175



Y Index: 171



Z Index: 117

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

6.4 Orthogonal surface views [i](#)

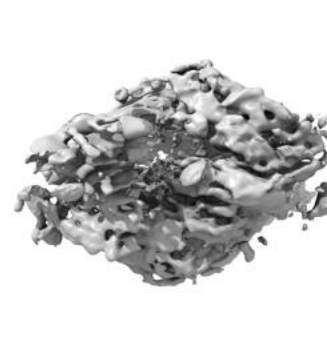
6.4.1 Primary map



X



Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.013. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

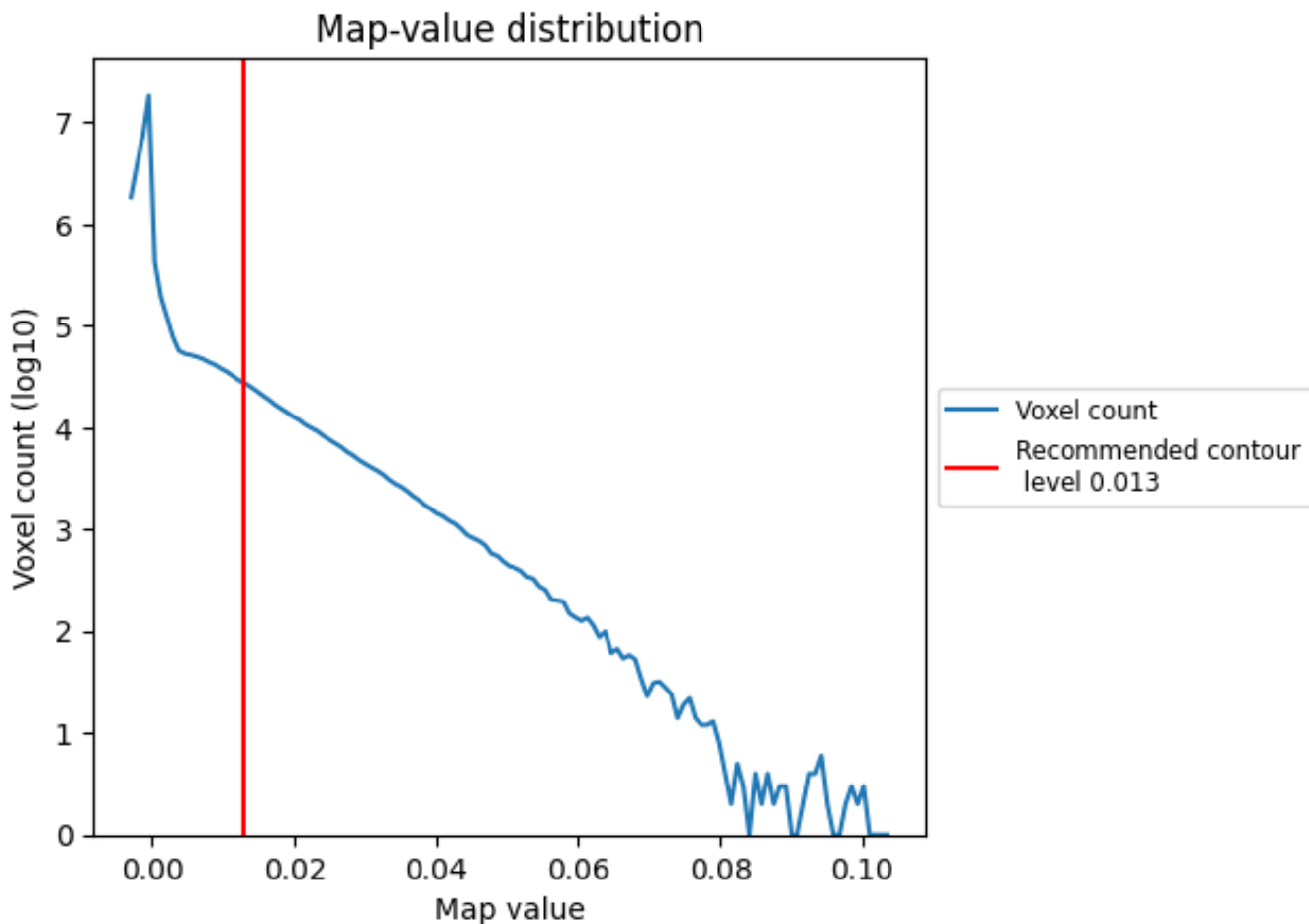
6.5 Mask visualisation

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

7 Map analysis [i](#)

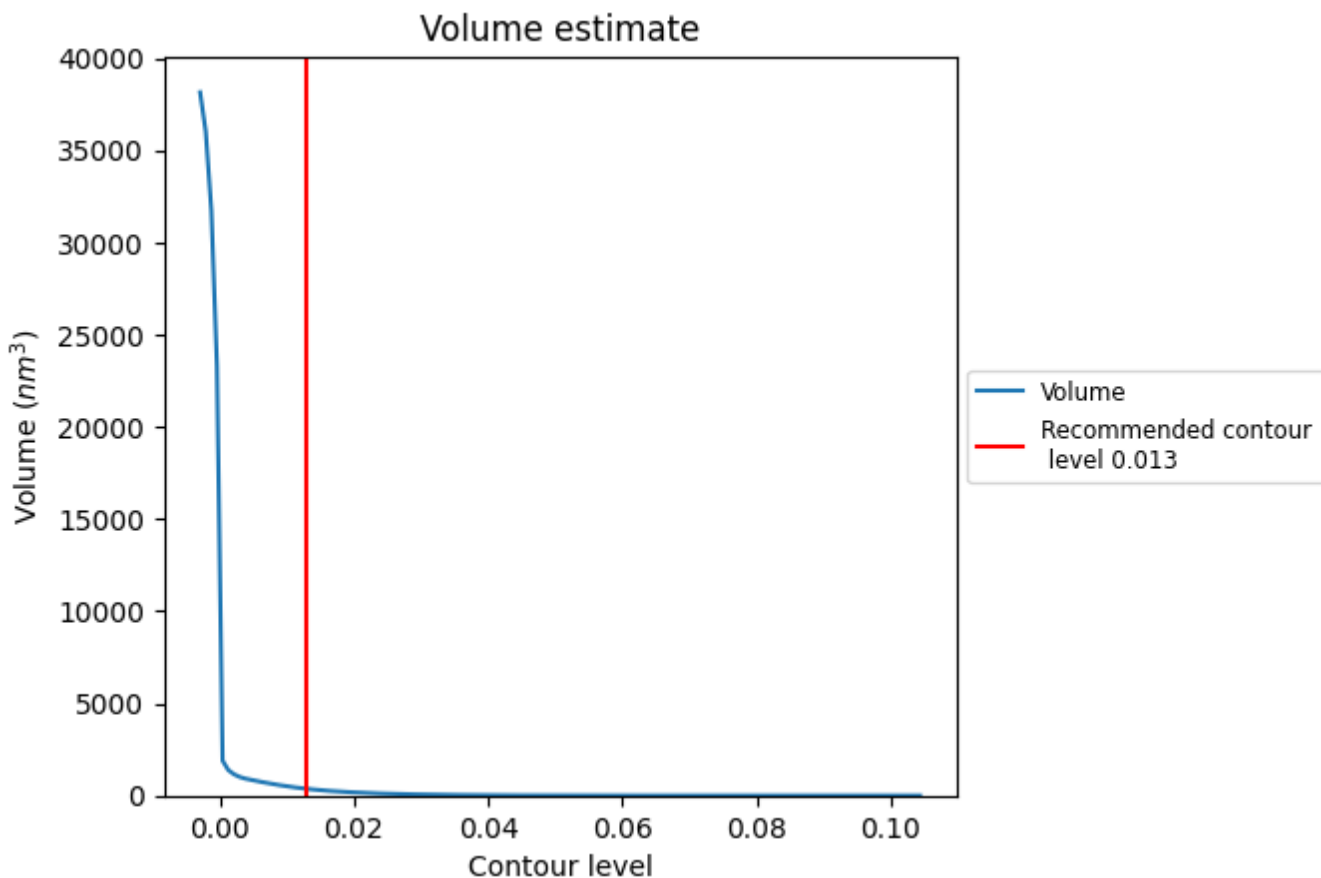
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

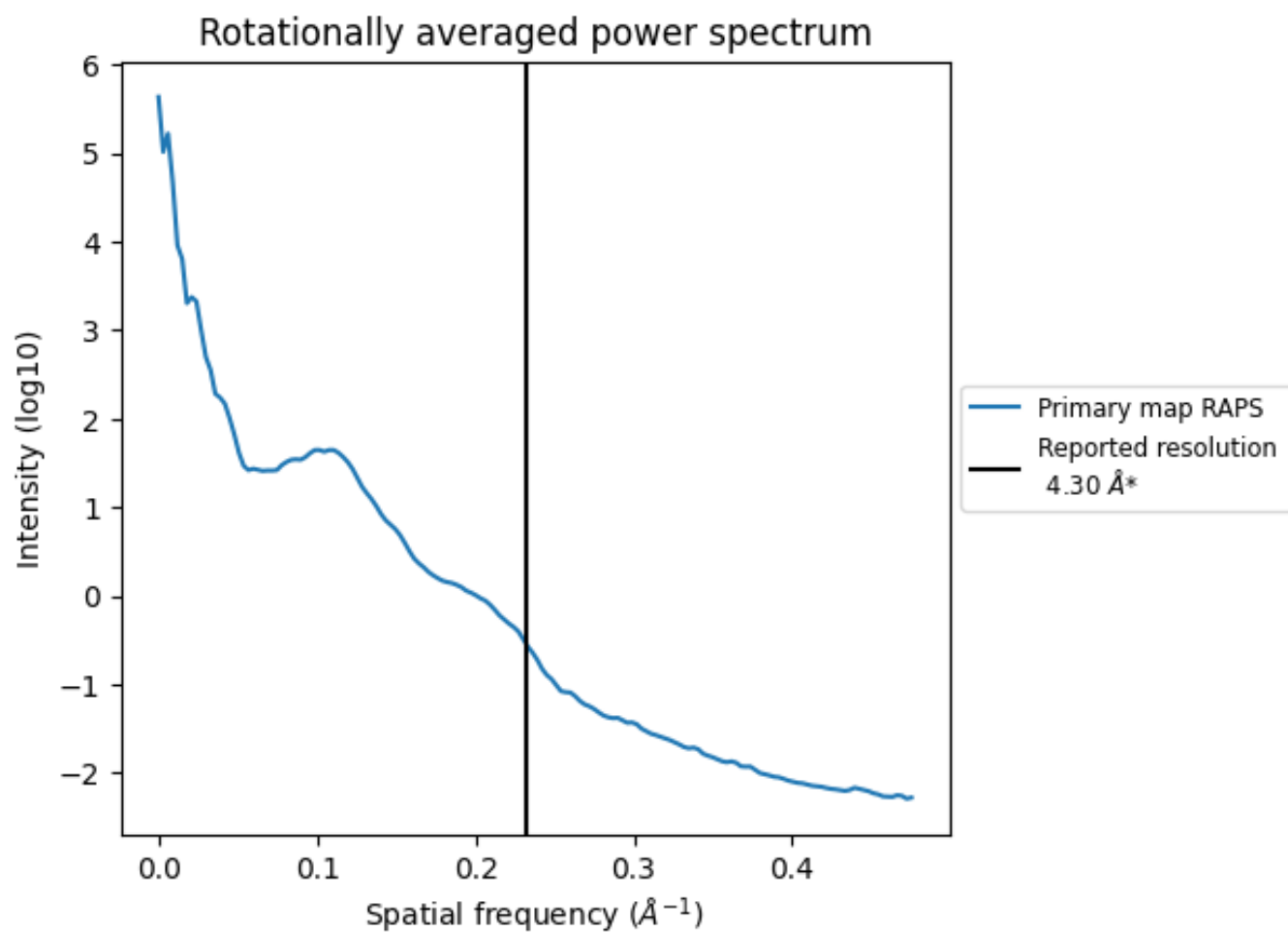
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 365 nm³; this corresponds to an approximate mass of 330 kDa.

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

7.3 Rotationally averaged power spectrum [i](#)



*Reported resolution corresponds to spatial frequency of 0.233 Å⁻¹

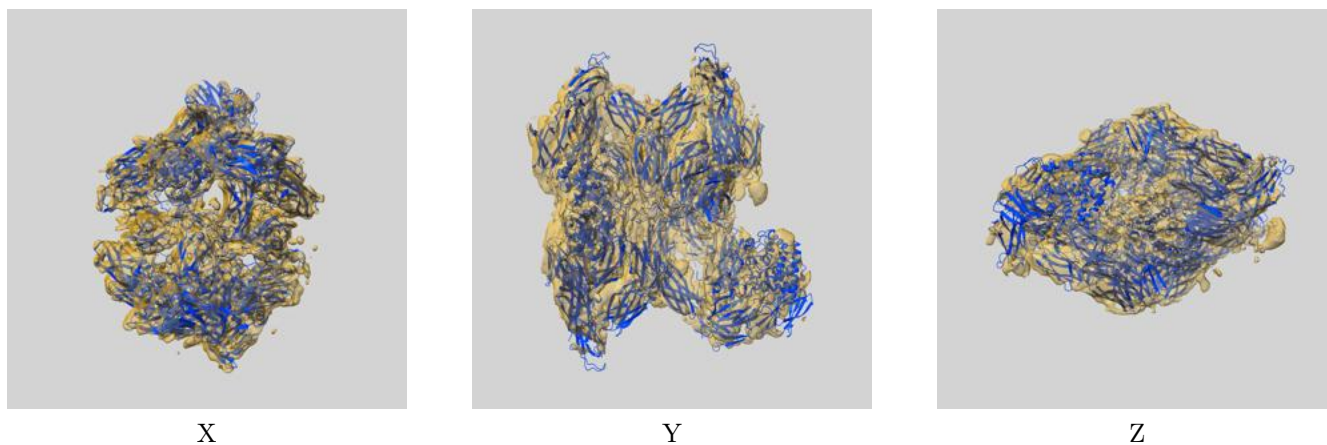
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

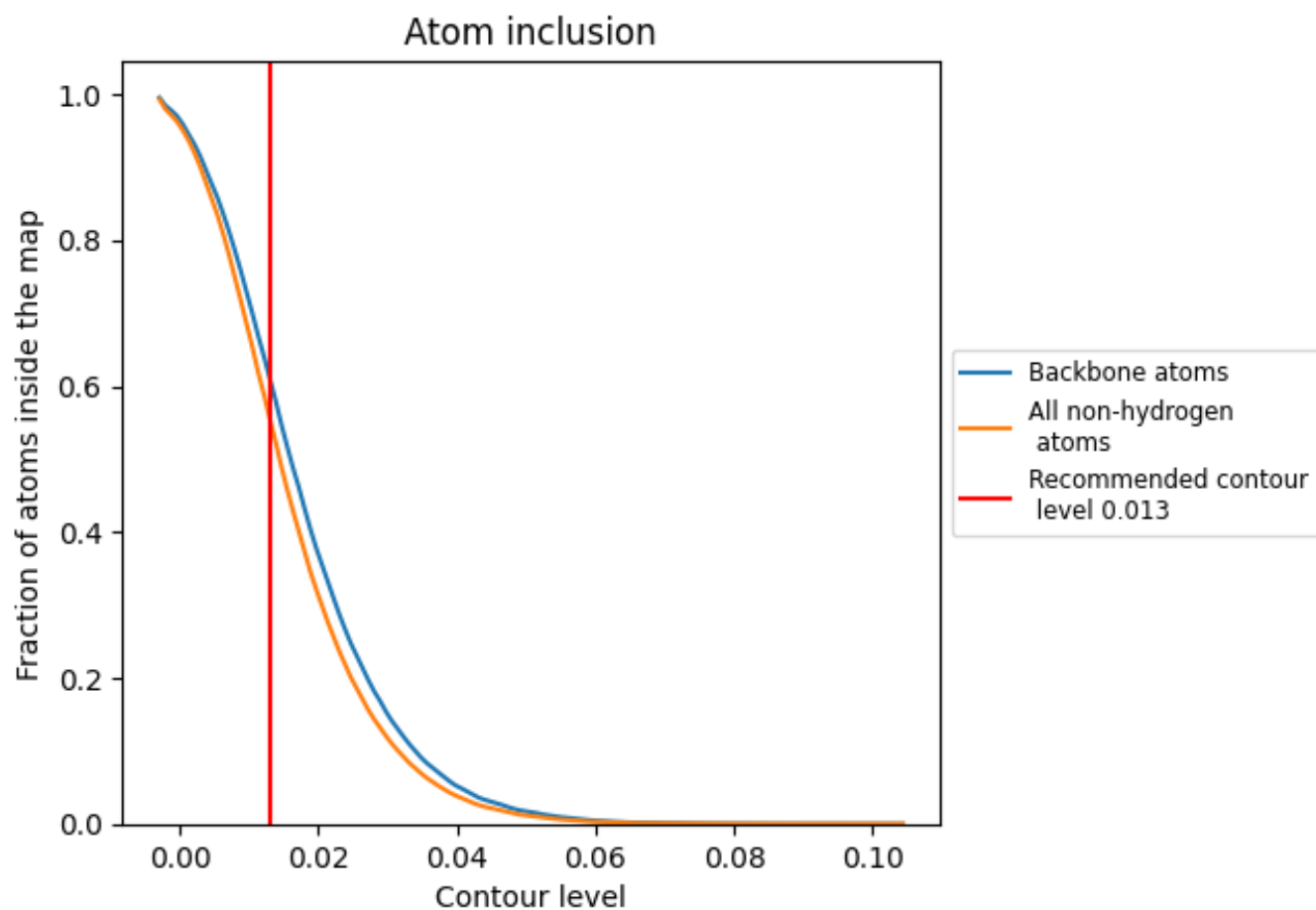
This section contains information regarding the fit between EMDB map EMD-12755 and PDB model 7O7S. Per-residue inclusion information can be found in section 3 on page 7.

9.1 Map-model overlay [i](#)



The images above show the 3D surface view of the map at the recommended contour level 0.013 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 Atom inclusion [i](#)



At the recommended contour level, 61% of all backbone atoms, 55% of all non-hydrogen atoms, are inside the map.