Full wwPDB X-ray Structure Validation Report (i)

Nov 16, 2023 – 07:21 AM JST

PDB ID	:	6L6R
Title	:	Crystal structure of LRP6 E1E2-SOST complex
Authors	:	Choi, H.-J.; Kim, J.
Deposited on	:	2019-10-29
Resolution	:	3.80 Å(reported)

This is a Full wwPDB X-ray Structure 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/XrayValidationReportHelp
with specific help available everywhere you see the (i) symbol.

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

The following versions of software and data (see references (1)) were used in the production of this report:

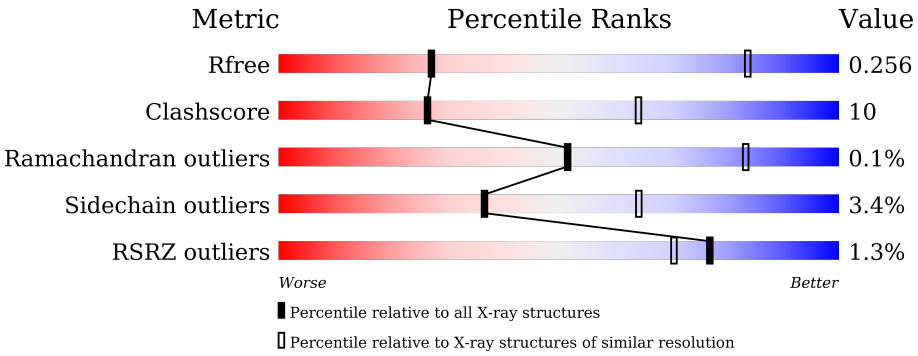
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.80 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	1212 (4.00-3.60)
Clashscore	141614	1288 (4.00-3.60)
Ramachandran outliers	138981	1243 (4.00-3.60)
Sidechain outliers	138945	1237 (4.00-3.60)
RSRZ outliers	127900	1121 (4.00-3.60)

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

Mol	Chain	Length	Quality of chain
1	A	622	% 73% 23%
1	B	622	70% 27%
2	C	158	3% 42% 15% 41%
2	D	158	3% 40% 16% 42%
3	E	2	50% 50%
3	G	2	50% 50%

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Mol	Chain	Length	Quality of chain
4	F	3	67% 33%
4	H	3	67% 33%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
4	FUC	F	2	-	-	-	X
6	MG	A	1008	-	-	-	X
6	MG	B	1008	-	-	-	X

2 Entry composition (i)

There are 7 unique types of molecules in this entry. The entry contains 11314 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 Low-density lipoprotein receptor-related protein 6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	610	Total	C	N	O	S	0	0	0
			4851	3074	829	924	24			
1	B	610	Total	C	N	O	S	0	0	0
			4856	3077	831	924	24			

There are 24 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	19	ALA	-	expression tag	UNP O75581
A	20	ASP	-	expression tag	UNP O75581
A	631	HIS	-	expression tag	UNP O75581
A	632	HIS	-	expression tag	UNP O75581
A	633	HIS	-	expression tag	UNP O75581
A	634	HIS	-	expression tag	UNP O75581
A	635	HIS	-	expression tag	UNP O75581
A	636	HIS	-	expression tag	UNP O75581
A	637	HIS	-	expression tag	UNP O75581
A	638	HIS	-	expression tag	UNP O75581
A	639	HIS	-	expression tag	UNP O75581
A	640	HIS	-	expression tag	UNP O75581
B	19	ALA	-	expression tag	UNP O75581
B	20	ASP	-	expression tag	UNP O75581
B	631	HIS	-	expression tag	UNP O75581
B	632	HIS	-	expression tag	UNP O75581
B	633	HIS	-	expression tag	UNP O75581
B	634	HIS	-	expression tag	UNP O75581
B	635	HIS	-	expression tag	UNP O75581
B	636	HIS	-	expression tag	UNP O75581
B	637	HIS	-	expression tag	UNP O75581
B	638	HIS	-	expression tag	UNP O75581
B	639	HIS	-	expression tag	UNP O75581
B	640	HIS	-	expression tag	UNP O75581

- Molecule 2 is a protein called Sclerostin.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	C	93	Total	C	N	O	S	0	0	0
			729	449	149	123	8			
2	D	91	Total	C	N	O	S	0	0	0
			718	442	147	121	8			

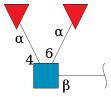
There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
C	20	GLY	-	expression tag	UNP Q9BQB4
C	21	PRO	-	expression tag	UNP Q9BQB4
C	22	SER	-	expression tag	UNP Q9BQB4
C	23	ARG	-	expression tag	UNP Q9BQB4
D	20	GLY	-	expression tag	UNP Q9BQB4
D	21	PRO	-	expression tag	UNP Q9BQB4
D	22	SER	-	expression tag	UNP Q9BQB4
D	23	ARG	-	expression tag	UNP Q9BQB4

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

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

- Molecule 4 is an oligosaccharide called alpha-L-fucopyranose-(1-4)-[alpha-L-fucopyranose-(1-6)]2-acetamido-2-deoxy-beta-D-glucopyranose.



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
4	F	3	Total	C	N	O	0	0	0
			34	20	1	13			

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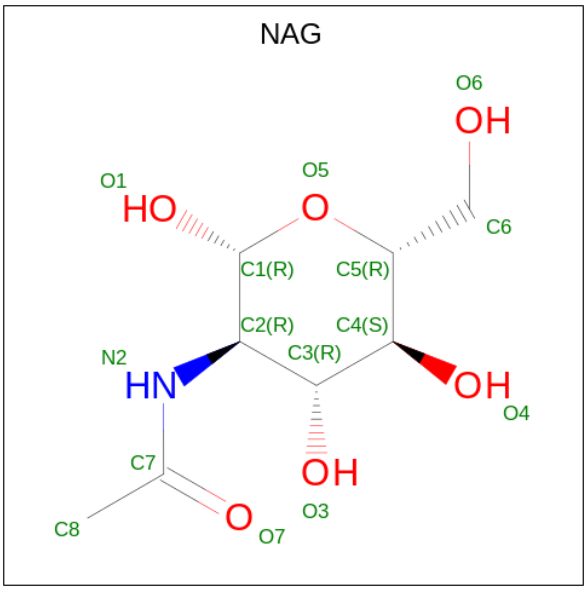
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
4	H	3	Total C N O 34 20 1 13	0	0	0

- Molecule 5 is 2-acetamido-2-deoxy-beta-D-glucopyranose (three-letter code: NAG) (formula: $C_8H_{15}NO_6$).

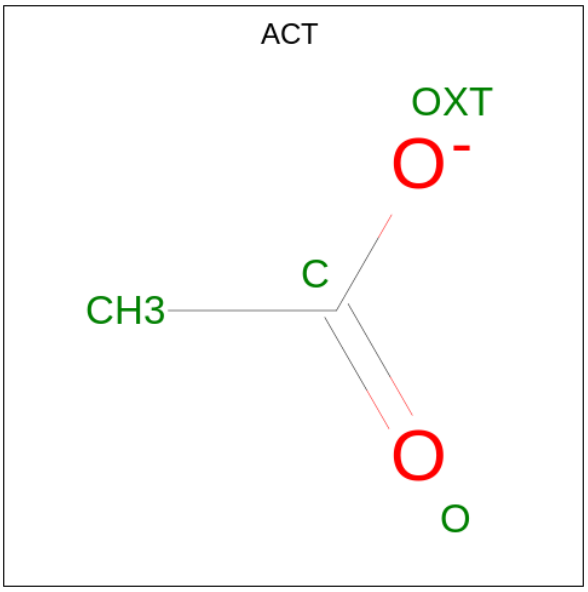


Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
5	A	1	Total C N O 14 8 1 5	0	0
5	B	1	Total C N O 14 8 1 5	0	0

- Molecule 6 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	A	2	Total Mg 2 2	0	0
6	B	2	Total Mg 2 2	0	0

- Molecule 7 is ACETATE ION (three-letter code: ACT) (formula: $C_2H_3O_2$).



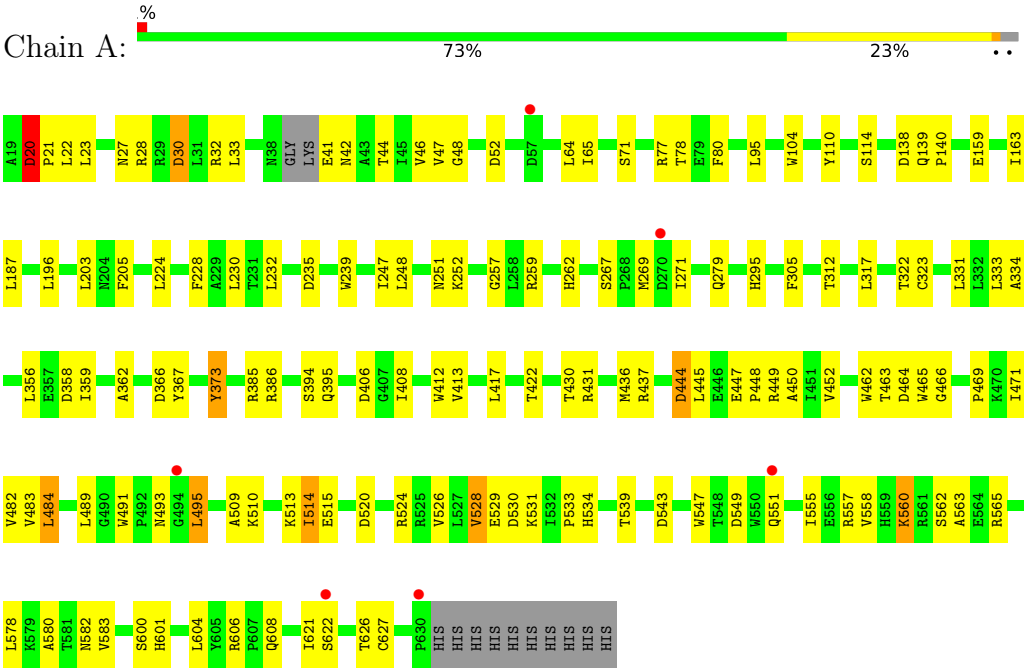
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
7	A	1	Total	C	O	0	0
			4	2	2		

3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron 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 dot above a residue indicates a poor fit to the electron density (RSRZ > 2). 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.

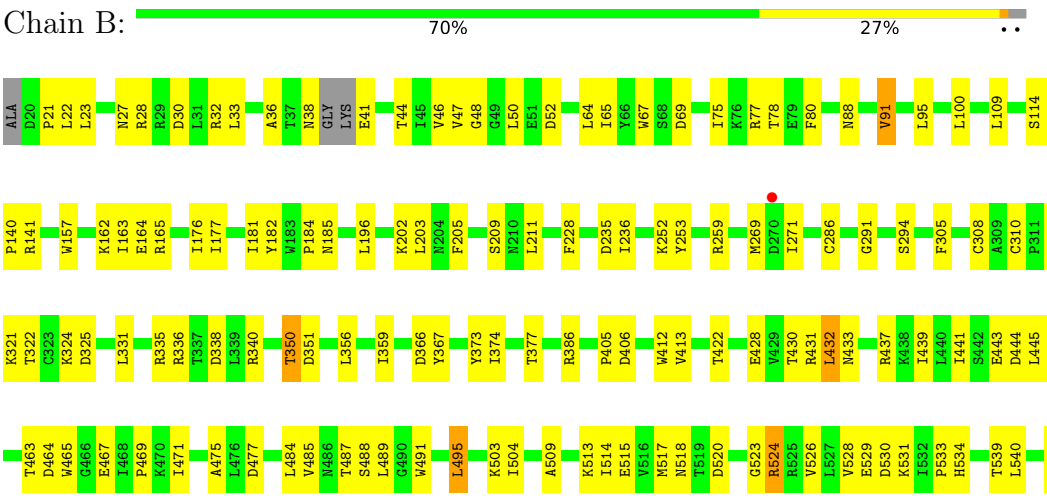
• Molecule 1: Low-density lipoprotein receptor-related protein 6

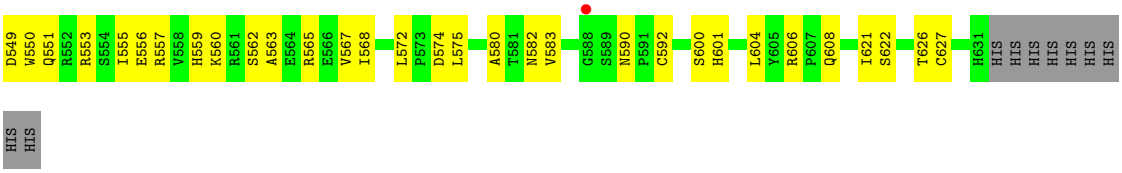
Chain A:



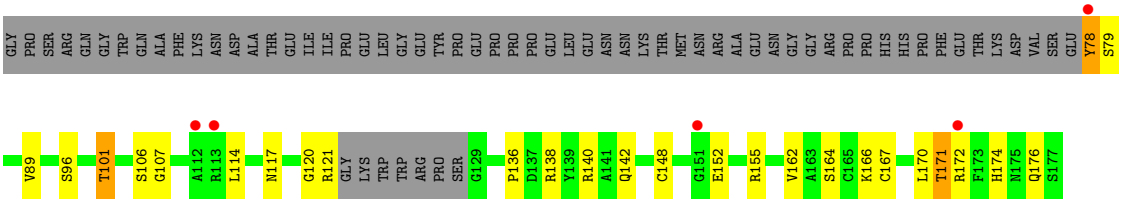
• Molecule 1: Low-density lipoprotein receptor-related protein 6

Chain B:

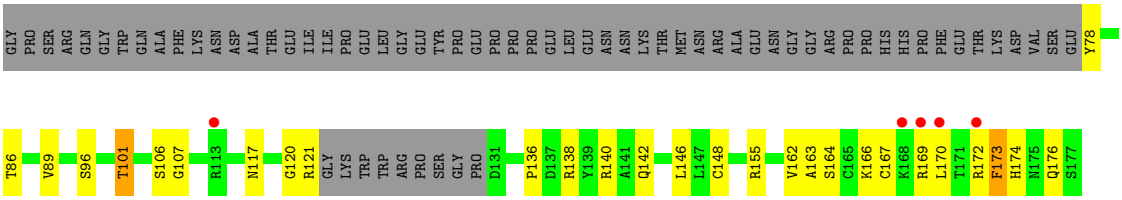




• Molecule 2: Sclerostin



• Molecule 2: Sclerostin



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

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

• Molecule 4: alpha-L-fucopyranose-(1-4)-[alpha-L-fucopyranose-(1-6)]2-acetamido-2-deoxy-beta-D-glucopyranose

• Molecule 4: alpha-L-fucopyranose-(1-4)-[alpha-L-fucopyranose-(1-6)]2-acetamido-2-deoxy-beta-D-glucopyranose

Chain H:

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 64	Depositor
Cell constants a, b, c, α, β, γ	252.79Å 252.79Å 86.29Å 90.00° 90.00° 120.00°	Depositor
Resolution (Å)	29.86 – 3.80 29.86 – 3.80	Depositor EDS
% Data completeness (in resolution range)	99.8 (29.86-3.80) 99.9 (29.86-3.80)	Depositor EDS
R_{merge}	0.20	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.99 (at 3.75Å)	Xtriage
Refinement program	PHENIX v1.16	Depositor
R, R_{free}	0.207 , 0.256 0.207 , 0.256	Depositor DCC
R_{free} test set	2467 reflections (7.89%)	wwPDB-VP
Wilson B-factor (Å^2)	86.3	Xtriage
Anisotropy	0.578	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.30 , 49.9	EDS
L-test for twinning[2]	$< \|L\| > = 0.47$, $< L^2 > = 0.30$	Xtriage
Estimated twinning fraction	0.039 for h,-h-k,-l	Xtriage
F_o,F_c correlation	0.91	EDS
Total number of atoms	11314	wwPDB-VP
Average B, all atoms (Å^2)	100.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.49% of the height of the origin peak. No significant pseudotranslation is detected.*

[1]Intensities estimated from amplitudes.

[2]Theoretical values of $< |L| >$, $< L^2 >$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: NAG, FUC, ACT, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
1	A	0.26	0/4966	0.49	0/6758
1	B	0.25	0/4972	0.49	0/6766
2	C	0.26	0/743	0.49	0/999
2	D	0.27	0/731	0.49	0/982
All	All	0.26	0/11412	0.49	0/15505

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	4851	0	4700	96	0
1	B	4856	0	4702	111	0
2	C	729	0	735	17	0
2	D	718	0	725	22	0
3	E	28	0	25	0	0
3	G	28	0	25	1	0
4	F	34	0	31	0	0
4	H	34	0	31	0	0
5	A	14	0	13	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	B	14	0	13	0	0
6	A	2	0	0	0	0
6	B	2	0	0	0	0
7	A	4	0	3	0	0
All	All	11314	0	11003	229	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 10.

All (229) 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:A:444:ASP:HB3	1:A:481:ARG:HH12	1.46	0.80
1:A:333:LEU:HD21	1:A:335:ARG:HG3	1.65	0.79
1:B:95:LEU:O	2:D:121:ARG:NH2	2.18	0.76
1:A:95:LEU:O	2:C:121:ARG:NH2	2.19	0.76
1:B:463:THR:HG22	1:B:471:ILE:HG12	1.69	0.73
1:B:162:LYS:NZ	1:B:164:GLU:OE2	2.20	0.73
1:B:235:ASP:HA	1:B:252:LYS:HE2	1.71	0.72
1:A:406:ASP:OD2	2:C:176:GLN:NE2	2.23	0.72
1:B:572:LEU:HD23	1:B:575:LEU:HD21	1.72	0.71
2:C:101:THR:O	2:C:140:ARG:NH2	2.22	0.71
1:B:485:VAL:HG23	1:B:489:LEU:HD11	1.71	0.70
2:D:101:THR:O	2:D:140:ARG:NH2	2.26	0.68
1:B:356:LEU:HB3	1:B:359:ILE:HD11	1.76	0.67
1:A:463:THR:HG22	1:A:471:ILE:HG12	1.76	0.67
1:A:386:ARG:NH2	1:A:395:GLN:OE1	2.28	0.67
2:C:166:LYS:HG2	2:C:167:CYS:H	1.60	0.66
1:B:543:ASP:HA	1:B:560:LYS:HD2	1.77	0.66
1:B:406:ASP:OD2	2:D:176:GLN:NE2	2.24	0.65
2:D:140:ARG:NH1	2:D:142:GLN:OE1	2.31	0.64
1:A:46:VAL:HG12	1:A:47:VAL:HG23	1.77	0.64
2:D:166:LYS:HG2	2:D:167:CYS:H	1.62	0.64
1:B:38:ASN:O	1:B:41:GLU:N	2.31	0.63
1:A:235:ASP:HA	1:A:252:LYS:HE2	1.79	0.63
1:A:551:GLN:HA	2:C:171:THR:HG21	1.78	0.63
2:C:140:ARG:NH1	2:C:142:GLN:OE1	2.29	0.62
1:B:22:LEU:HB3	1:B:33:LEU:HD21	1.81	0.62
2:D:138:ARG:HG3	2:D:163:ALA:HB3	1.82	0.62
1:B:463:THR:HG23	1:B:495:LEU:HD12	1.82	0.61
1:A:562:SER:OG	1:A:563:ALA:N	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:447:GLU:HG2	1:B:465:TRP:CE3	2.36	0.61
1:B:562:SER:OG	1:B:563:ALA:N	2.34	0.61
1:B:64:LEU:HD13	1:B:77:ARG:HD2	1.83	0.60
1:B:448:PRO:HA	1:B:464:ASP:HA	1.84	0.60
1:B:46:VAL:HG12	1:B:47:VAL:HG23	1.81	0.60
1:A:513:LYS:HD3	1:A:529:GLU:HG3	1.82	0.60
1:B:447:GLU:HB3	1:B:465:TRP:HB2	1.83	0.59
1:A:331:LEU:HD13	1:A:580:ALA:HB2	1.85	0.59
1:A:449:ARG:HH12	2:C:174:HIS:HE1	1.51	0.59
1:B:28:ARG:NH1	1:B:52:ASP:OD1	2.37	0.58
1:B:547:TRP:CZ2	1:B:556:GLU:HB2	2.39	0.58
1:A:30:ASP:HB3	1:A:48:GLY:HA2	1.85	0.57
1:A:472:GLU:HG2	1:A:483:VAL:HG22	1.85	0.57
1:A:356:LEU:HD11	1:A:394:SER:HB2	1.87	0.57
1:A:601:HIS:CE1	1:A:627:CYS:HB2	2.40	0.57
1:B:157:TRP:HB3	1:B:184:PRO:HD2	1.87	0.57
1:A:568:ILE:O	1:A:569:ILE:HG13	2.04	0.57
1:A:463:THR:HG23	1:A:495:LEU:HD12	1.88	0.56
1:B:366:ASP:OD1	1:B:367:TYR:N	2.36	0.56
1:B:559:HIS:HB3	1:B:562:SER:HB3	1.87	0.56
1:A:449:ARG:HD2	1:A:465:TRP:HE1	1.71	0.56
1:A:606:ARG:NH1	1:A:608:GLN:OE1	2.39	0.55
1:B:488:SER:OG	1:B:524:ARG:NH2	2.39	0.55
1:B:539:THR:HG21	1:B:580:ALA:H	1.71	0.55
1:A:305:PHE:HZ	1:B:305:PHE:HZ	1.54	0.55
1:A:373:TYR:CD2	1:A:386:ARG:HD2	2.42	0.55
1:B:513:LYS:HD3	1:B:529:GLU:HG3	1.88	0.54
1:B:28:ARG:HH22	2:D:120:GLY:H	1.56	0.54
1:B:331:LEU:HD13	1:B:580:ALA:HB2	1.90	0.54
1:A:52:ASP:OD2	1:A:71:SER:OG	2.21	0.54
2:C:152:GLU:OE2	2:C:155:ARG:NE	2.39	0.54
2:C:89:VAL:HG12	2:C:96:SER:HB3	1.89	0.53
1:A:621:ILE:HG22	1:A:622:SER:H	1.73	0.53
1:A:305:PHE:HZ	1:B:305:PHE:CZ	2.26	0.53
1:B:534:HIS:CE1	2:D:174:HIS:HB2	2.44	0.53
1:A:412:TRP:CD1	1:A:413:VAL:HG23	2.44	0.53
1:B:252:LYS:HE3	1:B:253:TYR:CE1	2.44	0.53
1:B:446:GLU:HG2	1:B:467:GLU:HB2	1.91	0.53
1:A:114:SER:O	1:A:139:GLN:NE2	2.42	0.52
1:B:530:ASP:OD1	1:B:565:ARG:NH1	2.41	0.52
2:D:117:ASN:O	2:D:117:ASN:ND2	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:412:TRP:CD1	1:B:413:VAL:HG23	2.43	0.52
1:A:138:ASP:OD2	1:A:159:GLU:N	2.39	0.52
1:A:530:ASP:OD1	1:A:531:LYS:N	2.41	0.52
1:A:47:VAL:HG21	1:A:78:THR:HG21	1.91	0.52
2:C:117:ASN:ND2	2:C:117:ASN:O	2.43	0.52
1:A:358:ASP:O	1:A:385:ARG:NH1	2.42	0.52
1:A:515:GLU:HB3	1:A:526:VAL:HA	1.92	0.51
2:C:78:TYR:HD2	2:C:79:SER:H	1.58	0.51
1:A:317:LEU:HB2	1:A:322:THR:O	2.10	0.51
1:A:449:ARG:HG3	1:A:450:ALA:H	1.75	0.51
1:B:47:VAL:HG21	1:B:78:THR:HG21	1.92	0.51
1:B:555:ILE:HG22	1:B:568:ILE:HD11	1.92	0.51
2:D:138:ARG:NH1	2:D:164:SER:OG	2.43	0.51
1:A:334:ALA:O	1:A:576:MET:HB2	2.11	0.51
1:B:340:ARG:NH1	1:B:351:ASP:OD2	2.43	0.51
1:B:95:LEU:HD13	1:B:115:GLU:HG2	1.93	0.51
2:D:173:PHE:HD1	2:D:174:HIS:H	1.59	0.51
1:B:556:GLU:HG2	1:B:567:VAL:HG22	1.91	0.51
1:A:509:ALA:HB1	1:A:534:HIS:ND1	2.25	0.51
1:B:141:ARG:NH1	1:B:185:ASN:OD1	2.44	0.51
1:B:21:PRO:HG2	1:B:36:ALA:HB3	1.92	0.51
1:A:366:ASP:OD1	1:A:367:TYR:N	2.35	0.50
1:A:555:ILE:HG22	1:A:568:ILE:HD11	1.94	0.50
1:A:203:LEU:HB3	1:A:205:PHE:CE2	2.47	0.49
1:B:530:ASP:OD1	1:B:531:LYS:N	2.44	0.49
1:B:163:ILE:HB	1:B:177:ILE:HB	1.93	0.49
1:A:514:ILE:HG23	1:A:528:VAL:HG23	1.95	0.49
1:A:539:THR:HG21	1:A:580:ALA:H	1.77	0.49
2:D:89:VAL:HG12	2:D:96:SER:HB3	1.94	0.49
1:A:235:ASP:O	1:A:251:ASN:ND2	2.46	0.49
1:A:305:PHE:CZ	1:B:305:PHE:HZ	2.31	0.49
1:B:477:ASP:HA	1:B:604:LEU:HD13	1.95	0.48
1:A:65:ILE:HG13	1:A:80:PHE:HD2	1.78	0.48
1:B:236:ILE:HD12	1:B:259:ARG:HH12	1.79	0.48
1:B:294:SER:HB3	1:B:322:THR:HA	1.96	0.48
1:B:550:TRP:O	1:B:551:GLN:HB3	2.13	0.48
1:A:452:VAL:HG23	1:A:495:LEU:HB3	1.96	0.48
1:B:600:SER:HB3	1:B:626:THR:HA	1.96	0.48
1:B:374:ILE:O	1:B:386:ARG:HA	2.13	0.48
1:B:203:LEU:HB3	1:B:205:PHE:CE2	2.49	0.48
1:A:445:LEU:HD11	1:A:462:TRP:HE1	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:533:PRO:HD2	1:B:549:ASP:OD2	2.14	0.47
1:B:582:ASN:OD1	1:B:583:VAL:N	2.47	0.47
2:D:138:ARG:HG2	2:D:164:SER:HB2	1.95	0.47
1:A:114:SER:HA	1:A:140:PRO:HD2	1.96	0.47
1:B:445:LEU:HD12	1:B:445:LEU:HA	1.74	0.47
1:A:356:LEU:HB3	1:A:359:ILE:HD11	1.96	0.47
1:A:448:PRO:HA	1:A:464:ASP:HA	1.95	0.47
1:B:165:ARG:NH1	1:B:211:LEU:O	2.48	0.47
1:A:232:LEU:HD11	1:A:252:LYS:HD3	1.97	0.47
1:B:509:ALA:HB1	1:B:534:HIS:ND1	2.30	0.47
1:B:430:THR:HG22	1:B:437:ARG:HG3	1.97	0.46
1:B:621:ILE:HG22	1:B:622:SER:H	1.81	0.46
1:A:27:ASN:HD22	1:A:32:ARG:HE	1.63	0.46
1:A:543:ASP:HA	1:A:560:LYS:HB2	1.97	0.46
1:A:547:TRP:HZ3	1:A:549:ASP:HB2	1.81	0.46
1:B:513:LYS:HD2	1:B:526:VAL:HG11	1.97	0.46
2:D:78:TYR:HB2	2:D:107:GLY:HA2	1.98	0.46
1:B:182:TYR:CD2	1:B:202:LYS:HG2	2.51	0.46
1:B:540:LEU:HD11	1:B:560:LYS:HE2	1.96	0.46
1:B:469:PRO:HB2	1:B:489:LEU:HB3	1.97	0.46
1:B:515:GLU:OE2	1:B:524:ARG:NE	2.35	0.46
1:A:224:LEU:HD23	1:A:224:LEU:HA	1.87	0.45
1:A:331:LEU:HD11	1:A:578:LEU:HD13	1.98	0.45
1:B:317:LEU:HB2	1:B:322:THR:O	2.16	0.45
1:A:22:LEU:HB3	1:A:33:LEU:HD22	1.97	0.45
1:A:547:TRP:CZ3	1:A:549:ASP:HB2	2.51	0.45
1:A:582:ASN:OD1	1:A:583:VAL:N	2.49	0.45
1:A:20:ASP:HB3	1:A:21:PRO:HD2	1.98	0.45
1:B:286:CYS:O	1:B:291:GLY:N	2.47	0.45
1:B:50:LEU:HD21	1:B:67:TRP:CZ2	2.52	0.45
1:B:491:TRP:CZ3	2:D:174:HIS:HB3	2.51	0.45
1:A:449:ARG:NH1	2:C:174:HIS:HE1	2.15	0.45
1:B:431:ARG:NH1	1:B:601:HIS:O	2.47	0.45
1:B:100:LEU:HD11	1:B:109:LEU:HD11	1.98	0.45
1:A:600:SER:HB3	1:A:626:THR:HA	1.98	0.44
2:C:78:TYR:HB3	2:C:107:GLY:HA2	1.98	0.44
1:B:422:THR:OG1	1:B:447:GLU:HA	2.17	0.44
1:B:335:ARG:NE	1:B:338:ASP:OD1	2.46	0.44
1:B:377:THR:HB	1:B:405:PRO:HB2	1.99	0.44
1:B:487:THR:OG1	1:B:524:ARG:NH1	2.51	0.44
1:B:606:ARG:NH1	1:B:608:GLN:OE1	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:444:ASP:HB3	1:A:481:ARG:NH1	2.23	0.44
1:B:621:ILE:HG12	1:B:626:THR:O	2.17	0.44
2:D:146:LEU:N	2:D:155:ARG:O	2.49	0.44
1:B:324:LYS:HG3	1:B:325:ASP:N	2.33	0.44
1:B:503:LYS:HE2	1:B:518:ASN:HD22	1.83	0.44
1:A:27:ASN:O	1:A:28:ARG:HB2	2.17	0.43
1:A:104:TRP:CD1	1:A:279:GLN:HB3	2.53	0.43
1:A:430:THR:HG22	1:A:437:ARG:HA	2.00	0.43
1:B:52:ASP:O	1:B:69:ASP:HA	2.18	0.43
1:B:308:CYS:SG	1:B:321:LYS:HA	2.58	0.43
1:B:430:THR:HG22	1:B:437:ARG:HA	1.99	0.43
1:A:187:LEU:HD11	1:A:196:LEU:HD11	2.01	0.43
1:A:230:LEU:HD13	1:A:239:TRP:HB3	2.01	0.43
1:A:431:ARG:NH1	1:A:436:MET:SD	2.91	0.43
1:B:181:ILE:HD11	1:B:184:PRO:HG3	2.00	0.43
1:A:228:PHE:HD2	1:A:269:MET:O	2.01	0.43
1:A:257:GLY:O	1:A:259:ARG:HG3	2.18	0.43
1:B:449:ARG:HH21	2:D:176:GLN:NE2	2.16	0.43
2:C:136:PRO:HB3	2:C:162:VAL:HG13	1.99	0.43
1:A:110:TYR:OH	1:A:168:MET:HB3	2.18	0.43
1:B:65:ILE:HG13	1:B:80:PHE:HD2	1.83	0.43
1:B:351:ASP:OD1	1:B:351:ASP:N	2.44	0.43
1:B:114:SER:HA	1:B:140:PRO:HD2	2.01	0.43
1:A:28:ARG:HD2	1:A:267:SER:HB3	2.01	0.43
1:A:408:ILE:HD11	1:A:417:LEU:HD11	2.00	0.42
1:A:449:ARG:NH1	2:C:174:HIS:CE1	2.87	0.42
1:B:130:LYS:HD2	1:B:310:CYS:O	2.18	0.42
1:A:295:HIS:CE1	1:A:323:CYS:HB2	2.55	0.42
1:A:422:THR:OG1	1:A:447:GLU:HA	2.19	0.42
1:A:558:VAL:HG22	1:A:565:ARG:HG2	2.00	0.42
1:B:475:ALA:HB1	1:B:606:ARG:HB3	2.00	0.42
2:C:138:ARG:HG2	2:C:164:SER:HB2	2.00	0.42
1:A:42:ASN:OD1	1:A:42:ASN:N	2.52	0.42
1:A:335:ARG:HB2	1:A:338:ASP:OD1	2.20	0.42
1:A:450:ALA:HB2	1:A:493:ASN:O	2.20	0.42
1:A:471:ILE:O	1:A:484:LEU:HB2	2.20	0.42
1:B:428:GLU:HG2	1:B:439:ILE:HG23	2.01	0.42
2:D:86:THR:HG22	2:D:101:THR:HG22	2.01	0.42
1:B:449:ARG:HH21	2:D:176:GLN:HE21	1.67	0.42
1:B:441:ILE:HG21	1:B:445:LEU:HD22	2.00	0.42
1:B:575:LEU:HD23	1:B:575:LEU:HA	1.89	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:312:THR:HG21	1:B:350:THR:OG1	2.19	0.42
1:B:336:ARG:HB2	1:B:574:ASP:HB3	2.02	0.42
2:C:114:LEU:HD11	2:C:120:GLY:HA2	2.02	0.42
1:A:362:ALA:O	1:A:576:MET:HG3	2.20	0.41
1:B:228:PHE:HD2	1:B:269:MET:O	2.03	0.41
1:B:27:ASN:HD22	1:B:32:ARG:HE	1.67	0.41
1:B:196:LEU:N	1:B:209:SER:O	2.47	0.41
2:D:86:THR:HG22	2:D:101:THR:CG2	2.50	0.41
1:B:517:MET:HA	1:B:523:GLY:O	2.21	0.41
1:A:20:ASP:CB	1:A:21:PRO:HD2	2.51	0.41
1:A:163:ILE:HB	1:A:177:ILE:HB	2.02	0.41
1:A:247:ILE:HD13	1:A:271:ILE:HD12	2.01	0.41
1:A:23:LEU:HD13	1:A:271:ILE:HD11	2.02	0.41
1:A:64:LEU:HD13	1:A:77:ARG:HD2	2.03	0.41
1:A:312:THR:HG21	1:A:350:THR:HB	2.02	0.41
1:A:469:PRO:HB2	1:A:489:LEU:HB3	2.02	0.41
1:A:533:PRO:HD2	1:A:549:ASP:OD2	2.21	0.41
1:B:30:ASP:HB3	1:B:48:GLY:HA2	2.02	0.41
1:B:431:ARG:HG3	1:B:432:LEU:H	1.86	0.41
1:B:495:LEU:HD21	1:B:504:ILE:HD12	2.02	0.41
1:B:503:LYS:HE2	1:B:518:ASN:ND2	2.36	0.41
1:A:477:ASP:HA	1:A:604:LEU:HD13	2.03	0.41
1:A:41:GLU:OE2	1:A:262:HIS:ND1	2.54	0.41
1:B:443:GLU:HG2	1:B:444:ASP:H	1.85	0.41
1:A:95:LEU:HA	1:A:95:LEU:HD23	1.83	0.41
1:A:491:TRP:HB2	1:A:510:LYS:H	1.86	0.41
1:B:75:ILE:HB	1:B:91:VAL:HG23	2.03	0.41
1:B:23:LEU:HD13	1:B:271:ILE:HD11	2.03	0.40
1:B:601:HIS:CE1	1:B:627:CYS:HB2	2.56	0.40
1:B:163:ILE:O	1:B:176:ILE:HG12	2.21	0.40
1:B:534:HIS:HD2	1:B:550:TRP:HB2	1.85	0.40
1:B:553:ARG:HH12	2:D:169:ARG:CZ	2.35	0.40
1:A:466:GLY:O	1:A:469:PRO:HD3	2.21	0.40
2:D:136:PRO:HB3	2:D:162:VAL:HG13	2.02	0.40
1:B:433:ASN:OD1	3:G:1:NAG:H2	2.21	0.40
1:B:590:ASN:OD1	1:B:592:CYS:HB2	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	606/622 (97%)	525 (87%)	80 (13%)	1 (0%)	47 79
1	B	606/622 (97%)	530 (88%)	76 (12%)	0	100 100
2	C	89/158 (56%)	74 (83%)	15 (17%)	0	100 100
2	D	87/158 (55%)	72 (83%)	15 (17%)	0	100 100
All	All	1388/1560 (89%)	1201 (86%)	186 (13%)	1 (0%)	51 83

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	20	ASP

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 X-ray entries followed by that with respect to entries of similar resolution.

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	527/538 (98%)	512 (97%)	15 (3%)	43 68
1	B	528/538 (98%)	515 (98%)	13 (2%)	47 70
2	C	79/135 (58%)	72 (91%)	7 (9%)	9 38
2	D	78/135 (58%)	72 (92%)	6 (8%)	13 43
All	All	1212/1346 (90%)	1171 (97%)	41 (3%)	37 64

All (41) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	20	ASP
1	A	30	ASP
1	A	44	THR
1	A	248	LEU
1	A	373	TYR
1	A	444	ASP
1	A	482	VAL
1	A	484	LEU
1	A	495	LEU
1	A	514	ILE
1	A	520	ASP
1	A	524	ARG
1	A	528	VAL
1	A	557	ARG
1	A	560	LYS
1	B	44	THR
1	B	88	ASN
1	B	91	VAL
1	B	350	THR
1	B	373	TYR
1	B	432	LEU
1	B	484	LEU
1	B	495	LEU
1	B	514	ILE
1	B	520	ASP
1	B	524	ARG
1	B	528	VAL
1	B	557	ARG
2	C	78	TYR
2	C	101	THR
2	C	106	SER
2	C	148	CYS
2	C	170	LEU
2	C	171	THR
2	C	172	ARG
2	D	101	THR
2	D	106	SER
2	D	148	CYS
2	D	170	LEU
2	D	172	ARG
2	D	173	PHE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (1) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	534	HIS

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

10 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	$\#\|Z\| > 2$
3	NAG	E	1	3,1	14,14,15	0.97	1 (7%)	17,19,21	1.01	2 (11%)
3	NAG	E	2	3	14,14,15	0.27	0	17,19,21	0.51	0
4	NAG	F	1	1,4	14,14,15	0.22	0	17,19,21	0.57	0
4	FUC	F	2	4	10,10,11	1.14	1 (10%)	14,14,16	1.18	2 (14%)
4	FUC	F	3	4	10,10,11	1.01	0	14,14,16	0.81	0
3	NAG	G	1	3,1	14,14,15	1.08	1 (7%)	17,19,21	0.99	2 (11%)
3	NAG	G	2	3	14,14,15	0.38	0	17,19,21	0.47	0
4	NAG	H	1	1,4	14,14,15	0.37	0	17,19,21	0.42	0
4	FUC	H	2	4	10,10,11	0.91	0	14,14,16	1.14	2 (14%)
4	FUC	H	3	4	10,10,11	0.85	0	14,14,16	0.83	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
3	NAG	E	1	3,1	-	3/6/23/26	0/1/1/1
3	NAG	E	2	3	-	0/6/23/26	0/1/1/1
4	NAG	F	1	1,4	-	2/6/23/26	0/1/1/1
4	FUC	F	2	4	-	-	0/1/1/1
4	FUC	F	3	4	-	-	0/1/1/1
3	NAG	G	1	3,1	-	4/6/23/26	0/1/1/1
3	NAG	G	2	3	-	2/6/23/26	0/1/1/1
4	NAG	H	1	1,4	-	2/6/23/26	0/1/1/1
4	FUC	H	2	4	-	-	0/1/1/1
4	FUC	H	3	4	-	-	0/1/1/1

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	G	1	NAG	O5-C1	-3.84	1.37	1.43
3	E	1	NAG	O5-C1	-3.32	1.38	1.43
4	F	2	FUC	C1-C2	2.00	1.56	1.52

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	H	2	FUC	C1-O5-C5	2.53	118.52	112.78
3	E	1	NAG	C4-C3-C2	2.37	114.49	111.02
4	F	2	FUC	C1-O5-C5	2.35	118.10	112.78
3	E	1	NAG	C3-C4-C5	2.25	114.26	110.24
3	G	1	NAG	C3-C4-C5	2.18	114.12	110.24
3	G	1	NAG	C4-C3-C2	2.17	114.20	111.02
4	H	2	FUC	O5-C5-C4	2.17	113.41	109.52
4	F	2	FUC	O5-C5-C4	2.13	113.35	109.52

There are no chirality outliers.

All (13) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
3	G	2	NAG	C4-C5-C6-O6
4	H	1	NAG	O5-C5-C6-O6
3	E	1	NAG	O5-C5-C6-O6
3	G	1	NAG	O5-C5-C6-O6
3	G	2	NAG	O5-C5-C6-O6
4	H	1	NAG	C4-C5-C6-O6
3	E	1	NAG	C4-C5-C6-O6

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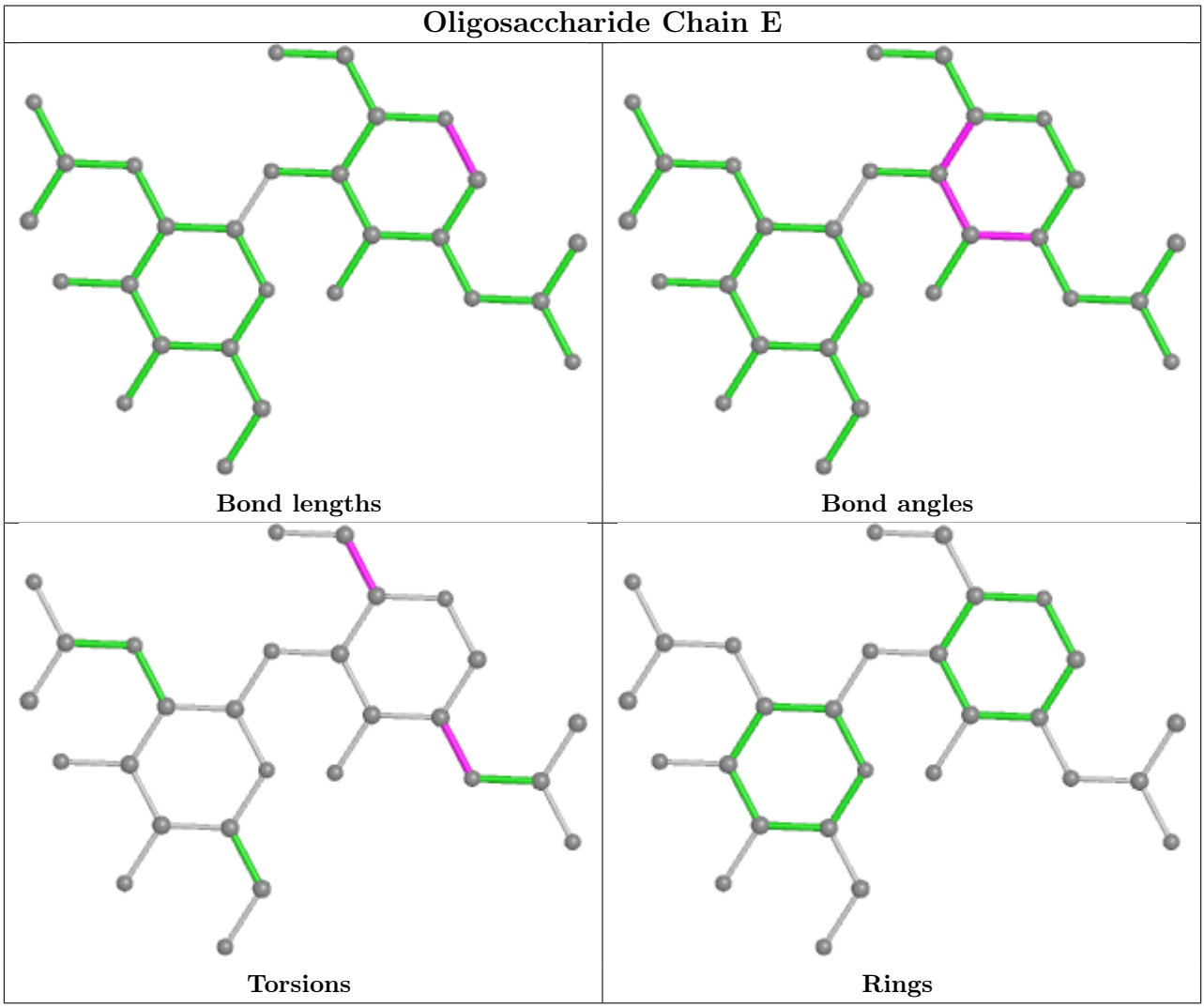
Mol	Chain	Res	Type	Atoms
3	G	1	NAG	C4-C5-C6-O6
4	F	1	NAG	C4-C5-C6-O6
3	E	1	NAG	C3-C2-N2-C7
4	F	1	NAG	O5-C5-C6-O6
3	G	1	NAG	C1-C2-N2-C7
3	G	1	NAG	C3-C2-N2-C7

There are no ring outliers.

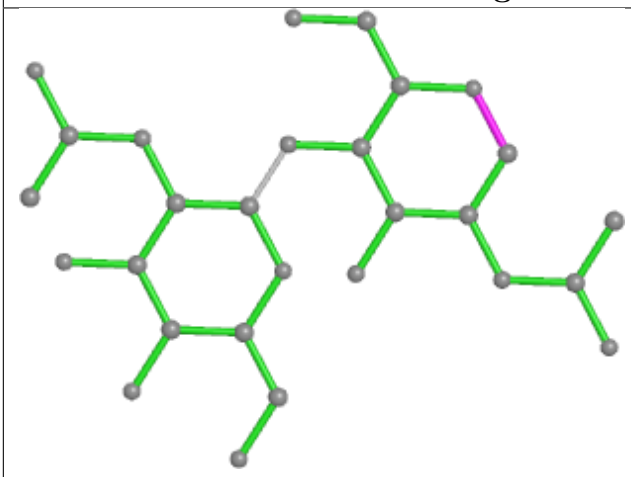
1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	G	1	NAG	1	0

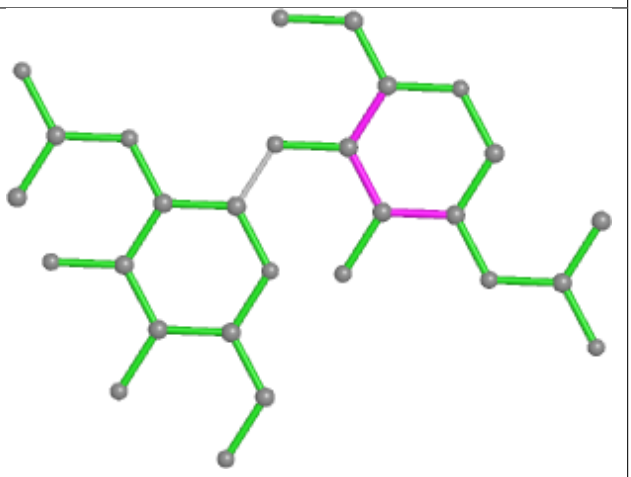
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for oligosaccharide.



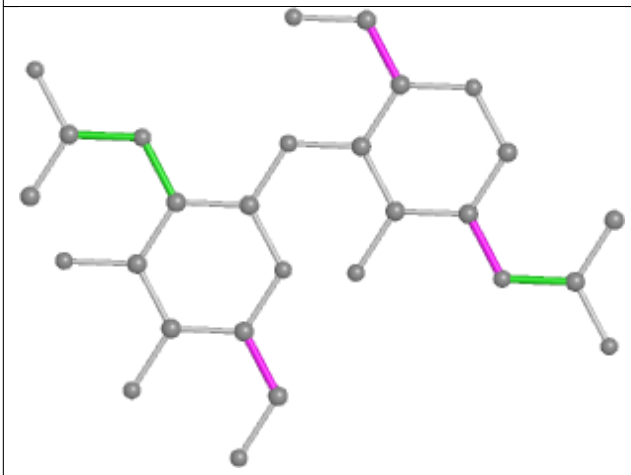
Oligosaccharide Chain G



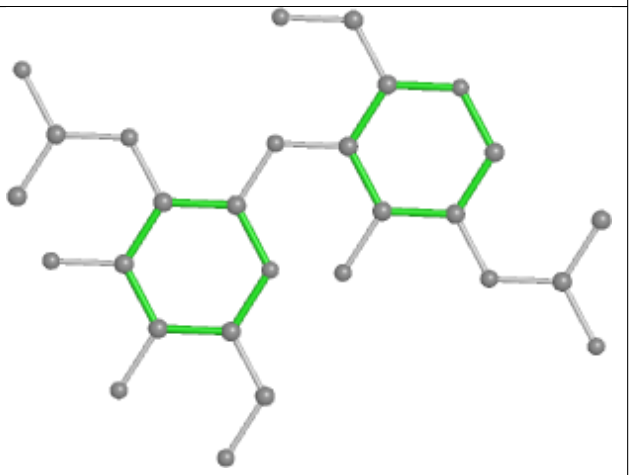
Bond lengths



Bond angles

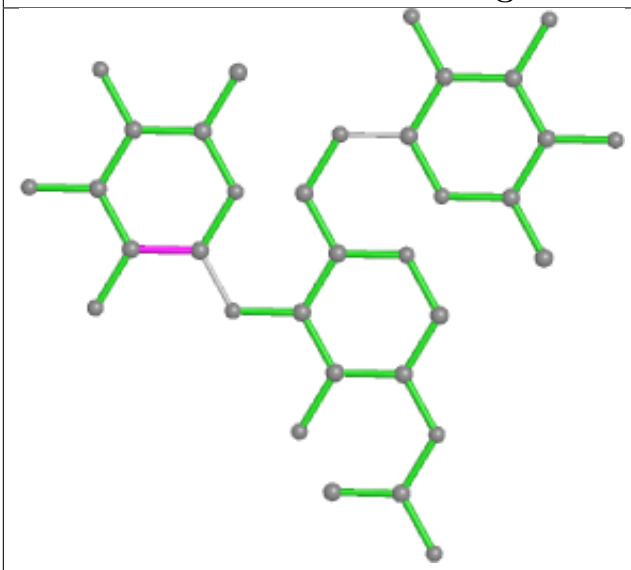


Torsions

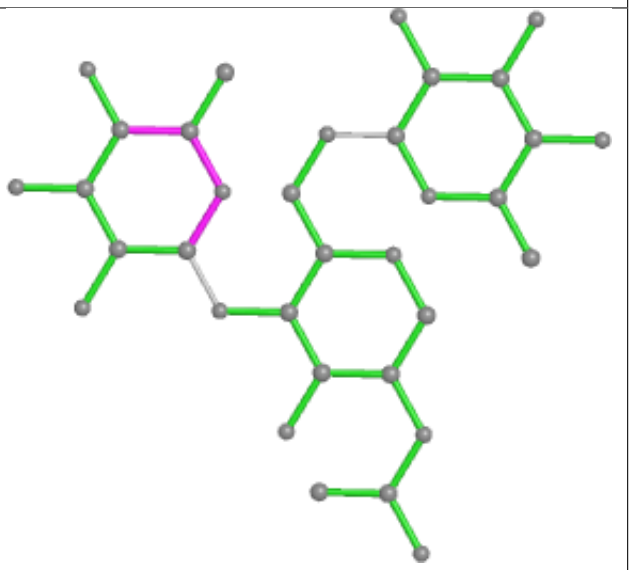


Rings

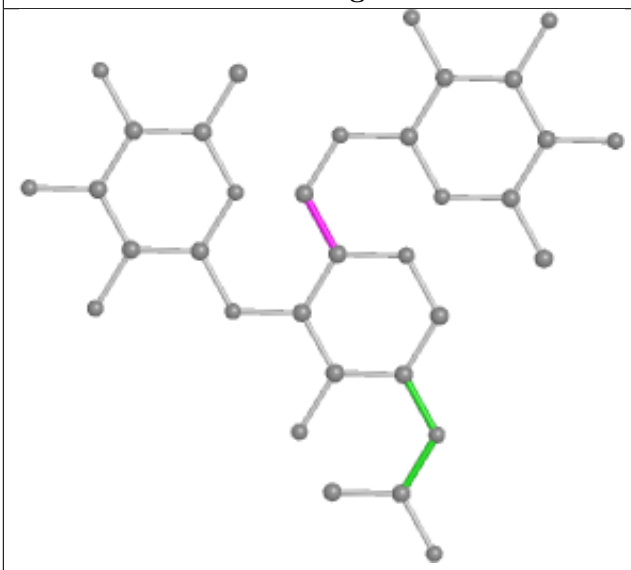
Oligosaccharide Chain F



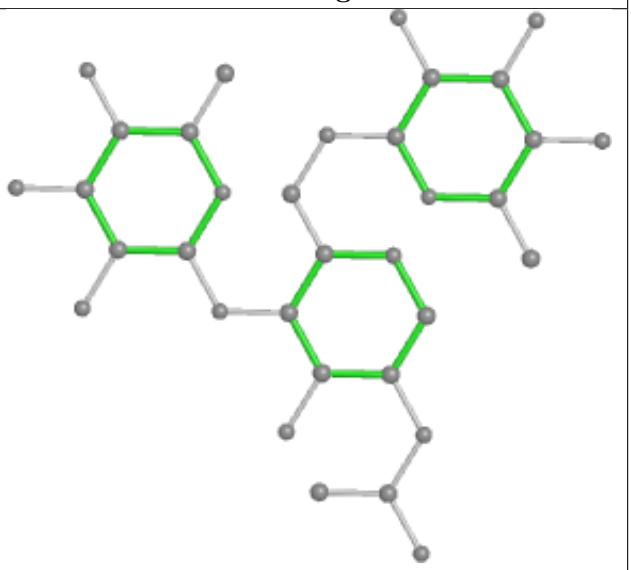
Bond lengths



Bond angles

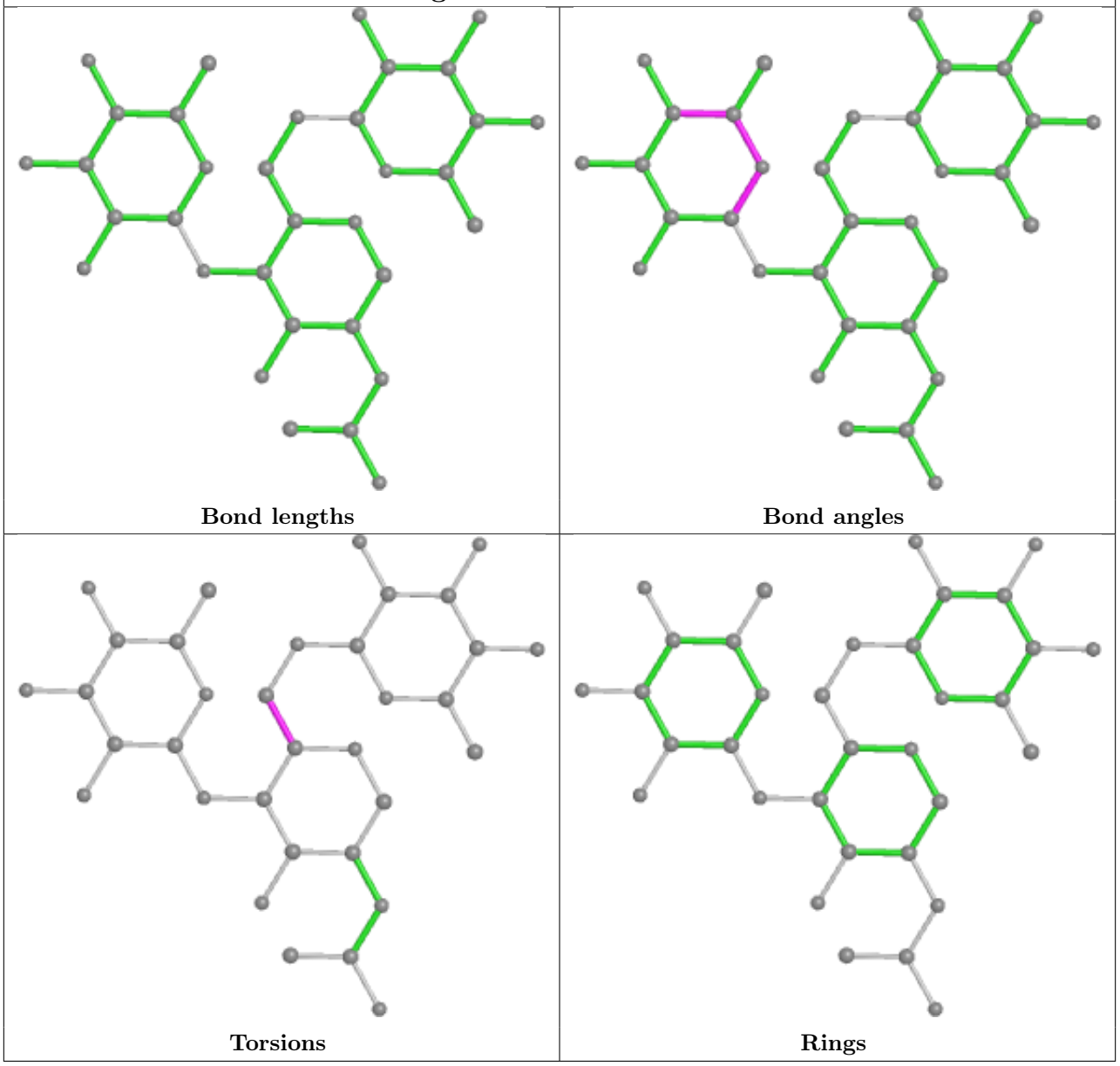


Torsions



Rings

Oligosaccharide Chain H



5.6 Ligand geometry (i)

Of 7 ligands modelled in this entry, 4 are monoatomic - leaving 3 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
5	NAG	A	1001	1	14,14,15	0.47	0	17,19,21	0.53	0
7	ACT	A	1009	-	3,3,3	1.42	1 (33%)	3,3,3	1.42	0
5	NAG	B	1001	1	14,14,15	0.73	1 (7%)	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	A	1001	1	-	4/6/23/26	0/1/1/1
5	NAG	B	1001	1	-	4/6/23/26	0/1/1/1

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	B	1001	NAG	C1-C2	2.30	1.55	1.52
7	A	1009	ACT	CH3-C	2.03	1.57	1.49

There are no bond angle outliers.

There are no chirality outliers.

All (8) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	A	1001	NAG	O5-C5-C6-O6
5	A	1001	NAG	C4-C5-C6-O6
5	B	1001	NAG	C4-C5-C6-O6
5	A	1001	NAG	C1-C2-N2-C7
5	B	1001	NAG	C1-C2-N2-C7
5	B	1001	NAG	O5-C5-C6-O6
5	A	1001	NAG	C3-C2-N2-C7
5	B	1001	NAG	C3-C2-N2-C7

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

In the following table, the column labelled '#RSRZ> 2' contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95^{th} percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled 'Q< 0.9' lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
1	A	610/622 (98%)	-0.26	6 (0%)	82	76	62, 94, 141, 184	0
1	B	610/622 (98%)	-0.29	2 (0%)	94	91	66, 92, 134, 170	0
2	C	93/158 (58%)	0.30	5 (5%)	25	22	88, 114, 152, 168	0
2	D	91/158 (57%)	0.18	5 (5%)	25	21	84, 110, 156, 169	0
All	All	1404/1560 (90%)	-0.21	18 (1%)	77	70	62, 95, 144, 184	0

All (18) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	D	169	ARG	3.8
2	D	113	ARG	3.0
2	C	78	TYR	2.8
2	D	172	ARG	2.7
1	A	630	PRO	2.7
1	A	270	ASP	2.6
2	D	168	LYS	2.5
1	A	57	ASP	2.5
2	C	112	ALA	2.5
1	A	622	SER	2.4
2	C	113	ARG	2.3
2	C	151	GLY	2.3
2	C	172	ARG	2.3
1	A	494	GLY	2.3
1	A	551	GLN	2.2
1	B	270	ASP	2.2
2	D	170	LEU	2.1
1	B	588	GLY	2.1

6.2 Non-standard residues in protein, DNA, RNA chains (i)

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

6.3 Carbohydrates (i)

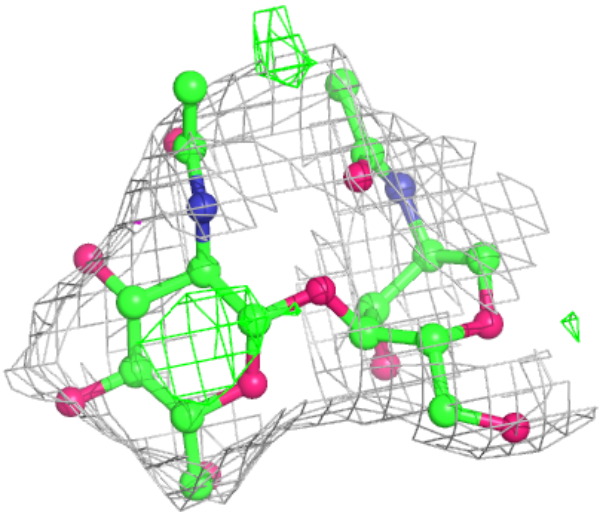
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

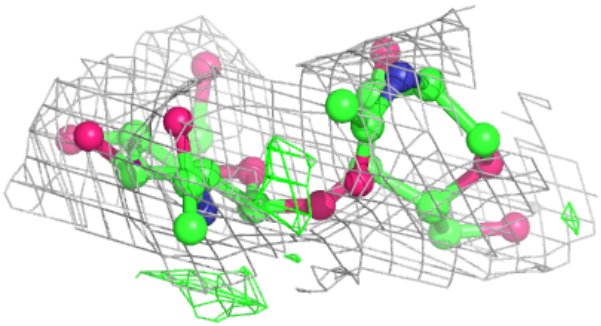
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	FUC	F	2	10/11	0.67	0.47	127,147,155,162	0
3	NAG	E	2	14/15	0.83	0.29	107,127,133,137	0
3	NAG	G	2	14/15	0.84	0.38	106,126,135,136	0
3	NAG	G	1	14/15	0.84	0.23	84,118,136,167	0
4	NAG	F	1	14/15	0.89	0.36	109,126,142,149	0
4	FUC	H	2	10/11	0.89	0.30	117,128,135,142	0
4	FUC	H	3	10/11	0.89	0.32	107,134,137,140	0
3	NAG	E	1	14/15	0.91	0.17	116,133,154,185	0
4	NAG	H	1	14/15	0.92	0.35	118,129,135,139	0
4	FUC	F	3	10/11	0.93	0.25	89,115,123,126	0

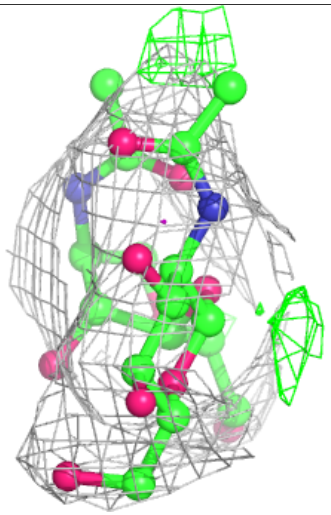
The following is a graphical depiction of the model fit to experimental electron density for oligosaccharide. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around Chain E:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

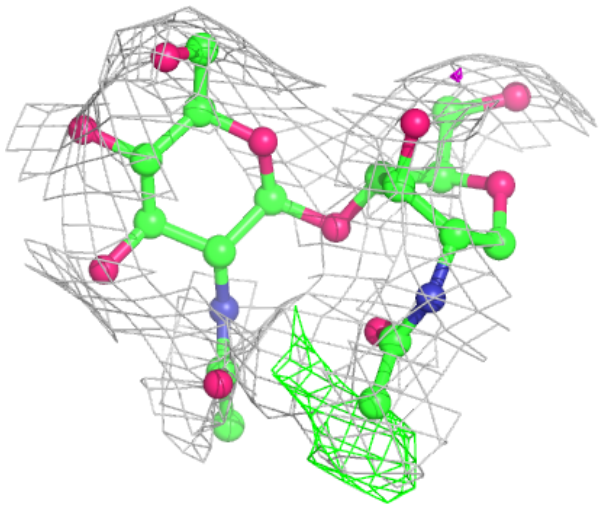


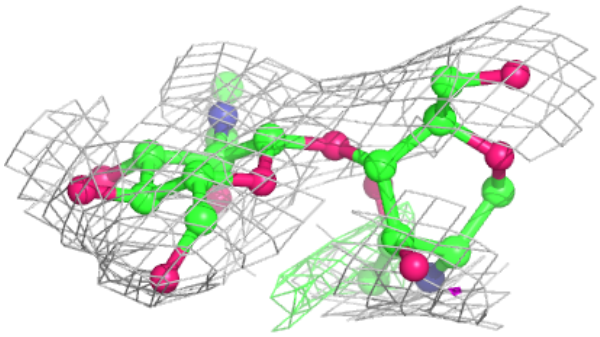


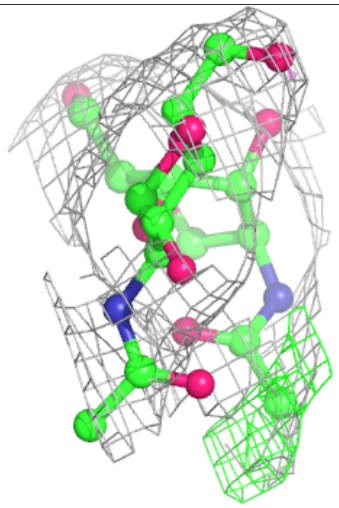


Electron density around Chain G:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

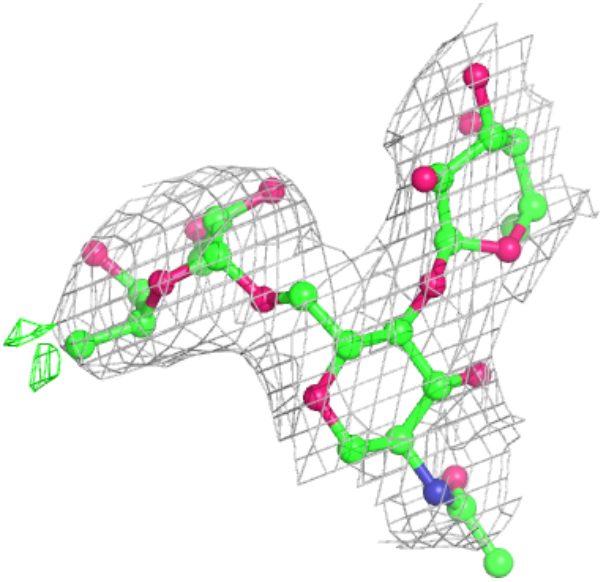


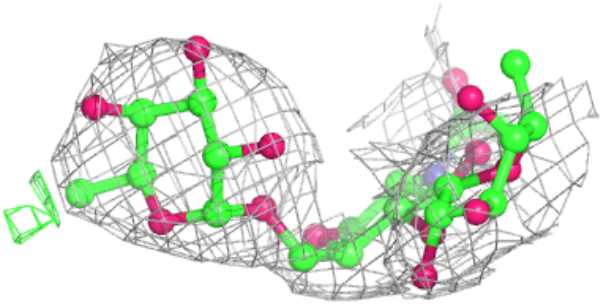


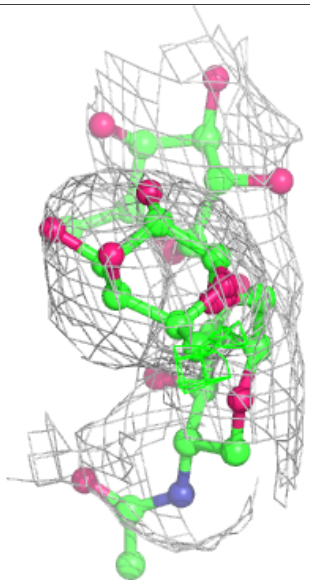


Electron density around Chain F:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)

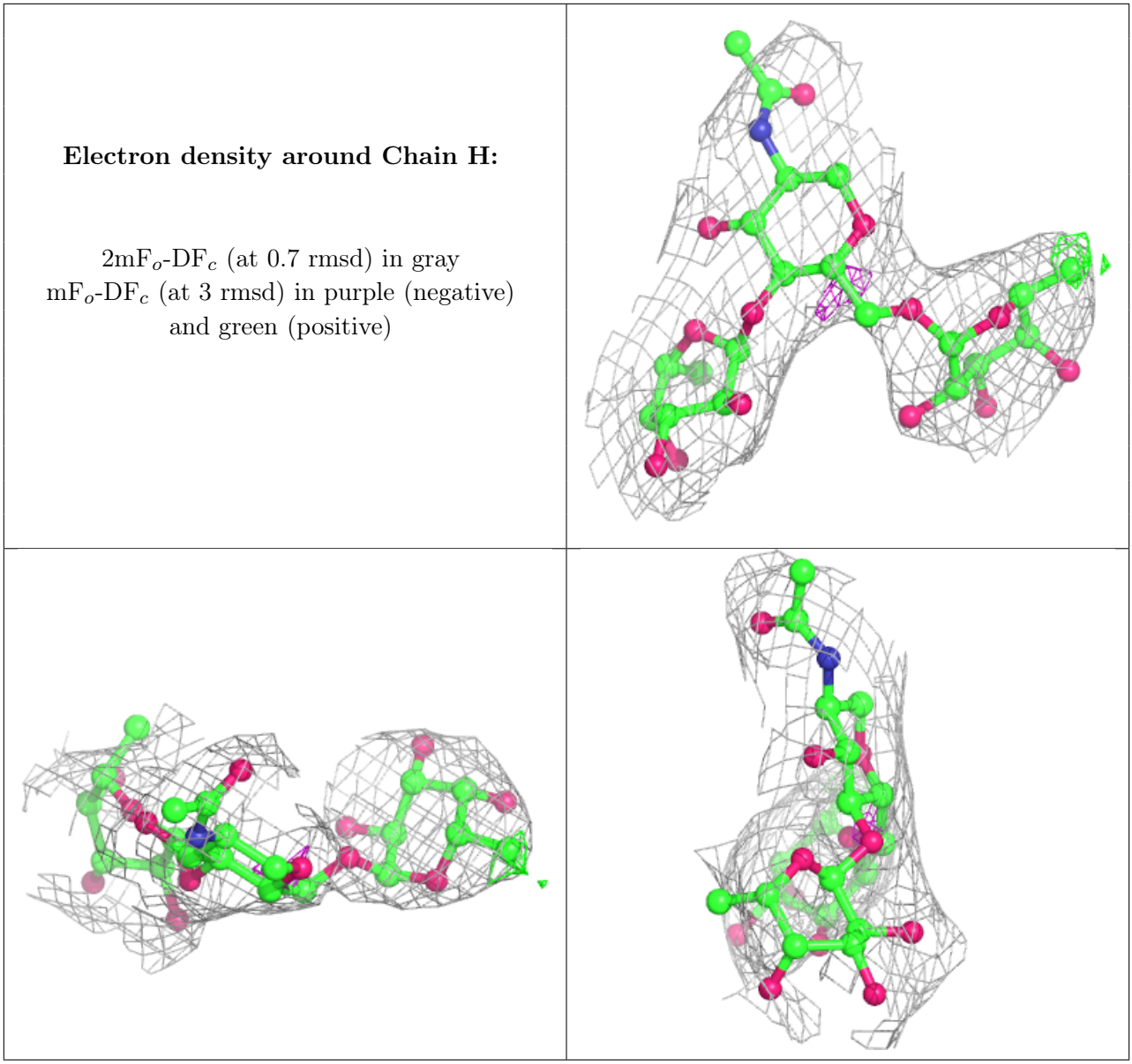






Electron density around Chain H:

$2mF_o$-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative) and green (positive)



6.4 Ligands

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95^{th} percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
6	MG	A	1008	1/1	0.71	2.04	76,76,76,76	0
5	NAG	B	1001	14/15	0.76	0.29	124,143,160,164	0
6	MG	B	1008	1/1	0.78	1.65	76,76,76,76	0
5	NAG	A	1001	14/15	0.82	0.39	134,143,151,155	0
6	MG	B	1007	1/1	0.94	0.20	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
7	ACT	A	1009	4/4	0.94	0.22	76,84,85,91	0
6	MG	A	1007	1/1	0.96	0.07	76,76,76,76	0

6.5 Other polymers (i)

There are no such residues in this entry.