Full wwPDB X-ray Structure Validation Report (i)

Sep 29, 2024 – 05:35 AM EDT

PDB ID	:	1LTJ
Title	:	Crystal Structure of Recombinant Human Fibrinogen Fragment D with the Peptide Ligands Gly-Pro-Arg-Pro-Amide and Gly-His-Arg-Pro-Amide
Authors	:	Kostelansky, M.S.; Betts, L.; Gorkun, O.V.; Lord, S.T.
Deposited on	:	2002-05-20
Resolution	:	2.80 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 (i)) were used in the production of this report:

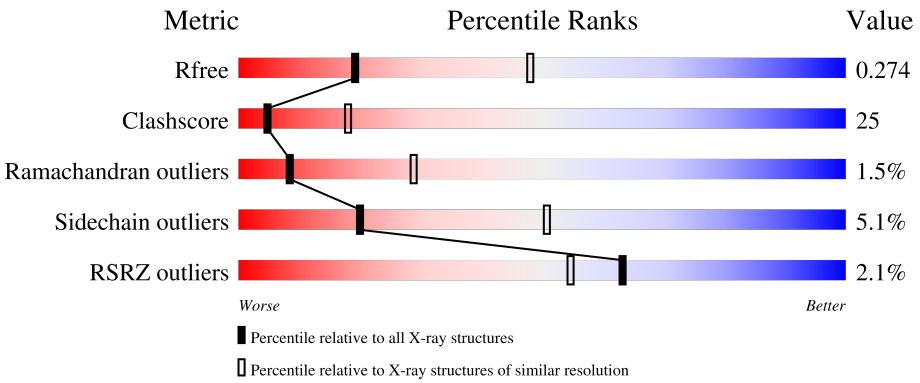
MolProbity	:	4.02b-467
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	1.20.1
EDS	:	3.0
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
CCP4	:	9.0.003 (Gargrove)
Density-Fitness	:	1.0.11
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.39

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 2.80 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}	164625	3657 (2.80-2.80)
Clashscore	180529	4123 (2.80-2.80)
Ramachandran outliers	177936	4071 (2.80-2.80)
Sidechain outliers	177891	4073 (2.80-2.80)
RSRZ outliers	164620	3659 (2.80-2.80)

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	66	3%; 44%; 50%; 5% •
1	D	66	12%; 38%; 44%; 6%; 12%
2	B	313	%; 53%; 38%; • 5%
2	E	313	2%; 53%; 36%; • 6%
3	C	311	%; 58%; 36%; • •

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Mol	Chain	Length	Quality of chain
3	F	311	2% 57% 32% 8%
4	G	4	75% 25%
4	I	4	75% 25%
5	H	4	50% 50% 50%
5	J	4	25% 75%
6	K	3	33% 33% 33%
6	L	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
6	NAG	L	1	-	-	X	-
6	FUC	L	3	-	-	X	-

2 Entry composition (i)

There are 8 unique types of molecules in this entry. The entry contains 10893 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 Fibrinogen alpha/alpha-E chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	65	530	327	100	100	3	0	0	0
1	D	58	471	289	89	90	3	0	0	0

- Molecule 2 is a protein called Fibrinogen Beta chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	B	298	2392	1494	422	454	22	0	0	0
2	E	294	2362	1475	417	448	22	0	0	0

- Molecule 3 is a protein called Fibrinogen Gamma chain.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	C	299	2399	1523	403	462	11	0	0	0
3	F	285	2283	1450	384	438	11	0	0	0

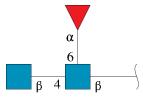
- Molecule 4 is a protein called Gly-Pro-Arg-Pro.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
4	G	4	30	18	7	5	0	0	0
4	I	4	30	18	7	5	0	0	0

- Molecule 5 is a protein called Gly-His-Arg-Pro.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
5	H	4	33	19	9	5	0	0	0
5	J	4	33	19	9	5	0	0	0

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



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
6	K	3	38	22	2	14	0	0	0
6	L	3	38	22	2	14	0	0	0

- Molecule 7 is CALCIUM ION (three-letter code: CA) (formula: Ca).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Ca		
7	B	1	1	1	0	0
7	C	1	1	1	0	0
7	E	1	1	1	0	0
7	F	1	1	1	0	0

- Molecule 8 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	O		
8	A	7	7	7	0	0
8	B	58	58	58	0	0
8	C	31	31	31	0	0
8	D	13	13	13	0	0
8	E	74	74	74	0	0

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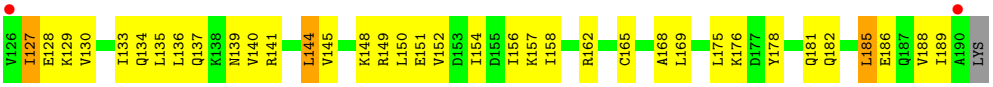
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	O		
8	F	65	65	65	0	0
			Total	O		
8	I	1	1	1	0	0
			Total	O		
8	J	1	1	1	0	0

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.

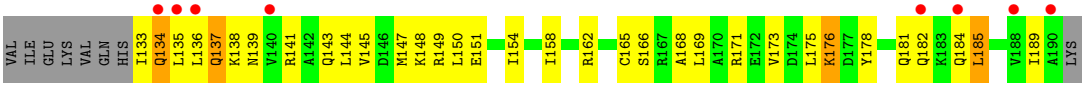
• Molecule 1: Fibrinogen alpha/alpha-E chain

Chain A:



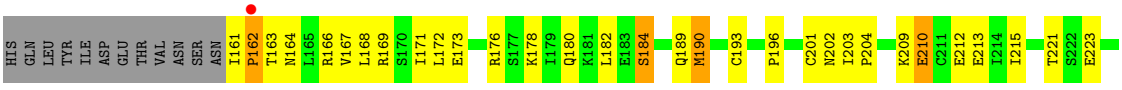
• Molecule 1: Fibrinogen alpha/alpha-E chain

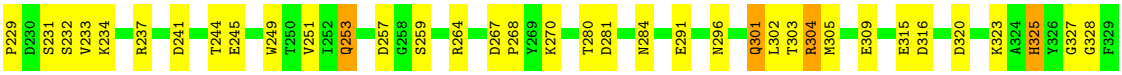
Chain D:

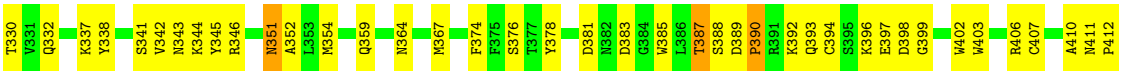


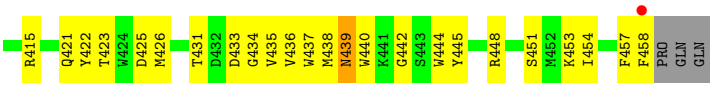
• Molecule 2: Fibrinogen Beta chain

Chain B:



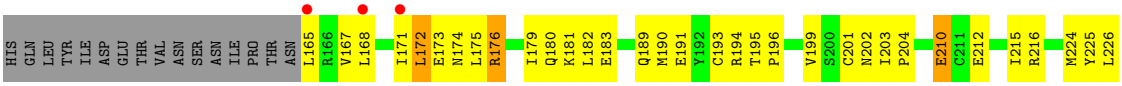


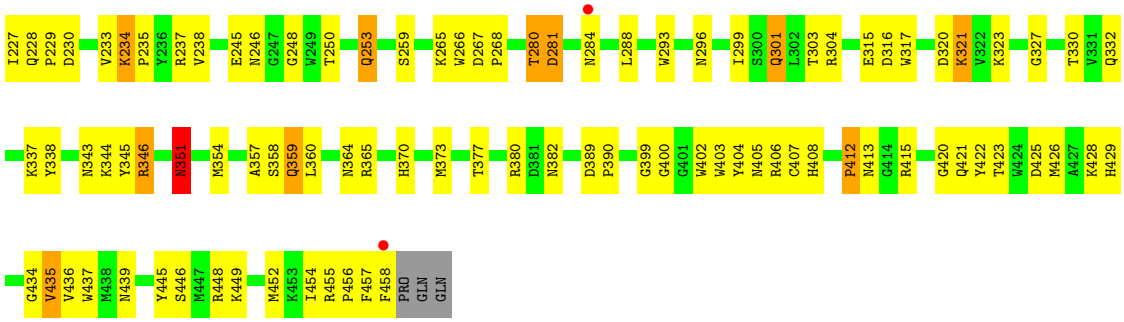




• Molecule 2: Fibrinogen Beta chain

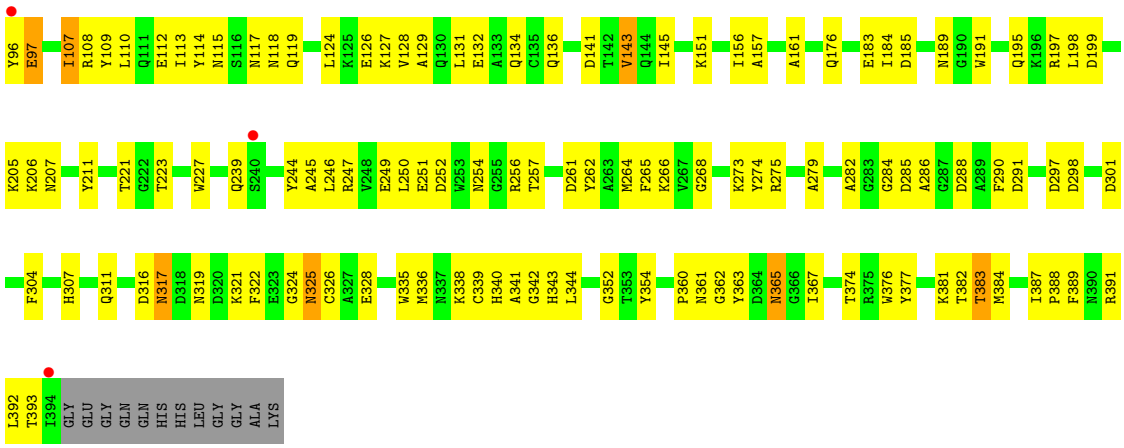
Chain E:





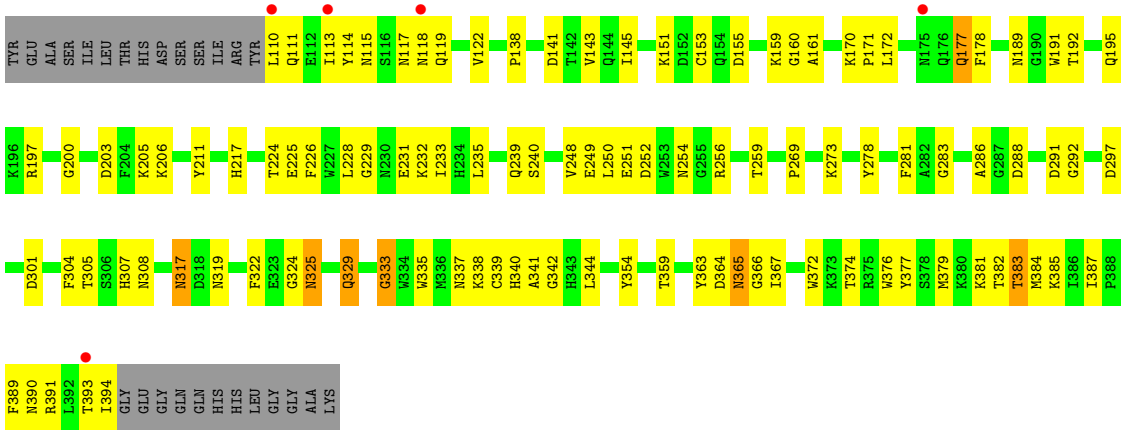
- Molecule 3: Fibrinogen Gamma chain

Chain C:



- Molecule 3: Fibrinogen Gamma chain

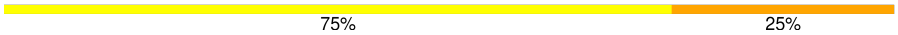
Chain F:



- Molecule 4: Gly-Pro-Arg-Pro

Chain G:

• Molecule 4: Gly-Pro-Arg-Pro

Chain I: 

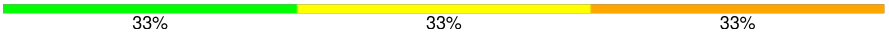
• Molecule 5: Gly-His-Arg-Pro

Chain H:

• Molecule 5: Gly-His-Arg-Pro

Chain J:

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

Chain K: 

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

Chain L:

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	89.28Å 94.22Å 226.94Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	18.02 – 2.80 18.02 – 2.80	Depositor EDS
% Data completeness (in resolution range)	97.6 (18.02-2.80) 97.2 (18.02-2.80)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.12	Depositor
$< I/\sigma(I) >$ [1]	3.59 (at 2.78Å)	Xtriage
Refinement program	CNS 1.0	Depositor
R, R_{free}	0.212 , 0.270 0.213 , 0.274	Depositor DCC
R_{free} test set	2364 reflections (5.07%)	wwPDB-VP
Wilson B-factor (Å^2)	40.9	Xtriage
Anisotropy	0.043	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.33 , 55.3	EDS
L-test for twinning[2]	$< \|L\| > = 0.50$, $< L^2 > = 0.33$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	10893	wwPDB-VP
Average B, all atoms (Å^2)	44.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 12.77% 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 (i)

5.1 Standard geometry (i)

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

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	0.31	0/531	0.53	0/709
1	D	0.30	0/471	0.55	0/628
2	B	0.35	0/2453	0.62	0/3312
2	E	0.39	0/2422	0.66	2/3268 (0.1%)
3	C	0.35	0/2465	0.57	0/3335
3	F	0.39	0/2346	0.62	1/3173 (0.0%)
4	G	0.53	0/31	0.58	0/40
4	I	0.51	0/31	0.70	0/40
5	H	0.48	0/34	0.47	0/43
5	J	0.40	0/34	0.53	0/43
All	All	0.37	0/10818	0.61	3/14591 (0.0%)

There are no bond length outliers.

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	F	333	GLY	N-CA-C	-5.23	100.02	113.10
2	E	399	GLY	N-CA-C	5.08	125.80	113.10
2	E	412	PRO	N-CA-C	-5.08	98.90	112.10

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	530	0	556	56	0
1	D	471	0	493	42	0
2	B	2392	0	2262	125	0
2	E	2362	0	2231	129	0
3	C	2399	0	2246	104	0
3	F	2283	0	2138	108	0
4	G	30	0	32	5	0
4	I	30	0	32	7	0
5	H	33	0	32	3	0
5	J	33	0	32	2	0
6	K	38	0	34	7	0
6	L	38	0	34	7	0
7	B	1	0	0	0	0
7	C	1	0	0	0	0
7	E	1	0	0	0	0
7	F	1	0	0	0	0
8	A	7	0	0	1	0
8	B	58	0	0	3	0
8	C	31	0	0	1	0
8	D	13	0	0	0	0
8	E	74	0	0	2	0
8	F	65	0	0	3	0
8	I	1	0	0	0	0
8	J	1	0	0	0	0
All	All	10893	0	10122	521	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 25.

All (521) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:250:LEU:HD12	3:F:379:MET:HG3	1.39	1.00
2:E:359:GLN:H	2:E:359:GLN:HE21	1.09	0.94
3:F:340:HIS:O	4:I:1:GLY:HA3	1.70	0.91
1:A:188:VAL:HG21	2:B:167:VAL:HG21	1.53	0.91
6:L:1:NAG:H62	6:L:3:FUC:H3	1.56	0.88
3:C:189:ASN:ND2	3:C:391:ARG:HE	1.71	0.88
4:I:3:ARG:HG3	4:I:4:PRO:HD2	1.55	0.86
3:F:172:LEU:H	3:F:239:GLN:HE21	1.19	0.86
1:D:168:ALA:HA	2:E:189:GLN:HE22	1.39	0.85
2:E:423:THR:N	2:E:426:MET:HE3	1.91	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:398:ASP:HA	2:B:433:ASP:HB3	1.59	0.84
2:E:423:THR:H	2:E:426:MET:HE3	1.43	0.84
2:E:359:GLN:HE21	2:E:359:GLN:N	1.75	0.83
2:E:359:GLN:H	2:E:359:GLN:NE2	1.77	0.83
2:E:358:SER:HA	2:E:365:ARG:HH12	1.44	0.82
1:A:158:ILE:HG23	2:B:189:GLN:HE21	1.46	0.81
2:B:161:ILE:N	2:B:162:PRO:HD2	1.97	0.80
2:B:241:ASP:HB3	2:B:249:TRP:HB2	1.64	0.79
6:L:1:NAG:H61	6:L:3:FUC:H5	1.65	0.79
2:B:448:ARG:HD2	8:B:508:HOH:O	1.83	0.79
2:E:234:LYS:H	2:E:234:LYS:HD2	1.47	0.78
1:D:178:TYR:O	1:D:182:GLN:HG3	1.84	0.78
1:D:144:LEU:HD22	1:D:182:GLN:HG2	1.66	0.77
2:E:202:ASN:ND2	2:E:284:ASN:HB2	1.99	0.77
3:F:119:GLN:HE21	3:F:119:GLN:HA	1.49	0.77
2:B:202:ASN:HD22	2:B:284:ASN:HD22	1.33	0.77
5:H:2:HIS:CD2	5:H:4:PRO:HD3	2.20	0.77
3:F:254:ASN:HD22	3:F:256:ARG:HH21	1.33	0.76
1:A:140:VAL:HG23	1:A:185:LEU:HD11	1.68	0.76
1:D:139:ASN:HB3	3:F:114:TYR:CZ	2.21	0.76
3:F:189:ASN:ND2	3:F:391:ARG:HE	1.84	0.74
2:E:412:PRO:O	2:E:413:ASN:HB2	1.86	0.74
3:C:338:LYS:N	3:C:339:CYS:HA	2.05	0.71
3:F:151:LYS:HD3	3:F:172:LEU:HD21	1.72	0.71
2:B:351:ASN:HD21	2:B:354:MET:HG3	1.55	0.71
3:F:307:HIS:HE1	3:F:341:ALA:H	1.37	0.71
2:E:358:SER:HA	2:E:365:ARG:NH1	2.04	0.71
3:C:189:ASN:HD22	3:C:391:ARG:HE	1.35	0.71
3:C:251:GLU:HB3	3:C:381:LYS:HB2	1.71	0.71
1:D:136:LEU:HD21	3:F:111:GLN:HE22	1.54	0.71
2:B:367:MET:SD	2:B:406:ARG:HD3	2.31	0.70
2:E:321:LYS:NZ	2:E:321:LYS:HB3	2.06	0.70
3:C:251:GLU:HG3	3:C:257:THR:HG22	1.74	0.70
1:A:169:LEU:H	2:B:189:GLN:HE22	1.39	0.69
2:B:316:ASP:HB2	2:B:445:TYR:OH	1.91	0.69
3:C:249:GLU:HB2	3:C:383:THR:HG23	1.73	0.69
3:C:322:PHE:HB2	3:C:338:LYS:HG3	1.74	0.69
1:A:127:ILE:HG22	1:A:130:VAL:H	1.58	0.69
6:L:1:NAG:C6	6:L:3:FUC:H5	2.23	0.69
2:B:367:MET:HB2	2:B:406:ARG:HB3	1.75	0.69
3:F:119:GLN:HA	3:F:119:GLN:NE2	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:304:ARG:HH11	2:B:304:ARG:HB3	1.58	0.68
5:H:4:PRO:HG3	6:K:1:NAG:H62	1.76	0.68
1:A:157:LYS:HE3	3:C:132:GLU:OE2	1.93	0.68
2:E:172:LEU:HD13	3:F:113:ILE:HD11	1.74	0.68
1:A:127:ILE:HG22	1:A:130:VAL:HG23	1.74	0.68
2:B:397:GLU:HB3	2:B:431:THR:HG21	1.75	0.67
1:D:184:GLN:O	2:E:167:VAL:HG11	1.93	0.67
1:A:150:LEU:HD21	3:C:124:LEU:HD23	1.77	0.67
2:E:415:ARG:O	2:E:434:GLY:HA2	1.93	0.67
2:E:245:GLU:OE2	2:E:323:LYS:HE2	1.95	0.67
3:F:171:PRO:HA	3:F:239:GLN:NE2	2.10	0.67
2:B:398:ASP:CA	2:B:433:ASP:HB3	2.24	0.67
1:D:136:LEU:HD21	3:F:111:GLN:NE2	2.09	0.67
3:F:189:ASN:HD22	3:F:391:ARG:HE	1.42	0.67
2:E:457:PHE:O	2:E:458:PHE:HB2	1.94	0.67
1:A:151:GLU:OE2	2:B:182:LEU:HD21	1.95	0.67
1:A:169:LEU:H	2:B:189:GLN:NE2	1.93	0.67
3:F:197:ARG:HB2	3:F:382:THR:HB	1.77	0.67
3:F:118:ASN:O	3:F:122:VAL:HG23	1.95	0.66
3:F:307:HIS:CE1	3:F:341:ALA:H	2.12	0.66
2:B:423:THR:N	2:B:426:MET:HE3	2.10	0.66
3:C:107:ILE:HD13	3:C:107:ILE:O	1.95	0.66
2:B:202:ASN:ND2	2:B:284:ASN:HB2	2.10	0.66
3:C:197:ARG:HB2	3:C:382:THR:HB	1.78	0.66
3:C:352:GLY:O	3:C:377:TYR:HA	1.96	0.65
1:A:168:ALA:HA	2:B:189:GLN:HE22	1.59	0.65
3:F:151:LYS:HB3	3:F:239:GLN:HE22	1.60	0.65
1:D:158:ILE:HG23	2:E:189:GLN:HG2	1.80	0.64
3:F:254:ASN:HD22	3:F:256:ARG:NH2	1.95	0.64
4:G:3:ARG:HG3	4:G:4:PRO:HD2	1.77	0.64
2:E:212:GLU:O	2:E:215:ILE:HG22	1.96	0.64
1:A:178:TYR:OH	2:B:178:LYS:HD3	1.98	0.64
2:E:280:THR:HG23	2:E:288:LEU:HG	1.80	0.64
3:F:249:GLU:HB2	3:F:383:THR:HG23	1.79	0.64
3:C:119:GLN:HA	3:C:119:GLN:HE21	1.61	0.64
3:F:389:PHE:C	3:F:391:ARG:H	2.00	0.64
2:E:173:GLU:O	2:E:176:ARG:HB3	1.98	0.64
2:E:373:MET:HE1	2:E:405:ASN:HA	1.80	0.64
3:F:170:LYS:HB2	3:F:177:GLN:HB3	1.80	0.63
1:D:162:ARG:NH1	2:E:259:SER:HB3	2.13	0.62
1:A:130:VAL:O	1:A:134:GLN:HG3	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:434:GLY:O	2:B:436:VAL:N	2.32	0.62
3:F:172:LEU:N	3:F:239:GLN:HE21	1.96	0.62
3:C:322:PHE:CZ	4:G:3:ARG:HG2	2.34	0.62
2:E:179:ILE:O	2:E:183:GLU:HG3	2.00	0.62
1:A:178:TYR:CZ	2:B:178:LYS:HD3	2.36	0.61
3:F:322:PHE:HB2	3:F:338:LYS:HG3	1.81	0.61
2:B:323:LYS:NZ	2:B:325:HIS:HD2	1.99	0.61
2:E:180:GLN:HA	2:E:183:GLU:OE1	2.00	0.61
2:E:327:GLY:HA3	2:E:344:LYS:HE2	1.83	0.61
2:E:439:ASN:HD22	2:E:439:ASN:H	1.49	0.61
2:B:332:GLN:O	2:B:338:TYR:HA	2.01	0.61
3:C:273:LYS:HB2	3:C:311:GLN:HB3	1.82	0.61
1:D:166:SER:HB3	2:E:195:THR:HG22	1.83	0.61
1:D:169:LEU:H	2:E:189:GLN:NE2	1.99	0.61
2:B:163:THR:HA	2:B:166:ARG:HD2	1.81	0.61
2:E:357:ALA:HB3	2:E:360:LEU:HD12	1.83	0.60
1:A:185:LEU:HD22	1:A:189:ILE:HG13	1.82	0.60
2:B:389:ASP:HB3	2:B:392:LYS:HG3	1.83	0.60
2:E:216:ARG:HH12	2:E:458:PHE:HZ	1.50	0.60
2:E:315:GLU:HG3	2:E:321:LYS:HZ3	1.67	0.60
2:E:165:LEU:HD11	3:F:110:LEU:HD12	1.84	0.60
3:F:273:LYS:NZ	3:F:319:ASN:HD21	2.00	0.60
3:F:307:HIS:HE1	3:F:342:GLY:H	1.47	0.60
1:A:175:LEU:HD22	1:A:175:LEU:H	1.67	0.59
2:B:201:CYS:C	3:C:143:VAL:HG11	2.23	0.59
2:E:202:ASN:HD22	2:E:284:ASN:HB2	1.66	0.59
2:B:345:TYR:HB3	2:B:354:MET:HE2	1.84	0.59
2:E:370:HIS:CE1	2:E:402:TRP:HE1	2.20	0.59
1:A:185:LEU:HD22	1:A:189:ILE:CG1	2.32	0.59
2:B:237:ARG:HG3	2:B:237:ARG:HH11	1.68	0.59
3:C:247:ARG:NH2	3:C:392:LEU:HD11	2.17	0.59
2:B:233:VAL:HG12	2:B:234:LYS:N	2.18	0.59
3:C:96:TYR:O	3:C:97:GLU:HB3	2.02	0.59
2:B:397:GLU:O	2:B:398:ASP:HB2	2.03	0.58
3:F:151:LYS:HD3	3:F:172:LEU:CD2	2.33	0.58
3:F:365:ASN:HD22	3:F:365:ASN:H	1.51	0.58
2:B:202:ASN:ND2	2:B:284:ASN:HD22	1.98	0.58
3:C:252:ASP:OD2	3:C:256:ARG:HB2	2.04	0.58
3:F:288:ASP:OD2	3:F:291:ASP:HB2	2.04	0.58
3:C:156:ILE:HG22	3:C:161:ALA:CB	2.33	0.58
1:A:139:ASN:HB3	3:C:114:TYR:CZ	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:307:HIS:CE1	3:F:342:GLY:H	2.21	0.58
2:B:302:LEU:HD13	2:B:454:ILE:HD11	1.85	0.58
1:D:144:LEU:HD23	1:D:144:LEU:O	2.04	0.58
2:B:423:THR:H	2:B:426:MET:HE3	1.68	0.57
3:C:343:HIS:O	3:C:367:ILE:HA	2.05	0.57
1:D:135:LEU:HD13	1:D:135:LEU:O	2.05	0.57
1:D:144:LEU:CD2	1:D:182:GLN:HG2	2.34	0.57
2:B:161:ILE:N	2:B:162:PRO:CD	2.67	0.57
1:D:173:VAL:HG12	1:D:175:LEU:HD22	1.86	0.57
2:E:230:ASP:HB3	2:E:233:VAL:HG12	1.86	0.57
3:F:338:LYS:N	3:F:339:CYS:HA	2.19	0.57
6:K:2:NAG:H3	6:K:2:NAG:H83	1.87	0.57
3:C:365:ASN:HD22	3:C:365:ASN:H	1.51	0.57
1:A:127:ILE:HG12	1:A:128:GLU:OE2	2.04	0.57
1:A:127:ILE:CG2	1:A:130:VAL:HG23	2.35	0.57
3:C:124:LEU:O	3:C:128:VAL:HG23	2.05	0.57
3:C:131:LEU:O	3:C:134:GLN:HB2	2.05	0.57
2:E:172:LEU:HD21	3:F:114:TYR:HA	1.87	0.56
1:D:185:LEU:O	1:D:189:ILE:HG13	2.06	0.56
2:E:168:LEU:O	3:F:110:LEU:HD13	2.04	0.56
2:E:201:CYS:O	3:F:143:VAL:HG21	2.06	0.56
4:I:3:ARG:CG	4:I:4:PRO:HD2	2.34	0.56
2:B:422:TYR:CE1	2:B:444:TRP:HA	2.41	0.56
2:E:253:GLN:HB3	2:E:452:MET:HB2	1.88	0.56
2:B:439:ASN:H	2:B:439:ASN:HD22	1.53	0.56
1:A:141:ARG:O	1:A:145:VAL:HG23	2.06	0.56
2:E:315:GLU:HB3	2:E:449:LYS:HB2	1.88	0.56
2:E:412:PRO:O	2:E:413:ASN:CB	2.53	0.56
1:A:127:ILE:HG23	1:A:128:GLU:N	2.19	0.55
2:B:343:ASN:OD1	2:B:344:LYS:HE2	2.06	0.55
3:C:119:GLN:HA	3:C:119:GLN:NE2	2.22	0.55
3:F:203:ASP:O	3:F:206:LYS:HD3	2.06	0.55
2:E:238:VAL:HG21	2:E:250:THR:HG23	1.88	0.55
5:H:4:PRO:HG3	6:K:1:NAG:C6	2.36	0.55
2:B:381:ASP:HB2	2:B:393:GLN:OE1	2.07	0.55
2:E:422:TYR:HA	2:E:426:MET:CE	2.37	0.55
3:F:195:GLN:OE1	3:F:382:THR:HG22	2.06	0.55
2:B:415:ARG:O	2:B:434:GLY:HA2	2.07	0.55
3:F:307:HIS:HD2	3:F:335:TRP:O	1.90	0.55
2:B:210:GLU:OE1	2:B:212:GLU:HB3	2.07	0.55
1:D:134:GLN:H	1:D:134:GLN:CD	2.10	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:210:GLU:OE1	2:E:212:GLU:HB3	2.07	0.55
2:E:171:ILE:HG13	2:E:172:LEU:N	2.22	0.54
2:E:234:LYS:H	2:E:234:LYS:CD	2.19	0.54
3:C:221:THR:O	3:C:223:THR:HG23	2.07	0.54
1:A:133:ILE:O	1:A:137:GLN:HG3	2.07	0.54
1:D:141:ARG:O	1:D:145:VAL:HG23	2.07	0.54
2:B:410:ALA:C	2:B:412:PRO:HD3	2.28	0.54
1:A:175:LEU:HD22	1:A:175:LEU:N	2.23	0.54
1:D:150:LEU:O	1:D:154:ILE:HG13	2.08	0.54
1:D:185:LEU:HD23	2:E:171:ILE:HD11	1.90	0.54
2:B:210:GLU:OE1	2:B:212:GLU:N	2.41	0.54
2:B:251:VAL:HG22	2:B:453:LYS:HE2	1.90	0.54
2:B:351:ASN:ND2	2:B:354:MET:H	2.05	0.54
3:C:195:GLN:OE1	3:C:382:THR:HG22	2.08	0.54
2:E:304:ARG:HH11	2:E:304:ARG:CB	2.20	0.54
3:F:281:PHE:CD2	3:F:288:ASP:HB2	2.43	0.54
3:F:387:ILE:HD11	3:F:391:ARG:HG2	1.89	0.54
2:B:394:CYS:O	2:B:397:GLU:O	2.25	0.53
2:E:172:LEU:HD22	3:F:113:ILE:HG13	1.90	0.53
2:B:267:ASP:HB3	2:B:268:PRO:HD3	1.89	0.53
1:A:130:VAL:O	1:A:133:ILE:HG22	2.09	0.53
2:B:351:ASN:HD21	2:B:354:MET:H	1.57	0.53
2:E:406:ARG:NH1	5:J:3:ARG:O	2.41	0.53
2:E:428:LYS:HG2	2:E:429:HIS:CD2	2.44	0.53
2:E:165:LEU:HG	2:E:165:LEU:O	2.09	0.53
1:A:140:VAL:HG12	2:B:172:LEU:HD21	1.90	0.53
3:C:360:PRO:C	3:C:361:ASN:HD22	2.12	0.53
3:F:231:GLU:O	3:F:235:LEU:HG	2.08	0.53
6:L:1:NAG:C6	6:L:3:FUC:C5	2.86	0.53
3:C:252:ASP:HB2	3:C:377:TYR:OH	2.09	0.53
3:F:365:ASN:HD22	3:F:366:GLY:N	2.06	0.52
3:F:365:ASN:H	3:F:365:ASN:ND2	2.06	0.52
3:F:248:VAL:HG12	3:F:250:LEU:CD2	2.39	0.52
2:B:328:GLY:O	2:B:342:VAL:HA	2.09	0.52
2:E:172:LEU:HD13	3:F:113:ILE:CD1	2.40	0.52
3:F:273:LYS:HZ2	3:F:319:ASN:HD21	1.56	0.52
3:C:304:PHE:CD1	3:C:338:LYS:HE3	2.45	0.52
2:E:293:TRP:HE1	2:E:296:ASN:ND2	2.08	0.52
2:E:406:ARG:N	2:E:407:CYS:HA	2.23	0.52
6:L:1:NAG:H62	6:L:3:FUC:C3	2.28	0.52
1:A:158:ILE:HG23	2:B:189:GLN:NE2	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:188:VAL:HG21	2:B:167:VAL:CG2	2.32	0.52
3:F:286:ALA:O	3:F:372:TRP:HB2	2.10	0.52
1:D:143:GLN:HE22	3:F:117:ASN:HB2	1.75	0.52
2:E:167:VAL:O	2:E:171:ILE:HG12	2.09	0.52
3:F:365:ASN:HD22	3:F:365:ASN:N	2.08	0.52
2:B:345:TYR:CB	2:B:354:MET:HE2	2.39	0.52
3:C:322:PHE:HB2	3:C:338:LYS:CG	2.39	0.52
2:E:248:GLY:O	2:E:455:ARG:HG3	2.09	0.51
2:E:317:TRP:CE3	2:E:448:ARG:HD3	2.45	0.51
1:A:178:TYR:O	1:A:182:GLN:HG3	2.10	0.51
2:E:373:MET:HE3	8:E:517:HOH:O	2.09	0.51
3:F:389:PHE:O	3:F:391:ARG:N	2.43	0.51
2:B:345:TYR:CD2	2:B:351:ASN:HB2	2.45	0.51
2:E:266:TRP:HA	2:E:377:THR:HG21	1.92	0.51
2:E:321:LYS:HB3	2:E:321:LYS:HZ3	1.74	0.51
3:F:292:GLY:HA2	3:F:305:THR:O	2.11	0.51
1:A:188:VAL:HG11	2:B:164:ASN:HA	1.92	0.51
2:B:237:ARG:HG3	2:B:237:ARG:NH1	2.25	0.51
2:B:385:TRP:CZ2	2:B:392:LYS:HB3	2.46	0.51
2:B:402:TRP:CH2	2:B:412:PRO:HG2	2.46	0.51
2:E:304:ARG:HB2	2:E:304:ARG:NH1	2.25	0.51
1:A:140:VAL:O	1:A:144:LEU:HB2	2.11	0.51
3:F:254:ASN:ND2	3:F:256:ARG:NH2	2.57	0.51
1:A:141:ARG:HD3	1:A:186:GLU:OE2	2.10	0.51
3:C:307:HIS:HE1	3:C:342:GLY:H	1.58	0.51
1:D:168:ALA:HA	2:E:189:GLN:NE2	2.16	0.51
1:A:128:GLU:HG2	1:A:129:LYS:N	2.26	0.51
2:B:253:GLN:NE2	2:B:451:SER:HA	2.26	0.51
2:B:394:CYS:O	2:B:398:ASP:HB2	2.11	0.51
1:A:185:LEU:HD22	1:A:189:ILE:HD11	1.92	0.50
3:F:278:TYR:CZ	3:F:308:ASN:HB2	2.46	0.50
3:F:297:ASP:HB2	3:F:301:ASP:OD2	2.10	0.50
3:C:156:ILE:HG22	3:C:161:ALA:HB2	1.93	0.50
3:C:363:TYR:HB3	4:G:3:ARG:NH2	2.27	0.50
2:B:351:ASN:HD22	2:B:351:ASN:C	2.14	0.50
6:K:1:NAG:H4	6:K:2:NAG:HN2	1.76	0.50
1:A:169:LEU:N	2:B:189:GLN:HE22	2.06	0.50
2:B:280:THR:O	2:B:281:ASP:HB3	2.12	0.50
3:C:307:HIS:HE1	3:C:341:ALA:H	1.58	0.50
2:E:315:GLU:HG3	2:E:321:LYS:NZ	2.25	0.50
3:F:359:THR:HG21	3:F:363:TYR:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:I:1:GLY:N	4:I:2:PRO:CD	2.74	0.50
3:C:325:ASN:C	3:C:325:ASN:HD22	2.14	0.50
1:D:181:GLN:HE22	2:E:174:ASN:ND2	2.09	0.49
2:B:422:TYR:O	2:B:444:TRP:HB3	2.13	0.49
1:D:175:LEU:O	1:D:178:TYR:HB2	2.11	0.49
3:F:114:TYR:CE2	3:F:118:ASN:ND2	2.80	0.49
2:E:172:LEU:HD21	3:F:114:TYR:CA	2.42	0.49
1:A:148:LYS:O	1:A:152:VAL:HG23	2.12	0.49
2:B:163:THR:HG22	2:B:166:ARG:NH1	2.28	0.49
3:C:307:HIS:HD2	3:C:335:TRP:O	1.96	0.49
3:C:109:TYR:O	3:C:113:ILE:HG23	2.11	0.49
3:F:172:LEU:HD22	3:F:239:GLN:NE2	2.27	0.49
1:D:158:ILE:HG23	2:E:189:GLN:HE21	1.78	0.49
2:E:402:TRP:CG	2:E:403:TRP:N	2.81	0.49
2:B:330:THR:OG1	2:B:341:SER:HB3	2.12	0.49
3:F:189:ASN:HD22	3:F:391:ARG:HG3	1.77	0.49
3:F:205:LYS:NZ	3:F:205:LYS:HB3	2.27	0.49
3:F:325:ASN:HD22	3:F:325:ASN:C	2.17	0.49
3:C:151:LYS:HB3	3:C:239:GLN:HE22	1.78	0.48
2:E:357:ALA:O	2:E:365:ARG:HG3	2.12	0.48
3:F:393:THR:O	3:F:394:ILE:HB	2.13	0.48
2:E:266:TRP:CE3	2:E:380:ARG:HG2	2.48	0.48
2:B:202:ASN:HD22	2:B:284:ASN:ND2	2.05	0.48
2:B:457:PHE:O	2:B:458:PHE:HB2	2.13	0.48
3:C:365:ASN:HD22	3:C:365:ASN:N	2.10	0.48
2:E:321:LYS:HB3	2:E:321:LYS:HZ2	1.77	0.48
1:A:185:LEU:HD22	1:A:189:ILE:CD1	2.44	0.48
2:B:203:ILE:CD1	3:C:145:ILE:HD11	2.44	0.48
2:B:209:LYS:HE3	2:B:213:GLU:OE1	2.13	0.48
3:F:387:ILE:CD1	3:F:391:ARG:HG2	2.44	0.48
1:A:128:GLU:HG2	1:A:129:LYS:H	1.79	0.48
2:B:172:LEU:CB	3:C:113:ILE:HD11	2.43	0.48
2:B:345:TYR:CG	2:B:346:ARG:N	2.82	0.48
1:A:154:ILE:HD12	2:B:182:LEU:HD13	1.95	0.48
1:A:181:GLN:OE1	2:B:171:ILE:HG23	2.14	0.48
2:B:316:ASP:OD2	2:B:320:ASP:HB2	2.13	0.48
3:C:96:TYR:O	3:C:97:GLU:CB	2.62	0.48
2:E:457:PHE:O	2:E:458:PHE:CB	2.62	0.48
3:F:195:GLN:HB3	3:F:384:MET:HB2	1.96	0.48
1:A:137:GLN:NE2	1:A:189:ILE:HA	2.28	0.47
2:B:172:LEU:HB3	3:C:113:ILE:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:264:ARG:HD3	3:C:136:GLN:NE2	2.29	0.47
2:E:303:THR:HB	2:E:330:THR:HA	1.96	0.47
3:F:251:GLU:HB3	3:F:381:LYS:HB2	1.94	0.47
3:C:185:ASP:OD2	3:C:189:ASN:HB2	2.14	0.47
3:F:389:PHE:C	3:F:391:ARG:N	2.66	0.47
1:A:127:ILE:HG22	1:A:130:VAL:CG2	2.43	0.47
2:B:364:ASN:ND2	6:K:1:NAG:C7	2.77	0.47
3:F:177:GLN:HE21	3:F:177:GLN:HB2	1.46	0.47
2:B:411:ASN:N	2:B:412:PRO:HD3	2.29	0.47
1:D:136:LEU:HD12	2:E:168:LEU:HD21	1.96	0.47
2:B:402:TRP:CG	2:B:403:TRP:N	2.83	0.47
3:C:307:HIS:CE1	3:C:341:ALA:H	2.31	0.47
2:E:191:GLU:HA	2:E:194:ARG:HD3	1.96	0.47
2:E:400:GLY:O	2:E:404:TYR:HE2	1.96	0.47
3:C:126:GLU:O	3:C:129:ALA:HB3	2.14	0.47
3:C:141:ASP:OD1	3:C:143:VAL:HG13	2.15	0.47
3:C:288:ASP:OD2	3:C:291:ASP:HB2	2.15	0.47
3:C:321:LYS:O	3:C:338:LYS:HB2	2.14	0.47
2:E:422:TYR:HA	2:E:426:MET:HE1	1.96	0.47
2:B:190:MET:CE	3:C:134:GLN:HG3	2.44	0.47
2:B:280:THR:O	2:B:280:THR:HG22	2.14	0.47
3:C:264:MET:HB2	3:C:279:ALA:HB2	1.96	0.47
3:C:344:LEU:HB3	3:C:382:THR:HG21	1.96	0.47
2:E:280:THR:CG2	2:E:288:LEU:HG	2.45	0.47
3:F:249:GLU:HG2	3:F:259:THR:HG22	1.97	0.47
2:B:436:VAL:CG1	2:B:437:TRP:N	2.78	0.47
3:C:322:PHE:CE2	3:C:324:GLY:HA3	2.49	0.47
3:C:284:GLY:C	3:C:286:ALA:H	2.18	0.47
3:F:281:PHE:CE2	3:F:283:GLY:HA2	2.50	0.47
1:D:137:GLN:HB2	1:D:138:LYS:NZ	2.30	0.46
2:B:202:ASN:HD22	2:B:284:ASN:HB2	1.80	0.46
1:D:176:LYS:HB2	1:D:176:LYS:NZ	2.31	0.46
2:E:435:VAL:O	2:E:446:SER:HA	2.15	0.46
2:B:176:ARG:NE	8:B:487:HOH:O	2.47	0.46
2:B:244:THR:HG22	2:B:245:GLU:HG3	1.98	0.46
3:C:326:CYS:HB3	3:C:336:MET:CE	2.45	0.46
3:F:114:TYR:HD2	3:F:115:ASN:ND2	2.13	0.46
3:F:200:GLY:HA2	8:F:408:HOH:O	2.14	0.46
2:E:337:LYS:HG2	2:E:382:ASN:ND2	2.30	0.46
1:A:150:LEU:O	1:A:154:ILE:HG13	2.15	0.46
3:C:275:ARG:HA	3:C:311:GLN:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:304:ARG:CB	2:E:304:ARG:NH1	2.78	0.46
2:B:257:ASP:O	2:B:291:GLU:OE2	2.33	0.46
2:E:316:ASP:OD2	2:E:320:ASP:HB2	2.16	0.46
3:F:229:GLY:O	3:F:233:ILE:HG13	2.16	0.46
3:F:329:GLN:OE1	4:I:3:ARG:NH1	2.44	0.46
2:B:296:ASN:HB3	2:B:338:TYR:CE1	2.51	0.46
3:C:184:ILE:HA	3:C:189:ASN:O	2.15	0.46
1:D:189:ILE:HG22	1:D:189:ILE:O	2.16	0.46
2:E:224:MET:HG2	2:E:225:TYR:N	2.31	0.46
1:A:162:ARG:HH11	2:B:259:SER:HB3	1.80	0.46
2:B:315:GLU:HA	2:B:320:ASP:O	2.16	0.46
3:C:344:LEU:HD12	3:C:384:MET:SD	2.56	0.46
2:B:309:GLU:HB3	2:B:457:PHE:HD1	1.80	0.45
2:E:304:ARG:HH11	2:E:304:ARG:HB3	1.80	0.45
2:B:212:GLU:O	2:B:215:ILE:HG22	2.15	0.45
2:B:345:TYR:CE2	2:B:351:ASN:HB2	2.51	0.45
3:C:183:GLU:HB3	3:C:191:TRP:HB2	1.98	0.45
3:C:340:HIS:O	4:G:1:GLY:N	2.46	0.45
1:D:143:GLN:HE21	3:F:118:ASN:CG	2.19	0.45
3:F:304:PHE:O	3:F:337:ASN:HB3	2.16	0.45
3:C:197:ARG:CB	3:C:382:THR:HB	2.47	0.45
3:F:191:TRP:CE3	3:F:385:LYS:HG3	2.51	0.45
2:B:168:LEU:HB3	3:C:110:LEU:HD13	1.98	0.45
2:B:233:VAL:CG1	2:B:234:LYS:N	2.79	0.45
2:E:167:VAL:O	2:E:167:VAL:HG12	2.16	0.45
2:E:202:ASN:HD22	2:E:284:ASN:HD22	1.65	0.45
2:E:228:GLN:HB2	2:E:235:PRO:HG3	1.99	0.45
2:E:408:HIS:CD2	2:E:408:HIS:C	2.90	0.45
3:F:248:VAL:HG12	3:F:250:LEU:HD22	1.99	0.45
2:B:385:TRP:CH2	2:B:392:LYS:HB3	2.51	0.45
3:F:153:CYS:SG	3:F:192:THR:HB	2.56	0.45
3:F:365:ASN:ND2	3:F:365:ASN:N	2.65	0.45
2:B:229:PRO:HB3	2:B:301:GLN:HE22	1.81	0.45
2:B:351:ASN:ND2	2:B:351:ASN:C	2.70	0.45
1:D:151:GLU:OE2	2:E:182:LEU:HD21	2.16	0.45
2:E:199:VAL:HG23	3:F:141:ASP:HA	1.99	0.45
2:B:180:GLN:O	2:B:184:SER:HB2	2.17	0.45
2:B:398:ASP:HA	2:B:433:ASP:CB	2.37	0.45
3:C:268:GLY:O	3:C:274:TYR:HA	2.17	0.45
3:C:317:ASN:HD22	3:C:317:ASN:C	2.19	0.45
2:B:303:THR:HB	2:B:330:THR:HA	1.97	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:269:PRO:HB2	8:F:449:HOH:O	2.16	0.44
3:F:344:LEU:HA	3:F:367:ILE:HG23	1.99	0.44
6:K:1:NAG:O3	6:K:2:NAG:N2	2.50	0.44
1:A:135:LEU:HG	1:A:139:ASN:ND2	2.32	0.44
1:A:149:ARG:HH21	2:B:425:ASP:HA	1.81	0.44
1:A:189:ILE:HG22	1:A:189:ILE:O	2.17	0.44
2:B:351:ASN:ND2	2:B:354:MET:HG3	2.28	0.44
3:C:275:ARG:NH2	3:C:311:GLN:HE21	2.14	0.44
2:E:238:VAL:HG21	2:E:250:THR:CG2	2.47	0.44
3:C:251:GLU:CG	3:C:257:THR:HG22	2.45	0.44
1:D:143:GLN:NE2	3:F:117:ASN:HB2	2.32	0.44
2:B:270:LYS:HA	2:B:296:ASN:HB2	1.99	0.44
3:C:326:CYS:HB3	3:C:336:MET:HE3	2.00	0.44
2:E:332:GLN:O	2:E:338:TYR:HA	2.17	0.44
2:B:253:GLN:HE22	2:B:451:SER:HA	1.81	0.44
3:C:114:TYR:CD2	3:C:115:ASN:ND2	2.85	0.44
2:B:327:GLY:C	2:B:344:LYS:HE3	2.38	0.44
2:E:245:GLU:O	2:E:246:ASN:HB2	2.18	0.44
3:C:304:PHE:CD1	3:C:338:LYS:HB3	2.53	0.44
3:C:307:HIS:CE1	3:C:342:GLY:H	2.36	0.44
2:B:438:MET:O	2:B:440:TRP:N	2.50	0.44
3:C:195:GLN:HB3	3:C:384:MET:HB2	1.98	0.44
1:D:185:LEU:CD1	1:D:189:ILE:HD11	2.48	0.44
3:F:273:LYS:HG3	3:F:319:ASN:ND2	2.33	0.44
3:C:251:GLU:CD	3:C:381:LYS:HD2	2.37	0.43
3:C:298:ASP:HB3	3:C:301:ASP:OD1	2.18	0.43
1:D:185:LEU:O	1:D:185:LEU:HD13	2.18	0.43
2:B:438:MET:HA	2:B:442:GLY:O	2.18	0.43
1:A:127:ILE:HG12	1:A:128:GLU:CD	2.38	0.43
3:C:156:ILE:CG2	3:C:161:ALA:HB2	2.48	0.43
3:F:217:HIS:O	3:F:224:THR:CG2	2.66	0.43
1:A:165:CYS:HB3	2:B:193:CYS:HA	2.00	0.43
1:A:156:ILE:HG23	8:A:192:HOH:O	2.17	0.43
3:C:245:ALA:HB2	3:C:389:PHE:HD1	1.83	0.43
3:C:317:ASN:ND2	3:C:319:ASN:OD1	2.51	0.43
3:F:113:ILE:HG13	3:F:114:TYR:N	2.33	0.43
2:E:175:LEU:O	2:E:179:ILE:HG13	2.19	0.43
3:F:322:PHE:CE2	3:F:324:GLY:HA3	2.54	0.43
3:C:206:LYS:HB2	3:C:211:TYR:CE2	2.53	0.43
3:C:387:ILE:HG12	3:C:388:PRO:HD2	2.00	0.43
4:G:1:GLY:H2	4:G:2:PRO:HD3	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:393:GLN:NE2	2:B:396:LYS:HD2	2.34	0.43
1:A:175:LEU:H	1:A:175:LEU:CD2	2.31	0.43
3:F:211:TYR:CE2	3:F:333:GLY:HA3	2.54	0.43
2:B:221:THR:OG1	2:B:223:GLU:OE2	2.34	0.43
3:C:266:LYS:HE2	8:C:437:HOH:O	2.18	0.43
2:E:203:ILE:HG21	2:E:226:LEU:HD22	2.01	0.43
2:E:267:ASP:HB3	2:E:268:PRO:HD3	2.01	0.43
2:E:364:ASN:ND2	6:L:1:NAG:C7	2.81	0.43
3:F:225:GLU:O	3:F:226:PHE:HB3	2.18	0.43
3:F:354:TYR:O	3:F:376:TRP:HB3	2.18	0.43
3:C:127:LYS:HE2	3:C:127:LYS:HB3	1.94	0.42
3:C:354:TYR:O	3:C:376:TRP:HB3	2.19	0.42
2:E:351:ASN:C	2:E:351:ASN:HD22	2.22	0.42
3:C:195:GLN:HG3	3:C:227:TRP:HZ3	1.84	0.42
3:C:365:ASN:H	3:C:365:ASN:ND2	2.17	0.42
2:E:229:PRO:HB2	2:E:301:GLN:HE22	1.83	0.42
2:E:265:LYS:O	2:E:268:PRO:HD2	2.20	0.42
1:D:166:SER:HB3	2:E:195:THR:CG2	2.49	0.42
2:E:181:LYS:HD2	2:E:181:LYS:HA	1.85	0.42
4:I:1:GLY:H3	4:I:2:PRO:CD	2.31	0.42
3:C:108:ARG:O	3:C:112:GLU:HG3	2.19	0.42
3:C:151:LYS:HB3	3:C:239:GLN:NE2	2.34	0.42
3:C:157:ALA:HA	3:C:161:ALA:HB3	2.00	0.42
1:D:149:ARG:HH21	2:E:425:ASP:HA	1.83	0.42
3:F:119:GLN:HE21	3:F:119:GLN:CA	2.18	0.42
3:F:281:PHE:CG	3:F:288:ASP:HB2	2.55	0.42
3:C:185:ASP:CG	3:C:189:ASN:HB2	2.40	0.42
2:E:203:ILE:HA	2:E:204:PRO:HD3	1.95	0.42
5:J:2:HIS:CD2	5:J:4:PRO:HD3	2.54	0.42
1:A:168:ALA:CA	2:B:189:GLN:HE22	2.31	0.42
2:E:420:GLY:O	2:E:445:TYR:HA	2.20	0.42
3:F:155:ASP:OD2	3:F:159:LYS:HE3	2.20	0.42
6:L:1:NAG:H61	6:L:3:FUC:C5	2.42	0.42
2:B:352:ALA:HB2	2:B:439:ASN:ND2	2.35	0.42
2:B:453:LYS:HE3	8:B:462:HOH:O	2.19	0.42
1:D:185:LEU:HD23	2:E:171:ILE:CD1	2.49	0.42
2:E:191:GLU:HG2	2:E:194:ARG:HH11	1.85	0.42
2:E:345:TYR:C	2:E:346:ARG:HG3	2.40	0.42
2:E:227:ILE:O	2:E:227:ILE:HG13	2.19	0.42
2:E:436:VAL:CG1	2:E:437:TRP:N	2.82	0.42
8:E:468:HOH:O	3:F:138:PRO:HG3	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:189:ASN:ND2	3:F:391:ARG:HG3	2.34	0.42
2:B:389:ASP:HA	2:B:390:PRO:HD2	1.93	0.41
2:E:373:MET:CE	2:E:405:ASN:HA	2.49	0.41
1:A:127:ILE:HG12	1:A:128:GLU:H	1.86	0.41
3:C:393:THR:O	3:C:393:THR:HG22	2.20	0.41
2:E:299:ILE:O	2:E:303:THR:HG23	2.20	0.41
2:E:203:ILE:CD1	3:F:145:ILE:HD11	2.51	0.41
2:E:237:ARG:HG3	2:E:237:ARG:HH11	1.84	0.41
2:E:346:ARG:HG2	2:E:346:ARG:HH11	1.84	0.41
1:A:127:ILE:HG23	1:A:129:LYS:H	1.85	0.41
2:B:169:ARG:O	2:B:173:GLU:HG3	2.20	0.41
2:B:383:ASP:OD1	2:B:385:TRP:HB3	2.20	0.41
3:C:338:LYS:N	3:C:339:CYS:CA	2.81	0.41
2:E:389:ASP:HA	2:E:390:PRO:HD2	1.93	0.41
3:C:195:GLN:HG3	3:C:227:TRP:CZ3	2.56	0.41
3:C:207:ASN:HB2	3:C:316:ASP:OD2	2.21	0.41
3:C:360:PRO:C	3:C:361:ASN:ND2	2.73	0.41
2:E:454:ILE:C	2:E:454:ILE:HD12	2.41	0.41
2:E:439:ASN:H	2:E:439:ASN:ND2	2.16	0.41
3:F:160:GLY:O	3:F:161:ALA:C	2.59	0.41
2:B:406:ARG:N	2:B:407:CYS:HA	2.36	0.41
3:F:317:ASN:ND2	3:F:319:ASN:OD1	2.54	0.41
3:F:364:ASP:OD2	4:I:1:GLY:N	2.49	0.41
1:D:165:CYS:HB3	2:E:193:CYS:HA	2.03	0.41
2:E:212:GLU:HB2	2:E:456:PRO:HD2	2.02	0.41
3:F:228:LEU:HD13	8:F:412:HOH:O	2.20	0.41
3:C:392:LEU:O	3:C:393:THR:C	2.59	0.41
1:D:169:LEU:H	2:E:189:GLN:HE22	1.67	0.41
2:E:224:MET:CE	2:E:237:ARG:HD3	2.51	0.41
2:E:280:THR:O	2:E:281:ASP:O	2.39	0.41
2:E:343:ASN:HA	2:E:354:MET:SD	2.60	0.41
3:F:252:ASP:HB2	3:F:377:TYR:OH	2.21	0.41
2:B:203:ILE:HA	2:B:204:PRO:HD3	1.91	0.41
2:B:301:GLN:O	2:B:305:MET:HG3	2.21	0.41
2:B:351:ASN:OD1	2:B:354:MET:HE2	2.21	0.41
3:C:264:MET:HB2	3:C:279:ALA:CB	2.51	0.41
3:F:189:ASN:HD22	3:F:391:ARG:CG	2.33	0.41
2:B:323:LYS:HZ1	2:B:325:HIS:HD2	1.68	0.40
1:D:171:ARG:HH11	1:D:171:ARG:HG3	1.86	0.40
1:A:135:LEU:HG	1:A:139:ASN:HD21	1.85	0.40
1:A:136:LEU:O	1:A:140:VAL:HG13	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:337:LYS:HE2	2:B:374:PHE:CG	2.55	0.40
3:C:261:ASP:CB	3:C:282:ALA:HB3	2.52	0.40
2:E:315:GLU:CG	2:E:321:LYS:NZ	2.84	0.40
2:E:415:ARG:N	2:E:434:GLY:HA2	2.37	0.40
2:B:387:THR:OG1	2:B:388:SER:N	2.54	0.40
3:C:262:TYR:CE2	3:C:290:PHE:HB2	2.57	0.40
2:E:351:ASN:ND2	2:E:354:MET:H	2.19	0.40
3:F:322:PHE:CB	3:F:338:LYS:HG3	2.51	0.40
3:C:107:ILE:HD13	3:C:107:ILE:C	2.41	0.40
3:C:325:ASN:HB3	3:C:328:GLU:HB3	2.04	0.40
1:D:147:MET:O	1:D:148:LYS:C	2.60	0.40
2:E:172:LEU:HD22	3:F:113:ILE:CG1	2.51	0.40
3:F:365:ASN:HD22	3:F:365:ASN:C	2.23	0.40
6:K:1:NAG:C4	6:K:2:NAG:HN2	2.34	0.40
3:C:205:LYS:HB3	3:C:205:LYS:HE2	1.88	0.40
3:C:246:LEU:HD22	3:C:265:PHE:CE1	2.57	0.40
3:C:266:LYS:HB2	3:C:266:LYS:HE3	1.84	0.40
1:D:133:ILE:HG23	1:D:137:GLN:HG3	2.03	0.40
3:F:178:PHE:CD2	3:F:232:LYS:HD3	2.56	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	63/66 (96%)	58 (92%)	4 (6%)	1 (2%)	8 27
1	D	56/66 (85%)	48 (86%)	7 (12%)	1 (2%)	7 24
2	B	296/313 (95%)	261 (88%)	28 (10%)	7 (2%)	5 18
2	E	292/313 (93%)	269 (92%)	20 (7%)	3 (1%)	13 39
3	C	297/311 (96%)	266 (90%)	26 (9%)	5 (2%)	7 26

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	F	283/311 (91%)	257 (91%)	24 (8%)	2 (1%)	19	48
4	G	2/4 (50%)	2 (100%)	0	0	100	100
4	I	2/4 (50%)	2 (100%)	0	0	100	100
5	H	2/4 (50%)	1 (50%)	1 (50%)	0	100	100
5	J	2/4 (50%)	2 (100%)	0	0	100	100
All	All	1295/1396 (93%)	1166 (90%)	110 (8%)	19 (2%)	8	29

All (19) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	162	PRO
2	B	399	GLY
2	B	435	VAL
2	E	281	ASP
3	F	240	SER
2	B	231	SER
2	B	232	SER
2	B	439	ASN
3	C	198	LEU
3	C	362	GLY
2	E	435	VAL
3	F	390	ASN
3	C	97	GLU
3	C	199	ASP
3	C	285	ASP
2	E	351	ASN
1	D	137	GLN
2	B	390	PRO
1	A	127	ILE

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	60/61 (98%)	57 (95%)	3 (5%)	20	51
1	D	53/61 (87%)	50 (94%)	3 (6%)	17	46
2	B	256/271 (94%)	242 (94%)	14 (6%)	18	47
2	E	252/271 (93%)	238 (94%)	14 (6%)	17	47
3	C	252/259 (97%)	238 (94%)	14 (6%)	17	47
3	F	239/259 (92%)	232 (97%)	7 (3%)	37	71
4	G	3/3 (100%)	2 (67%)	1 (33%)	0	0
4	I	3/3 (100%)	2 (67%)	1 (33%)	0	0
5	H	3/3 (100%)	3 (100%)	0	100	100
5	J	3/3 (100%)	3 (100%)	0	100	100
All	All	1124/1194 (94%)	1067 (95%)	57 (5%)	20	51

All (57) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	144	LEU
1	A	176	LYS
1	A	185	LEU
2	B	184	SER
2	B	190	MET
2	B	196	PRO
2	B	210	GLU
2	B	253	GLN
2	B	301	GLN
2	B	304	ARG
2	B	325	HIS
2	B	351	ASN
2	B	359	GLN
2	B	376	SER
2	B	378	TYR
2	B	387	THR
2	B	421	GLN
3	C	107	ILE
3	C	117	ASN
3	C	118	ASN
3	C	143	VAL
3	C	176	GLN
3	C	244	TYR
3	C	250	LEU

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Mol	Chain	Res	Type
3	C	254	ASN
3	C	297	ASP
3	C	317	ASN
3	C	325	ASN
3	C	365	ASN
3	C	374	THR
3	C	383	THR
1	D	134	GLN
1	D	176	LYS
1	D	185	LEU
2	E	172	LEU
2	E	176	ARG
2	E	190	MET
2	E	196	PRO
2	E	210	GLU
2	E	234	LYS
2	E	253	GLN
2	E	280	THR
2	E	301	GLN
2	E	321	LYS
2	E	346	ARG
2	E	351	ASN
2	E	359	GLN
2	E	421	GLN
3	F	177	GLN
3	F	317	ASN
3	F	325	ASN
3	F	329	GLN
3	F	365	ASN
3	F	374	THR
3	F	383	THR
4	G	3	ARG
4	I	3	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (68) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	131	GLN
1	A	137	GLN
1	A	139	ASN
1	A	187	GLN
2	B	189	GLN

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Mol	Chain	Res	Type
2	B	202	ASN
2	B	253	GLN
2	B	256	GLN
2	B	271	GLN
2	B	296	ASN
2	B	301	GLN
2	B	325	HIS
2	B	339	GLN
2	B	351	ASN
2	B	421	GLN
2	B	439	ASN
3	C	111	GLN
3	C	115	ASN
3	C	117	ASN
3	C	118	ASN
3	C	119	GLN
3	C	136	GLN
3	C	163	GLN
3	C	176	GLN
3	C	189	ASN
3	C	230	ASN
3	C	239	GLN
3	C	307	HIS
3	C	317	ASN
3	C	319	ASN
3	C	325	ASN
3	C	350	GLN
3	C	361	ASN
3	C	365	ASN
1	D	143	GLN
1	D	181	GLN
1	D	184	GLN
1	D	187	GLN
2	E	189	GLN
2	E	202	ASN
2	E	253	GLN
2	E	256	GLN
2	E	271	GLN
2	E	296	ASN
2	E	301	GLN
2	E	339	GLN
2	E	351	ASN

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Mol	Chain	Res	Type
2	E	359	GLN
2	E	408	HIS
2	E	421	GLN
2	E	429	HIS
2	E	439	ASN
3	F	111	GLN
3	F	115	ASN
3	F	117	ASN
3	F	119	GLN
3	F	123	ASN
3	F	144	GLN
3	F	177	GLN
3	F	189	ASN
3	F	230	ASN
3	F	239	GLN
3	F	254	ASN
3	F	307	HIS
3	F	317	ASN
3	F	319	ASN
3	F	325	ASN
3	F	365	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)

6 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	$\#\|Z\| > 2$
6	NAG	K	1	6,2	14,14,15	0.73	0	17,19,21	0.79	1 (5%)
6	NAG	K	2	6	14,14,15	0.71	0	17,19,21	0.59	0
6	FUC	K	3	6	10,10,11	0.56	0	14,14,16	0.28	0
6	NAG	L	1	6,2	14,14,15	0.75	0	17,19,21	1.25	3 (17%)
6	NAG	L	2	6	14,14,15	0.75	1 (7%)	17,19,21	0.79	0
6	FUC	L	3	6	10,10,11	0.58	0	14,14,16	0.66	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
6	NAG	K	1	6,2	-	4/6/23/26	0/1/1/1
6	NAG	K	2	6	-	3/6/23/26	0/1/1/1
6	FUC	K	3	6	-	-	0/1/1/1
6	NAG	L	1	6,2	-	4/6/23/26	0/1/1/1
6	NAG	L	2	6	-	5/6/23/26	0/1/1/1
6	FUC	L	3	6	-	-	0/1/1/1

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	L	2	NAG	C1-C2	2.32	1.55	1.52

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	L	1	NAG	C2-N2-C7	-2.64	119.36	122.90
6	L	1	NAG	O5-C1-C2	-2.44	107.52	111.29
6	K	1	NAG	C2-N2-C7	-2.28	119.85	122.90
6	L	1	NAG	C3-C4-C5	2.23	114.28	110.23

There are no chirality outliers.

All (16) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
6	K	1	NAG	C8-C7-N2-C2
6	K	1	NAG	O7-C7-N2-C2
6	K	2	NAG	C3-C2-N2-C7

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Mol	Chain	Res	Type	Atoms
6	K	2	NAG	C8-C7-N2-C2
6	K	2	NAG	O7-C7-N2-C2
6	L	2	NAG	C3-C2-N2-C7
6	L	2	NAG	C8-C7-N2-C2
6	L	2	NAG	O7-C7-N2-C2
6	L	2	NAG	O5-C5-C6-O6
6	L	1	NAG	C8-C7-N2-C2
6	L	1	NAG	O7-C7-N2-C2
6	L	1	NAG	O5-C5-C6-O6
6	L	2	NAG	C4-C5-C6-O6
6	L	1	NAG	C4-C5-C6-O6
6	K	1	NAG	C4-C5-C6-O6
6	K	1	NAG	O5-C5-C6-O6

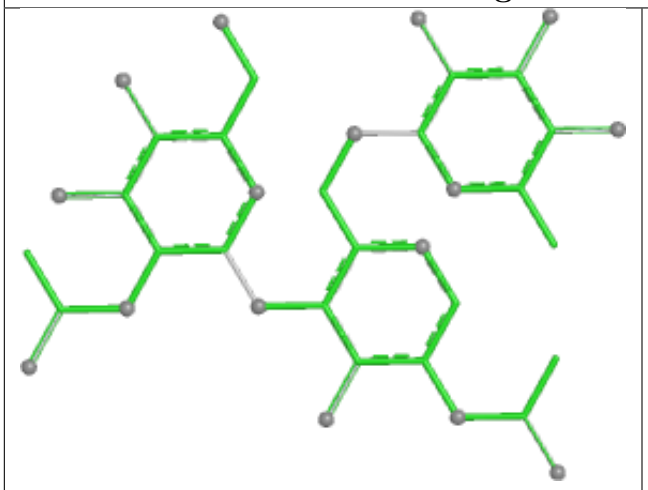
There are no ring outliers.

4 monomers are involved in 14 short contacts:

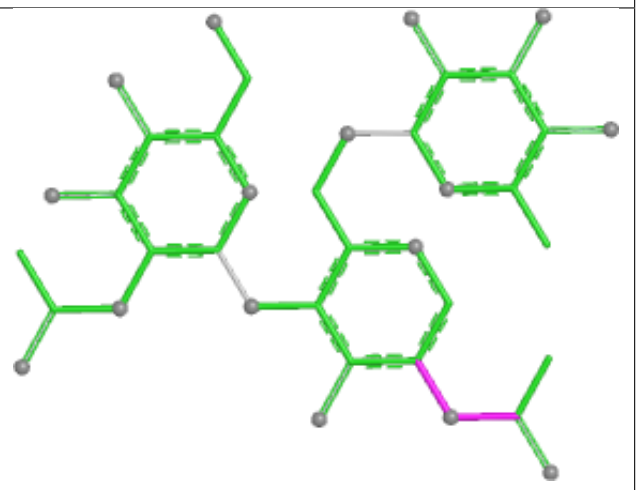
Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	L	3	FUC	6	0
6	K	1	NAG	6	0
6	K	2	NAG	4	0
6	L	1	NAG	7	0

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

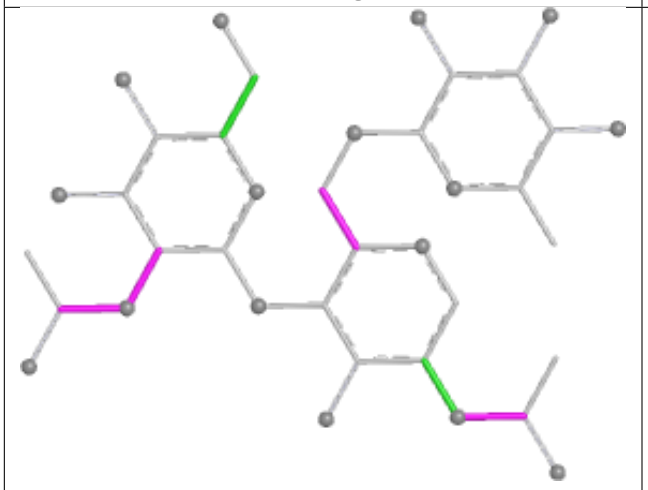
Oligosaccharide Chain K



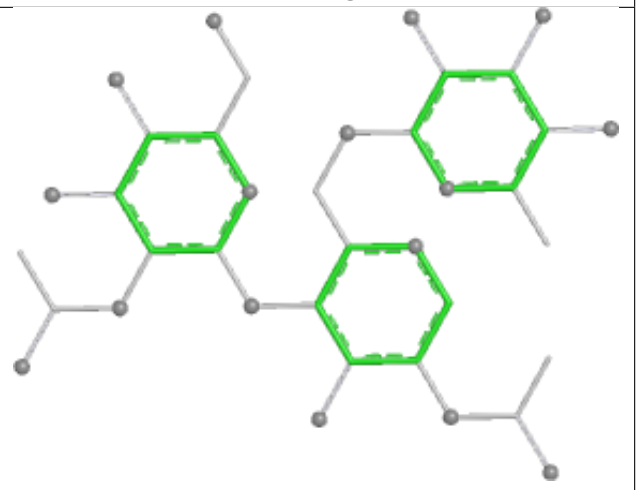
Bond lengths



Bond angles

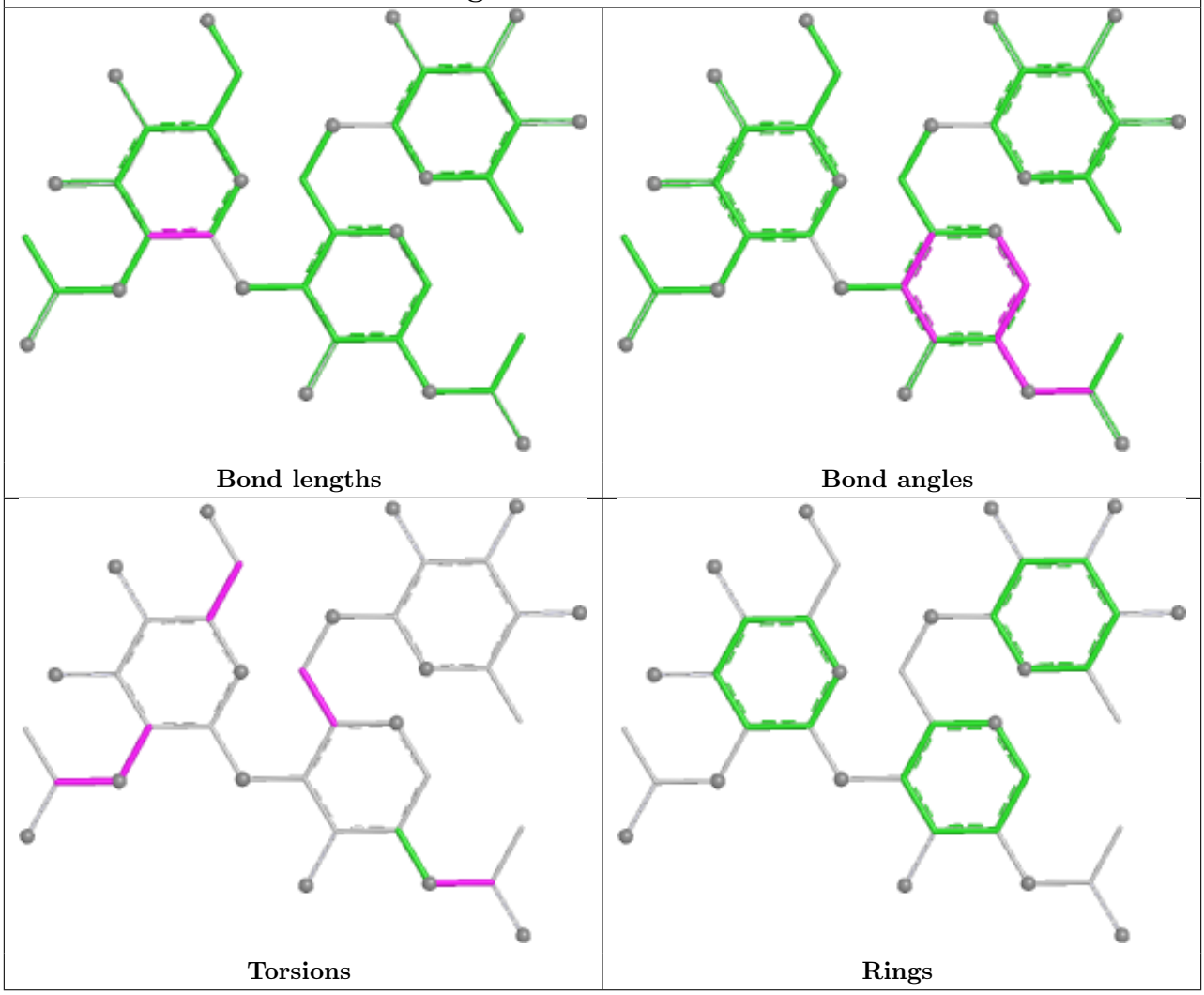


Torsions



Rings

Oligosaccharide Chain L



5.6 Ligand geometry (i)

Of 4 ligands modelled in this entry, 4 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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 Fit of model and data (i)

6.1 Protein, DNA and RNA chains (i)

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, 95th 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	65/66 (98%)	0.20	2 (3%) 51 43	27, 64, 99, 112	0
1	D	58/66 (87%)	0.43	8 (13%) 8 7	28, 73, 117, 119	0
2	B	298/313 (95%)	-0.23	2 (0%) 84 79	24, 43, 73, 92	0
2	E	294/313 (93%)	-0.58	5 (1%) 69 61	14, 30, 69, 106	0
3	C	299/311 (96%)	-0.23	3 (1%) 79 73	27, 47, 83, 94	0
3	F	285/311 (91%)	-0.47	5 (1%) 67 60	20, 34, 63, 107	0
4	G	4/4 (100%)	1.23	0 100 100	72, 74, 74, 77	0
4	I	4/4 (100%)	0.60	0 100 100	41, 41, 44, 47	0
5	H	4/4 (100%)	1.74	2 (50%) 0 1	76, 77, 80, 80	0
5	J	4/4 (100%)	0.22	0 100 100	40, 44, 47, 48	0
All	All	1315/1396 (94%)	-0.30	27 (2%) 63 55	14, 40, 86, 119	0

All (27) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	190	ALA	4.1
1	D	190	ALA	3.7
2	B	162	PRO	3.3
2	E	168	LEU	3.2
1	D	140	VAL	3.1
3	F	113	ILE	3.0
2	B	458	PHE	2.8
1	A	126	VAL	2.8
2	E	284	ASN	2.7
3	C	394	ILE	2.6
2	E	458	PHE	2.6
3	C	240	SER	2.6
2	E	171	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
1	D	135	LEU	2.5
1	D	184	GLN	2.3
1	D	188	VAL	2.3
1	D	134	GLN	2.2
2	E	165	LEU	2.2
3	C	96	TYR	2.2
3	F	118	ASN	2.2
5	H	3	ARG	2.2
3	F	393	THR	2.1
3	F	110	LEU	2.1
1	D	136	LEU	2.1
1	D	182	GLN	2.1
3	F	175	ASN	2.1
5	H	1	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)

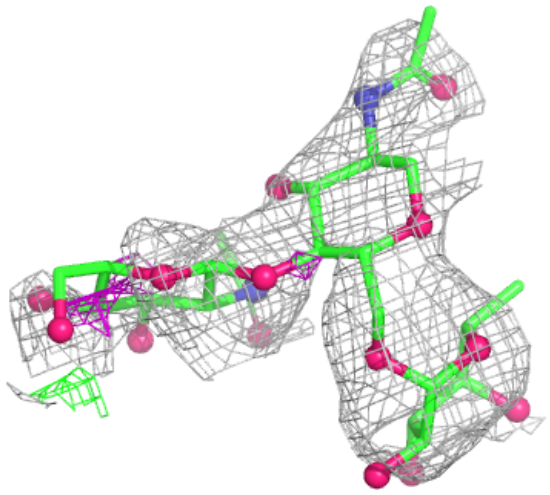
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists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

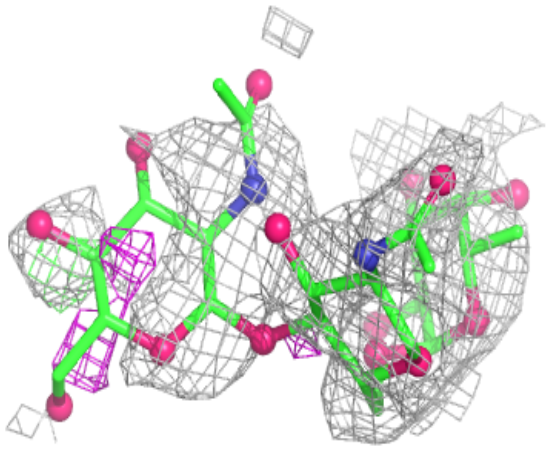
Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
6	NAG	K	2	14/15	0.39	0.20	105,106,108,110	0
6	NAG	L	2	14/15	0.59	0.15	79,83,87,88	0
6	FUC	K	3	10/11	0.60	0.15	98,99,100,100	0
6	FUC	L	3	10/11	0.62	0.16	76,77,78,79	0
6	NAG	K	1	14/15	0.73	0.15	90,93,98,102	0
6	NAG	L	1	14/15	0.86	0.11	58,62,73,75	0

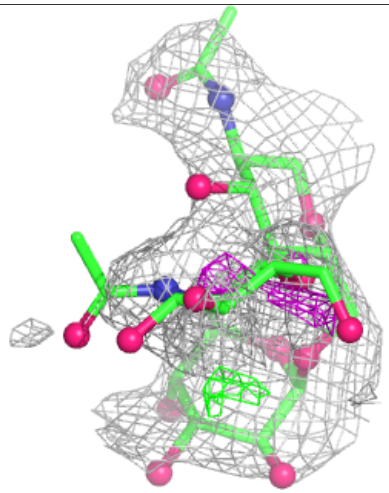
The following is a graphical depiction of the model fit to experimental electron density for oligosaccharide. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around Chain K:

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

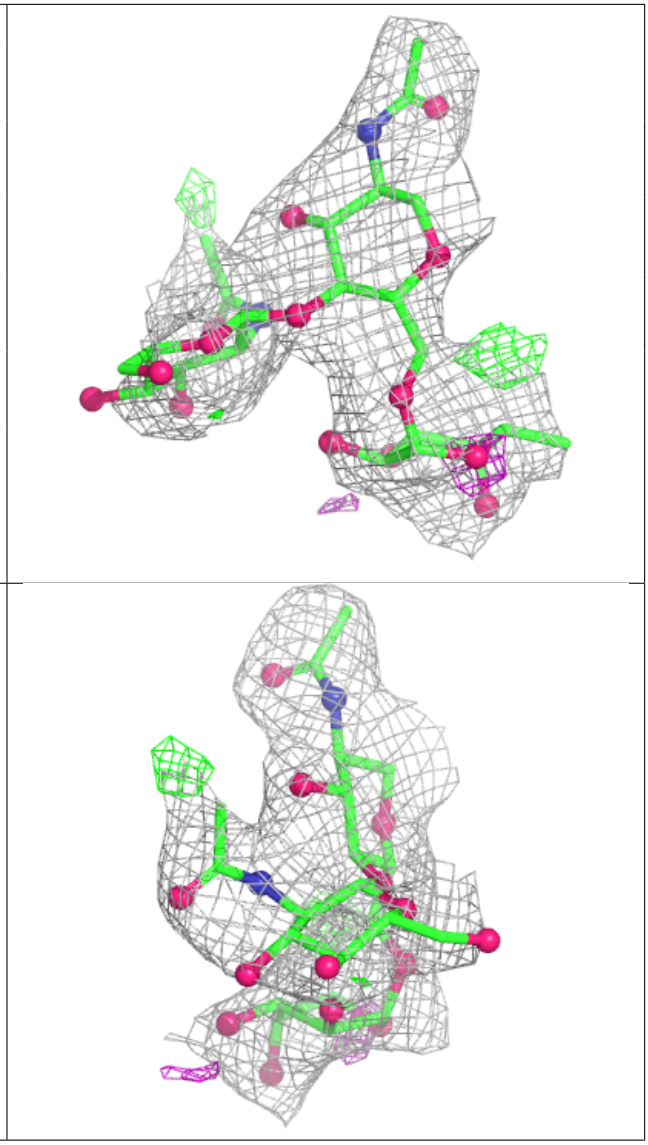






Electron density around Chain L:

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



6.4 Ligands (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, 95th 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
7	CA	E	2	1/1	0.92	0.07	34,34,34,34	0
7	CA	B	2	1/1	0.94	0.09	58,58,58,58	0
7	CA	C	1	1/1	0.99	0.02	39,39,39,39	0
7	CA	F	1	1/1	0.99	0.02	30,30,30,30	0

6.5 Other polymers (i)

There are no such residues in this entry.