Full wwPDB X-ray Structure Validation Report ⓘ

Nov 5, 2023 – 07:06 PM EST

PDB ID	:	6WJ8
Title	:	Crystal structure of gamma-aminobutyrate aminotransferase PuuE from Klebsiella pneumoniae in complex with PLP
Authors	:	Stogios, P.J.; Evdokimova, E.; McChesney, C.; Di Leo, R.; Savchenko, A.; Joachimiak, A.; Satchell, K.J.F.; Center for Structural Genomics of Infectious Diseases (CSGID)
Deposited on	:	2020-04-13
Resolution	:	2.59 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 ⓘ symbol.

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

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

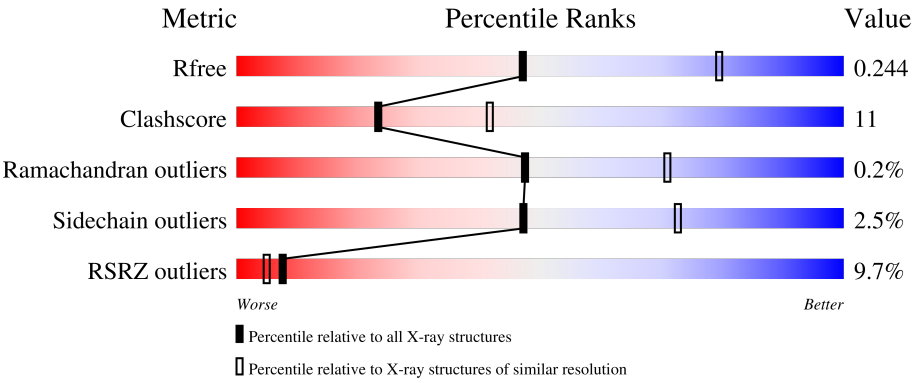
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, 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 2.59 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	3163 (2.60-2.60)
Clashscore	141614	3518 (2.60-2.60)
Ramachandran outliers	138981	3455 (2.60-2.60)
Sidechain outliers	138945	3455 (2.60-2.60)
RSRZ outliers	127900	3104 (2.60-2.60)

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	421	2% 85% 14%
1	B	421	% 82% 18%
1	C	421	14% 70% 28%
1	D	421	21% 67% 32%

2 Entry composition (i)

There are 2 unique types of molecules in this entry. The entry contains 12854 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 4-aminobutyrate aminotransferase PuuE.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	421	Total	C	N	O	P	S	0	0	0
			3177	2016	550	595	1	15			
1	B	421	Total	C	N	O	P	S	0	0	0
			3177	2016	550	595	1	15			
1	C	419	Total	C	N	O	P	S	0	0	0
			3160	2005	547	593	1	14			
1	D	419	Total	C	N	O	P	S	0	0	0
			3160	2005	547	593	1	14			

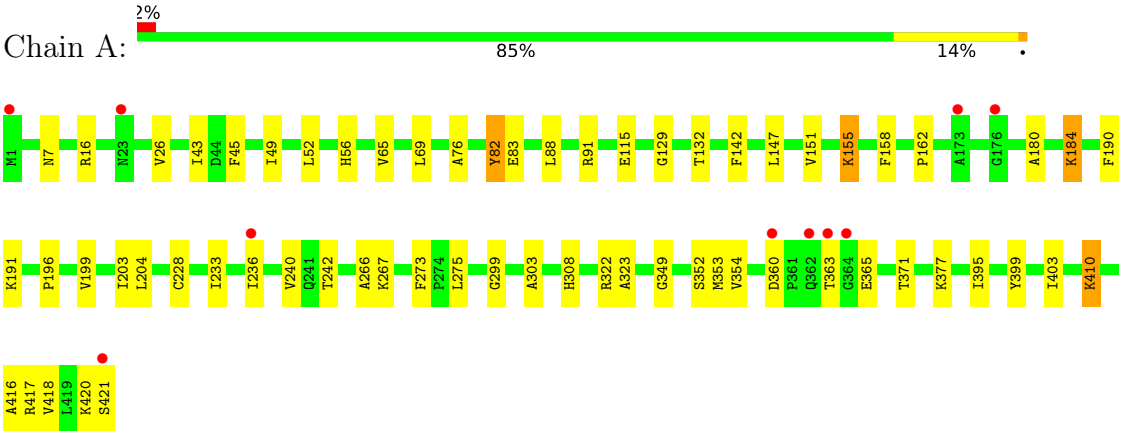
- Molecule 2 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
2	A	58	Total	O	0	1
			59	59		
2	B	79	Total	O	0	1
			80	80		
2	C	22	Total	O	0	0
			22	22		
2	D	19	Total	O	0	0
			19	19		

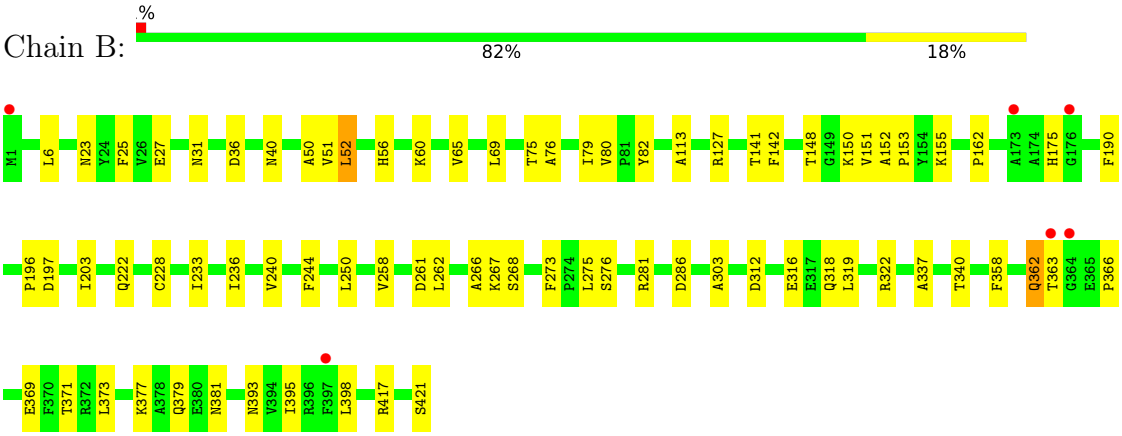
3 Residue-property plots (i)

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.

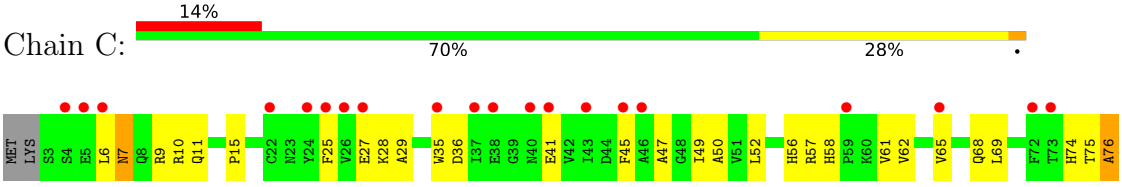
• Molecule 1: 4-aminobutyrate aminotransferase PuuE

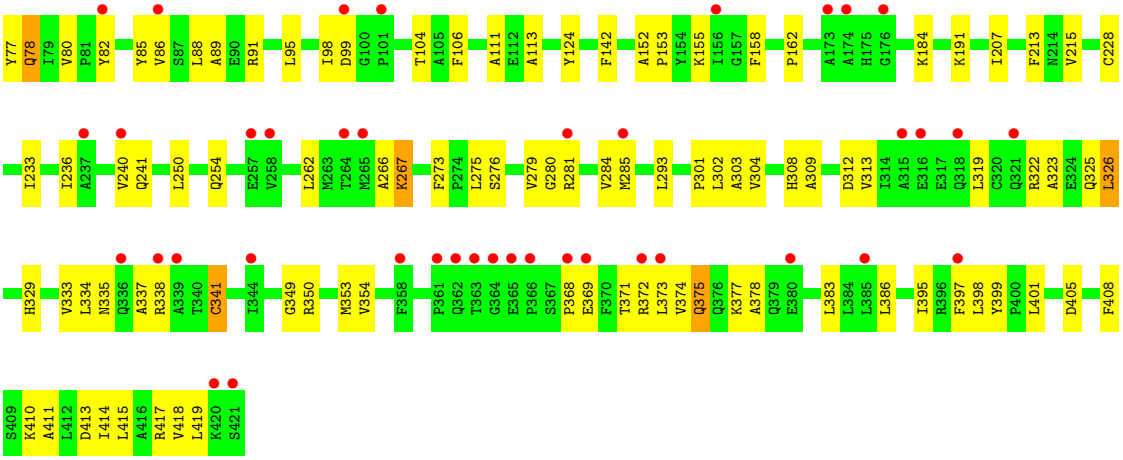


• Molecule 1: 4-aminobutyrate aminotransferase PuuE

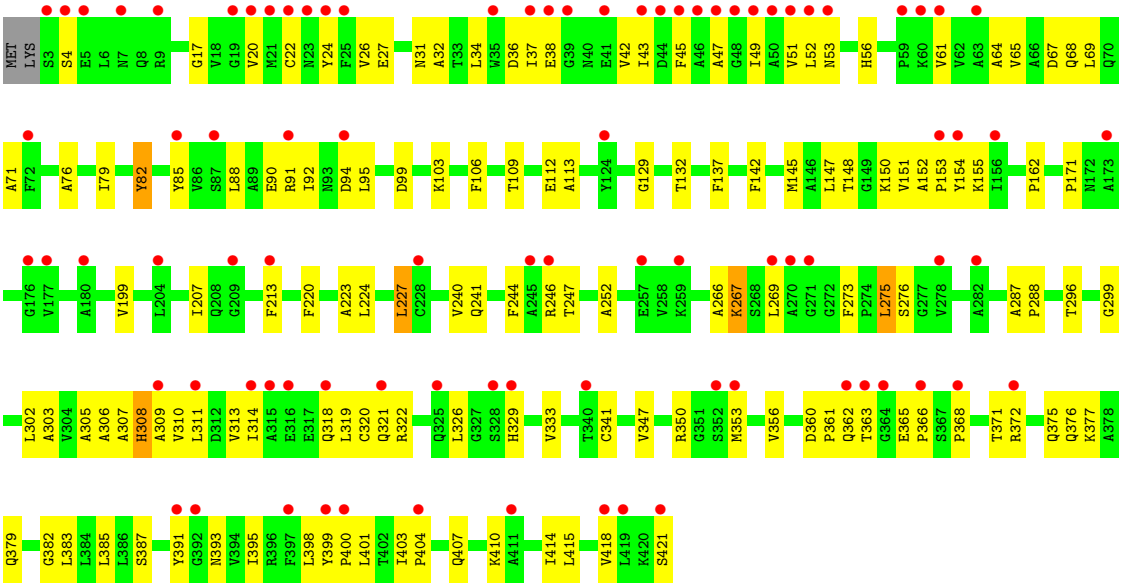


• Molecule 1: 4-aminobutyrate aminotransferase PuuE





• Molecule 1: 4-aminobutyrate aminotransferase PuuE



4 Data and refinement statistics (i)

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α, β, γ	193.54Å 63.35Å 128.13Å 90.00° 95.70° 90.00°	Depositor
Resolution (Å)	24.93 – 2.59 24.93 – 2.59	Depositor EDS
% Data completeness (in resolution range)	99.0 (24.93-2.59) 90.1 (24.93-2.59)	Depositor EDS
R_{merge}	0.09	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	0.71 (at 2.60Å)	Xtriage
Refinement program	PHENIX 1.15_3448	Depositor
R, R_{free}	0.196 , 0.244 0.196 , 0.244	Depositor DCC
R_{free} test set	2000 reflections (4.15%)	wwPDB-VP
Wilson B-factor (Å^2)	50.4	Xtriage
Anisotropy	0.097	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.31 , 57.8	EDS
L-test for twinning[2]	$< \|L\| > = 0.49$, $< L^2 > = 0.32$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.94	EDS
Total number of atoms	12854	wwPDB-VP
Average B, all atoms (Å^2)	79.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 4.32% 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: LLP

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	0/3219	0.43	0/4375
1	B	0.27	0/3219	0.43	0/4375
1	C	0.29	0/3202	0.46	0/4354
1	D	0.29	0/3202	0.52	0/4354
All	All	0.29	0/12842	0.46	0/17458

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	3177	0	3153	40	0
1	B	3177	0	3153	44	0
1	C	3160	0	3128	104	0
1	D	3160	0	3128	116	0
2	A	59	0	0	0	0
2	B	80	0	0	0	0
2	C	22	0	0	2	0
2	D	19	0	0	0	0
All	All	12854	0	12562	286	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 11.

All (286) 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:D:61:VAL:HG21	1:D:306:ALA:CB	1.83	1.06
1:D:61:VAL:HG21	1:D:306:ALA:HB1	1.40	1.03
1:D:61:VAL:HB	1:D:309:ALA:CB	1.90	1.01
1:D:61:VAL:HB	1:D:309:ALA:HB3	1.43	1.00
1:D:61:VAL:CG2	1:D:306:ALA:HA	1.96	0.96
1:D:61:VAL:HG23	1:D:306:ALA:HA	1.46	0.96
1:D:61:VAL:CG2	1:D:306:ALA:CB	2.48	0.91
1:D:311:LEU:HA	1:D:314:ILE:HG12	1.52	0.91
1:D:310:VAL:O	1:D:314:ILE:HG12	1.72	0.90
1:C:58:HIS:CD2	1:C:313:VAL:HG21	2.11	0.85
1:C:58:HIS:HD2	1:C:313:VAL:HG21	1.44	0.83
1:D:22:CYS:HB3	1:D:24:TYR:CE1	2.15	0.81
1:C:6:LEU:HD13	1:C:6:LEU:O	1.82	0.80
1:D:61:VAL:CG2	1:D:306:ALA:CA	2.59	0.80
1:D:311:LEU:HA	1:D:314:ILE:CG1	2.14	0.77
1:D:61:VAL:HG21	1:D:306:ALA:CA	2.14	0.77
1:D:368:PRO:O	1:D:372:ARG:HB2	1.85	0.75
1:D:379:GLN:HA	1:D:383:LEU:H	1.53	0.72
1:B:79:ILE:HG22	1:B:80:VAL:HG23	1.71	0.71
1:C:75:THR:HG21	1:D:26:VAL:HG11	1.74	0.70
1:A:417:ARG:HA	1:A:420:LYS:HE2	1.73	0.69
1:C:411:ALA:HA	1:C:414:ILE:HD12	1.73	0.69
1:C:319:LEU:HD22	1:C:401:LEU:HB3	1.73	0.69
1:D:88:LEU:HD23	1:D:88:LEU:O	1.93	0.67
1:D:88:LEU:HD22	1:D:106:PHE:HZ	1.60	0.67
1:B:52:LEU:HD22	1:B:56:HIS:HA	1.77	0.67
1:D:363:THR:HG21	1:D:365:GLU:OE2	1.95	0.66
1:A:322:ARG:NH2	1:A:403:ILE:O	2.28	0.65
1:C:369:GLU:O	1:C:373:LEU:N	2.25	0.65
1:C:240:VAL:HG13	1:C:266:ALA:HB3	1.78	0.65
1:D:43:ILE:HD12	1:D:407:GLN:HE21	1.60	0.65
1:C:207:ILE:HG12	1:C:215:VAL:HG12	1.80	0.64
1:C:350:ARG:NH2	2:C:501:HOH:O	2.30	0.64
1:D:151:VAL:HA	1:D:155:LYS:HG3	1.78	0.64
1:D:137:PHE:HA	1:D:148:THR:HG23	1.80	0.63
1:D:61:VAL:HG23	1:D:306:ALA:CA	2.23	0.63
1:A:151:VAL:HA	1:A:155:LYS:HG3	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:51:VAL:HG13	1:D:52:LEU:HG	1.80	0.62
1:D:307:ALA:O	1:D:311:LEU:HG	2.00	0.61
1:D:240:VAL:HG13	1:D:266:ALA:HB3	1.81	0.61
1:C:6:LEU:HD12	1:C:25:PHE:CZ	2.36	0.61
1:A:88:LEU:HB2	1:A:308:HIS:NE2	2.15	0.60
1:C:28:LYS:HB3	1:C:35:TRP:HB2	1.82	0.60
1:C:7:ASN:ND2	1:C:25:PHE:CZ	2.70	0.60
1:D:213:PHE:HZ	1:D:398:LEU:HD21	1.66	0.59
1:C:10:ARG:HH21	1:C:11:GLN:HE22	1.50	0.59
1:D:311:LEU:CA	1:D:314:ILE:HG12	2.31	0.58
1:B:60:LYS:NZ	1:B:316:GLU:OE1	2.37	0.58
1:D:313:VAL:HG12	1:D:319:LEU:HD11	1.85	0.58
1:C:50:ALA:HB2	1:C:398:LEU:HD13	1.84	0.58
1:C:410:LYS:HG2	1:C:414:ILE:HD11	1.85	0.58
1:D:61:VAL:CG2	1:D:306:ALA:HB2	2.32	0.57
1:D:43:ILE:HD12	1:D:407:GLN:NE2	2.18	0.57
1:C:91:ARG:NH1	1:C:308:HIS:O	2.32	0.57
1:C:213:PHE:CE1	1:C:353:MET:HG2	2.39	0.57
1:A:275:LEU:HB2	1:A:303:ALA:HB1	1.85	0.57
1:D:129:GLY:HA3	1:D:199:VAL:HA	1.87	0.57
1:D:372:ARG:HH21	1:D:387:SER:CB	2.18	0.56
1:C:68:GLN:HB3	1:C:302:LEU:HD23	1.87	0.56
1:C:6:LEU:HD13	1:C:6:LEU:C	2.25	0.56
1:D:113:ALA:HB2	1:D:276:SER:HB2	1.87	0.56
1:D:49:ILE:HG22	1:D:49:ILE:O	2.06	0.56
1:D:42:VAL:HG22	1:D:382:GLY:HA2	1.86	0.56
1:C:7:ASN:ND2	1:C:25:PHE:CE2	2.73	0.56
1:A:240:VAL:HG13	1:A:266:ALA:HB3	1.87	0.55
1:A:360:ASP:O	1:A:363:THR:O	2.23	0.55
1:D:91:ARG:HD2	1:D:308:HIS:HE1	1.72	0.55
1:B:36:ASP:OD1	1:B:40:ASN:N	2.39	0.55
1:D:360:ASP:OD2	1:D:361:PRO:HD2	2.06	0.55
1:C:413:ASP:O	1:C:417:ARG:HD3	2.06	0.55
1:A:49:ILE:HD11	1:B:79:ILE:HD13	1.89	0.55
1:C:7:ASN:HD22	1:C:25:PHE:HE2	1.51	0.54
1:C:6:LEU:HD12	1:C:25:PHE:CE2	2.42	0.54
1:D:31:ASN:O	1:D:56:HIS:HB2	2.08	0.54
1:D:366:PRO:HB3	1:D:393:ASN:ND2	2.23	0.54
1:A:26:VAL:HG11	1:B:75:THR:HG21	1.90	0.53
1:D:47:ALA:O	1:D:51:VAL:HG12	2.08	0.53
1:A:83:GLU:HG3	1:B:6:LEU:HD21	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:247:THR:HG21	1:D:252:ALA:HB2	1.90	0.53
1:C:335:ASN:HA	1:C:338:ARG:HB2	1.90	0.53
1:C:240:VAL:HG12	1:C:267:LLP:HG2	1.91	0.53
1:D:68:GLN:HG3	1:D:302:LEU:HD23	1.90	0.53
1:A:377:LYS:HZ2	1:A:421:SER:HB2	1.73	0.53
1:B:275:LEU:HB2	1:B:303:ALA:HB1	1.91	0.53
1:A:203:ILE:HG12	1:A:236:ILE:HB	1.89	0.53
1:C:74:HIS:ND1	1:D:51:VAL:HG11	2.24	0.53
1:D:246:ARG:NH1	1:D:398:LEU:HA	2.24	0.53
1:A:363:THR:HG22	1:A:365:GLU:HG2	1.90	0.53
1:D:368:PRO:O	1:D:372:ARG:N	2.39	0.52
1:D:24:TYR:H	1:D:24:TYR:HD1	1.55	0.52
1:D:347:VAL:HG12	1:D:356:VAL:HG23	1.91	0.52
1:D:224:LEU:HD23	1:D:227:LEU:HD21	1.90	0.52
1:B:52:LEU:HD13	1:B:56:HIS:CE1	2.45	0.52
1:C:322:ARG:HG2	1:C:326:LEU:HD11	1.92	0.52
1:D:322:ARG:O	1:D:326:LEU:HD12	2.09	0.52
1:C:58:HIS:O	1:C:62:VAL:HG12	2.10	0.52
1:D:385:LEU:HD23	1:D:395:ILE:HG21	1.92	0.52
1:B:60:LYS:NZ	1:B:312:ASP:HB3	2.25	0.51
1:B:190:PHE:CG	1:B:196:PRO:HG3	2.46	0.51
1:C:58:HIS:CD2	1:C:313:VAL:CG2	2.90	0.51
1:B:377:LYS:HE2	1:B:421:SER:HB2	1.93	0.51
1:C:337:ALA:O	1:C:341:CYS:HB3	2.11	0.51
1:C:155:LYS:HA	1:C:158:PHE:HD2	1.75	0.51
1:C:323:ALA:HB2	1:C:401:LEU:HD21	1.92	0.51
1:D:377:LYS:HB2	1:D:418:VAL:HG12	1.92	0.51
1:A:82:TYR:OH	1:A:299:GLY:O	2.25	0.51
1:B:358:PHE:HE1	1:B:395:ILE:HD12	1.75	0.51
1:C:369:GLU:HA	1:C:372:ARG:HD3	1.93	0.51
1:D:410:LYS:O	1:D:414:ILE:HG13	2.11	0.51
1:C:15:PRO:HA	1:D:103:LYS:HE2	1.93	0.50
1:D:375:GLN:OE1	1:D:376:GLN:HG3	2.11	0.50
1:A:43:ILE:HD11	1:A:410:LYS:HD2	1.92	0.50
1:C:111:ALA:N	1:C:267:LLP:OP2	2.44	0.50
1:A:129:GLY:HA3	1:A:199:VAL:HA	1.93	0.50
1:C:29:ALA:O	1:C:57:ARG:NH2	2.44	0.50
1:C:89:ALA:HB1	1:C:104:THR:HB	1.93	0.50
1:D:246:ARG:HH12	1:D:398:LEU:HA	1.77	0.50
1:B:31:ASN:O	1:B:56:HIS:HD2	1.94	0.49
1:B:369:GLU:O	1:B:373:LEU:HG	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:85:TYR:CE2	1:C:106:PHE:HB2	2.46	0.49
1:C:262:LEU:HD21	1:C:285:MET:HG2	1.93	0.49
1:D:318:GLN:HG3	1:D:321:GLN:HB2	1.94	0.49
1:C:82:TYR:CE2	1:C:301:PRO:HG3	2.48	0.49
1:A:228:CYS:HA	1:A:233:ILE:HB	1.94	0.49
1:A:180:ALA:O	1:A:184:LYS:HE2	2.13	0.49
1:A:199:VAL:O	1:A:233:ILE:HD13	2.13	0.49
1:D:269:LEU:CD2	1:D:275:LEU:HD23	2.42	0.49
1:D:223:ALA:O	1:D:227:LEU:HD23	2.12	0.49
1:A:199:VAL:HB	1:A:233:ILE:CD1	2.43	0.48
1:C:82:TYR:CZ	1:C:301:PRO:HG3	2.48	0.48
1:A:142:PHE:CZ	1:A:162:PRO:HD3	2.49	0.48
1:C:65:VAL:HG21	1:C:273:PHE:CZ	2.48	0.48
1:C:241:GLN:HB2	1:C:267:LLP:O3	2.14	0.48
1:D:61:VAL:HA	1:D:64:ALA:HB3	1.96	0.48
1:B:222:GLN:HA	1:B:258:VAL:HG21	1.95	0.48
1:C:368:PRO:O	1:C:372:ARG:N	2.39	0.48
1:B:366:PRO:HB3	1:B:393:ASN:ND2	2.28	0.48
1:C:49:ILE:HD11	1:D:79:ILE:HD11	1.95	0.48
1:C:91:ARG:NH2	1:C:312:ASP:OD1	2.47	0.48
1:C:371:THR:O	1:C:375:GLN:HB2	2.14	0.48
1:D:61:VAL:HB	1:D:309:ALA:HB1	1.87	0.48
1:D:383:LEU:HG	1:D:385:LEU:HD13	1.95	0.48
1:B:337:ALA:HA	1:B:340:THR:HG22	1.94	0.48
1:C:57:ARG:HH12	1:D:71:ALA:C	2.16	0.48
1:C:262:LEU:HD23	1:C:280:GLY:HA3	1.94	0.48
1:D:150:LYS:HD3	1:D:154:TYR:HE1	1.79	0.47
1:A:371:THR:HG23	1:A:395:ILE:HG13	1.96	0.47
1:B:228:CYS:HB3	1:B:233:ILE:O	2.14	0.47
1:D:27:GLU:HB2	1:D:37:ILE:HD13	1.95	0.47
1:D:65:VAL:HG11	1:D:273:PHE:CE2	2.49	0.47
1:B:240:VAL:HG13	1:B:266:ALA:HB3	1.95	0.47
1:B:371:THR:HG23	1:B:395:ILE:HG13	1.97	0.47
1:C:374:VAL:HG13	1:C:395:ILE:HD11	1.96	0.47
1:C:386:LEU:HD21	1:D:79:ILE:HD13	1.96	0.47
1:C:45:PHE:HA	1:C:399:TYR:HA	1.96	0.47
1:C:415:LEU:O	1:C:419:LEU:HG	2.15	0.47
1:D:244:PHE:HZ	1:D:269:LEU:HD13	1.80	0.47
1:D:109:THR:HG23	1:D:112:GLU:H	1.79	0.47
1:D:91:ARG:CD	1:D:308:HIS:HE1	2.28	0.47
1:C:88:LEU:HD22	1:C:304:VAL:HG13	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:250:LEU:HB3	1:C:254:GLN:OE1	2.16	0.46
1:D:88:LEU:HD22	1:D:106:PHE:CZ	2.45	0.46
1:D:275:LEU:HB2	1:D:303:ALA:HB1	1.97	0.46
1:B:142:PHE:CZ	1:B:162:PRO:HD3	2.50	0.46
1:D:244:PHE:CZ	1:D:269:LEU:HD13	2.51	0.46
1:C:334:LEU:HD11	1:C:397:PHE:CE2	2.51	0.46
1:D:329:HIS:O	1:D:333:VAL:HG23	2.15	0.46
1:C:77:TYR:O	1:D:20:VAL:HG12	2.16	0.46
1:D:67:ASP:OD1	1:D:68:GLN:N	2.49	0.46
1:D:319:LEU:HD22	1:D:401:LEU:HB2	1.98	0.46
1:D:403:ILE:HD11	1:D:407:GLN:HB3	1.98	0.46
1:D:31:ASN:HB3	1:D:32:ALA:H	1.50	0.46
1:D:246:ARG:HH22	1:D:398:LEU:C	2.20	0.46
1:C:57:ARG:NH1	1:D:69:LEU:O	2.48	0.46
1:D:45:PHE:CD1	1:D:399:TYR:HB3	2.51	0.46
1:B:362:GLN:CD	1:B:363:THR:H	2.19	0.45
1:C:27:GLU:HG3	1:C:36:ASP:C	2.36	0.45
1:B:65:VAL:HG21	1:B:273:PHE:CZ	2.51	0.45
1:C:7:ASN:ND2	1:C:25:PHE:HZ	2.15	0.45
1:C:349:GLY:HA3	1:C:354:VAL:HA	1.98	0.45
1:D:368:PRO:O	1:D:372:ARG:CB	2.61	0.45
1:C:155:LYS:HA	1:C:158:PHE:CD2	2.51	0.45
1:C:418:VAL:HG23	1:C:419:LEU:HD23	1.99	0.45
1:D:241:GLN:HB2	1:D:267:LLP:O3	2.15	0.45
1:A:417:ARG:HH21	1:A:418:VAL:HG12	1.81	0.45
1:B:60:LYS:HZ3	1:B:312:ASP:HB3	1.80	0.45
1:B:261:ASP:OD1	1:B:281:ARG:NH1	2.44	0.45
1:C:95:LEU:HD23	1:C:250:LEU:HD21	1.98	0.45
1:C:6:LEU:C	1:C:6:LEU:CD1	2.85	0.45
1:C:191:LYS:NZ	2:C:505:HOH:O	2.50	0.45
1:A:349:GLY:HA3	1:A:354:VAL:HA	1.99	0.45
1:C:267:LLP:HE2	1:D:296:THR:HG21	1.99	0.45
1:C:319:LEU:HD23	1:C:319:LEU:HA	1.71	0.45
1:C:7:ASN:O	1:C:10:ARG:HB3	2.17	0.44
1:C:52:LEU:HD22	1:C:56:HIS:HA	1.98	0.44
1:C:113:ALA:HB2	1:C:276:SER:HB2	1.99	0.44
1:C:98:ILE:HG23	1:C:281:ARG:HD2	1.98	0.44
1:C:124:TYR:CG	1:C:284:VAL:HG23	2.53	0.44
1:D:36:ASP:CG	1:D:38:GLU:H	2.21	0.44
1:D:82:TYR:OH	1:D:299:GLY:O	2.29	0.44
1:D:207:ILE:HD11	1:D:353:MET:SD	2.57	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:244:PHE:CE2	1:D:269:LEU:HB2	2.52	0.44
1:D:415:LEU:HA	1:D:418:VAL:HG22	1.98	0.44
1:C:323:ALA:HB2	1:C:401:LEU:CD2	2.47	0.44
1:D:68:GLN:HG2	1:D:305:ALA:HB2	2.00	0.44
1:D:421:SER:O	1:D:421:SER:OG	2.34	0.44
1:A:88:LEU:HB2	1:A:308:HIS:HE2	1.82	0.44
1:B:203:ILE:HG12	1:B:236:ILE:HB	2.00	0.44
1:B:319:LEU:HA	1:B:322:ARG:HB2	1.98	0.44
1:D:53:ASN:HB3	1:D:401:LEU:HG	2.00	0.44
1:B:50:ALA:HB2	1:B:398:LEU:HD22	2.00	0.44
1:C:41:GLU:OE1	1:C:41:GLU:N	2.48	0.43
1:D:82:TYR:CE2	1:D:85:TYR:HB2	2.53	0.43
1:D:269:LEU:HD21	1:D:275:LEU:HD23	1.99	0.43
1:C:74:HIS:CE1	1:C:76:ALA:H	2.35	0.43
1:D:366:PRO:HG3	1:D:391:TYR:CD2	2.53	0.43
1:C:75:THR:HB	1:C:80:VAL:HG13	1.99	0.43
1:C:236:ILE:HG12	1:C:262:LEU:HB2	2.01	0.43
1:C:322:ARG:O	1:C:325:GLN:HG2	2.18	0.43
1:B:127:ARG:HD3	1:B:197:ASP:O	2.19	0.43
1:C:322:ARG:O	1:C:326:LEU:HD12	2.19	0.43
1:A:83:GLU:HB2	1:B:6:LEU:HD11	1.99	0.43
1:A:323:ALA:HB1	1:A:352:SER:HB2	1.99	0.43
1:D:287:ALA:HB3	1:D:288:PRO:HD3	2.01	0.43
1:A:132:THR:HG21	1:A:147:LEU:HB3	2.00	0.43
1:C:293:LEU:HD12	1:D:17:GLY:HA3	2.01	0.43
1:A:155:LYS:HA	1:A:158:PHE:HD2	1.84	0.42
1:A:242:THR:HG22	1:A:353:MET:SD	2.58	0.42
1:B:244:PHE:HA	1:B:250:LEU:HD12	2.01	0.42
1:C:86:VAL:O	1:C:89:ALA:HB3	2.19	0.42
1:C:373:LEU:O	1:C:377:LYS:HG3	2.19	0.42
1:D:132:THR:HG21	1:D:147:LEU:HB3	2.02	0.42
1:B:113:ALA:HB2	1:B:276:SER:HB2	2.01	0.42
1:C:329:HIS:O	1:C:333:VAL:HG22	2.20	0.42
1:D:88:LEU:HD21	1:D:92:ILE:HG13	2.01	0.42
1:A:65:VAL:HG21	1:A:273:PHE:CZ	2.54	0.42
1:D:145:MET:HB3	1:D:145:MET:HE2	1.90	0.42
1:B:51:VAL:O	1:B:268:SER:HA	2.18	0.42
1:C:275:LEU:HB2	1:C:303:ALA:HB1	2.00	0.42
1:C:378:ALA:HB1	1:C:383:LEU:HB3	2.01	0.42
1:D:91:ARG:O	1:D:95:LEU:HG	2.19	0.42
1:C:61:VAL:HG12	1:C:309:ALA:HB3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:88:LEU:HB2	1:C:308:HIS:NE2	2.35	0.42
1:C:322:ARG:NH2	1:C:405:ASP:OD1	2.52	0.42
1:D:404:PRO:O	1:D:407:GLN:HB2	2.19	0.42
1:A:69:LEU:HD23	1:A:69:LEU:HA	1.92	0.42
1:B:236:ILE:HG12	1:B:262:LEU:HB2	2.02	0.42
1:C:326:LEU:HD23	1:C:408:PHE:CD1	2.54	0.42
1:B:381:ASN:OD1	1:B:417:ARG:NH1	2.53	0.42
1:C:69:LEU:HD21	1:D:65:VAL:HG21	2.02	0.42
1:A:377:LYS:NZ	1:A:421:SER:HB2	2.34	0.41
1:D:152:ALA:HA	1:D:153:PRO:HA	1.80	0.41
1:A:416:ALA:O	1:A:420:LYS:HG3	2.20	0.41
1:B:60:LYS:HE2	1:B:60:LYS:HB3	1.72	0.41
1:B:151:VAL:HA	1:B:155:LYS:HD3	2.02	0.41
1:C:9:ARG:NE	1:D:90:GLU:OE2	2.48	0.41
1:C:47:ALA:HB1	1:C:52:LEU:HB2	2.02	0.41
1:C:78:GLN:HE21	1:C:78:GLN:H	1.68	0.41
1:D:32:ALA:HB2	1:D:400:PRO:HG2	2.03	0.41
1:D:310:VAL:HG23	1:D:311:LEU:N	2.35	0.41
1:A:52:LEU:HD13	1:A:56:HIS:CE1	2.56	0.41
1:C:228:CYS:HB3	1:C:233:ILE:O	2.20	0.41
1:D:91:ARG:HH11	1:D:308:HIS:HD1	1.68	0.41
1:A:190:PHE:CG	1:A:196:PRO:HG3	2.55	0.41
1:C:104:THR:HG23	1:C:279:VAL:HG22	2.01	0.41
1:C:152:ALA:HA	1:C:153:PRO:HA	1.83	0.41
1:B:6:LEU:HB3	1:B:25:PHE:CZ	2.56	0.41
1:C:142:PHE:CE1	1:C:162:PRO:HD3	2.56	0.41
1:D:372:ARG:HA	1:D:375:GLN:HB2	2.03	0.41
1:C:91:ARG:O	1:C:95:LEU:HD13	2.20	0.41
1:D:371:THR:O	1:D:395:ILE:HD11	2.21	0.41
1:A:115:GLU:HG2	1:B:141:THR:HA	2.03	0.41
1:B:6:LEU:HD23	1:B:6:LEU:HA	1.91	0.41
1:A:16:ARG:NE	1:B:286:ASP:O	2.48	0.40
1:C:45:PHE:CD1	1:C:399:TYR:HB3	2.56	0.40
1:C:99:ASP:H	1:C:281:ARG:NH1	2.19	0.40
1:D:171:PRO:HG3	1:D:220:PHE:CG	2.56	0.40
1:A:91:ARG:NH2	1:A:308:HIS:O	2.54	0.40
1:B:152:ALA:HA	1:B:153:PRO:HA	1.79	0.40
1:B:148:THR:HG22	1:B:150:LYS:H	1.85	0.40
1:C:52:LEU:HD13	1:C:56:HIS:CE1	2.55	0.40
1:D:142:PHE:CZ	1:D:162:PRO:HD3	2.56	0.40
1:D:318:GLN:OE1	1:D:320:CYS:HB2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:45:PHE:CD1	1:A:399:TYR:HB3	2.57	0.40
1:C:322:ARG:HG2	1:C:326:LEU:CD1	2.51	0.40
1:D:34:LEU:HD21	1:D:56:HIS:CE1	2.57	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	418/421 (99%)	398 (95%)	19 (4%)	1 (0%)	47	71
1	B	418/421 (99%)	401 (96%)	16 (4%)	1 (0%)	47	71
1	C	416/421 (99%)	386 (93%)	29 (7%)	1 (0%)	47	71
1	D	416/421 (99%)	384 (92%)	31 (8%)	1 (0%)	47	71
All	All	1668/1684 (99%)	1569 (94%)	95 (6%)	4 (0%)	47	71

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	76	ALA
1	B	76	ALA
1	C	76	ALA
1	D	76	ALA

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	322/322 (100%)	315 (98%)	7 (2%)	52 76
1	B	322/322 (100%)	313 (97%)	9 (3%)	43 69
1	C	320/322 (99%)	314 (98%)	6 (2%)	57 79
1	D	320/322 (99%)	310 (97%)	10 (3%)	40 66
All	All	1284/1288 (100%)	1252 (98%)	32 (2%)	47 73

All (32) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	7	ASN
1	A	82	TYR
1	A	155	LYS
1	A	184	LYS
1	A	191	LYS
1	A	204	LEU
1	A	410	LYS
1	B	23	ASN
1	B	27	GLU
1	B	52	LEU
1	B	69	LEU
1	B	82	TYR
1	B	175	HIS
1	B	318	GLN
1	B	362	GLN
1	B	379	GLN
1	C	7	ASN
1	C	78	GLN
1	C	184	LYS
1	C	326	LEU
1	C	341	CYS
1	C	375	GLN
1	D	4	SER
1	D	82	TYR
1	D	94	ASP
1	D	99	ASP
1	D	227	LEU
1	D	275	LEU
1	D	308	HIS
1	D	341	CYS
1	D	350	ARG

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Mol	Chain	Res	Type
1	D	362	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (5) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	331	GLN
1	B	138	HIS
1	B	318	GLN
1	C	56	HIS
1	D	56	HIS

5.3.3 RNA

There are no RNA molecules in this entry.

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

4 non-standard protein/DNA/RNA residues 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	$\#\|Z\| > 2$
1	LLP	D	267	1	23,24,25	2.62	7 (30%)	25,32,34	1.36	4 (16%)
1	LLP	A	267	1	23,24,25	2.63	6 (26%)	25,32,34	1.37	4 (16%)
1	LLP	B	267	1	23,24,25	2.62	6 (26%)	25,32,34	1.37	4 (16%)
1	LLP	C	267	1	23,24,25	2.63	7 (30%)	25,32,34	1.35	3 (12%)

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
1	LLP	D	267	1	-	4/16/17/19	0/1/1/1
1	LLP	A	267	1	-	6/16/17/19	0/1/1/1
1	LLP	B	267	1	-	6/16/17/19	0/1/1/1
1	LLP	C	267	1	-	4/16/17/19	0/1/1/1

All (26) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	267	LLP	C4-C4'	8.10	1.62	1.46
1	B	267	LLP	C4-C4'	8.07	1.62	1.46
1	C	267	LLP	C4-C4'	8.06	1.62	1.46
1	D	267	LLP	C4-C4'	8.06	1.62	1.46
1	B	267	LLP	C4'-NZ	5.01	1.44	1.27
1	D	267	LLP	C4'-NZ	5.01	1.44	1.27
1	C	267	LLP	C4'-NZ	5.01	1.44	1.27
1	A	267	LLP	C4'-NZ	4.99	1.44	1.27
1	C	267	LLP	C4-C5	-4.15	1.36	1.42
1	D	267	LLP	C4-C5	-4.15	1.36	1.42
1	A	267	LLP	C4-C5	-4.04	1.36	1.42
1	B	267	LLP	C4-C5	-4.03	1.36	1.42
1	A	267	LLP	C2'-C2	3.54	1.56	1.50
1	B	267	LLP	C2'-C2	3.49	1.56	1.50
1	C	267	LLP	C2'-C2	3.48	1.56	1.50
1	D	267	LLP	C2'-C2	3.45	1.56	1.50
1	A	267	LLP	C6-N1	3.13	1.41	1.34
1	B	267	LLP	C6-N1	3.09	1.40	1.34
1	D	267	LLP	C6-N1	3.08	1.40	1.34
1	C	267	LLP	C6-N1	3.06	1.40	1.34
1	D	267	LLP	C5'-C5	2.16	1.56	1.50
1	B	267	LLP	C5'-C5	2.13	1.56	1.50
1	A	267	LLP	C5'-C5	2.13	1.56	1.50
1	C	267	LLP	C5'-C5	2.10	1.56	1.50
1	C	267	LLP	C4-C3	-2.10	1.37	1.40
1	D	267	LLP	C4-C3	-2.01	1.37	1.40

All (15) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	267	LLP	C4-C4'-NZ	-3.63	107.63	124.31
1	D	267	LLP	C4-C4'-NZ	-3.57	107.91	124.31
1	A	267	LLP	C4-C4'-NZ	-3.50	108.25	124.31
1	B	267	LLP	C4-C4'-NZ	-3.50	108.26	124.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	B	267	LLP	CE-NZ-C4'	-2.81	110.29	118.90
1	A	267	LLP	CE-NZ-C4'	-2.72	110.53	118.90
1	D	267	LLP	CE-NZ-C4'	-2.70	110.60	118.90
1	C	267	LLP	CE-NZ-C4'	-2.67	110.70	118.90
1	B	267	LLP	C3-C4-C5	2.30	120.03	118.26
1	A	267	LLP	C3-C4-C5	2.24	119.98	118.26
1	A	267	LLP	C5-C6-N1	-2.17	120.20	123.82
1	B	267	LLP	C5-C6-N1	-2.16	120.22	123.82
1	C	267	LLP	C5-C6-N1	-2.13	120.27	123.82
1	D	267	LLP	C3-C4-C5	2.11	119.88	118.26
1	D	267	LLP	C5-C6-N1	-2.11	120.30	123.82

There are no chirality outliers.

All (20) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	A	267	LLP	C4-C4'-NZ-CE
1	A	267	LLP	O-C-CA-CB
1	B	267	LLP	C4-C4'-NZ-CE
1	B	267	LLP	O-C-CA-CB
1	B	267	LLP	CG-CD-CE-NZ
1	C	267	LLP	C4-C4'-NZ-CE
1	C	267	LLP	O-C-CA-CB
1	D	267	LLP	C4-C4'-NZ-CE
1	D	267	LLP	O-C-CA-CB
1	A	267	LLP	CG-CD-CE-NZ
1	C	267	LLP	CG-CD-CE-NZ
1	D	267	LLP	CG-CD-CE-NZ
1	A	267	LLP	C4-C5-C5'-OP4
1	B	267	LLP	C4-C5-C5'-OP4
1	A	267	LLP	C3-C4-C4'-NZ
1	B	267	LLP	C3-C4-C4'-NZ
1	A	267	LLP	C6-C5-C5'-OP4
1	B	267	LLP	C6-C5-C5'-OP4
1	C	267	LLP	C3-C4-C4'-NZ
1	D	267	LLP	C3-C4-C4'-NZ

There are no ring outliers.

2 monomers are involved in 5 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	D	267	LLP	1	0
1	C	267	LLP	4	0

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

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

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	420/421 (99%)	-0.11	10 (2%) 59 53	36, 54, 85, 137	0
1	B	420/421 (99%)	-0.16	6 (1%) 75 71	38, 52, 81, 143	0
1	C	418/421 (99%)	0.69	60 (14%) 2 1	45, 95, 142, 179	0
1	D	418/421 (99%)	1.10	87 (20%) 1 0	53, 110, 157, 195	0
All	All	1676/1684 (99%)	0.38	163 (9%) 7 5	36, 68, 143, 195	0

All (163) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	A	421	SER	7.1
1	D	3	SER	7.0
1	A	173	ALA	6.5
1	C	339	ALA	6.3
1	D	404	PRO	6.2
1	B	364	GLY	6.1
1	D	362	GLN	5.9
1	D	44	ASP	5.8
1	D	364	GLY	5.7
1	C	173	ALA	5.6
1	A	1	MET	5.5
1	C	362	GLN	5.2
1	B	173	ALA	5.2
1	C	37	ILE	5.2
1	D	176	GLY	5.0
1	D	45	PHE	5.0
1	D	4	SER	4.8
1	D	52	LEU	4.8
1	A	364	GLY	4.7
1	C	35	TRP	4.7
1	C	5	GLU	4.6

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Mol	Chain	Res	Type	RSRZ
1	C	368	PRO	4.5
1	D	368	PRO	4.5
1	A	363	THR	4.5
1	D	363	THR	4.4
1	D	173	ALA	4.4
1	D	318	GLN	4.4
1	D	38	GLU	4.3
1	D	50	ALA	4.3
1	D	61	VAL	4.3
1	D	51	VAL	4.2
1	A	362	GLN	4.1
1	C	26	VAL	4.1
1	C	385	LEU	4.1
1	C	38	GLU	4.0
1	D	400	PRO	3.9
1	D	397	PHE	3.9
1	D	340	THR	3.9
1	C	315	ALA	3.9
1	D	391	TYR	3.8
1	C	373	LEU	3.7
1	D	328	SER	3.6
1	C	86	VAL	3.5
1	C	41	GLU	3.5
1	D	399	TYR	3.5
1	C	82	TYR	3.5
1	D	37	ILE	3.5
1	D	325	GLN	3.5
1	B	176	GLY	3.4
1	D	5	GLU	3.4
1	C	156	ILE	3.4
1	D	24	TYR	3.4
1	D	47	ALA	3.3
1	D	246	ARG	3.3
1	D	25	PHE	3.3
1	B	363	THR	3.3
1	C	421	SER	3.3
1	D	43	ILE	3.3
1	C	316	GLU	3.3
1	D	35	TRP	3.3
1	D	23	ASN	3.3
1	C	258	VAL	3.2
1	D	311	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
1	D	59	PRO	3.1
1	D	46	ALA	3.1
1	D	271	GLY	3.1
1	D	418	VAL	3.1
1	C	264	THR	3.1
1	D	9	ARG	3.1
1	C	257	GLU	3.1
1	C	43	ILE	3.1
1	D	316	GLU	3.0
1	C	25	PHE	2.9
1	D	60	LYS	2.9
1	D	39	GLY	2.9
1	C	321	GLN	2.9
1	D	53	ASN	2.9
1	C	397	PHE	2.8
1	C	59	PRO	2.8
1	D	309	ALA	2.8
1	D	372	ARG	2.8
1	D	282	ALA	2.8
1	C	380	GLU	2.7
1	D	270	ALA	2.7
1	D	329	HIS	2.7
1	C	99	ASP	2.7
1	D	154	TYR	2.7
1	C	338	ARG	2.7
1	D	48	GLY	2.7
1	C	22	CYS	2.7
1	D	421	SER	2.7
1	A	176	GLY	2.6
1	D	269	LEU	2.6
1	C	361	PRO	2.6
1	B	1	MET	2.6
1	C	369	GLU	2.6
1	D	156	ILE	2.6
1	D	321	GLN	2.6
1	A	360	ASP	2.6
1	D	124	TYR	2.6
1	C	285	MET	2.5
1	C	318	GLN	2.5
1	C	4	SER	2.5
1	D	180	ALA	2.5
1	D	315	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
1	D	353	MET	2.4
1	D	94	ASP	2.4
1	C	174	ALA	2.4
1	D	63	ALA	2.4
1	C	372	ARG	2.4
1	C	40	ASN	2.4
1	D	72	PHE	2.4
1	C	176	GLY	2.4
1	D	19	GLY	2.4
1	C	358	PHE	2.4
1	C	27	GLU	2.4
1	D	245	ALA	2.4
1	D	87	SER	2.3
1	D	7	ASN	2.3
1	C	366	PRO	2.3
1	D	366	PRO	2.3
1	B	397	PHE	2.3
1	C	6	LEU	2.3
1	D	153	PRO	2.3
1	A	236	ILE	2.3
1	C	363	THR	2.3
1	D	209	GLY	2.3
1	D	213	PHE	2.3
1	D	392	GLY	2.3
1	C	240	VAL	2.3
1	C	265	MET	2.2
1	A	23	ASN	2.2
1	D	22	CYS	2.2
1	D	21	MET	2.2
1	C	46	ALA	2.2
1	D	314	ILE	2.2
1	C	73	THR	2.2
1	C	237	ALA	2.2
1	D	278	VAL	2.2
1	D	257	GLU	2.2
1	D	411	ALA	2.2
1	D	228	CYS	2.2
1	D	352	SER	2.2
1	C	101	PRO	2.2
1	C	420	LYS	2.1
1	C	24	TYR	2.1
1	C	365	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
1	D	177	VAL	2.1
1	C	45	PHE	2.1
1	C	336	GLN	2.1
1	D	85	TYR	2.1
1	D	204	LEU	2.1
1	C	72	PHE	2.1
1	D	259	LYS	2.1
1	C	344	ILE	2.0
1	C	364	GLY	2.0
1	C	65	VAL	2.0
1	D	49	ILE	2.0
1	D	91	ARG	2.0
1	D	41	GLU	2.0
1	D	20	VAL	2.0
1	C	281	ARG	2.0
1	D	419	LEU	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (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
1	LLP	C	267	24/25	0.89	0.19	79,86,92,96	0
1	LLP	D	267	24/25	0.92	0.16	82,89,99,104	0
1	LLP	A	267	24/25	0.95	0.16	42,56,73,74	0
1	LLP	B	267	24/25	0.97	0.12	37,50,57,60	0

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

There are no ligands in this entry.

6.5 Other polymers (i)

There are no such residues in this entry.