



# Full wwPDB X-ray Structure Validation Report ⓘ

Mar 20, 2026 – 05:08 PM UTC

PDB ID : 1INF / pdb\_00001inf  
Title : INFLUENZA VIRUS B/LEE/40 NEURAMINIDASE COMPLEXED WITH  
BANA113 INHIBITOR  
Authors : Jedrzejewski, M.J.; Luo, M.  
Deposited on : 1995-07-07  
Resolution : 2.40 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](mailto: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>.

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

MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

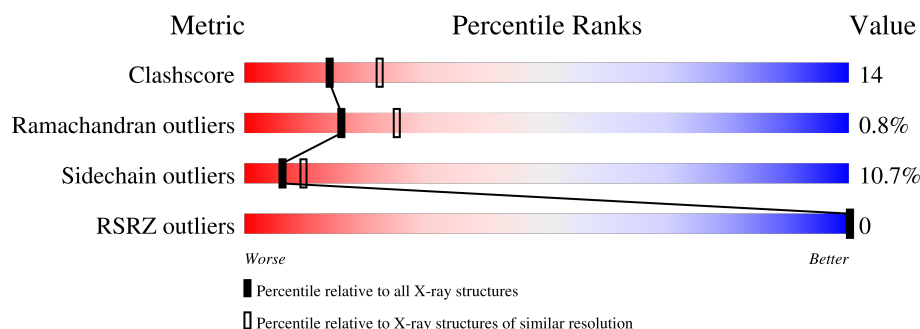
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.40 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))
Clashscore	190562	5391 (2.40-2.40)
Ramachandran outliers	187476	5320 (2.40-2.40)
Sidechain outliers	187428	5321 (2.40-2.40)
RSRZ outliers	180081	4916 (2.40-2.40)

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  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions  $\leq 5\%$ . The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	390	

## 2 Entry composition [i](#)

There are 5 unique types of molecules in this entry. The entry contains 4157 atoms, of which 962 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 INFLUENZA VIRUS B/LEE/40 NEURAMINIDASE.

Mol	Chain	Residues	Atoms						ZeroOcc	AltConf	Trace
1	A	390	Total	C	H	N	O	S	0	0	0
			3732	1907	694	529	574	28			

- Molecule 2 is 2-acetamido-2-deoxy-beta-D-glucopyranose (CCD ID: NAG) (formula:  $C_8H_{15}NO_6$ ).

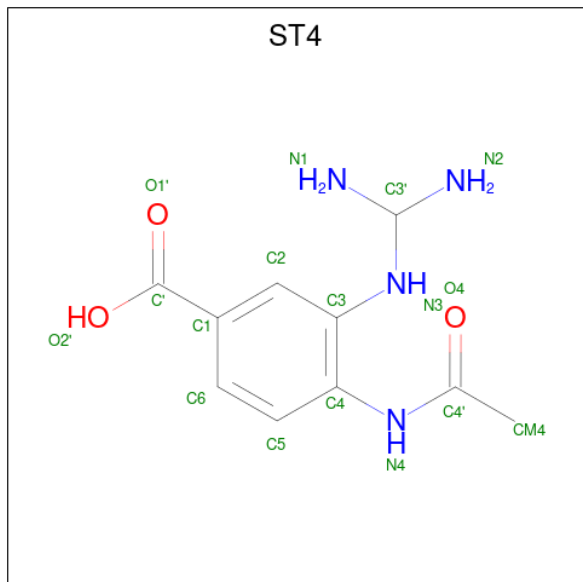


Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	H	N	O	0	0
			28	8	14	1	5		

- Molecule 3 is CALCIUM ION (CCD ID: CA) (formula: Ca).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	2	Total	Ca	0	0
			2	2		

- Molecule 4 is 4-(ACETYLAMINO)-3-GUANIDINO BENZOIC ACID (CCD ID: ST4) (formula: C<sub>10</sub>H<sub>14</sub>N<sub>4</sub>O<sub>3</sub>).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	A	1	Total	C	H	N	O	0	0
			23	10	6	4	3		

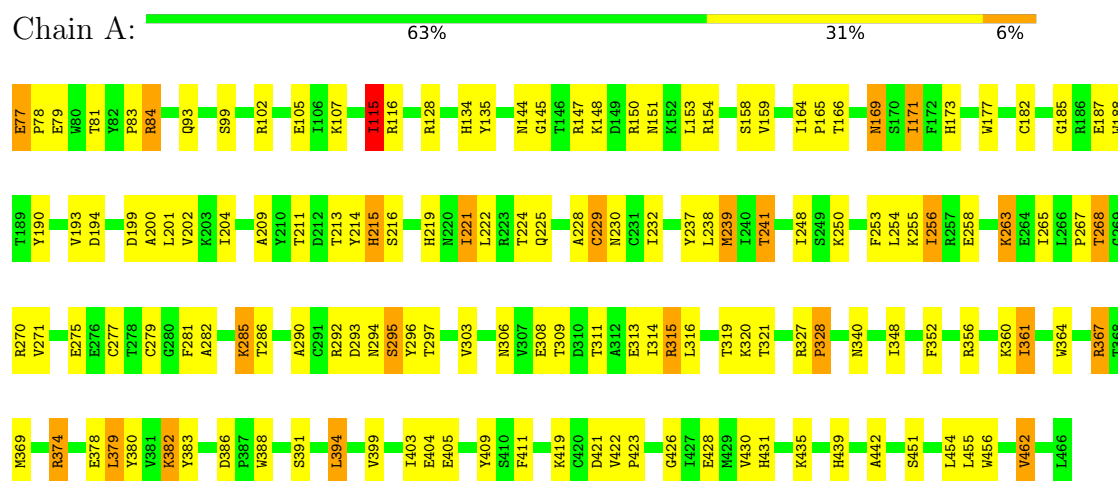
- Molecule 5 is water.

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
5	A	124	Total	H	O	0	0
			372	248	124		

### 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: INFLUENZA VIRUS B/LEE/40 NEURAMINIDASE



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 4 21 2	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	124.25Å 124.25Å 71.35Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	6.50 – 2.40 6.50 – 2.40	Depositor EDS
% Data completeness (in resolution range)	(Not available) (6.50-2.40) 68.0 (6.50-2.40)	Depositor EDS
$R_{merge}$	0.12	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	2.02 (at 2.22Å)	Xtriage
Refinement program	X-PLOR 3.1	Depositor
R, $R_{free}$	0.159 , (Not available) 0.175 , (Not available)	Depositor DCC
$R_{free}$ test set	No test flags present.	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	15.5	Xtriage
Anisotropy	0.458	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.31 , 56.6	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.43$ , $\langle L^2 \rangle = 0.26$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
$F_o, F_c$ correlation	0.93	EDS
Total number of atoms	4157	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	13.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.82% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  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, ST4, CA

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	0.68	0/3112	1.18	29/4207 (0.7%)

There are no bond length outliers.

All (29) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	271	VAL	N-CA-C	10.80	121.52	111.91
1	A	102	ARG	N-CA-C	-8.45	102.24	112.54
1	A	296	TYR	N-CA-C	8.40	122.81	112.23
1	A	211	THR	N-CA-C	7.56	122.64	113.41
1	A	297	THR	N-CA-C	7.23	120.06	109.07
1	A	115	ILE	N-CA-C	7.02	117.38	108.82
1	A	225	GLN	N-CA-C	7.01	119.57	111.02
1	A	290	ALA	N-CA-C	-6.92	97.13	108.41
1	A	405	GLU	CA-C-N	6.72	126.96	119.90
1	A	405	GLU	C-N-CA	6.72	126.96	119.90
1	A	430	VAL	N-CA-C	6.72	119.09	108.87
1	A	228	ALA	N-CA-C	6.41	119.53	110.23
1	A	282	ALA	N-CA-C	-6.39	104.97	112.89
1	A	215	HIS	N-CA-C	6.28	119.70	110.59
1	A	293	ASP	N-CA-C	-6.16	97.25	108.02
1	A	451	SER	N-CA-C	5.83	117.46	109.18
1	A	462	VAL	N-CA-C	5.71	116.42	108.89
1	A	286	THR	N-CA-C	5.70	118.78	108.69
1	A	279	CYS	N-CA-C	5.68	118.95	110.14
1	A	164	ILE	N-CA-C	-5.62	103.79	108.63
1	A	209	ALA	N-CA-C	5.45	118.37	109.59
1	A	294	ASN	N-CA-C	5.42	119.62	112.89
1	A	185	GLY	N-CA-C	-5.40	107.57	114.37
1	A	454	LEU	N-CA-C	-5.22	102.66	110.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	99	SER	CA-C-N	5.21	125.26	119.32
1	A	99	SER	C-N-CA	5.21	125.26	119.32
1	A	154	ARG	N-CA-C	5.10	117.73	110.24
1	A	295	SER	N-CA-C	5.04	119.18	112.72
1	A	442	ALA	N-CA-C	-5.02	101.92	109.85

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	3038	694	2934	85	0
2	A	14	14	13	1	0
3	A	2	0	0	0	0
4	A	17	6	12	0	0
5	A	124	248	0	8	0
All	All	3195	962	2959	85	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 14.

All (85) 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:166:THR:OG1	1:A:169:ASN:HB2	1.89	0.71
1:A:309:THR:O	1:A:311:THR:HG23	1.91	0.70
1:A:268:THR:HG22	1:A:313:GLU:HG3	1.79	0.65
1:A:230:ASN:HB3	1:A:281:PHE:CE2	2.32	0.63
1:A:148:LYS:HE3	1:A:151:ASN:HD22	1.64	0.62
1:A:107:LYS:HG2	5:A:625:HOH:O	1.99	0.61
1:A:147:ARG:HH11	1:A:147:ARG:HG2	1.64	0.61
1:A:248:ILE:HG21	1:A:250:LYS:HZ2	1.63	0.61
1:A:237:TYR:CE2	1:A:255:LYS:HG3	2.37	0.60
1:A:367:ARG:HD2	1:A:380:TYR:CE1	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:275:GLU:OE2	1:A:292:ARG:HD2	2.02	0.59
1:A:303:VAL:HG22	1:A:314:ILE:HG12	1.85	0.58
1:A:159:VAL:HG11	1:A:165:PRO:HA	1.86	0.58
1:A:147:ARG:HD3	1:A:435:LYS:HG3	1.85	0.58
1:A:248:ILE:CG2	1:A:250:LYS:HZ2	2.16	0.58
1:A:201:LEU:HD11	1:A:213:THR:HB	1.88	0.56
1:A:232:ILE:HB	1:A:281:PHE:CZ	2.41	0.55
1:A:116:ARG:HD2	1:A:428:GLU:OE2	2.07	0.55
1:A:285:LYS:HG2	1:A:308:GLU:CG	2.37	0.55
1:A:158:SER:O	1:A:171:ILE:HG22	2.07	0.54
1:A:193:VAL:HG22	1:A:202:VAL:HG22	1.90	0.54
1:A:369:MET:HE2	1:A:378:GLU:HG2	1.90	0.54
1:A:201:LEU:HD12	1:A:214:TYR:O	2.09	0.53
1:A:150:ARG:HG2	1:A:177:TRP:CD2	2.44	0.53
1:A:321:THR:HG23	5:A:589:HOH:O	2.09	0.52
1:A:348:ILE:HD12	1:A:374:ARG:CD	2.40	0.52
1:A:265:ILE:O	1:A:267:PRO:HD3	2.09	0.52
1:A:128:ARG:NH1	1:A:158:SER:OG	2.43	0.52
1:A:224:THR:OG1	1:A:238:LEU:HD11	2.09	0.52
1:A:105:GLU:HB3	5:A:625:HOH:O	2.11	0.51
1:A:327:ARG:HD2	5:A:588:HOH:O	2.10	0.51
1:A:215:HIS:HD2	5:A:546:HOH:O	1.92	0.51
1:A:128:ARG:HG3	1:A:188:TRP:CZ2	2.46	0.51
1:A:364:TRP:HE3	1:A:379:LEU:HD22	1.76	0.51
1:A:93:GLN:HE22	1:A:455:LEU:H	1.58	0.50
1:A:275:GLU:HG3	1:A:292:ARG:HB3	1.94	0.50
1:A:348:ILE:HD12	1:A:374:ARG:HD2	1.95	0.49
1:A:360:LYS:HD3	1:A:383:TYR:CD2	2.48	0.49
1:A:77:GLU:HG2	1:A:78:PRO:O	2.13	0.49
1:A:84:ARG:O	1:A:356:ARG:NH1	2.47	0.48
1:A:431:HIS:CE1	1:A:462:VAL:HB	2.48	0.48
1:A:369:MET:HE1	1:A:399:VAL:HG13	1.95	0.48
1:A:202:VAL:O	1:A:213:THR:HA	2.13	0.48
1:A:369:MET:HE2	1:A:378:GLU:CG	2.43	0.47
1:A:159:VAL:HG21	1:A:165:PRO:HG3	1.97	0.47
1:A:215:HIS:CD2	5:A:546:HOH:O	2.65	0.47
1:A:239:MET:SD	1:A:277:CYS:SG	3.13	0.47
1:A:83:PRO:O	2:A:467:NAG:N2	2.48	0.47
1:A:237:TYR:CZ	1:A:255:LYS:HG3	2.49	0.47
1:A:319:THR:HB	5:A:600:HOH:O	2.13	0.47
1:A:423:PRO:HD3	5:A:593:HOH:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:320:LYS:HG2	1:A:391:SER:O	2.15	0.47
1:A:382:LYS:HB2	1:A:394:LEU:HD12	1.96	0.46
1:A:182:CYS:HB3	1:A:229:CYS:O	2.15	0.46
1:A:369:MET:HE3	1:A:369:MET:HB2	1.82	0.46
1:A:316:LEU:HD11	1:A:340:ASN:ND2	2.32	0.45
1:A:177:TRP:NE1	1:A:194:ASP:HA	2.31	0.45
1:A:369:MET:HE1	1:A:399:VAL:HG22	1.99	0.45
1:A:292:ARG:NH2	1:A:409:TYR:OH	2.49	0.45
1:A:314:ILE:C	1:A:315:ARG:HG2	2.42	0.45
1:A:221:ILE:HG22	1:A:221:ILE:O	2.17	0.44
1:A:147:ARG:HG3	1:A:439:HIS:ND1	2.33	0.44
1:A:150:ARG:HG2	1:A:177:TRP:CE3	2.52	0.43
1:A:145:GLY:O	1:A:148:LYS:HG2	2.18	0.43
1:A:315:ARG:HG3	1:A:388:TRP:CD2	2.54	0.43
1:A:360:LYS:HG2	1:A:361:ILE:N	2.33	0.43
1:A:200:ALA:HB3	1:A:222:LEU:HB3	2.01	0.43
1:A:411:PHE:CZ	1:A:426:GLY:HA3	2.53	0.43
1:A:115:ILE:H	1:A:115:ILE:HD13	1.84	0.43
1:A:77:GLU:HB2	1:A:78:PRO:HD2	2.01	0.43
1:A:84:ARG:HD3	1:A:421:ASP:OD1	2.20	0.42
1:A:367:ARG:HD2	1:A:380:TYR:HE1	1.83	0.42
1:A:239:MET:HB2	1:A:253:PHE:CE2	2.55	0.42
1:A:239:MET:HE3	1:A:241:THR:HB	2.02	0.42
1:A:237:TYR:HA	1:A:254:LEU:O	2.19	0.42
1:A:306:ASN:OD1	1:A:308:GLU:HB2	2.20	0.42
1:A:204:ILE:HD13	1:A:256:ILE:HD12	2.02	0.42
1:A:173:HIS:CE1	1:A:190:TYR:CE1	3.08	0.42
1:A:352:PHE:HA	1:A:364:TRP:O	2.19	0.41
1:A:348:ILE:HD12	1:A:374:ARG:HD3	2.02	0.41
1:A:147:ARG:HD2	1:A:435:LYS:HA	2.00	0.41
1:A:216:SER:OG	1:A:219:HIS:HA	2.21	0.41
1:A:316:LEU:HD11	1:A:340:ASN:HD22	1.86	0.41
1:A:263:LYS:HB2	1:A:263:LYS:NZ	2.36	0.40
1:A:386:ASP:OD1	1:A:388:TRP:HB2	2.21	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	388/390 (100%)	361 (93%)	24 (6%)	3 (1%)	16 25

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	199	ASP
1	A	221	ILE
1	A	328	PRO

### 5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	326/326 (100%)	291 (89%)	35 (11%)	6 10

All (35) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	77	GLU
1	A	79	GLU
1	A	81	THR
1	A	84	ARG
1	A	115	ILE
1	A	134	HIS
1	A	135	TYR
1	A	144	ASN

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Mol	Chain	Res	Type
1	A	153	LEU
1	A	169	ASN
1	A	171	ILE
1	A	187	GLU
1	A	229	CYS
1	A	239	MET
1	A	241	THR
1	A	256	ILE
1	A	258	GLU
1	A	263	LYS
1	A	268	THR
1	A	270	ARG
1	A	285	LYS
1	A	295	SER
1	A	315	ARG
1	A	328	PRO
1	A	361	ILE
1	A	367	ARG
1	A	374	ARG
1	A	379	LEU
1	A	382	LYS
1	A	394	LEU
1	A	403	ILE
1	A	404	GLU
1	A	419	LYS
1	A	422	VAL
1	A	456	TRP

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (7) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	93	GLN
1	A	134	HIS
1	A	144	ASN
1	A	169	ASN
1	A	215	HIS
1	A	230	ASN
1	A	340	ASN

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

## 5.6 Ligand geometry ⓘ

Of 4 ligands modelled in this entry, 2 are monoatomic - leaving 2 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
4	ST4	A	471	-	14,17,17	1.41	1 (7%)	20,23,23	1.15	1 (5%)
2	NAG	A	467	1	14,14,15	1.19	1 (7%)	17,19,21	1.75	3 (17%)

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
4	ST4	A	471	-	-	6/10/12/12	0/1/1/1
2	NAG	A	467	1	-	0/6/23/26	0/1/1/1

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	A	471	ST4	C1-C'	-4.58	1.39	1.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	467	NAG	O5-C5	2.28	1.47	1.43

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	467	NAG	C3-C4-C5	3.78	117.08	110.23
2	A	467	NAG	C1-O5-C5	3.49	116.86	112.19
2	A	467	NAG	C2-N2-C7	-3.04	118.82	122.90
4	A	471	ST4	CM4-C4'-N4	2.85	119.24	114.95

There are no chirality outliers.

All (6) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	A	471	ST4	C4-C3-N3-C3'
4	A	471	ST4	O2'-C'-C1-C6
4	A	471	ST4	O1'-C'-C1-C6
4	A	471	ST4	C2-C3-N3-C3'
4	A	471	ST4	O2'-C'-C1-C2
4	A	471	ST4	O1'-C'-C1-C2

There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	A	467	NAG	1	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 6 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, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
1	A	390/390 (100%)	-0.92	0 <b>100</b> <b>100</b>	4, 13, 25, 47	0

There are no RSRZ outliers to report.

### 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](#)

There are no oligosaccharides in this entry.

### 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, 95<sup>th</sup> 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 <sup>2</sup> )	Q<0.9
3	CA	A	501	1/1	0.66	0.10	28,28,28,28	1
2	NAG	A	467	14/15	0.87	0.11	15,15,35,45	0
4	ST4	A	471	17/17	0.93	0.08	15,18,25,31	0
3	CA	A	500	1/1	0.99	0.04	19,19,19,19	0

### 6.5 Other polymers [i](#)

There are no such residues in this entry.