WORLDWIDE PDB

PROTEIN DATA BANK

Full wwPDB X-ray Structure Validation Report (i)

Feb 28, 2023 – 03:25 pm GMT

PDB ID	:	8BCF
Title	:	Human Brr2 Helicase Region in complex with C-tail deleted Jab1 and compound 78
Authors	:	Vester, K.; Loll, B.; Wahl, M.C.
Deposited on	:	2022-10-15
Resolution	:	2.42 Å(reported)

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

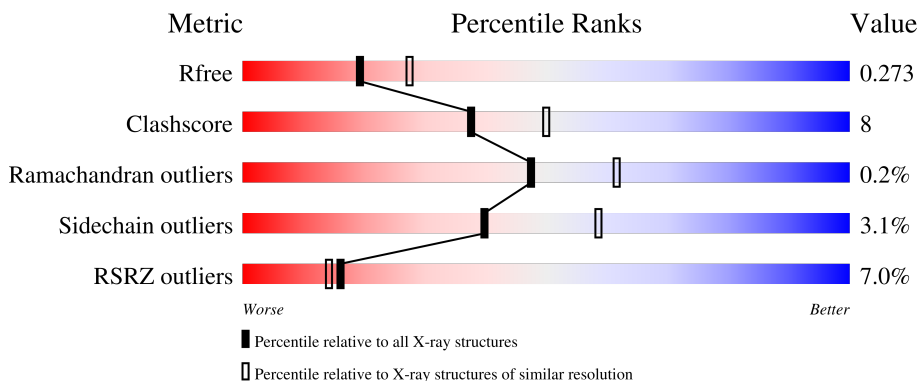|		
MolProbity	:	4.02b-467
Mogul	:	1.8.4, CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.32.1
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.32.1

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 2.42 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	Percentile Ranks	Value
Rfree		0.273
Clashscore		8
Ramachandran outliers		0.2%
Sidechain outliers		3.1%
RSRZ outliers		7.0%

Worse — *Better*

■ Percentile relative to all X-ray structures

▯ Percentile relative to X-ray structures of similar resolution

Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	4647 (2.44-2.40)
Clashscore	141614	5161 (2.44-2.40)
Ramachandran outliers	138981	5073 (2.44-2.40)
Sidechain outliers	138945	5074 (2.44-2.40)
RSRZ outliers	127900	4543 (2.44-2.40)

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 >=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	B	1747	7% — 78% — 19% — ••
2	J	263	5% — 80% — 19%

2 Entry composition ⓘ

There are 5 unique types of molecules in this entry. The entry contains 16362 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 U5 small nuclear ribonucleoprotein 200 kDa helicase.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	B	1724	Total 13861	C 8859	N 2371	O 2559	S 72	0	0	0

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	390	GLY	-	expression tag	UNP O75643
B	391	ALA	-	expression tag	UNP O75643
B	392	GLU	-	expression tag	UNP O75643
B	393	PHE	-	expression tag	UNP O75643

- Molecule 2 is a protein called Pre-mRNA-processing-splicing factor 8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	J	263	Total 2123	C 1358	N 365	O 388	S 12	0	0	0

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
J	2058	GLY	-	expression tag	UNP Q6P2Q9
J	2059	PRO	-	expression tag	UNP Q6P2Q9
J	2060	LEU	-	expression tag	UNP Q6P2Q9
J	2061	GLY	-	expression tag	UNP Q6P2Q9
J	2062	SER	-	expression tag	UNP Q6P2Q9
J	2063	MET	-	expression tag	UNP Q6P2Q9

- Molecule 3 is 1,2-ETHANEDIOL (three-letter code: EDO) (formula: $C_2H_6O_2$).

EDO

O2

OH

C1

C2

HO

O1

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	B	1	Total 4	C 2	O 2	0	0
3	B	1	Total 4	C 2	O 2	0	0
3	B	1	Total 4	C 2	O 2	0	0
3	B	1	Total 4	C 2	O 2	0	0
3	B	1	Total 4	C 2	O 2	0	0
3	B	1	Total 4	C 2	O 2	0	0
3	B	1	Total 4	C 2	O 2	0	0
3	B	1	Total 4	C 2	O 2	0	0
3	J	1	Total 4	C 2	O 2	0	0
3	J	1	Total 4	C 2	O 2	0	0

- Molecule 4 is {N}-methoxy- {N}-methyl-benzenesulfonamide (three-letter code: Q8Z) (formula: $C_8H_{11}NO_3S$) (labeled as "Ligand of Interest" by depositor).

Q8Z
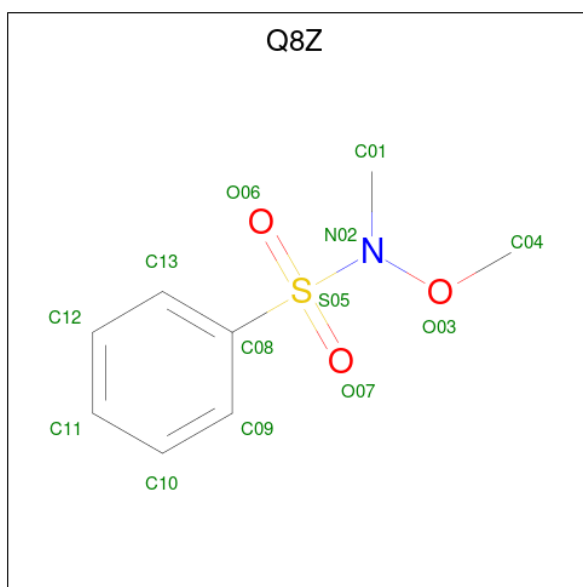
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
4	B	1	Total 13	C 8	N 1	O 3	S 1	0	0

• Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	B	277	Total 277	O 277	0	0
5	J	48	Total 48	O 48	0	0

3 Residue-property plots ⓘ

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and 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: U5 small nuclear ribonucleoprotein 200 kDa helicase
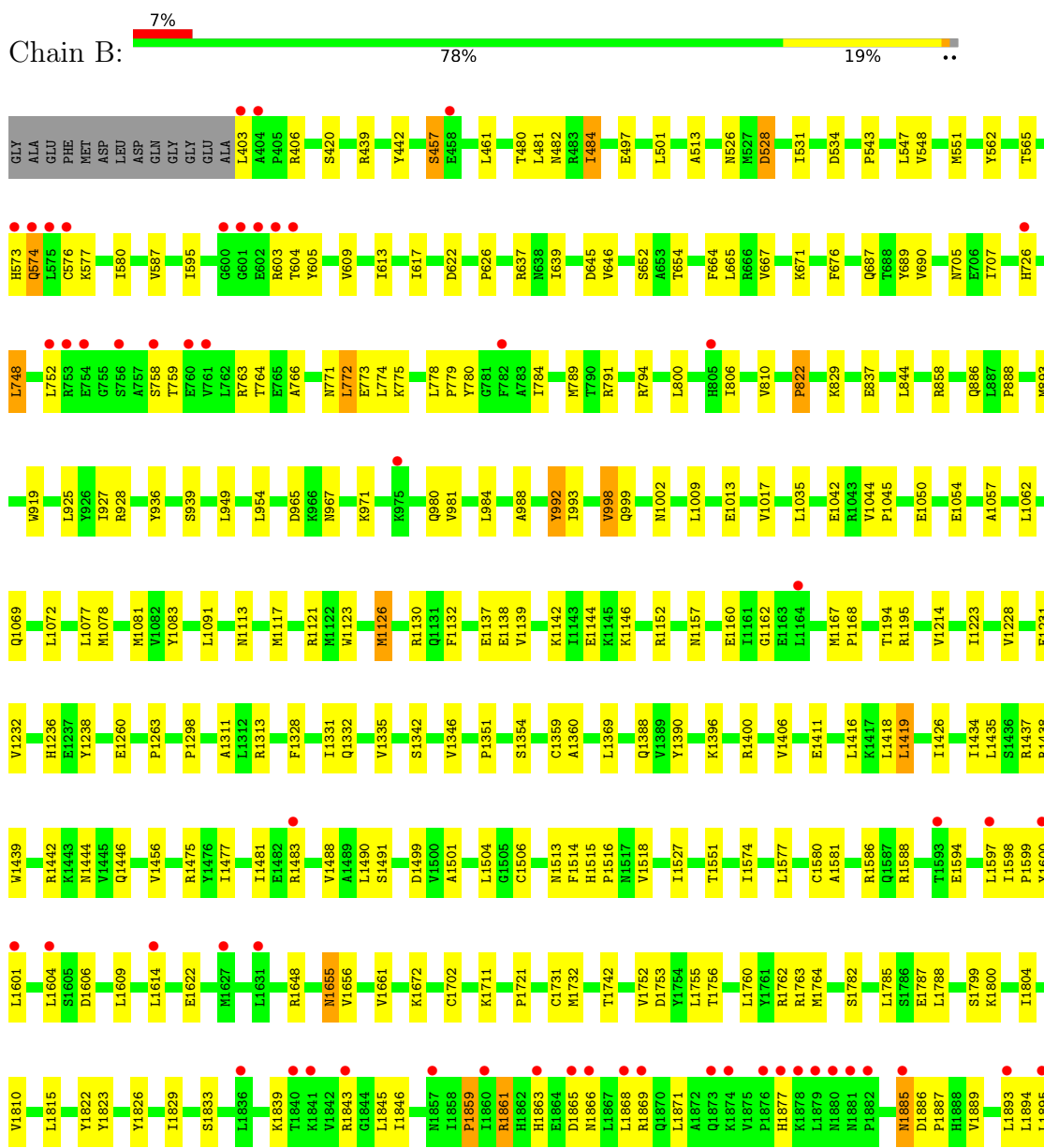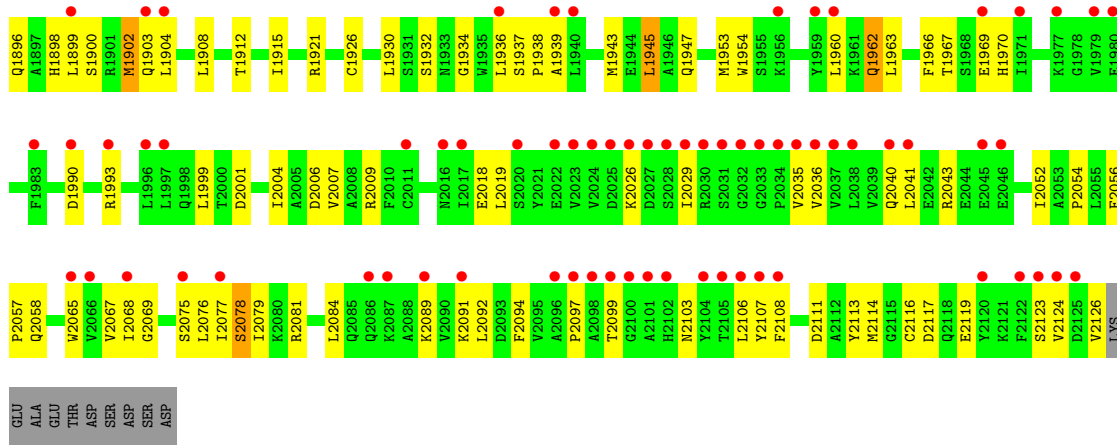
• Molecule 2: Pre-mRNA-processing-splicing factor 8
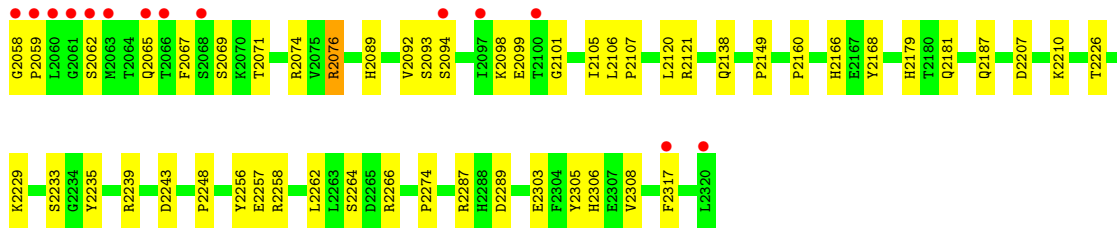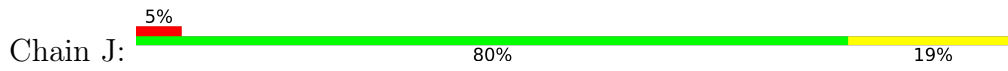
4 Data and refinement statistics ⓘ

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	99.55Å 118.70Å 186.92Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	48.25 – 2.42 48.25 – 2.42	Depositor EDS
% Data completeness (in resolution range)	99.9 (48.25-2.42) 99.9 (48.25-2.42)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$<I/\sigma(I)>$ [1]	1.13 (at 2.42Å)	Xtriage
Refinement program	PHENIX 1.20_4459	Depositor
R, R_{free}	0.213 , 0.275 0.212 , 0.273	Depositor DCC
R_{free} test set	2101 reflections (2.47%)	wwPDB-VP
Wilson B-factor (Å^2)	50.9	Xtriage
Anisotropy	0.271	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.30 , 43.0	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	0.95	EDS
Total number of atoms	16362	wwPDB-VP
Average B, all atoms (Å^2)	73.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.54% of the height of the origin peak. No significant pseudotranslation is detected.*

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[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: EDO, Q8Z

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	B	0.33	0/14155	0.54	0/19180
2	J	0.35	0/2190	0.54	0/2981
All	All	0.33	0/16345	0.54	0/22161

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	B	13861	0	14005	224	2
2	J	2123	0	2063	30	2
3	B	32	0	48	2	0
3	J	8	0	12	0	0
4	B	13	0	0	0	0
5	B	277	0	0	4	0
5	J	48	0	0	2	0
All	All	16362	0	16128	249	2

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 8.

All (249) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1896:GLN:HE22	1:B:1954:TRP:HH2	1.25	0.81
1:B:603:ARG:HD2	1:B:605:TYR:HD2	1.46	0.80
1:B:1672:LYS:HG3	1:B:1859:PRO:HB3	1.63	0.78
1:B:771:ASN:HB3	1:B:774:LEU:HB2	1.66	0.75
1:B:687:GLN:OE1	1:B:689:TYR:OH	2.04	0.75
1:B:1514:PHE:HB3	1:B:1518:VAL:HG21	1.69	0.75
1:B:403:LEU:HD23	1:B:954:LEU:HD11	1.68	0.74
1:B:1388:GLN:OE1	1:B:1655:ASN:ND2	2.21	0.73
1:B:1581:ALA:HA	1:B:1586:ARG:HG2	1.70	0.73
1:B:1351:PRO:HG3	1:B:1516:PRO:HA	1.71	0.72
1:B:1990:ASP:HA	1:B:1993:ARG:HB2	1.73	0.70
1:B:2035:VAL:HB	1:B:2094:PHE:O	1.92	0.70
1:B:1762:ARG:HH11	1:B:1762:ARG:HB3	1.55	0.70
1:B:2067:VAL:HB	1:B:2107:TYR:HB2	1.73	0.70
1:B:1846:ILE:HG23	1:B:1895:LEU:HD23	1.74	0.69
1:B:984:LEU:HD21	1:B:1002:ASN:HB2	1.75	0.68
1:B:1009:LEU:HD22	1:B:1013:GLU:HG2	1.76	0.67
1:B:1194:THR:HB	3:B:2204:EDO:H11	1.75	0.67
1:B:603:ARG:HD2	1:B:605:TYR:CD2	2.31	0.66
1:B:1934:GLY:O	1:B:2076:LEU:N	2.25	0.66
1:B:993:ILE:HD12	1:B:1091:LEU:HD23	1.77	0.65
1:B:1042:GLU:OE2	2:J:2071:THR:OG1	2.15	0.65
1:B:617:ILE:HG22	1:B:652:SER:HB3	1.78	0.65
1:B:2077:ILE:HD12	1:B:2094:PHE:CD2	2.33	0.64
1:B:1908:LEU:O	1:B:1912:THR:HG23	1.97	0.64
1:B:1513:ASN:OD1	5:B:2301:HOH:O	2.15	0.63
1:B:1130:ARG:NH1	1:B:1144:GLU:OE2	2.31	0.63
1:B:1438:ARG:HB2	1:B:1442:ARG:HH21	1.65	0.62
1:B:789:MET:O	1:B:794:ARG:NH1	2.33	0.62
1:B:1762:ARG:HB3	1:B:1762:ARG:NH1	2.15	0.62
1:B:984:LEU:HG	1:B:998:VAL:HG13	1.80	0.62
2:J:2264:SER:OG	2:J:2266:ARG:HG2	2.00	0.62
2:J:2093:SER:HB3	2:J:2226:THR:HG22	1.80	0.61
1:B:1123:TRP:HB2	1:B:1126:MET:HE3	1.82	0.61
1:B:484:ILE:HD11	1:B:501:LEU:HD21	1.83	0.61
1:B:1298:PRO:HB3	1:B:1515:HIS:CG	2.36	0.61
1:B:1967:THR:HG22	1:B:1970:HIS:ND1	2.16	0.60
1:B:690:VAL:HG11	1:B:707:ILE:HD13	1.83	0.60
2:J:2243:ASP:HB3	2:J:2248:PRO:HB3	1.82	0.60
1:B:1419:LEU:HD22	1:B:1444:ASN:HB3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1894:LEU:HD23	1:B:1915:ILE:HD12	1.83	0.58
1:B:2040:GLN:HG2	1:B:2089:LYS:HG2	1.85	0.58
1:B:1843:ARG:HB3	1:B:1877:HIS:CE1	2.39	0.58
1:B:1939:ALA:O	1:B:1943:MET:HG3	2.04	0.58
1:B:1042:GLU:O	2:J:2074:ARG:NH1	2.37	0.57
1:B:1877:HIS:HB2	1:B:1896:GLN:HE21	1.69	0.57
1:B:1551:THR:HG22	1:B:1588:ARG:HH22	1.70	0.57
1:B:705:ASN:OD1	1:B:829:LYS:NZ	2.37	0.57
1:B:1044:VAL:O	2:J:2074:ARG:NH2	2.35	0.57
1:B:1947:GLN:NE2	1:B:2113:TYR:O	2.38	0.57
1:B:1947:GLN:HB3	1:B:2114:MET:HG2	1.87	0.56
2:J:2235:TYR:O	2:J:2239:ARG:HG2	2.05	0.56
2:J:2306:HIS:ND1	2:J:2308:VAL:HG22	2.21	0.56
1:B:1967:THR:HG23	1:B:1969:GLU:H	1.70	0.56
1:B:988:ALA:HB2	1:B:998:VAL:HG21	1.87	0.56
1:B:595:ILE:HD12	1:B:992:TYR:HB2	1.86	0.56
1:B:654:THR:HG21	1:B:676:PHE:O	2.06	0.56
2:J:2207:ASP:HB3	2:J:2210:LYS:HB2	1.88	0.55
1:B:1438:ARG:HB2	1:B:1442:ARG:NH2	2.21	0.55
1:B:1953:MET:HE2	1:B:2114:MET:SD	2.47	0.55
1:B:2029:ILE:HG22	1:B:2126:VAL:HG12	1.88	0.55
2:J:2106:LEU:HD12	2:J:2107:PRO:HD2	1.87	0.55
1:B:543:PRO:HD2	1:B:547:LEU:HD23	1.88	0.55
1:B:1594:GLU:O	1:B:1598:ILE:HG13	2.06	0.55
1:B:513:ALA:HB1	1:B:613:ILE:HD13	1.88	0.55
1:B:2108:PHE:O	1:B:2117:ASP:HA	2.06	0.55
1:B:822:PRO:HB2	1:B:858:ARG:HG2	1.88	0.54
1:B:1346:VAL:HG13	1:B:1488:VAL:HG13	1.89	0.54
1:B:1804:ILE:HG12	1:B:1810:VAL:HG12	1.90	0.54
1:B:1893:LEU:HA	1:B:1896:GLN:HB2	1.90	0.54
1:B:1930:LEU:HD13	1:B:1938:PRO:HB2	1.89	0.54
1:B:1877:HIS:HB2	1:B:1896:GLN:NE2	2.22	0.54
1:B:2001:ASP:O	1:B:2004:ILE:HG13	2.07	0.54
2:J:2187:GLN:HB2	2:J:2256:TYR:OH	2.08	0.54
1:B:1475:ARG:HD2	1:B:1504:LEU:HA	1.91	0.54
1:B:1843:ARG:HG2	1:B:1877:HIS:HA	1.90	0.54
1:B:1732:MET:SD	1:B:1788:LEU:HD21	2.49	0.53
1:B:2043:ARG:NH2	1:B:2084:LEU:O	2.39	0.53
1:B:2099:THR:HG22	1:B:2126:VAL:HG23	1.89	0.53
1:B:2068:ILE:O	1:B:2077:ILE:HG12	2.09	0.53
1:B:497:GLU:HG3	5:B:2320:HOH:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:2179:HIS:HE1	2:J:2181:GLN:HG3	1.74	0.53
1:B:1113:ASN:O	1:B:1117:MET:HG3	2.08	0.53
1:B:1331:ILE:HD12	1:B:1354:SER:HB3	1.90	0.53
1:B:2019:LEU:HA	1:B:2041:LEU:HD23	1.91	0.53
1:B:1499:ASP:OD2	1:B:1763:ARG:NH1	2.38	0.52
1:B:1456:VAL:HG12	1:B:1491:SER:HB2	1.90	0.52
1:B:574:GLN:HG3	1:B:1238:TYR:OH	2.09	0.52
1:B:1601:LEU:HA	1:B:1604:LEU:HD23	1.92	0.52
1:B:1597:LEU:O	1:B:1600:TYR:HB2	2.10	0.52
2:J:2105:ILE:HD13	2:J:2262:LEU:HB2	1.92	0.52
1:B:2006:ASP:OD1	1:B:2009:ARG:NH2	2.42	0.52
1:B:1953:MET:SD	1:B:1962:GLN:HG2	2.49	0.52
1:B:1900:SER:HB2	1:B:1902:MET:SD	2.51	0.51
1:B:1963:LEU:HD22	1:B:2007:VAL:HG13	1.91	0.51
1:B:772:LEU:O	1:B:775:LYS:HB3	2.10	0.51
1:B:967:ASN:HB3	1:B:999:GLN:HB2	1.93	0.51
1:B:439:ARG:HD3	1:B:442:TYR:OH	2.10	0.51
1:B:639:ILE:HD11	1:B:646:VAL:HB	1.92	0.51
1:B:752:LEU:HD11	1:B:780:TYR:HA	1.92	0.51
1:B:1967:THR:HG22	1:B:1970:HIS:CE1	2.46	0.51
1:B:1042:GLU:HG3	2:J:2069:SER:O	2.11	0.51
1:B:573:HIS:HB3	1:B:577:LYS:HE2	1.93	0.51
1:B:420:SER:HB3	1:B:622:ASP:HA	1.92	0.51
1:B:1755:LEU:HD13	1:B:1785:LEU:HD22	1.93	0.51
1:B:1434:ILE:HD12	1:B:1823:TYR:HB2	1.92	0.50
1:B:531:ILE:HD13	1:B:562:TYR:O	2.11	0.50
1:B:1501:ALA:HB1	1:B:1506:CYS:HB2	1.93	0.50
1:B:484:ILE:HD11	1:B:501:LEU:HD11	1.94	0.50
1:B:1195:ARG:HD3	1:B:1260:GLU:OE2	2.12	0.50
2:J:2098:LYS:HD3	2:J:2258:ARG:O	2.12	0.50
1:B:1898:HIS:HD2	1:B:1899:LEU:HD12	1.77	0.49
1:B:480:THR:HG22	1:B:481:LEU:O	2.13	0.49
1:B:748:LEU:HD21	1:B:780:TYR:HB3	1.95	0.49
1:B:1753:ASP:O	1:B:1756:THR:OG1	2.19	0.49
1:B:1904:LEU:HD13	1:B:1912:THR:HG21	1.94	0.49
1:B:1231:GLU:HG3	1:B:1232:VAL:HG23	1.93	0.49
1:B:534:ASP:HB2	1:B:1866:ASN:HD22	1.78	0.48
1:B:1515:HIS:HB3	1:B:1516:PRO:HD2	1.96	0.48
1:B:2018:GLU:O	1:B:2041:LEU:HA	2.12	0.48
1:B:1970:HIS:HE2	1:B:1999:LEU:HD21	1.78	0.48
1:B:1132:PHE:HE1	1:B:1214:VAL:HG11	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:893:MET:HG2	1:B:925:LEU:HB2	1.96	0.48
1:B:1045:PRO:HD3	2:J:2317:PHE:CD2	2.49	0.48
1:B:1861:ARG:HA	1:B:1861:ARG:HH11	1.77	0.48
1:B:1926:CYS:O	1:B:1930:LEU:HG	2.13	0.48
1:B:1360:ALA:HB2	1:B:1490:LEU:HD11	1.96	0.48
1:B:1139:VAL:HG12	1:B:1167:MET:HE1	1.95	0.48
1:B:726:HIS:CE1	1:B:844:LEU:HD11	2.49	0.47
1:B:2077:ILE:HB	1:B:2094:PHE:CD1	2.49	0.47
1:B:971:LYS:HB2	1:B:980:GLN:HB3	1.97	0.47
1:B:981:VAL:HG12	5:B:2387:HOH:O	2.14	0.47
1:B:2054:PRO:HG2	3:B:2209:EDO:H22	1.97	0.47
2:J:2059:PRO:O	2:J:2062:SER:N	2.29	0.47
1:B:800:LEU:HB3	1:B:806:ILE:HG13	1.96	0.47
1:B:1406:VAL:HB	1:B:1418:LEU:HD22	1.96	0.47
1:B:2065:TRP:CD1	1:B:2079:ILE:HD11	2.49	0.47
1:B:1868:LEU:HD22	1:B:1893:LEU:HB2	1.96	0.47
2:J:2076:ARG:HB3	2:J:2305:TYR:OH	2.15	0.47
1:B:2078:SER:OG	1:B:2092:LEU:HB3	2.15	0.47
1:B:1866:ASN:O	1:B:1869:ARG:HB2	2.15	0.47
1:B:665:LEU:HB2	1:B:667:VAL:HG23	1.97	0.46
1:B:1411:GLU:HG2	1:B:2058:GLN:OE1	2.15	0.46
1:B:573:HIS:HA	1:B:576:CYS:HB3	1.97	0.46
1:B:791:ARG:HG2	1:B:794:ARG:NH2	2.31	0.46
1:B:1885:ASN:H	1:B:1889:VAL:HG21	1.80	0.46
1:B:547:LEU:O	1:B:551:MET:HG2	2.15	0.46
1:B:1815:LEU:HG	1:B:1829:ILE:HG22	1.97	0.46
1:B:2076:LEU:HD21	1:B:2079:ILE:HB	1.97	0.46
2:J:2058:GLY:N	5:J:2504:HOH:O	2.49	0.46
1:B:1162:GLY:HA3	1:B:1168:PRO:HA	1.98	0.45
1:B:1390:TYR:HA	1:B:1426:ILE:HD13	1.99	0.45
1:B:603:ARG:HG2	1:B:604:THR:H	1.82	0.45
1:B:886:GLN:O	1:B:888:PRO:HD3	2.16	0.45
1:B:1138:GLU:H	1:B:1138:GLU:CD	2.18	0.45
1:B:1515:HIS:CD2	1:B:1721:PRO:HG3	2.52	0.45
1:B:1800:LYS:HE3	1:B:1800:LYS:HB2	1.80	0.45
1:B:1223:ILE:O	1:B:1236:HIS:HA	2.16	0.45
1:B:1551:THR:HG22	1:B:1588:ARG:NH2	2.31	0.45
1:B:2068:ILE:HD12	1:B:2092:LEU:HD22	1.97	0.45
1:B:1157:ASN:ND2	1:B:1160:GLU:OE1	2.50	0.45
1:B:1456:VAL:CG1	1:B:1491:SER:HB2	2.46	0.45
1:B:637:ARG:HD2	1:B:919:TRP:HA	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1331:ILE:O	1:B:1335:VAL:HG22	2.18	0.44
1:B:1311:ALA:HA	1:B:1313:ARG:NH1	2.31	0.44
1:B:2065:TRP:HD1	1:B:2079:ILE:HD11	1.81	0.44
1:B:2065:TRP:CZ3	1:B:2111:ASP:HB3	2.53	0.44
1:B:1577:LEU:HD23	1:B:1577:LEU:HA	1.78	0.44
2:J:2067:PHE:CE2	2:J:2069:SER:HA	2.53	0.44
1:B:1077:LEU:HD23	1:B:1077:LEU:HA	1.79	0.44
1:B:1760:LEU:HD11	1:B:1764:MET:HE3	2.00	0.44
1:B:2106:LEU:O	1:B:2119:GLU:HA	2.18	0.44
1:B:526:ASN:HB2	1:B:528:ASP:OD1	2.18	0.43
1:B:1799:SER:HG	1:B:1826:TYR:HE2	1.65	0.43
1:B:1527:ILE:O	1:B:1711:LYS:HE3	2.18	0.43
1:B:1903:GLN:HG2	1:B:1904:LEU:N	2.33	0.43
1:B:928:ARG:HB3	1:B:936:TYR:CE2	2.54	0.43
1:B:1661:VAL:O	1:B:1702:CYS:HA	2.17	0.43
2:J:2149:PRO:HD3	2:J:2274:PRO:HG3	2.01	0.43
1:B:1396:LYS:O	1:B:1400:ARG:HB2	2.19	0.43
1:B:2006:ASP:HA	1:B:2009:ARG:HE	1.82	0.43
1:B:2026:LYS:HB3	1:B:2026:LYS:HE2	1.85	0.43
1:B:1050:GLU:HG2	1:B:1057:ALA:HB2	2.01	0.43
1:B:1868:LEU:HA	1:B:1871:LEU:HB2	2.01	0.43
2:J:2303:GLU:CD	2:J:2303:GLU:H	2.22	0.43
1:B:1865:ASP:HA	1:B:1868:LEU:HD12	2.01	0.43
1:B:1069:GLN:HA	1:B:1121:ARG:NH2	2.33	0.42
1:B:605:TYR:O	1:B:609:VAL:HG23	2.18	0.42
2:J:2166:HIS:CE1	2:J:2168:TYR:HB2	2.54	0.42
1:B:1416:LEU:HD11	1:B:1442:ARG:NH1	2.35	0.42
1:B:1606:ASP:HB3	1:B:1609:LEU:HB3	2.02	0.42
1:B:1845:LEU:HD12	1:B:1945:LEU:HD12	2.01	0.42
1:B:2103:ASN:HA	1:B:2123:SER:HG	1.84	0.42
2:J:2089:HIS:NE2	5:J:2501:HOH:O	2.23	0.42
1:B:1298:PRO:HB3	1:B:1515:HIS:CD2	2.54	0.42
1:B:1962:GLN:NE2	1:B:2114:MET:O	2.46	0.42
1:B:2036:VAL:HG11	1:B:2091:LYS:HE2	2.02	0.42
1:B:2077:ILE:HD12	1:B:2094:PHE:CG	2.54	0.42
2:J:2092:VAL:HG22	2:J:2094:SER:HB3	2.02	0.42
2:J:2101:GLY:O	2:J:2138:GLN:HG3	2.19	0.42
1:B:1439:TRP:CD2	1:B:1477:ILE:HG12	2.54	0.42
2:J:2076:ARG:HH11	2:J:2121:ARG:HB2	1.85	0.42
2:J:2229:LYS:HG2	2:J:2257:GLU:HG3	2.01	0.42
2:J:2179:HIS:CE1	2:J:2181:GLN:HG3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:664:PHE:HB2	1:B:927:ILE:HD13	2.00	0.42
1:B:784:ILE:HA	1:B:810:VAL:O	2.20	0.42
1:B:1885:ASN:HB2	1:B:1886:ASP:H	1.66	0.42
1:B:461:LEU:HD23	1:B:481:LEU:O	2.20	0.41
1:B:548:VAL:HG13	1:B:587:VAL:HG12	2.03	0.41
1:B:1439:TRP:O	1:B:1446:GLN:NE2	2.48	0.41
1:B:1598:ILE:N	1:B:1599:PRO:HD2	2.35	0.41
1:B:774:LEU:O	1:B:778:LEU:HB2	2.19	0.41
1:B:837:GLU:HG2	1:B:1083:TYR:OH	2.20	0.41
1:B:1515:HIS:CE1	1:B:1721:PRO:HG3	2.56	0.41
1:B:1142:LYS:O	1:B:1146:LYS:HG2	2.20	0.41
1:B:1622:GLU:CD	1:B:1622:GLU:H	2.23	0.41
1:B:1138:GLU:O	1:B:1142:LYS:HG3	2.20	0.41
1:B:1419:LEU:HD12	1:B:1435:LEU:HD23	2.02	0.41
1:B:1437:ARG:O	1:B:1742:THR:HG21	2.20	0.41
1:B:1228:VAL:CG2	1:B:1263:PRO:HB2	2.51	0.41
1:B:1335:VAL:HG21	1:B:1359:CYS:SG	2.60	0.41
1:B:2065:TRP:NE1	1:B:2081:ARG:HG2	2.36	0.41
1:B:1481:ILE:HG13	1:B:1483:ARG:H	1.86	0.41
1:B:1515:HIS:NE2	1:B:1721:PRO:HG3	2.36	0.41
1:B:1815:LEU:HD11	1:B:1833:SER:HB2	2.03	0.41
1:B:1866:ASN:HA	1:B:1869:ARG:HD3	2.03	0.41
1:B:2077:ILE:HB	1:B:2094:PHE:CE1	2.56	0.41
1:B:577:LYS:O	1:B:580:ILE:HB	2.20	0.41
1:B:1328:PHE:HB3	1:B:1332:GLN:HB2	2.03	0.41
1:B:1369:LEU:HD23	1:B:1369:LEU:HA	1.92	0.41
1:B:1594:GLU:H	1:B:1594:GLU:CD	2.24	0.41
1:B:406:ARG:HA	1:B:406:ARG:CZ	2.51	0.40
1:B:1050:GLU:H	1:B:1050:GLU:CD	2.24	0.40
1:B:1072:LEU:H	1:B:1078:MET:HE2	1.86	0.40
1:B:1861:ARG:HB2	5:B:2375:HOH:O	2.20	0.40
1:B:2056:PHE:HE2	1:B:2058:GLN:HG2	1.86	0.40
1:B:949:LEU:HD23	1:B:949:LEU:HA	1.93	0.40
1:B:1013:GLU:O	1:B:1017:VAL:HG23	2.21	0.40
2:J:2149:PRO:O	2:J:2160:PRO:HD3	2.21	0.40
1:B:442:TYR:CD2	1:B:707:ILE:HD11	2.57	0.40
1:B:1936:LEU:HD13	1:B:2069:GLY:HA3	2.03	0.40
1:B:626:PRO:HG3	1:B:893:MET:HA	2.03	0.40
1:B:766:ALA:HB1	1:B:779:PRO:HG3	2.02	0.40
1:B:1035:LEU:HD12	1:B:1035:LEU:HA	1.83	0.40
1:B:1062:LEU:HD22	1:B:1081:MET:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1515:HIS:O	1:B:1518:VAL:HG22	2.21	0.40
1:B:1752:VAL:O	1:B:1756:THR:HG23	2.21	0.40
1:B:1822:TYR:O	1:B:1921:ARG:HD2	2.21	0.40
1:B:1871:LEU:HD23	1:B:1871:LEU:HA	1.92	0.40

All (2) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:457:SER:OG	2:J:2099:GLU:O[1_545]	2.11	0.09
1:B:1782:SER:OG	2:J:2065:GLN:OE1[4_555]	2.16	0.04

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	B	1722/1747 (99%)	1664 (97%)	54 (3%)	4 (0%)	47	61
2	J	261/263 (99%)	253 (97%)	8 (3%)	0	100	100
All	All	1983/2010 (99%)	1917 (97%)	62 (3%)	4 (0%)	47	61

All (4) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	1887	PRO
1	B	2097	PRO
1	B	1859	PRO
1	B	2057	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	B	1543/1560 (99%)	1493 (97%)	50 (3%)	39	57
2	J	236/236 (100%)	231 (98%)	5 (2%)	53	71
All	All	1779/1796 (99%)	1724 (97%)	55 (3%)	40	58

All (55) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	457	SER
1	B	482	ASN
1	B	484	ILE
1	B	528	ASP
1	B	565	THR
1	B	574	GLN
1	B	645	ASP
1	B	671	LYS
1	B	748	LEU
1	B	758	SER
1	B	759	THR
1	B	763	ARG
1	B	764	THR
1	B	772	LEU
1	B	773	GLU
1	B	822	PRO
1	B	939	SER
1	B	965	ASP
1	B	992	TYR
1	B	998	VAL
1	B	1054	GLU
1	B	1126	MET
1	B	1137	GLU
1	B	1152	ARG
1	B	1342	SER
1	B	1419	LEU
1	B	1574	ILE

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Mol	Chain	Res	Type
1	B	1580	CYS
1	B	1614	LEU
1	B	1648	ARG
1	B	1655	ASN
1	B	1656	VAL
1	B	1731	CYS
1	B	1787	GLU
1	B	1839	LYS
1	B	1861	ARG
1	B	1863	HIS
1	B	1885	ASN
1	B	1902	MET
1	B	1932	SER
1	B	1937	SER
1	B	1945	LEU
1	B	1960	LEU
1	B	1962	GLN
1	B	1966	PHE
1	B	2052	ILE
1	B	2075	SER
1	B	2078	SER
1	B	2116	CYS
1	B	2124	VAL
2	J	2076	ARG
2	J	2120	LEU
2	J	2233	SER
2	J	2287	ARG
2	J	2289	ASP

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

Mol	Chain	Res	Type
1	B	1896	GLN

5.3.3 RNA ⓘ

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)

There are no monosaccharides in this entry.

5.6   Ligand geometry (i)

11 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#|Z| > 2$	Counts	RMSZ	$\#|Z| > 2$
3	EDO	B	2206	-	3,3,3	0.45	0	2,2,2	0.59	0
3	EDO	B	2207	-	3,3,3	0.44	0	2,2,2	0.40	0
3	EDO	B	2208	-	3,3,3	0.51	0	2,2,2	0.25	0
3	EDO	B	2203	-	3,3,3	0.48	0	2,2,2	0.49	0
3	EDO	B	2201	-	3,3,3	0.45	0	2,2,2	0.76	0
3	EDO	B	2204	-	3,3,3	0.52	0	2,2,2	0.21	0
3	EDO	B	2205	-	3,3,3	0.49	0	2,2,2	0.38	0
4	Q8Z	B	2202	-	12,13,13	1.72	3 (25%)	17,18,18	3.07	3 (17%)
3	EDO	J	2402	-	3,3,3	0.43	0	2,2,2	0.59	0
3	EDO	J	2401	-	3,3,3	0.54	0	2,2,2	0.39	0
3	EDO	B	2209	-	3,3,3	0.51	0	2,2,2	0.56	0

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	EDO	B	2206	-	-	1/1/1/1	-
3	EDO	B	2207	-	-	0/1/1/1	-
3	EDO	B	2208	-	-	1/1/1/1	-
3	EDO	B	2203	-	-	1/1/1/1	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	EDO	B	2201	-	-	1/1/1/1	-
3	EDO	B	2204	-	-	1/1/1/1	-
3	EDO	B	2205	-	-	1/1/1/1	-
4	Q8Z	B	2202	-	-	6/12/14/14	0/1/1/1
3	EDO	J	2402	-	-	0/1/1/1	-
3	EDO	J	2401	-	-	0/1/1/1	-
3	EDO	B	2209	-	-	1/1/1/1	-

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	B	2202	Q8Z	C08-S05	3.69	1.81	1.76
4	B	2202	Q8Z	O06-S05	3.16	1.47	1.43
4	B	2202	Q8Z	O07-S05	3.14	1.47	1.43

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	2202	Q8Z	O07-S05-O06	-11.44	100.99	119.52
4	B	2202	Q8Z	O06-S05-C08	4.02	113.13	108.05
4	B	2202	Q8Z	O03-N02-C01	2.16	118.04	114.28

There are no chirality outliers.

All (13) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	B	2202	Q8Z	C13-C08-S05-N02
4	B	2202	Q8Z	C09-C08-S05-N02
4	B	2202	Q8Z	C01-N02-O03-C04
4	B	2202	Q8Z	C13-C08-S05-O06
4	B	2202	Q8Z	C09-C08-S05-O06
3	B	2204	EDO	O1-C1-C2-O2
3	B	2205	EDO	O1-C1-C2-O2
3	B	2208	EDO	O1-C1-C2-O2
3	B	2203	EDO	O1-C1-C2-O2
3	B	2201	EDO	O1-C1-C2-O2
3	B	2206	EDO	O1-C1-C2-O2
3	B	2209	EDO	O1-C1-C2-O2
4	B	2202	Q8Z	C01-N02-S05-O07

There are no ring outliers.

2 monomers are involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	2204	EDO	1	0
3	B	2209	EDO	1	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

Ligand Q8Z B 2202

Bond lengths

Bond angles

Torsions

Rings
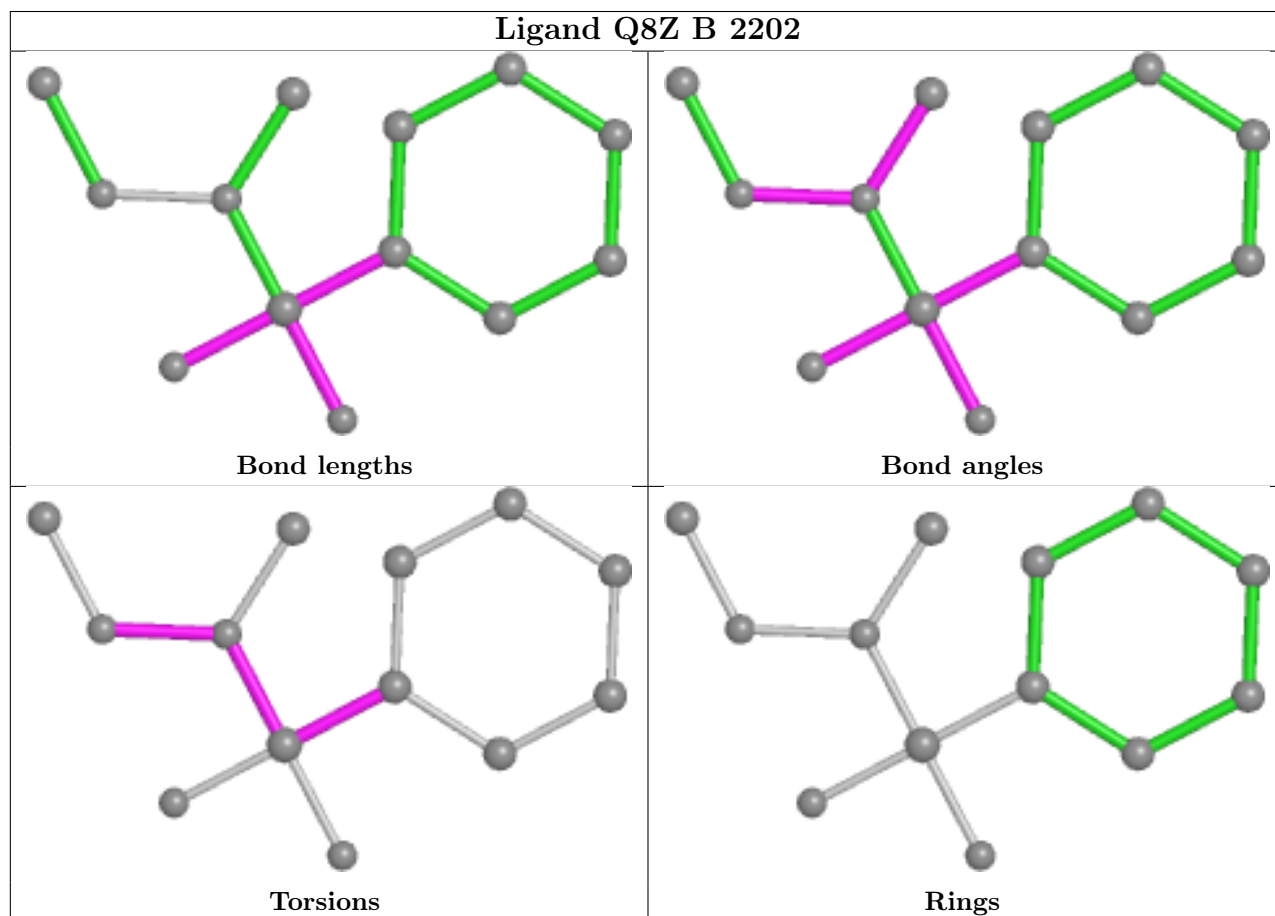
5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

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, 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	B	1724/1747 (98%)	0.20	126 (7%)	15	13	33, 64, 149, 246	0
2	J	263/263 (100%)	-0.00	14 (5%)	26	24	38, 55, 130, 245	0
All	All	1987/2010 (98%)	0.17	140 (7%)	16	14	33, 63, 149, 246	0

All (140) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	J	2060	LEU	12.5
2	J	2061	GLY	9.6
1	B	2033	GLY	9.0
1	B	2027	ASP	8.0
2	J	2100	THR	7.8
1	B	2102	HIS	7.4
1	B	1877	HIS	7.3
1	B	2038	LEU	7.0
1	B	2068	ILE	7.0
1	B	1880	ASN	7.0
1	B	2124	VAL	6.8
1	B	754	GLU	6.7
1	B	2123	SER	6.4
1	B	2035	VAL	5.9
1	B	2106	LEU	5.8
1	B	1936	LEU	5.7
1	B	1868	LEU	5.7
1	B	1893	LEU	5.7
1	B	2097	PRO	5.6
2	J	2097	ILE	5.6
1	B	1881	ASN	5.5
1	B	2104	TYR	5.5
1	B	1874	LYS	5.5
1	B	1940	LEU	5.4

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Mol	Chain	Res	Type	RSRZ
1	B	458	GLU	5.4
1	B	2032	GLY	5.2
2	J	2062	SER	5.1
1	B	2024	VAL	5.1
1	B	2101	ALA	5.1
1	B	404	ALA	5.1
1	B	2030	ARG	5.1
1	B	760	GLU	5.0
1	B	2098	ALA	5.0
1	B	1979	VAL	4.9
1	B	2028	SER	4.9
1	B	2099	THR	4.8
2	J	2058	GLY	4.7
1	B	2107	TYR	4.7
1	B	2036	VAL	4.7
1	B	2122	PHE	4.6
1	B	1956	LYS	4.5
1	B	1593	THR	4.4
1	B	1836	LEU	4.4
1	B	2120	TYR	4.4
1	B	2023	VAL	4.4
1	B	2025	ASP	4.3
1	B	753	ARG	4.3
2	J	2063	MET	4.2
1	B	2108	PHE	4.2
1	B	1863	HIS	4.2
2	J	2059	PRO	4.1
1	B	1879	LEU	4.1
1	B	761	VAL	4.1
1	B	2100	GLY	4.1
1	B	2077	ILE	4.0
1	B	752	LEU	3.9
1	B	2029	ILE	3.8
1	B	2086	GLN	3.8
1	B	1983	PHE	3.7
2	J	2320	LEU	3.7
2	J	2094	SER	3.6
1	B	2020	SER	3.6
1	B	1895	LEU	3.6
1	B	1997	LEU	3.5
1	B	2026	LYS	3.5
1	B	2034	PRO	3.5

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Mol	Chain	Res	Type	RSRZ
1	B	1841	LYS	3.5
1	B	1873	GLN	3.4
1	B	1604	LEU	3.4
1	B	574	GLN	3.3
1	B	602	GLU	3.3
1	B	600	GLY	3.2
1	B	604	THR	3.2
1	B	403	LEU	3.1
1	B	2037	VAL	3.1
1	B	2096	ALA	3.1
1	B	1614	LEU	3.1
1	B	2089	LYS	3.1
1	B	1904	LEU	3.0
1	B	1600	TYR	3.0
1	B	1939	ALA	3.0
1	B	1601	LEU	3.0
1	B	1876	PRO	3.0
1	B	2066	VAL	2.9
1	B	1996	LEU	2.9
1	B	601	GLY	2.9
2	J	2065	GLN	2.9
1	B	1869	ARG	2.9
2	J	2066	THR	2.8
1	B	2031	SER	2.8
1	B	2022	GLU	2.8
1	B	1959	TYR	2.8
1	B	1977	LYS	2.8
1	B	2091	LYS	2.8
1	B	575	LEU	2.8
1	B	2065	TRP	2.7
1	B	2045	GLU	2.7
1	B	1885	ASN	2.7
1	B	2011	CYS	2.7
1	B	573	HIS	2.7
1	B	603	ARG	2.7
1	B	1980	GLU	2.7
1	B	1627	MET	2.7
1	B	1960	LEU	2.6
1	B	782	PHE	2.6
1	B	726	HIS	2.6
1	B	2087	LYS	2.5
1	B	1843	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
1	B	2017	ILE	2.5
1	B	1857	ASN	2.5
1	B	1882	PRO	2.5
1	B	756	SER	2.5
1	B	758	SER	2.5
1	B	2040	GLN	2.4
1	B	1840	THR	2.4
1	B	1878	LYS	2.4
1	B	2046	GLU	2.4
1	B	2105	THR	2.4
1	B	1993	ARG	2.4
1	B	2041	LEU	2.4
1	B	1597	LEU	2.4
1	B	576	CYS	2.3
1	B	2125	ASP	2.3
1	B	1483	ARG	2.3
1	B	1903	GLN	2.3
1	B	2075	SER	2.3
2	J	2068	SER	2.3
1	B	1990	ASP	2.2
1	B	1899	LEU	2.2
1	B	1969	GLU	2.2
1	B	1971	ILE	2.2
1	B	975	LYS	2.2
1	B	805	HIS	2.2
1	B	1865	ASP	2.2
1	B	1866	ASN	2.2
1	B	1164	LEU	2.1
2	J	2317	PHE	2.1
1	B	2016	ASN	2.1
1	B	1860	ILE	2.1
1	B	1631	LEU	2.0

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

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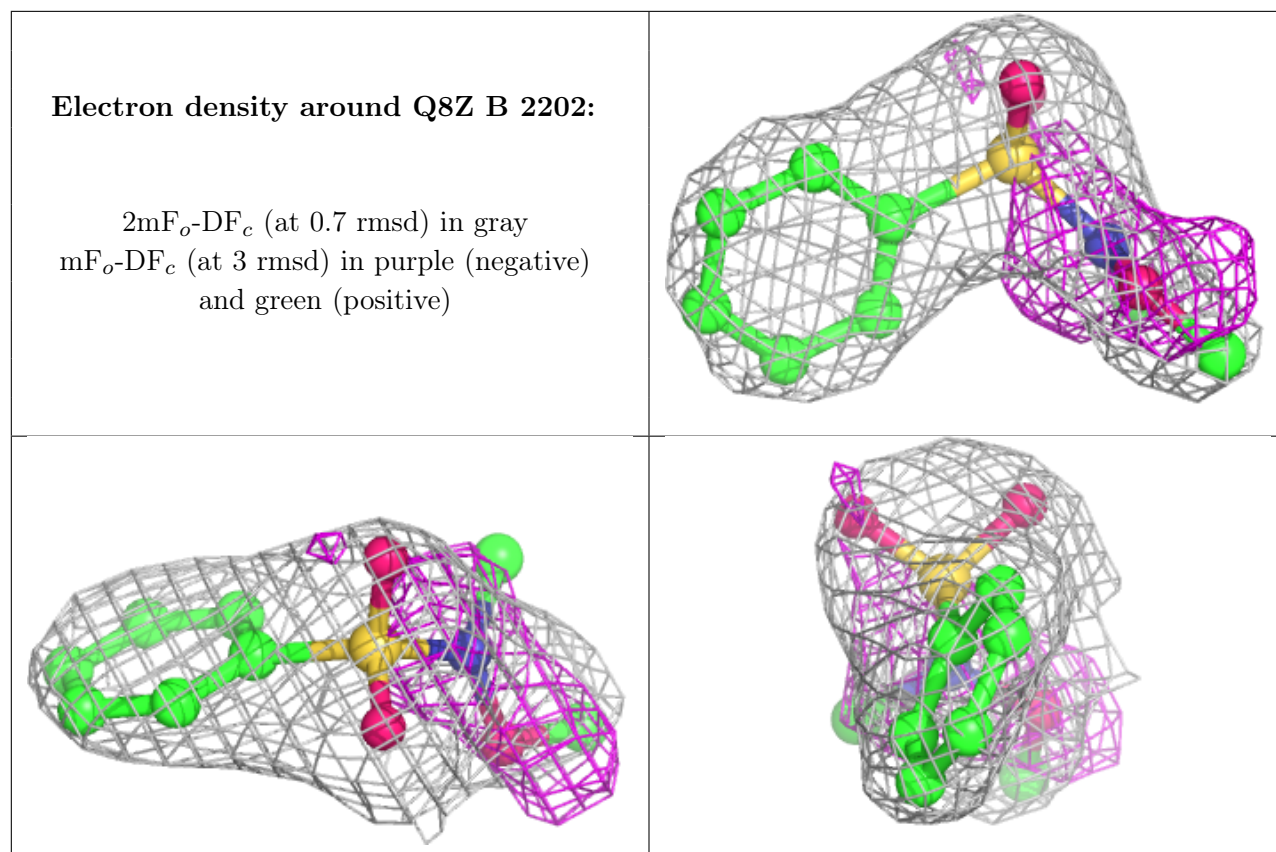
6.3 Carbohydrates ⓘ

There are no monosaccharides in this entry.

6.4　Ligands ⓘ

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 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
3	EDO	J	2401	4/4	0.82	0.26	59,67,68,90	0
3	EDO	B	2209	4/4	0.85	0.20	93,98,108,116	0
3	EDO	B	2205	4/4	0.86	0.19	64,67,71,74	0
3	EDO	B	2204	4/4	0.87	0.19	57,59,61,68	0
3	EDO	B	2203	4/4	0.88	0.29	58,59,60,62	0
3	EDO	B	2201	4/4	0.90	0.25	44,45,56,56	0
3	EDO	J	2402	4/4	0.90	0.13	83,87,101,103	0
3	EDO	B	2207	4/4	0.92	0.22	65,67,69,71	0
3	EDO	B	2206	4/4	0.93	0.12	59,61,62,66	0
4	Q8Z	B	2202	13/13	0.93	0.25	47,56,63,64	0
3	EDO	B	2208	4/4	0.95	0.09	51,51,52,58	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around Q8Z B 2202:

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

6.5 Other polymers ⓘ

There are no such residues in this entry.