

Full wwPDB X-ray Structure Validation Report (i)

Oct 4, 2023 – 01:08 PM EDT

PDB ID : 6UE5

Title : Crystal structure of full-length human DCAF15-DDB1-deltaPBP-DDA1-RB

M39 in complex with 4-(aminomethyl)-N-(3-cyano-4-methyl-1H-indol-7-yl)be

nzenesulfonamide

Authors: Knapp, M.S.; Shu, W.; Xie, L.; Bussiere, D.E.

Deposited on : 2019-09-20

Resolution : 2.61 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 : 1.8.5 (274361), CSD as541be (2020)

Xtriage (Phenix) : 1.13

EDS : 2.35.1

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)

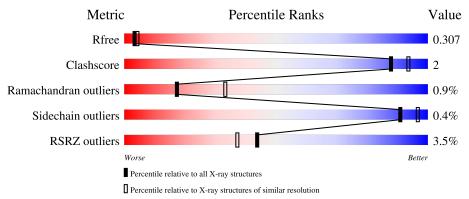
Validation Pipeline (wwPDB-VP) : 2.35.1

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 2.61 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	$\begin{array}{c} \text{Whole archive} \\ (\#\text{Entries}) \end{array}$	Similar resolution $(\# \text{Entries, resolution range}(\text{\AA}))$
R_{free}	130704	3797 (2.64-2.60)
Clashscore	141614	4168 (2.64-2.60)
Ramachandran outliers	138981	4093 (2.64-2.60)
Sidechain outliers	138945	4093 (2.64-2.60)
RSRZ outliers	127900	3731 (2.64-2.60)

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 o	chain	
1	A	601	64%	7%	29%
2	В	836	91%		
3	С	81	93%		7%
4	D	101	70%	·	28%



2 Entry composition (i)

There are 7 unique types of molecules in this entry. The entry contains 11268 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 DDB1- and CUL4-associated factor 15.

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace		
1	Λ	424	Total	С	N	О	S	0	2	0
1	Α	424	3354	2155	563	616	20	0	2	

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	0	GLY	-	expression tag	UNP Q66K64
A	1	PRO	-	expression tag	UNP Q66K64

• Molecule 2 is a protein called DNA damage-binding protein 1,DNA damage-binding protein 1.

Mol	Chain	Residues	Atoms			ZeroOcc	AltConf	Trace		
2	В	799	Total 6170	C 3924	N 1032	O 1181	S 33	0	1	0

There are 6 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
В	700	GLY	-	linker	UNP Q16531
В	701	ASN	-	linker	UNP Q16531
В	702	GLY	-	linker	UNP Q16531
В	703	ASN	-	linker	UNP Q16531
В	704	SER	-	linker	UNP Q16531
В	705	GLY	-	linker	UNP Q16531

• Molecule 3 is a protein called RBM39.

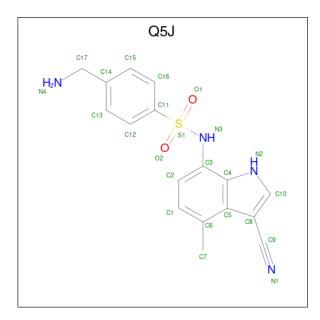
Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
3	С	81	Total	C 395	N 108	0	S	0	0	0



• Molecule 4 is a protein called DET1- and DDB1-associated protein 1.

Mol	Chain	Residues		At	oms			ZeroOcc	AltConf	Trace
4	D	73	Total 577	C 367	N 103	O 106	S 1	0	0	0

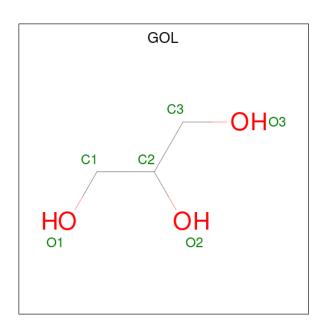
• Molecule 5 is 4-(aminomethyl)-N-(3-cyano-4-methyl-1H-indol-7-yl)benzene-1-sulfona mide (three-letter code: Q5J) (formula: $C_{17}H_{16}N_4O_2S$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues		Ato	ms			ZeroOcc	AltConf
5	٨	1	Total	С	N	О	S	0	0
9	A	1	24	17	4	2	1	0	0

• Molecule 6 is GLYCEROL (three-letter code: GOL) (formula: C₃H₈O₃).





Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
6	В	1	Total 6	C 3	O 3	0	0

• Molecule 7 is water.

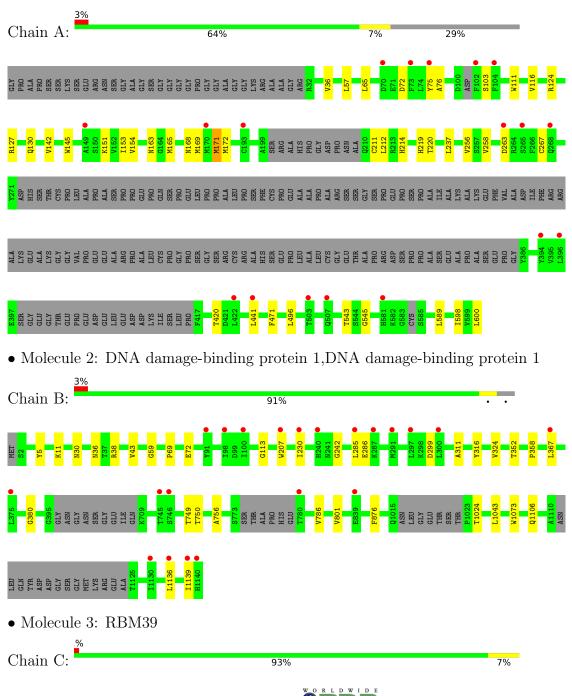
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
7	A	146	Total O 146 146	0	0
7	В	307	Total O 307 307	0	0
7	С	28	Total O 28 28	0	0
7	D	34	Total O 34 34	0	0



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: DDB1- and CUL4-associated factor 15





• Molecule 4: DET1- and DDB1-associated protein 1

Chain D: 70% • 28%





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants	81.69Å 94.24Å 267.58Å	Donogitor
a, b, c, α , β , γ	90.00° 90.00° 90.00°	Depositor
Resolution (Å)	78.13 - 2.61	Depositor
rtesolution (A)	78.13 - 2.61	EDS
% Data completeness	99.6 (78.13-2.61)	Depositor
(in resolution range)	99.6 (78.13-2.61)	EDS
R_{merge}	0.49	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) > 1$	1.20 (at 2.62Å)	Xtriage
Refinement program	BUSTER 2.11.7	Depositor
P. P.	0.239 , 0.266	Depositor
R, R_{free}	0.278 , 0.307	DCC
R_{free} test set	3190 reflections (5.04%)	wwPDB-VP
Wilson B-factor (Å ²)	41.9	Xtriage
Anisotropy	0.502	Xtriage
Bulk solvent $k_{sol}(e/Å^3)$, $B_{sol}(Å^2)$	0.30, 64.2	EDS
L-test for twinning ²	$ < L > = 0.47, < L^2> = 0.30$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	11268	wwPDB-VP
Average B, all atoms (Å ²)	75.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 2.75% of the height of the origin peak. No significant pseudotranslation is detected.

²Theoretical 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.



¹Intensities estimated from amplitudes.

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: GOL, Q5J

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		
IVIOI	Chain	RMSZ	# Z > 5	RMSZ	# Z > 5	
1	A	0.37	0/3437	0.62	0/4674	
2	В	0.34	0/6285	0.58	0/8517	
3	С	0.37	0/634	0.62	0/848	
4	D	0.37	0/591	0.61	0/803	
All	All	0.35	0/10947	0.60	0/14842	

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 (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	3354	0	3229	20	0
2	В	6170	0	6058	20	0
3	С	622	0	611	4	0
4	D	577	0	545	3	0
5	A	24	0	0	0	0
6	В	6	0	8	1	0
7	A	146	0	0	0	0
7	В	307	0	0	1	0
7	С	28	0	0	0	0



Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	D	34	0	0	0	0
All	All	11268	0	10451	43	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 2.

All (43) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom 1	Atom 2	Interatomic	Clash
Atom-1	Atom-2	${\rm distance}(\mathring{\rm A})$	overlap (Å)
1:A:165:MET:O	1:A:171:MET:CE	2.08	1.01
1:A:165:MET:O	1:A:171:MET:HE2	1.64	0.98
1:A:165:MET:O	1:A:171:MET:HE1	1.80	0.82
2:B:69:PRO:HD2	2:B:72:GLU:HG3	1.66	0.78
3:C:273:PHE:HD1	3:C:306:LYS:HE3	1.49	0.76
1:A:211:CYS:O	1:A:212:LEU:HD12	1.96	0.65
2:B:230:ILE:HD11	2:B:285:LEU:HD21	1.83	0.61
2:B:358:PRO:HD2	2:B:380:GLY:HA2	1.83	0.60
1:A:65:LEU:HD22	1:A:600:LEU:HD23	1.84	0.58
2:B:750:THR:HG23	7:B:1301:HOH:O	2.04	0.57
2:B:316:TYR:HE1	4:D:8:LEU:HD23	1.70	0.57
2:B:352:THR:HB	4:D:25:CYS:HA	1.89	0.55
1:A:589:LEU:HB2	1:A:598:ILE:HB	1.89	0.55
1:A:543:THR:HG21	3:C:306:LYS:HD2	1.89	0.54
1:A:127:ARG:NH1	1:A:130:GLN:HA	2.23	0.53
1:A:220:THR:HB	1:A:420:THR:HG22	1.91	0.52
2:B:876:PHE:HA	6:B:1201:GOL:H12	1.90	0.52
1:A:214:HIS:CE1	1:A:258:VAL:HG21	2.46	0.51
1:A:471:PHE:HA	1:A:496:LEU:HA	1.92	0.50
2:B:286:GLU:HB2	2:B:299:ASP:H	1.75	0.50
1:A:153:ILE:HG21	1:A:237:LEU:HD21	1.94	0.49
2:B:5:TYR:HB2	2:B:1043:LEU:HD11	1.94	0.49
2:B:1136:LEU:O	2:B:1139:ILE:HG22	2.13	0.49
2:B:316:TYR:CE1	4:D:8:LEU:HD23	2.48	0.49
2:B:1024:THR:HG21	2:B:1043:LEU:HD23	1.95	0.49
1:A:211:CYS:C	1:A:212:LEU:HD12	2.33	0.48
2:B:59:GLY:HA2	2:B:1073:TRP:CZ3	2.49	0.48
3:C:287:THR:HB	3:C:289:ARG:HG2	1.97	0.46
1:A:256:VAL:HG13	1:A:441:LEU:HD21	1.98	0.46
2:B:749:THR:HG21	2:B:786:VAL:HG21	1.97	0.45
1:A:142:VAL:HG22	1:A:154:VAL:HG22	1.98	0.45
3:C:267:ARG:O	3:C:271:GLU:HB2	2.18	0.44



Continued from previous page...

Atom-1	Atom-2	Interatomic	Clash
Atom-1	Atom-2	${ m distance} \; ({ m \AA})$	overlap (Å)
1:A:145:TRP:CZ3	1:A:151:LYS:HG3	2.53	0.43
2:B:11:LYS:HD3	2:B:38:ARG:HE	1.83	0.43
1:A:36:VAL:HG22	1:A:57:LEU:HD11	2.01	0.42
2:B:207:TRP:HB3	2:B:242:GLY:HA2	2.00	0.42
2:B:358:PRO:HD2	2:B:380:GLY:CA	2.49	0.42
1:A:127:ARG:HH11	1:A:130:GLN:HA	1.84	0.42
2:B:756:ALA:HB1	2:B:801:VAL:HG21	2.02	0.42
1:A:543:THR:C	1:A:545:GLY:H	2.24	0.41
2:B:30:ASN:ND2	2:B:43:VAL:HG22	2.36	0.41
2:B:311:ALA:HB2	2:B:324:VAL:HG13	2.03	0.41
1:A:111:TRP:HB2	1:A:124:ARG:HB3	2.04	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	414/601 (69%)	371 (90%)	35 (8%)	8 (2%)	8 14
2	В	790/836 (94%)	742 (94%)	44 (6%)	4 (0%)	29 50
3	C	79/81 (98%)	78 (99%)	1 (1%)	0	100 100
4	D	71/101 (70%)	66 (93%)	5 (7%)	0	100 100
All	All	1354/1619 (84%)	1257 (93%)	85 (6%)	12 (1%)	17 33

All (12) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	72	ASP
1	A	75	TYR
1	A	168	ASN
1	A	267	CYS



Continued from previous page...

Mol	Chain	Res	Type
1	A	103	SER
1	A	116	VAL
1	A	163	ASN
2	В	36	ASN
2	В	367	LEU
2	В	1106	GLN
1	A	76	ALA
2	В	113	GLY

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	Perce	ntiles
1	A	365/514 (71%)	359 (98%)	6 (2%)	62	81
2	В	671/727 (92%)	671 (100%)	0	100	100
3	С	65/68~(96%)	65 (100%)	0	100	100
4	D	60/92~(65%)	60 (100%)	0	100	100
All	All	1161/1401 (83%)	1155 (100%)	6 (0%)	91	95

All (6) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	169	MET
1	A	171	MET
1	A	172	MET
1	A	219[A]	HIS
1	A	219[B]	HIS
1	A	263	ASP

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

Mol	Chain	Res	Type
2	В	1059	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)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

2 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	Во	ond leng	ths	В	ond ang	les
WIOI	Туре	Chain	nes	LIIIK	Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
6	GOL	В	1201	-	5,5,5	0.07	0	5,5,5	0.29	0
5	Q5J	A	701	-	24,26,26	2.01	6 (25%)	30,38,38	1.52	6 (20%)

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	GOL	В	1201	-	-	0/4/4/4	-
5	Q5J	A	701	-	-	0/13/15/15	0/3/3/3

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(A)	$Ideal(\AA)$
5	A	701	Q5J	S1-N3	4.93	1.71	1.63
5	A	701	Q5J	O1-S1	3.59	1.47	1.43



Continued from previous page...

Mol	Chain	Res	Type	Atoms	\mathbf{Z}	Observed(A)	$\operatorname{Ideal}(ext{\AA})$
5	A	701	Q5J	O2-S1	3.21	1.47	1.43
5	A	701	Q5J	C8-C5	3.11	1.46	1.42
5	A	701	Q5J	C1-C6	2.22	1.42	1.37
5	A	701	Q5J	C12-C11	2.08	1.42	1.38

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$Observed(^o)$	$Ideal(^{o})$
5	A	701	Q5J	C6-C5-C4	-4.06	116.03	122.67
5	A	701	Q5J	C1-C6-C5	3.47	121.31	118.49
5	A	701	Q5J	C4-C3-N3	2.86	119.55	115.50
5	A	701	Q5J	C3-N3-S1	2.61	131.83	124.20
5	A	701	Q5J	C11-S1-N3	-2.28	103.97	106.83
5	A	701	Q5J	O2-S1-C11	2.04	110.48	107.97

There are no chirality outliers.

There are no torsion outliers.

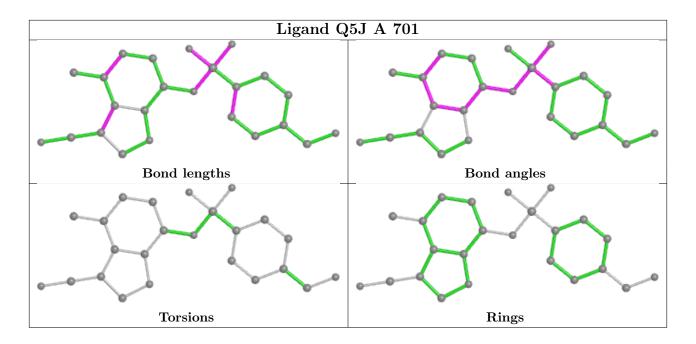
There are no ring outliers.

1 monomer is involved in 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
6	В	1201	GOL	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.





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^{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>	$\# \mathrm{RSRZ}{>}2$	$\mathbf{OWAB}(\mathbf{\mathring{A}}^2)$	Q < 0.9
1	A	424/601 (70%)	0.36	18 (4%) 36 30	39, 72, 128, 225	0
2	В	799/836 (95%)	0.21	21 (2%) 56 50	37, 72, 117, 188	0
3	С	81/81 (100%)	-0.00	1 (1%) 79 76	43, 60, 89, 110	0
4	D	73/101 (72%)	0.64	8 (10%) 5 3	62, 94, 210, 256	0
All	All	1377/1619 (85%)	0.27	48 (3%) 44 37	37, 72, 126, 256	0

All (48) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	В	745	THR	5.3
4	D	25	CYS	4.5
2	В	780	THR	4.2
2	В	1140	HIS	4.0
1	A	263	ASP	3.8
2	В	746	SER	3.6
1	A	102	PHE	3.6
1	A	503	THR	3.5
2	В	1130	ILE	3.5
4	D	22	ASP	3.4
2	В	98	ILE	3.3
1	A	394	TYR	3.3
1	A	396	LEU	3.1
1	A	73	PHE	2.9
3	С	248	GLY	2.9
2	В	1136	LEU	2.8
2	В	240	HIS	2.8
1	A	104	PHE	2.8
2	В	367	LEU	2.8
4	D	23	SER	2.8
2	В	207	TRP	2.8



Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	A	507	GLN	2.6
2	В	287	LYS	2.6
2	В	285	LEU	2.5
2	В	297	LEU	2.5
2	В	1139	ILE	2.5
4	D	39	ARG	2.5
1	A	193	CYS	2.5
4	D	40	GLU	2.4
1	A	441	LEU	2.4
1	A	75	TYR	2.4
2	В	300	LEU	2.4
2	В	291	MET	2.4
4	D	59	LEU	2.3
2	В	375	LEU	2.3
4	D	76	GLN	2.3
1	A	581	HIS	2.2
2	В	230	ILE	2.2
2	В	839	GLU	2.2
2	В	91	TYR	2.2
	A	422	LEU	2.1
1	A	149	ALA	2.1
1	A	265	SER	2.1
1	A	268	GLN	2.1
2 1	В	100	ILE	2.0
	A	70	ASP	2.0
1	A	170	MET	2.0
4	D	56	LEU	2.0

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 monosaccharides in this entry.

6.4 Ligands (i)

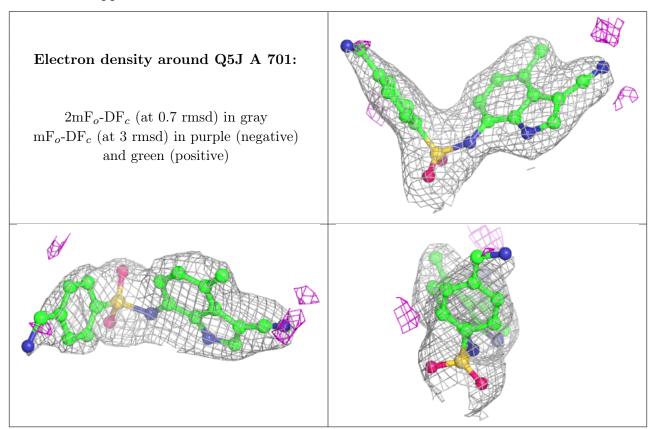
In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum,



median, 95^{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	${f B-factors}({f \AA}^2)$	Q < 0.9
6	GOL	В	1201	6/6	0.93	0.12	51,52,52,53	0
5	Q5J	A	701	24/24	0.96	0.22	32,39,50,53	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.



6.5 Other polymers (i)

There are no such residues in this entry.

