

Full wwPDB X-ray Structure Validation Report (i)

Oct 26, 2024 – 12:04 PM EDT

PDB ID : 6BY2

Title : Closed and deep-inactivated conformation of KcsA-T75A mutant

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Deposited on : 2017-12-19

Resolution : 2.35 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 (1)) were used in the production of this report:

MolProbity: 4.02b-467

Mogul : 2022.3.0, CSD as543be (2022)

Xtriage (Phenix) : 1.20.1

EDS : 3.0

buster-report : 1.1.7 (2018)

Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)

CCP4 : 9.0.003 (Gargrove)

Density-Fitness : 1.0.11

Ideal geometry (proteins) : Engh & Huber (2001) Ideal geometry (DNA, RNA) : Parkinson et al. (1996)

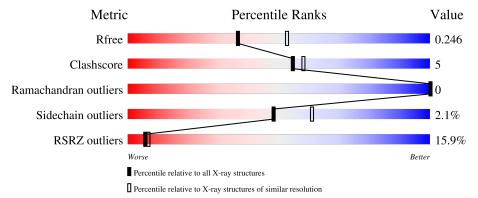
Validation Pipeline (wwPDB-VP) : 2.39

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure: X- $RAY\ DIFFRACTION$

The reported resolution of this entry is 2.35 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 $(\# \mathrm{Entries})$	$\begin{array}{c} {\rm Similar\ resolution} \\ (\#{\rm Entries},{\rm resolution\ range}(\mathring{\rm A})) \end{array}$
R_{free}	164625	1460 (2.36-2.36)
Clashscore	180529	1571 (2.36-2.36)
Ramachandran outliers	177936	1559 (2.36-2.36)
Sidechain outliers	177891	1559 (2.36-2.36)
RSRZ outliers	164620	1460 (2.36-2.36)

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	
-	4	210	20%	
1	Α	219	86%	13% •
			13%	
2	В	212	85%	14%
			13%	
3	\mathbf{C}	103	95%	



2 Entry composition (i)

There are 7 unique types of molecules in this entry. The entry contains 4168 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 Antibody Heavy Chain.

\mathbf{Mol}	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace	
1	A	219	Total 1606	C 1020	N 268	O 312	S 6	0	0	0

• Molecule 2 is a protein called Antibody Light Chain.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace		
9	В	212	Total	С	N	О	S	0	0	0	
<u> </u>	Ъ	212	1646	1022	282	337	5	0	U		

• Molecule 3 is a protein called pH-gated potassium channel KcsA.

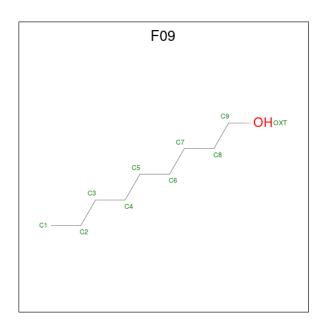
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	С	103	Total 751	C 494	N 124	O 131	S 2	0	0	0

There are 10 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
С	75	ALA	THR	engineered mutation	UNP P0A333
С	90	CYS	LEU	engineered mutation	UNP P0A333
С	117	ARG	-	expression tag	UNP P0A333
С	118	GLU	-	expression tag	UNP P0A333
С	119	GLN	-	expression tag	UNP P0A333
С	120	GLU	-	expression tag	UNP P0A333
С	121	ARG	-	expression tag	UNP P0A333
С	122	ARG	-	expression tag	UNP P0A333
С	123	GLY	-	expression tag	UNP P0A333
С	124	HIS	-	expression tag	UNP P0A333

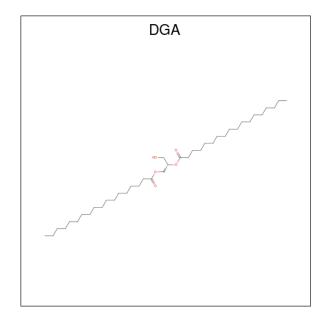
• Molecule 4 is NONAN-1-OL (three-letter code: F09) (formula: $C_9H_{20}O$).





Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	A	1	Total 10	C 9	O 1	0	0

 \bullet Molecule 5 is DIACYL GLYCEROL (three-letter code: DGA) (formula: $\mathrm{C_{39}H_{76}O_{5}}).$



Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	
5	C	1	Total 31	C 26	O 5	0	0

 \bullet Molecule 6 is POTASSIUM ION (three-letter code: K) (formula: K).



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
6	С	3	Total K 3 3	0	0

• Molecule 7 is water.

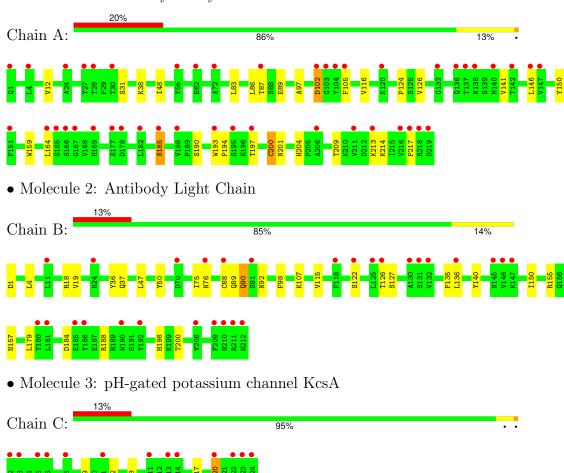
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
7	A	39	Total O 39 39	0	0
7	В	54	Total O 54 54	0	0
7	С	28	Total O 28 28	0	0



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: Antibody Heavy Chain





4 Data and refinement statistics (i)

Property	Value	Source
Space group	I 4	Depositor
Cell constants	157.18Å 157.18Å 75.46Å	Depositor
a, b, c, α , β , γ	90.00° 90.00° 90.00°	Depositor
Resolution (Å)	30.82 - 2.35	Depositor
resolution (A)	30.82 - 2.35	EDS
% Data completeness	99.2 (30.82-2.35)	Depositor
(in resolution range)	99.1 (30.82-2.35)	EDS
R_{merge}	0.15	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) > 1$	3.31 (at 2.34Å)	Xtriage
Refinement program	PHENIX 1.11.1_2575	Depositor
R, R_{free}	0.221 , 0.245	Depositor
it, it _{free}	0.223 , 0.246	DCC
R_{free} test set	37088 reflections (3.62%)	wwPDB-VP
Wilson B-factor (Å ²)	50.7	Xtriage
Anisotropy	0.273	Xtriage
Bulk solvent $k_{sol}(e/Å^3)$, $B_{sol}(Å^2)$	0.30, 35.6	EDS
L-test for twinning ²	$< L > = 0.50, < L^2> = 0.33$	Xtriage
Estimated twinning fraction	0.020 for -k,-h,-l	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	4168	wwPDB-VP
Average B, all atoms $(Å^2)$	59.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: The largest off-origin peak in the Patterson function is 3.11% 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: DGA, K, F09

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		RMSZ	# Z > 5	RMSZ	# Z > 5	
1	A	0.26	0/1650	0.49	0/2263	
2	В	0.25	0/1683	0.45	0/2283	
3	С	0.24	0/770	0.42	0/1060	
All	All	0.25	0/4103	0.46	0/5606	

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	1606	0	1534	19	0
2	В	1646	0	1572	19	0
3	С	751	0	747	4	0
4	A	10	0	20	0	0
5	С	31	0	44	0	0
6	С	3	0	0	0	0
7	A	39	0	0	0	0
7	В	54	0	0	0	0
7	С	28	0	0	0	0
All	All	4168	0	3917	37	0



The all-atom clash score is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clash score for this structure is 5.

All (37) 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:197:THR:HG22	1:A:214:LYS:HE3	1.62	0.81
1:A:105:PHE:HE2	2:B:98:PHE:HZ	1.43	0.66
2:B:37:GLN:HB2	2:B:47:LEU:HD11	1.79	0.64
1:A:38:LYS:HB2	1:A:48:ILE:HD11	1.79	0.64
1:A:83:LEU:HB3	1:A:86:LEU:HD21	1.80	0.63
1:A:126:VAL:HA	1:A:146:LEU:O	1.99	0.62
1:A:124:PRO:HB3	1:A:150:TYR:HB3	1.85	0.57
2:B:155:ARG:NH1	2:B:157:ASN:O	2.37	0.56
1:A:105:PHE:HE2	2:B:98:PHE:CZ	2.24	0.53
2:B:184:ASP:O	2:B:188:ARG:HG3	2.08	0.53
1:A:204:HIS:HB3	1:A:209:THR:OG1	2.10	0.52
2:B:36:TYR:HE1	2:B:89:GLN:HB3	1.75	0.51
2:B:19:VAL:HG12	2:B:75:ILE:HB	1.93	0.51
1:A:194:PRO:HG3	1:A:217:PRO:HG3	1.94	0.49
2:B:198:HIS:HB3	2:B:200:THR:HG22	1.94	0.49
1:A:31:SER:HB2	3:C:62:TYR:CE1	2.48	0.48
2:B:150:ILE:HD11	2:B:179:LEU:HD21	1.95	0.48
1:A:102:ASP:HB3	2:B:50:TYR:OH	2.15	0.47
2:B:18:ARG:NH1	2:B:76:ASN:OD1	2.40	0.47
2:B:122:SER:O	2:B:126:THR:HG23	2.15	0.46
1:A:193:TRP:CD1	1:A:194:PRO:HA	2.51	0.46
2:B:4:LEU:HD13	2:B:88:CYS:O	2.16	0.45
1:A:141:VAL:HG12	1:A:190:SER:HA	1.99	0.45
3:C:59:LEU:HD21	3:C:68:TRP:CD2	2.52	0.44
2:B:90:GLN:OE1	2:B:92:ASN:N	2.45	0.44
2:B:4:LEU:HD11	2:B:90:GLN:HB2	2.00	0.44
1:A:185:SER:HB2	2:B:135:PHE:CE1	2.54	0.42
2:B:4:LEU:HD11	2:B:90:GLN:CB	2.48	0.42
1:A:87:THR:HG22	1:A:89:GLU:H	1.84	0.42
2:B:107:LYS:HA	2:B:140:TYR:OH	2.20	0.42
3:C:117:ARG:O	3:C:120:GLU:HG3	2.19	0.42
1:A:164:LEU:HD12	1:A:164:LEU:HA	1.87	0.42
3:C:59:LEU:HD12	3:C:59:LEU:HA	1.93	0.41
1:A:159:TRP:CZ3	1:A:200:CYS:HB3	2.55	0.41
2:B:115:VAL:HG22	2:B:136:LEU:HD12	2.03	0.41
1:A:12:VAL:O	1:A:116:VAL:HA	2.21	0.40
1:A:97:ALA:HB1	1:A:105:PHE:HB3	2.03	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	Perce	ntiles
1	A	217/219 (99%)	212 (98%)	5 (2%)	0	100	100
2	В	210/212 (99%)	201 (96%)	9 (4%)	0	100	100
3	С	101/103 (98%)	101 (100%)	0	0	100	100
All	All	528/534 (99%)	514 (97%)	14 (3%)	0	100	100

There are no Ramachandran outliers to report.

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	Percentil	les
1	A	171/185~(92%)	166 (97%)	5 (3%)	37 48	
2	В	189/190 (100%)	186 (98%)	3 (2%)	58 71	
3	С	69/74 (93%)	68 (99%)	1 (1%)	62 75	
All	All	429/449 (96%)	420 (98%)	9 (2%)	48 61	

All (9) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	102	ASP
1	A	185	SER



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Mol	Chain	Res	Type
1	A	200	CYS
1	A	201	ASN
1	A	213	LYS
2	В	1	ASP
2	В	90	GLN
2	В	127	SER
3	С	120	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. There are no such sidechains identified.

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 oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 5 ligands modelled in this entry, 3 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	Trmo	Chain	Res	Link	Bond lengths			Bond angles		
IVIOI	Type	Chain	nes	Lilik	Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
4	F09	A	2001	-	9,9,9	0.30	0	8,8,8	0.81	0
5	DGA	С	1001	-	30,30,43	1.00	4 (13%)	32,32,45	1.23	2 (6%)



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	F09	A	2001	-	-	3/7/7/7	-
5	DGA	С	1001	-	-	14/32/32/45	-

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	\mathbf{Z}	Observed(Å)	$Ideal(\AA)$
5	С	1001	DGA	OG2-CG2	-2.53	1.40	1.46
5	С	1001	DGA	OG1-CA1	2.44	1.40	1.33
5	С	1001	DGA	OG2-CB1	2.32	1.40	1.34
5	С	1001	DGA	OG1-CG1	-2.10	1.40	1.45

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	$Observed(^o)$	$\operatorname{Ideal}({}^{o})$
5	С	1001	DGA	OG2-CB1-CB2	4.23	120.63	111.48
5	С	1001	DGA	OG1-CA1-CA2	2.55	119.61	111.83

There are no chirality outliers.

All (17) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	С	1001	DGA	CB2-CB1-OG2-CG2
5	С	1001	DGA	OB1-CB1-OG2-CG2
5	С	1001	DGA	CG1-CG2-CG3-OXT
5	С	1001	DGA	OG2-CG2-CG3-OXT
5	С	1001	DGA	CA2-CA1-OG1-CG1
5	С	1001	DGA	OA1-CA1-OG1-CG1
4	A	2001	F09	C2-C3-C4-C5
5	С	1001	DGA	CB1-CB2-CB3-CB4
5	С	1001	DGA	CA2-CA3-CA4-CA5
5	С	1001	DGA	CB5-CB6-CB7-CB8
4	A	2001	F09	C1-C2-C3-C4
5	С	1001	DGA	CA6-CA7-CA8-CA9
5	С	1001	DGA	CB4-CB5-CB6-CB7
5	С	1001	DGA	OG1-CG1-CG2-CG3
4	A	2001	F09	C6-C7-C8-C9
5	С	1001	DGA	CB3-CB4-CB5-CB6



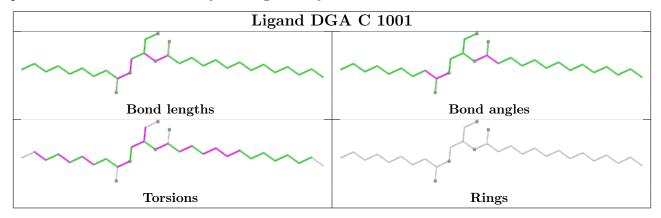
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\mathbf{Mol}	Chain	Res	Type	Atoms
5	С	1001	DGA	CA4-CA5-CA6-CA7

There are no ring outliers.

No monomer is involved in short contacts.

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 $>$	$\#\mathrm{RSRZ}{>}2$		$\mathbf{OWAB}(\mathbf{\mathring{A}}^2)$	Q<0.9	
1	A	$219/219 \; (100\%)$	1.38	44 (20%)	3	4	41, 63, 79, 107	0
2	В	212/212 (100%)	1.08	28 (13%)	8	10	37, 59, 88, 110	0
3	С	103/103 (100%)	1.03	13 (12%)	9	11	33, 46, 89, 102	0
All	All	534/534 (100%)	1.19	85 (15%)	6	7	33, 60, 84, 110	0

All (85) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	С	123	GLY	5.9
1	A	28	THR	5.9
2	В	212	ASN	5.5
3	С	25	HIS	5.0
3	С	22	SER	4.9
1	A	103	GLY	4.8
3	С	23	ALA	4.8
1	A	102	ASP	4.7
1	A	104	TYR	4.7
1	A	105	PHE	4.5
1	A	27	TYR	4.5
1	A	72	ALA	4.4
3	С	114	PHE	4.2
1	A	178	ASP	3.7
1	A	219	ASP	3.7
1	A	165	SER	3.7
1	A	218	ARG	3.6
3	С	122	ARG	3.6
1	A	137	THR	3.4
1	A	164	LEU	3.4
1	A	136	GLN	3.3
3	С	124	HIS	3.3
2	В	209	PHE	3.3



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Mol	Continued from previous page Mol Chain Res Type RSRZ								
			Type						
1	A	55	TYR	3.1					
1	A	138	ASN	3.0					
1	A	206	ALA	3.0					
1	A	167	GLY	2.9					
3	C	111	ALA	2.9					
1	A	132	GLY	2.9					
2	В	122	SER	2.9					
2	В	126	THR	2.9					
2	В	181	LEU	2.9					
1	A	216	VAL	2.8					
3	С	113	TRP	2.8					
2	В	91	SER	2.8					
2	В	186	TYR	2.8					
2	В	147	LYS	2.8					
1	A	211	VAL	2.8					
1	A	142	THR	2.8					
2	В	145	ASN	2.8					
1	A	1	GLN	2.7					
1	A	195	SER	2.7					
1	A	120	LYS	2.7					
1	A	30	THR	2.7					
1	A	193	TRP	2.7					
2	В	88	CYS	2.6					
2	В	132	VAL	2.6					
1	A	4	LEU	2.6					
2	В	118	PHE	2.6					
1	A	147	VAL	2.5					
1	A	151	PHE	2.5					
2	В	136	LEU	2.5					
1	A	87	THR	2.5					
3	С	26	TRP	2.5					
1	A	213	LYS	2.5					
2	В	206	VAL	2.5					
1	A	166	SER	2.4					
2	В	210	ASN	2.4					
1	A	197	THR	2.4					
2	В	180	THR	2.4					
2	В	185	GLU	2.4					
1	A	185	SER	2.4					
3	С	61	THR	2.4					
1	A	140	MET	2.4					
3	С	120	GLU	2.3					



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Mol	Chain	Res	Type	RSRZ
2	В	146	VAL	2.3
1	A	169	HIS	2.3
2	В	131	SER	2.3
3	С	45	TYR	2.2
1	A	217	PRO	2.2
2	В	130	ALA	2.2
2	В	211	ARG	2.2
1	A	146	LEU	2.2
2	В	76	ASN	2.2
2	В	192	TYR	2.2
1	A	24	ALA	2.2
1	A	177	SER	2.1
2	В	24	ARG	2.1
1	A	62	GLU	2.1
2	В	70	ASP	2.1
1	A	182	LEU	2.1
1	A	188	VAL	2.1
2	В	125	LEU	2.1
2	В	190	ASN	2.0
2	В	11	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.

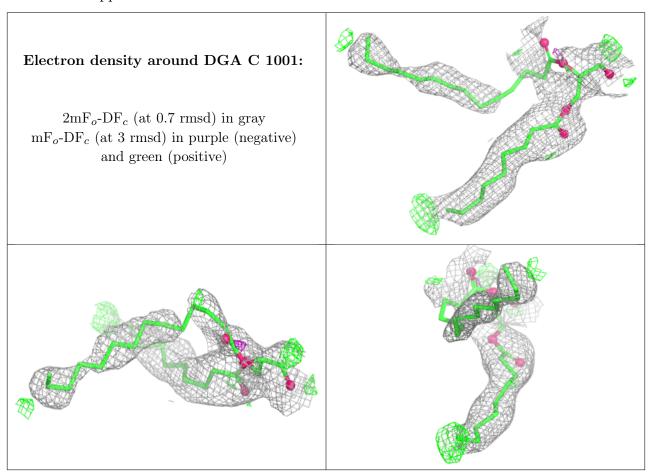
Mol	Type	Chain	Res	Atoms	RSCC	RSR	${f B-factors}({f \AA}^2)$	Q<0.9
6	K	С	1002	1/1	0.70	0.22	57,57,57,57	1
5	DGA	С	1001	31/44	0.73	0.22	56,71,98,102	0
6	K	С	1004	1/1	0.82	0.16	87,87,87,87	1



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Mol	Type	Chain	Res	Atoms	RSCC	RSR	$\mathbf{B} ext{-}\mathbf{factors}(\mathbf{\mathring{A}}^2)$	Q < 0.9
4	F09	A	2001	10/10	0.85	0.21	58,67,79,83	0
6	K	С	1003	1/1	0.97	0.13	33,33,33,33	1

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.

