



wwPDB X-ray Structure Validation Summary Report ⓘ

Oct 30, 2023 – 07:20 PM JST

PDB ID : 4Y4Y
Title : T=1 capsid structure of SeMV Ndel65CP fused with B-domain of *S. aureus* protein SpA at the N-terminus (C2 crystal form)
Authors : Gulati, A.; Murthy, M.R.N.
Deposited on : 2015-02-11
Resolution : 3.00 Å (reported)

This is a wwPDB X-ray Structure Validation Summary Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

MolProbity : 4.02b-467
Mogul : 1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix) : 1.13
EDS : 2.36
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac : 5.8.0158
CCP4 : 7.0.044 (Gargrove)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.36

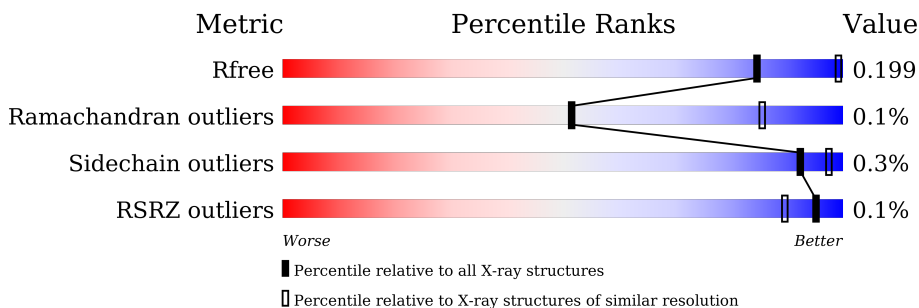
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.00 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.


























Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	130704	2092 (3.00-3.00)
Ramachandran outliers	138981	2333 (3.00-3.00)
Sidechain outliers	138945	2336 (3.00-3.00)
RSRZ outliers	127900	1990 (3.00-3.00)

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 $\leq 5\%$. 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	282	67% 32%
1	B	282	67% 32%
1	C	282	68% 32%
1	D	282	67% 32%
1	E	282	67% 32%
1	F	282	67% 32%
1	G	282	67% 32%

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Mol	Chain	Length	Quality of chain
1	H	282	 68% 32%
1	I	282	 67% 32%
1	J	282	 67% 32%
1	K	282	 67% 32%
1	L	282	 67% 32%
1	M	282	 66% 32%
1	N	282	 67% 32%
1	O	282	 67% 32%
1	P	282	 68% 32%
1	Q	282	 67% 32%
1	R	282	 67% 32%
1	S	282	 67% 32%
1	T	282	 67% 32%
1	U	282	 67% 32%
1	V	282	 67% 32%
1	W	282	 68% 32%
1	X	282	 67% 32%
1	Y	282	 67% 32%
1	Z	282	 67% 32%
1	a	282	 68% 32%
1	b	282	 67% 32%
1	c	282	 66% 32%
1	d	282	 67% 32%

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 42805 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 Immunoglobulin G-binding protein A, Coat protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	A	191	1413	901	228	276	8	0	0	0
1	B	191	1416	902	229	277	8	0	0	0
1	C	191	1416	902	229	277	8	0	0	0
1	D	191	1418	903	229	278	8	0	0	0
1	E	191	1399	892	227	272	8	0	0	0
1	F	191	1376	877	224	267	8	0	0	0
1	G	191	1418	903	229	278	8	0	0	0
1	H	191	1409	898	228	275	8	0	0	0
1	I	191	1418	903	229	278	8	0	0	0
1	J	191	1416	902	229	277	8	0	0	0
1	K	191	1416	902	228	278	8	0	0	0
1	L	191	1416	902	229	277	8	0	0	0
1	M	191	1417	902	229	278	8	0	0	0
1	N	191	1414	902	228	276	8	0	0	0
1	O	191	1416	902	229	277	8	0	0	0
1	P	191	1416	902	229	277	8	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	Q	191	1378	879	227	264	8	0	0	0
1	R	191	1406	895	228	275	8	0	0	0
1	S	191	1405	894	228	275	8	0	0	0
1	T	191	1415	902	229	276	8	0	0	0
1	U	191	1412	900	228	276	8	0	0	0
1	V	191	1416	902	229	277	8	0	0	0
1	W	191	1416	902	229	277	8	0	0	0
1	X	191	1414	900	229	277	8	0	0	0
1	Y	191	1411	900	228	275	8	0	0	0
1	Z	191	1411	900	228	275	8	0	0	0
1	a	191	1413	901	229	275	8	0	0	0
1	b	191	1416	902	229	277	8	0	0	0
1	c	191	1418	903	229	278	8	0	0	0
1	d	191	1415	902	229	276	8	0	0	0

There are 750 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	-13	MET	-	expression tag	UNP P02976
A	-12	ARG	-	expression tag	UNP P02976
A	-11	GLY	-	expression tag	UNP P02976
A	-10	SER	-	expression tag	UNP P02976
A	-9	HIS	-	expression tag	UNP P02976
A	-8	HIS	-	expression tag	UNP P02976
A	-7	HIS	-	expression tag	UNP P02976
A	-6	HIS	-	expression tag	UNP P02976
A	-5	HIS	-	expression tag	UNP P02976
A	-4	HIS	-	expression tag	UNP P02976
A	-3	GLY	-	expression tag	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
A	-2	MET	-	expression tag	UNP P02976
A	-1	ALA	-	expression tag	UNP P02976
A	0	SER	-	expression tag	UNP P02976
A	1	MET	-	expression tag	UNP P02976
A	2	ASP	-	expression tag	UNP P02976
A	3	ASN	-	expression tag	UNP P02976
A	4	LYS	-	expression tag	UNP P02976
A	59	GLU	-	linker	UNP P02976
A	60	GLY	-	linker	UNP P02976
A	61	SER	-	linker	UNP P02976
A	62	GLU	-	linker	UNP P02976
A	63	LEU	-	linker	UNP P02976
A	64	GLU	-	linker	UNP P02976
A	65	MET	-	linker	UNP P02976
B	-13	MET	-	expression tag	UNP P02976
B	-12	ARG	-	expression tag	UNP P02976
B	-11	GLY	-	expression tag	UNP P02976
B	-10	SER	-	expression tag	UNP P02976
B	-9	HIS	-	expression tag	UNP P02976
B	-8	HIS	-	expression tag	UNP P02976
B	-7	HIS	-	expression tag	UNP P02976
B	-6	HIS	-	expression tag	UNP P02976
B	-5	HIS	-	expression tag	UNP P02976
B	-4	HIS	-	expression tag	UNP P02976
B	-3	GLY	-	expression tag	UNP P02976
B	-2	MET	-	expression tag	UNP P02976
B	-1	ALA	-	expression tag	UNP P02976
B	0	SER	-	expression tag	UNP P02976
B	1	MET	-	expression tag	UNP P02976
B	2	ASP	-	expression tag	UNP P02976
B	3	ASN	-	expression tag	UNP P02976
B	4	LYS	-	expression tag	UNP P02976
B	59	GLU	-	linker	UNP P02976
B	60	GLY	-	linker	UNP P02976
B	61	SER	-	linker	UNP P02976
B	62	GLU	-	linker	UNP P02976
B	63	LEU	-	linker	UNP P02976
B	64	GLU	-	linker	UNP P02976
B	65	MET	-	linker	UNP P02976
C	-13	MET	-	expression tag	UNP P02976
C	-12	ARG	-	expression tag	UNP P02976
C	-11	GLY	-	expression tag	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
C	-10	SER	-	expression tag	UNP P02976
C	-9	HIS	-	expression tag	UNP P02976
C	-8	HIS	-	expression tag	UNP P02976
C	-7	HIS	-	expression tag	UNP P02976
C	-6	HIS	-	expression tag	UNP P02976
C	-5	HIS	-	expression tag	UNP P02976
C	-4	HIS	-	expression tag	UNP P02976
C	-3	GLY	-	expression tag	UNP P02976
C	-2	MET	-	expression tag	UNP P02976
C	-1	ALA	-	expression tag	UNP P02976
C	0	SER	-	expression tag	UNP P02976
C	1	MET	-	expression tag	UNP P02976
C	2	ASP	-	expression tag	UNP P02976
C	3	ASN	-	expression tag	UNP P02976
C	4	LYS	-	expression tag	UNP P02976
C	59	GLU	-	linker	UNP P02976
C	60	GLY	-	linker	UNP P02976
C	61	SER	-	linker	UNP P02976
C	62	GLU	-	linker	UNP P02976
C	63	LEU	-	linker	UNP P02976
C	64	GLU	-	linker	UNP P02976
C	65	MET	-	linker	UNP P02976
D	-13	MET	-	expression tag	UNP P02976
D	-12	ARG	-	expression tag	UNP P02976
D	-11	GLY	-	expression tag	UNP P02976
D	-10	SER	-	expression tag	UNP P02976
D	-9	HIS	-	expression tag	UNP P02976
D	-8	HIS	-	expression tag	UNP P02976
D	-7	HIS	-	expression tag	UNP P02976
D	-6	HIS	-	expression tag	UNP P02976
D	-5	HIS	-	expression tag	UNP P02976
D	-4	HIS	-	expression tag	UNP P02976
D	-3	GLY	-	expression tag	UNP P02976
D	-2	MET	-	expression tag	UNP P02976
D	-1	ALA	-	expression tag	UNP P02976
D	0	SER	-	expression tag	UNP P02976
D	1	MET	-	expression tag	UNP P02976
D	2	ASP	-	expression tag	UNP P02976
D	3	ASN	-	expression tag	UNP P02976
D	4	LYS	-	expression tag	UNP P02976
D	59	GLU	-	linker	UNP P02976
D	60	GLY	-	linker	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
D	61	SER	-	linker	UNP P02976
D	62	GLU	-	linker	UNP P02976
D	63	LEU	-	linker	UNP P02976
D	64	GLU	-	linker	UNP P02976
D	65	MET	-	linker	UNP P02976
E	-13	MET	-	expression tag	UNP P02976
E	-12	ARG	-	expression tag	UNP P02976
E	-11	GLY	-	expression tag	UNP P02976
E	-10	SER	-	expression tag	UNP P02976
E	-9	HIS	-	expression tag	UNP P02976
E	-8	HIS	-	expression tag	UNP P02976
E	-7	HIS	-	expression tag	UNP P02976
E	-6	HIS	-	expression tag	UNP P02976
E	-5	HIS	-	expression tag	UNP P02976
E	-4	HIS	-	expression tag	UNP P02976
E	-3	GLY	-	expression tag	UNP P02976
E	-2	MET	-	expression tag	UNP P02976
E	-1	ALA	-	expression tag	UNP P02976
E	0	SER	-	expression tag	UNP P02976
E	1	MET	-	expression tag	UNP P02976
E	2	ASP	-	expression tag	UNP P02976
E	3	ASN	-	expression tag	UNP P02976
E	4	LYS	-	expression tag	UNP P02976
E	59	GLU	-	linker	UNP P02976
E	60	GLY	-	linker	UNP P02976
E	61	SER	-	linker	UNP P02976
E	62	GLU	-	linker	UNP P02976
E	63	LEU	-	linker	UNP P02976
E	64	GLU	-	linker	UNP P02976
E	65	MET	-	linker	UNP P02976
F	-13	MET	-	expression tag	UNP P02976
F	-12	ARG	-	expression tag	UNP P02976
F	-11	GLY	-	expression tag	UNP P02976
F	-10	SER	-	expression tag	UNP P02976
F	-9	HIS	-	expression tag	UNP P02976
F	-8	HIS	-	expression tag	UNP P02976
F	-7	HIS	-	expression tag	UNP P02976
F	-6	HIS	-	expression tag	UNP P02976
F	-5	HIS	-	expression tag	UNP P02976
F	-4	HIS	-	expression tag	UNP P02976
F	-3	GLY	-	expression tag	UNP P02976
F	-2	MET	-	expression tag	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
F	-1	ALA	-	expression tag	UNP P02976
F	0	SER	-	expression tag	UNP P02976
F	1	MET	-	expression tag	UNP P02976
F	2	ASP	-	expression tag	UNP P02976
F	3	ASN	-	expression tag	UNP P02976
F	4	LYS	-	expression tag	UNP P02976
F	59	GLU	-	linker	UNP P02976
F	60	GLY	-	linker	UNP P02976
F	61	SER	-	linker	UNP P02976
F	62	GLU	-	linker	UNP P02976
F	63	LEU	-	linker	UNP P02976
F	64	GLU	-	linker	UNP P02976
F	65	MET	-	linker	UNP P02976
G	-13	MET	-	expression tag	UNP P02976
G	-12	ARG	-	expression tag	UNP P02976
G	-11	GLY	-	expression tag	UNP P02976
G	-10	SER	-	expression tag	UNP P02976
G	-9	HIS	-	expression tag	UNP P02976
G	-8	HIS	-	expression tag	UNP P02976
G	-7	HIS	-	expression tag	UNP P02976
G	-6	HIS	-	expression tag	UNP P02976
G	-5	HIS	-	expression tag	UNP P02976
G	-4	HIS	-	expression tag	UNP P02976
G	-3	GLY	-	expression tag	UNP P02976
G	-2	MET	-	expression tag	UNP P02976
G	-1	ALA	-	expression tag	UNP P02976
G	0	SER	-	expression tag	UNP P02976
G	1	MET	-	expression tag	UNP P02976
G	2	ASP	-	expression tag	UNP P02976
G	3	ASN	-	expression tag	UNP P02976
G	4	LYS	-	expression tag	UNP P02976
G	59	GLU	-	linker	UNP P02976
G	60	GLY	-	linker	UNP P02976
G	61	SER	-	linker	UNP P02976
G	62	GLU	-	linker	UNP P02976
G	63	LEU	-	linker	UNP P02976
G	64	GLU	-	linker	UNP P02976
G	65	MET	-	linker	UNP P02976
H	-13	MET	-	expression tag	UNP P02976
H	-12	ARG	-	expression tag	UNP P02976
H	-11	GLY	-	expression tag	UNP P02976
H	-10	SER	-	expression tag	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
H	-9	HIS	-	expression tag	UNP P02976
H	-8	HIS	-	expression tag	UNP P02976
H	-7	HIS	-	expression tag	UNP P02976
H	-6	HIS	-	expression tag	UNP P02976
H	-5	HIS	-	expression tag	UNP P02976
H	-4	HIS	-	expression tag	UNP P02976
H	-3	GLY	-	expression tag	UNP P02976
H	-2	MET	-	expression tag	UNP P02976
H	-1	ALA	-	expression tag	UNP P02976
H	0	SER	-	expression tag	UNP P02976
H	1	MET	-	expression tag	UNP P02976
H	2	ASP	-	expression tag	UNP P02976
H	3	ASN	-	expression tag	UNP P02976
H	4	LYS	-	expression tag	UNP P02976
H	59	GLU	-	linker	UNP P02976
H	60	GLY	-	linker	UNP P02976
H	61	SER	-	linker	UNP P02976
H	62	GLU	-	linker	UNP P02976
H	63	LEU	-	linker	UNP P02976
H	64	GLU	-	linker	UNP P02976
H	65	MET	-	linker	UNP P02976
I	-13	MET	-	expression tag	UNP P02976
I	-12	ARG	-	expression tag	UNP P02976
I	-11	GLY	-	expression tag	UNP P02976
I	-10	SER	-	expression tag	UNP P02976
I	-9	HIS	-	expression tag	UNP P02976
I	-8	HIS	-	expression tag	UNP P02976
I	-7	HIS	-	expression tag	UNP P02976
I	-6	HIS	-	expression tag	UNP P02976
I	-5	HIS	-	expression tag	UNP P02976
I	-4	HIS	-	expression tag	UNP P02976
I	-3	GLY	-	expression tag	UNP P02976
I	-2	MET	-	expression tag	UNP P02976
I	-1	ALA	-	expression tag	UNP P02976
I	0	SER	-	expression tag	UNP P02976
I	1	MET	-	expression tag	UNP P02976
I	2	ASP	-	expression tag	UNP P02976
I	3	ASN	-	expression tag	UNP P02976
I	4	LYS	-	expression tag	UNP P02976
I	59	GLU	-	linker	UNP P02976
I	60	GLY	-	linker	UNP P02976
I	61	SER	-	linker	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
I	62	GLU	-	linker	UNP P02976
I	63	LEU	-	linker	UNP P02976
I	64	GLU	-	linker	UNP P02976
I	65	MET	-	linker	UNP P02976
J	-13	MET	-	expression tag	UNP P02976
J	-12	ARG	-	expression tag	UNP P02976
J	-11	GLY	-	expression tag	UNP P02976
J	-10	SER	-	expression tag	UNP P02976
J	-9	HIS	-	expression tag	UNP P02976
J	-8	HIS	-	expression tag	UNP P02976
J	-7	HIS	-	expression tag	UNP P02976
J	-6	HIS	-	expression tag	UNP P02976
J	-5	HIS	-	expression tag	UNP P02976
J	-4	HIS	-	expression tag	UNP P02976
J	-3	GLY	-	expression tag	UNP P02976
J	-2	MET	-	expression tag	UNP P02976
J	-1	ALA	-	expression tag	UNP P02976
J	0	SER	-	expression tag	UNP P02976
J	1	MET	-	expression tag	UNP P02976
J	2	ASP	-	expression tag	UNP P02976
J	3	ASN	-	expression tag	UNP P02976
J	4	LYS	-	expression tag	UNP P02976
J	59	GLU	-	linker	UNP P02976
J	60	GLY	-	linker	UNP P02976
J	61	SER	-	linker	UNP P02976
J	62	GLU	-	linker	UNP P02976
J	63	LEU	-	linker	UNP P02976
J	64	GLU	-	linker	UNP P02976
J	65	MET	-	linker	UNP P02976
K	-13	MET	-	expression tag	UNP P02976
K	-12	ARG	-	expression tag	UNP P02976
K	-11	GLY	-	expression tag	UNP P02976
K	-10	SER	-	expression tag	UNP P02976
K	-9	HIS	-	expression tag	UNP P02976
K	-8	HIS	-	expression tag	UNP P02976
K	-7	HIS	-	expression tag	UNP P02976
K	-6	HIS	-	expression tag	UNP P02976
K	-5	HIS	-	expression tag	UNP P02976
K	-4	HIS	-	expression tag	UNP P02976
K	-3	GLY	-	expression tag	UNP P02976
K	-2	MET	-	expression tag	UNP P02976
K	-1	ALA	-	expression tag	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
K	0	SER	-	expression tag	UNP P02976
K	1	MET	-	expression tag	UNP P02976
K	2	ASP	-	expression tag	UNP P02976
K	3	ASN	-	expression tag	UNP P02976
K	4	LYS	-	expression tag	UNP P02976
K	59	GLU	-	linker	UNP P02976
K	60	GLY	-	linker	UNP P02976
K	61	SER	-	linker	UNP P02976
K	62	GLU	-	linker	UNP P02976
K	63	LEU	-	linker	UNP P02976
K	64	GLU	-	linker	UNP P02976
K	65	MET	-	linker	UNP P02976
L	-13	MET	-	expression tag	UNP P02976
L	-12	ARG	-	expression tag	UNP P02976
L	-11	GLY	-	expression tag	UNP P02976
L	-10	SER	-	expression tag	UNP P02976
L	-9	HIS	-	expression tag	UNP P02976
L	-8	HIS	-	expression tag	UNP P02976
L	-7	HIS	-	expression tag	UNP P02976
L	-6	HIS	-	expression tag	UNP P02976
L	-5	HIS	-	expression tag	UNP P02976
L	-4	HIS	-	expression tag	UNP P02976
L	-3	GLY	-	expression tag	UNP P02976
L	-2	MET	-	expression tag	UNP P02976
L	-1	ALA	-	expression tag	UNP P02976
L	0	SER	-	expression tag	UNP P02976
L	1	MET	-	expression tag	UNP P02976
L	2	ASP	-	expression tag	UNP P02976
L	3	ASN	-	expression tag	UNP P02976
L	4	LYS	-	expression tag	UNP P02976
L	59	GLU	-	linker	UNP P02976
L	60	GLY	-	linker	UNP P02976
L	61	SER	-	linker	UNP P02976
L	62	GLU	-	linker	UNP P02976
L	63	LEU	-	linker	UNP P02976
L	64	GLU	-	linker	UNP P02976
L	65	MET	-	linker	UNP P02976
M	-13	MET	-	expression tag	UNP P02976
M	-12	ARG	-	expression tag	UNP P02976
M	-11	GLY	-	expression tag	UNP P02976
M	-10	SER	-	expression tag	UNP P02976
M	-9	HIS	-	expression tag	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
M	-8	HIS	-	expression tag	UNP P02976
M	-7	HIS	-	expression tag	UNP P02976
M	-6	HIS	-	expression tag	UNP P02976
M	-5	HIS	-	expression tag	UNP P02976
M	-4	HIS	-	expression tag	UNP P02976
M	-3	GLY	-	expression tag	UNP P02976
M	-2	MET	-	expression tag	UNP P02976
M	-1	ALA	-	expression tag	UNP P02976
M	0	SER	-	expression tag	UNP P02976
M	1	MET	-	expression tag	UNP P02976
M	2	ASP	-	expression tag	UNP P02976
M	3	ASN	-	expression tag	UNP P02976
M	4	LYS	-	expression tag	UNP P02976
M	59	GLU	-	linker	UNP P02976
M	60	GLY	-	linker	UNP P02976
M	61	SER	-	linker	UNP P02976
M	62	GLU	-	linker	UNP P02976
M	63	LEU	-	linker	UNP P02976
M	64	GLU	-	linker	UNP P02976
M	65	MET	-	linker	UNP P02976
N	-13	MET	-	expression tag	UNP P02976
N	-12	ARG	-	expression tag	UNP P02976
N	-11	GLY	-	expression tag	UNP P02976
N	-10	SER	-	expression tag	UNP P02976
N	-9	HIS	-	expression tag	UNP P02976
N	-8	HIS	-	expression tag	UNP P02976
N	-7	HIS	-	expression tag	UNP P02976
N	-6	HIS	-	expression tag	UNP P02976
N	-5	HIS	-	expression tag	UNP P02976
N	-4	HIS	-	expression tag	UNP P02976
N	-3	GLY	-	expression tag	UNP P02976
N	-2	MET	-	expression tag	UNP P02976
N	-1	ALA	-	expression tag	UNP P02976
N	0	SER	-	expression tag	UNP P02976
N	1	MET	-	expression tag	UNP P02976
N	2	ASP	-	expression tag	UNP P02976
N	3	ASN	-	expression tag	UNP P02976
N	4	LYS	-	expression tag	UNP P02976
N	59	GLU	-	linker	UNP P02976
N	60	GLY	-	linker	UNP P02976
N	61	SER	-	linker	UNP P02976
N	62	GLU	-	linker	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
N	63	LEU	-	linker	UNP P02976
N	64	GLU	-	linker	UNP P02976
N	65	MET	-	linker	UNP P02976
O	-13	MET	-	expression tag	UNP P02976
O	-12	ARG	-	expression tag	UNP P02976
O	-11	GLY	-	expression tag	UNP P02976
O	-10	SER	-	expression tag	UNP P02976
O	-9	HIS	-	expression tag	UNP P02976
O	-8	HIS	-	expression tag	UNP P02976
O	-7	HIS	-	expression tag	UNP P02976
O	-6	HIS	-	expression tag	UNP P02976
O	-5	HIS	-	expression tag	UNP P02976
O	-4	HIS	-	expression tag	UNP P02976
O	-3	GLY	-	expression tag	UNP P02976
O	-2	MET	-	expression tag	UNP P02976
O	-1	ALA	-	expression tag	UNP P02976
O	0	SER	-	expression tag	UNP P02976
O	1	MET	-	expression tag	UNP P02976
O	2	ASP	-	expression tag	UNP P02976
O	3	ASN	-	expression tag	UNP P02976
O	4	LYS	-	expression tag	UNP P02976
O	59	GLU	-	linker	UNP P02976
O	60	GLY	-	linker	UNP P02976
O	61	SER	-	linker	UNP P02976
O	62	GLU	-	linker	UNP P02976
O	63	LEU	-	linker	UNP P02976
O	64	GLU	-	linker	UNP P02976
O	65	MET	-	linker	UNP P02976
P	-13	MET	-	expression tag	UNP P02976
P	-12	ARG	-	expression tag	UNP P02976
P	-11	GLY	-	expression tag	UNP P02976
P	-10	SER	-	expression tag	UNP P02976
P	-9	HIS	-	expression tag	UNP P02976
P	-8	HIS	-	expression tag	UNP P02976
P	-7	HIS	-	expression tag	UNP P02976
P	-6	HIS	-	expression tag	UNP P02976
P	-5	HIS	-	expression tag	UNP P02976
P	-4	HIS	-	expression tag	UNP P02976
P	-3	GLY	-	expression tag	UNP P02976
P	-2	MET	-	expression tag	UNP P02976
P	-1	ALA	-	expression tag	UNP P02976
P	0	SER	-	expression tag	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
P	1	MET	-	expression tag	UNP P02976
P	2	ASP	-	expression tag	UNP P02976
P	3	ASN	-	expression tag	UNP P02976
P	4	LYS	-	expression tag	UNP P02976
P	59	GLU	-	linker	UNP P02976
P	60	GLY	-	linker	UNP P02976
P	61	SER	-	linker	UNP P02976
P	62	GLU	-	linker	UNP P02976
P	63	LEU	-	linker	UNP P02976
P	64	GLU	-	linker	UNP P02976
P	65	MET	-	linker	UNP P02976
Q	-13	MET	-	expression tag	UNP P02976
Q	-12	ARG	-	expression tag	UNP P02976
Q	-11	GLY	-	expression tag	UNP P02976
Q	-10	SER	-	expression tag	UNP P02976
Q	-9	HIS	-	expression tag	UNP P02976
Q	-8	HIS	-	expression tag	UNP P02976
Q	-7	HIS	-	expression tag	UNP P02976
Q	-6	HIS	-	expression tag	UNP P02976
Q	-5	HIS	-	expression tag	UNP P02976
Q	-4	HIS	-	expression tag	UNP P02976
Q	-3	GLY	-	expression tag	UNP P02976
Q	-2	MET	-	expression tag	UNP P02976
Q	-1	ALA	-	expression tag	UNP P02976
Q	0	SER	-	expression tag	UNP P02976
Q	1	MET	-	expression tag	UNP P02976
Q	2	ASP	-	expression tag	UNP P02976
Q	3	ASN	-	expression tag	UNP P02976
Q	4	LYS	-	expression tag	UNP P02976
Q	59	GLU	-	linker	UNP P02976
Q	60	GLY	-	linker	UNP P02976
Q	61	SER	-	linker	UNP P02976
Q	62	GLU	-	linker	UNP P02976
Q	63	LEU	-	linker	UNP P02976
Q	64	GLU	-	linker	UNP P02976
Q	65	MET	-	linker	UNP P02976
R	-13	MET	-	expression tag	UNP P02976
R	-12	ARG	-	expression tag	UNP P02976
R	-11	GLY	-	expression tag	UNP P02976
R	-10	SER	-	expression tag	UNP P02976
R	-9	HIS	-	expression tag	UNP P02976
R	-8	HIS	-	expression tag	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
R	-7	HIS	-	expression tag	UNP P02976
R	-6	HIS	-	expression tag	UNP P02976
R	-5	HIS	-	expression tag	UNP P02976
R	-4	HIS	-	expression tag	UNP P02976
R	-3	GLY	-	expression tag	UNP P02976
R	-2	MET	-	expression tag	UNP P02976
R	-1	ALA	-	expression tag	UNP P02976
R	0	SER	-	expression tag	UNP P02976
R	1	MET	-	expression tag	UNP P02976
R	2	ASP	-	expression tag	UNP P02976
R	3	ASN	-	expression tag	UNP P02976
R	4	LYS	-	expression tag	UNP P02976
R	59	GLU	-	linker	UNP P02976
R	60	GLY	-	linker	UNP P02976
R	61	SER	-	linker	UNP P02976
R	62	GLU	-	linker	UNP P02976
R	63	LEU	-	linker	UNP P02976
R	64	GLU	-	linker	UNP P02976
R	65	MET	-	linker	UNP P02976
S	-13	MET	-	expression tag	UNP P02976
S	-12	ARG	-	expression tag	UNP P02976
S	-11	GLY	-	expression tag	UNP P02976
S	-10	SER	-	expression tag	UNP P02976
S	-9	HIS	-	expression tag	UNP P02976
S	-8	HIS	-	expression tag	UNP P02976
S	-7	HIS	-	expression tag	UNP P02976
S	-6	HIS	-	expression tag	UNP P02976
S	-5	HIS	-	expression tag	UNP P02976
S	-4	HIS	-	expression tag	UNP P02976
S	-3	GLY	-	expression tag	UNP P02976
S	-2	MET	-	expression tag	UNP P02976
S	-1	ALA	-	expression tag	UNP P02976
S	0	SER	-	expression tag	UNP P02976
S	1	MET	-	expression tag	UNP P02976
S	2	ASP	-	expression tag	UNP P02976
S	3	ASN	-	expression tag	UNP P02976
S	4	LYS	-	expression tag	UNP P02976
S	59	GLU	-	linker	UNP P02976
S	60	GLY	-	linker	UNP P02976
S	61	SER	-	linker	UNP P02976
S	62	GLU	-	linker	UNP P02976
S	63	LEU	-	linker	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
S	64	GLU	-	linker	UNP P02976
S	65	MET	-	linker	UNP P02976
T	-13	MET	-	expression tag	UNP P02976
T	-12	ARG	-	expression tag	UNP P02976
T	-11	GLY	-	expression tag	UNP P02976
T	-10	SER	-	expression tag	UNP P02976
T	-9	HIS	-	expression tag	UNP P02976
T	-8	HIS	-	expression tag	UNP P02976
T	-7	HIS	-	expression tag	UNP P02976
T	-6	HIS	-	expression tag	UNP P02976
T	-5	HIS	-	expression tag	UNP P02976
T	-4	HIS	-	expression tag	UNP P02976
T	-3	GLY	-	expression tag	UNP P02976
T	-2	MET	-	expression tag	UNP P02976
T	-1	ALA	-	expression tag	UNP P02976
T	0	SER	-	expression tag	UNP P02976
T	1	MET	-	expression tag	UNP P02976
T	2	ASP	-	expression tag	UNP P02976
T	3	ASN	-	expression tag	UNP P02976
T	4	LYS	-	expression tag	UNP P02976
T	59	GLU	-	linker	UNP P02976
T	60	GLY	-	linker	UNP P02976
T	61	SER	-	linker	UNP P02976
T	62	GLU	-	linker	UNP P02976
T	63	LEU	-	linker	UNP P02976
T	64	GLU	-	linker	UNP P02976
T	65	MET	-	linker	UNP P02976
U	-13	MET	-	expression tag	UNP P02976
U	-12	ARG	-	expression tag	UNP P02976
U	-11	GLY	-	expression tag	UNP P02976
U	-10	SER	-	expression tag	UNP P02976
U	-9	HIS	-	expression tag	UNP P02976
U	-8	HIS	-	expression tag	UNP P02976
U	-7	HIS	-	expression tag	UNP P02976
U	-6	HIS	-	expression tag	UNP P02976
U	-5	HIS	-	expression tag	UNP P02976
U	-4	HIS	-	expression tag	UNP P02976
U	-3	GLY	-	expression tag	UNP P02976
U	-2	MET	-	expression tag	UNP P02976
U	-1	ALA	-	expression tag	UNP P02976
U	0	SER	-	expression tag	UNP P02976
U	1	MET	-	expression tag	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
U	2	ASP	-	expression tag	UNP P02976
U	3	ASN	-	expression tag	UNP P02976
U	4	LYS	-	expression tag	UNP P02976
U	59	GLU	-	linker	UNP P02976
U	60	GLY	-	linker	UNP P02976
U	61	SER	-	linker	UNP P02976
U	62	GLU	-	linker	UNP P02976
U	63	LEU	-	linker	UNP P02976
U	64	GLU	-	linker	UNP P02976
U	65	MET	-	linker	UNP P02976
V	-13	MET	-	expression tag	UNP P02976
V	-12	ARG	-	expression tag	UNP P02976
V	-11	GLY	-	expression tag	UNP P02976
V	-10	SER	-	expression tag	UNP P02976
V	-9	HIS	-	expression tag	UNP P02976
V	-8	HIS	-	expression tag	UNP P02976
V	-7	HIS	-	expression tag	UNP P02976
V	-6	HIS	-	expression tag	UNP P02976
V	-5	HIS	-	expression tag	UNP P02976
V	-4	HIS	-	expression tag	UNP P02976
V	-3	GLY	-	expression tag	UNP P02976
V	-2	MET	-	expression tag	UNP P02976
V	-1	ALA	-	expression tag	UNP P02976
V	0	SER	-	expression tag	UNP P02976
V	1	MET	-	expression tag	UNP P02976
V	2	ASP	-	expression tag	UNP P02976
V	3	ASN	-	expression tag	UNP P02976
V	4	LYS	-	expression tag	UNP P02976
V	59	GLU	-	linker	UNP P02976
V	60	GLY	-	linker	UNP P02976
V	61	SER	-	linker	UNP P02976
V	62	GLU	-	linker	UNP P02976
V	63	LEU	-	linker	UNP P02976
V	64	GLU	-	linker	UNP P02976
V	65	MET	-	linker	UNP P02976
W	-13	MET	-	expression tag	UNP P02976
W	-12	ARG	-	expression tag	UNP P02976
W	-11	GLY	-	expression tag	UNP P02976
W	-10	SER	-	expression tag	UNP P02976
W	-9	HIS	-	expression tag	UNP P02976
W	-8	HIS	-	expression tag	UNP P02976
W	-7	HIS	-	expression tag	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
W	-6	HIS	-	expression tag	UNP P02976
W	-5	HIS	-	expression tag	UNP P02976
W	-4	HIS	-	expression tag	UNP P02976
W	-3	GLY	-	expression tag	UNP P02976
W	-2	MET	-	expression tag	UNP P02976
W	-1	ALA	-	expression tag	UNP P02976
W	0	SER	-	expression tag	UNP P02976
W	1	MET	-	expression tag	UNP P02976
W	2	ASP	-	expression tag	UNP P02976
W	3	ASN	-	expression tag	UNP P02976
W	4	LYS	-	expression tag	UNP P02976
W	59	GLU	-	linker	UNP P02976
W	60	GLY	-	linker	UNP P02976
W	61	SER	-	linker	UNP P02976
W	62	GLU	-	linker	UNP P02976
W	63	LEU	-	linker	UNP P02976
W	64	GLU	-	linker	UNP P02976
W	65	MET	-	linker	UNP P02976
X	-13	MET	-	expression tag	UNP P02976
X	-12	ARG	-	expression tag	UNP P02976
X	-11	GLY	-	expression tag	UNP P02976
X	-10	SER	-	expression tag	UNP P02976
X	-9	HIS	-	expression tag	UNP P02976
X	-8	HIS	-	expression tag	UNP P02976
X	-7	HIS	-	expression tag	UNP P02976
X	-6	HIS	-	expression tag	UNP P02976
X	-5	HIS	-	expression tag	UNP P02976
X	-4	HIS	-	expression tag	UNP P02976
X	-3	GLY	-	expression tag	UNP P02976
X	-2	MET	-	expression tag	UNP P02976
X	-1	ALA	-	expression tag	UNP P02976
X	0	SER	-	expression tag	UNP P02976
X	1	MET	-	expression tag	UNP P02976
X	2	ASP	-	expression tag	UNP P02976
X	3	ASN	-	expression tag	UNP P02976
X	4	LYS	-	expression tag	UNP P02976
X	59	GLU	-	linker	UNP P02976
X	60	GLY	-	linker	UNP P02976
X	61	SER	-	linker	UNP P02976
X	62	GLU	-	linker	UNP P02976
X	63	LEU	-	linker	UNP P02976
X	64	GLU	-	linker	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
X	65	MET	-	linker	UNP P02976
Y	-13	MET	-	expression tag	UNP P02976
Y	-12	ARG	-	expression tag	UNP P02976
Y	-11	GLY	-	expression tag	UNP P02976
Y	-10	SER	-	expression tag	UNP P02976
Y	-9	HIS	-	expression tag	UNP P02976
Y	-8	HIS	-	expression tag	UNP P02976
Y	-7	HIS	-	expression tag	UNP P02976
Y	-6	HIS	-	expression tag	UNP P02976
Y	-5	HIS	-	expression tag	UNP P02976
Y	-4	HIS	-	expression tag	UNP P02976
Y	-3	GLY	-	expression tag	UNP P02976
Y	-2	MET	-	expression tag	UNP P02976
Y	-1	ALA	-	expression tag	UNP P02976
Y	0	SER	-	expression tag	UNP P02976
Y	1	MET	-	expression tag	UNP P02976
Y	2	ASP	-	expression tag	UNP P02976
Y	3	ASN	-	expression tag	UNP P02976
Y	4	LYS	-	expression tag	UNP P02976
Y	59	GLU	-	linker	UNP P02976
Y	60	GLY	-	linker	UNP P02976
Y	61	SER	-	linker	UNP P02976
Y	62	GLU	-	linker	UNP P02976
Y	63	LEU	-	linker	UNP P02976
Y	64	GLU	-	linker	UNP P02976
Y	65	MET	-	linker	UNP P02976
Z	-13	MET	-	expression tag	UNP P02976
Z	-12	ARG	-	expression tag	UNP P02976
Z	-11	GLY	-	expression tag	UNP P02976
Z	-10	SER	-	expression tag	UNP P02976
Z	-9	HIS	-	expression tag	UNP P02976
Z	-8	HIS	-	expression tag	UNP P02976
Z	-7	HIS	-	expression tag	UNP P02976
Z	-6	HIS	-	expression tag	UNP P02976
Z	-5	HIS	-	expression tag	UNP P02976
Z	-4	HIS	-	expression tag	UNP P02976
Z	-3	GLY	-	expression tag	UNP P02976
Z	-2	MET	-	expression tag	UNP P02976
Z	-1	ALA	-	expression tag	UNP P02976
Z	0	SER	-	expression tag	UNP P02976
Z	1	MET	-	expression tag	UNP P02976
Z	2	ASP	-	expression tag	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
Z	3	ASN	-	expression tag	UNP P02976
Z	4	LYS	-	expression tag	UNP P02976
Z	59	GLU	-	linker	UNP P02976
Z	60	GLY	-	linker	UNP P02976
Z	61	SER	-	linker	UNP P02976
Z	62	GLU	-	linker	UNP P02976
Z	63	LEU	-	linker	UNP P02976
Z	64	GLU	-	linker	UNP P02976
Z	65	MET	-	linker	UNP P02976
a	-13	MET	-	expression tag	UNP P02976
a	-12	ARG	-	expression tag	UNP P02976
a	-11	GLY	-	expression tag	UNP P02976
a	-10	SER	-	expression tag	UNP P02976
a	-9	HIS	-	expression tag	UNP P02976
a	-8	HIS	-	expression tag	UNP P02976
a	-7	HIS	-	expression tag	UNP P02976
a	-6	HIS	-	expression tag	UNP P02976
a	-5	HIS	-	expression tag	UNP P02976
a	-4	HIS	-	expression tag	UNP P02976
a	-3	GLY	-	expression tag	UNP P02976
a	-2	MET	-	expression tag	UNP P02976
a	-1	ALA	-	expression tag	UNP P02976
a	0	SER	-	expression tag	UNP P02976
a	1	MET	-	expression tag	UNP P02976
a	2	ASP	-	expression tag	UNP P02976
a	3	ASN	-	expression tag	UNP P02976
a	4	LYS	-	expression tag	UNP P02976
a	59	GLU	-	linker	UNP P02976
a	60	GLY	-	linker	UNP P02976
a	61	SER	-	linker	UNP P02976
a	62	GLU	-	linker	UNP P02976
a	63	LEU	-	linker	UNP P02976
a	64	GLU	-	linker	UNP P02976
a	65	MET	-	linker	UNP P02976
b	-13	MET	-	expression tag	UNP P02976
b	-12	ARG	-	expression tag	UNP P02976
b	-11	GLY	-	expression tag	UNP P02976
b	-10	SER	-	expression tag	UNP P02976
b	-9	HIS	-	expression tag	UNP P02976
b	-8	HIS	-	expression tag	UNP P02976
b	-7	HIS	-	expression tag	UNP P02976
b	-6	HIS	-	expression tag	UNP P02976

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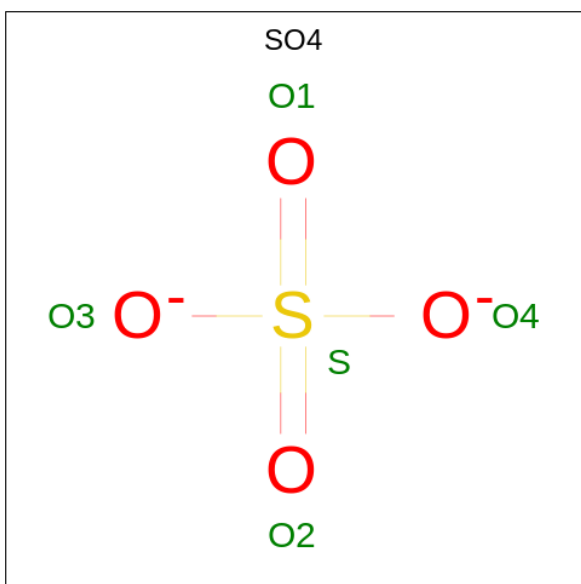
Chain	Residue	Modelled	Actual	Comment	Reference
b	-5	HIS	-	expression tag	UNP P02976
b	-4	HIS	-	expression tag	UNP P02976
b	-3	GLY	-	expression tag	UNP P02976
b	-2	MET	-	expression tag	UNP P02976
b	-1	ALA	-	expression tag	UNP P02976
b	0	SER	-	expression tag	UNP P02976
b	1	MET	-	expression tag	UNP P02976
b	2	ASP	-	expression tag	UNP P02976
b	3	ASN	-	expression tag	UNP P02976
b	4	LYS	-	expression tag	UNP P02976
b	59	GLU	-	linker	UNP P02976
b	60	GLY	-	linker	UNP P02976
b	61	SER	-	linker	UNP P02976
b	62	GLU	-	linker	UNP P02976
b	63	LEU	-	linker	UNP P02976
b	64	GLU	-	linker	UNP P02976
b	65	MET	-	linker	UNP P02976
c	-13	MET	-	expression tag	UNP P02976
c	-12	ARG	-	expression tag	UNP P02976
c	-11	GLY	-	expression tag	UNP P02976
c	-10	SER	-	expression tag	UNP P02976
c	-9	HIS	-	expression tag	UNP P02976
c	-8	HIS	-	expression tag	UNP P02976
c	-7	HIS	-	expression tag	UNP P02976
c	-6	HIS	-	expression tag	UNP P02976
c	-5	HIS	-	expression tag	UNP P02976
c	-4	HIS	-	expression tag	UNP P02976
c	-3	GLY	-	expression tag	UNP P02976
c	-2	MET	-	expression tag	UNP P02976
c	-1	ALA	-	expression tag	UNP P02976
c	0	SER	-	expression tag	UNP P02976
c	1	MET	-	expression tag	UNP P02976
c	2	ASP	-	expression tag	UNP P02976
c	3	ASN	-	expression tag	UNP P02976
c	4	LYS	-	expression tag	UNP P02976
c	59	GLU	-	linker	UNP P02976
c	60	GLY	-	linker	UNP P02976
c	61	SER	-	linker	UNP P02976
c	62	GLU	-	linker	UNP P02976
c	63	LEU	-	linker	UNP P02976
c	64	GLU	-	linker	UNP P02976
c	65	MET	-	linker	UNP P02976

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Chain	Residue	Modelled	Actual	Comment	Reference
d	-13	MET	-	expression tag	UNP P02976
d	-12	ARG	-	expression tag	UNP P02976
d	-11	GLY	-	expression tag	UNP P02976
d	-10	SER	-	expression tag	UNP P02976
d	-9	HIS	-	expression tag	UNP P02976
d	-8	HIS	-	expression tag	UNP P02976
d	-7	HIS	-	expression tag	UNP P02976
d	-6	HIS	-	expression tag	UNP P02976
d	-5	HIS	-	expression tag	UNP P02976
d	-4	HIS	-	expression tag	UNP P02976
d	-3	GLY	-	expression tag	UNP P02976
d	-2	MET	-	expression tag	UNP P02976
d	-1	ALA	-	expression tag	UNP P02976
d	0	SER	-	expression tag	UNP P02976
d	1	MET	-	expression tag	UNP P02976
d	2	ASP	-	expression tag	UNP P02976
d	3	ASN	-	expression tag	UNP P02976
d	4	LYS	-	expression tag	UNP P02976
d	59	GLU	-	linker	UNP P02976
d	60	GLY	-	linker	UNP P02976
d	61	SER	-	linker	UNP P02976
d	62	GLU	-	linker	UNP P02976
d	63	LEU	-	linker	UNP P02976
d	64	GLU	-	linker	UNP P02976
d	65	MET	-	linker	UNP P02976

- Molecule 2 is SULFATE ION (three-letter code: SO4) (formula: O₄S).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
2	D	1	Total	O	S	0	0
			5	4	1		
2	H	1	Total	O	S	0	0
			5	4	1		
2	L	1	Total	O	S	0	0
			5	4	1		
2	M	1	Total	O	S	0	0
			5	4	1		
2	S	1	Total	O	S	0	0
			5	4	1		
2	V	1	Total	O	S	0	0
			5	4	1		

- Molecule 3 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	A	10	Total	O	0	0
			10	10		
3	B	14	Total	O	0	0
			14	14		
3	C	22	Total	O	0	0
			22	22		
3	D	15	Total	O	0	0
			15	15		
3	E	16	Total	O	0	0
			16	16		
3	F	6	Total	O	0	0
			6	6		
3	G	14	Total	O	0	0
			14	14		
3	H	10	Total	O	0	0
			10	10		
3	I	18	Total	O	0	0
			18	18		
3	J	14	Total	O	0	0
			14	14		
3	K	15	Total	O	0	0
			15	15		
3	L	21	Total	O	0	0
			21	21		
3	M	16	Total	O	0	0
			16	16		
3	N	16	Total	O	0	0
			16	16		

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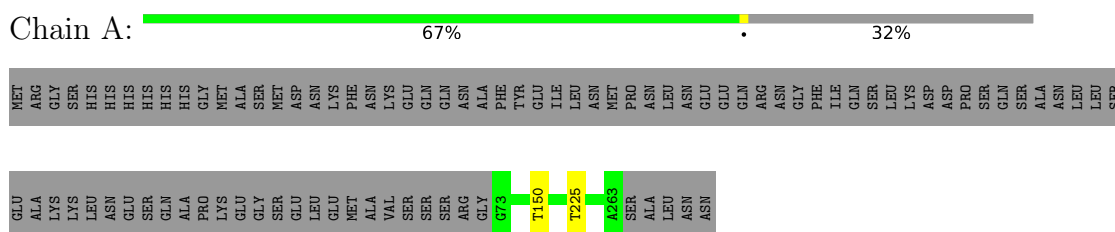
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
3	O	15	Total 15	O 15	0	0
3	P	12	Total 12	O 12	0	0
3	Q	16	Total 16	O 16	0	0
3	R	9	Total 9	O 9	0	0
3	S	11	Total 11	O 11	0	0
3	T	14	Total 14	O 14	0	0
3	U	12	Total 12	O 12	0	0
3	V	18	Total 18	O 18	0	0
3	W	8	Total 8	O 8	0	0
3	X	17	Total 17	O 17	0	0
3	Y	11	Total 11	O 11	0	0
3	Z	13	Total 13	O 13	0	0
3	a	12	Total 12	O 12	0	0
3	b	20	Total 20	O 20	0	0
3	c	24	Total 24	O 24	0	0
3	d	16	Total 16	O 16	0	0

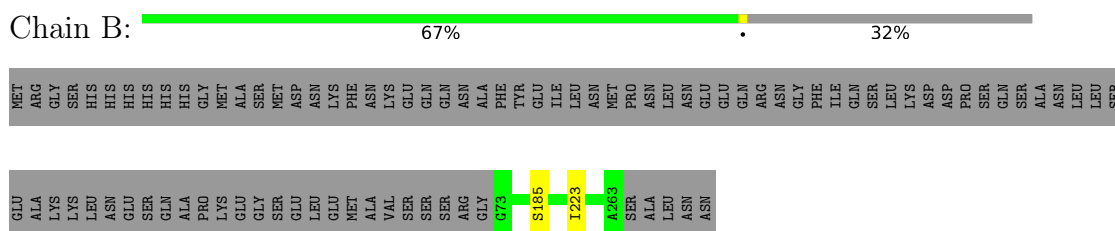
3 Residue-property plots

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.

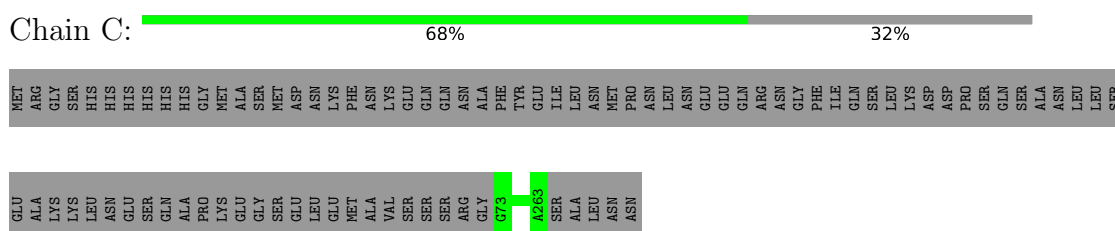
- Molecule 1: Immunoglobulin G-binding protein A, Coat protein



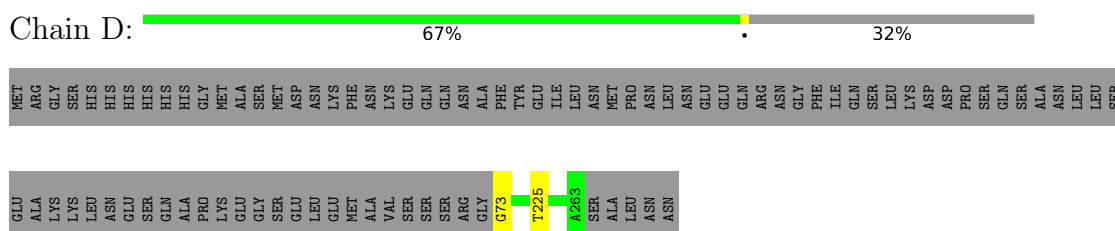
- Molecule 1: Immunoglobulin G-binding protein A, Coat protein



- Molecule 1: Immunoglobulin G-binding protein A, Coat protein



- Molecule 1: Immunoglobulin G-binding protein A, Coat protein



- Molecule 1: Immunoglobulin G-binding protein A, Coat protein

Chain E:  67% 32%

MET	ARG	GLY	SER	HIS	HIS	HIS	HIS	HIS	HIS	HIS	GLY	PRO	MET	ALA	SER	MET	ASP	ASN	LYS	PHE	ASN	LYS	GLN	GLN	ALA	PHE	TYR	GLU	ILE	LEU	ASN	MET	PRO	ASN	ASN	ASN	GLU	GLN	ARG	GLY	PHE	ILE	GLN	LEU	LYS	ASP	ASP	PRO	SER	SER	GLN	ALA	ASN	LEU	SER
GLU	ALA	LYS	LEU	ASN	GLU	SER	GLN	ALA	PRO	LYS	GLY	GLY	SER	GLU	LEU	VAL	SER	SER	SER	ARG	GLY	G73	T223	A263	SER	ALA	ASN	ASN	LEU	GLU	GLN	GLN	ARG	ASN	ASN	ASN	GLY	PHE	ILE	GLN	LEU	LYS	ASP	ASP	PRO	SER	SER	GLN	ALA	ASN	LEU	SER			

- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain F:  67% 32%

MET	ARG	SER	HIS	HIS	HIS	HIS	HIS	HIS	HIS	GLY	PRO	MET	ALA	SER	MET	ASP	ASN	LYS	PHE	ASN	LYS	GLN	GLN	ALA	PHE	TYR	GLU	ILE	LEU	ASN	MET	PRO	ASN	ASN	ASN	GLU	GLN	ARG	GLY	PHE	ILE	GLN	LEU	LYS	ASP	ASP	PRO	SER	SER	GLN	ALA	ASN	LEU	SER
GLU	ALA	LYS	LEU	ASN	GLU	SER	GLN	ALA	PRO	LYS	GLY	GLY	SER	GLU	LEU	VAL	SER	SER	ARG	GLY	G73	S154	S185	T209	A263	SER	ALA	LEU	ASN	ASN	ALA	LEU	ASN	ASN	GLY	PHE	ILE	GLN	LEU	LYS	ASP	ASP	PRO	SER	SER	GLN	ALA	ASN	LEU	SER				

- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain G:  67% 32%

MET	ARG	GLY	SER	HIS	HIS	HIS	HIS	HIS	HIS	GLY	PRO	MET	ALA	SER	MET	ASP	ASN	LYS	PHE	ASN	LYS	GLN	GLN	ALA	PHE	TYR	GLU	ILE	LEU	ASN	MET	PRO	ASN	ASN	ASN	GLU	GLN	ARG	GLY	PHE	ILE	GLN	LEU	LYS	ASP	ASP	PRO	SER	SER	GLN	ALA	ASN	LEU	SER
GLU	ALA	LYS	LEU	ASN	GLU	SER	GLN	ALA	PRO	LYS	GLY	GLY	SER	GLU	LEU	VAL	SER	SER	ARG	GLY	G73	K117	T225	V228	A263	SER	ALA	LEU	ASN	ASN	ALA	LEU	ASN	ASN	GLY	PHE	ILE	GLN	LEU	LYS	ASP	ASP	PRO	SER	SER	GLN	ALA	ASN	LEU	SER				

- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain H:  68% 32%

MET	ARG	GLY	SER	HIS	HIS	HIS	HIS	HIS	HIS	GLY	PRO	MET	ALA	SER	MET	ASP	ASN	LYS	PHE	ASN	LYS	GLN	GLN	ALA	PHE	TYR	GLU	ILE	LEU	ASN	MET	PRO	ASN	ASN	ASN	GLU	GLN	ARG	GLY	PHE	ILE	GLN	LEU	LYS	ASP	ASP	PRO	SER	SER	GLN	ALA	ASN	LEU	SER
GLU	ALA	LYS	LEU	ASN	GLU	SER	GLN	ALA	PRO	LYS	GLY	GLY	SER	GLU	LEU	VAL	SER	SER	ARG	GLY	G73	A263	SER	ALA	LEU	ASN	ASN	ALA	LEU	ASN	ASN	ALA	LEU	ASN	ASN	GLY	PHE	ILE	GLN	LEU	LYS	ASP	ASP	PRO	SER	SER	GLN	ALA	ASN	LEU	SER			

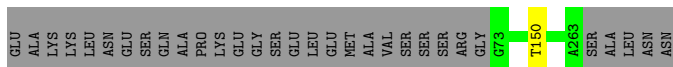
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain I:  67% 32%

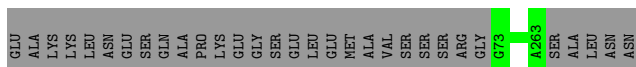
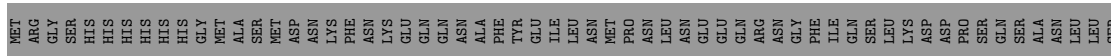
MET	ARG	GLY	SER	HIS	HIS	HIS	HIS	HIS	HIS	GLY	PRO	MET	ALA	SER	MET	ASP	ASN	LYS	PHE	ASN	LYS	GLN	GLN	ALA	PHE	TYR	GLU	ILE	LEU	ASN	MET	PRO	ASN	ASN	ASN	GLU	GLN	ARG	GLY	PHE	ILE	GLN	LEU	LYS	ASP	ASP	PRO	SER	SER	GLN	ALA	ASN	LEU	SER
GLU	ALA	LYS	LEU	ASN	GLU	SER	GLN	ALA	PRO	LYS	GLY	GLY	SER	GLU	LEU	VAL	SER	SER	ARG	GLY	G73	D90	T225	A263	SER	ALA	LEU	ASN	ASN	ALA	LEU	ASN	ASN	GLY	PHE	ILE	GLN	LEU	LYS	ASP	ASP	PRO	SER	SER	GLN	ALA	ASN	LEU	SER					

- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

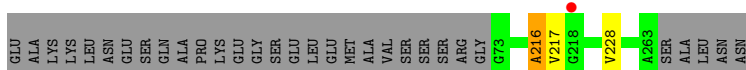
Chain J:  67% 32%



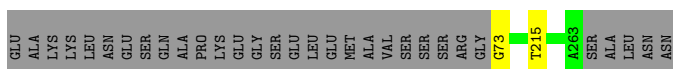
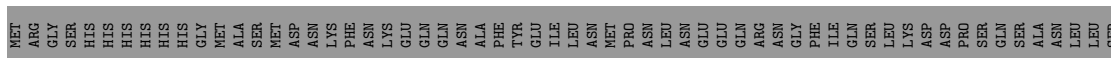
● Molecule 1: Immunoglobulin G-binding protein A,Coat protein



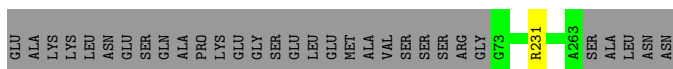
● Molecule 1: Immunoglobulin G-binding protein A,Coat protein



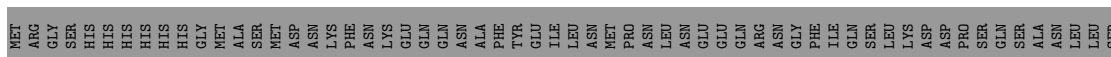
● Molecule 1: Immunoglobulin G-binding protein A,Coat protein

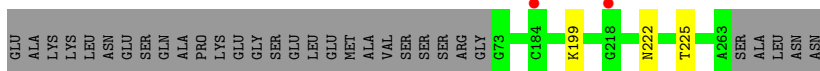


● Molecule 1: Immunoglobulin G-binding protein A,Coat protein

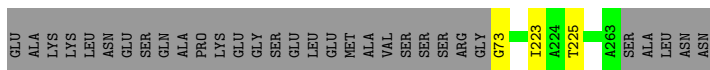
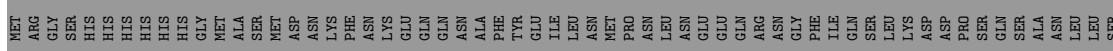


● Molecule 1: Immunoglobulin G-binding protein A,Coat protein

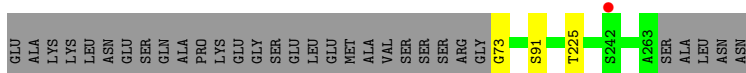
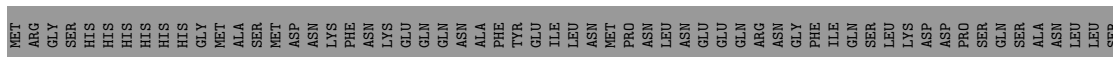




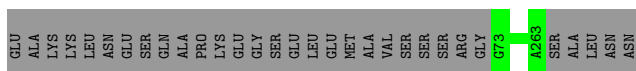
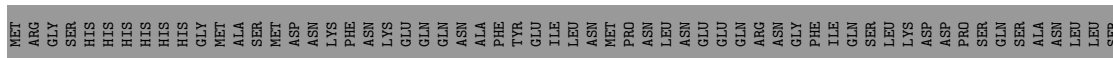
- Molecule 1: Immunoglobulin G-binding protein A, Coat protein



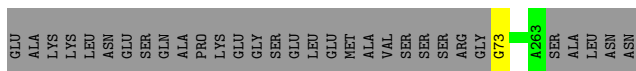
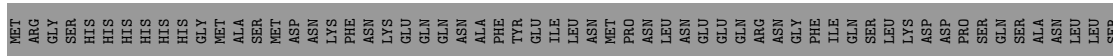
- Molecule 1: Immunoglobulin G-binding protein A, Coat protein



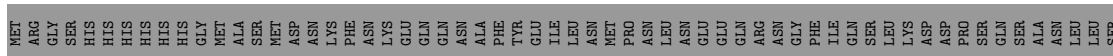
- Molecule 1: Immunoglobulin G-binding protein A, Coat protein

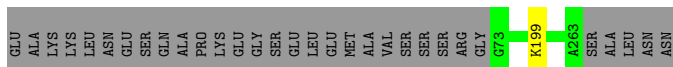


- Molecule 1: Immunoglobulin G-binding protein A, Coat protein



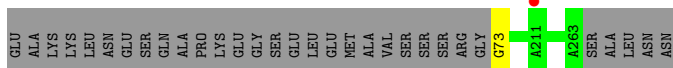
- Molecule 1: Immunoglobulin G-binding protein A, Coat protein





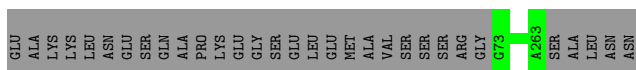
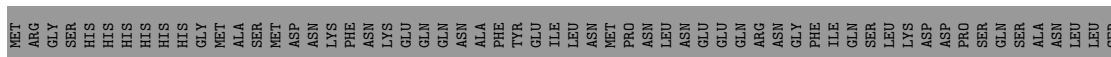
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain Z:  67% 32%



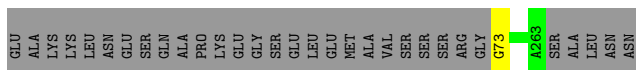
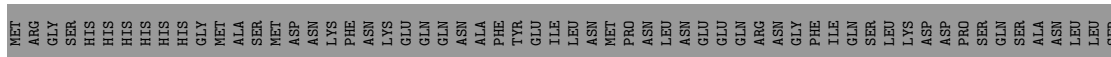
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain a:  68% 32%



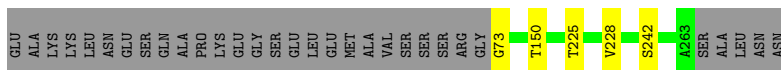
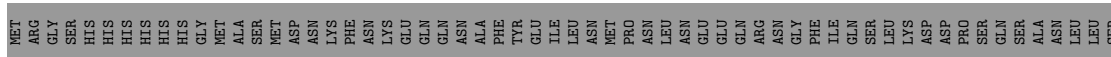
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain b:  67% 32%



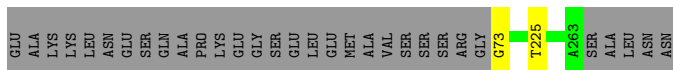
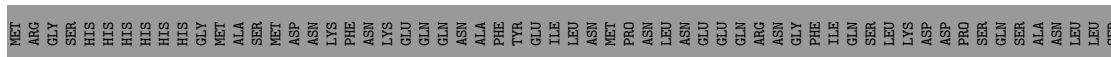
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain c:  66% 32%



- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain d:  67% 32%



4 Data and refinement statistics

Property	Value	Source
Space group	C 1 2 1	Depositor
Cell constants a, b, c, α , β , γ	288.18Å 193.04Å 189.19Å 90.00° 124.37° 90.00°	Depositor
Resolution (Å)	50.00 – 3.00 45.82 – 3.00	Depositor EDS
% Data completeness (in resolution range)	99.7 (50.00-3.00) 99.7 (45.82-3.00)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.13	Depositor
$\langle I/\sigma(I) \rangle$ ¹	2.25 (at 3.01Å)	Xtrriage
Refinement program	REFMAC 5.8.0049	Depositor
R, R_{free}	0.179 , 0.200 0.182 , 0.199	Depositor DCC
R_{free} test set	8494 reflections (5.02%)	wwPDB-VP
Wilson B-factor (Å ²)	47.0	Xtrriage
Anisotropy	0.026	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.35 , 44.7	EDS
L-test for twinning ²	$\langle L \rangle = 0.51$, $\langle L^2 \rangle = 0.34$	Xtrriage
Estimated twinning fraction	No twinning to report.	Xtrriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	42805	wwPDB-VP
Average B, all atoms (Å ²)	40.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 3.36% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical 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 i

5.1 Standard geometry i

Bond lengths and bond angles in the following residue types are not validated in this section: SO4

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	0.77	0/1445	0.82	1/1983 (0.1%)
1	B	0.81	1/1448 (0.1%)	0.83	2/1986 (0.1%)
1	C	0.80	0/1448	0.84	0/1986
1	D	0.78	1/1450 (0.1%)	0.81	0/1989
1	E	0.77	1/1431 (0.1%)	0.84	1/1964 (0.1%)
1	F	0.79	0/1408	0.84	2/1935 (0.1%)
1	G	0.75	0/1450	0.82	2/1989 (0.1%)
1	H	0.76	0/1441	0.83	0/1977
1	I	0.77	1/1450 (0.1%)	0.82	0/1989
1	J	0.78	3/1448 (0.2%)	0.85	0/1986
1	K	0.79	1/1448 (0.1%)	0.83	0/1987
1	L	0.79	1/1448 (0.1%)	0.82	0/1986
1	M	0.83	1/1449 (0.1%)	0.86	3/1987 (0.2%)
1	N	0.79	0/1446	0.83	1/1984 (0.1%)
1	O	0.76	0/1448	0.81	1/1986 (0.1%)
1	P	0.75	0/1448	0.81	0/1986
1	Q	0.79	0/1409	0.89	2/1935 (0.1%)
1	R	0.78	1/1438 (0.1%)	0.87	1/1974 (0.1%)
1	S	0.77	0/1437	0.86	2/1972 (0.1%)
1	T	0.80	1/1447 (0.1%)	0.86	3/1985 (0.2%)
1	U	0.77	1/1444 (0.1%)	0.82	1/1981 (0.1%)
1	V	0.77	1/1448 (0.1%)	0.82	1/1986 (0.1%)
1	W	0.77	0/1448	0.84	0/1986
1	X	0.78	1/1446 (0.1%)	0.83	0/1983
1	Y	0.77	0/1443	0.82	1/1980 (0.1%)
1	Z	0.76	1/1443 (0.1%)	0.81	0/1980
1	a	0.74	0/1445	0.80	0/1982
1	b	0.82	1/1448 (0.1%)	0.83	0/1986
1	c	0.83	1/1450 (0.1%)	0.85	2/1989 (0.1%)
1	d	0.76	1/1447 (0.1%)	0.81	0/1985
All	All	0.78	19/43299 (0.0%)	0.83	26/59404 (0.0%)

The worst 5 of 19 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	D	73	GLY	N-CA	6.86	1.56	1.46
1	B	185	SER	CA-CB	6.21	1.62	1.52
1	J	185	SER	CA-CB	6.10	1.62	1.52
1	L	73	GLY	N-CA	5.99	1.55	1.46
1	T	222	ASN	CG-OD1	-5.95	1.10	1.24

The worst 5 of 26 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	S	231	ARG	NE-CZ-NH1	8.85	124.72	120.30
1	S	231	ARG	NE-CZ-NH2	-8.02	116.29	120.30
1	Q	216	ALA	N-CA-C	-7.50	90.76	111.00
1	T	199	LYS	CB-CG-CD	7.10	130.05	111.60
1	R	215	THR	CA-CB-CG2	-6.95	102.67	112.40

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

Due to software issues we are unable to calculate clashes - this section is therefore empty.

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	189/282 (67%)	181 (96%)	8 (4%)	0	100	100
1	B	189/282 (67%)	182 (96%)	7 (4%)	0	100	100
1	C	189/282 (67%)	182 (96%)	7 (4%)	0	100	100
1	D	189/282 (67%)	181 (96%)	8 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	E	189/282 (67%)	182 (96%)	7 (4%)	0	100	100
1	F	189/282 (67%)	181 (96%)	8 (4%)	0	100	100
1	G	189/282 (67%)	181 (96%)	8 (4%)	0	100	100
1	H	189/282 (67%)	181 (96%)	8 (4%)	0	100	100
1	I	189/282 (67%)	182 (96%)	7 (4%)	0	100	100
1	J	189/282 (67%)	180 (95%)	9 (5%)	0	100	100
1	K	189/282 (67%)	180 (95%)	9 (5%)	0	100	100
1	L	189/282 (67%)	180 (95%)	9 (5%)	0	100	100
1	M	189/282 (67%)	177 (94%)	11 (6%)	1 (0%)	29	68
1	N	189/282 (67%)	181 (96%)	8 (4%)	0	100	100
1	O	189/282 (67%)	181 (96%)	8 (4%)	0	100	100
1	P	189/282 (67%)	181 (96%)	8 (4%)	0	100	100
1	Q	189/282 (67%)	179 (95%)	8 (4%)	2 (1%)	14	50
1	R	189/282 (67%)	182 (96%)	7 (4%)	0	100	100
1	S	189/282 (67%)	181 (96%)	8 (4%)	0	100	100
1	T	189/282 (67%)	182 (96%)	7 (4%)	0	100	100
1	U	189/282 (67%)	182 (96%)	7 (4%)	0	100	100
1	V	189/282 (67%)	180 (95%)	9 (5%)	0	100	100
1	W	189/282 (67%)	181 (96%)	8 (4%)	0	100	100
1	X	189/282 (67%)	180 (95%)	9 (5%)	0	100	100
1	Y	189/282 (67%)	182 (96%)	7 (4%)	0	100	100
1	Z	189/282 (67%)	180 (95%)	9 (5%)	0	100	100
1	a	189/282 (67%)	182 (96%)	7 (4%)	0	100	100
1	b	189/282 (67%)	180 (95%)	9 (5%)	0	100	100
1	c	189/282 (67%)	181 (96%)	8 (4%)	0	100	100
1	d	189/282 (67%)	182 (96%)	7 (4%)	0	100	100
All	All	5670/8460 (67%)	5427 (96%)	240 (4%)	3 (0%)	51	85

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	M	182	THR
1	Q	216	ALA

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Mol	Chain	Res	Type
1	Q	217	VAL

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	154/238 (65%)	153 (99%)	1 (1%)	86	95
1	B	155/238 (65%)	155 (100%)	0	100	100
1	C	155/238 (65%)	155 (100%)	0	100	100
1	D	156/238 (66%)	155 (99%)	1 (1%)	86	95
1	E	149/238 (63%)	149 (100%)	0	100	100
1	F	140/238 (59%)	140 (100%)	0	100	100
1	G	156/238 (66%)	155 (99%)	1 (1%)	86	95
1	H	152/238 (64%)	152 (100%)	0	100	100
1	I	156/238 (66%)	155 (99%)	1 (1%)	86	95
1	J	155/238 (65%)	155 (100%)	0	100	100
1	K	155/238 (65%)	154 (99%)	1 (1%)	86	95
1	L	155/238 (65%)	155 (100%)	0	100	100
1	M	156/238 (66%)	154 (99%)	2 (1%)	69	89
1	N	154/238 (65%)	153 (99%)	1 (1%)	86	95
1	O	155/238 (65%)	155 (100%)	0	100	100
1	P	155/238 (65%)	155 (100%)	0	100	100
1	Q	143/238 (60%)	143 (100%)	0	100	100
1	R	152/238 (64%)	152 (100%)	0	100	100
1	S	151/238 (63%)	151 (100%)	0	100	100
1	T	155/238 (65%)	154 (99%)	1 (1%)	86	95
1	U	153/238 (64%)	152 (99%)	1 (1%)	84	94
1	V	156/238 (66%)	155 (99%)	1 (1%)	86	95
1	W	155/238 (65%)	155 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	X	154/238 (65%)	154 (100%)	0	100	100
1	Y	153/238 (64%)	153 (100%)	0	100	100
1	Z	153/238 (64%)	153 (100%)	0	100	100
1	a	154/238 (65%)	154 (100%)	0	100	100
1	b	155/238 (65%)	155 (100%)	0	100	100
1	c	156/238 (66%)	155 (99%)	1 (1%)	86	95
1	d	155/238 (65%)	154 (99%)	1 (1%)	86	95
All	All	4603/7140 (64%)	4590 (100%)	13 (0%)	92	97

5 of 13 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	N	225	THR
1	T	225	THR
1	d	225	THR
1	V	225	THR
1	c	225	THR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (3) such sidechains are listed below:

Mol	Chain	Res	Type
1	B	160	ASN
1	J	180	ASN
1	M	180	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](#)

6 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
2	SO4	M	301	-	4,4,4	0.32	0	6,6,6	0.05	0
2	SO4	V	301	-	4,4,4	0.32	0	6,6,6	0.05	0
2	SO4	L	301	-	4,4,4	0.32	0	6,6,6	0.05	0
2	SO4	S	301	-	4,4,4	0.33	0	6,6,6	0.05	0
2	SO4	D	301	-	4,4,4	0.32	0	6,6,6	0.05	0
2	SO4	H	301	-	4,4,4	0.33	0	6,6,6	0.05	0

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

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, 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	A	191/282 (67%)	-0.59	0 100 100	25, 40, 70, 84	0
1	B	191/282 (67%)	-0.62	0 100 100	25, 36, 69, 79	0
1	C	191/282 (67%)	-0.71	0 100 100	22, 31, 55, 91	0
1	D	191/282 (67%)	-0.56	0 100 100	23, 34, 69, 77	0
1	E	191/282 (67%)	-0.64	0 100 100	26, 38, 75, 88	0
1	F	191/282 (67%)	-0.45	0 100 100	26, 43, 84, 97	0
1	G	191/282 (67%)	-0.65	0 100 100	25, 38, 65, 80	0
1	H	191/282 (67%)	-0.60	0 100 100	26, 39, 68, 83	0
1	I	191/282 (67%)	-0.73	0 100 100	22, 37, 69, 80	0
1	J	191/282 (67%)	-0.63	0 100 100	22, 35, 67, 82	0
1	K	191/282 (67%)	-0.63	0 100 100	20, 32, 65, 76	0
1	L	191/282 (67%)	-0.75	0 100 100	18, 29, 60, 79	0
1	M	191/282 (67%)	-0.69	0 100 100	19, 30, 60, 79	0
1	N	191/282 (67%)	-0.71	0 100 100	21, 34, 66, 79	0
1	O	191/282 (67%)	-0.61	0 100 100	25, 37, 67, 79	0
1	P	191/282 (67%)	-0.58	0 100 100	23, 37, 66, 81	0
1	Q	191/282 (67%)	-0.45	1 (0%) 91 75	27, 42, 101, 143	0
1	R	191/282 (67%)	-0.45	0 100 100	26, 44, 85, 113	0
1	S	191/282 (67%)	-0.61	0 100 100	24, 39, 72, 83	0
1	T	191/282 (67%)	-0.60	2 (1%) 82 59	23, 36, 66, 85	0
1	U	191/282 (67%)	-0.62	0 100 100	21, 36, 72, 86	0
1	V	191/282 (67%)	-0.62	1 (0%) 91 75	25, 36, 65, 78	0
1	W	191/282 (67%)	-0.65	0 100 100	23, 37, 64, 82	0
1	X	191/282 (67%)	-0.70	0 100 100	19, 34, 66, 78	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	Y	191/282 (67%)	-0.63	0 100 100	21, 35, 69, 81	0
1	Z	191/282 (67%)	-0.59	1 (0%) 91 75	25, 38, 72, 87	0
1	a	191/282 (67%)	-0.52	0 100 100	25, 39, 73, 89	0
1	b	191/282 (67%)	-0.71	0 100 100	19, 30, 57, 79	0
1	c	191/282 (67%)	-0.70	0 100 100	19, 30, 64, 78	0
1	d	191/282 (67%)	-0.62	0 100 100	25, 36, 68, 75	0
All	All	5730/8460 (67%)	-0.62	5 (0%) 95 89	18, 36, 70, 143	0

All (5) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	Q	218	GLY	3.4
1	Z	211	ALA	2.6
1	T	218	GLY	2.4
1	T	184	CYS	2.1
1	V	242	SER	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, 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
2	SO4	D	301	5/5	0.99	0.19	6,7,7,7	0
2	SO4	H	301	5/5	0.99	0.16	8,8,9,9	0
2	SO4	L	301	5/5	0.99	0.17	2,2,2,2	0
2	SO4	M	301	5/5	0.99	0.19	2,2,2,2	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
2	SO4	S	301	5/5	0.99	0.19	4,4,4,4	0
2	SO4	V	301	5/5	0.99	0.20	5,6,6,6	0

6.5 Other polymers [i](#)

There are no such residues in this entry.