



wwPDB X-ray Structure Validation Summary Report ⓘ

Nov 22, 2023 – 01:29 AM JST

PDB ID : 4Y5Z
Title : T=1 capsid structure of SeMV Ndel65CP fused with B-domain of *S. aureus* protein SpA at the N-terminus (P1 crystal form)
Authors : Gulati, A.; Murthy, M.R.N.
Deposited on : 2015-02-12
Resolution : 2.95 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

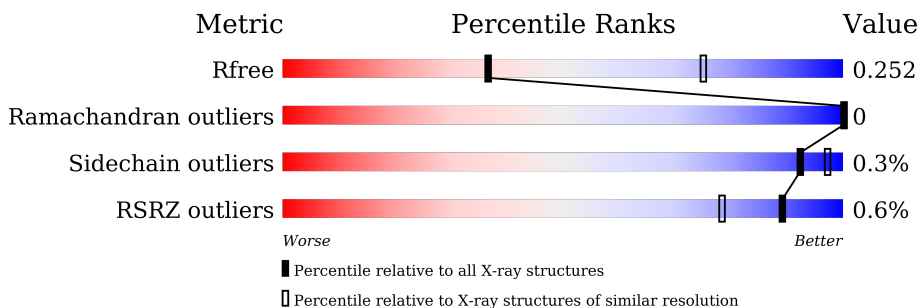
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION







The reported resolution of this entry is 2.95 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	3104 (3.00-2.92)
Ramachandran outliers	138981	3340 (3.00-2.92)
Sidechain outliers	138945	3343 (3.00-2.92)
RSRZ outliers	127900	2986 (3.00-2.92)

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	0	282	 68% 32%
1	1	282	 68% 32%
1	2	282	 68% 32%
1	3	282	 68% 31%
1	4	282	 68% 32%
1	5	282	 % 67% 32%
1	6	282	 68% 32%


























Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain	
1	7	282	68%	32%
1	A	282	68%	32%
1	B	282	69%	31%
1	C	282	68%	32%
1	D	282	68%	32%
1	E	282	68%	32%
1	F	282	68%	32%
1	G	282	68%	32%
1	H	282	68%	32%
1	I	282	68%	32%
1	J	282	68%	32%
1	K	282	68%	32%
1	L	282	68%	32%
1	M	282	68%	32%
1	N	282	68%	32%
1	O	282	68%	32%
1	P	282	68%	32%
1	Q	282	68%	32%
1	R	282	67%	32%
1	S	282	67%	32%
1	T	282	68%	32%
1	U	282	68%	32%
1	V	282	68%	32%
1	W	282	68%	32%
1	X	282	69%	31%




Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
1	Y	282	 67% 32%
1	Z	282	 68% 32%
1	a	282	 68% 32%
1	b	282	 68% 32%
1	c	282	 67% 32%
1	d	282	 68% 32%
1	e	282	 68% 32%
1	f	282	 68% 32%
1	g	282	 68% 32%
1	h	282	 68% 32%
1	i	282	 68% 32%
1	j	282	 69% 31%
1	k	282	 68% 32%
1	l	282	 68% 32%
1	m	282	 68% 32%
1	n	282	 68% 32%
1	o	282	 67% 32%
1	p	282	 67% 32%
1	q	282	 68% 32%
1	r	282	 68% 32%
1	s	282	 68% 32%
1	t	282	 67% 32%
1	u	282	 68% 32%
1	v	282	 68% 32%
1	w	282	 68% 32%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
1	x	282	 68% 32%
1	y	282	 % 68% 32%
1	z	282	 68% 32%

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 86922 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	192	1423	905	230	280	8	0	0	0
1	B	194	1429	909	232	280	8	0	0	0
1	C	192	1420	901	230	281	8	0	0	0
1	D	192	1420	903	229	280	8	0	0	0
1	E	191	1421	903	230	280	8	0	0	0
1	F	192	1421	904	230	279	8	0	0	0
1	G	192	1427	907	231	281	8	0	0	0
1	H	193	1429	908	231	282	8	0	0	0
1	I	192	1424	905	230	281	8	0	0	0
1	J	193	1430	909	231	282	8	0	0	0
1	K	192	1424	905	230	281	8	0	0	0
1	L	192	1427	907	231	281	8	0	0	0
1	M	193	1429	908	231	282	8	0	0	0
1	N	192	1424	905	230	281	8	0	0	0
1	O	192	1424	905	230	281	8	0	0	0
1	P	192	1424	905	230	281	8	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	Q	192	1422	904	229	281	8	0	0	0
1	R	191	1421	905	229	279	8	0	0	0
1	S	191	1417	902	229	278	8	0	0	0
1	T	192	1421	904	230	279	8	0	0	0
1	U	192	1424	905	230	281	8	0	0	0
1	V	192	1424	905	230	281	8	0	0	0
1	W	192	1424	905	230	281	8	0	0	0
1	X	194	1434	911	232	283	8	0	0	0
1	Y	192	1424	905	230	281	8	0	0	0
1	Z	192	1424	905	230	281	8	0	0	0
1	a	192	1420	902	229	281	8	0	0	0
1	c	191	1418	902	229	279	8	0	0	0
1	e	192	1427	907	231	281	8	0	0	0
1	g	192	1420	903	229	280	8	0	0	0
1	i	192	1424	905	230	281	8	0	0	0
1	k	193	1427	907	231	281	8	0	0	0
1	m	193	1429	908	231	282	8	0	0	0
1	o	192	1415	900	227	280	8	0	0	0
1	q	193	1425	905	230	282	8	0	0	0
1	r	192	1424	905	230	281	8	0	0	0
1	s	193	1429	908	231	282	8	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	t	192	1424	905	230	281	8	0	0	0
1	u	192	1424	905	230	281	8	0	0	0
1	v	192	1424	905	230	281	8	0	0	0
1	w	192	1406	895	226	277	8	0	0	0
1	x	192	1414	899	229	278	8	0	0	0
1	y	193	1429	908	231	282	8	0	0	0
1	z	192	1422	904	230	280	8	0	0	0
1	0	192	1424	905	230	281	8	0	0	0
1	1	192	1425	906	230	281	8	0	0	0
1	2	192	1422	904	229	281	8	0	0	0
1	3	194	1434	911	232	283	8	0	0	0
1	4	192	1419	902	230	279	8	0	0	0
1	5	192	1424	905	230	281	8	0	0	0
1	6	192	1422	903	230	281	8	0	0	0
1	7	192	1422	904	229	281	8	0	0	0
1	b	192	1420	902	230	280	8	0	0	0
1	d	193	1429	908	231	282	8	0	0	0
1	f	193	1423	904	229	282	8	0	0	0
1	h	192	1419	902	229	280	8	0	0	0
1	j	194	1434	911	232	283	8	0	0	0
1	l	192	1425	906	230	281	8	0	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	n	192	1423	904	230	281	8	0	0	0
1	p	192	1414	899	230	277	8	0	0	0

There are 1500 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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
D	-13	MET	-	expression tag	UNP P02976

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
g	64	GLU	-	linker	UNP P02976
g	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
i	62	GLU	-	linker	UNP P02976
i	63	LEU	-	linker	UNP P02976
i	64	GLU	-	linker	UNP P02976
i	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
k	0	SER	-	expression tag	UNP P02976
k	1	MET	-	expression tag	UNP P02976

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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

Continued on next page...

Continued from previous page...

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

Continued on next page...

Continued from previous page...

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

Continued on next page...

Continued from previous page...

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

Continued on next page...

Continued from previous page...

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

Continued on next page...

Continued from previous page...

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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
7	60	GLY	-	linker	UNP P02976
7	61	SER	-	linker	UNP P02976
7	62	GLU	-	linker	UNP P02976
7	63	LEU	-	linker	UNP P02976
7	64	GLU	-	linker	UNP P02976
7	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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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
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
h	-13	MET	-	expression tag	UNP P02976
h	-12	ARG	-	expression tag	UNP P02976
h	-11	GLY	-	expression tag	UNP P02976

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
h	-10	SER	-	expression tag	UNP P02976
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
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
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

Continued on next page...

Continued from previous page...

Chain	Residue	Modelled	Actual	Comment	Reference
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
n	63	LEU	-	linker	UNP P02976
n	64	GLU	-	linker	UNP P02976
n	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
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

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



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
2	A	1	Total O S 5 4 1	0	0
2	H	1	Total O S 5 4 1	0	0
2	M	1	Total O S 5 4 1	0	0
2	P	1	Total O S 5 4 1	0	0
2	X	1	Total O S 5 4 1	0	0
2	Z	1	Total O S 5 4 1	0	0
2	o	1	Total O S 5 4 1	0	0
2	s	1	Total O S 5 4 1	0	0
2	w	1	Total O S 5 4 1	0	0
2	4	1	Total O S 5 4 1	0	0
2	7	1	Total O S 5 4 1	0	0
2	h	1	Total O S 5 4 1	0	0

- Molecule 3 is water.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	A	30	Total O 30 30	0	0
3	B	13	Total O 13 13	0	0
3	C	16	Total O 16 16	0	0
3	D	21	Total O 21 21	0	0
3	E	21	Total O 21 21	0	0
3	F	33	Total O 33 33	0	0
3	G	37	Total O 37 37	0	0
3	H	29	Total O 29 29	0	0
3	I	38	Total O 38 38	0	0
3	J	22	Total O 22 22	0	0
3	K	28	Total O 28 28	0	0
3	L	29	Total O 29 29	0	0
3	M	39	Total O 39 39	0	0
3	N	27	Total O 27 27	0	0
3	O	28	Total O 28 28	0	0
3	P	19	Total O 19 19	0	0
3	Q	16	Total O 16 16	0	0
3	R	15	Total O 15 15	0	0
3	S	16	Total O 16 16	0	0
3	T	14	Total O 14 14	0	0
3	U	30	Total O 30 30	0	0
3	V	25	Total O 25 25	0	0

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	W	34	Total O 34 34	0	0
3	X	28	Total O 28 28	0	0
3	Y	36	Total O 36 36	0	0
3	Z	28	Total O 28 28	0	0
3	a	18	Total O 18 18	0	0
3	c	18	Total O 18 18	0	0
3	e	16	Total O 16 16	0	0
3	g	25	Total O 25 25	0	0
3	i	17	Total O 17 17	0	0
3	k	20	Total O 20 20	0	0
3	m	23	Total O 23 23	0	0
3	o	16	Total O 16 16	0	0
3	q	25	Total O 25 25	0	0
3	r	28	Total O 28 28	0	0
3	s	29	Total O 29 29	0	0
3	t	28	Total O 28 28	0	0
3	u	37	Total O 37 37	0	0
3	v	32	Total O 32 32	0	0
3	w	16	Total O 16 16	0	0
3	x	20	Total O 20 20	0	0
3	y	20	Total O 20 20	0	0

Continued on next page...

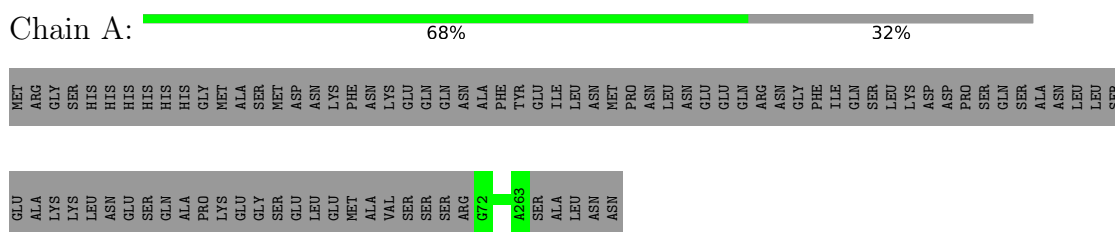
Continued from previous page...

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
3	z	29	Total O 29 29	0	0
3	0	23	Total O 23 23	0	0
3	1	24	Total O 24 24	0	0
3	2	26	Total O 26 26	0	0
3	3	19	Total O 19 19	0	0
3	4	16	Total O 16 16	0	0
3	5	20	Total O 20 20	0	0
3	6	19	Total O 19 19	0	0
3	7	17	Total O 17 17	0	0
3	b	23	Total O 23 23	0	0
3	d	28	Total O 28 28	0	0
3	f	27	Total O 27 27	0	0
3	h	26	Total O 26 26	0	0
3	j	16	Total O 16 16	0	0
3	l	31	Total O 31 31	0	0
3	n	24	Total O 24 24	0	0
3	p	23	Total O 23 23	0	0

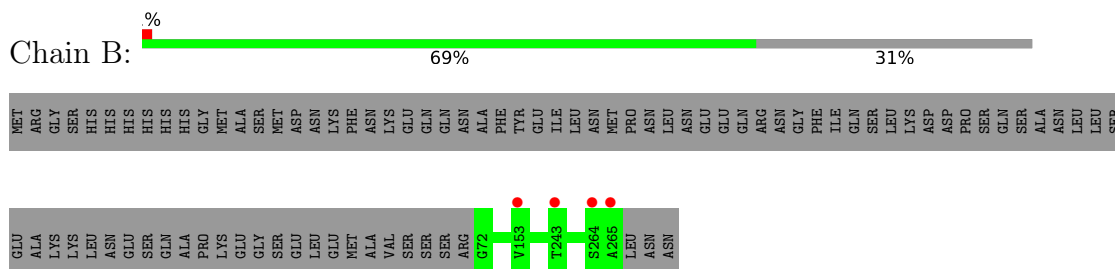
3 Residue-property plots [i](#)

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.

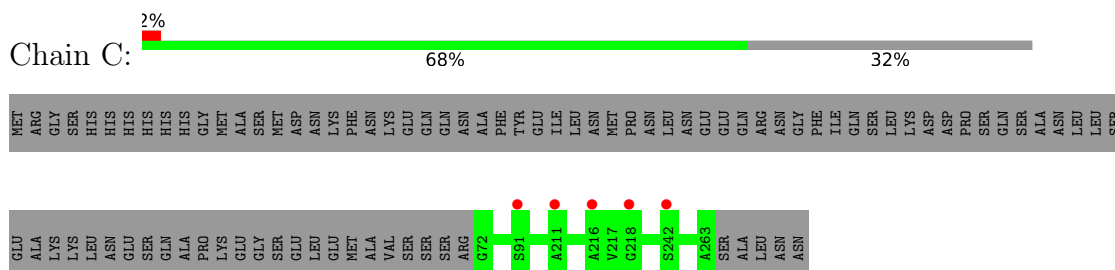
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



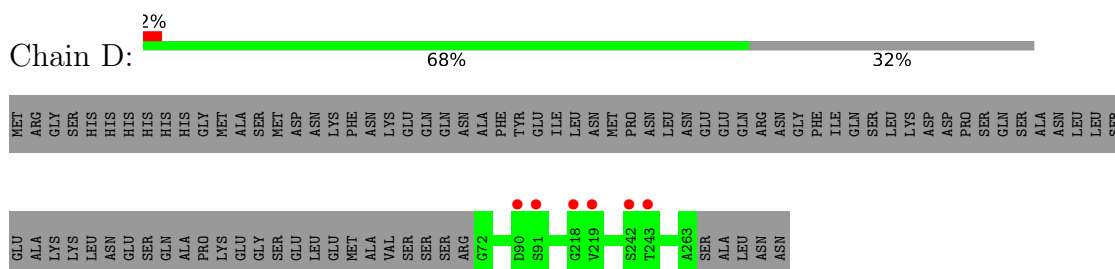
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



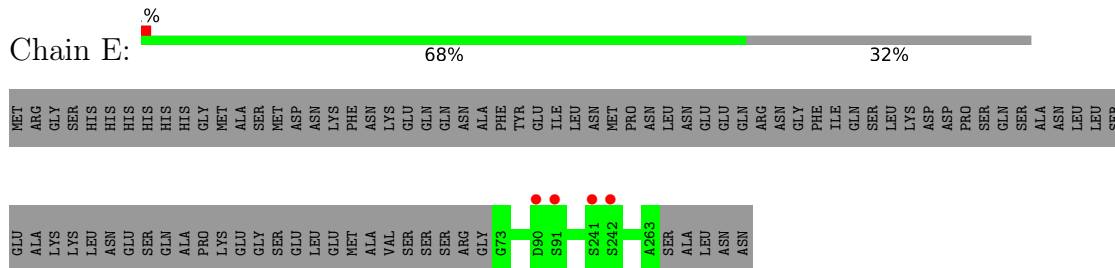
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



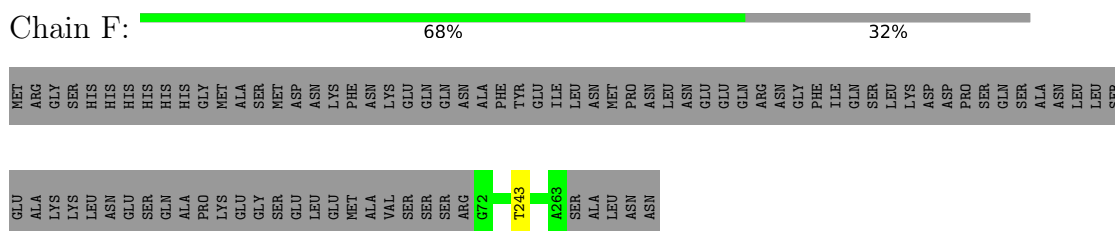
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



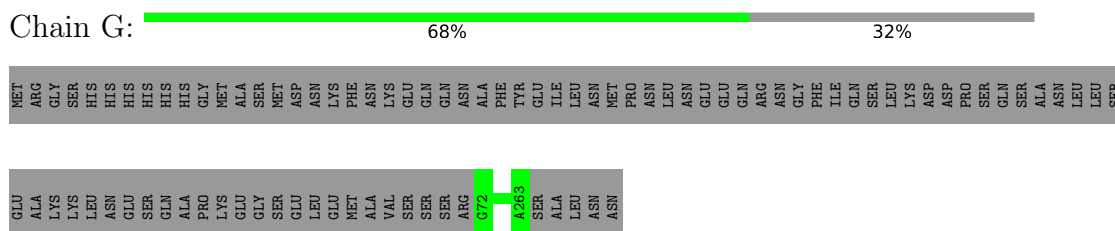
- Molecule 1: Immunoglobulin G-binding protein A, Coat protein



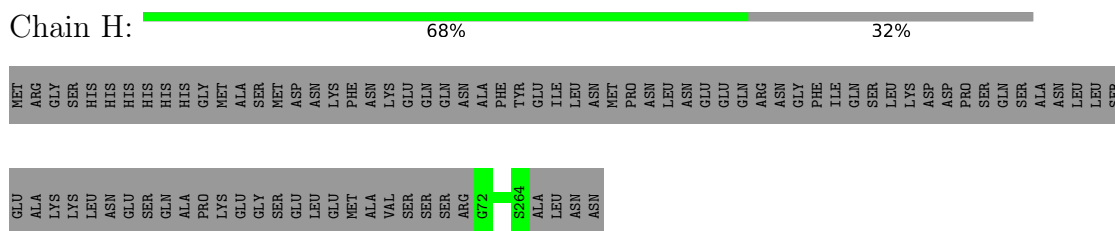
- Molecule 1: Immunoglobulin G-binding protein A, Coat protein



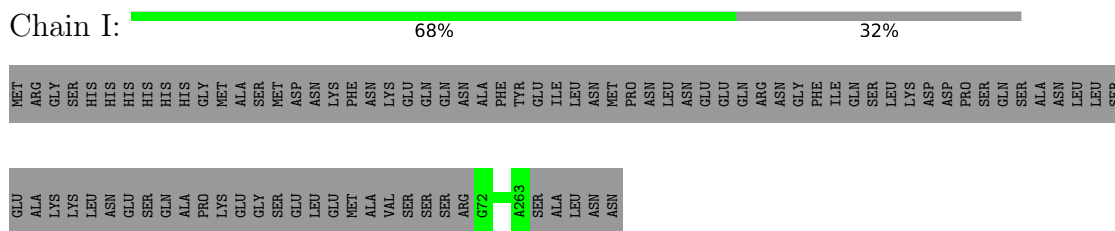
- Molecule 1: Immunoglobulin G-binding protein A, Coat protein



- 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 J:  68% 32%

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

GLU	ALA	LYS	LEU	ASN	GLU	SER	GLN	ALA	PRO	LYS	GLY	GLY	SER	GLU	GLU	LEU	MET	ALA	VAL	SER	SER	SER	ARG	GLY	G73	A265	LEU	ASN	ASN
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	-----	-----	-----

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

Chain K:  68% 32%

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

GLU	ALA	LYS	LEU	ASN	GLU	SER	GLN	ALA	PRO	LYS	GLY	GLY	SER	GLU	GLU	LEU	MET	ALA	VAL	SER	SER	SER	ARG	G72	C184	A263	SER	ALA	ASN	ASN
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	------	-----	-----	-----	-----

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

Chain L:  68% 32%

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

GLU	ALA	LYS	LEU	ASN	GLU	SER	GLN	ALA	PRO	LYS	GLY	GLY	SER	GLU	GLU	LEU	MET	ALA	VAL	SER	SER	SER	ARG	G72	A263	SER	ALA	ASN	ASN
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	-----	-----	-----	-----

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

Chain M:  68% 32%

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

GLU	ALA	LYS	LEU	ASN	GLU	SER	GLN	ALA	PRO	LYS	GLY	GLY	SER	GLU	GLU	LEU	MET	ALA	VAL	SER	SER	SER	ARG	G72	S264	ALA	ALA	ASN	ASN
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	-----	-----	-----	-----

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

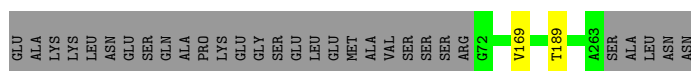
Chain N:  68% 32%

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

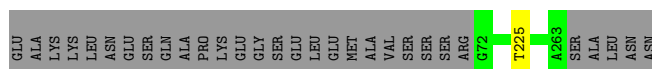
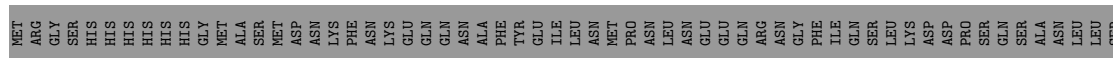
GLU	ALA	LYS	LEU	ASN	GLU	SER	GLN	ALA	PRO	LYS	GLY	GLY	SER	GLU	GLU	LEU	MET	ALA	VAL	SER	SER	SER	ARG	G72	A263	ALA	ALA	ASN	ASN
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	------	-----	-----	-----	-----

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

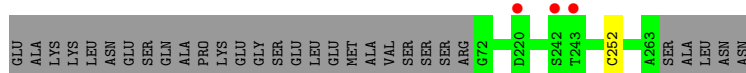
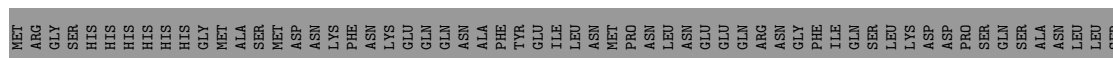
Chain O:  68% 32%



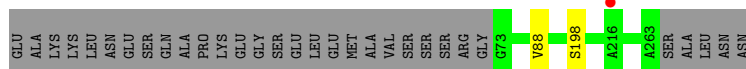
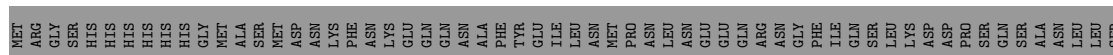
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



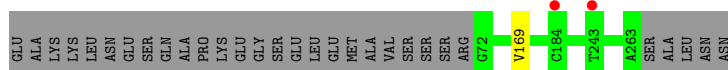
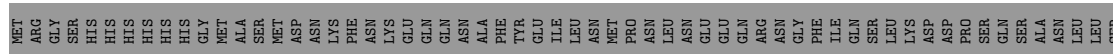
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



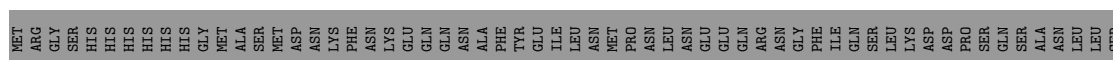
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

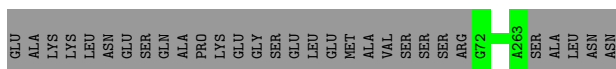


- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



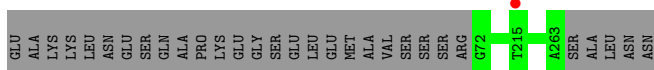
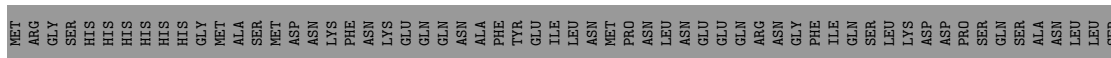
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein





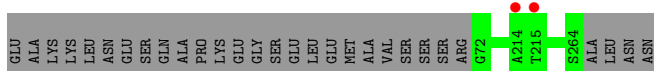
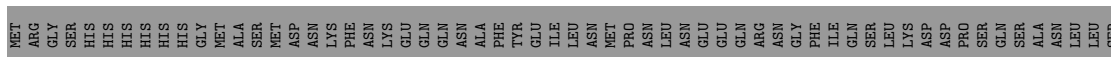
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain i:  68% 32%



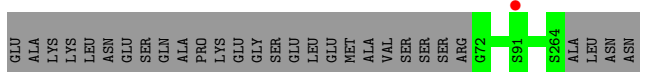
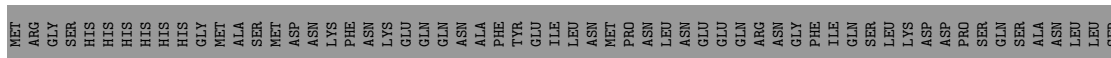
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain k:  % 68% 32%



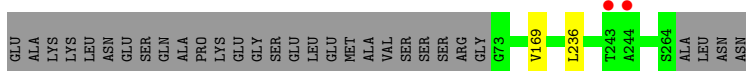
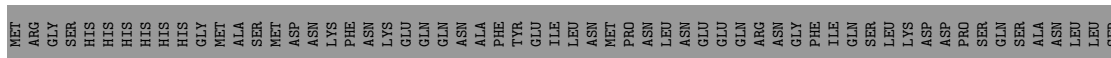
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain m:  68% 32%



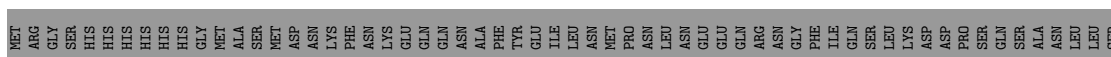
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

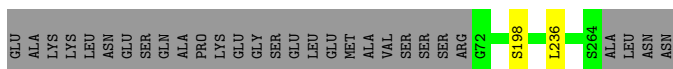
Chain o:  % 67% 32%



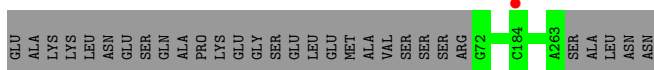
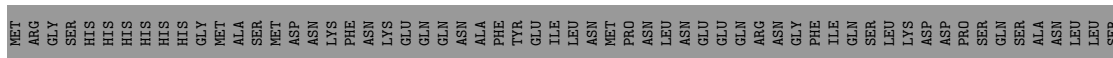
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

Chain q:  68% 32%

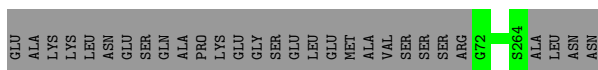
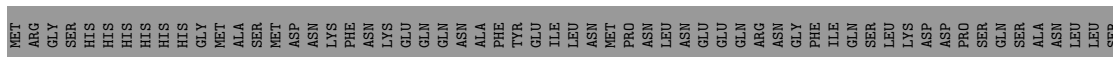




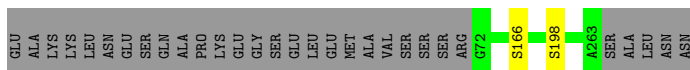
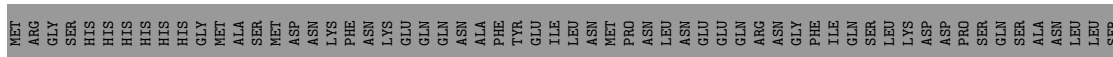
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



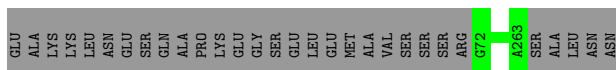
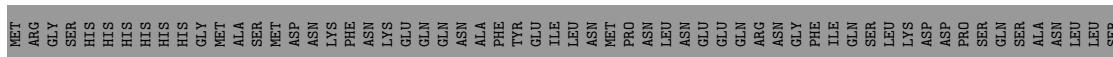
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



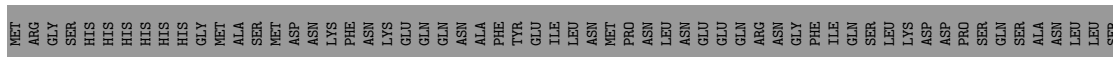
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

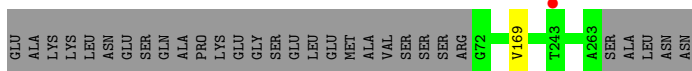


- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



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

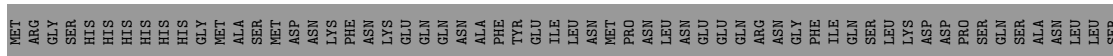




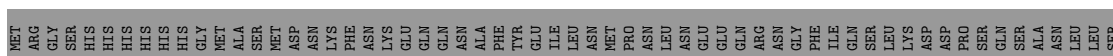
• Molecule 1: Immunoglobulin G-binding protein A,Coat protein



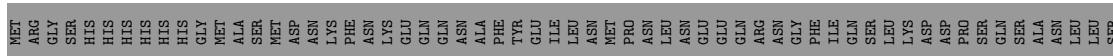
• Molecule 1: Immunoglobulin G-binding protein A,Coat protein



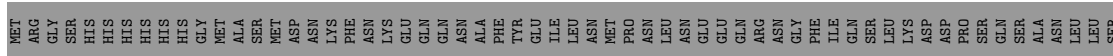
• Molecule 1: Immunoglobulin G-binding protein A,Coat protein

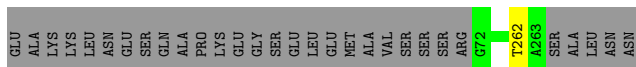


• Molecule 1: Immunoglobulin G-binding protein A,Coat protein

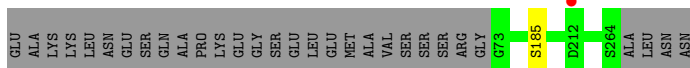


• Molecule 1: Immunoglobulin G-binding protein A,Coat protein

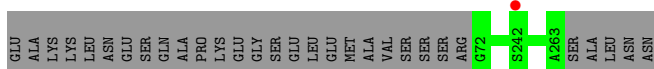
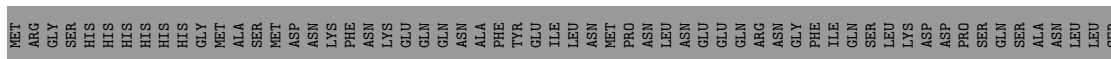




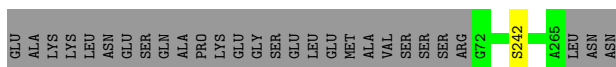
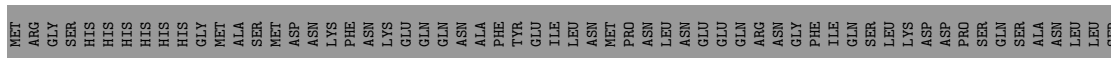
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



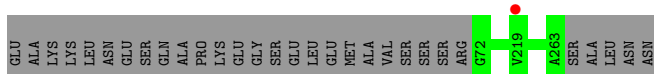
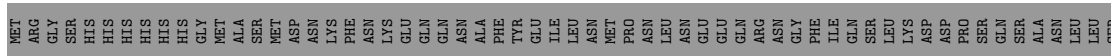
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



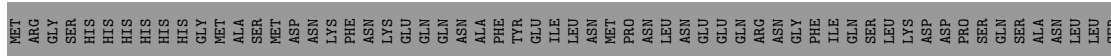
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

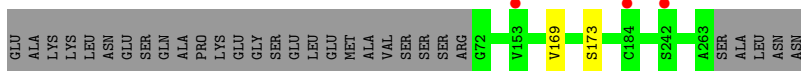


- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

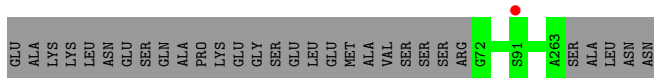
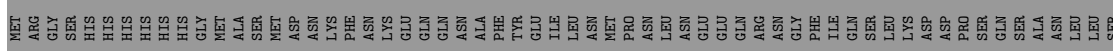


- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

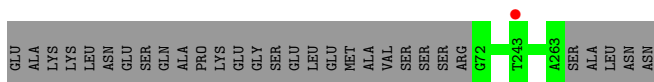
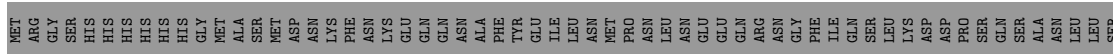




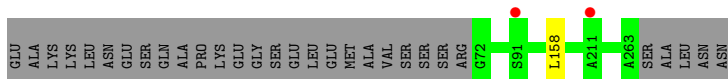
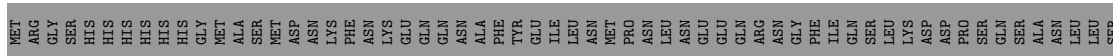
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



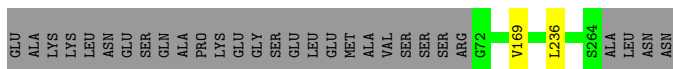
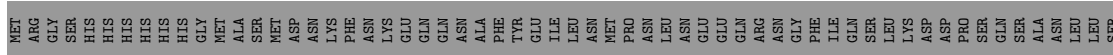
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein



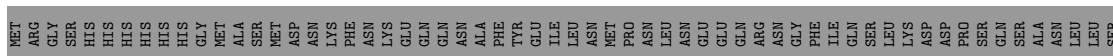
- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

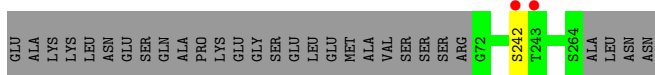


- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

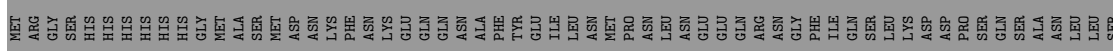


- Molecule 1: Immunoglobulin G-binding protein A,Coat protein

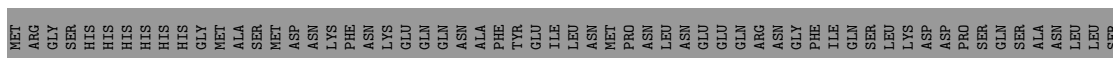




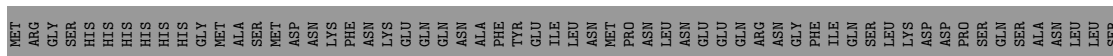
● Molecule 1: Immunoglobulin G-binding protein A,Coat protein



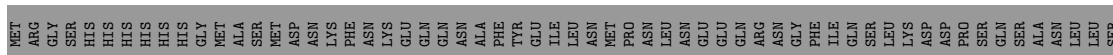
● Molecule 1: Immunoglobulin G-binding protein A,Coat protein



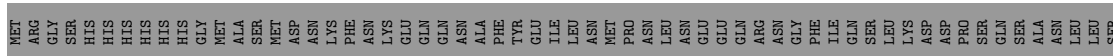
● Molecule 1: Immunoglobulin G-binding protein A,Coat protein

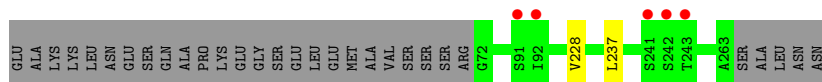


● Molecule 1: Immunoglobulin G-binding protein A,Coat protein



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





4 Data and refinement statistics i

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, α , β , γ	186.48Å 187.42Å 187.93Å 61.09° 89.24° 60.20°	Depositor
Resolution (Å)	41.92 – 2.95 41.92 – 2.95	Depositor EDS
% Data completeness (in resolution range)	94.1 (41.92-2.95) 89.3 (41.92-2.95)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	0.15	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.96 (at 2.95Å)	Xtrriage
Refinement program	PHENIX 1.9-1692	Depositor
R, R_{free}	0.196 , 0.249 0.201 , 0.252	Depositor DCC
R_{free} test set	18386 reflections (5.03%)	wwPDB-VP
Wilson B-factor (Å ²)	28.6	Xtrriage
Anisotropy	0.592	Xtrriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.35 , 53.2	EDS
L-test for twinning ²	$\langle L \rangle = 0.47$, $\langle L^2 \rangle = 0.29$	Xtrriage

Continued on next page...

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.

Continued from previous page...

Property	Value	Source
Estimated twinning fraction	0.014 for k,l,h-k+l 0.014 for h-k+l,h,k 0.015 for k-l,-h+k-l,-h+k 0.015 for h-k,h-k+l,-k+l 0.015 for l,-h+k,-h 0.015 for -l,k-l,h 0.034 for -h+k-l,-h+k,k 0.034 for -k+l,l,-h+k 0.014 for k,k-l,-h+k-l 0.014 for k-l,h,h-k 0.014 for -h+k,-h,-k+l 0.014 for -k,h-k,h-k+l 0.015 for h-k+l,-k+l,-k 0.015 for h-k,-l,k-l 0.168 for h,h-k,-l 0.015 for -h+k,k,k-l 0.016 for -h,-k+l,l 0.015 for -k,-h,-h+k-l 0.015 for l,h-k+l,h 0.015 for -l,-k,-h 0.033 for -h+k-l,-l,-k 0.075 for -k+l,-k,h-k 0.016 for -h,-h+k-l,-l	Xtrriage
F_o, F_c correlation	0.89	EDS
Total number of atoms	86922	wwPDB-VP
Average B, all atoms (\AA^2)	27.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 6.91% of the height of the origin peak. No significant pseudotranslation is detected.*

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	0	0.47	0/1456	0.61	0/1996
1	1	0.49	0/1457	0.64	0/1998
1	2	0.48	0/1454	0.64	0/1994
1	3	0.51	0/1466	0.66	0/2010
1	4	0.48	0/1451	0.64	0/1989
1	5	0.48	0/1456	0.61	0/1996
1	6	0.47	0/1454	0.62	0/1993
1	7	0.45	0/1454	0.62	0/1994
1	A	0.48	0/1455	0.63	0/1995
1	B	0.48	0/1461	0.63	0/2003
1	C	0.43	0/1452	0.59	0/1990
1	D	0.47	0/1452	0.60	0/1991
1	E	0.45	0/1453	0.62	0/1991
1	F	0.55	0/1453	0.67	0/1992
1	G	0.52	0/1459	0.65	0/1999
1	H	0.51	0/1461	0.64	0/2003
1	I	0.52	0/1456	0.64	0/1996
1	J	0.55	0/1462	0.68	0/2005
1	K	0.51	0/1456	0.66	0/1996
1	L	0.54	0/1459	0.65	0/1999
1	M	0.56	0/1461	0.68	0/2003
1	N	0.52	0/1456	0.63	0/1996
1	O	0.51	0/1456	0.61	0/1996
1	P	0.48	0/1456	0.62	0/1996
1	Q	0.46	0/1454	0.59	0/1994
1	R	0.44	0/1453	0.60	0/1992
1	S	0.47	0/1449	0.63	0/1987
1	T	0.48	0/1453	0.63	0/1992
1	U	0.52	0/1456	0.65	0/1996
1	V	0.54	0/1456	0.66	0/1996
1	W	0.51	0/1456	0.64	0/1996
1	X	0.54	0/1466	0.67	0/2010

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	Y	0.54	0/1456	0.66	0/1996
1	Z	0.49	0/1456	0.63	0/1996
1	a	0.53	1/1452 (0.1%)	0.63	0/1992
1	b	0.51	0/1452	0.65	0/1990
1	c	0.48	0/1450	0.63	0/1988
1	d	0.51	0/1461	0.65	1/2003 (0.0%)
1	e	0.49	0/1459	0.60	0/1999
1	f	0.51	0/1455	0.67	0/1997
1	g	0.47	0/1452	0.63	0/1991
1	h	0.51	0/1451	0.67	0/1991
1	i	0.49	0/1456	0.62	0/1996
1	j	0.49	0/1466	0.62	0/2010
1	k	0.52	0/1459	0.63	0/2000
1	l	0.49	0/1457	0.63	0/1998
1	m	0.48	0/1461	0.61	0/2003
1	n	0.47	0/1455	0.61	0/1995
1	o	0.48	0/1447	0.64	0/1986
1	p	0.48	0/1446	0.62	0/1982
1	q	0.50	0/1457	0.65	1/1999 (0.1%)
1	r	0.50	0/1456	0.61	0/1996
1	s	0.53	0/1461	0.66	0/2003
1	t	0.53	0/1456	0.67	0/1996
1	u	0.55	0/1456	0.66	0/1996
1	v	0.51	0/1456	0.64	0/1996
1	w	0.47	0/1438	0.64	0/1974
1	x	0.47	0/1446	0.62	0/1983
1	y	0.52	0/1461	0.65	0/2003
1	z	0.48	0/1454	0.64	0/1993
All	All	0.50	1/87331 (0.0%)	0.64	2/119736 (0.0%)

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	a	252	CYS	CB-SG	-5.53	1.72	1.81

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	d	236	LEU	CB-CG-CD2	-6.46	100.01	111.00
1	q	236	LEU	CB-CG-CD2	-5.47	101.70	111.00

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	0	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	1	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	2	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	3	192/282 (68%)	186 (97%)	6 (3%)	0	100	100
1	4	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	5	190/282 (67%)	183 (96%)	7 (4%)	0	100	100
1	6	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	7	190/282 (67%)	185 (97%)	5 (3%)	0	100	100
1	A	190/282 (67%)	183 (96%)	7 (4%)	0	100	100
1	B	192/282 (68%)	185 (96%)	7 (4%)	0	100	100
1	C	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	D	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	E	189/282 (67%)	183 (97%)	6 (3%)	0	100	100
1	F	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	G	190/282 (67%)	186 (98%)	4 (2%)	0	100	100
1	H	191/282 (68%)	185 (97%)	6 (3%)	0	100	100
1	I	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	J	191/282 (68%)	184 (96%)	7 (4%)	0	100	100
1	K	190/282 (67%)	184 (97%)	6 (3%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	L	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	M	191/282 (68%)	184 (96%)	7 (4%)	0	100	100
1	N	190/282 (67%)	185 (97%)	5 (3%)	0	100	100
1	O	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	P	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	Q	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	R	189/282 (67%)	184 (97%)	5 (3%)	0	100	100
1	S	189/282 (67%)	183 (97%)	6 (3%)	0	100	100
1	T	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	U	190/282 (67%)	185 (97%)	5 (3%)	0	100	100
1	V	190/282 (67%)	185 (97%)	5 (3%)	0	100	100
1	W	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	X	192/282 (68%)	185 (96%)	7 (4%)	0	100	100
1	Y	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	Z	190/282 (67%)	183 (96%)	7 (4%)	0	100	100
1	a	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	b	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	c	189/282 (67%)	183 (97%)	6 (3%)	0	100	100
1	d	191/282 (68%)	185 (97%)	6 (3%)	0	100	100
1	e	190/282 (67%)	183 (96%)	7 (4%)	0	100	100
1	f	191/282 (68%)	184 (96%)	7 (4%)	0	100	100
1	g	190/282 (67%)	183 (96%)	7 (4%)	0	100	100
1	h	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	i	190/282 (67%)	183 (96%)	7 (4%)	0	100	100
1	j	192/282 (68%)	185 (96%)	7 (4%)	0	100	100
1	k	191/282 (68%)	185 (97%)	6 (3%)	0	100	100
1	l	190/282 (67%)	183 (96%)	7 (4%)	0	100	100
1	m	191/282 (68%)	185 (97%)	6 (3%)	0	100	100
1	n	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	o	190/282 (67%)	185 (97%)	5 (3%)	0	100	100
1	p	190/282 (67%)	184 (97%)	6 (3%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	q	191/282 (68%)	185 (97%)	6 (3%)	0	100	100
1	r	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	s	191/282 (68%)	185 (97%)	6 (3%)	0	100	100
1	t	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	u	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	v	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	w	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	x	190/282 (67%)	184 (97%)	6 (3%)	0	100	100
1	y	191/282 (68%)	185 (97%)	6 (3%)	0	100	100
1	z	190/282 (67%)	185 (97%)	5 (3%)	0	100	100
All	All	11414/16920 (68%)	11050 (97%)	364 (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	Percentiles	
1	0	158/238 (66%)	157 (99%)	1 (1%)	86	94
1	1	158/238 (66%)	157 (99%)	1 (1%)	86	94
1	2	157/238 (66%)	157 (100%)	0	100	100
1	3	158/238 (66%)	158 (100%)	0	100	100
1	4	155/238 (65%)	155 (100%)	0	100	100
1	5	158/238 (66%)	156 (99%)	2 (1%)	69	87
1	6	157/238 (66%)	157 (100%)	0	100	100
1	7	157/238 (66%)	157 (100%)	0	100	100
1	A	157/238 (66%)	157 (100%)	0	100	100
1	B	156/238 (66%)	156 (100%)	0	100	100
1	C	156/238 (66%)	156 (100%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	D	156/238 (66%)	156 (100%)	0	100	100
1	E	157/238 (66%)	157 (100%)	0	100	100
1	F	157/238 (66%)	156 (99%)	1 (1%)	86	94
1	G	158/238 (66%)	158 (100%)	0	100	100
1	H	158/238 (66%)	158 (100%)	0	100	100
1	I	158/238 (66%)	158 (100%)	0	100	100
1	J	158/238 (66%)	158 (100%)	0	100	100
1	K	158/238 (66%)	158 (100%)	0	100	100
1	L	158/238 (66%)	158 (100%)	0	100	100
1	M	158/238 (66%)	158 (100%)	0	100	100
1	N	158/238 (66%)	158 (100%)	0	100	100
1	O	158/238 (66%)	158 (100%)	0	100	100
1	P	158/238 (66%)	158 (100%)	0	100	100
1	Q	157/238 (66%)	157 (100%)	0	100	100
1	R	157/238 (66%)	156 (99%)	1 (1%)	86	94
1	S	157/238 (66%)	155 (99%)	2 (1%)	69	87
1	T	157/238 (66%)	157 (100%)	0	100	100
1	U	158/238 (66%)	158 (100%)	0	100	100
1	V	158/238 (66%)	157 (99%)	1 (1%)	86	94
1	W	158/238 (66%)	158 (100%)	0	100	100
1	X	158/238 (66%)	158 (100%)	0	100	100
1	Y	158/238 (66%)	156 (99%)	2 (1%)	69	87
1	Z	158/238 (66%)	157 (99%)	1 (1%)	86	94
1	a	157/238 (66%)	157 (100%)	0	100	100
1	b	156/238 (66%)	155 (99%)	1 (1%)	86	94
1	c	157/238 (66%)	155 (99%)	2 (1%)	69	87
1	d	158/238 (66%)	157 (99%)	1 (1%)	86	94
1	e	158/238 (66%)	157 (99%)	1 (1%)	86	94
1	f	156/238 (66%)	156 (100%)	0	100	100
1	g	156/238 (66%)	156 (100%)	0	100	100
1	h	156/238 (66%)	155 (99%)	1 (1%)	86	94

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	i	158/238 (66%)	158 (100%)	0	100	100
1	j	158/238 (66%)	158 (100%)	0	100	100
1	k	157/238 (66%)	157 (100%)	0	100	100
1	l	158/238 (66%)	158 (100%)	0	100	100
1	m	158/238 (66%)	158 (100%)	0	100	100
1	n	157/238 (66%)	157 (100%)	0	100	100
1	o	154/238 (65%)	152 (99%)	2 (1%)	69	87
1	p	153/238 (64%)	151 (99%)	2 (1%)	69	87
1	q	157/238 (66%)	156 (99%)	1 (1%)	86	94
1	r	158/238 (66%)	158 (100%)	0	100	100
1	s	158/238 (66%)	158 (100%)	0	100	100
1	t	158/238 (66%)	156 (99%)	2 (1%)	69	87
1	u	158/238 (66%)	158 (100%)	0	100	100
1	v	158/238 (66%)	157 (99%)	1 (1%)	86	94
1	w	153/238 (64%)	153 (100%)	0	100	100
1	x	154/238 (65%)	154 (100%)	0	100	100
1	y	158/238 (66%)	156 (99%)	2 (1%)	69	87
1	z	157/238 (66%)	156 (99%)	1 (1%)	86	94
All	All	9429/14280 (66%)	9400 (100%)	29 (0%)	92	97

5 of 29 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	t	166	SER
1	p	228	VAL
1	y	88	VAL
1	b	158	LEU
1	v	169	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 7 such sidechains are listed below:

Mol	Chain	Res	Type
1	V	160	ASN
1	W	79	HIS
1	f	160	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	y	160	ASN
1	M	160	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](#)

12 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	h	301	-	4,4,4	0.52	0	6,6,6	0.41	0
2	SO4	A	301	-	4,4,4	0.32	0	6,6,6	0.36	0
2	SO4	P	301	-	4,4,4	0.38	0	6,6,6	0.32	0
2	SO4	7	301	-	4,4,4	0.42	0	6,6,6	0.43	0
2	SO4	w	301	-	4,4,4	0.59	0	6,6,6	0.38	0
2	SO4	s	301	-	4,4,4	0.74	0	6,6,6	0.59	0
2	SO4	H	301	-	4,4,4	0.66	0	6,6,6	0.36	0
2	SO4	M	301	-	4,4,4	0.73	0	6,6,6	0.36	0
2	SO4	o	301	-	4,4,4	0.41	0	6,6,6	0.28	0
2	SO4	X	301	-	4,4,4	0.76	0	6,6,6	0.69	0
2	SO4	Z	301	-	4,4,4	0.56	0	6,6,6	0.53	0
2	SO4	4	301	-	4,4,4	0.26	0	6,6,6	0.41	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	0	192/282 (68%)	-0.54	0 100 100	16, 26, 43, 55	0
1	1	192/282 (68%)	-0.51	1 (0%) 91 81	19, 29, 47, 57	0
1	2	192/282 (68%)	-0.61	1 (0%) 91 81	15, 26, 41, 51	0
1	3	194/282 (68%)	-0.56	0 100 100	17, 27, 43, 57	0
1	4	192/282 (68%)	-0.50	1 (0%) 91 81	17, 30, 53, 69	0
1	5	192/282 (68%)	-0.50	3 (1%) 72 55	20, 30, 51, 61	0
1	6	192/282 (68%)	-0.45	1 (0%) 91 81	20, 30, 55, 64	0
1	7	192/282 (68%)	-0.50	1 (0%) 91 81	19, 31, 50, 57	0
1	A	192/282 (68%)	-0.56	0 100 100	15, 29, 44, 49	0
1	B	194/282 (68%)	-0.47	4 (2%) 63 46	21, 31, 51, 62	0
1	C	192/282 (68%)	-0.41	5 (2%) 56 39	21, 33, 54, 71	0
1	D	192/282 (68%)	-0.36	6 (3%) 49 32	19, 32, 53, 62	0
1	E	191/282 (67%)	-0.40	4 (2%) 63 46	22, 30, 49, 60	0
1	F	192/282 (68%)	-0.74	0 100 100	10, 20, 38, 48	0
1	G	192/282 (68%)	-0.79	0 100 100	12, 19, 37, 48	0
1	H	193/282 (68%)	-0.65	0 100 100	11, 21, 42, 56	0
1	I	192/282 (68%)	-0.76	0 100 100	11, 19, 36, 50	0
1	J	193/282 (68%)	-0.74	0 100 100	10, 16, 34, 56	0
1	K	192/282 (68%)	-0.66	1 (0%) 91 81	10, 20, 38, 55	0
1	L	192/282 (68%)	-0.82	0 100 100	8, 17, 33, 47	0
1	M	193/282 (68%)	-0.74	0 100 100	9, 19, 38, 51	0
1	N	192/282 (68%)	-0.73	0 100 100	11, 20, 39, 53	0
1	O	192/282 (68%)	-0.67	1 (0%) 91 81	11, 20, 43, 55	0
1	P	192/282 (68%)	-0.51	2 (1%) 82 68	18, 30, 49, 59	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	Q	192/282 (68%)	-0.41	4 (2%) 63 46	20, 33, 54, 62	0
1	R	191/282 (67%)	-0.46	0 100 100	19, 32, 50, 60	0
1	S	191/282 (67%)	-0.43	2 (1%) 82 68	18, 31, 49, 59	0
1	T	192/282 (68%)	-0.54	2 (1%) 82 68	17, 28, 43, 52	0
1	U	192/282 (68%)	-0.71	0 100 100	11, 21, 38, 49	0
1	V	192/282 (68%)	-0.63	1 (0%) 91 81	9, 22, 41, 51	0
1	W	192/282 (68%)	-0.70	0 100 100	11, 21, 38, 47	0
1	X	194/282 (68%)	-0.73	0 100 100	11, 18, 33, 54	0
1	Y	192/282 (68%)	-0.74	0 100 100	12, 19, 36, 42	0
1	Z	192/282 (68%)	-0.52	0 100 100	16, 27, 41, 46	0
1	a	192/282 (68%)	-0.43	3 (1%) 72 55	18, 29, 56, 66	0
1	b	192/282 (68%)	-0.47	2 (1%) 82 68	19, 28, 48, 60	0
1	c	191/282 (67%)	-0.47	1 (0%) 91 81	18, 29, 49, 54	0
1	d	193/282 (68%)	-0.62	0 100 100	12, 26, 41, 48	0
1	e	192/282 (68%)	-0.48	2 (1%) 82 68	14, 25, 42, 53	0
1	f	193/282 (68%)	-0.53	2 (1%) 82 68	18, 28, 43, 57	0
1	g	192/282 (68%)	-0.56	0 100 100	16, 25, 44, 53	0
1	h	192/282 (68%)	-0.52	1 (0%) 91 81	17, 27, 45, 60	0
1	i	192/282 (68%)	-0.60	1 (0%) 91 81	14, 25, 44, 47	0
1	j	194/282 (68%)	-0.56	2 (1%) 82 68	16, 24, 44, 74	0
1	k	193/282 (68%)	-0.48	2 (1%) 82 68	15, 25, 43, 58	0
1	l	192/282 (68%)	-0.47	1 (0%) 91 81	15, 24, 43, 63	0
1	m	193/282 (68%)	-0.49	1 (0%) 91 81	13, 26, 45, 54	0
1	n	192/282 (68%)	-0.50	0 100 100	16, 26, 44, 52	0
1	o	192/282 (68%)	-0.44	2 (1%) 82 68	18, 31, 51, 69	0
1	p	192/282 (68%)	-0.36	5 (2%) 56 39	20, 30, 53, 69	0
1	q	193/282 (68%)	-0.53	0 100 100	18, 27, 45, 59	0
1	r	192/282 (68%)	-0.63	1 (0%) 91 81	10, 21, 42, 58	0
1	s	193/282 (68%)	-0.68	0 100 100	10, 20, 36, 51	0
1	t	192/282 (68%)	-0.76	0 100 100	10, 17, 33, 46	0
1	u	192/282 (68%)	-0.69	0 100 100	9, 19, 38, 48	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	v	192/282 (68%)	-0.73	1 (0%) 91 81	11, 19, 36, 45	0
1	w	192/282 (68%)	-0.47	2 (1%) 82 68	17, 30, 52, 65	0
1	x	192/282 (68%)	-0.51	0 100 100	19, 28, 48, 53	0
1	y	193/282 (68%)	-0.47	2 (1%) 82 68	15, 25, 44, 51	0
1	z	192/282 (68%)	-0.55	0 100 100	16, 26, 46, 53	0
All	All	11534/16920 (68%)	-0.57	71 (0%) 89 78	8, 26, 46, 74	0

The worst 5 of 71 RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
1	p	242	SER	4.3
1	a	242	SER	3.5
1	S	211	ALA	3.3
1	p	243	THR	3.3
1	D	91	SER	3.1

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	M	301	5/5	0.99	0.14	0,5,8,10	0
2	SO4	X	301	5/5	0.99	0.15	0,5,8,8	0
2	SO4	o	301	5/5	0.99	0.15	7,9,15,20	0
2	SO4	s	301	5/5	0.99	0.13	0,4,7,11	0
2	SO4	w	301	5/5	0.99	0.14	0,12,16,16	0
2	SO4	4	301	5/5	0.99	0.14	13,14,22,22	0

Continued on next page...

Continued from previous page...

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(\AA^2)	Q<0.9
2	SO4	7	301	5/5	0.99	0.13	5,14,20,21	0
2	SO4	P	301	5/5	1.00	0.11	6,17,21,26	0
2	SO4	H	301	5/5	1.00	0.14	0,7,10,11	0
2	SO4	Z	301	5/5	1.00	0.14	0,11,15,17	0
2	SO4	A	301	5/5	1.00	0.11	8,19,20,21	0
2	SO4	h	301	5/5	1.00	0.13	0,8,13,13	0

6.5 Other polymers [i](#)

There are no such residues in this entry.