

Integrative Structure Validation Report

September 18, 2024 - 09:06 PM PDT


The following software was used in the production of this report:

Python-IHM Version 1.3
MolProbity Version 4.5.2
Integrative Modeling Validation Version 1.2

PDB ID	9A8S
Structure Title	Structure of human myr-Arf1-GTP bound to MSPdH5 nanodisc
Structure Authors	Zhang, Y.; Soubias, O.; Pant, S.; Heinrich, F.; Vogel, A.; Li, J.; Li, Y.; Clifton, L.A.; Daum, S.; Bacia, K.; Huster, D.; Randazzo, P.A.; Losche, M.; Tajkhorshid, E.; Byrd, R.A.

This is a PDB-Dev IM Structure Validation Report for a publicly released PDB-Dev entry.

We welcome your comments at pdb-dev@mail.wwpdb.org

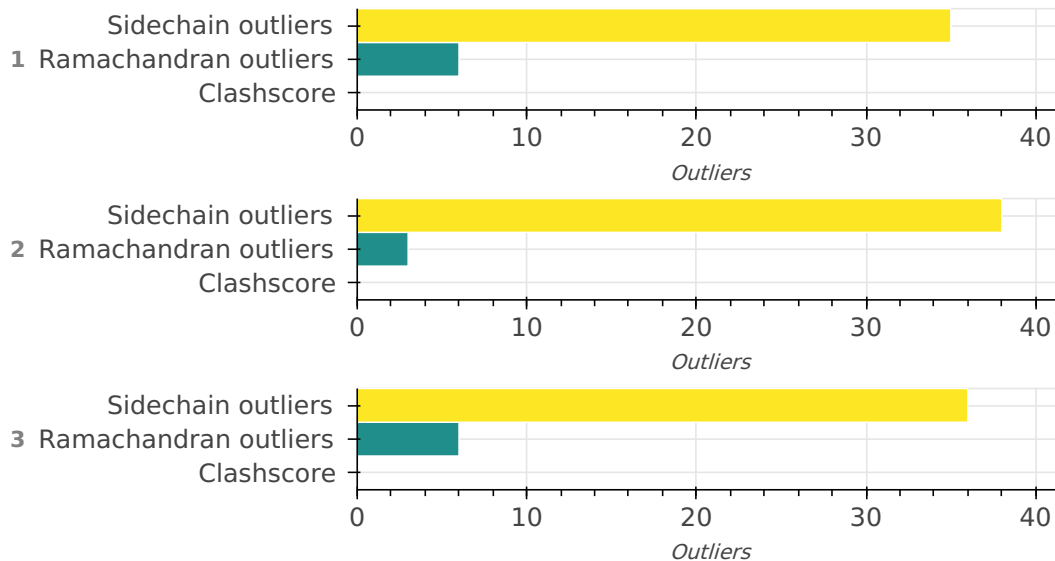
A user guide is available at https://pdb-dev.wwpdb.org/validation_help.html with specific help available everywhere you see the  symbol.

List of references used to build this report is available [here](#).

Overall quality

This validation report contains model quality assessments for all structures, data quality assessment for SAS datasets and fit to model assessments for SAS datasets. Data quality and fit to model assessments for other datasets and model uncertainty are under development. Number of plots is limited to 256.

Model Quality: MolProbity Analysis



Ensemble information ?

This entry consists of 0 distinct ensemble(s).

Summary ?

This entry consists of 3 unique models, with 103 subunits in each model. A total of 6 datasets or restraints were used to build this entry. Each model is represented by 0 rigid bodies and 309 flexible or non-rigid units.

Entry composition ?

There are 3 unique types of models in this entry. These models are titled Rotational State 1/None, Rotational State 2/None, Rotational State 3/None respectively.

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	1	1	Membrane Scaffold Protein (MSP) Apolipoprotein A-I	A	A	167
1	2	1	Membrane Scaffold Protein (MSP) Apolipoprotein A-I	B	B	167
1	3	2	ADP-ribosylation factor 1	C	P	180

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	4	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	D	A	Not available
1	5	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	E	A	Not available
1	6	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	F	A	Not available
1	7	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	G	A	Not available
1	8	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	H	A	Not available
1	9	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	I	A	Not available
1	10	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	J	A	Not available
1	11	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	K	A	Not available
1	12	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	L	A	Not available
1	13	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	M	A	Not available
1	14	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	N	A	Not available
1	15	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	O	A	Not available
1	16	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	Q	A	Not available
1	17	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	R	A	Not available
1	18	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	S	A	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	19	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	T	A	Not available
1	20	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	U	A	Not available
1	21	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	V	A	Not available
1	22	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	W	A	Not available
1	23	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	X	A	Not available
1	24	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	Y	A	Not available
1	25	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	Z	A	Not available
1	26	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AA	A	Not available
1	27	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BA	A	Not available
1	28	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	CA	A	Not available
1	29	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	EA	A	Not available
1	30	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	FA	A	Not available
1	31	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	GA	A	Not available
1	32	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	HA	A	Not available
1	33	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	IA	B	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	34	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	JA	B	Not available
1	35	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	KA	B	Not available
1	36	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	LA	B	Not available
1	37	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	NA	B	Not available
1	38	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	OA	B	Not available
1	39	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	PA	B	Not available
1	40	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	QA	B	Not available
1	41	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	RA	B	Not available
1	42	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	SA	B	Not available
1	43	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	TA	B	Not available
1	44	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	UA	B	Not available
1	45	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	VA	B	Not available
1	46	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	WA	B	Not available
1	47	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	XA	B	Not available
1	48	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	YA	B	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	49	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	ZA	B	Not available
1	50	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BB	B	Not available
1	51	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	CB	B	Not available
1	52	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	DB	B	Not available
1	53	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	EB	B	Not available
1	54	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	FB	B	Not available
1	55	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	GB	B	Not available
1	56	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	HB	B	Not available
1	57	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	IB	B	Not available
1	58	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	JB	B	Not available
1	59	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	KB	B	Not available
1	60	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	LB	B	Not available
1	61	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	MB	B	Not available
1	62	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	NB	B	Not available
1	63	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	OB	B	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	64	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	PB	B	Not available
1	65	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	QB	B	Not available
1	66	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	RB	B	Not available
1	67	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	SB	B	Not available
1	68	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	TB	B	Not available
1	69	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	UB	B	Not available
1	70	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	VB	B	Not available
1	71	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	WB	B	Not available
1	72	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	YB	B	Not available
1	73	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	ZB	B	Not available
1	74	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AC	B	Not available
1	75	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BC	B	Not available
1	76	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	CC	B	Not available
1	77	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	DC	P	Not available
1	78	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	EC	P	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	79	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	FC	P	Not available
1	80	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	GC	P	Not available
1	81	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	HC	P	Not available
1	82	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	IC	P	Not available
1	83	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	JC	P	Not available
1	84	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	KC	P	Not available
1	85	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	LC	P	Not available
1	86	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	MC	P	Not available
1	87	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	NC	P	Not available
1	88	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	OC	P	Not available
1	89	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	PC	P	Not available
1	90	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	QC	P	Not available
1	91	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	RC	P	Not available
1	92	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	UC	P	Not available
1	93	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	VC	P	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	94	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	WC	P	Not available
1	95	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	XC	P	Not available
1	96	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	YC	P	Not available
1	97	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonoxy-cyclohexyl]oxyphosphoryl]oxy-propyl] (E)-octadec-9-enoate	P	A	Not available
1	98	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonoxy-cyclohexyl]oxyphosphoryl]oxy-propyl] (E)-octadec-9-enoate	DA	A	Not available
1	99	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonoxy-cyclohexyl]oxyphosphoryl]oxy-propyl] (E)-octadec-9-enoate	MA	B	Not available
1	100	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonoxy-cyclohexyl]oxyphosphoryl]oxy-propyl] (E)-octadec-9-enoate	AB	B	Not available
1	101	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonoxy-cyclohexyl]oxyphosphoryl]oxy-propyl] (E)-octadec-9-enoate	XB	B	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
1	102	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxy-phosphoryl]oxy-propyl] (E)-octadec-9-enoate	SC	P	Not available
1	103	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxy-phosphoryl]oxy-propyl] (E)-octadec-9-enoate	TC	P	Not available
2	1	1	Membrane Scaffold Protein (MSP) Apolipoprotein A-I	A	A	167
2	2	1	Membrane Scaffold Protein (MSP) Apolipoprotein A-I	B	B	167
2	3	2	ADP-ribosylation factor 1	C	P	180
2	4	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	D	A	Not available
2	5	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	E	A	Not available
2	6	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	F	A	Not available
2	7	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	G	A	Not available
2	8	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	H	A	Not available
2	9	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	I	A	Not available
2	10	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	J	A	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
2	11	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	K	A	Not available
2	12	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	M	A	Not available
2	13	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	N	A	Not available
2	14	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	O	A	Not available
2	15	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	Q	A	Not available
2	16	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	R	A	Not available
2	17	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	S	A	Not available
2	18	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	T	A	Not available
2	19	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	V	A	Not available
2	20	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	W	A	Not available
2	21	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	X	A	Not available
2	22	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	Y	A	Not available
2	23	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	Z	A	Not available
2	24	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AA	A	Not available
2	25	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BA	A	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
2	26	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	CA	A	Not available
2	27	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	EA	A	Not available
2	28	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	FA	A	Not available
2	29	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	GA	A	Not available
2	30	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	HA	A	Not available
2	31	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	IA	B	Not available
2	32	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	JA	B	Not available
2	33	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	KA	B	Not available
2	34	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	LA	B	Not available
2	35	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	OA	B	Not available
2	36	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	PA	B	Not available
2	37	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	QA	B	Not available
2	38	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	RA	B	Not available
2	39	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	SA	B	Not available
2	40	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	TA	B	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
2	41	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	UA	B	Not available
2	42	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	VA	B	Not available
2	43	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	WA	B	Not available
2	44	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	XA	B	Not available
2	45	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	YA	B	Not available
2	46	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BB	B	Not available
2	47	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	CB	B	Not available
2	48	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	DB	B	Not available
2	49	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	EB	B	Not available
2	50	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	FB	B	Not available
2	51	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	GB	B	Not available
2	52	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	HB	B	Not available
2	53	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	IB	B	Not available
2	54	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	JB	B	Not available
2	55	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	KB	B	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
2	56	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	LB	B	Not available
2	57	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	MB	B	Not available
2	58	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	NB	B	Not available
2	59	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	OB	B	Not available
2	60	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	PB	B	Not available
2	61	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	QB	B	Not available
2	62	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	RB	B	Not available
2	63	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	DC	P	Not available
2	64	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	EC	P	Not available
2	65	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	FC	P	Not available
2	66	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	GC	P	Not available
2	67	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	HC	P	Not available
2	68	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	IC	P	Not available
2	69	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	LC	P	Not available
2	70	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	MC	P	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
2	71	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	NC	P	Not available
2	72	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	OC	P	Not available
2	73	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	PC	P	Not available
2	74	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	QC	P	Not available
2	75	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	RC	P	Not available
2	76	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	UC	P	Not available
2	77	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	VC	P	Not available
2	78	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	WC	P	Not available
2	79	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	XC	P	Not available
2	80	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AE	A	Not available
2	81	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AG	A	Not available
2	82	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AH	A	Not available
2	83	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AI	A	Not available
2	84	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AJ	A	Not available
2	85	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AK	A	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
2	86	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AL	A	Not available
2	87	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AM	A	Not available
2	88	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AN	A	Not available
2	89	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AO	A	Not available
2	90	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AP	A	Not available
2	91	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AQ	A	Not available
2	92	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AR	A	Not available
2	93	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AS	A	Not available
2	94	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AT	B	Not available
2	95	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AW	B	Not available
2	96	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AZ	P	Not available
2	97	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BD	P	Not available
2	98	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonoxy-cyclohexyl]oxy-phosphoryl]oxy-propyl] (E)-octadec-9-enoate	AD	A	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
2	99	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxy-phosphoryl]oxy-propyl] (E)-octadec-9-enoate	AF	A	Not available
2	100	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxy-phosphoryl]oxy-propyl] (E)-octadec-9-enoate	AU	B	Not available
2	101	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxy-phosphoryl]oxy-propyl] (E)-octadec-9-enoate	AV	B	Not available
2	102	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxy-phosphoryl]oxy-propyl] (E)-octadec-9-enoate	AX	P	Not available
2	103	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxy-phosphoryl]oxy-propyl] (E)-octadec-9-enoate	AY	P	Not available
3	1	1	Membrane Scaffold Protein (MSP) Apolipoprotein A-I	A	A	167
3	2	1	Membrane Scaffold Protein (MSP) Apolipoprotein A-I	B	B	167
3	3	2	ADP-ribosylation factor 1	C	P	180
3	4	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	D	A	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
3	5	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	E	A	Not available
3	6	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	F	A	Not available
3	7	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	G	A	Not available
3	8	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	H	A	Not available
3	9	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	I	A	Not available
3	10	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	J	A	Not available
3	11	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	L	A	Not available
3	12	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	M	A	Not available
3	13	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	N	A	Not available
3	14	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	O	A	Not available
3	15	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	Q	A	Not available
3	16	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	R	A	Not available
3	17	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	S	A	Not available
3	18	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	T	A	Not available
3	19	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	U	A	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
3	20	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	V	A	Not available
3	21	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	W	A	Not available
3	22	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	X	A	Not available
3	23	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	Y	A	Not available
3	24	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	Z	A	Not available
3	25	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AA	A	Not available
3	26	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BA	A	Not available
3	27	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	CA	A	Not available
3	28	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	EA	A	Not available
3	29	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	FA	A	Not available
3	30	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	GA	A	Not available
3	31	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	HA	A	Not available
3	32	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	IA	B	Not available
3	33	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	JA	B	Not available
3	34	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	KA	B	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
3	35	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	LA	B	Not available
3	36	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	OA	B	Not available
3	37	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	PA	B	Not available
3	38	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	QA	B	Not available
3	39	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	SA	B	Not available
3	40	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	TA	B	Not available
3	41	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	UA	B	Not available
3	42	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	VA	B	Not available
3	43	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	WA	B	Not available
3	44	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	XA	B	Not available
3	45	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	YA	B	Not available
3	46	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	ZA	B	Not available
3	47	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BB	B	Not available
3	48	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	CB	B	Not available
3	49	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	EB	B	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
3	50	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	FB	B	Not available
3	51	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	GB	B	Not available
3	52	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	HB	B	Not available
3	53	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	IB	B	Not available
3	54	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	JB	B	Not available
3	55	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	KB	B	Not available
3	56	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	LB	B	Not available
3	57	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	MB	B	Not available
3	58	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	NB	B	Not available
3	59	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	OB	B	Not available
3	60	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	PB	B	Not available
3	61	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	QB	B	Not available
3	62	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	RB	B	Not available
3	63	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	SB	B	Not available
3	64	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	TB	B	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
3	65	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	UB	B	Not available
3	66	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	WB	B	Not available
3	67	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	YB	B	Not available
3	68	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	DC	P	Not available
3	69	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	EC	P	Not available
3	70	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	FC	P	Not available
3	71	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	GC	P	Not available
3	72	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	HC	P	Not available
3	73	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	IC	P	Not available
3	74	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	JC	P	Not available
3	75	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	KC	P	Not available
3	76	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	LC	P	Not available
3	77	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	MC	P	Not available
3	78	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	NC	P	Not available
3	79	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	OC	P	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
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3	80	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	QC	P	Not available
3	81	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	RC	P	Not available
3	82	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	UC	P	Not available
3	83	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	VC	P	Not available
3	84	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	WC	P	Not available
3	85	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	XC	P	Not available
3	86	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AE	A	Not available
3	87	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AG	A	Not available
3	88	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AT	B	Not available
3	89	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AW	B	Not available
3	90	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	AZ	P	Not available
3	91	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BD	P	Not available
3	92	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BI	B	Not available
3	93	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BL	P	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
3	94	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BM	P	Not available
3	95	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BN	P	Not available
3	96	3	1-palmitoyl-2-oleoyl-sn-glycero-3-phosphocholine	BO	P	Not available
3	97	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxyphosphoryl]oxy-propyl] (E)-octadec-9-enoate	AU	B	Not available
3	98	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxyphosphoryl]oxy-propyl] (E)-octadec-9-enoate	BE	A	Not available
3	99	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxyphosphoryl]oxy-propyl] (E)-octadec-9-enoate	BF	B	Not available
3	100	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxyphosphoryl]oxy-propyl] (E)-octadec-9-enoate	BG	B	Not available
3	101	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxyphosphoryl]oxy-propyl] (E)-octadec-9-enoate	BH	B	Not available

Model ID	Subunit number	Subunit ID	Subunit name	Chain ID	Chain ID [auth]	Total residues
3	102	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxy-phosphoryl]oxy-propyl] (E)-octadec-9-enoate	BJ	P	Not available
3	103	4	[(2R)-2-[(E)-octadec-9-enoyl]oxy-3-[oxidanyl-[(1R,2R,3S,4R,5R,6S)-2,3,6-tris(oxidanyl)-4,5-diphosphonooxy-cyclohexyl]oxy-phosphoryl]oxy-propyl] (E)-octadec-9-enoate	BK	P	Not available

Datasets used for modeling

There are 6 unique datasets used to build the models in this entry.

ID	Dataset type	Database name	Data access code
1	NMR data	BMRB	27726
2	Experimental model	PDB	3LVQ
3	NMR data	Other	bmrbig101
4	Experimental model	PDB	2N5E
6	Comparative model	Not available	Not available
5	Experimental model	PDB	2KSQ

Representation

This entry has only one representation and includes 0 rigid bodies and 309 flexible units.

Chain ID	Rigid bodies	Non-rigid segments
A	-	1-1671-1671-167

Chain ID	Rigid bodies	Non-rigid segments
B	-	1-1671-1671-167
C	-	1-1801-1801-180
D	-	None-NoneNone-NoneNone-None
E	-	None-NoneNone-NoneNone-None
F	-	None-NoneNone-NoneNone-None
G	-	None-NoneNone-NoneNone-None
H	-	None-NoneNone-NoneNone-None
I	-	None-NoneNone-NoneNone-None
J	-	None-NoneNone-NoneNone-None
K	-	None-NoneNone-None
L	-	None-NoneNone-None
M	-	None-NoneNone-NoneNone-None
N	-	None-NoneNone-NoneNone-None
O	-	None-NoneNone-NoneNone-None
Q	-	None-NoneNone-NoneNone-None
R	-	None-NoneNone-NoneNone-None
S	-	None-NoneNone-NoneNone-None
T	-	None-NoneNone-NoneNone-None
U	-	None-NoneNone-None
V	-	None-NoneNone-NoneNone-None
W	-	None-NoneNone-NoneNone-None
X	-	None-NoneNone-NoneNone-None
Y	-	None-NoneNone-NoneNone-None

Chain ID	Rigid bodies	Non-rigid segments
Z	-	None-NoneNone-NoneNone-None
AA	-	None-NoneNone-NoneNone-None
BA	-	None-NoneNone-NoneNone-None
CA	-	None-NoneNone-NoneNone-None
EA	-	None-NoneNone-NoneNone-None
FA	-	None-NoneNone-NoneNone-None
GA	-	None-NoneNone-NoneNone-None
HA	-	None-NoneNone-NoneNone-None
IA	-	None-NoneNone-NoneNone-None
JA	-	None-NoneNone-NoneNone-None
KA	-	None-NoneNone-NoneNone-None
LA	-	None-NoneNone-NoneNone-None
NA	-	None-None
OA	-	None-NoneNone-NoneNone-None
PA	-	None-NoneNone-NoneNone-None
QA	-	None-NoneNone-NoneNone-None
RA	-	None-NoneNone-None
SA	-	None-NoneNone-NoneNone-None
TA	-	None-NoneNone-NoneNone-None
UA	-	None-NoneNone-NoneNone-None
VA	-	None-NoneNone-NoneNone-None
WA	-	None-NoneNone-NoneNone-None
XA	-	None-NoneNone-NoneNone-None

Chain ID	Rigid bodies	Non-rigid segments
YA	-	None-NoneNone-NoneNone-None
ZA	-	None-NoneNone-None
BB	-	None-NoneNone-NoneNone-None
CB	-	None-NoneNone-NoneNone-None
DB	-	None-NoneNone-None
EB	-	None-NoneNone-NoneNone-None
FB	-	None-NoneNone-NoneNone-None
GB	-	None-NoneNone-NoneNone-None
HB	-	None-NoneNone-NoneNone-None
IB	-	None-NoneNone-NoneNone-None
JB	-	None-NoneNone-NoneNone-None
KB	-	None-NoneNone-NoneNone-None
LB	-	None-NoneNone-NoneNone-None
MB	-	None-NoneNone-NoneNone-None
NB	-	None-NoneNone-NoneNone-None
OB	-	None-NoneNone-NoneNone-None
PB	-	None-NoneNone-NoneNone-None
QB	-	None-NoneNone-NoneNone-None
RB	-	None-NoneNone-NoneNone-None
SB	-	None-NoneNone-None
TB	-	None-NoneNone-None
UB	-	None-NoneNone-None
VB	-	None-None

Chain ID	Rigid bodies	Non-rigid segments
WB	-	None-NoneNone-None
YB	-	None-NoneNone-None
ZB	-	None-None
AC	-	None-None
BC	-	None-None
CC	-	None-None
DC	-	None-NoneNone-NoneNone-None
EC	-	None-NoneNone-NoneNone-None
FC	-	None-NoneNone-NoneNone-None
GC	-	None-NoneNone-NoneNone-None
HC	-	None-NoneNone-NoneNone-None
IC	-	None-NoneNone-NoneNone-None
JC	-	None-NoneNone-None
KC	-	None-NoneNone-None
LC	-	None-NoneNone-NoneNone-None
MC	-	None-NoneNone-NoneNone-None
NC	-	None-NoneNone-NoneNone-None
OC	-	None-NoneNone-NoneNone-None
PC	-	None-NoneNone-None
QC	-	None-NoneNone-NoneNone-None
RC	-	None-NoneNone-NoneNone-None
UC	-	None-NoneNone-NoneNone-None
VC	-	None-NoneNone-NoneNone-None

Chain ID	Rigid bodies	Non-rigid segments
WC	-	None-NoneNone-NoneNone-None
XC	-	None-NoneNone-NoneNone-None
YC	-	None-None
AE	-	None-NoneNone-None
AG	-	None-NoneNone-None
AH	-	None-None
AI	-	None-None
AJ	-	None-None
AK	-	None-None
AL	-	None-None
AM	-	None-None
AN	-	None-None
AO	-	None-None
AP	-	None-None
AQ	-	None-None
AR	-	None-None
AS	-	None-None
AT	-	None-NoneNone-None
AW	-	None-NoneNone-None
AZ	-	None-NoneNone-None
BD	-	None-NoneNone-None
BI	-	None-None
BL	-	None-None

Chain ID	Rigid bodies	Non-rigid segments
BM	-	None-None
BN	-	None-None
BO	-	None-None
P	-	None-None
DA	-	None-None
MA	-	None-None
AB	-	None-None
XB	-	None-None
SC	-	None-None
TC	-	None-None
AD	-	None-None
AF	-	None-None
AU	-	None-NoneNone-None
AV	-	None-None
AX	-	None-None
AY	-	None-None
BE	-	None-None
BF	-	None-None
BG	-	None-None
BH	-	None-None
BJ	-	None-None
BK	-	None-None

Methodology and software ?

This entry is a result of 1 distinct protocol(s).

Step number	Protocol ID	Method name	Method type	Method description	Number of computed models	Multi state modeling	Multi scale modeling
1	1	None	None	NAMD multi-state modeling	None	True	False
1	1	None	None	NAMD multi-state modeling	None	True	False
1	1	None	None	NAMD multi-state modeling	None	True	False

There are 4 software packages reported in this entry.

ID	Software name	Software version	Software classification	Software location
1	NAMD2	Not available	molecular dynamics	http://www.ks.uiuc.edu/Research/namd/
2	CHARMM-GUI	Not available	molecular dynamics simulations	http://www.charmm-gui.org/
3	Swiss-Model	Not available	comparative modeling	https://swissmodel.expasy.org/
4	Visual Molecular Dynamics (VMD)	Not available	model building	https://www.ks.uiuc.edu/Research/vmd/

Data quality ?

NMR

Validation for this section is under development.

Model quality ?

For models with atomic structures, molprobit analysis is performed. For models with coarse-grained or multi-scale structures, excluded volume analysis is performed.

Standard geometry: bond outliers ?

There are 4299 bond outliers in this entry. A summary is provided below, and a detailed list of outliers can be found [here](#).

Bond type	Observed distance (Å)	Ideal distance (Å)	Number of outliers
CA--HA	1.08	0.97	495
CA--HA2	1.08	0.97	42
CA--HA1	1.08	0.97	42
NE1--HE1	0.97	0.86	1
NE1--HE1	0.98	0.86	11
OG1--HG1	0.96	0.84	33
OH--HH	0.96	0.84	15
SG--HG1	1.32	1.20	2
SG--HG1	1.33	1.20	1
N--HN	0.99	0.86	1
N--HN	1.00	0.86	527
NH1--HH11	1.00	0.86	33
NH2--HH22	1.00	0.86	33
NH2--HH21	1.00	0.86	33
ND2--HD22	1.00	0.86	39
NE2--HE21	1.00	0.86	21
ND2--HD21	1.00	0.86	39
NH1--HH12	1.00	0.86	33

Bond type	Observed distance (Å)	Ideal distance (Å)	Number of outliers
NE--HE	1.00	0.86	33
ND1--HD1	1.00	0.86	9
CB--HB1	1.11	0.97	396
CG--HG	1.11	0.97	66
NE2--HE22	1.00	0.86	21
CG1--HG13	1.11	0.97	33
CD2--HD23	1.11	0.97	66
CG2--HG22	1.11	0.97	99
CD1--HD12	1.11	0.97	66
CB--HB2	1.11	0.97	396
CG2--HG23	1.11	0.97	99
CD2--HD22	1.11	0.97	66
CD--HD2	1.11	0.97	96
CD--HD1	1.11	0.97	105
CD1--HD13	1.11	0.97	66
CG--HG2	1.11	0.97	135
CB--HB	1.11	0.97	99
CG--HG1	1.11	0.97	144
CG2--HG21	1.11	0.97	99
CG1--HG12	1.11	0.97	66
CE--HE2	1.11	0.97	45
CG1--HG11	1.11	0.97	66
CD1--HD11	1.11	0.97	66

Bond type	Observed distance (Å)	Ideal distance (Å)	Number of outliers
CB--HB3	1.11	0.97	36
CD--HD3	1.11	0.97	42
CD2--HD21	1.11	0.97	66
CE--HE3	1.11	0.97	15
CE--HE1	1.11	0.97	45
CG--HG3	1.11	0.97	9
NZ--HZ3	1.04	0.89	30
CE1--HE1	1.08	0.93	39
CD1--HD1	1.08	0.93	51
CH2--HH2	1.08	0.93	12
CZ--HZ	1.08	0.93	24
CE2--HE2	1.08	0.93	39
CD2--HD2	1.08	0.93	48
CZ3--HZ3	1.08	0.93	12
CZ2--HZ2	1.08	0.93	12
CE3--HE3	1.08	0.93	12
NZ--HZ1	1.04	0.89	30
NZ--HZ2	1.04	0.89	30
CE1--HE1	1.09	0.93	9

Standard geometry: angle outliers

There are 985 angle outliers in this entry. A summary is provided below, and a detailed list of outliers can be found [here](#).

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-CB-CG	113.80	103.69	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
NE-CZ-NH1	121.50	130.76	1
CA-CB-CG	112.60	103.48	3
CA-CB-CG	113.80	105.00	1
CA-CB-CG	112.60	121.34	3
NE-CZ-NH2	119.20	111.34	3
NE-CZ-NH1	121.50	130.20	3
NE-CZ-NH2	119.20	127.00	3
NE-CZ-NH2	119.20	126.94	1
NH1-CZ-NH2	119.30	108.57	1
C-N-CA	121.70	136.50	1
C-N-CA	121.70	136.48	1
CA-CB-CG	113.80	105.79	1
NE-CZ-NH1	121.50	129.38	3
CB-CG-CD2	126.80	137.76	1
NE-CZ-NH2	119.20	112.26	3
N-CA-CB	110.40	121.89	1
NE-CZ-NH1	121.50	129.12	1
CA-CB-CG	112.60	120.07	1
CB-CG-CD2	120.70	108.10	1
N-CA-CB	110.50	123.06	1
C-CA-CB	110.10	96.84	1
CA-CB-CG2	110.40	98.54	3
N-CA-CB	110.40	120.79	3

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-C-O	120.80	109.10	1
OG1-CB-CG2	109.30	95.55	1
N-CA-CB	110.50	122.14	3
NE-CZ-NH1	121.50	128.29	1
NE-CZ-NH1	121.50	128.26	1
C-N-CA	121.70	133.78	1
C-CA-CB	110.50	120.47	1
OE1-CD-NE2	122.60	115.97	1
NE-CZ-NH1	121.50	128.13	1
NE-CZ-NH1	121.50	128.12	3
NE-CZ-NH1	121.50	128.02	1
NH1-CZ-NH2	119.30	110.87	1
NE-CZ-NH1	121.50	127.93	3
CA-C-N	116.90	126.49	4
ND1-CE1-NE2	108.40	114.73	1
N-CA-CB	110.50	121.18	1
CA-C-N	116.90	126.32	1
C-N-CA	121.70	133.00	1
CA-C-N	116.90	126.30	3
CA-C-N	116.90	126.29	3
OD1-CG-ND2	122.60	116.36	1
C-N-CA	121.70	132.90	1
CD2-NE2-CE1	109.00	102.80	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
NE-CZ-NH2	119.20	113.63	3
CA-CB-OG1	109.60	118.87	3
CA-CB-CG	112.60	106.45	3
O-C-N	123.00	113.17	3
NE-CZ-NH2	119.20	113.67	1
NE-CZ-NH1	121.50	127.62	3
OD1-CG-ND2	122.60	116.49	3
OD1-CG-ND2	122.60	128.70	3
CA-C-N	116.90	126.05	3
NH1-CZ-NH2	119.30	111.39	1
CA-CB-CG	112.60	118.68	1
C-N-CA	121.70	132.56	1
CG-SD-CE	100.90	87.64	1
N-CA-CB	110.50	120.71	3
NE-CZ-NH2	119.20	124.58	3
OD1-CG-ND2	122.60	128.57	1
CA-CB-CG	114.10	125.99	1
CD2-NE2-CE1	109.00	103.06	3
CB-CG-CD	112.60	122.68	1
NH1-CZ-NH2	119.30	111.60	3
CA-C-O	120.80	130.86	1
C-CA-CB	110.10	98.86	1
CA-CB-CG	112.60	106.70	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
O-C-N	123.00	113.59	1
NH1-CZ-NH2	119.30	111.68	3
OD1-CG-ND2	122.60	116.75	1
N-CA-CB	110.50	120.41	1
NE-CZ-NH2	119.20	113.96	3
CA-CB-CG	112.60	118.41	1
OE1-CD-NE2	122.60	116.80	1
CA-CB-CG	112.60	106.83	3
NH1-CZ-NH2	119.30	111.81	1
C-N-CA	121.70	132.04	1
C-N-CA	121.70	132.02	1
O-C-N	123.00	113.83	1
CA-C-N	116.90	125.49	1
C-N-CA	121.70	132.00	1
O-C-N	123.00	113.85	1
N-CA-CB	111.50	121.20	1
OE1-CD-NE2	122.60	116.91	1
O-C-N	123.00	113.91	1
CA-CB-CG	112.60	106.95	1
CB-CG-CD	112.60	122.19	1
C-N-CA	121.70	131.84	3
OD1-CG-ND2	122.60	116.97	1
O-C-N	123.00	114.00	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-CB-CG	113.80	108.17	1
CA-CB-CG	113.90	124.01	3
C-N-CA	121.70	131.80	1
CB-CG-CD1	126.90	118.50	1
NE-CZ-NH1	121.50	127.08	1
C-N-CA	121.70	131.72	3
CA-CB-CG1	110.40	119.86	1
NE-CZ-NH2	119.20	114.21	1
CA-CB-CG	113.80	108.27	1
CA-CB-CG2	110.50	119.89	1
CA-C-N	116.90	125.18	3
N-CA-CB	110.50	101.14	1
CG-CD-NE2	116.40	124.65	1
N-CA-CB	111.50	102.16	1
N-CA-CB	110.50	119.84	1
OD1-CG-ND2	122.60	128.09	1
C-N-CA	121.70	131.57	3
CA-CB-CG	112.60	107.12	1
CA-C-O	120.80	111.49	3
C-N-CA	121.70	131.54	1
CA-CB-CG	113.60	123.98	1
CA-CB-CG	112.60	107.15	1
CA-CB-CG	112.60	118.04	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
OG1-CB-CG2	109.30	98.44	3
N-CA-C	111.00	126.06	3
CA-CB-CG	113.80	108.44	3
NH1-CZ-NH2	119.30	112.35	1
CD2-NE2-CE1	109.00	103.67	3
N-CA-CB	110.40	118.38	1
C-N-CA	121.70	131.27	1
CA-CB-CG	113.80	119.10	1
NE-CZ-NH1	121.50	116.21	3
CA-CB-CG	112.60	117.88	3
C-N-CA	121.70	131.17	1
C-N-CA	121.70	131.14	1
N-CA-CB	110.50	101.59	1
CA-CB-CG	112.60	107.39	1
C-N-CA	121.70	131.05	1
CA-CB-CG	112.60	117.79	1
N-CA-CB	110.50	119.30	1
O-C-N	123.00	114.72	3
CA-CB-CG	113.80	108.64	3
CA-CB-CG	113.80	118.95	1
N-CA-CB	110.50	101.75	3
CG-CD-NE	112.00	100.72	3
OD1-CG-ND2	122.60	117.47	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
O-C-N	123.00	131.19	1
O-C-N	123.00	131.18	3
O-C-N	123.00	114.82	3
O-C-N	123.00	114.83	1
C-N-CA	121.70	130.88	3
CB-CG1-CD	113.80	124.47	1
NH1-CZ-NH2	119.30	112.69	1
CB-CG-CD	112.60	103.97	1
CA-CB-CG	114.10	124.26	1
CA-C-N	116.20	126.34	1
O-C-N	123.00	114.89	1
CA-CB-CG2	110.50	119.11	1
O-C-N	123.00	114.95	1
OE1-CD-NE2	122.60	117.58	1
C-N-CA	121.70	130.73	3
CB-CG-CD1	126.90	134.42	1
C-N-CA	121.70	130.67	5
O-C-N	123.00	115.03	3
CA-CB-CG1	110.40	118.84	1
CG-CD-NE	112.00	101.11	3
O-C-N	123.00	115.08	1
N-CA-CB	110.50	102.11	1
OD1-CG-ND2	122.60	127.52	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CG-SD-CE	100.90	90.07	3
C-N-CA	121.70	130.56	1
C-CA-CB	110.10	100.76	1
C-N-CA	121.70	130.54	1
CA-CB-CG	113.80	108.89	1
CA-CB-CG	112.60	107.69	1
NE-CZ-NH2	119.20	123.61	1
C-N-CA	121.70	130.50	1
CA-CB-CG	112.60	107.71	1
C-N-CA	121.70	130.49	1
NE-CZ-NH1	121.50	126.38	1
CB-CG-ND2	116.40	123.71	1
CA-C-O	120.80	129.09	1
N-CA-CB	110.50	102.22	1
OE1-CD-NE2	122.60	117.73	3
N-CA-CB	103.00	108.35	3
ND1-CE1-NE2	108.40	113.26	1
O-C-N	123.00	115.23	1
N-CA-CB	110.50	118.74	1
C-N-CA	121.70	130.40	1
NH1-CZ-NH2	119.30	113.06	1
CA-CB-CG	112.60	117.40	1
CA-C-O	120.80	112.65	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CB-CG-CD	112.60	120.75	1
CA-CB-CG1	110.40	118.55	1
O-C-N	123.00	115.34	1
N-CA-CB	110.50	102.37	1
CA-CB-CG	114.10	123.64	1
N-CA-CB	110.50	118.58	1
C-N-CA	121.70	130.26	1
CA-C-N	116.20	125.71	1
CG-CD-NE2	116.40	109.27	1
CB-CG-CD	112.60	120.67	3
O-C-N	123.00	115.41	1
C-N-CA	121.70	130.22	1
CA-CB-CG	114.10	123.57	3
CG-SD-CE	100.90	90.50	1
CA-C-N	116.90	123.99	3
CB-CG-CD1	120.70	128.73	1
N-CA-CB	110.50	102.47	3
CA-CB-CG	112.60	117.31	1
CA-C-O	120.80	128.81	3
O-C-N	123.00	115.48	3
CA-CB-CG	112.60	117.30	1
OD1-CG-ND2	122.60	117.90	3
O-C-N	123.00	115.49	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-C-O	120.80	112.83	3
O-C-N	123.00	115.50	7
N-CA-CB	110.50	102.54	1
C-CA-CB	109.10	119.40	1
NE-CZ-NH1	121.50	126.18	3
O-C-N	123.00	115.52	1
C-N-CA	121.70	130.12	1
CA-CB-CG	113.80	109.13	1
CA-CB-OG1	109.60	116.60	1
C-N-CA	121.70	130.10	3
OE1-CD-NE2	122.60	117.94	3
C-N-CA	121.70	130.09	3
N-CA-CB	110.50	102.58	1
O-C-N	123.00	115.55	1
CA-CB-CG	112.60	107.95	1
CB-CG-CD	112.60	120.51	1
CA-CB-CG	113.80	109.15	1
C-N-CA	121.70	130.07	3
CA-C-N	116.90	123.86	3
CD1-CG-CD2	110.80	100.60	3
CB-CG-CD2	126.80	120.32	3
CB-CG-CD2	126.80	133.27	1
O-C-N	123.00	115.60	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CG-CD-CE	111.30	121.91	1
C-CA-CB	110.10	118.86	3
O-C-N	123.00	115.63	1
CA-C-O	120.80	128.62	3
OE1-CD-NE2	122.60	118.01	1
C-N-CA	121.70	129.96	3
N-CA-C	111.00	123.85	3
C-CA-CB	110.50	103.63	3
OD1-CG-ND2	122.60	118.02	1
NE-CZ-NH2	119.20	115.08	3
C-N-CA	121.70	129.93	1
N-CA-C	111.00	123.78	1
N-CA-CB	110.40	117.24	3
CA-C-O	120.80	128.54	1
NE-CZ-NH2	119.20	115.11	2
CA-C-O	120.80	128.53	1
CG-CD-OE1	120.80	129.87	3
O-C-N	123.00	115.75	1
C-N-CA	121.70	129.86	1
CG-CD-NE	112.00	102.03	3
C-N-CA	121.70	129.85	1
CD1-CG-CD2	110.80	100.84	3
CG-SD-CE	100.90	90.95	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
N-CA-CB	110.50	118.19	1
CA-CB-CG2	110.40	118.08	1
O-C-N	123.00	115.78	1
N-CA-CB	110.50	118.17	3
C-CA-CB	110.10	118.65	1
CA-C-N	116.20	125.20	3
CG-CD-NE	112.00	102.11	1
O-C-N	123.00	115.81	1
CA-C-N	116.20	125.18	3
C-N-CA	121.70	129.78	1
CA-C-N	116.90	123.63	1
N-CA-CB	110.50	102.88	3
O-C-N	123.00	115.83	3
CD2-NE2-CE1	109.00	104.53	1
CB-CG-CD	112.60	105.01	3
OD1-CG-ND2	122.60	127.05	1
CG-CD-NE2	116.40	123.08	1
CG-CD-NE	112.00	102.21	1
C-N-CA	121.70	129.70	1
N-CA-CB	110.50	102.94	1
C-N-CA	121.70	129.69	1
C-CA-CB	111.60	102.73	1
CG-CD-NE	112.00	102.25	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CA-C-O	120.80	128.33	1
CA-CB-CG	113.80	118.23	3
C-N-CA	121.70	129.67	1
O-C-N	123.00	115.92	1
C-N-CA	121.70	129.66	2
CB-CG-CD2	126.80	132.99	1
C-CA-CB	110.50	103.89	1
C-CA-CB	110.50	103.90	3
CB-CG-CD2	126.80	120.64	1
C-N-CA	121.70	129.61	3
CA-CB-CG1	110.40	117.86	3
O-C-N	123.00	115.98	3
C-N-CA	121.70	129.59	3
N-CA-CB	110.50	103.05	3
O-C-N	123.00	115.99	3
N-CA-CB	110.40	103.83	3
C-CA-CB	110.10	118.42	3
CB-CG-CD1	120.80	114.24	3
CD-NE-CZ	124.40	118.29	1
CG-CD-NE	112.00	102.40	1
CA-CB-CG	112.60	108.24	3
CB-CG-OD1	120.80	129.52	1
O-C-N	123.00	116.03	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
NE-CZ-NH1	121.50	125.86	1
N-CA-CB	110.50	103.09	1
C-N-CA	121.70	113.86	1
OE1-CD-NE2	122.60	118.25	3
CA-CB-CG1	110.40	117.80	1
OG1-CB-CG2	109.30	100.59	1
CA-C-N	116.20	124.90	1
O-C-N	123.00	116.04	3
N-CA-CB	103.00	107.78	1
CG-CD2-NE2	107.20	111.55	3
CA-C-O	120.80	128.19	1
N-CA-C	111.00	123.16	1
C-CA-CB	110.10	101.85	1
NE-CZ-NH1	121.50	125.82	3
CA-CB-CG	112.60	116.91	3
OG1-CB-CG2	109.30	100.67	1
C-N-CA	121.70	129.46	3
CB-CG-CD1	126.90	120.44	1
C-CA-CB	110.10	118.28	3
O-C-N	123.00	116.12	3
N-CA-CB	110.50	117.81	3
CD2-NE2-CE1	109.00	104.71	1
N-CA-CB	110.50	117.79	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
O-C-N	123.00	116.16	1
CB-CG-CD	111.30	121.12	1
O-C-N	123.00	116.17	1
C-CA-CB	110.10	102.00	3
CB-CG-CD	112.60	119.85	1
C-CA-CB	110.10	118.20	1
CG-SD-CE	100.90	91.52	1
CB-CG-CD1	120.70	113.46	1
CB-CG-CD1	120.80	114.42	1
C1-C2-C3	114.60	101.85	1
CA-C-O	120.80	113.58	1
CA-C-O	120.80	128.02	1
CB-CG-OD1	120.80	129.29	3
C-N-CA	121.70	129.34	2
O-C-N	123.00	116.21	1
C-CA-CB	110.10	102.05	3
N-CA-CB	110.50	117.71	1
CA-C-O	120.80	128.00	1
N-CA-CB	110.50	103.30	3
OD1-CG-ND2	122.60	118.37	1
CG-CD-NE	112.00	102.69	1
O-C-N	123.00	116.24	3
CG-CD-CE	111.30	121.01	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
NH1-CZ-NH2	119.30	113.82	1
C-N-CA	121.70	129.27	1
N-CA-CB	110.50	117.64	1
ND1-CE1-NE2	108.40	112.60	3
OD1-CG-ND2	122.60	118.40	1
C-CA-CB	110.10	118.07	1
CB-CG-CD2	120.70	113.57	3
CA-C-N	116.20	124.58	3
N-CA-CB	110.50	117.62	1
O-C-N	123.00	116.30	1
C-N-CA	121.70	129.23	3
CG-CD2-NE2	107.20	111.38	1
CD2-NE2-CE1	109.00	104.82	1
N-CD-CG	103.20	109.46	3
CB-CG-CD2	131.20	125.78	3
O-C-N	123.00	116.33	1
CG-CD-OE1	120.80	112.46	1
CA-CB-CG1	110.40	117.49	1
CA-CB-CG	113.90	106.40	1
NE-CZ-NH1	121.50	125.66	1
CG-CD2-NE2	107.20	111.36	1
O-C-N	123.00	116.35	3
CD2-CE2-CZ2	122.40	118.25	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
C-N-CA	121.70	129.18	3
O-C-N	123.00	129.64	1
CA-C-O	120.80	127.86	1
N-CA-CB	110.50	103.44	1
CA-C-O	120.80	113.74	3
O-C-N	123.00	116.36	3
NE-CZ-NH1	121.50	125.65	1
N-CA-CB	110.50	117.55	3
O-C-N	123.00	116.37	3
CB-CG-CD2	120.80	127.01	1
N-CA-CB	110.50	117.54	3
C-CA-CB	110.10	117.97	1
O-C-N	123.00	116.38	1
CB-CG-CD	112.60	119.63	3
C-CA-CB	110.50	116.70	1
N-CA-CB	110.50	117.52	4
C-CA-CB	110.10	102.26	1
C-N-CA	121.70	129.11	1
C-CA-CB	110.10	117.92	1
O-C-N	123.00	116.42	1
C27-C28-C29	113.33	125.67	1
CA-CB-CG	112.60	108.49	1
C-CA-CB	110.50	116.67	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
N-CA-CB	110.50	103.51	1
CD2-NE2-CE1	109.00	104.89	3
CA-C-N	116.20	124.42	1
CG-CD-NE2	116.40	110.24	3
CA-C-O	120.80	127.78	1
O-C-N	123.00	116.44	3
CA-CB-CG	114.10	105.92	1
CB-CG-CD2	120.70	113.75	3
C-N-CA	121.70	129.06	1
N-CA-CB	110.50	117.42	1
N-CA-CB	110.50	103.58	3
O-C-N	123.00	116.49	1
C-CA-CB	110.10	117.83	3
CA-C-N	116.20	124.33	1
CA-CB-CG	114.10	105.97	1
CA-C-N	116.90	123.00	1
CA-CB-CG	112.60	116.66	1
C-CA-CB	110.10	102.40	3
C-N-CA	121.70	129.00	1
C-CA-CB	110.50	104.42	1
CA-C-O	120.80	113.92	1
CA-CB-CG2	110.50	117.38	1
CG-CD-OE1	120.80	128.89	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CG-CD-CE	111.30	120.59	1
OE1-CD-OE2	122.90	113.21	3
N-CA-CB	110.50	117.36	1
C-N-CA	121.70	128.96	3
O-C-N	123.00	116.55	1
N-CA-CB	110.40	104.35	3
CA-CB-CG2	110.50	117.35	3
CA-C-O	120.80	113.95	1
CA-C-N	116.90	122.94	3
CA-CB-CG	113.90	106.65	1
N-CA-CB	110.50	117.34	1
C-N-CA	121.70	128.93	1
CG-SD-CE	100.90	92.07	3
O-C-N	123.00	116.58	1
C-N-CA	121.70	128.92	3
C-CA-CB	110.50	104.48	6
CB-CG-CD	112.60	105.79	3
NE-CZ-NH1	121.50	125.50	1
N-CA-CB	110.50	117.31	3
CG1-CB-HB	120.00	108.00	3
HB1-CB-HB2	97.98	110.00	2
CB-CG1-HG12	121.03	109.00	1
CE-NZ-HZ1	97.97	110.00	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
C-CA-HA	96.96	109.00	3
HH21-NH2-HH22	132.04	120.00	1
CA-N-HN	126.04	114.00	1
C-N-HN	112.25	124.30	1
CB-CG2-HG21	121.06	109.00	1
HD11-CD1-HD12	97.93	110.00	1
HB1-CB-HB2	97.92	110.00	1
CA-N-HN	126.12	114.00	1
CG-CD2-HD23	121.16	109.00	1
CB-CA-HA	96.81	109.00	3
CG2-CB-HB	120.21	108.00	1
C-CA-HA	96.79	109.00	1
CZ3-CE3-HE3	132.91	120.70	1
HG11-CG1-HG13	97.77	110.00	1
HT2-N-HT3	97.16	109.47	3
C-N-HN	111.99	124.30	1
CD-CG-HG1	120.33	108.00	1
CA-N-HN	126.35	114.00	1
CG1-CB-HB	120.40	108.00	1
CB-CG-HG2	121.42	109.00	1
CA-CB-HB	121.44	109.00	1
CB-CA-HA	121.46	109.00	1
C-CA-HA	96.54	109.00	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
OG-CB-HB1	121.47	109.00	1
HG22-CG2-HG23	96.52	109.00	1
C-N-HN	111.82	124.30	1
C-CA-HA	96.47	109.00	1
N-CA-HA	97.45	110.00	1
N-CA-HA	97.43	110.00	1
CB-CG1-HG12	121.58	109.00	1
SD-CE-HE1	121.60	109.00	1
CG1-CD-HD1	121.60	109.00	1
HG21-CG2-HG22	97.38	110.00	1
CE2-CZ-HZ	107.37	120.00	1
CB-CG-HG2	96.35	109.00	1
C-N-HN	111.65	124.30	1
HG1-CG-HG2	97.34	110.00	1
C-N-HN	111.64	124.30	1
HB1-CB-HB2	97.34	110.00	1
C-CA-HA	97.31	110.00	3
CG1-CD-HD3	96.31	109.00	1
CA-CB-HB2	96.30	109.00	1
HG1-CG-HG2	97.30	110.00	1
CE-NZ-HZ3	122.73	110.00	3
CZ-NH2-HH22	107.27	120.00	1
HG1-CG-HG2	97.26	110.00	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
HZ1-NZ-HZ2	96.25	109.00	3
CE2-CZ-HZ	132.75	120.00	1
CG-CB-HB1	120.78	108.00	1
HG21-CG2-HG23	121.79	109.00	1
CA-CB-HB3	121.79	109.00	3
1HB-CB-HB3	97.18	110.00	3
CG-CD-HD2	121.83	109.00	1
CZ-NH2-HH21	107.15	120.00	3
1HB-CB-HB3	97.14	110.00	3
1HG-CG-HG3	122.87	110.00	3
HZ1-NZ-HZ2	121.88	109.00	1
HG22-CG2-HG23	97.11	110.00	1
CA-N-HN	126.92	114.00	1
1HB-CB-HB3	97.06	110.00	3
C-N-HN	111.35	124.30	1
HB1-CB-HB2	97.02	110.00	1
CB-CA-HA	121.99	109.00	3
1HB-CB-HB3	96.99	110.00	3
CB-CG2-HG23	122.02	109.00	1
CZ-CE1-HE1	133.03	120.00	3
1HB-CB-HB3	96.93	110.00	3
C-CA-HA	95.92	109.00	1
HH21-NH2-HH22	133.09	120.00	3

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
HB1-CB-HB2	96.88	110.00	1
CA-CB-HB2	95.87	109.00	1
CA-N-HN	127.14	114.00	1
C-N-HN	111.16	124.30	1
1HB-CB-HB3	96.85	110.00	3
HB1-CB-HB2	96.82	110.00	1
HB1-CB-HB2	96.81	110.00	1
C-N-HN	111.11	124.30	1
C-CA-HA	95.79	109.00	1
CG-CB-HB2	121.24	108.00	1
CG-CD2-HD23	122.25	109.00	1
HH21-NH2-HH22	106.68	120.00	1
C-CA-HA	95.66	109.00	1
HB1-CB-HB2	96.65	110.00	1
CG-CD2-HD2	139.77	126.40	3
1HB-CB-HB3	96.63	110.00	3
CG-CB-HB1	121.37	108.00	1
1HB-CB-HB3	96.55	110.00	3
HZ2-NZ-HZ3	122.45	109.00	3
HB1-CB-HB2	96.52	110.00	1
C-N-HN	110.81	124.30	1
HE1-CE-HE2	96.51	110.00	1
C-N-HN	110.76	124.30	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CB-CA-HA	122.54	109.00	3
HG1-CG-HG2	96.44	110.00	1
CB-CA-HA	122.62	109.00	3
CA-CB-HB1	122.63	109.00	1
HG22-CG2-HG23	95.32	109.00	1
HG1-CG-HG2	96.28	110.00	1
1HB-CB-HB3	96.27	110.00	3
HG1-CG-HG2	96.25	110.00	1
HD1-CD-HD2	96.15	110.00	1
C-CA-HA	95.13	109.00	1
C-CA-HA	95.08	109.00	1
N-CA-HA1	123.93	110.00	1
CD1-CG-HG	94.05	108.00	3
HA1-CA-HA2	122.98	109.00	1
CG2-CB-HB	94.00	108.00	1
1HG-CG-HG3	95.90	110.00	3
HG21-CG2-HG23	95.90	110.00	1
HB1-CB-HB2	95.88	110.00	1
NE2-CD2-HD2	112.27	126.40	3
HB2-CB-HB3	95.85	110.00	1
C-N-HN	110.11	124.30	1
CG-CD2-HD21	123.26	109.00	1
HG1-CG-HG2	95.63	110.00	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
CB-CG-HG1	123.42	109.00	1
HA1-CA-HA2	123.44	109.00	1
CB-CA-HA	94.56	109.00	1
CA-CB-HB2	123.48	109.00	1
CA-N-HN	128.51	114.00	1
C-N-HN	109.67	124.30	1
1HG-CG-HG3	95.16	110.00	3
CA-CB-HB1	94.15	109.00	1
C-N-HN	109.38	124.30	1
1HB-CB-HB3	95.02	110.00	3
CA-CB-HB3	94.01	109.00	3
HB1-CB-HB3	94.98	110.00	1
C-CA-HA1	93.89	109.00	1
CA-N-HN	129.27	114.00	1
HH21-NH2-HH22	135.28	120.00	1
C-N-HN	109.00	124.30	1
C-N-HN	108.89	124.30	1
C-CA-HA	93.55	109.00	1
HE2-CE-HE3	94.48	110.00	1
C-N-HN	108.75	124.30	1
HD21-CD2-HD23	94.33	110.00	1
CB-CG1-HG12	124.70	109.00	1
C-N-HN	108.59	124.30	1

Angle type	Observed angle (°)	Ideal angle (°)	Number of outliers
C-N-HN	108.49	124.30	1
HD22-CD2-HD23	94.09	110.00	1
1HB-CB-HB3	93.73	110.00	3
C-N-HN	107.86	124.30	1
HH11-NH1-HH12	103.48	120.00	3
C-N-HN	107.72	124.30	1
HG22-CG2-HG23	93.35	110.00	1
CA-CB-HB1	125.72	109.00	1
HG11-CG1-HG12	93.23	110.00	1
HB2-CB-HB3	93.23	110.00	1
C-N-HN	107.33	124.30	1
HG1-CG-HG2	93.02	110.00	1
HG1-CG-HG2	93.00	110.00	1
1HB-CB-HB3	92.87	110.00	3
C-N-HN	106.94	124.30	1
1HG-CG-HG3	92.46	110.00	3
1HB-CB-HB3	91.90	110.00	3
1HB-CB-HB3	91.86	110.00	3
1HB-CB-HB3	91.15	110.00	3
C-CA-HA	88.22	109.00	3

Too-close contacts

The following all-atom clashscore is based on a MolProbity analysis. All-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The table below contains clashscores for all the models in this entry.

Model ID	Clash score	Number of clashes
1	0.00	0
2	0.00	0
3	0.00	0

All 0 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Torsion angles: Protein backbone ?

In the following table, Ramachandran outliers are listed. The Analysed column shows the number of residues for which the backbone conformation was analysed.

Model ID	Analyzed	Favored	Allowed	Outliers
1	507	475	26	6
2	507	477	27	3
3	507	478	23	6

Detailed list of outliers are tabulated below.

Torsion angles: Protein sidechains ?

In the following table, sidechain outliers are listed. The Analysed column shows the number of residues for which the sidechain conformation was analysed.

Model ID	Analyzed	Favored	Allowed	Outliers
1	434	340	59	35
2	434	343	53	38
3	434	341	57	36

Detailed list of outliers are tabulated below.

Model ID	Chain	Residue ID	Residue type
1	A	6	LEU
1	A	9	GLN
1	A	10	LEU
1	A	24	GLU
1	A	26	GLU

Model ID	Chain	Residue ID	Residue type
1	A	35	ASP
1	A	43	VAL
1	A	54	TRP
1	A	57	GLU
1	A	59	GLU
1	A	83	LEU
1	A	96	GLN
1	A	103	GLU
1	A	139	ARG
1	A	143	LEU
1	A	154	LEU
1	B	6	LEU
1	B	9	GLN
1	B	10	LEU
1	B	24	GLU
1	B	35	ASP
1	B	43	VAL
1	B	59	GLU
1	B	83	LEU
1	B	93	GLU
1	B	96	GLN
1	B	103	GLU
1	B	113	LEU

Model ID	Chain	Residue ID	Residue type
1	B	126	THR
1	B	135	LEU
1	B	139	ARG
1	B	152	SER
1	C	55	THR
1	C	140	THR
1	C	176	GLN
2	A	6	LEU
2	A	9	GLN
2	A	10	LEU
2	A	24	GLU
2	A	26	GLU
2	A	35	ASP
2	A	43	VAL
2	A	54	TRP
2	A	57	GLU
2	A	59	GLU
2	A	83	LEU
2	A	96	GLN
2	A	103	GLU
2	A	139	ARG
2	A	143	LEU
2	A	154	LEU

Model ID	Chain	Residue ID	Residue type
2	B	6	LEU
2	B	9	GLN
2	B	10	LEU
2	B	24	GLU
2	B	35	ASP
2	B	43	VAL
2	B	59	GLU
2	B	83	LEU
2	B	93	GLU
2	B	96	GLN
2	B	103	GLU
2	B	113	LEU
2	B	126	THR
2	B	135	LEU
2	B	139	ARG
2	B	152	SER
2	C	8	LEU
2	C	23	VAL
2	C	45	THR
2	C	73	LYS
2	C	86	GLN
2	C	180	GLN
3	A	6	LEU

Model ID	Chain	Residue ID	Residue type
3	A	9	GLN
3	A	10	LEU
3	A	24	GLU
3	A	26	GLU
3	A	35	ASP
3	A	43	VAL
3	A	54	TRP
3	A	57	GLU
3	A	59	GLU
3	A	83	LEU
3	A	96	GLN
3	A	103	GLU
3	A	139	ARG
3	A	143	LEU
3	A	154	LEU
3	B	6	LEU
3	B	9	GLN
3	B	10	LEU
3	B	24	GLU
3	B	35	ASP
3	B	43	VAL
3	B	59	GLU
3	B	83	LEU

Model ID	Chain	Residue ID	Residue type
3	B	93	GLU
3	B	96	GLN
3	B	103	GLU
3	B	113	LEU
3	B	126	THR
3	B	135	LEU
3	B	139	ARG
3	B	152	SER
3	C	82	PHE
3	C	92	VAL
3	C	158	THR
3	C	176	GLN

Fit of model to data used for modeling ?

NMR

Validation for this section is under development.

Fit of model to data used for validation ?

Validation for this section is under development.

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