Full wwPDB EM Validation Report (i)

Jun 26, 2025 – 06:22 PM JST

PDB ID	:	9KMH / pdb_00009kmh
EMDB ID	:	EMD-62433
Title	:	The Composite Cryo-EM Structure of the Portal Vertex of Bacteriophage FCWL1
Authors	:	Cai, C.; Wang, Y.; Liu, Y.; Shao, Q.; Wang, A.; Fang, Q.
Deposited on	:	2024-11-16
Resolution	:	3.50 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the (i) symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

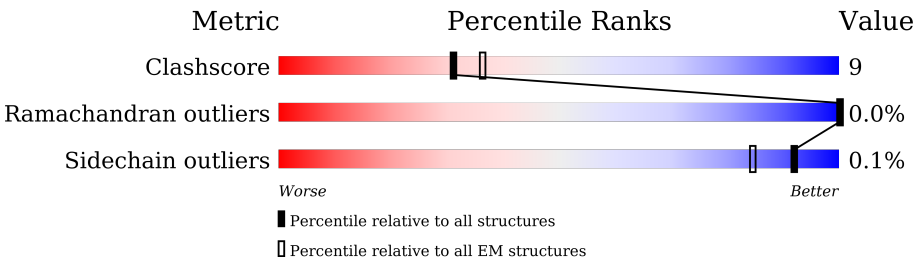
EMDB validation analysis	:	0.0.1.dev118
MolProbity	:	4-5-2 with Phenix2.0rc1
Percentile statistics	:	20231227.v01 (using entries in the PDB archive December 27th 2023)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.44

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.50 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)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion < 40%). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	aa	319	14% 80% 12% 8%
1	af	319	8% 77% 14% 8%
1	ag	319	8% 83% 8% 9%
1	ah	319	9% 80% 12% 8%
1	ai	319	8% 76% 15% 9%
1	aj	319	15% 80% 9% 12%
1	an	319	13% 79% 13% 8%
1	as	319	10% 77% 14% 8%

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Mol	Chain	Length	Quality of chain
1	at	319	7% 78% 13% 9%
1	au	319	9% 78% 13% 8%
1	av	319	8% 80% 12% 9%
1	aw	319	16% 76% 13% 12%
1	ba	319	14% 80% 12% 8%
1	bf	319	9% 78% 13% 8%
1	bg	319	8% 77% 14% 9%
1	bh	319	9% 80% 12% 8%
1	bi	319	8% 85% 6% 9%
1	bj	319	14% 79% 10% 12%
1	bn	319	17% 75% 16% 8%
1	bs	319	9% 78% 13% 8%
1	bt	319	10% 78% 13% 9%
1	bu	319	10% 80% 12% 8%
1	bv	319	9% 81% 11% 9%
1	bw	319	17% 71% 18% 12%
1	ca	319	17% 76% 16% 8%
1	cf	319	11% 82% 10% 8%
1	cg	319	8% 82% 9% 9%
1	ch	319	10% 81% 10% 8%
1	ci	319	7% 82% 9% 9%
1	cj	319	14% 77% 11% 12%
2	ab	158	7% 84% 15%
2	ac	158	8% 89% 8%
2	ad	158	8% 96%

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Mol	Chain	Length	Quality of chain
2	ae	158	9% 92% 6%
2	al	158	20% 78% 20%
2	am	158	8% 88% 11%
2	ao	158	9% 91% 8%
2	ap	158	7% 85% 14%
2	aq	158	6% 91% 8%
2	ar	158	8% 92% 7%
2	ay	158	30% 72% 27%
2	az	158	9% 85% 14%
2	bb	158	8% 84% 15%
2	bc	158	9% 89% 10%
2	bd	158	6% 86% 13%
2	be	158	8% 91% 8%
2	bl	158	19% 85% 14%
2	bm	158	8% 80% 18%
2	bo	158	6% 90% 9%
2	bp	158	5% 83% 16%
2	bq	158	6% 88% 11%
2	br	158	8% 88% 11%
2	by	158	28% 87% 11%
2	bz	158	11% 84% 15%
2	cb	158	8% 82% 16%
2	cc	158	8% 85% 13%
2	cd	158	7% 92% 7%
2	ce	158	8% 84% 15%

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Mol	Chain	Length	Quality of chain
2	cl	158	22% 84% 15%
2	cm	158	11% 92% 7%
3	cn	444	21% 53% 31% 16%
3	co	444	19% 61% 25% 14%
3	cp	444	17% 54% 30% 16%
3	cq	444	18% 55% 29% 16%
3	cy	444	20% 57% 30% 14%
3	dj	444	21% 55% 29% 16%
3	du	444	20% 57% 29% 14%
3	dy	444	22% 55% 29% 16%
3	dz	444	17% 54% 30% 16%
3	ea	444	18% 59% 26% 14%
3	eb	444	21% 56% 29% 16%
3	ec	444	23% 58% 28% 14%
4	cr	132	66% 34%
4	cs	132	80% 20%
4	ct	132	79% 21%
4	cu	132	75% 25%
4	cv	132	82% 18%
4	cw	132	71% 29%
5	cx	140	70% 25% 5%
5	cz	140	77% 18% 5%
5	da	140	75% 20% 5%
5	db	140	5% 73% 22% 5%
5	dc	140	71% 24% 5%

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Mol	Chain	Length	Quality of chain
5	dd	140	65% 30% 5%
5	de	140	65% 30% 5%
5	df	140	69% 26% 5%
5	dg	140	69% 25% 5%
5	dh	140	75% 20% 5%
5	di	140	76% 19% 5%
5	dk	140	71% 24% 5%
6	dl	222	10% 81% 18%
6	dm	222	15% 80% 19%
6	dn	222	14% 73% 26%
6	do	222	11% 75% 24%
6	dp	222	12% 76% 23%
6	dq	222	6% 75% 23%
7	dr	123	72% 27%
7	ds	123	70% 28%
7	dt	123	69% 29%
7	dv	123	76% 23%
7	dw	123	69% 29%
7	dx	123	69% 29%
8	ak	255	11% 47% 11% 41%
8	ax	255	19% 45% 13% 41%
8	bk	255	14% 45% 13% 41%
8	bx	255	17% 46% 13% 41%
8	ck	255	17% 47% 12% 41%

2 Entry composition (i)

There are 8 unique types of molecules in this entry. The entry contains 179175 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, 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 Major capsid protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	aa	292	2260	1435	376	436	13	0	0
1	af	292	2260	1435	376	436	13	0	0
1	ag	291	2255	1432	375	435	13	0	0
1	ah	292	2260	1435	376	436	13	0	0
1	ai	291	2255	1432	375	435	13	0	0
1	aj	282	2188	1389	364	423	12	0	0
1	an	292	2260	1435	376	436	13	0	0
1	as	292	2260	1435	376	436	13	0	0
1	at	291	2255	1432	375	435	13	0	0
1	au	292	2260	1435	376	436	13	0	0
1	av	291	2255	1432	375	435	13	0	0
1	aw	282	2188	1389	364	423	12	0	0
1	ba	292	2260	1435	376	436	13	0	0
1	bf	292	2260	1435	376	436	13	0	0
1	bg	291	2255	1432	375	435	13	0	0
1	bh	292	2260	1435	376	436	13	0	0
1	bi	291	2255	1432	375	435	13	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	bj	282	2188	1389	364	423	12	0	0
1	bn	292	2260	1435	376	436	13	0	0
1	bs	292	2260	1435	376	436	13	0	0
1	bt	291	2255	1432	375	435	13	0	0
1	bu	292	2260	1435	376	436	13	0	0
1	bv	291	2255	1432	375	435	13	0	0
1	bw	282	2188	1389	364	423	12	0	0
1	ca	292	2260	1435	376	436	13	0	0
1	cf	292	2260	1435	376	436	13	0	0
1	cg	291	2255	1432	375	435	13	0	0
1	ch	292	2260	1435	376	436	13	0	0
1	ci	291	2255	1432	375	435	13	0	0
1	cj	282	2188	1389	364	423	12	0	0

- Molecule 2 is a protein called Decoration protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	ab	156	1179	738	201	234	6	0	0
2	ac	156	1179	738	201	234	6	0	0
2	ad	156	1179	738	201	234	6	0	0
2	ae	156	1179	738	201	234	6	0	0
2	al	156	1179	738	201	234	6	0	0
2	am	156	1179	738	201	234	6	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	ao	156	1179	738	201	234	6	0	0
2	ap	156	1179	738	201	234	6	0	0
2	aq	156	1179	738	201	234	6	0	0
2	ar	156	1179	738	201	234	6	0	0
2	ay	156	1179	738	201	234	6	0	0
2	az	156	1179	738	201	234	6	0	0
2	bb	156	1179	738	201	234	6	0	0
2	bc	156	1179	738	201	234	6	0	0
2	bd	156	1179	738	201	234	6	0	0
2	be	156	1179	738	201	234	6	0	0
2	bl	156	1179	738	201	234	6	0	0
2	bm	156	1179	738	201	234	6	0	0
2	bo	156	1179	738	201	234	6	0	0
2	bp	156	1179	738	201	234	6	0	0
2	bq	156	1179	738	201	234	6	0	0
2	br	156	1179	738	201	234	6	0	0
2	by	156	1179	738	201	234	6	0	0
2	bz	156	1179	738	201	234	6	0	0
2	cb	156	1179	738	201	234	6	0	0
2	cc	156	1179	738	201	234	6	0	0
2	cd	156	1179	738	201	234	6	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	ce	156	1179	738	201	234	6	0	0
2	cl	156	1179	738	201	234	6	0	0
2	cm	156	1179	738	201	234	6	0	0

- Molecule 3 is a protein called Portal protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	cn	374	2964	1868	507	580	9	0	0
3	co	383	3037	1917	517	593	10	0	0
3	cp	371	2941	1853	504	575	9	0	0
3	cq	374	2964	1868	507	580	9	0	0
3	cy	383	3037	1917	517	593	10	0	0
3	dj	373	2959	1865	506	579	9	0	0
3	du	383	3037	1917	517	593	10	0	0
3	dy	373	2959	1865	506	579	9	0	0
3	dz	374	2964	1868	507	580	9	0	0
3	ea	383	3037	1917	517	593	10	0	0
3	eb	374	2964	1868	507	580	9	0	0
3	ec	382	3031	1914	516	591	10	0	0

- Molecule 4 is a protein called Terminator protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	cr	132	1070	694	182	188	6	0	0
4	cs	132	1070	694	182	188	6	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
4	ct	132	1070	694	182	188	6	0	0
4	cu	132	1070	694	182	188	6	0	0
4	cv	132	1070	694	182	188	6	0	0
4	cw	132	1070	694	182	188	6	0	0

- Molecule 5 is a protein called Adaptor protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
5	cx	133	1063	679	182	194	8	0	0
5	cz	133	1063	679	182	194	8	0	0
5	da	133	1063	679	182	194	8	0	0
5	db	133	1063	679	182	194	8	0	0
5	dc	133	1063	679	182	194	8	0	0
5	dd	133	1063	679	182	194	8	0	0
5	de	133	1063	679	182	194	8	0	0
5	df	133	1063	679	182	194	8	0	0
5	dg	133	1063	679	182	194	8	0	0
5	dh	133	1063	679	182	194	8	0	0
5	di	133	1063	679	182	194	8	0	0
5	dk	133	1063	679	182	194	8	0	0

- Molecule 6 is a protein called Tail tube protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	dl	219	1682	1062	270	341	9	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
6	dm	219	1682	1062	270	341	9	0	0
6	dn	219	1682	1062	270	341	9	0	0
6	do	219	1682	1062	270	341	9	0	0
6	dp	219	1682	1062	270	341	9	0	0
6	dq	219	1682	1062	270	341	9	0	0

- Molecule 7 is a protein called Connector protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
7	dr	121	963	601	174	184	4	0	0
7	ds	121	963	601	174	184	4	0	0
7	dt	121	963	601	174	184	4	0	0
7	dv	121	963	601	174	184	4	0	0
7	dw	121	963	601	174	184	4	0	0
7	dx	121	963	601	174	184	4	0	0

- Molecule 8 is a protein called Decoration protein gp29.

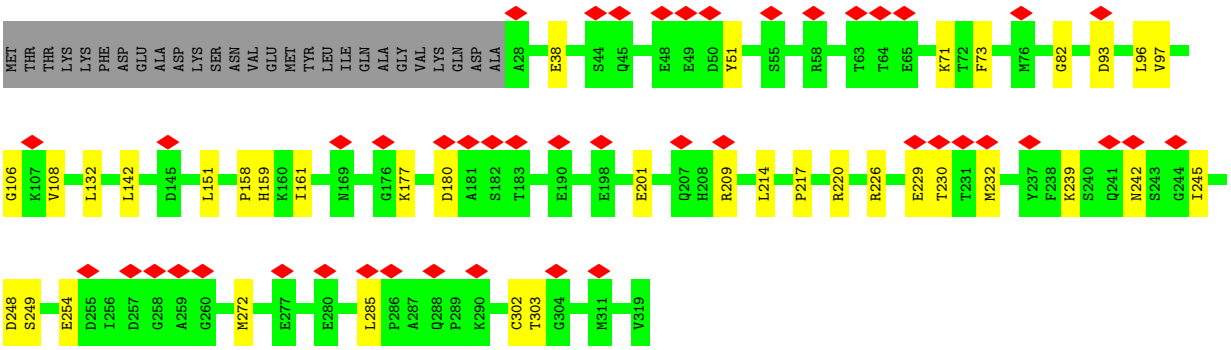
Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
8	ak	150	1095	698	183	211	3	0	0
8	bk	150	1095	698	183	211	3	0	0
8	bx	150	1095	698	183	211	3	0	0
8	ck	150	1095	698	183	211	3	0	0
8	ax	150	1095	698	183	211	3	0	0

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 atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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.

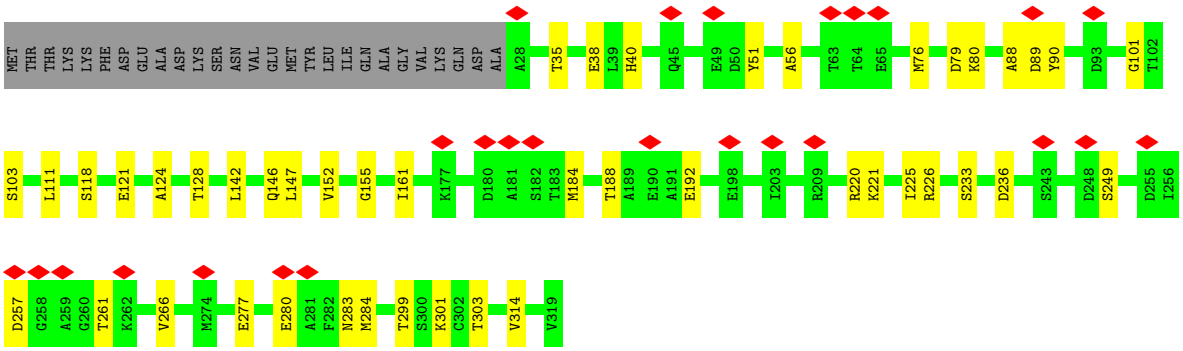
• Molecule 1: Major capsid protein

Chain aa:



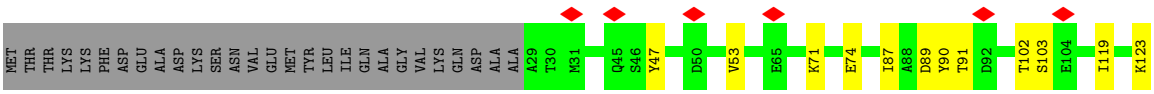
• Molecule 1: Major capsid protein

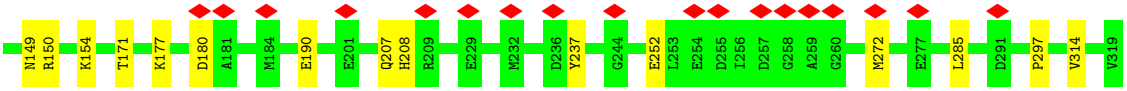
Chain af:



• Molecule 1: Major capsid protein

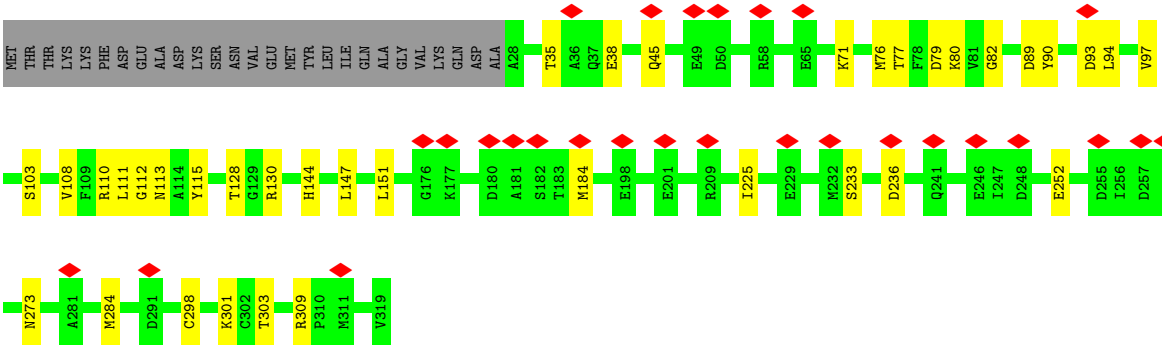
Chain ag:





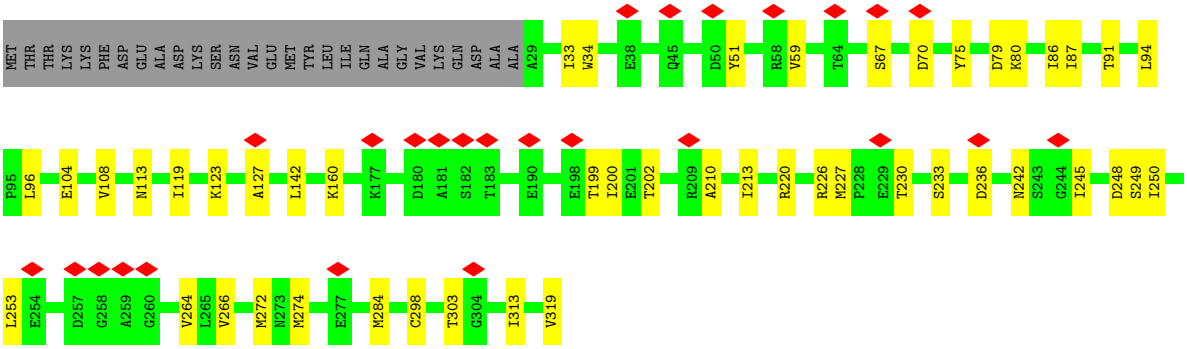
• Molecule 1: Major capsid protein

Chain ah:



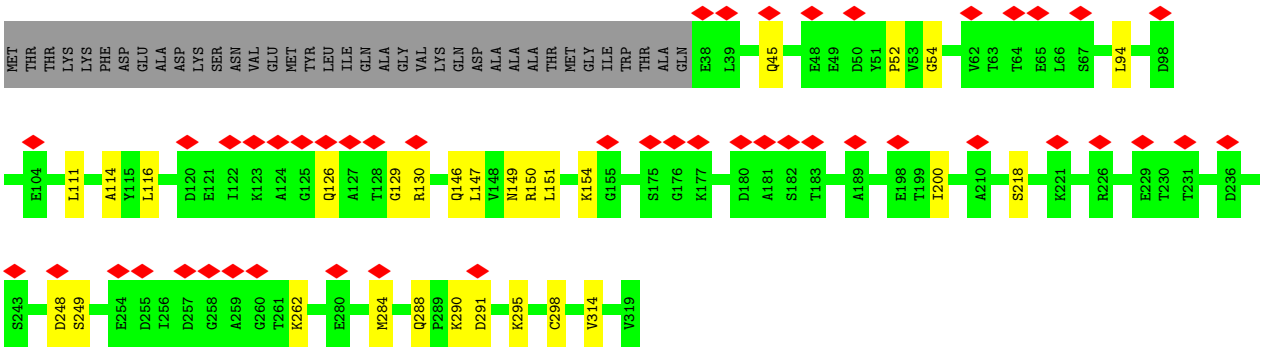
• Molecule 1: Major capsid protein

Chain ai:



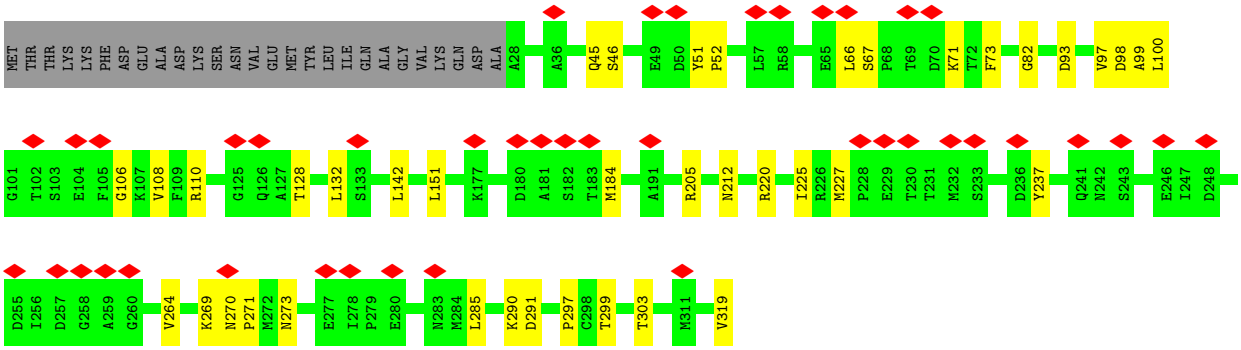
• Molecule 1: Major capsid protein

Chain aj:



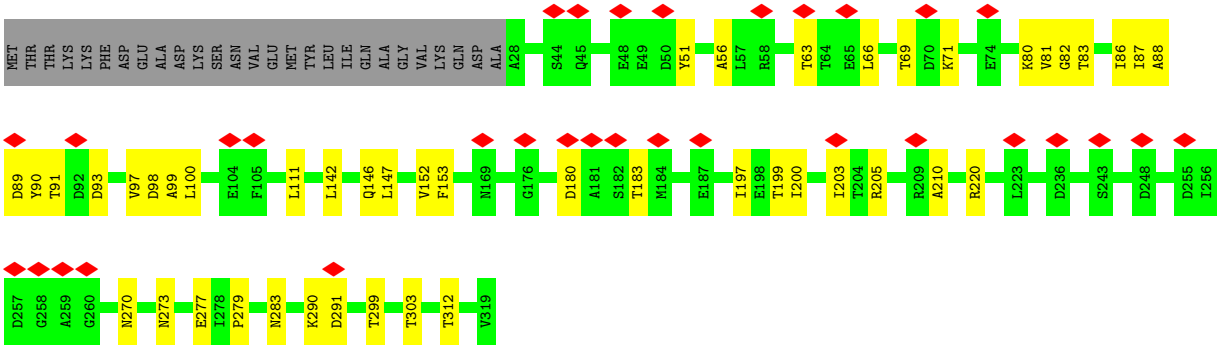
• Molecule 1: Major capsid protein

Chain an:



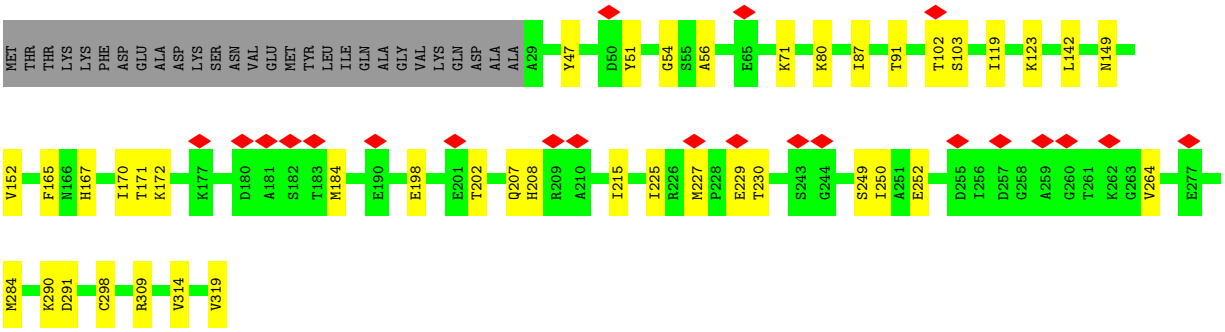
- Molecule 1: Major capsid protein

Chain as:



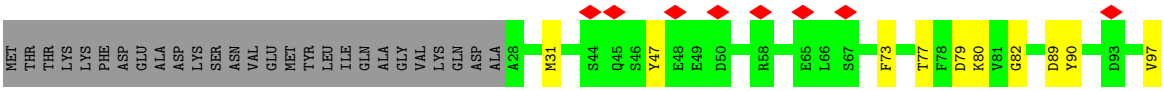
- Molecule 1: Major capsid protein

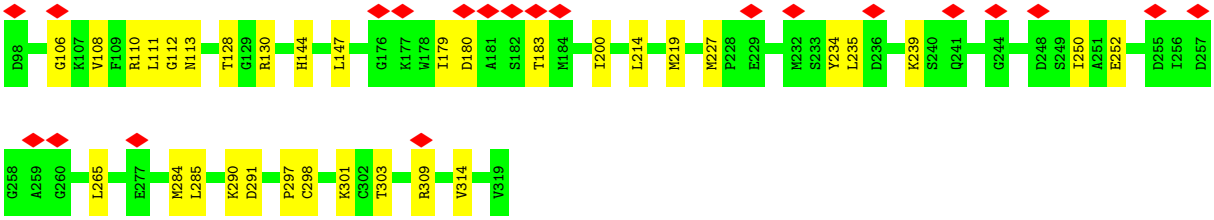
Chain at:



- Molecule 1: Major capsid protein

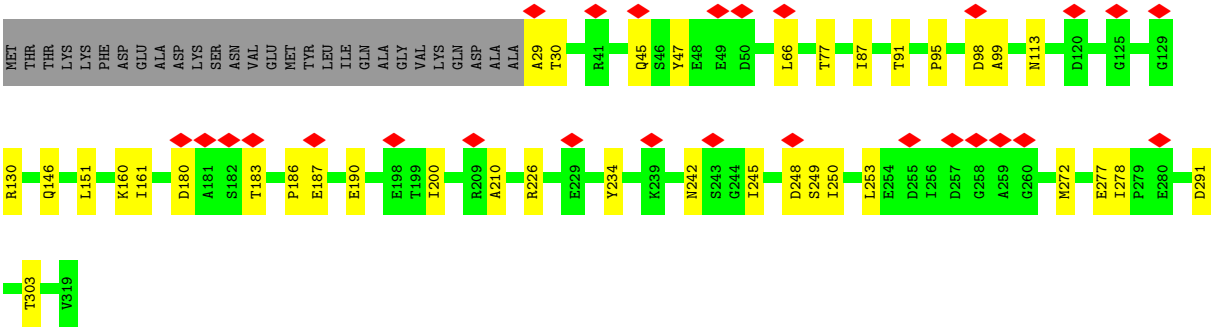
Chain au:





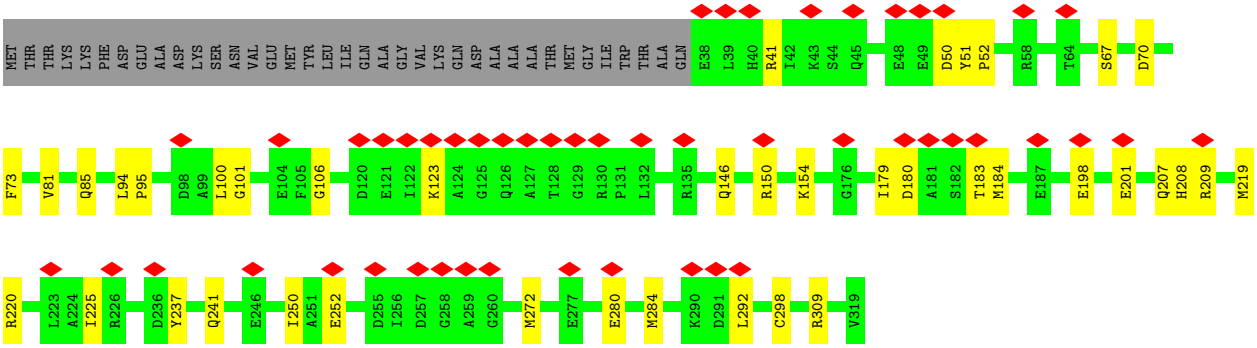
• Molecule 1: Major capsid protein

Chain av:



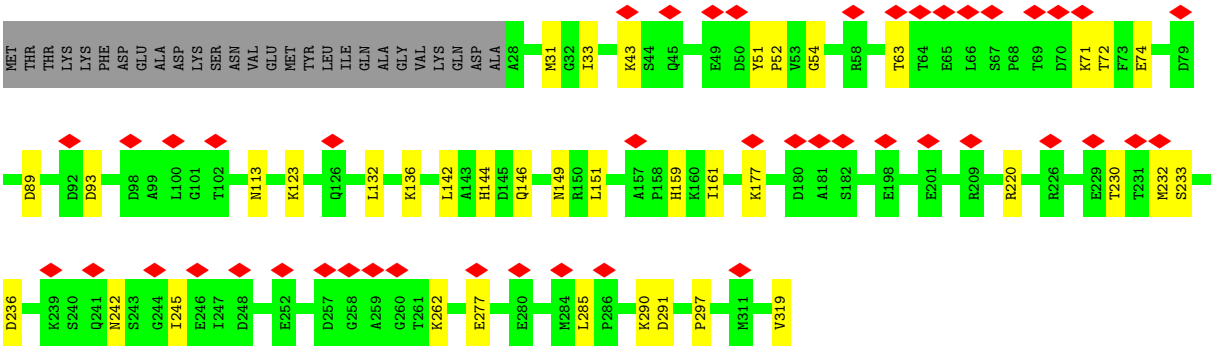
• Molecule 1: Major capsid protein

Chain aw:



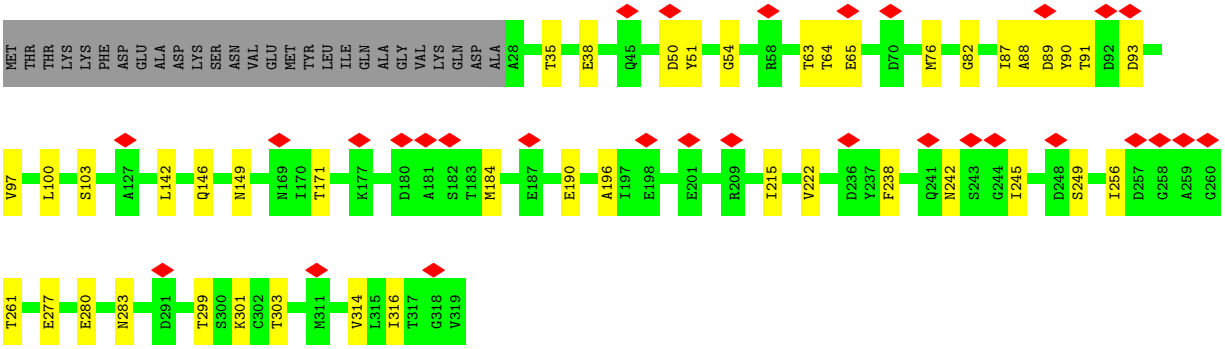
• Molecule 1: Major capsid protein

Chain ba:



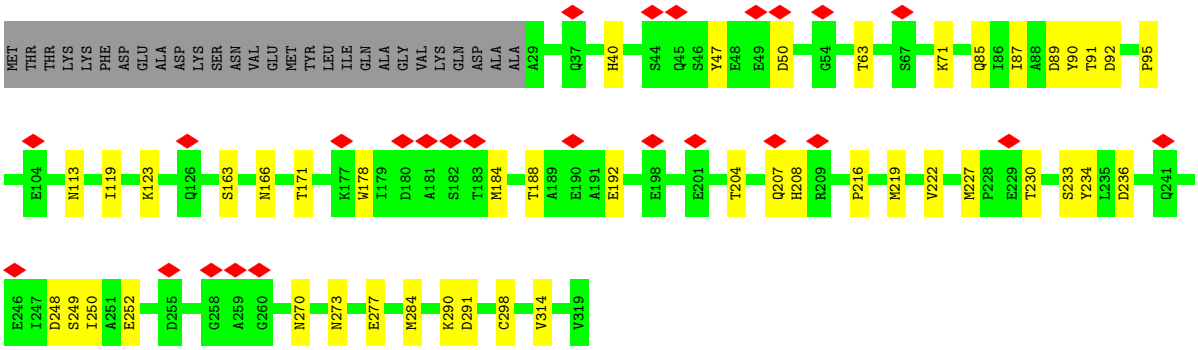
• Molecule 1: Major capsid protein

Chain bf:



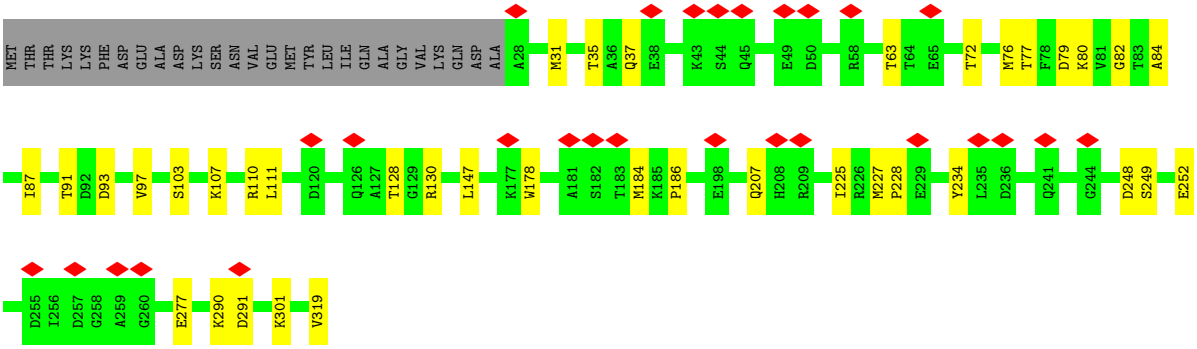
• Molecule 1: Major capsid protein

Chain bg:



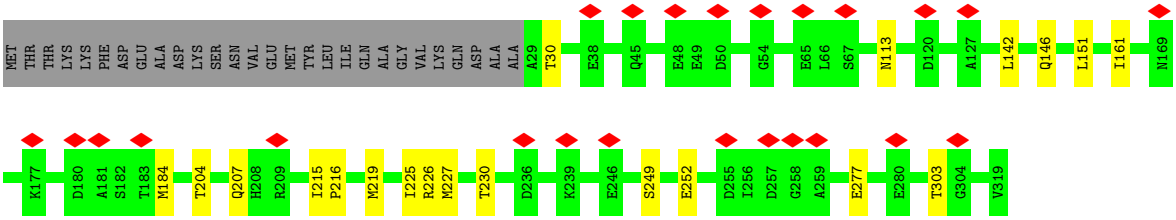
• Molecule 1: Major capsid protein

Chain bh:



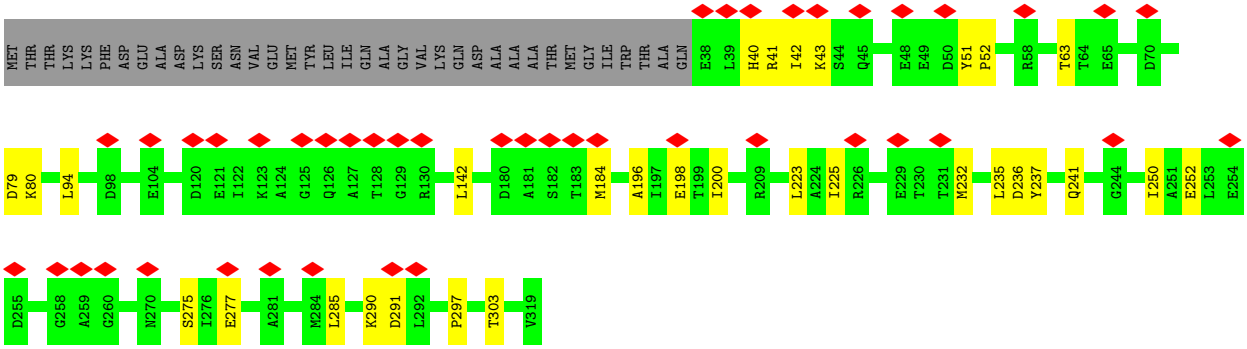
• Molecule 1: Major capsid protein

Chain bi:



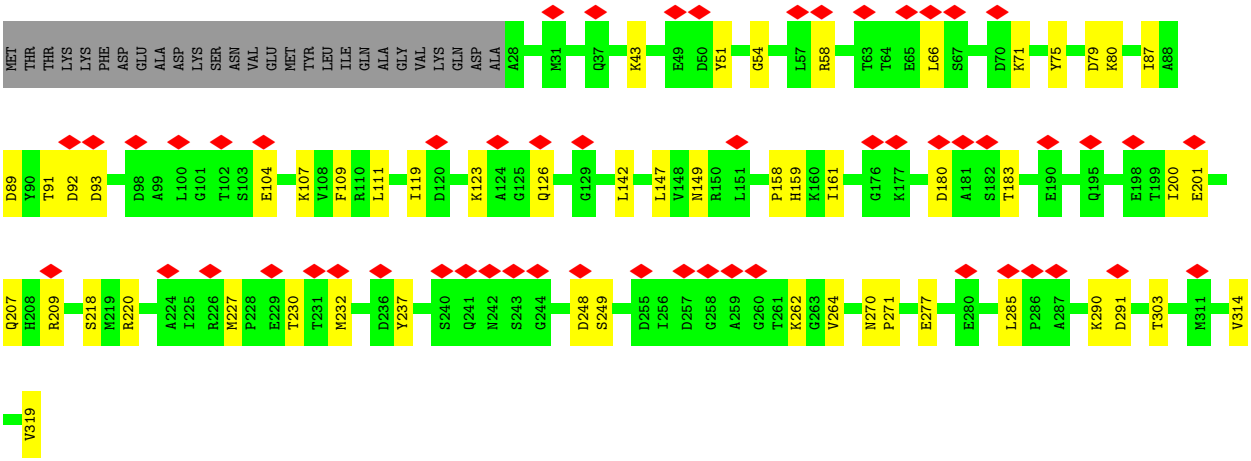
- Molecule 1: Major capsid protein

Chain bj:



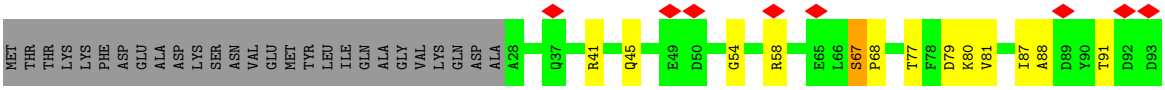
- Molecule 1: Major capsid protein

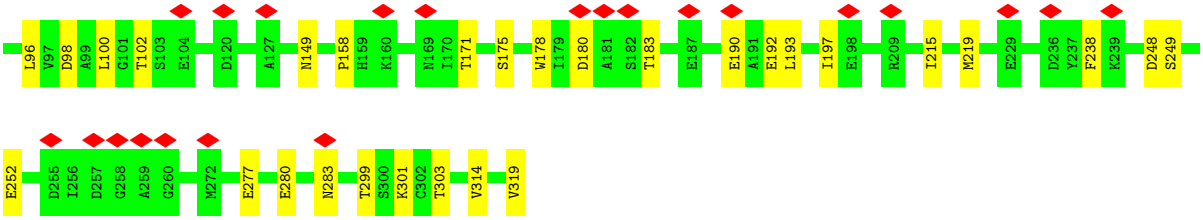
Chain bn:



- Molecule 1: Major capsid protein

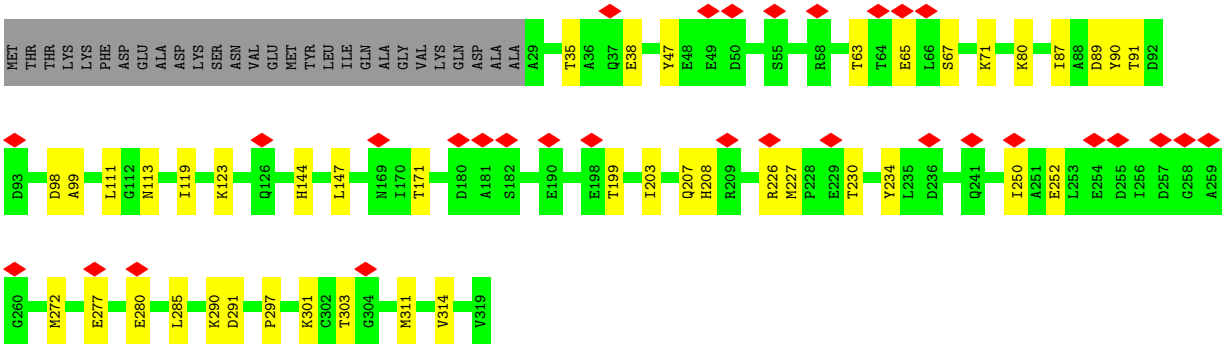
Chain bs:





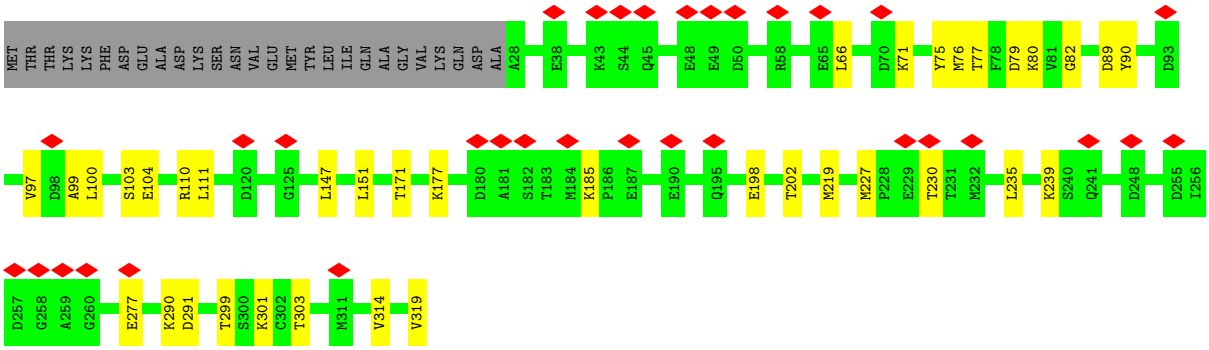
• Molecule 1: Major capsid protein

Chain bt:



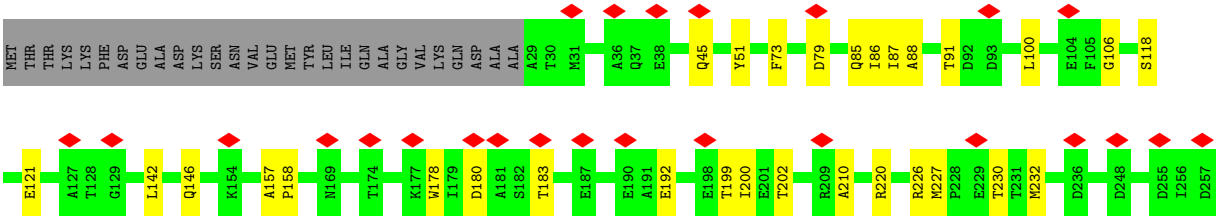
• Molecule 1: Major capsid protein

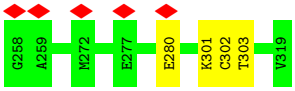
Chain bu:



• Molecule 1: Major capsid protein

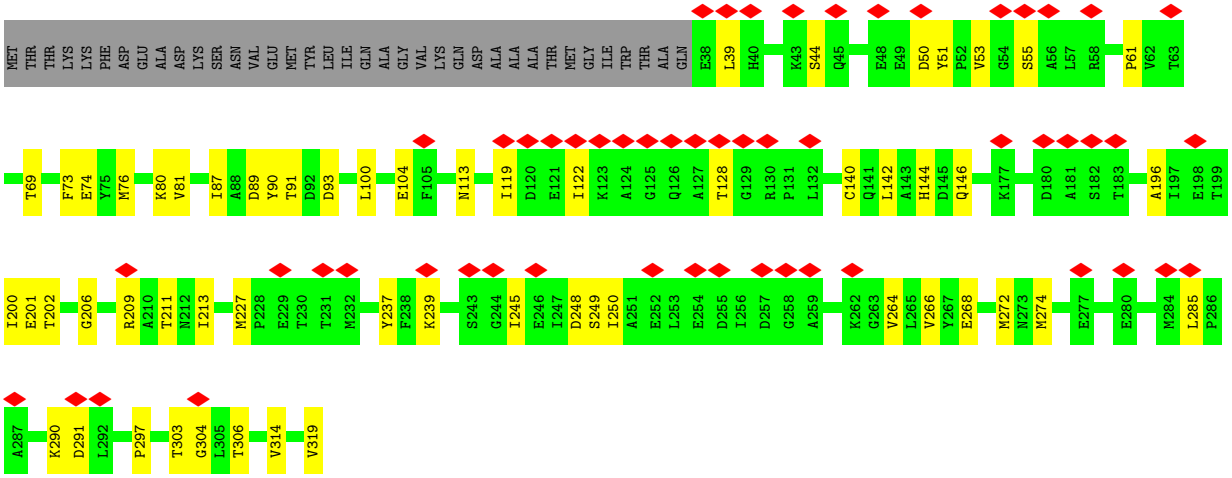
Chain bv:





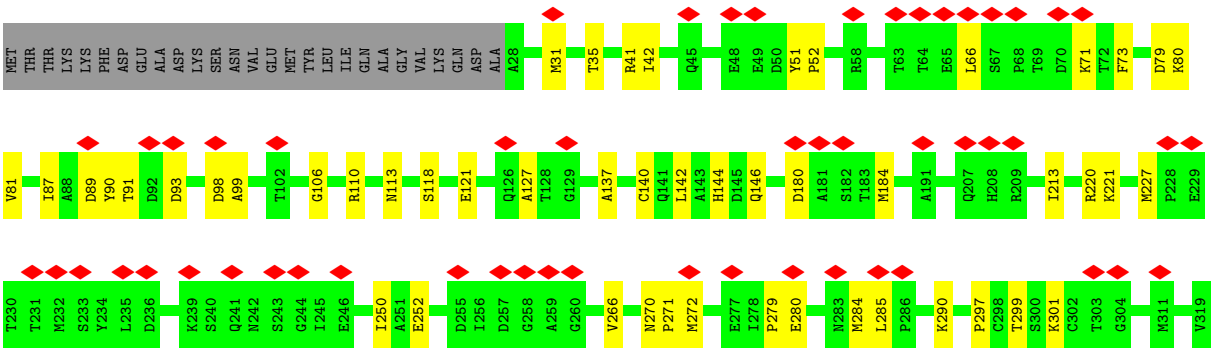
• Molecule 1: Major capsid protein

Chain bw:



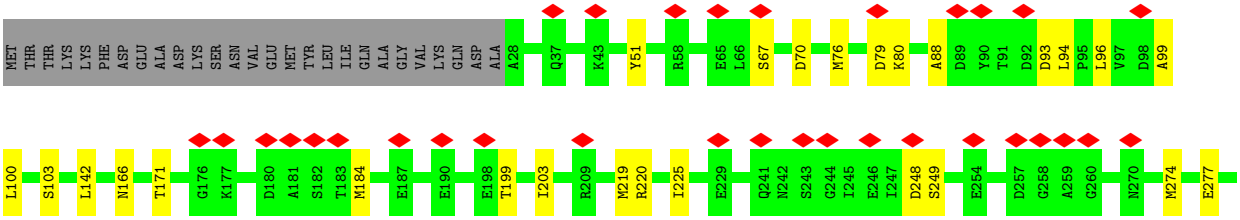
• Molecule 1: Major capsid protein

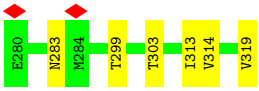
Chain ca:



• Molecule 1: Major capsid protein

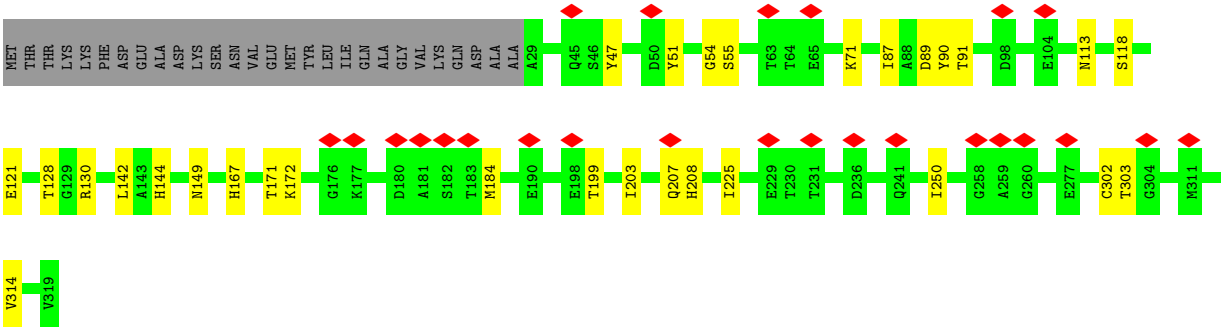
Chain cf:





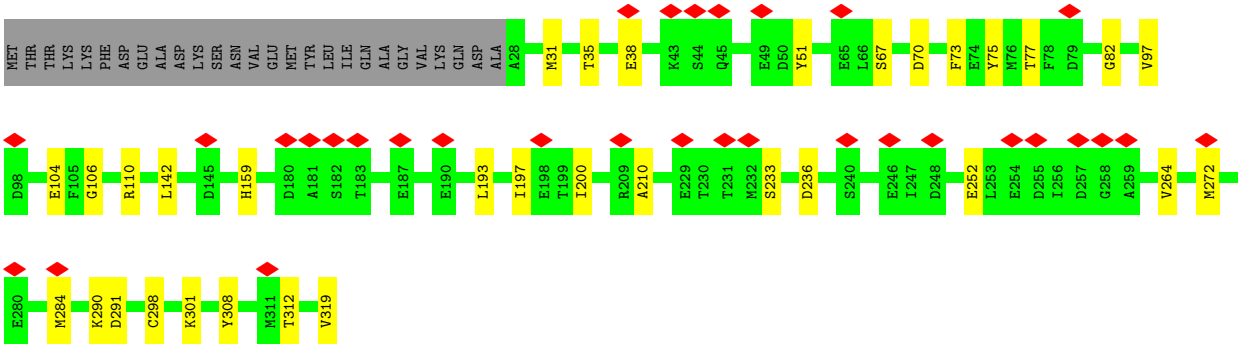
• Molecule 1: Major capsid protein

Chain cg:



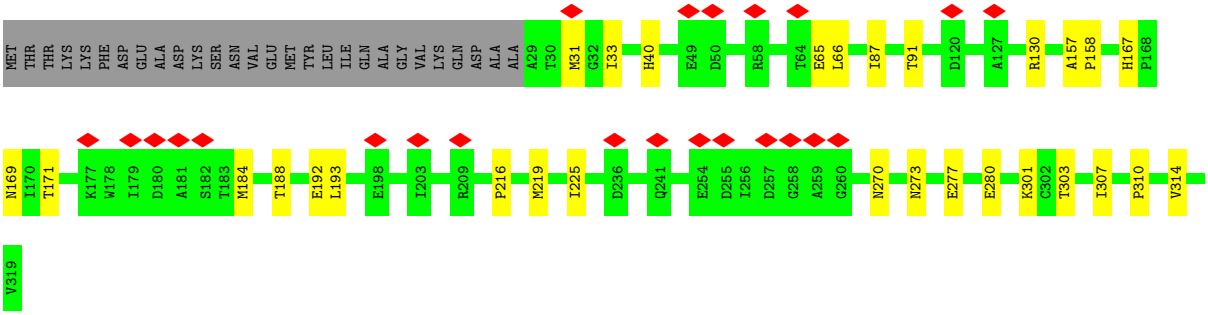
• Molecule 1: Major capsid protein

Chain ch:



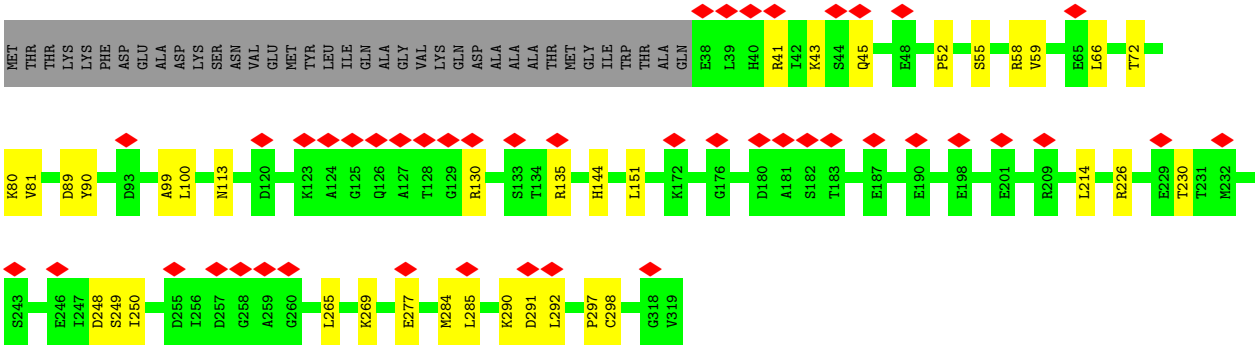
• Molecule 1: Major capsid protein

Chain ci:



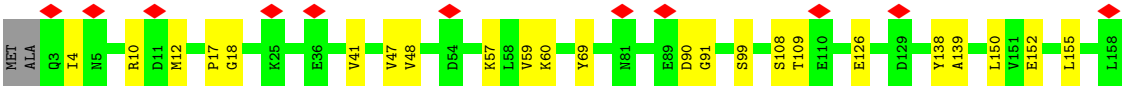
• Molecule 1: Major capsid protein

Chain cj:



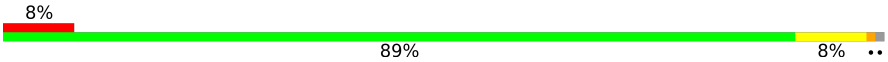
- Molecule 2: Decoration protein

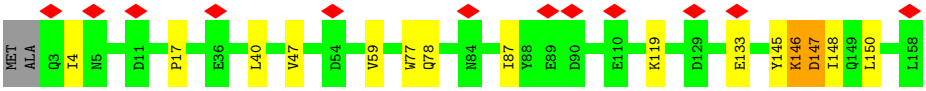
Chain ab:



- Molecule 2: Decoration protein

Chain ac:





- Molecule 2: Decoration protein

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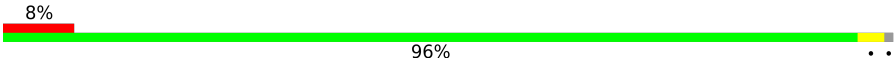
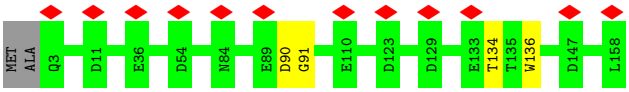
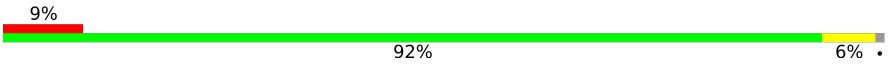
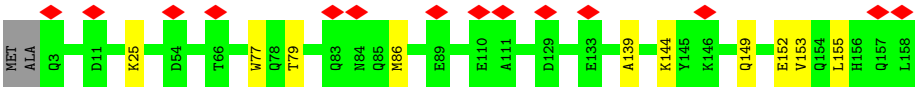




- Molecule 2: Decoration protein

Chain ae:





- Molecule 2: Decoration protein

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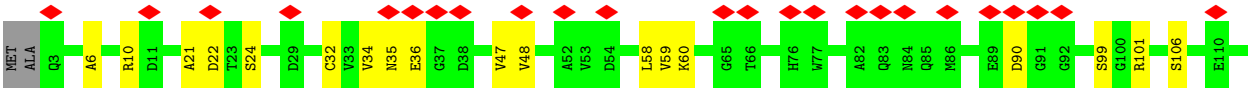
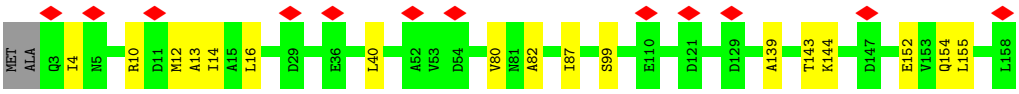


• Molecule 2: Decoration protein

Chain am:



• Molecule 2: Decoration protein

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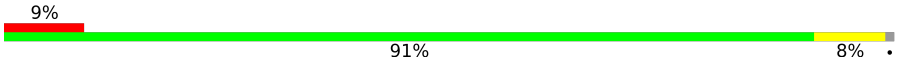
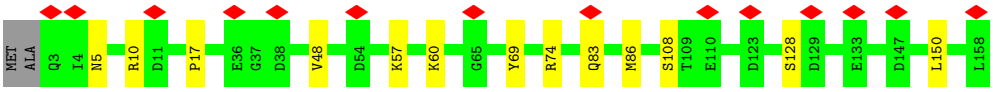
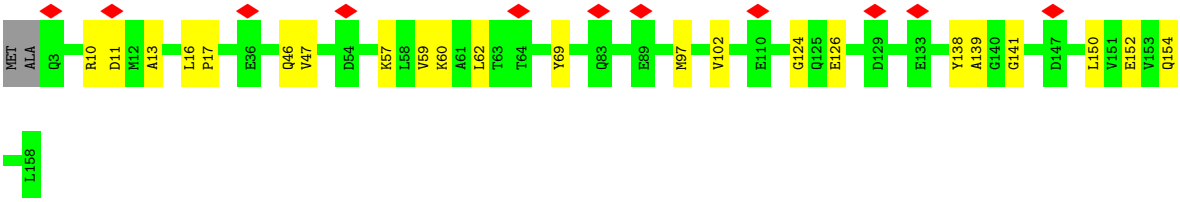




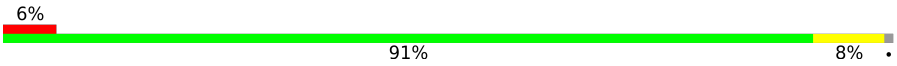
• Molecule 2: Decoration protein

Chain ap:



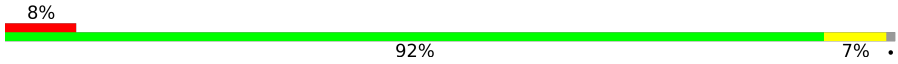
• Molecule 2: Decoration protein

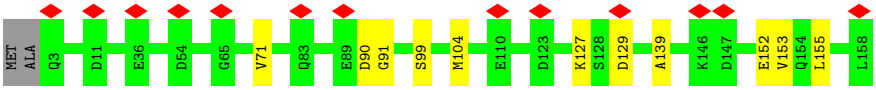
Chain aq:



• Molecule 2: Decoration protein

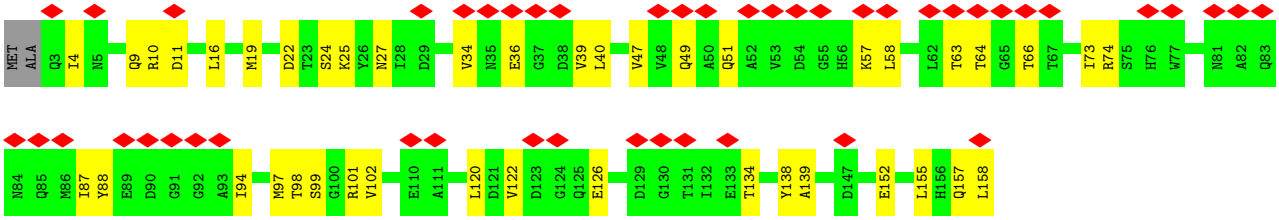
Chain ar:





• Molecule 2: Decoration protein

Chain ay:



• Molecule 2: Decoration protein

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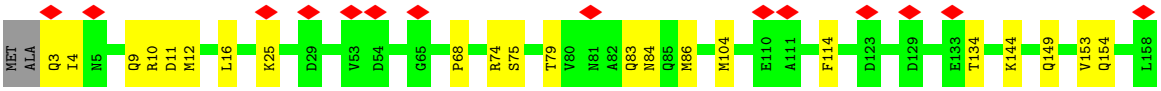
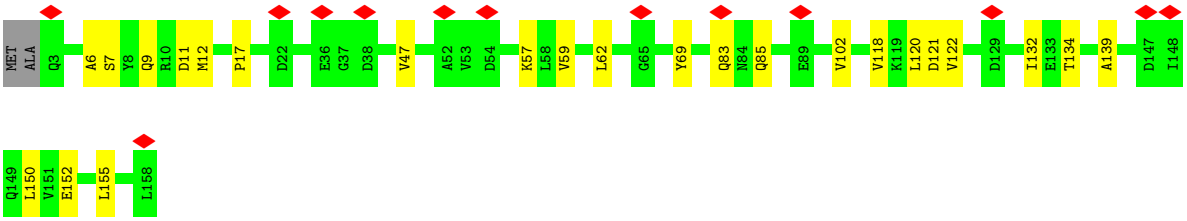


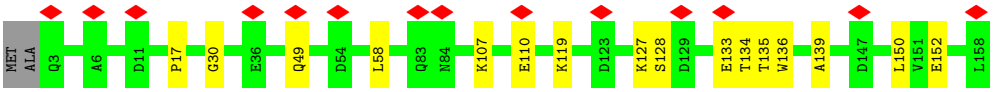
• Molecule 2: Decoration protein

Chain bb:



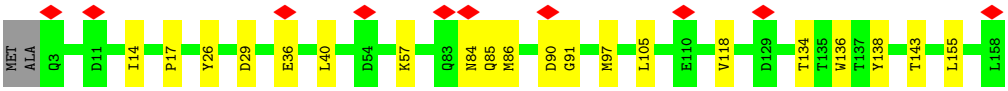
• Molecule 2: Decoration protein

Chain bc:



• Molecule 2: Decoration protein

Chain bd:



• Molecule 2: Decoration protein

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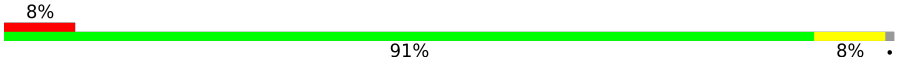
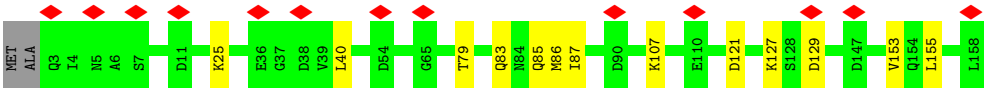
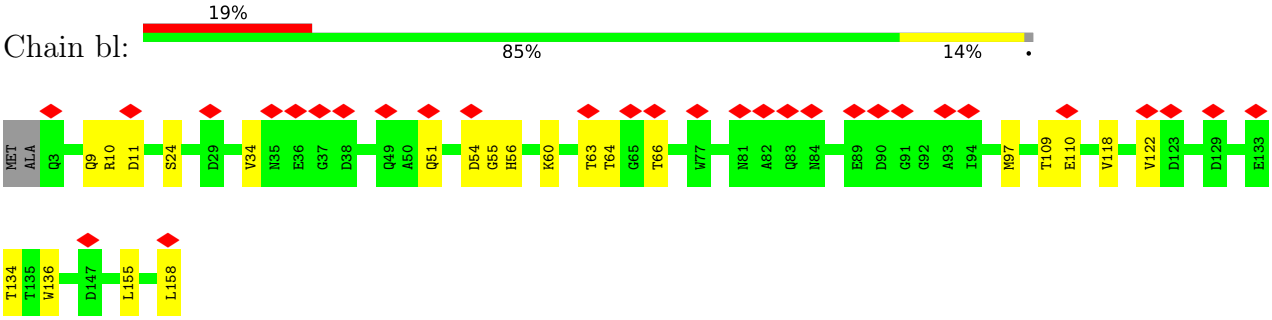




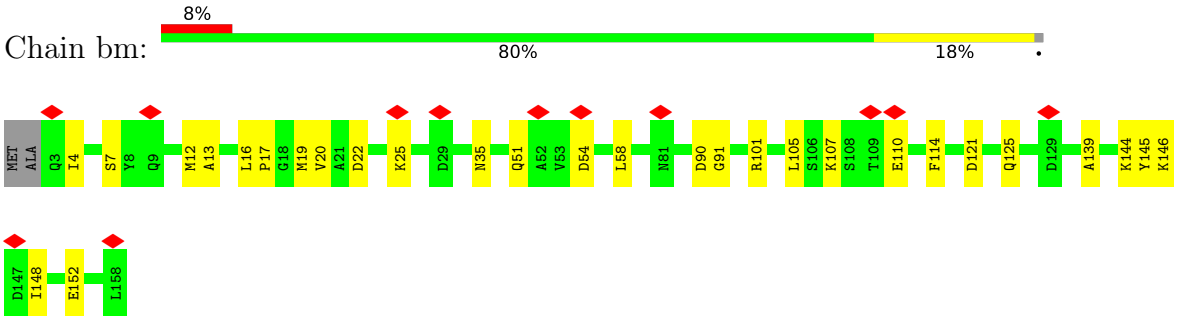
• Molecule 2: Decoration protein

Chain bl:



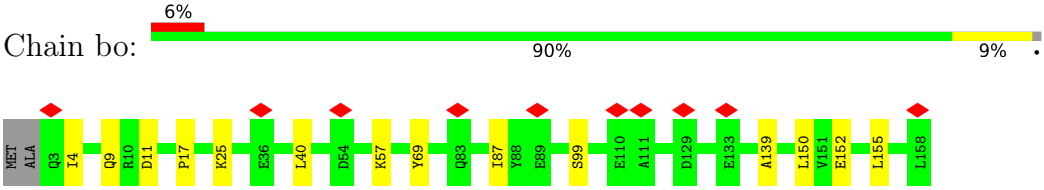
- Molecule 2: Decoration protein

Chain bm:



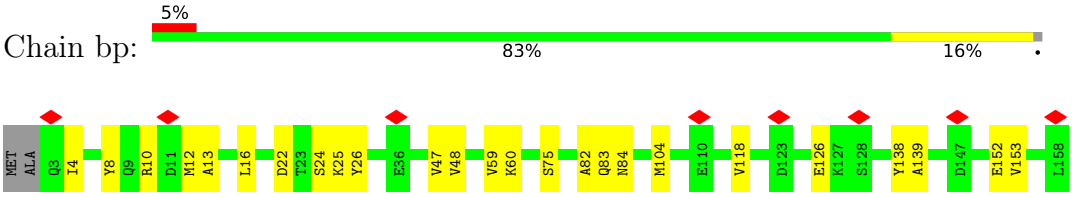
- Molecule 2: Decoration protein

Chain bo:



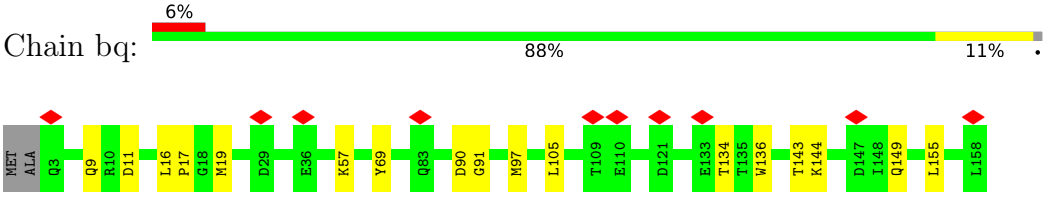
- Molecule 2: Decoration protein

Chain bp:



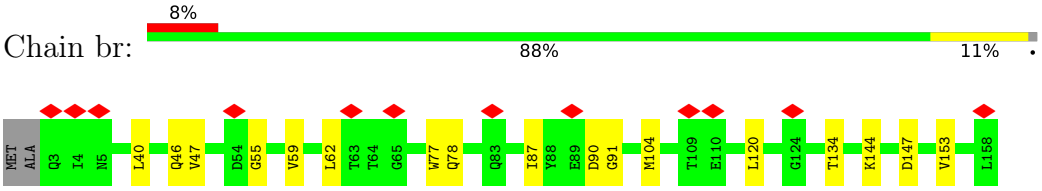
- Molecule 2: Decoration protein

Chain bq:



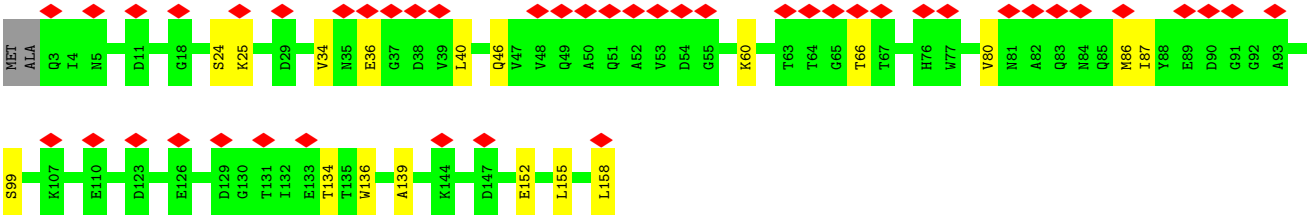
- Molecule 2: Decoration protein

Chain br:



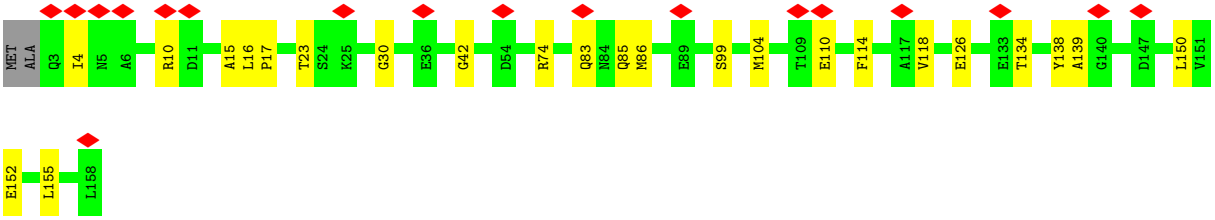
- Molecule 2: Decoration protein

Chain by:



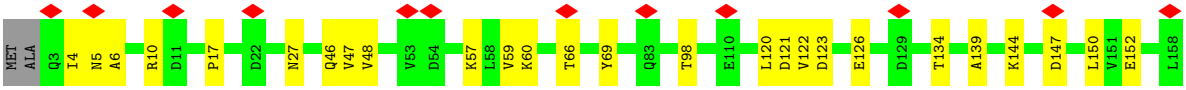
- Molecule 2: Decoration protein

Chain bz:



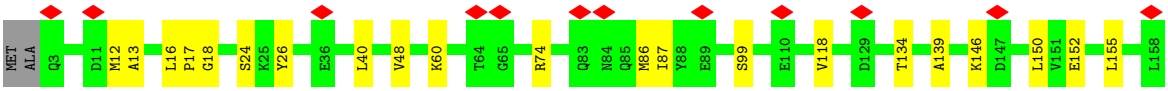
- Molecule 2: Decoration protein

Chain cb:



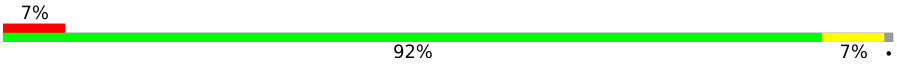
- Molecule 2: Decoration protein

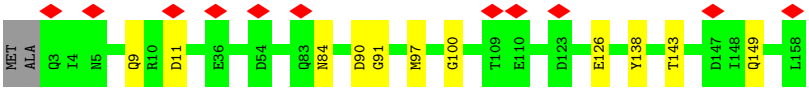
Chain cc:



- Molecule 2: Decoration protein

Chain cd:





- Molecule 2: Decoration protein

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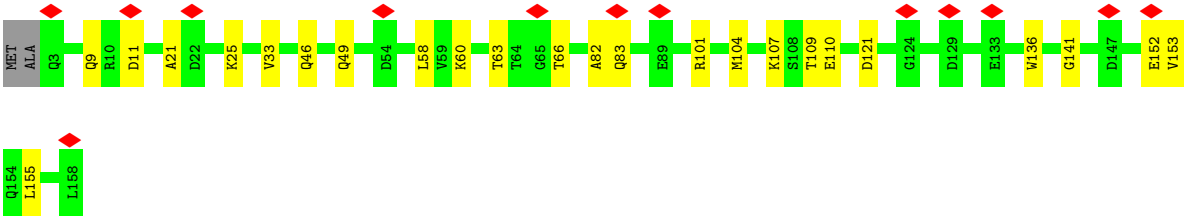

• Molecule 2: Decoration protein

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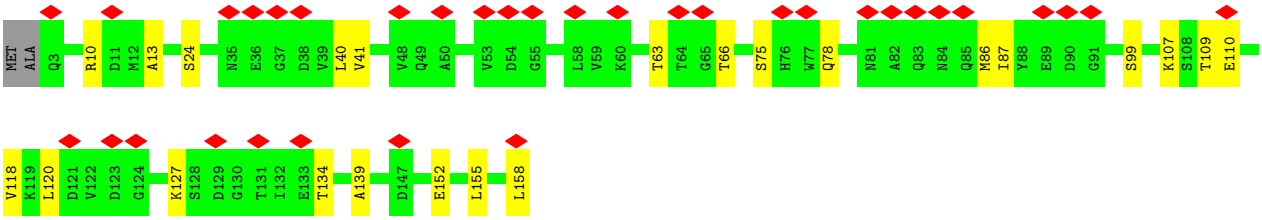

• Molecule 2: Decoration protein

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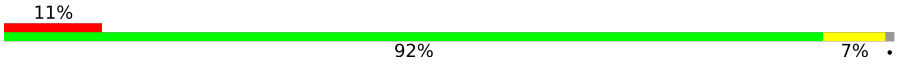

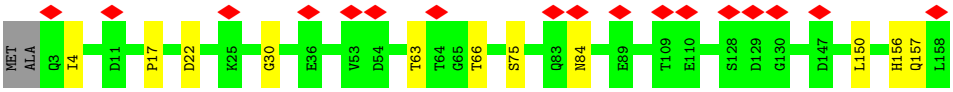

• Molecule 3: Portal protein

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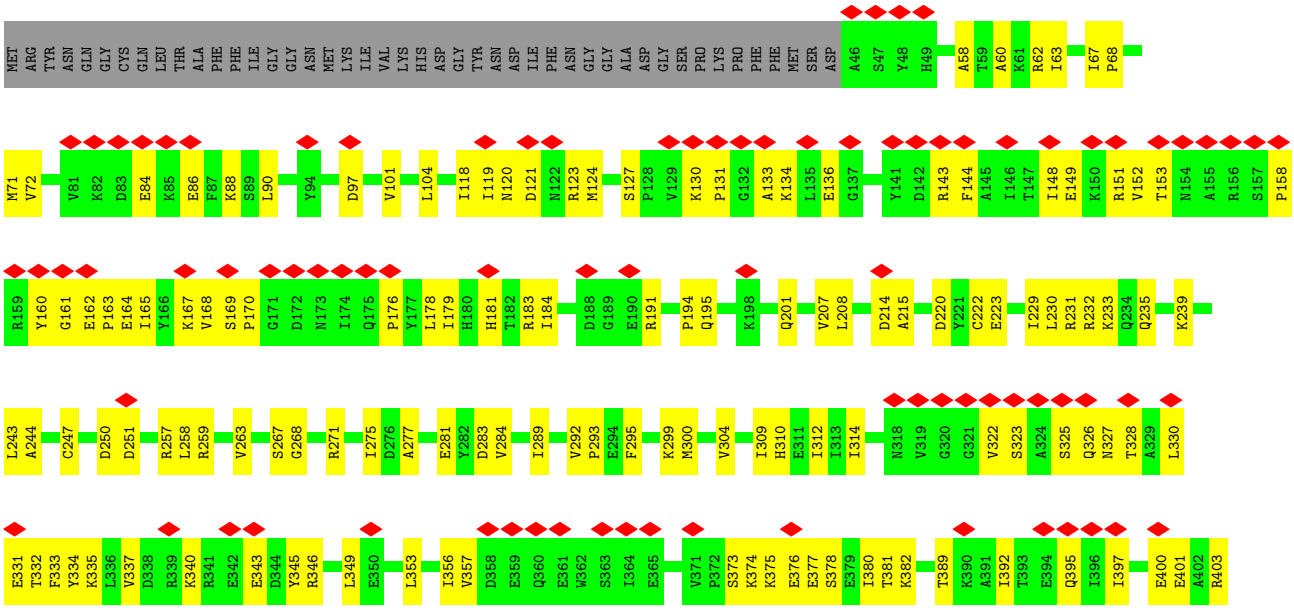

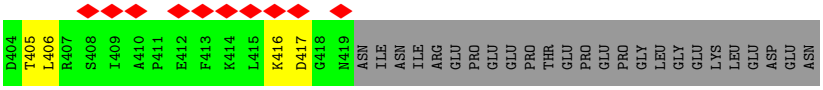

• Molecule 3: Portal protein

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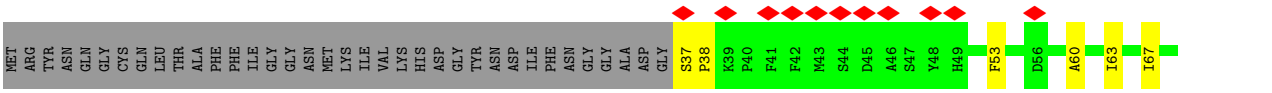

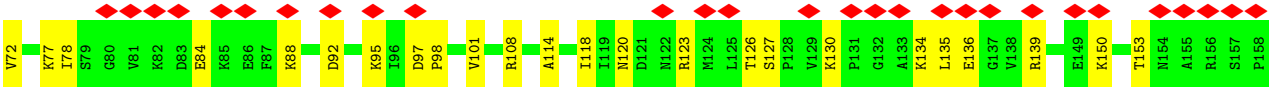

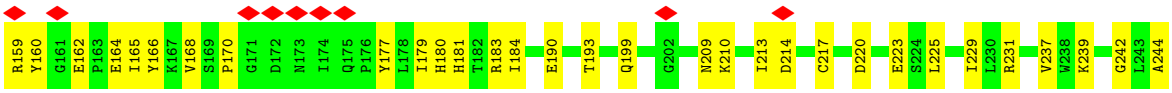

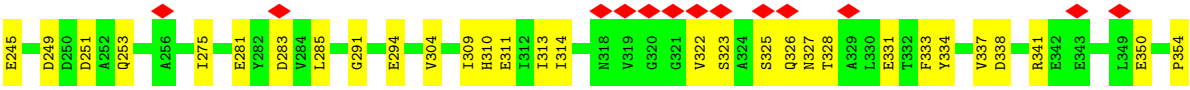

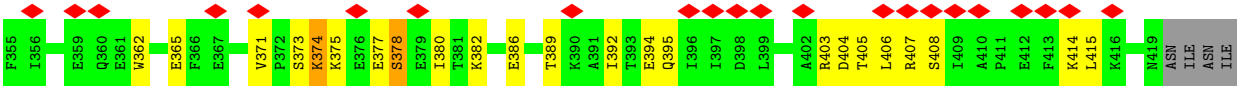

• Molecule 3: Portal protein

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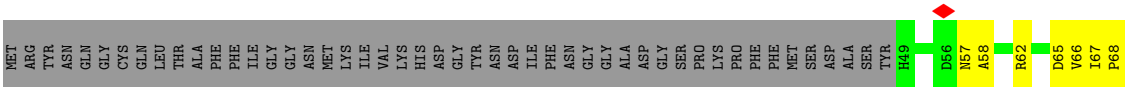

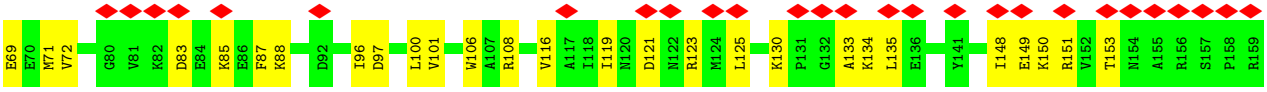

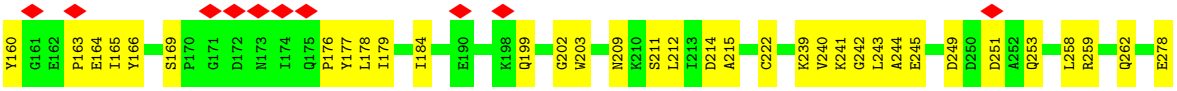

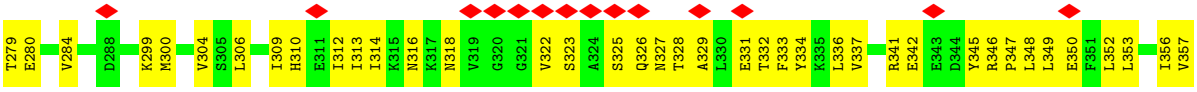

GLU PRO GLU GLU PRO THR GLU PRO GLU PRO GLY LEU GLY GLU LYS LEU GLU ASP GLU ASN

- Molecule 3: Portal protein

Chain cq:

MET ARG TYR ASN GLN GLY CYS GLN LEU THR ALA PHE PHE ILE GLY GLY ASN MET LYS ILE VAL LYS HIS ASP GLY TYR ASN ASP ILE PHE ASN GLY GLY ALA ASP GLY SER PRO LYS PRO PHE PHE MET SER ASP A46 S47 Y48 H49 V50 G51 N55 D56 M57 A58 T59 A60 K61 R62

I63 V66 I67 E70 M71 V72 I78 S79 G80 V81 K82 D83 E84 K85 E86 D92 K95 I96 D97 L100 V101 A117 D121 N122 R123 M124 L125 T126 S127 K130 P131 G132 A133 E136 G137 V138 R139 D142 R143 F144 A145 I148 E149 T153 N154 A155 R156

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R339 K340 R341 E342 E343 R346 E350 F351 L352 L353 P354 F355 I356 V357 D358 E359 Q360 E361 W362 S363 I364 E365 F366 E367 P368 L369 S370 V371 P372 S373 K374 K375 E376 E377 S378 E379 I380 T381 K382 E386 K390 T393 E394 Q395 I396 I397 E400 E401 A402 R403 D404 T405 L406 R407

S408 I409 A410 P411 E412 F413 K414 L415 K416 D417 G418 N419 ASN ILE ASN ILE ARG GLU PRO GLU GLU PRO THR GLU PRO GLU PRO GLY LEU GLY GLU LYS LEU GLU ASP GLU ASN

- Molecule 3: Portal protein

Chain cy:

MET ARG TYR ASN GLN GLY CYS GLN LEU THR ALA PHE PHE ILE GLY GLY ASN MET LYS ILE VAL LYS HIS ASP GLY TYR ASN ASP ILE PHE ASN GLY GLY ALA ASP GLY S37 P38 K39 P40 F41 F42 M43 S44 D45 A46 S47 Y48 H49 N57 A58 T59 A60 K61 R62 I63 V64 D65 V66

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N154 A155 R156 S157 P158 R159 Y160 G161 Y166 K167 G171 D172 N173 I174 Q175 P176 Y177 L178 I179 H180 H181 T182 R183 I184 F185 I186 E190 R191 M196 R197 K198 Q199 N200 Q201 G202 W203 L208 N209 I213 D214 Q228 I229 L230 R231 R232 Q235 K239 V240 K241 A244

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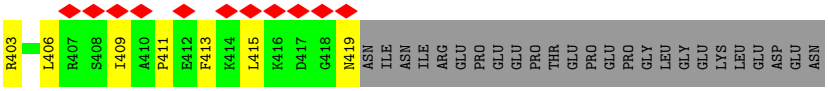

- Molecule 3: Portal protein

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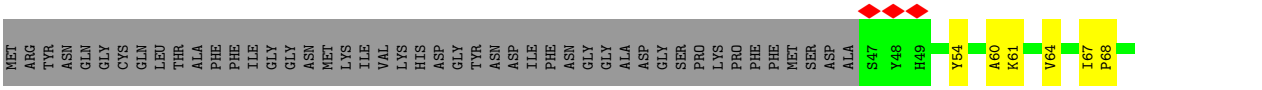

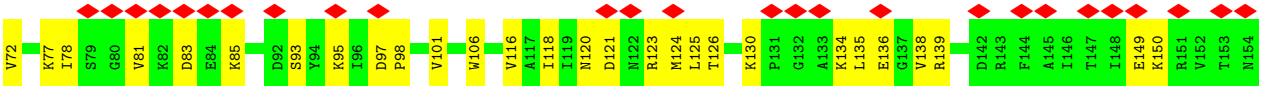

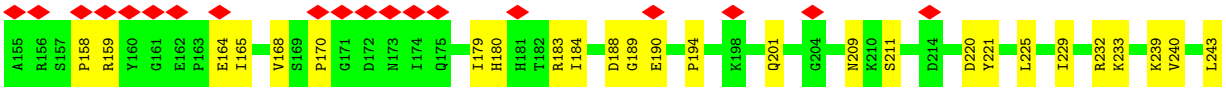

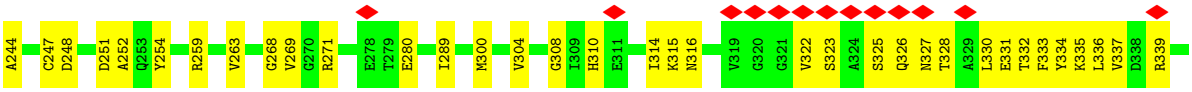

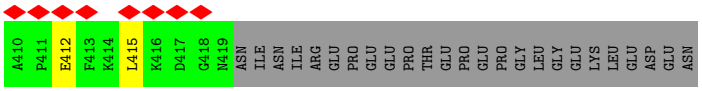

- Molecule 3: Portal protein

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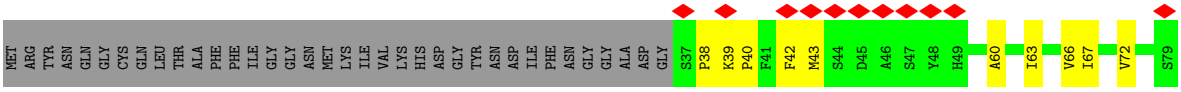

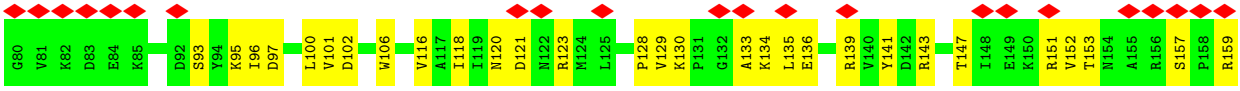

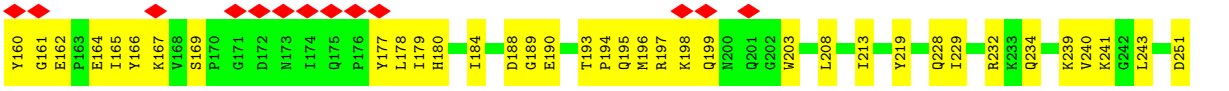

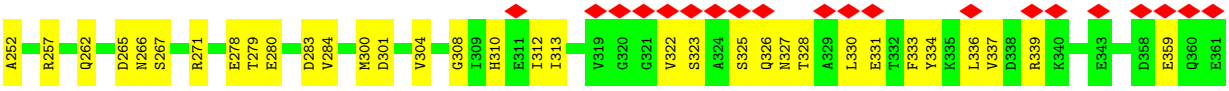

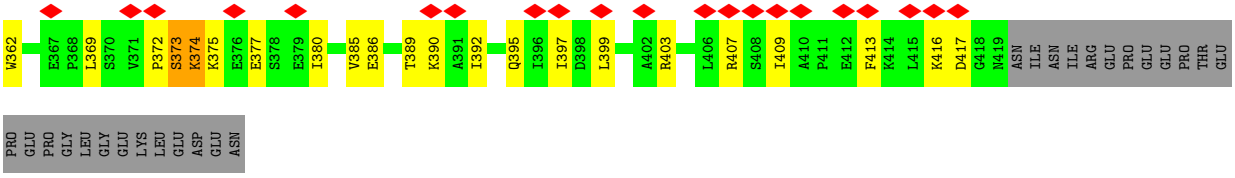

- Molecule 3: Portal protein

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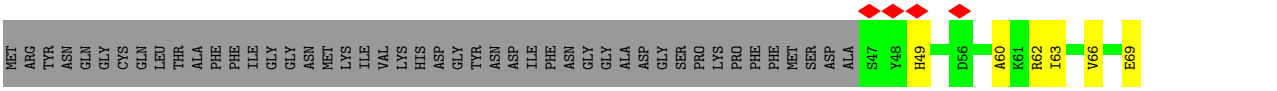

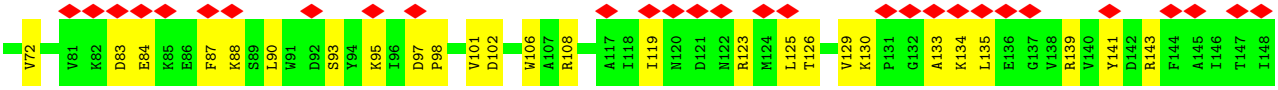

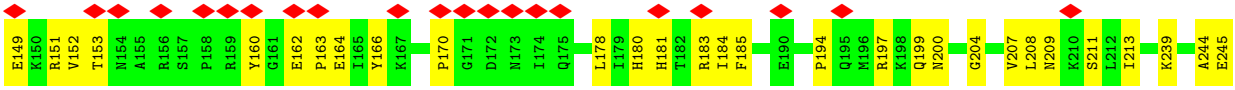

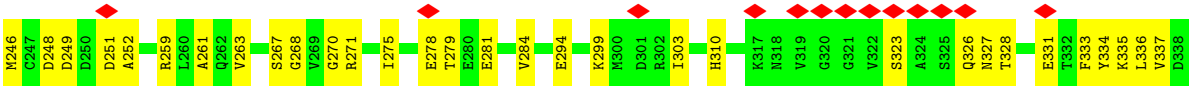

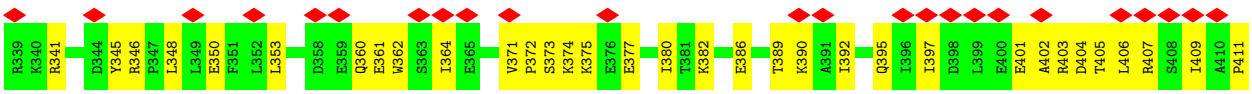

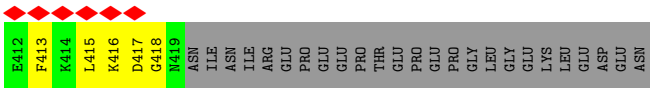

- Molecule 3: Portal protein

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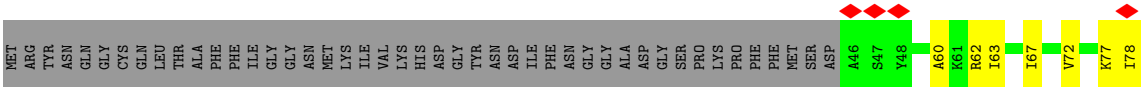

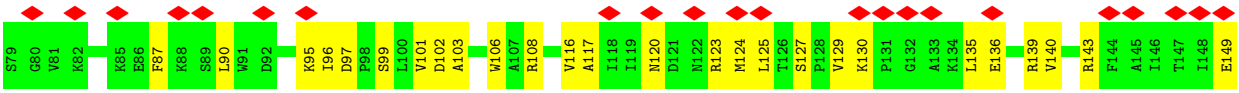

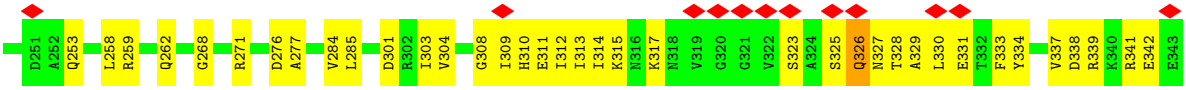

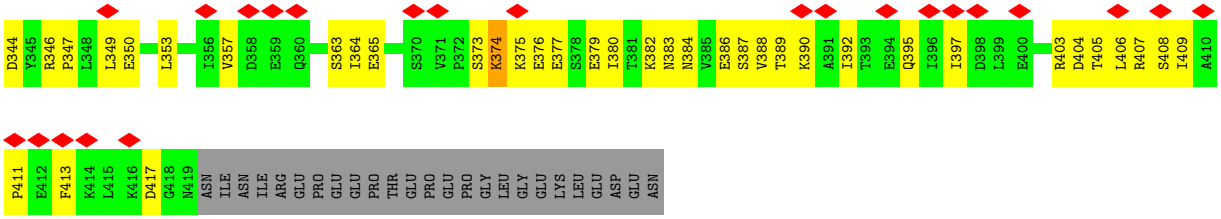

• Molecule 3: Portal protein

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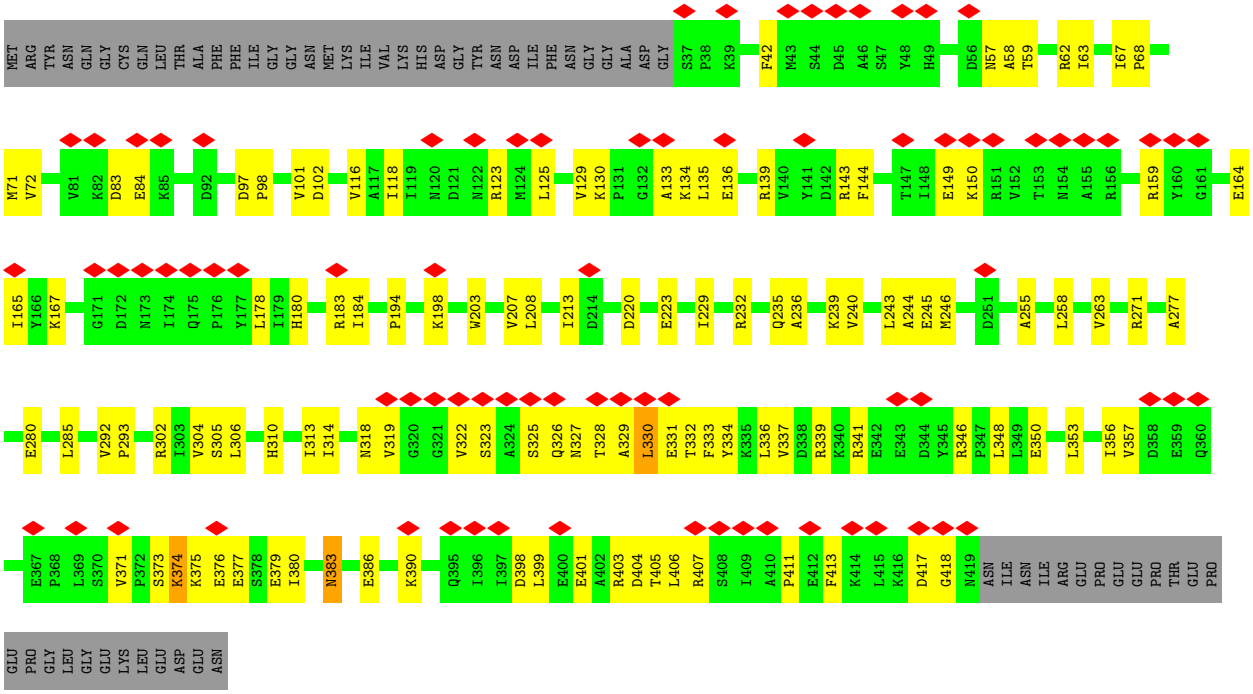
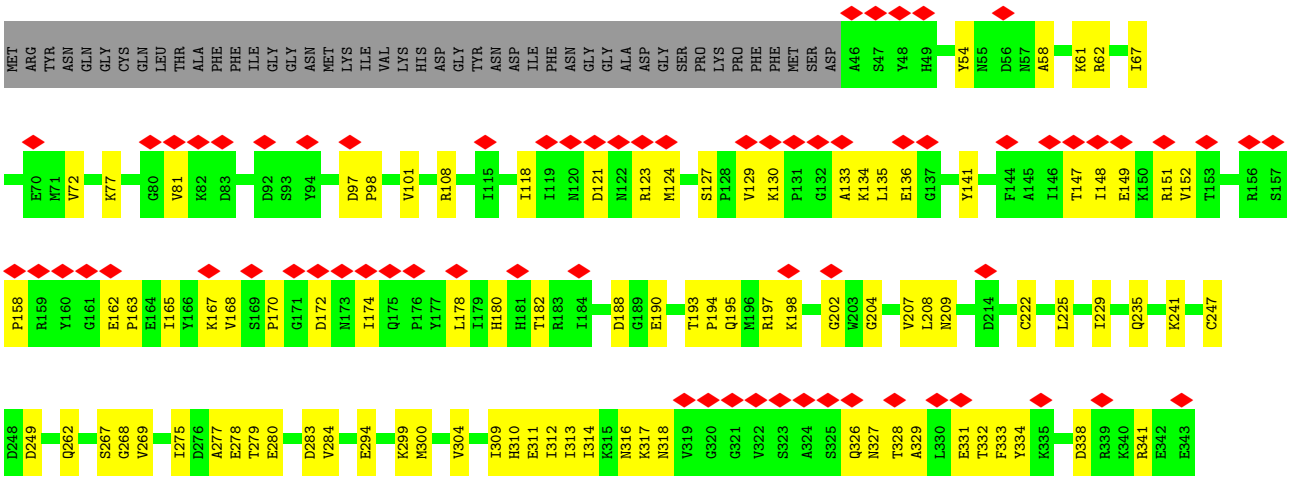
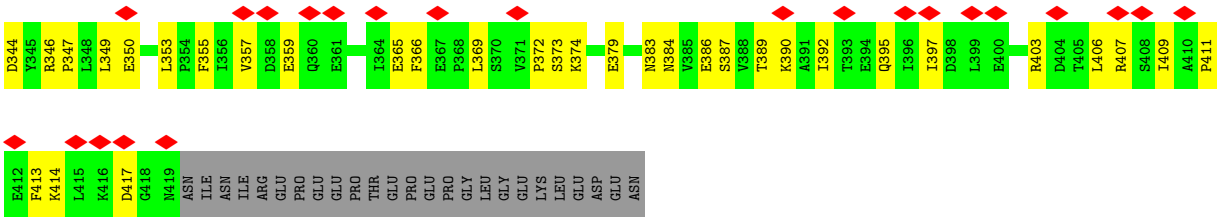


• Molecule 3: Portal protein

Chain eb:





• Molecule 3: Portal protein

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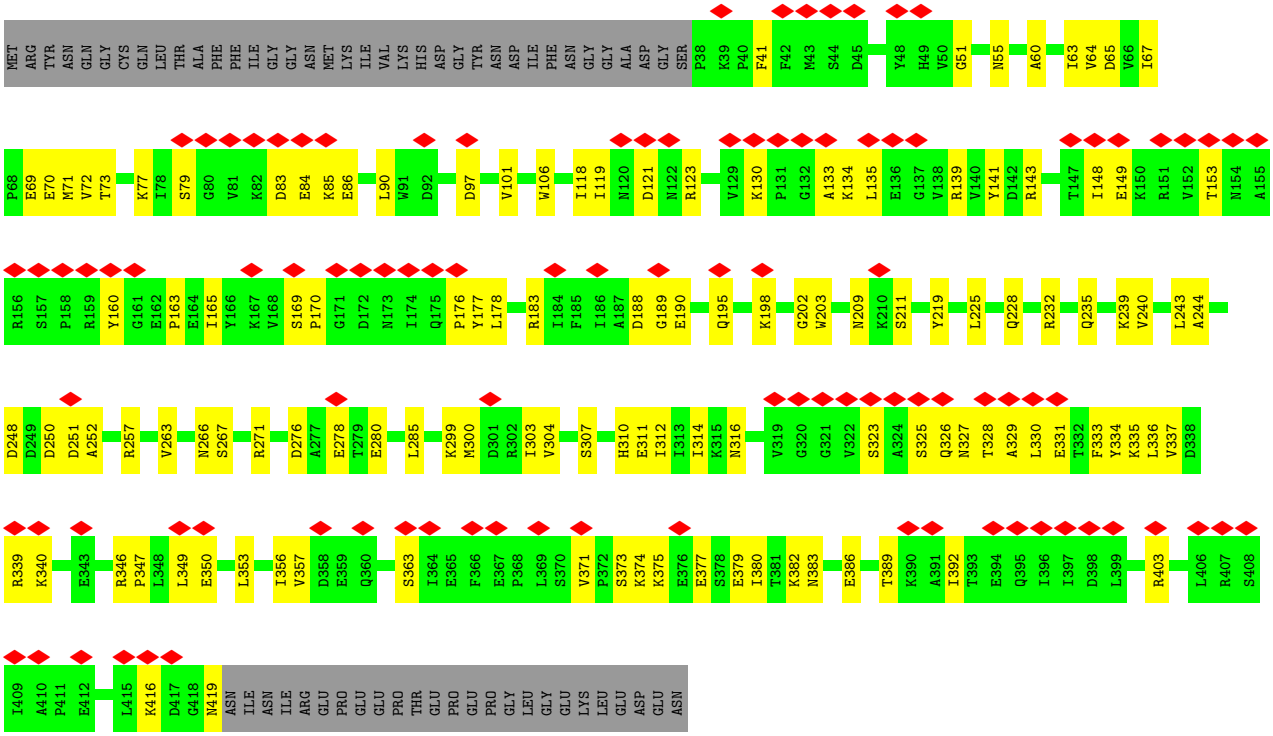
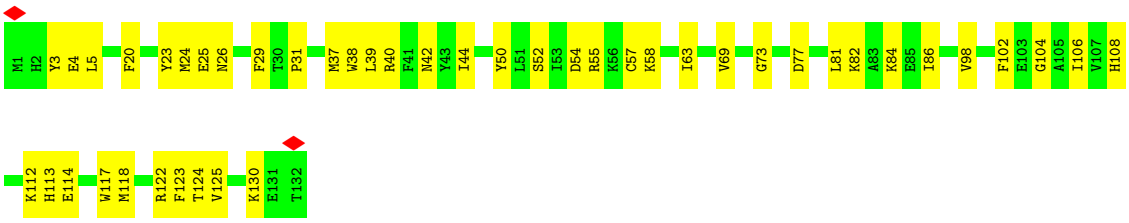


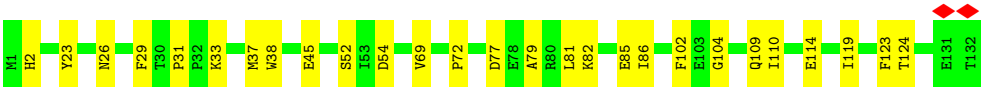
• Molecule 4: Terminator protein

Chain cr:



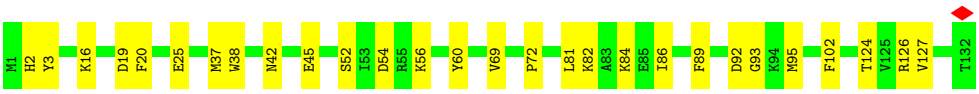
• Molecule 4: Terminator protein

Chain cs:



• Molecule 4: Terminator protein

Chain ct:



• Molecule 4: Terminator protein

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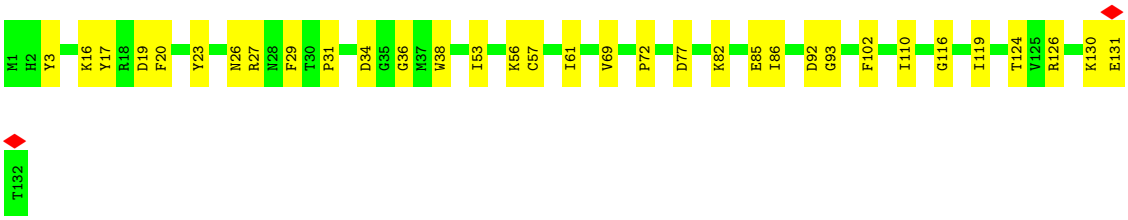
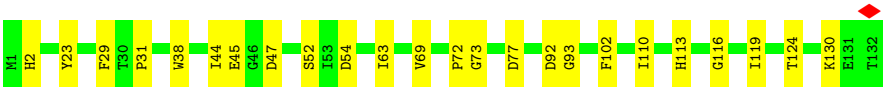


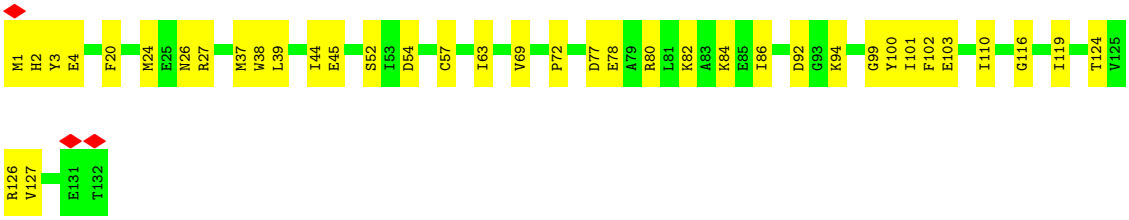
• Molecule 4: Terminator protein

Chain cv:



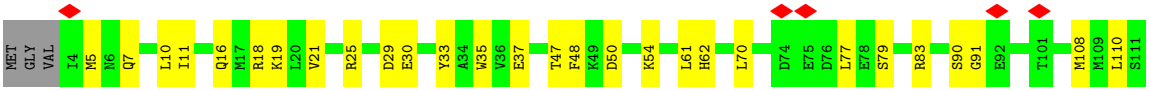
• Molecule 4: Terminator protein

Chain cw:



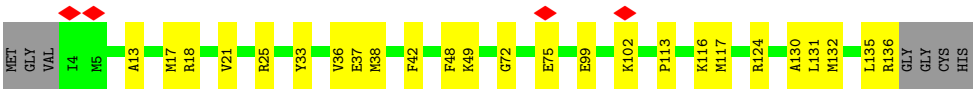
• Molecule 5: Adaptor protein

Chain cx:



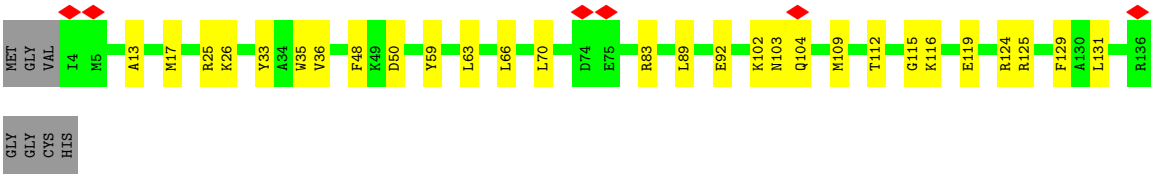
• Molecule 5: Adaptor protein

Chain cz:



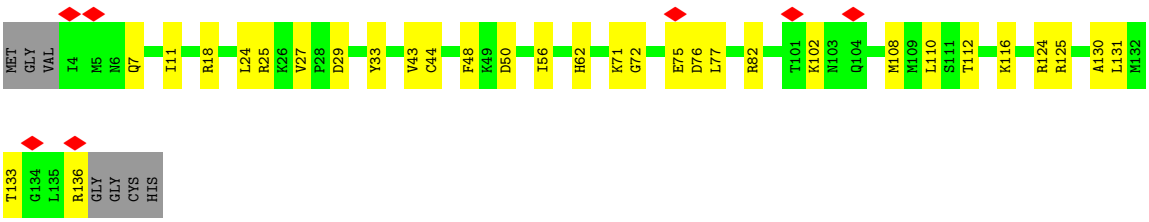
• Molecule 5: Adaptor protein

Chain da:



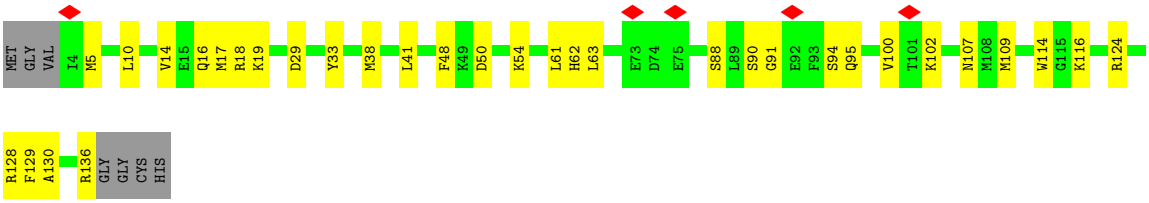
• Molecule 5: Adaptor protein

Chain db:



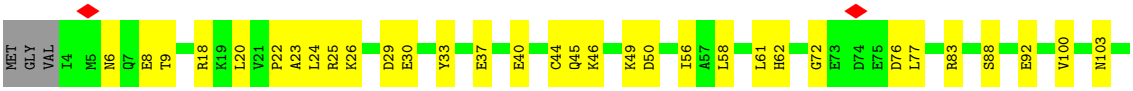
• Molecule 5: Adaptor protein

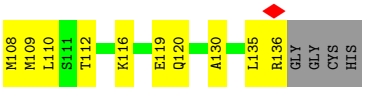
Chain dc:



• Molecule 5: Adaptor protein

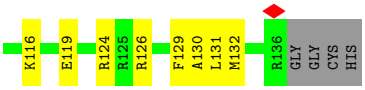
Chain dd:





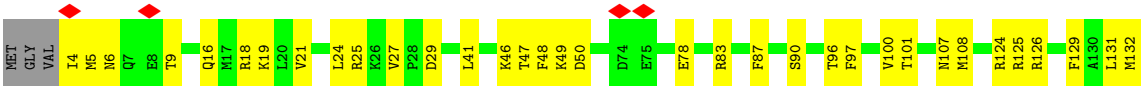
• Molecule 5: Adaptor protein

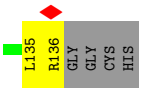
Chain de:



• Molecule 5: Adaptor protein

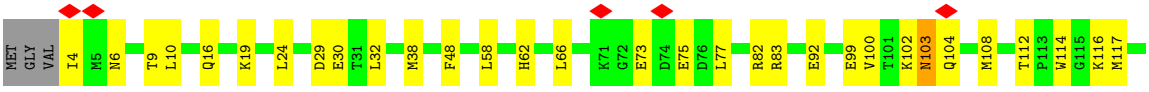
Chain df:

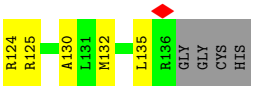




• Molecule 5: Adaptor protein

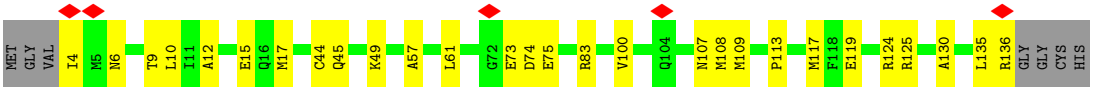
Chain dg:





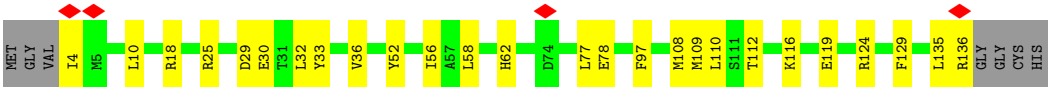
• Molecule 5: Adaptor protein

Chain dh:



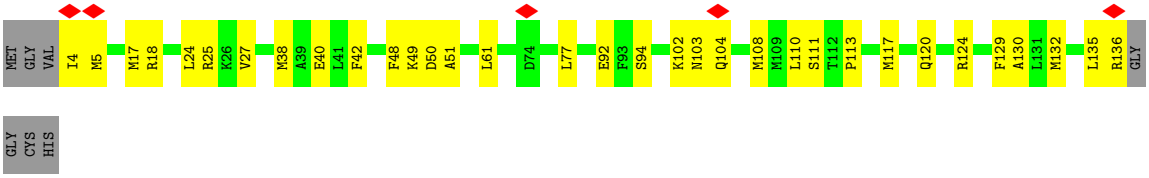
• Molecule 5: Adaptor protein

Chain di:



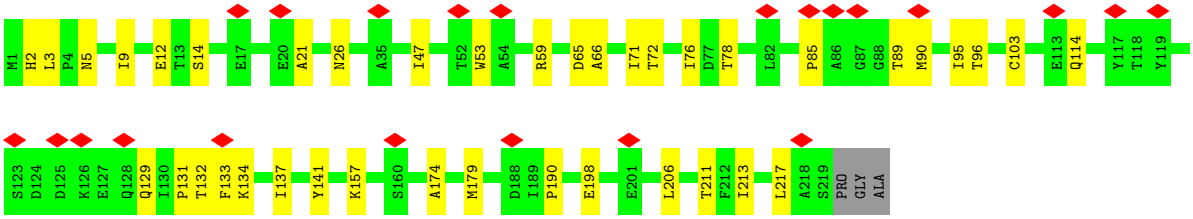
• Molecule 5: Adaptor protein

Chain dk:



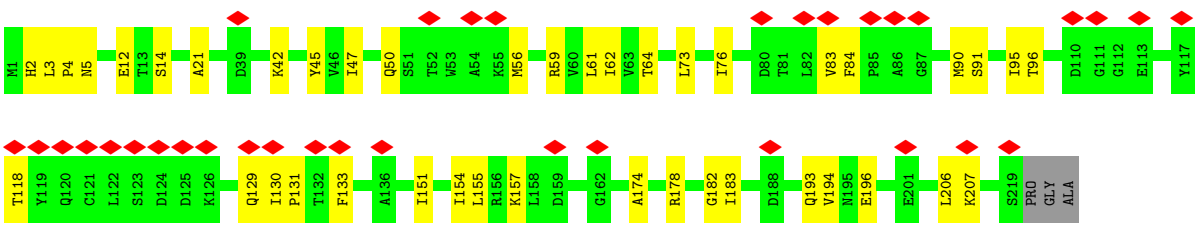
• Molecule 6: Tail tube protein

Chain dl:



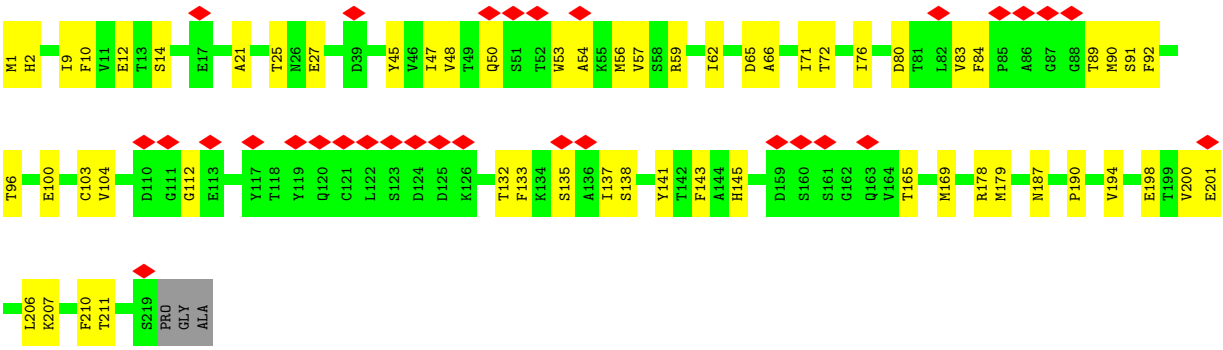
• Molecule 6: Tail tube protein

Chain dm:



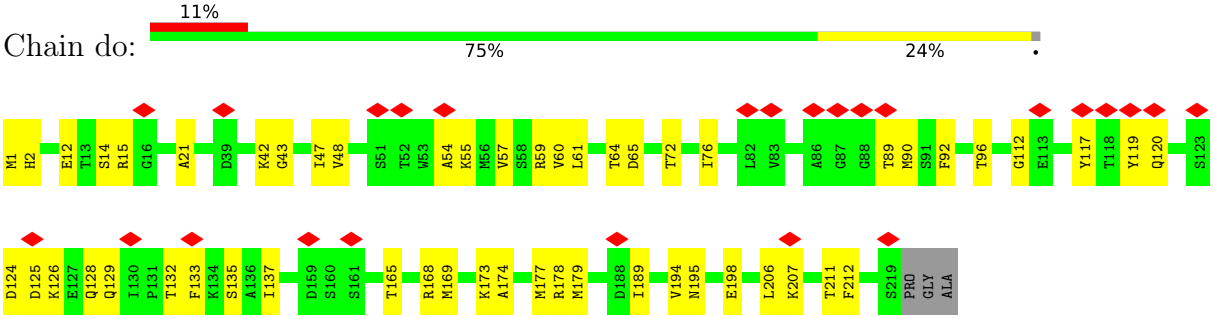
• Molecule 6: Tail tube protein

Chain dn:



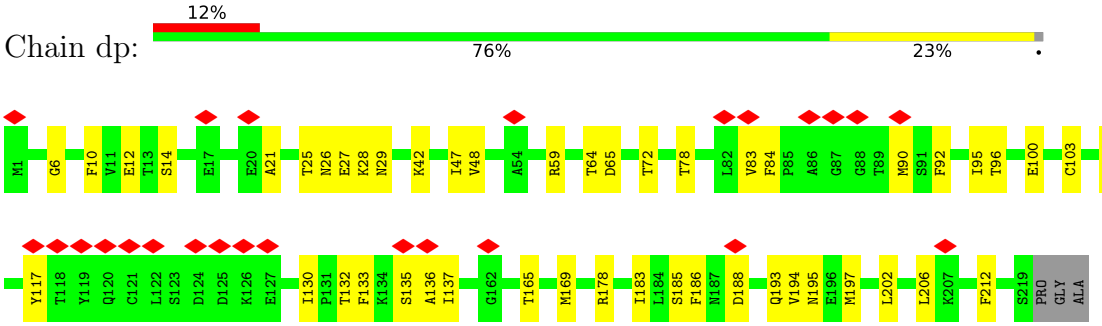
- Molecule 6: Tail tube protein

Chain do:



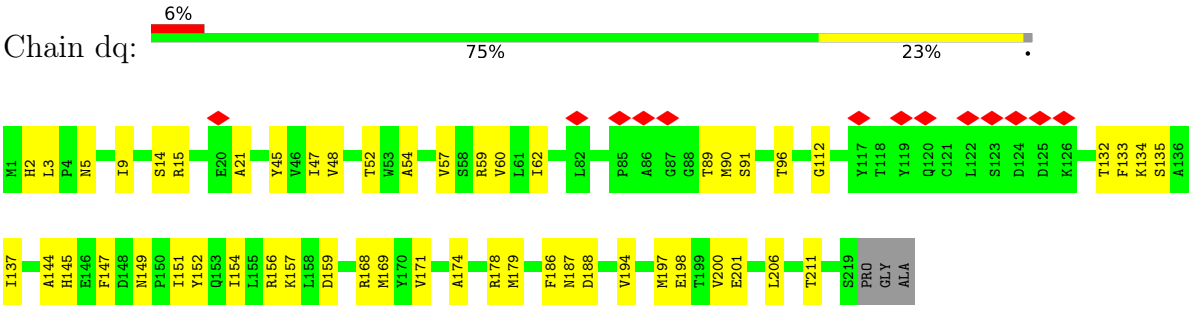
- Molecule 6: Tail tube protein

Chain dp:



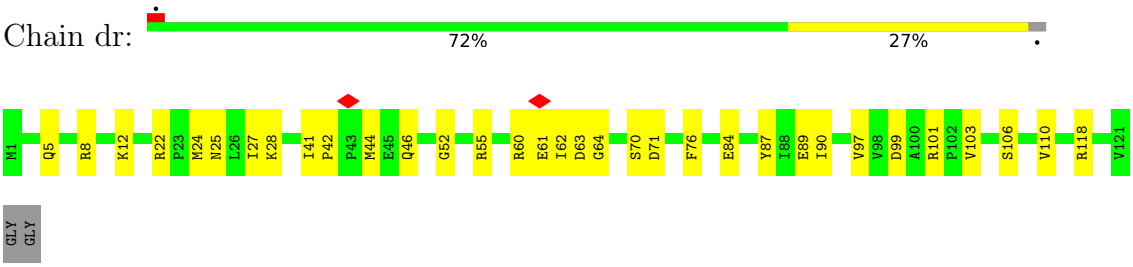
- Molecule 6: Tail tube protein

Chain dq:



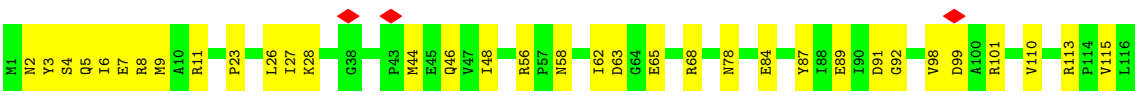
- Molecule 7: Connector protein

Chain dr:



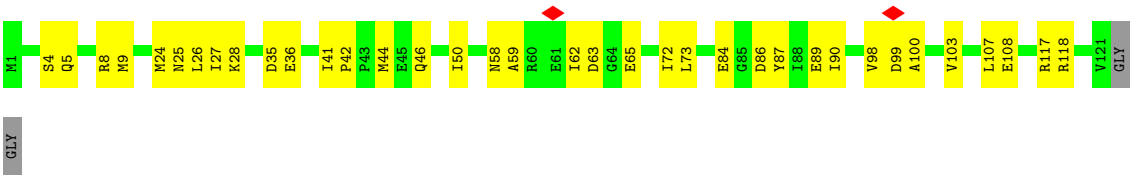
- Molecule 7: Connector protein

Chain ds:



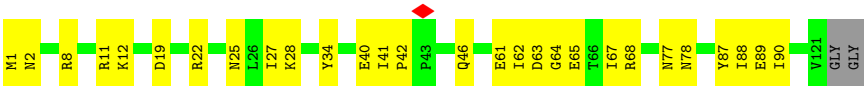
• Molecule 7: Connector protein

Chain dt:



• Molecule 7: Connector protein

Chain dv:

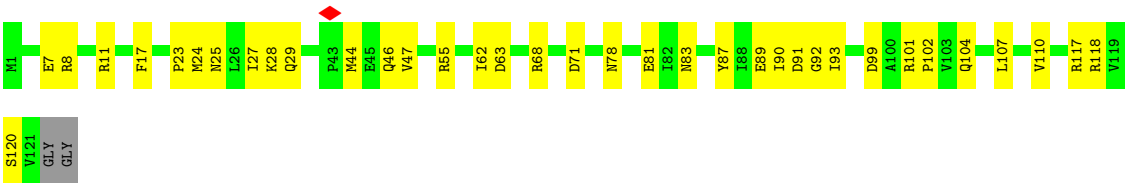


• Molecule 7: Connector protein

Chain dw:

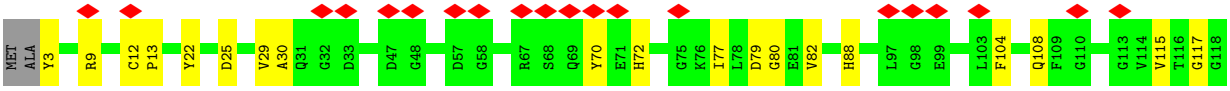
• Molecule 7: Connector protein

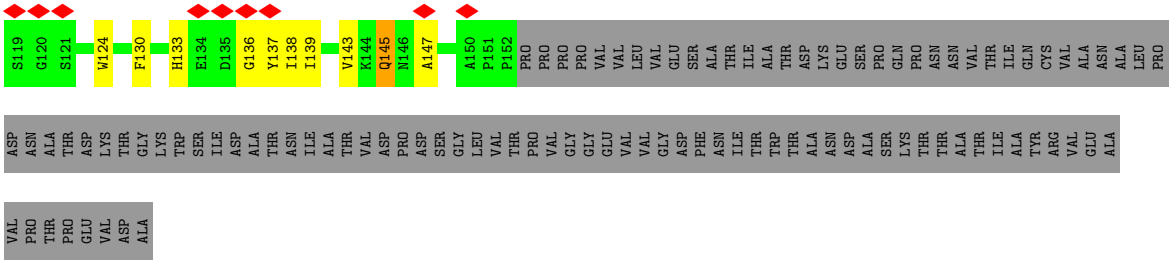
Chain dx:



• Molecule 8: Decoration protein gp29

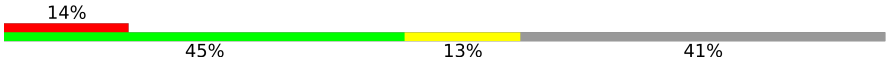
Chain ak:

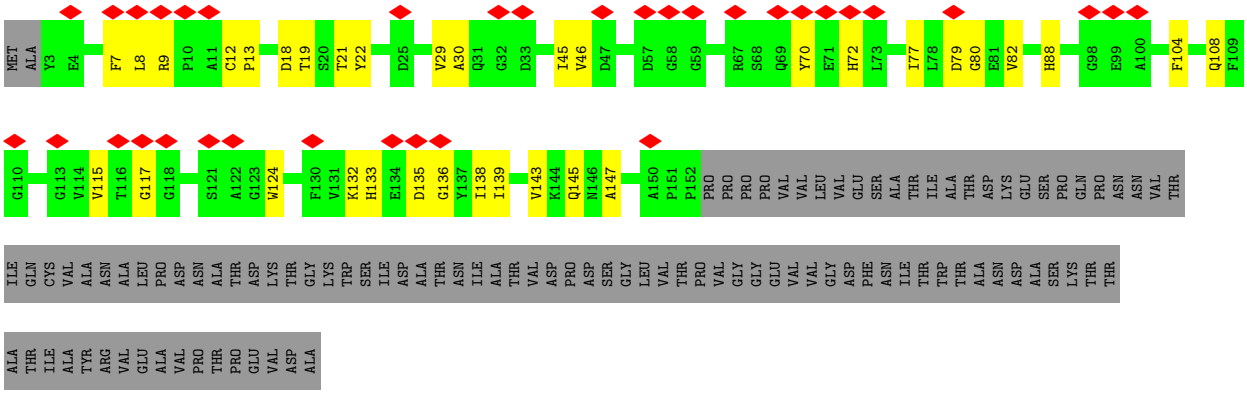




• Molecule 8: Decoration protein gp29

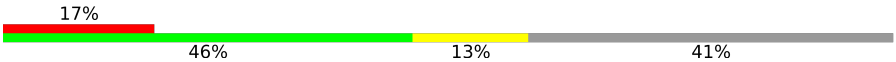
Chain bk:

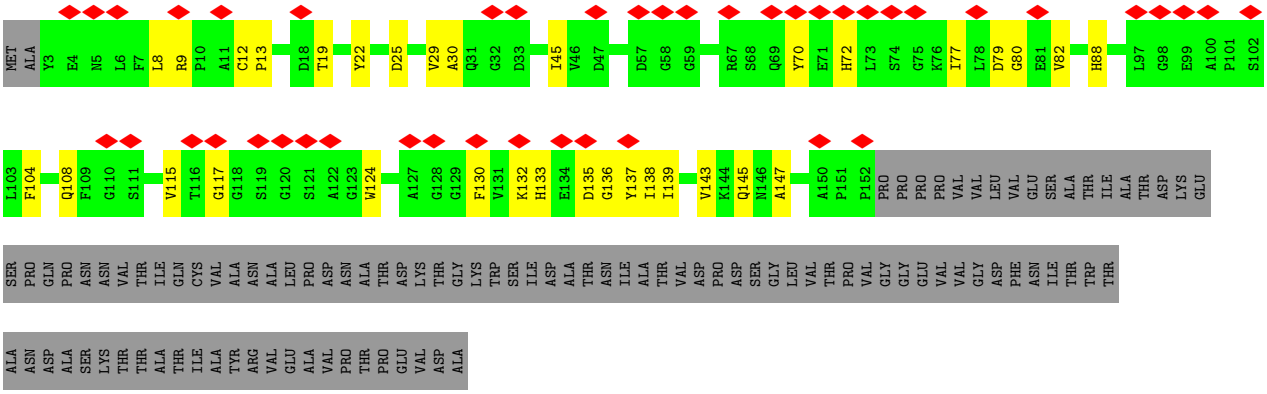




• Molecule 8: Decoration protein gp29

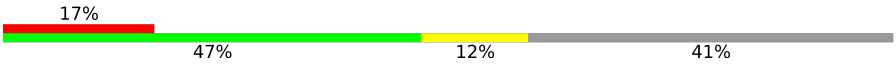
Chain bx:

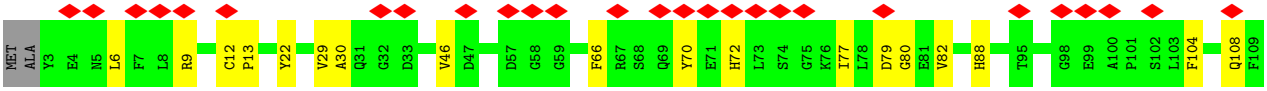


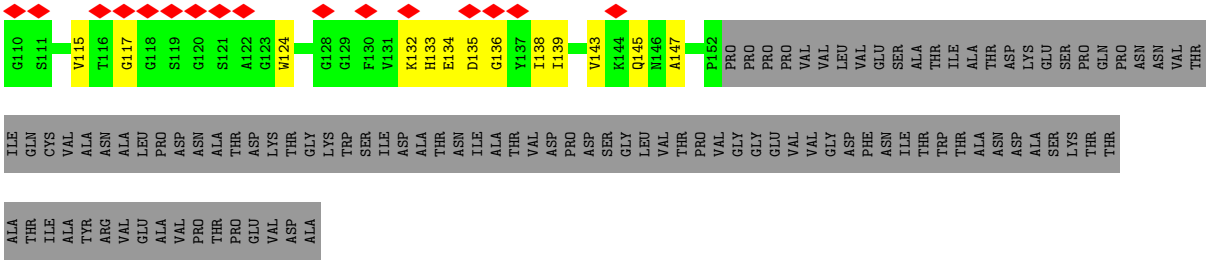


• Molecule 8: Decoration protein gp29

Chain ck:

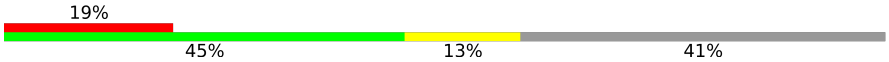


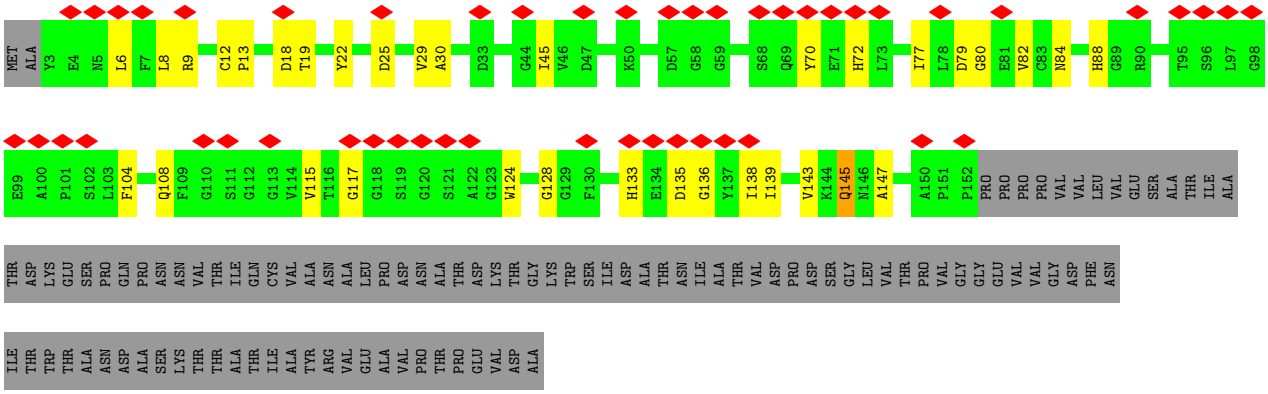




- Molecule 8: Decoration protein gp29

Chain ax:





4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	74400	Depositor
Resolution determination method	OTHER	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	25.8	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	3000	Depositor
Magnification	75000	Depositor
Image detector	FEI FALCON IV (4k x 4k)	Depositor
Maximum map value	17.657	Depositor
Minimum map value	-10.394	Depositor
Average map value	0.007	Depositor
Map value standard deviation	1.076	Depositor
Recommended contour level	3.36	Depositor
Map size (Å)	515.51996, 515.51996, 515.51996	wwPDB
Map dimensions	320, 320, 320	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.6109998, 1.6109998, 1.6109998	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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	aa	0.14	0/2305	0.34	0/3130
1	af	0.14	0/2305	0.34	0/3130
1	ag	0.16	0/2300	0.35	0/3123
1	ah	0.15	0/2305	0.33	0/3130
1	ai	0.16	0/2300	0.34	0/3123
1	aj	0.14	0/2231	0.35	0/3028
1	an	0.14	0/2305	0.33	0/3130
1	as	0.15	0/2305	0.35	0/3130
1	at	0.16	0/2300	0.35	0/3123
1	au	0.15	0/2305	0.34	0/3130
1	av	0.14	0/2300	0.33	0/3123
1	aw	0.15	0/2231	0.36	0/3028
1	ba	0.14	0/2305	0.34	0/3130
1	bf	0.14	0/2305	0.34	0/3130
1	bg	0.15	0/2300	0.34	0/3123
1	bh	0.17	0/2305	0.37	1/3130 (0.0%)
1	bi	0.14	0/2300	0.34	0/3123
1	bj	0.15	0/2231	0.36	0/3028
1	bn	0.15	0/2305	0.36	0/3130
1	bs	0.16	0/2305	0.42	2/3130 (0.1%)
1	bt	0.15	0/2300	0.34	0/3123
1	bu	0.15	0/2305	0.33	0/3130
1	bv	0.14	0/2300	0.32	0/3123
1	bw	0.15	0/2231	0.36	0/3028
1	ca	0.14	0/2305	0.34	0/3130
1	cf	0.14	0/2305	0.33	0/3130
1	cg	0.15	0/2300	0.33	0/3123
1	ch	0.15	0/2305	0.33	0/3130
1	ci	0.14	0/2300	0.32	0/3123
1	cj	0.15	0/2231	0.37	0/3028
2	ab	0.17	0/1199	0.30	0/1632
2	ac	0.23	0/1199	0.43	0/1632
2	ad	0.13	0/1199	0.32	0/1632
2	ae	0.13	0/1199	0.32	0/1632

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
2	al	0.13	0/1199	0.33	0/1632
2	am	0.14	0/1199	0.38	0/1632
2	ao	0.14	0/1199	0.36	0/1632
2	ap	0.15	0/1199	0.39	0/1632
2	aq	0.14	0/1199	0.34	0/1632
2	ar	0.13	0/1199	0.33	0/1632
2	ay	0.13	0/1199	0.35	0/1632
2	az	0.16	0/1199	0.34	0/1632
2	bb	0.14	0/1199	0.33	0/1632
2	bc	0.15	0/1199	0.39	0/1632
2	bd	0.13	0/1199	0.35	0/1632
2	be	0.13	0/1199	0.31	0/1632
2	bl	0.12	0/1199	0.33	0/1632
2	bm	0.15	0/1199	0.40	0/1632
2	bo	0.15	0/1199	0.32	0/1632
2	bp	0.15	0/1199	0.38	0/1632
2	bq	0.14	0/1199	0.33	0/1632
2	br	0.13	0/1199	0.32	0/1632
2	by	0.12	0/1199	0.33	0/1632
2	bz	0.12	0/1199	0.33	0/1632
2	cb	0.15	0/1199	0.34	0/1632
2	cc	0.14	0/1199	0.36	0/1632
2	cd	0.15	0/1199	0.35	0/1632
2	ce	0.18	0/1199	0.34	0/1632
2	cl	0.13	0/1199	0.36	0/1632
2	cm	0.14	0/1199	0.36	0/1632
3	cn	0.18	0/3017	0.47	0/4082
3	co	0.20	0/3094	0.52	5/4186 (0.1%)
3	cp	0.19	0/2993	0.48	2/4049 (0.0%)
3	cq	0.19	0/3017	0.51	4/4082 (0.1%)
3	cy	0.21	0/3094	0.47	0/4186
3	dj	0.18	0/3012	0.47	2/4075 (0.0%)
3	du	0.18	0/3094	0.46	1/4186 (0.0%)
3	dy	0.17	0/3012	0.49	2/4075 (0.0%)
3	dz	0.20	0/3017	0.48	0/4082
3	ea	0.20	0/3094	0.56	4/4186 (0.1%)
3	eb	0.19	0/3017	0.47	1/4082 (0.0%)
3	ec	0.18	0/3088	0.48	2/4177 (0.0%)
4	cr	0.16	0/1099	0.43	0/1482
4	cs	0.16	0/1099	0.44	0/1482
4	ct	0.15	0/1099	0.44	0/1482
4	cu	0.16	0/1099	0.41	0/1482
4	cv	0.15	0/1099	0.39	0/1482

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
4	cw	0.15	0/1099	0.40	0/1482
5	cx	0.16	0/1082	0.41	0/1453
5	cz	0.17	0/1082	0.47	0/1453
5	da	0.16	0/1082	0.46	0/1453
5	db	0.20	0/1082	0.44	0/1453
5	dc	0.18	0/1082	0.45	0/1453
5	dd	0.24	0/1082	0.54	0/1453
5	de	0.17	0/1082	0.44	0/1453
5	df	0.18	0/1082	0.47	0/1453
5	dg	0.16	0/1082	0.42	0/1453
5	dh	0.16	0/1082	0.45	0/1453
5	di	0.16	0/1082	0.42	0/1453
5	dk	0.17	0/1082	0.43	0/1453
6	dl	0.12	0/1713	0.33	0/2329
6	dm	0.13	0/1713	0.35	0/2329
6	dn	0.13	0/1713	0.33	0/2329
6	do	0.13	0/1713	0.35	0/2329
6	dp	0.13	0/1713	0.35	0/2329
6	dq	0.13	0/1713	0.33	0/2329
7	dr	0.17	0/982	0.43	0/1330
7	ds	0.17	0/982	0.42	0/1330
7	dt	0.18	0/982	0.45	0/1330
7	dv	0.17	0/982	0.43	0/1330
7	dw	0.16	0/982	0.41	0/1330
7	dx	0.17	0/982	0.42	0/1330
8	ak	0.45	0/1121	0.75	6/1525 (0.4%)
8	ax	0.46	0/1121	0.77	6/1525 (0.4%)
8	bk	0.46	0/1121	0.75	4/1525 (0.3%)
8	bx	0.45	0/1121	0.76	4/1525 (0.3%)
8	ck	0.46	0/1121	0.74	4/1525 (0.3%)
All	All	0.18	0/182602	0.41	50/247635 (0.0%)

There are no bond length outliers.

All (50) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	ax	9	ARG	N-CA-C	11.49	129.47	113.16
8	bx	9	ARG	N-CA-C	10.93	127.61	112.75
8	bk	9	ARG	N-CA-C	10.07	127.46	113.16
8	bk	145	GLN	N-CA-C	9.08	120.79	111.07
8	bx	145	GLN	N-CA-C	9.08	120.79	111.07
8	ax	145	GLN	N-CA-C	9.08	120.79	111.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	ak	145	GLN	N-CA-C	9.07	120.78	111.07
8	ck	145	GLN	N-CA-C	9.06	120.77	111.07
8	ck	9	ARG	N-CA-C	8.81	129.27	109.81
8	ak	9	ARG	N-CA-C	8.11	127.74	109.81
1	bs	67	SER	CA-C-N	-7.80	111.76	119.87
1	bs	67	SER	C-N-CA	-7.80	111.76	119.87
3	ec	371	VAL	CA-C-N	-7.64	112.95	120.52
3	ec	371	VAL	C-N-CA	-7.64	112.95	120.52
3	ea	371	VAL	CA-C-N	-6.81	113.49	120.85
3	ea	371	VAL	C-N-CA	-6.81	113.49	120.85
3	eb	247	CYS	N-CA-C	6.09	118.38	110.53
3	co	378	SER	N-CA-C	-6.05	104.31	111.03
3	du	373	SER	N-CA-C	6.00	117.66	108.42
3	cq	371	VAL	CA-C-N	-5.86	114.72	120.52
3	cq	371	VAL	C-N-CA	-5.86	114.72	120.52
3	dy	371	VAL	CA-C-N	-5.62	114.96	120.98
3	dy	371	VAL	C-N-CA	-5.62	114.96	120.98
3	dj	371	VAL	CA-C-N	-5.61	114.54	120.66
3	dj	371	VAL	C-N-CA	-5.61	114.54	120.66
8	ak	9	ARG	CA-C-N	-5.58	114.18	119.76
8	ak	9	ARG	C-N-CA	-5.58	114.18	119.76
8	bx	147	ALA	N-CA-C	5.49	117.26	111.28
8	bk	147	ALA	N-CA-C	5.47	117.24	111.28
8	ak	147	ALA	N-CA-C	5.47	117.24	111.28
8	ck	147	ALA	N-CA-C	5.46	117.23	111.28
8	ax	9	ARG	CA-C-N	-5.45	114.31	119.76
8	ax	9	ARG	C-N-CA	-5.45	114.31	119.76
8	ax	147	ALA	N-CA-C	5.45	117.22	111.28
3	co	374	LYS	CA-C-N	-5.29	113.67	120.65
3	co	374	LYS	C-N-CA	-5.29	113.67	120.65
3	cq	374	LYS	CA-C-N	-5.12	113.63	120.54
3	cq	374	LYS	C-N-CA	-5.12	113.63	120.54
1	bh	228	PRO	CA-N-CD	-5.12	104.84	112.00
3	cp	371	VAL	CA-C-N	-5.10	115.47	120.52
3	cp	371	VAL	C-N-CA	-5.10	115.47	120.52
3	ea	330	LEU	CA-C-N	-5.09	112.22	120.72
3	ea	330	LEU	C-N-CA	-5.09	112.22	120.72
3	co	371	VAL	CA-C-N	-5.06	113.52	119.84
3	co	371	VAL	C-N-CA	-5.06	113.52	119.84
8	bx	136	GLY	N-CA-C	-5.04	101.20	110.83
8	ak	136	GLY	N-CA-C	-5.03	101.22	110.83
8	bk	136	GLY	N-CA-C	-5.03	101.23	110.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	ax	136	GLY	N-CA-C	-5.01	101.26	110.83
8	ck	136	GLY	N-CA-C	-5.01	101.26	110.83

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	aa	2260	0	2282	42	0
1	af	2260	0	2282	31	0
1	ag	2255	0	2277	17	0
1	ah	2260	0	2282	22	0
1	ai	2255	0	2277	31	0
1	aj	2188	0	2212	20	0
1	an	2260	0	2282	41	0
1	as	2260	0	2282	35	0
1	at	2255	0	2277	27	0
1	au	2260	0	2282	24	0
1	av	2255	0	2277	27	0
1	aw	2188	0	2212	33	0
1	ba	2260	0	2282	37	0
1	bf	2260	0	2282	36	0
1	bg	2255	0	2277	29	0
1	bh	2260	0	2282	26	0
1	bi	2255	0	2277	12	0
1	bj	2188	0	2212	23	0
1	bn	2260	0	2282	52	0
1	bs	2260	0	2282	35	0
1	bt	2255	0	2277	28	0
1	bu	2260	0	2282	21	0
1	bv	2255	0	2277	22	0
1	bw	2188	0	2212	37	0
1	ca	2260	0	2282	44	0
1	cf	2260	0	2282	21	0
1	cg	2255	0	2277	20	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	ch	2260	0	2282	20	0
1	ci	2255	0	2277	20	0
1	cj	2188	0	2212	23	0
2	ab	1179	0	1157	13	0
2	ac	1179	0	1157	10	0
2	ad	1179	0	1157	3	0
2	ae	1179	0	1157	6	0
2	al	1179	0	1157	26	0
2	am	1179	0	1157	16	0
2	ao	1179	0	1157	7	0
2	ap	1179	0	1157	15	0
2	aq	1179	0	1157	9	0
2	ar	1179	0	1157	6	0
2	ay	1179	0	1157	32	0
2	az	1179	0	1157	21	0
2	bb	1179	0	1157	14	0
2	bc	1179	0	1157	11	0
2	bd	1179	0	1157	13	0
2	be	1179	0	1157	8	0
2	bl	1179	0	1157	16	0
2	bm	1179	0	1157	21	0
2	bo	1179	0	1157	8	0
2	bp	1179	0	1157	18	0
2	bq	1179	0	1157	9	0
2	br	1179	0	1157	10	0
2	by	1179	0	1157	13	0
2	bz	1179	0	1157	17	0
2	cb	1179	0	1157	16	0
2	cc	1179	0	1157	13	0
2	cd	1179	0	1157	6	0
2	ce	1179	0	1157	13	0
2	cl	1179	0	1157	15	0
2	cm	1179	0	1157	8	0
3	cn	2964	0	2945	122	0
3	co	3037	0	3012	93	0
3	cp	2941	0	2925	107	0
3	cq	2964	0	2944	123	0
3	cy	3037	0	3013	132	0
3	dj	2959	0	2939	111	0
3	du	3037	0	3012	108	0
3	dy	2959	0	2939	112	0
3	dz	2964	0	2944	113	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	ea	3037	0	3013	108	0
3	eb	2964	0	2944	111	0
3	ec	3031	0	3008	107	0
4	cr	1070	0	1061	36	0
4	cs	1070	0	1061	19	0
4	ct	1070	0	1061	19	0
4	cu	1070	0	1061	24	0
4	cv	1070	0	1061	19	0
4	cw	1070	0	1061	31	0
5	cx	1063	0	1074	35	0
5	cz	1063	0	1074	24	0
5	da	1063	0	1074	23	0
5	db	1063	0	1074	32	0
5	dc	1063	0	1074	33	0
5	dd	1063	0	1075	39	0
5	de	1063	0	1074	39	0
5	df	1063	0	1074	39	0
5	dg	1063	0	1075	29	0
5	dh	1063	0	1074	25	0
5	di	1063	0	1074	22	0
5	dk	1063	0	1075	36	0
6	dl	1682	0	1651	28	0
6	dm	1682	0	1651	29	0
6	dn	1682	0	1651	36	0
6	do	1682	0	1651	40	0
6	dp	1682	0	1651	33	0
6	dq	1682	0	1651	41	0
7	dr	963	0	945	28	0
7	ds	963	0	945	31	0
7	dt	963	0	945	25	0
7	dv	963	0	945	19	0
7	dw	963	0	945	32	0
7	dx	963	0	945	30	0
8	ak	1095	0	1059	35	0
8	ax	1095	0	1059	49	0
8	bk	1095	0	1059	46	0
8	bx	1095	0	1059	37	0
8	ck	1095	0	1059	50	0
All	All	179175	0	178536	3079	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 9.

All (3079) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:bn:71:LYS:HD2	8:bk:70:TYR:CZ	1.33	1.59
1:ca:71:LYS:HD2	8:bx:70:TYR:CZ	1.40	1.52
1:ba:71:LYS:HD2	8:ax:70:TYR:CZ	1.43	1.50
1:aa:71:LYS:HE2	8:ck:70:TYR:CZ	1.51	1.45
1:an:71:LYS:HD2	8:ak:70:TYR:CZ	1.49	1.43
1:aa:71:LYS:HE2	8:ck:70:TYR:CE1	1.60	1.35
8:ck:12:CYS:SG	8:ck:13:PRO:HD2	1.79	1.23
3:cq:251:ASP:HB3	8:ck:135:ASP:OD1	1.39	1.22
8:ak:12:CYS:SG	8:ak:13:PRO:HD2	1.79	1.22
8:bx:12:CYS:SG	8:bx:13:PRO:HD2	1.79	1.22
1:bn:71:LYS:CD	8:bk:70:TYR:CZ	2.21	1.21
8:ax:12:CYS:SG	8:ax:13:PRO:HD2	1.79	1.21
8:bk:12:CYS:SG	8:bk:13:PRO:HD2	1.79	1.20
1:ca:71:LYS:HD2	8:bx:70:TYR:OH	1.34	1.20
1:ca:71:LYS:CD	8:bx:70:TYR:CZ	2.23	1.20
2:az:154:GLN:NE2	8:ax:145:GLN:HG2	1.56	1.19
8:bk:8:LEU:CD2	8:bk:19:THR:HG23	1.75	1.17
8:bk:8:LEU:HD21	8:bk:19:THR:CG2	1.76	1.16
1:ba:71:LYS:HD2	8:ax:70:TYR:CE2	1.80	1.14
1:bn:71:LYS:HD2	8:bk:70:TYR:CE1	1.84	1.12
8:ax:8:LEU:CD2	8:ax:19:THR:HG23	1.80	1.11
1:an:71:LYS:HD2	8:ak:70:TYR:OH	1.49	1.11
8:ax:8:LEU:HD21	8:ax:19:THR:CG2	1.80	1.10
1:bn:71:LYS:HD2	8:bk:70:TYR:OH	1.51	1.09
1:ba:71:LYS:CD	8:ax:70:TYR:CZ	2.38	1.06
1:bs:88:ALA:HB2	8:bk:82:VAL:HG12	1.36	1.06
1:ca:71:LYS:CD	8:bx:70:TYR:OH	2.03	1.06
1:aa:71:LYS:CE	8:ck:70:TYR:CZ	2.37	1.05
3:dy:249:ASP:HB2	8:ax:135:ASP:OD2	1.61	0.99
1:an:71:LYS:CD	8:ak:70:TYR:CZ	2.45	0.99
3:cy:180:HIS:H	3:cy:183:ARG:HH21	0.99	0.97
2:az:154:GLN:NE2	8:ax:145:GLN:CG	2.27	0.97
1:ca:71:LYS:HD2	8:bx:70:TYR:CE2	1.99	0.97
2:am:154:GLN:OE1	8:ak:145:GLN:HG2	1.64	0.96
8:ak:12:CYS:HG	8:ak:13:PRO:HD2	1.17	0.96
1:aa:71:LYS:NZ	8:ck:70:TYR:O	1.99	0.95
3:eb:249:ASP:OD2	8:bx:135:ASP:CG	2.12	0.93
3:cq:251:ASP:CB	8:ck:135:ASP:OD1	2.17	0.93
2:az:154:GLN:HE22	8:ax:145:GLN:CG	1.82	0.92
1:bs:88:ALA:HB2	8:bk:82:VAL:CG1	1.99	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:an:71:LYS:HD2	8:ak:70:TYR:CE2	2.03	0.92
1:as:88:ALA:HB2	8:ak:82:VAL:HG12	1.50	0.92
1:aa:71:LYS:CE	8:ck:70:TYR:CE1	2.52	0.91
3:dj:123:ARG:HH22	3:dj:130:LYS:H	1.19	0.91
2:az:154:GLN:HE21	8:ax:145:GLN:HG2	1.25	0.91
1:cf:88:ALA:HB2	8:bx:82:VAL:HG12	1.53	0.90
1:bf:88:ALA:HB2	8:ax:82:VAL:HG12	1.53	0.90
3:cp:71:MET:HE3	3:cp:341:ARG:HA	1.53	0.89
1:aa:159:HIS:CD2	8:ck:29:VAL:HG21	2.06	0.89
7:dt:98:VAL:HG21	7:dt:117:ARG:HD3	1.55	0.88
3:dz:72:VAL:HG11	3:dz:101:VAL:HG22	1.56	0.88
5:db:108:MET:HG3	5:di:116:LYS:HD3	1.56	0.88
8:ck:12:CYS:HG	8:ck:13:PRO:HD2	1.33	0.88
2:bo:139:ALA:HB3	2:bo:152:GLU:HG2	1.55	0.86
1:ba:71:LYS:HD2	8:ax:70:TYR:OH	1.74	0.86
3:cp:123:ARG:HH22	3:cp:130:LYS:H	1.20	0.86
3:ec:72:VAL:HG11	3:ec:101:VAL:HG22	1.57	0.85
8:bx:12:CYS:HG	8:bx:13:PRO:HD2	1.33	0.85
1:bf:88:ALA:HB2	8:ax:82:VAL:CG1	2.06	0.85
6:dq:168:ARG:HG3	6:dq:179:MET:HE1	1.59	0.85
8:ck:12:CYS:SG	8:ck:13:PRO:CD	2.65	0.85
7:ds:56:ARG:HH22	7:ds:58:ASN:HB2	1.42	0.84
1:aa:71:LYS:HE2	8:ck:70:TYR:CE2	2.12	0.84
6:do:168:ARG:HG3	6:do:179:MET:HE1	1.59	0.84
3:cq:254:TYR:CZ	8:ck:134:GLU:HA	2.13	0.84
2:by:139:ALA:HB3	2:by:152:GLU:HG2	1.58	0.84
3:eb:249:ASP:OD2	8:bx:135:ASP:OD1	1.96	0.84
3:cq:251:ASP:HB3	8:ck:135:ASP:CG	2.02	0.84
8:bk:12:CYS:SG	8:bk:13:PRO:CD	2.65	0.84
3:eb:278:GLU:HG3	3:eb:279:THR:HG23	1.60	0.84
1:bn:71:LYS:CD	8:bk:70:TYR:OH	2.19	0.83
8:ax:12:CYS:SG	8:ax:13:PRO:CD	2.65	0.83
1:bn:71:LYS:CE	8:bk:70:TYR:CE2	2.62	0.83
1:an:71:LYS:CD	8:ak:70:TYR:OH	2.27	0.83
2:al:139:ALA:HB3	2:al:152:GLU:HG2	1.61	0.82
3:cy:258:LEU:HA	5:dd:136:ARG:HH12	1.41	0.82
5:dk:136:ARG:HH12	3:ea:258:LEU:HA	1.45	0.82
5:db:131:LEU:HD13	3:ea:263:VAL:HG11	1.61	0.81
8:ak:12:CYS:SG	8:ak:13:PRO:CD	2.65	0.81
1:af:88:ALA:HB2	8:ck:82:VAL:HG12	1.62	0.81
5:df:100:VAL:HG13	5:df:101:THR:HG23	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:cp:278:GLU:HG3	3:cp:279:THR:HG23	1.62	0.81
3:cq:123:ARG:HH22	3:cq:130:LYS:H	1.28	0.81
3:dy:123:ARG:HH22	3:dy:130:LYS:H	1.26	0.81
3:cn:251:ASP:OD2	8:bx:137:TYR:OH	1.99	0.80
2:ae:139:ALA:HB3	2:ae:152:GLU:HG2	1.64	0.80
2:ar:139:ALA:HB3	2:ar:152:GLU:HG2	1.64	0.80
3:cp:395:GLN:HE21	3:cp:397:ILE:HD12	1.47	0.79
8:bx:12:CYS:SG	8:bx:13:PRO:CD	2.65	0.79
2:al:158:LEU:HD21	8:ak:104:PHE:HB3	1.65	0.79
1:as:88:ALA:HB2	8:ak:82:VAL:CG1	2.12	0.79
1:as:111:LEU:HD13	1:as:147:LEU:HD23	1.65	0.79
3:ea:377:GLU:HA	3:ea:380:ILE:HG22	1.64	0.79
3:cq:310:HIS:HE1	3:cq:333:PHE:HB2	1.48	0.78
2:am:154:GLN:OE1	8:ak:145:GLN:CG	2.31	0.78
2:cc:139:ALA:HB3	2:cc:152:GLU:HG2	1.65	0.78
3:co:310:HIS:HE1	3:co:333:PHE:HB2	1.50	0.77
3:cy:186:ILE:HD11	3:cy:203:TRP:HE1	1.47	0.77
6:dm:130:ILE:HD12	6:dm:131:PRO:HD2	1.66	0.77
3:eb:249:ASP:OD2	8:bx:135:ASP:CB	2.33	0.77
3:dz:67:ILE:HB	3:dz:108:ARG:HH22	1.49	0.77
2:ap:11:ASP:HA	1:av:146:GLN:HE22	1.49	0.77
2:cb:139:ALA:HB3	2:cb:152:GLU:HG2	1.65	0.76
7:dx:62:ILE:HG13	7:dx:63:ASP:H	1.50	0.76
8:ax:12:CYS:HG	8:ax:13:PRO:HD2	1.49	0.76
3:cn:149:GLU:HG3	3:cn:178:LEU:HD11	1.66	0.76
3:ea:72:VAL:HG11	3:ea:101:VAL:HG22	1.68	0.76
1:bn:71:LYS:CG	8:bk:70:TYR:OH	2.33	0.75
1:aa:230:THR:HG22	1:aa:232:MET:H	1.48	0.75
1:as:200:ILE:HG21	1:as:210:ALA:HB2	1.69	0.75
2:cb:121:ASP:OD1	2:cb:122:VAL:N	2.19	0.75
3:cp:72:VAL:HG11	3:cp:101:VAL:HG22	1.69	0.75
1:bn:71:LYS:NZ	8:bk:70:TYR:CE2	2.55	0.75
1:ca:91:THR:HG22	2:cm:30:GLY:HA3	1.69	0.75
1:bt:290:LYS:HG2	1:bt:291:ASP:H	1.52	0.75
3:co:403:ARG:HH21	3:co:415:LEU:HD21	1.51	0.75
6:dm:154:ILE:HA	6:dm:157:LYS:HZ2	1.51	0.75
2:bz:114:PHE:CD2	8:bx:45:ILE:HD11	2.23	0.74
1:ai:200:ILE:HG21	1:ai:210:ALA:HB2	1.69	0.74
3:cn:310:HIS:HE1	3:cn:333:PHE:HB2	1.51	0.74
3:dy:143:ARG:NH2	3:dy:200:ASN:OD1	2.21	0.73
2:bc:119:LYS:NZ	2:bc:133:GLU:OE1	2.21	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:ds:62:ILE:HG13	7:ds:63:ASP:H	1.52	0.73
3:ea:159:ARG:HH12	3:ea:164:GLU:HG2	1.53	0.73
3:dj:374:LYS:NZ	3:du:372:PRO:HB3	2.03	0.73
1:ai:79:ASP:OD1	1:ai:80:LYS:N	2.20	0.73
4:cr:81:LEU:HA	4:cr:84:LYS:HE3	1.71	0.73
3:ec:153:THR:HA	3:ec:160:TYR:HB2	1.71	0.73
1:aa:71:LYS:HD3	8:ck:70:TYR:CE2	2.24	0.73
1:cf:88:ALA:HB2	8:bx:82:VAL:CG1	2.18	0.73
3:cq:235:GLN:HE22	3:cy:267:SER:HB2	1.54	0.72
5:dc:41:LEU:O	5:dk:124:ARG:NH1	2.23	0.72
2:bb:121:ASP:OD1	2:bb:122:VAL:N	2.20	0.72
2:bb:139:ALA:HB3	2:bb:152:GLU:HG2	1.70	0.72
3:cy:180:HIS:N	3:cy:183:ARG:HH21	1.82	0.72
7:dt:27:ILE:HB	7:dt:87:TYR:HB2	1.72	0.72
1:aa:71:LYS:HE2	8:ck:70:TYR:CD1	2.24	0.72
3:eb:123:ARG:HH22	3:eb:130:LYS:H	1.37	0.72
3:cy:180:HIS:H	3:cy:183:ARG:NH2	1.83	0.72
3:cn:118:ILE:HG13	3:cn:136:GLU:HB2	1.72	0.72
3:cq:267:SER:OG	3:ea:232:ARG:NH1	2.23	0.72
3:dj:395:GLN:HE22	3:dj:397:ILE:HG13	1.54	0.72
3:dj:139:ARG:NH2	3:du:160:TYR:OH	2.23	0.71
3:cn:119:ILE:HG22	3:cn:183:ARG:HH12	1.54	0.71
3:cn:374:LYS:NZ	3:eb:372:PRO:HA	2.05	0.71
3:cp:69:GLU:HG3	3:dz:339:ARG:HD3	1.70	0.71
5:df:83:ARG:HH12	5:dg:100:VAL:HA	1.55	0.71
1:ca:71:LYS:CG	8:bx:70:TYR:OH	2.39	0.71
7:dw:62:ILE:HG13	7:dw:63:ASP:H	1.55	0.71
2:ay:22:ASP:OD2	2:ay:101:ARG:NH1	2.23	0.71
2:bm:139:ALA:HB3	2:bm:152:GLU:HG2	1.72	0.71
2:az:9:GLN:NE2	2:az:11:ASP:OD1	2.20	0.71
6:dn:2:HIS:NE2	6:do:198:GLU:OE2	2.24	0.71
3:ec:377:GLU:HA	3:ec:380:ILE:HG12	1.72	0.71
1:aa:159:HIS:NE2	8:ck:29:VAL:CG2	2.54	0.71
1:ba:71:LYS:CD	8:ax:70:TYR:CE2	2.67	0.71
3:cq:372:PRO:HA	3:cy:374:LYS:NZ	2.06	0.71
2:am:139:ALA:HB3	2:am:152:GLU:HB3	1.73	0.71
3:ea:373:SER:O	3:ea:374:LYS:C	2.34	0.70
3:cy:334:TYR:HA	3:cy:337:VAL:HG12	1.74	0.70
3:ea:379:GLU:O	3:ea:383:ASN:ND2	2.23	0.70
1:aa:93:ASP:HB3	2:al:24:SER:HB3	1.73	0.70
1:af:35:THR:HG22	1:af:38:GLU:HG3	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:co:168:VAL:HG22	3:co:170:PRO:HD3	1.74	0.70
3:ea:165:ILE:HG22	3:ea:178:LEU:HD22	1.73	0.70
1:bh:290:LYS:HG2	1:bh:291:ASP:H	1.57	0.70
5:df:124:ARG:NH1	3:dj:247:CYS:SG	2.63	0.70
1:aa:159:HIS:CD2	8:ck:29:VAL:CG2	2.73	0.70
3:co:97:ASP:OD1	3:co:98:PRO:HD3	1.92	0.70
3:co:275:ILE:HD11	3:dy:239:LYS:HE2	1.71	0.70
4:cu:3:TYR:HE1	4:cw:77:ASP:HB2	1.57	0.70
3:dj:372:PRO:HA	3:ec:374:LYS:NZ	2.07	0.70
3:eb:331:GLU:HA	3:eb:334:TYR:HD2	1.56	0.70
6:do:132:THR:HG22	6:do:133:PHE:H	1.57	0.70
4:cu:102:PHE:HB3	4:cu:124:THR:HG23	1.72	0.70
1:ai:227:MET:HE3	1:ai:230:THR:HG21	1.74	0.69
2:ao:10:ARG:O	1:bf:146:GLN:NE2	2.25	0.69
1:ba:230:THR:HG22	1:ba:232:MET:H	1.56	0.69
3:cn:72:VAL:HG11	3:cn:101:VAL:HG22	1.74	0.69
3:dj:372:PRO:HA	3:ec:374:LYS:HZ1	1.57	0.69
3:cn:377:GLU:HA	3:cn:380:ILE:HG12	1.74	0.69
3:cy:239:LYS:O	3:cy:280:GLU:HA	1.93	0.69
7:dw:25:ASN:HB2	7:dw:89:GLU:HB3	1.74	0.69
1:ah:112:GLY:HA2	1:ah:144:HIS:HE1	1.58	0.69
3:dy:323:SER:O	3:dy:326:GLN:NE2	2.23	0.69
3:ec:123:ARG:HH22	3:ec:130:LYS:H	1.36	0.69
3:cn:232:ARG:NH1	3:du:267:SER:OG	2.25	0.69
1:bn:71:LYS:CE	8:bk:70:TYR:CZ	2.74	0.69
3:dz:268:GLY:HA3	3:dz:271:ARG:HH21	1.58	0.69
1:an:151:LEU:HD11	1:as:86:ILE:HD11	1.75	0.69
2:cd:84:ASN:HA	1:ch:31:MET:HE1	1.74	0.69
3:cq:209:ASN:HD21	3:cy:58:ALA:HB2	1.58	0.69
5:df:18:ARG:NH2	5:df:29:ASP:OD1	2.24	0.69
1:bh:186:PRO:HG3	1:bh:225:ILE:HD12	1.74	0.69
3:cq:245:GLU:OE2	5:dk:120:GLN:NE2	2.26	0.69
7:ds:27:ILE:HB	7:ds:87:TYR:HB2	1.75	0.69
3:du:72:VAL:HG11	3:du:101:VAL:HG22	1.75	0.69
3:dz:240:VAL:HG13	3:dz:243:LEU:HB2	1.75	0.69
3:cp:62:ARG:NH2	3:cp:313:ILE:O	2.26	0.69
1:bn:87:ILE:HB	1:bn:91:THR:HG21	1.73	0.69
3:cq:196:MET:SD	3:cq:199:GLN:NE2	2.66	0.69
3:cn:58:ALA:HB2	3:eb:209:ASN:HD21	1.58	0.68
7:dv:62:ILE:HG13	7:dv:63:ASP:H	1.57	0.68
8:bk:8:LEU:HD21	8:bk:19:THR:HG23	0.83	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:ay:139:ALA:HB3	2:ay:152:GLU:HG2	1.75	0.68
1:bh:184:MET:HE2	1:bh:225:ILE:HD11	1.75	0.68
6:dm:2:HIS:NE2	6:dn:198:GLU:OE2	2.27	0.68
6:dm:182:GLY:HA2	6:dm:207:LYS:HG2	1.75	0.68
7:dt:62:ILE:HG13	7:dt:63:ASP:H	1.56	0.68
3:dz:177:TYR:HE1	3:dz:179:ILE:HD11	1.58	0.68
3:eb:118:ILE:HG13	3:eb:136:GLU:HG3	1.76	0.68
3:co:350:GLU:HG3	3:dz:95:LYS:HE2	1.75	0.68
3:du:283:ASP:OD1	3:du:284:VAL:N	2.27	0.68
6:do:42:LYS:NZ	6:do:64:THR:O	2.25	0.68
7:ds:89:GLU:OE2	7:ds:92:GLY:N	2.27	0.68
1:aa:159:HIS:NE2	8:ck:29:VAL:HG21	2.08	0.68
6:dq:90:MET:HE3	6:dq:91:SER:H	1.58	0.68
1:bt:87:ILE:HB	1:bt:91:THR:HG21	1.76	0.68
5:dg:77:LEU:HD22	7:dx:8:ARG:HH21	1.58	0.68
3:du:120:ASN:ND2	3:du:136:GLU:OE1	2.26	0.68
3:du:395:GLN:HE21	3:du:397:ILE:HD12	1.58	0.68
3:cn:259:ARG:NH1	5:cx:131:LEU:O	2.27	0.67
3:cp:71:MET:HE2	3:cp:345:TYR:HB2	1.76	0.67
3:cq:251:ASP:CB	8:ck:135:ASP:CG	2.64	0.67
4:cr:20:PHE:HZ	4:cr:37:MET:HG3	1.58	0.67
4:cs:110:ILE:HG12	4:cs:119:ILE:HG12	1.75	0.67
6:dl:132:THR:HG22	6:dl:133:PHE:H	1.59	0.67
3:cy:67:ILE:HG22	3:cy:71:MET:HE2	1.77	0.67
2:ad:134:THR:HG22	2:ad:136:TRP:H	1.60	0.67
6:dq:132:THR:HG22	6:dq:133:PHE:H	1.60	0.67
4:cr:40:ARG:NH1	7:dw:65:GLU:OE1	2.27	0.67
6:dp:21:ALA:HB3	6:dp:90:MET:HB2	1.75	0.67
7:dr:8:ARG:O	7:dr:12:LYS:HG2	1.95	0.67
2:bc:134:THR:HG22	2:bc:136:TRP:H	1.58	0.67
3:cp:325:SER:OG	3:ea:318:ASN:ND2	2.27	0.67
2:ab:10:ARG:O	1:as:146:GLN:NE2	2.27	0.67
4:cu:3:TYR:HB2	4:cw:84:LYS:HZ3	1.58	0.67
3:cp:411:PRO:HB2	3:cp:413:PHE:H	1.60	0.67
3:dj:334:TYR:HD1	3:dj:369:LEU:HG	1.59	0.67
2:ab:4:ILE:O	1:as:220:ARG:NH2	2.28	0.67
5:db:116:LYS:HD3	5:dk:108:MET:HG3	1.75	0.67
3:dz:395:GLN:HE21	3:dz:397:ILE:HD12	1.59	0.67
6:dn:132:THR:HG22	6:dn:133:PHE:H	1.59	0.67
3:eb:62:ARG:NH2	3:eb:313:ILE:O	2.28	0.67
1:ai:248:ASP:OD1	1:ai:249:SER:N	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:al:34:VAL:HG12	2:al:36:GLU:H	1.60	0.66
1:ba:290:LYS:HG2	1:ba:291:ASP:H	1.59	0.66
1:bn:91:THR:HG22	2:bz:30:GLY:HA3	1.76	0.66
7:dw:107:LEU:HD23	7:dw:108:GLU:HG2	1.77	0.66
3:cn:231:ARG:HA	3:eb:225:LEU:HD21	1.77	0.66
4:cr:44:ILE:HB	4:cr:63:ILE:HB	1.77	0.66
7:ds:68:ARG:HD2	7:dt:84:GLU:HG3	1.77	0.66
1:au:112:GLY:HA2	1:au:144:HIS:HE1	1.59	0.66
1:bn:66:LEU:HD12	1:bn:277:GLU:HG2	1.76	0.66
2:cl:158:LEU:HD21	8:ck:104:PHE:HB3	1.77	0.66
6:do:169:MET:HE1	6:do:178:ARG:HH11	1.60	0.66
1:aa:71:LYS:CD	8:ck:70:TYR:CZ	2.79	0.66
1:an:227:MET:HE1	1:an:237:TYR:HB2	1.77	0.66
1:cj:290:LYS:HG2	1:cj:291:ASP:H	1.60	0.66
3:dy:374:LYS:HG3	3:dy:375:LYS:H	1.61	0.66
3:eb:338:ASP:OD1	3:eb:341:ARG:NH2	2.28	0.66
3:co:123:ARG:HH22	3:co:130:LYS:H	1.41	0.66
3:cq:70:GLU:HB2	3:ea:339:ARG:HE	1.61	0.66
3:dj:323:SER:O	3:dj:326:GLN:NE2	2.28	0.66
3:dy:208:LEU:HB3	3:dy:213:ILE:HD11	1.78	0.66
3:ec:328:THR:HA	3:ec:331:GLU:HG2	1.77	0.66
1:af:88:ALA:HB2	8:ck:82:VAL:CG1	2.24	0.66
1:af:283:ASN:ND2	1:af:299:THR:OG1	2.28	0.66
1:bn:290:LYS:HG2	1:bn:291:ASP:H	1.61	0.66
3:cn:191:ARG:NH2	3:cn:343:GLU:OE2	2.25	0.66
3:du:323:SER:O	3:du:326:GLN:NE2	2.28	0.66
1:aa:248:ASP:OD1	1:aa:249:SER:N	2.29	0.66
1:aj:295:LYS:NZ	1:an:291:ASP:OD1	2.28	0.66
6:dn:104:VAL:HG12	6:dn:143:PHE:HB3	1.76	0.66
3:dj:269:VAL:HG23	3:du:234:GLN:HB3	1.77	0.65
5:dk:132:MET:HE3	3:ea:243:LEU:HD21	1.77	0.65
2:al:158:LEU:CD2	8:ak:104:PHE:HB3	2.27	0.65
4:cs:114:GLU:OE2	7:dx:117:ARG:NE	2.23	0.65
3:dj:124:MET:HE1	3:dj:126:THR:HB	1.77	0.65
3:dy:403:ARG:HA	3:dy:406:LEU:HG	1.79	0.65
2:bb:7:SER:OG	1:bs:58:ARG:NH2	2.28	0.65
3:du:373:SER:O	3:du:377:GLU:HG3	1.96	0.65
7:dr:62:ILE:HG13	7:dr:63:ASP:H	1.61	0.65
7:dx:27:ILE:HB	7:dx:87:TYR:HB2	1.79	0.65
1:bf:50:ASP:OD2	1:bg:207:GLN:NE2	2.29	0.65
3:cq:165:ILE:HG21	3:cq:178:LEU:HD23	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:dy:153:THR:HA	3:dy:160:TYR:HB2	1.78	0.65
1:av:200:ILE:HG21	1:av:210:ALA:HB2	1.79	0.65
1:ba:71:LYS:NZ	8:ax:70:TYR:O	2.30	0.65
1:bn:285:LEU:HD21	3:du:42:PHE:HA	1.77	0.65
1:bs:283:ASN:ND2	1:bs:299:THR:OG1	2.29	0.65
1:ca:137:ALA:HB1	1:ca:284:MET:HE1	1.77	0.65
5:cx:116:LYS:HD3	5:dg:108:MET:HG3	1.78	0.65
5:dh:135:LEU:C	5:dh:136:ARG:HD3	2.22	0.65
3:dj:97:ASP:OD1	3:dj:98:PRO:HD3	1.97	0.65
1:bn:71:LYS:HE2	8:bk:70:TYR:CE2	2.31	0.65
3:cp:166:TYR:CD2	3:cp:184:ILE:HD11	2.32	0.65
3:cy:381:THR:HA	3:cy:384:ASN:HD21	1.62	0.65
6:dp:132:THR:HG22	6:dp:133:PHE:H	1.61	0.65
2:ay:99:SER:HA	2:ay:155:LEU:O	1.95	0.65
1:bg:204:THR:HG21	1:bg:208:HIS:HB2	1.78	0.65
7:dx:24:MET:HG2	7:dx:90:ILE:HD13	1.78	0.65
1:aw:280:GLU:OE2	1:ba:123:LYS:NZ	2.30	0.65
1:at:264:VAL:HG23	1:at:319:VAL:HG11	1.78	0.65
2:bl:109:THR:HG23	2:bl:110:GLU:HG3	1.78	0.65
4:cv:113:HIS:CE1	7:dr:60:ARG:HH22	2.15	0.65
3:ea:149:GLU:HG3	3:ea:167:LYS:HE3	1.78	0.65
2:bb:120:LEU:HB2	2:bb:132:ILE:HD11	1.78	0.64
4:cs:31:PRO:HG2	7:dx:118:ARG:HH21	1.62	0.64
4:cw:110:ILE:HG22	4:cw:119:ILE:HG12	1.78	0.64
2:bp:139:ALA:HB3	2:bp:152:GLU:HG2	1.78	0.64
3:cy:123:ARG:HH22	3:cy:130:LYS:H	1.45	0.64
3:dy:149:GLU:HG3	3:dy:178:LEU:HD11	1.79	0.64
3:ea:123:ARG:HH22	3:ea:130:LYS:H	1.43	0.64
3:cq:234:GLN:HB3	3:cy:269:VAL:HG23	1.78	0.64
5:db:43:VAL:HG11	5:db:56:ILE:HG22	1.79	0.64
1:at:47:TYR:HB2	1:au:77:THR:HG22	1.79	0.64
3:cp:69:GLU:OE2	3:dz:339:ARG:NH1	2.31	0.64
3:cy:139:ARG:NH1	3:cy:141:TYR:OH	2.29	0.64
6:dp:110:ASP:OD1	6:dp:111:GLY:N	2.30	0.64
3:eb:148:ILE:HG23	3:eb:163:PRO:HB3	1.80	0.64
3:ec:139:ARG:NH2	3:ec:177:TYR:OH	2.30	0.64
1:as:200:ILE:HD11	1:as:312:THR:HA	1.79	0.64
3:cq:308:GLY:O	3:cy:316:ASN:ND2	2.30	0.64
3:du:373:SER:O	3:du:374:LYS:C	2.41	0.64
2:ar:104:MET:HE2	2:ar:153:VAL:HG21	1.78	0.64
1:bs:45:GLN:NE2	1:bt:272:MET:SD	2.71	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:cn:120:ASN:ND2	3:cn:136:GLU:OE2	2.31	0.64
3:cy:380:ILE:O	3:cy:384:ASN:ND2	2.30	0.64
6:dm:56:MET:HE1	6:dm:90:MET:HE2	1.80	0.64
1:ba:71:LYS:CG	8:ax:70:TYR:OH	2.46	0.64
1:bf:171:THR:HB	1:bf:314:VAL:HG22	1.80	0.64
1:ca:71:LYS:NZ	8:bx:70:TYR:CE2	2.61	0.64
3:cq:338:ASP:OD1	3:cq:341:ARG:NH2	2.30	0.64
7:dv:61:GLU:OE2	7:dv:64:GLY:N	2.30	0.64
5:db:110:LEU:HD13	5:db:116:LYS:HG2	1.79	0.63
5:db:136:ARG:HH22	3:ea:271:ARG:HD2	1.63	0.63
3:eb:328:THR:HA	3:eb:331:GLU:HG3	1.80	0.63
2:bo:25:LYS:HE3	2:bp:25:LYS:HG2	1.80	0.63
1:cj:41:ARG:HH12	3:cq:199:GLN:HB3	1.63	0.63
3:cp:310:HIS:HE1	3:cp:333:PHE:HB2	1.62	0.63
3:cq:72:VAL:HG11	3:cq:101:VAL:HG22	1.79	0.63
1:bw:119:ILE:HA	1:bw:122:ILE:HD12	1.81	0.63
3:cn:123:ARG:HH22	3:cn:130:LYS:H	1.47	0.63
3:cn:149:GLU:HG2	3:cn:167:LYS:HB2	1.80	0.63
3:cq:232:ARG:NH1	3:cy:267:SER:OG	2.31	0.63
1:as:93:ASP:OD2	8:ak:25:ASP:OD1	2.16	0.63
1:ba:132:LEU:HD21	1:ba:136:LYS:HE3	1.79	0.63
4:cr:114:GLU:OE2	7:dw:117:ARG:NH1	2.31	0.63
3:cy:308:GLY:O	3:eb:316:ASN:ND2	2.30	0.63
5:dg:75:GLU:OE1	7:dx:8:ARG:NH1	2.31	0.63
3:ec:240:VAL:HG22	3:ec:280:GLU:HG2	1.80	0.63
3:cn:67:ILE:HD11	3:cn:309:ILE:HD11	1.80	0.63
3:cn:373:SER:O	3:cn:374:LYS:C	2.41	0.63
5:dk:103:ASN:ND2	5:dk:110:LEU:O	2.31	0.63
8:ax:8:LEU:HD23	8:ax:18:ASP:C	2.22	0.63
1:au:235:LEU:HG	1:au:239:LYS:HE2	1.81	0.63
7:dt:35:ASP:OD1	7:dt:36:GLU:N	2.32	0.63
3:dy:249:ASP:CB	8:ax:135:ASP:OD2	2.42	0.63
1:ch:35:THR:HG22	1:ch:38:GLU:HG3	1.81	0.62
5:cz:131:LEU:HD13	3:dy:263:VAL:HG11	1.81	0.62
3:ec:188:ASP:OD1	3:ec:189:GLY:N	2.32	0.62
1:af:220:ARG:HD2	2:cb:4:ILE:HB	1.81	0.62
1:aj:248:ASP:OD1	1:aj:249:SER:N	2.30	0.62
3:dj:268:GLY:HA3	3:dj:271:ARG:HH21	1.64	0.62
2:cl:109:THR:HG23	2:cl:110:GLU:HG3	1.80	0.62
3:dj:149:GLU:HB3	3:dj:165:ILE:HG13	1.81	0.62
3:dj:331:GLU:HA	3:dj:334:TYR:HD2	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:du:241:LYS:HE2	3:du:279:THR:HA	1.81	0.62
1:bt:171:THR:HB	1:bt:314:VAL:HG22	1.80	0.62
5:di:77:LEU:HD22	7:dv:2:ASN:HD21	1.63	0.62
3:dz:374:LYS:HA	3:dz:377:GLU:HG3	1.80	0.62
1:bw:211:THR:HG22	1:bw:268:GLU:HA	1.79	0.62
3:cn:374:LYS:HZ2	3:eb:372:PRO:HA	1.62	0.62
3:dy:395:GLN:HE21	3:dy:397:ILE:HD12	1.65	0.62
3:ec:169:SER:HB3	3:ec:176:PRO:HB3	1.81	0.62
1:bf:283:ASN:HD21	1:bf:299:THR:HG1	1.42	0.62
1:bn:248:ASP:OD1	1:bn:249:SER:N	2.32	0.62
3:co:377:GLU:HA	3:co:380:ILE:HG22	1.82	0.62
3:dj:72:VAL:HG11	3:dj:101:VAL:HG22	1.79	0.62
3:dy:97:ASP:OD1	3:dy:98:PRO:HD3	1.98	0.62
3:eb:151:ARG:HH22	3:eb:162:GLU:N	1.97	0.62
3:eb:379:GLU:OE2	3:eb:383:ASN:ND2	2.30	0.62
1:an:264:VAL:HG23	1:an:319:VAL:HG21	1.82	0.62
1:bj:52:PRO:HD2	2:bl:10:ARG:HB3	1.81	0.62
3:cq:208:LEU:HB3	3:cq:213:ILE:HD11	1.82	0.62
6:dq:21:ALA:HB3	6:dq:90:MET:HB3	1.82	0.62
1:ah:151:LEU:HD11	1:ai:86:ILE:HD11	1.81	0.62
1:cf:283:ASN:ND2	1:cf:299:THR:OG1	2.24	0.62
5:cz:135:LEU:HD22	3:ec:257:ARG:HG3	1.80	0.62
5:dh:135:LEU:HG	5:dh:136:ARG:H	1.64	0.62
1:ag:171:THR:HB	1:ag:314:VAL:HG22	1.82	0.62
1:an:93:ASP:HB3	2:ay:24:SER:HB3	1.81	0.62
1:bf:283:ASN:ND2	1:bf:299:THR:OG1	2.24	0.62
3:co:67:ILE:HD12	3:co:108:ARG:HH22	1.64	0.62
1:aa:158:PRO:HG2	8:ck:46:VAL:HG21	1.82	0.62
1:bu:110:ARG:HG2	1:bu:301:LYS:HG2	1.82	0.62
2:ce:9:GLN:NE2	2:ce:11:ASP:OD1	2.33	0.62
3:cq:372:PRO:HA	3:cy:374:LYS:HZ2	1.65	0.62
5:de:85:THR:HG1	5:df:96:THR:HG1	1.46	0.62
3:du:123:ARG:HH22	3:du:130:LYS:H	1.47	0.62
3:dy:162:GLU:OE2	3:dy:181:HIS:NE2	2.33	0.62
2:ad:90:ASP:OD1	2:ad:91:GLY:N	2.32	0.61
1:an:205:ARG:NE	2:ay:10:ARG:HD2	2.14	0.61
2:aq:90:ASP:OD1	2:aq:91:GLY:N	2.33	0.61
1:cf:219:MET:HE3	1:cf:319:VAL:HG12	1.81	0.61
1:cg:47:TYR:HB2	1:ch:77:THR:HG22	1.81	0.61
3:dj:380:ILE:HD11	3:ec:375:LYS:HG2	1.81	0.61
3:ea:164:GLU:OE2	3:ea:180:HIS:NE2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:do:2:HIS:NE2	6:dq:198:GLU:OE2	2.31	0.61
2:bc:107:LYS:HB2	2:bc:127:LYS:HB2	1.82	0.61
2:bp:16:LEU:HD21	1:bw:100:LEU:HD11	1.82	0.61
4:cw:102:PHE:HB3	4:cw:124:THR:HG23	1.81	0.61
3:dj:373:SER:N	3:dj:376:GLU:OE2	2.24	0.61
6:do:60:VAL:HB	6:do:179:MET:HB3	1.82	0.61
3:cp:100:LEU:HD12	3:cp:348:LEU:HD13	1.83	0.61
5:dc:124:ARG:NH2	5:dd:44:CYS:SG	2.73	0.61
3:dz:380:ILE:HA	3:dz:383:ASN:HD22	1.65	0.61
1:aa:71:LYS:CE	8:ck:70:TYR:CE2	2.78	0.61
1:bt:171:THR:HG21	1:bt:199:THR:HG21	1.82	0.61
3:cn:263:VAL:HG11	5:cx:131:LEU:HD13	1.82	0.61
6:dq:152:TYR:HB3	6:dq:156:ARG:HH12	1.66	0.61
3:du:196:MET:HA	3:du:199:GLN:HG3	1.82	0.61
3:ea:125:LEU:HA	3:ea:183:ARG:HH12	1.64	0.61
3:cp:316:ASN:OD1	3:dz:310:HIS:HB3	2.01	0.61
5:cx:90:SER:OG	7:dr:55:ARG:NE	2.34	0.61
6:dl:137:ILE:HB	6:dl:206:LEU:HD12	1.81	0.61
3:ea:327:ASN:OD1	3:ea:328:THR:N	2.32	0.61
3:cy:241:LYS:HZ1	5:dc:128:ARG:HH21	1.46	0.61
2:al:35:ASN:HA	2:al:90:ASP:HB2	1.83	0.61
1:ba:71:LYS:HG3	8:ax:70:TYR:OH	2.01	0.61
1:bf:63:THR:HG22	1:bf:65:GLU:H	1.66	0.61
1:cf:93:ASP:OD2	8:bx:25:ASP:OD1	2.18	0.61
1:ch:200:ILE:HG21	1:ch:210:ALA:HB2	1.82	0.61
1:cj:89:ASP:OD1	1:cj:90:TYR:N	2.33	0.61
4:cu:53:ILE:HD13	6:dq:194:VAL:HG22	1.82	0.61
3:ea:67:ILE:O	3:ea:71:MET:HB2	2.01	0.61
2:ce:21:ALA:HB3	2:ce:101:ARG:HB3	1.81	0.61
3:cp:318:ASN:HD22	3:dz:329:ALA:HB2	1.66	0.61
6:do:128:GLN:NE2	6:do:129:GLN:O	2.34	0.61
6:do:212:PHE:HB2	6:dq:147:PHE:CE1	2.36	0.61
6:dq:48:VAL:HG22	6:dq:59:ARG:H	1.66	0.61
3:co:242:GLY:O	3:co:245:GLU:HG3	2.01	0.61
7:dv:25:ASN:HB2	7:dv:89:GLU:HB3	1.81	0.61
3:eb:317:LYS:NZ	3:eb:318:ASN:O	2.34	0.61
2:ab:57:LYS:NZ	2:ab:69:TYR:OH	2.34	0.60
1:bn:230:THR:HG22	1:bn:232:MET:H	1.66	0.60
3:du:195:GLN:O	3:du:198:LYS:NZ	2.33	0.60
3:dz:123:ARG:HH22	3:dz:129:VAL:HA	1.66	0.60
1:bf:280:GLU:HB2	1:bf:301:LYS:HB2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:cd:9:GLN:NE2	2:cd:11:ASP:OD1	2.34	0.60
3:co:77:LYS:HE3	3:co:365:GLU:HB2	1.83	0.60
3:co:291:GLY:HA2	3:co:294:GLU:OE2	2.02	0.60
5:de:44:CYS:SG	5:df:124:ARG:NH1	2.75	0.60
3:ea:207:VAL:HG13	3:ea:208:LEU:HD12	1.81	0.60
3:ec:334:TYR:HA	3:ec:337:VAL:HG12	1.84	0.60
1:aa:285:LEU:HD21	3:ea:42:PHE:HA	1.83	0.60
4:cr:102:PHE:HB3	4:cr:124:THR:HG23	1.83	0.60
3:dj:159:ARG:HH22	3:dj:164:GLU:HA	1.66	0.60
6:dm:154:ILE:HA	6:dm:157:LYS:NZ	2.16	0.60
3:ec:336:LEU:HA	3:ec:339:ARG:HG2	1.84	0.60
1:at:250:ILE:HG22	1:at:252:GLU:H	1.66	0.60
5:dc:63:LEU:HD13	5:dk:117:MET:HE3	1.83	0.60
5:df:47:THR:HG22	5:df:126:ARG:HD3	1.83	0.60
5:cz:48:PHE:O	5:cz:49:LYS:HG2	2.02	0.60
3:dj:310:HIS:HE1	3:dj:333:PHE:HB2	1.65	0.60
1:ag:252:GLU:N	1:ag:252:GLU:OE2	2.33	0.60
1:ba:71:LYS:CD	8:ax:70:TYR:OH	2.41	0.60
4:cu:3:TYR:HB2	4:cw:84:LYS:NZ	2.16	0.60
5:cx:110:LEU:HD13	5:cx:116:LYS:HG2	1.82	0.60
3:cy:69:GLU:HA	3:cy:72:VAL:HG12	1.84	0.60
3:cy:393:THR:OG1	3:cy:394:GLU:OE1	2.20	0.60
6:dn:21:ALA:HB3	6:dn:90:MET:HB2	1.84	0.60
3:du:166:TYR:HD2	3:du:184:ILE:HD11	1.65	0.60
3:ec:195:GLN:HA	3:ec:198:LYS:HE3	1.84	0.60
1:ai:274:MET:HE1	1:ai:313:ILE:HD11	1.82	0.60
3:cn:222:CYS:SG	3:cn:299:LYS:NZ	2.73	0.60
3:cn:381:THR:OG1	3:cn:382:LYS:NZ	2.34	0.60
3:cy:125:LEU:O	3:cy:183:ARG:NH2	2.34	0.60
5:cz:33:TYR:O	5:cz:36:VAL:HG12	2.00	0.60
2:am:10:ARG:HB3	1:an:52:PRO:HD2	1.84	0.60
1:aw:220:ARG:HD2	2:ay:4:ILE:HB	1.84	0.60
3:cq:249:ASP:O	8:ck:132:LYS:NZ	2.35	0.60
3:dj:316:ASN:ND2	3:du:308:GLY:O	2.34	0.60
3:ea:383:ASN:HD22	3:ea:383:ASN:H	1.49	0.60
8:ck:133:HIS:HB2	8:ck:138:ILE:HG13	1.84	0.60
2:be:79:THR:HG21	2:be:86:MET:HE3	1.84	0.60
1:bu:151:LEU:HD11	1:bv:86:ILE:HD11	1.84	0.60
3:cn:169:SER:HA	3:cn:176:PRO:HB3	1.83	0.60
3:cy:208:LEU:HB3	3:cy:213:ILE:HD11	1.83	0.60
3:du:377:GLU:HA	3:du:380:ILE:HG22	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:bo:57:LYS:NZ	2:bo:69:TYR:OH	2.35	0.59
5:db:124:ARG:NH2	5:dk:42:PHE:HA	2.17	0.59
5:de:132:MET:HE2	3:dj:243:LEU:HD21	1.84	0.59
6:dm:61:LEU:HB3	6:dm:73:LEU:HD12	1.84	0.59
3:ec:141:TYR:CE2	3:ec:170:PRO:HB3	2.36	0.59
2:ay:27:ASN:ND2	2:ay:98:THR:OG1	2.34	0.59
3:cn:378:SER:O	3:cn:382:LYS:HG2	2.02	0.59
3:cq:251:ASP:CA	8:ck:135:ASP:OD2	2.50	0.59
3:cy:374:LYS:HA	3:cy:377:GLU:HG2	1.84	0.59
6:dq:145:HIS:HB2	6:dq:200:VAL:HG13	1.83	0.59
7:dw:57:PRO:HA	7:dw:72:ILE:HG22	1.84	0.59
3:ea:97:ASP:O	3:ea:101:VAL:HG23	2.02	0.59
8:ak:133:HIS:HB2	8:ak:138:ILE:HG13	1.84	0.59
1:av:66:LEU:HD13	1:av:277:GLU:HG2	1.84	0.59
3:cq:177:TYR:HE2	3:cq:179:ILE:HD11	1.65	0.59
3:eb:97:ASP:OD1	3:eb:98:PRO:HD3	2.02	0.59
3:cn:258:LEU:CD1	8:bx:132:LYS:HB3	2.32	0.59
3:co:323:SER:O	3:co:326:GLN:NE2	2.33	0.59
1:aa:201:GLU:OE1	1:aa:209:ARG:NH1	2.34	0.59
3:cq:393:THR:OG1	3:cq:394:GLU:OE2	2.16	0.59
4:cw:44:ILE:HB	4:cw:63:ILE:HB	1.84	0.59
3:cy:353:LEU:HD11	3:cy:364:ILE:HD11	1.83	0.59
6:dq:149:ASN:OD1	6:dq:151:ILE:HG12	2.03	0.59
7:dr:27:ILE:HB	7:dr:87:TYR:HB2	1.85	0.59
7:ds:84:GLU:HB3	7:dx:68:ARG:HD2	1.84	0.59
3:du:179:ILE:HG21	3:du:184:ILE:HG23	1.84	0.59
3:ea:373:SER:O	3:ea:376:GLU:N	2.35	0.59
2:ay:16:LEU:HB2	2:ay:19:MET:HE3	1.85	0.59
3:cp:414:LYS:NZ	3:dz:404:ASP:O	2.36	0.59
8:bx:133:HIS:HB2	8:bx:138:ILE:HG13	1.84	0.59
2:cl:99:SER:HA	2:cl:155:LEU:O	2.02	0.59
5:cx:47:THR:HG23	5:cx:126:ARG:HD3	1.83	0.59
5:df:136:ARG:HH22	3:dj:271:ARG:HD2	1.67	0.59
3:dj:334:TYR:CD1	3:dj:369:LEU:HG	2.38	0.59
8:bk:72:HIS:CE1	8:bk:77:ILE:HG12	2.38	0.59
1:bg:171:THR:HB	1:bg:314:VAL:HG22	1.84	0.59
1:bi:227:MET:HE3	1:bi:230:THR:HG21	1.84	0.59
3:cp:222:CYS:SG	3:cp:299:LYS:NZ	2.76	0.59
5:df:48:PHE:HA	5:df:125:ARG:HD3	1.84	0.59
6:dq:154:ILE:HA	6:dq:157:LYS:HE2	1.85	0.59
7:dw:27:ILE:HB	7:dw:87:TYR:HB2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:ag:207:GLN:O	1:ag:208:HIS:ND1	2.36	0.59
2:bz:74:ARG:HG2	2:bz:86:MET:HE1	1.85	0.59
5:dd:45:GLN:NE2	5:dd:46:LYS:HD2	2.18	0.59
5:dh:75:GLU:OE1	7:dt:8:ARG:NE	2.35	0.59
6:do:21:ALA:O	6:do:89:THR:OG1	2.20	0.59
8:ak:72:HIS:CE1	8:ak:77:ILE:HG12	2.38	0.59
2:ac:119:LYS:HE3	2:ac:133:GLU:HG3	1.84	0.59
1:aj:218:SER:OG	1:aj:262:LYS:NZ	2.34	0.59
1:aw:146:GLN:NE2	2:ay:10:ARG:O	2.36	0.59
1:bh:248:ASP:OD1	1:bh:249:SER:N	2.35	0.59
1:cg:171:THR:HB	1:cg:314:VAL:HG22	1.85	0.59
4:cv:92:ASP:OD1	4:cv:93:GLY:N	2.36	0.59
6:dq:9:ILE:HD13	6:dq:169:MET:HG3	1.84	0.59
3:dz:374:LYS:HE2	3:dz:374:LYS:N	2.17	0.59
3:eb:151:ARG:HE	3:eb:152:VAL:H	1.51	0.59
1:ah:184:MET:HE3	1:ah:225:ILE:HD11	1.84	0.58
1:aw:150:ARG:NH1	2:ay:11:ASP:OD2	2.35	0.58
5:df:136:ARG:HH22	3:dj:271:ARG:HH11	1.50	0.58
6:dq:152:TYR:HB3	6:dq:156:ARG:NH1	2.17	0.58
3:dz:108:ARG:HD2	3:dz:207:VAL:HG21	1.83	0.58
8:ax:72:HIS:CE1	8:ax:77:ILE:HG12	2.38	0.58
5:dd:46:LYS:HA	5:dd:46:LYS:HE3	1.85	0.58
6:do:125:ASP:OD1	6:do:126:LYS:N	2.36	0.58
3:ea:97:ASP:OD1	3:ea:98:PRO:HD3	2.03	0.58
1:as:89:ASP:OD1	1:as:90:TYR:N	2.36	0.58
3:co:160:TYR:OH	3:dz:139:ARG:NH1	2.34	0.58
3:cy:151:ARG:NH2	3:cy:153:THR:OG1	2.36	0.58
3:eb:310:HIS:HE1	3:eb:333:PHE:HB2	1.67	0.58
8:bx:72:HIS:CE1	8:bx:77:ILE:HG12	2.38	0.58
8:ck:72:HIS:CE1	8:ck:77:ILE:HG12	2.38	0.58
1:bw:89:ASP:OD1	1:bw:90:TYR:N	2.36	0.58
3:cq:251:ASP:CA	8:ck:135:ASP:CG	2.77	0.58
3:cq:251:ASP:HA	8:ck:135:ASP:CG	2.27	0.58
3:cy:373:SER:O	3:cy:374:LYS:C	2.47	0.58
5:df:18:ARG:HG2	5:df:25:ARG:HD3	1.83	0.58
3:dj:121:ASP:OD2	3:dj:123:ARG:NH2	2.35	0.58
1:an:71:LYS:CD	8:ak:70:TYR:CE2	2.83	0.58
2:ar:127:LYS:HG3	2:ar:129:ASP:H	1.68	0.58
1:ba:242:ASN:HB3	1:ba:245:ILE:HD12	1.84	0.58
2:by:99:SER:HA	2:by:155:LEU:O	2.03	0.58
1:ca:71:LYS:HD3	8:bx:70:TYR:CZ	2.31	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:cc:118:VAL:O	2:cc:134:THR:OG1	2.21	0.58
3:cn:373:SER:O	3:cn:376:GLU:N	2.37	0.58
6:dn:187:ASN:HB3	6:dn:201:GLU:HB3	1.85	0.58
3:dz:120:ASN:ND2	3:dz:136:GLU:OE1	2.36	0.58
1:bi:151:LEU:HD11	1:bi:161:ILE:HD13	1.85	0.58
3:cq:373:SER:O	3:cq:374:LYS:C	2.47	0.58
4:cr:77:ASP:HB2	4:cw:3:TYR:HE1	1.67	0.58
5:cx:116:LYS:HB3	5:dg:108:MET:HE2	1.86	0.58
3:dz:328:THR:O	3:dz:331:GLU:HG3	2.03	0.58
3:eb:249:ASP:OD2	8:bx:135:ASP:HB2	2.04	0.58
8:bk:133:HIS:HB2	8:bk:138:ILE:HG13	1.84	0.58
2:al:47:VAL:HG11	8:ak:104:PHE:CE2	2.39	0.58
1:bn:92:ASP:OD1	1:ca:290:LYS:NZ	2.36	0.58
3:cp:135:LEU:HG	3:cp:356:ILE:HD11	1.86	0.58
5:cx:83:ARG:HD2	5:dd:100:VAL:HA	1.85	0.58
5:db:124:ARG:HH22	5:dk:42:PHE:HA	1.69	0.58
5:df:5:MET:N	5:df:5:MET:SD	2.73	0.58
3:ea:150:LYS:O	3:ea:164:GLU:N	2.31	0.58
1:bg:163:SER:OG	1:bg:166:ASN:OD1	2.21	0.58
5:cx:113:PRO:HB3	5:dg:66:LEU:HD22	1.84	0.58
3:cy:328:THR:HG21	3:eb:326:GLN:HE21	1.68	0.58
5:de:77:LEU:HD22	7:ds:2:ASN:HD21	1.67	0.58
6:dm:14:SER:OG	6:dm:96:THR:OG1	2.20	0.58
7:dx:25:ASN:HB2	7:dx:89:GLU:HB3	1.86	0.58
3:dz:116:VAL:HG12	3:dz:184:ILE:HG22	1.86	0.58
1:bv:200:ILE:HG21	1:bv:210:ALA:HB2	1.84	0.58
1:cj:292:LEU:HD11	8:ck:6:LEU:HD21	1.85	0.58
5:cz:124:ARG:NH2	5:dh:44:CYS:HB3	2.19	0.58
5:df:90:SER:OG	7:dx:55:ARG:NE	2.37	0.58
3:eb:195:GLN:HA	3:eb:198:LYS:NZ	2.19	0.58
8:ax:133:HIS:HB2	8:ax:138:ILE:HG13	1.84	0.58
3:co:245:GLU:OE1	5:dh:124:ARG:HD2	2.03	0.58
3:cq:244:ALA:HA	5:dc:130:ALA:HB2	1.86	0.58
3:cy:323:SER:O	3:cy:326:GLN:NE2	2.37	0.58
5:de:129:PHE:HB3	3:ec:240:VAL:HG11	1.84	0.58
5:dc:95:GLN:HE22	7:dr:5:GLN:HE22	1.50	0.57
3:dj:120:ASN:HB2	3:dj:134:LYS:HD2	1.85	0.57
7:dw:62:ILE:HG13	7:dw:63:ASP:N	2.19	0.57
3:dz:246:MET:HE3	3:dz:253:GLN:HG3	1.85	0.57
1:ca:184:MET:HE2	1:ca:221:LYS:HE3	1.86	0.57
3:cn:349:LEU:HD12	3:cn:353:LEU:HD11	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:ct:82:LYS:O	4:ct:86:ILE:HG12	2.03	0.57
3:cy:246:MET:HA	3:cy:246:MET:HE3	1.86	0.57
3:du:177:TYR:HE2	3:du:179:ILE:HD11	1.69	0.57
3:dz:60:ALA:HA	3:dz:63:ILE:HG22	1.86	0.57
3:dz:97:ASP:O	3:dz:101:VAL:HG23	2.04	0.57
1:as:87:ILE:HD12	1:as:91:THR:HG21	1.87	0.57
1:bt:226:ARG:NH1	1:bt:230:THR:O	2.36	0.57
4:cu:23:TYR:HB2	4:cu:29:PHE:CD2	2.39	0.57
3:dj:188:ASP:OD1	3:dj:189:GLY:N	2.35	0.57
3:dz:77:LYS:HB3	3:dz:365:GLU:HG2	1.85	0.57
1:bg:63:THR:OG1	1:bg:277:GLU:OE2	2.23	0.57
2:bq:17:PRO:HB3	2:bq:105:LEU:HD21	1.86	0.57
3:co:334:TYR:OH	3:dy:335:LYS:NZ	2.20	0.57
4:cr:69:VAL:HG12	4:cr:118:MET:HB2	1.87	0.57
6:dn:80:ASP:HB3	6:dn:83:VAL:HG22	1.85	0.57
3:dy:209:ASN:OD1	3:dy:211:SER:OG	2.22	0.57
3:eb:373:SER:O	3:eb:374:LYS:C	2.47	0.57
3:eb:386:GLU:O	3:eb:390:LYS:HB2	2.04	0.57
2:ao:5:ASN:O	1:bf:249:SER:OG	2.20	0.57
2:ap:46:GLN:HE21	2:ap:60:LYS:HE3	1.69	0.57
2:bq:143:THR:O	2:bq:149:GLN:NE2	2.38	0.57
3:cn:395:GLN:HE21	3:cn:397:ILE:HD12	1.68	0.57
3:cy:228:GLN:OE1	3:cy:232:ARG:NH2	2.37	0.57
3:ec:323:SER:O	3:ec:326:GLN:NE2	2.37	0.57
1:ah:110:ARG:HG2	1:ah:301:LYS:HG2	1.87	0.57
1:as:283:ASN:ND2	1:as:299:THR:OG1	2.30	0.57
1:bw:113:ASN:ND2	1:bw:140:CYS:SG	2.77	0.57
1:ch:264:VAL:HG23	1:ch:319:VAL:HG11	1.85	0.57
3:dz:374:LYS:O	3:dz:377:GLU:HG3	2.04	0.57
3:ea:373:SER:H	3:ea:376:GLU:CG	2.16	0.57
3:dz:125:LEU:O	3:dz:183:ARG:NE	2.37	0.57
3:dz:374:LYS:HA	3:dz:377:GLU:CG	2.34	0.57
2:by:40:LEU:HD23	2:by:87:ILE:HG22	1.86	0.57
3:cn:84:GLU:O	3:cn:88:LYS:HG2	2.03	0.57
3:cn:416:LYS:NZ	3:cn:417:ASP:O	2.38	0.57
3:co:164:GLU:OE2	3:co:180:HIS:NE2	2.38	0.57
5:de:110:LEU:HD13	5:de:116:LYS:HG2	1.85	0.57
5:df:6:ASN:O	5:df:9:THR:OG1	2.20	0.57
5:dk:38:MET:HE2	5:dk:38:MET:HA	1.86	0.57
5:dk:135:LEU:C	5:dk:136:ARG:HD3	2.30	0.57
6:dq:59:ARG:HH21	6:dq:211:THR:HG22	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:cg:118:SER:HB3	1:cg:121:GLU:HG3	1.87	0.57
3:cn:332:THR:O	3:cn:335:LYS:HG3	2.05	0.57
3:cy:179:ILE:HG21	3:cy:184:ILE:HG23	1.86	0.57
3:cy:209:ASN:HD21	3:eb:58:ALA:HB2	1.70	0.57
3:dj:404:ASP:OD1	3:dj:407:ARG:NH2	2.38	0.57
3:dy:139:ARG:NH2	3:ec:160:TYR:OH	2.37	0.57
3:eb:195:GLN:HA	3:eb:198:LYS:HZ1	1.70	0.57
2:cb:47:VAL:HG22	2:cb:59:VAL:HG12	1.86	0.57
1:cg:207:GLN:O	1:cg:208:HIS:ND1	2.38	0.57
3:cy:97:ASP:OD1	3:cy:98:PRO:HD3	2.05	0.57
3:cy:377:GLU:O	3:cy:381:THR:HG23	2.04	0.57
6:dn:169:MET:HB3	6:dn:178:ARG:HB2	1.86	0.57
3:dz:374:LYS:O	3:dz:375:LYS:C	2.46	0.57
3:ea:68:PRO:O	3:ea:71:MET:HB3	2.05	0.57
1:ah:233:SER:OG	1:ah:236:ASP:OD2	2.23	0.56
1:aj:129:GLY:O	3:dz:198:LYS:NZ	2.38	0.56
1:bf:35:THR:HG22	1:bf:38:GLU:HG3	1.86	0.56
1:bf:51:TYR:HB2	1:bf:142:LEU:HD21	1.86	0.56
2:bm:107:LYS:NZ	2:bm:121:ASP:OD2	2.35	0.56
1:bt:203:ILE:HD12	1:bt:311:MET:HE3	1.87	0.56
3:co:231:ARG:HH11	3:dz:271:ARG:HH22	1.51	0.56
5:db:124:ARG:NH1	5:dk:42:PHE:O	2.37	0.56
7:dv:11:ARG:NH2	7:dv:78:ASN:OD1	2.38	0.56
3:dy:382:LYS:HZ1	3:ec:383:ASN:HB3	1.70	0.56
2:am:12:MET:HE3	1:as:80:LYS:HG3	1.86	0.56
2:by:134:THR:HG22	2:by:136:TRP:H	1.69	0.56
3:cq:59:THR:O	3:cq:63:ILE:HD12	2.04	0.56
3:cy:258:LEU:HD13	5:dd:136:ARG:NH1	2.20	0.56
5:de:103:ASN:HD22	5:de:103:ASN:C	2.14	0.56
3:dy:164:GLU:OE1	3:dy:180:HIS:NE2	2.38	0.56
3:dz:338:ASP:OD1	3:dz:341:ARG:NH2	2.37	0.56
3:ec:310:HIS:NE2	3:ec:329:ALA:HB1	2.20	0.56
1:aa:71:LYS:CD	8:ck:70:TYR:CE2	2.89	0.56
1:at:102:THR:HG22	1:at:103:SER:H	1.71	0.56
1:bg:87:ILE:HB	1:bg:91:THR:HG21	1.86	0.56
1:bs:87:ILE:HD12	1:bs:91:THR:HG21	1.85	0.56
3:cn:164:GLU:HG3	3:cn:165:ILE:HG13	1.86	0.56
5:dc:90:SER:OG	7:dw:55:ARG:NE	2.39	0.56
5:dd:23:ALA:O	5:dd:26:LYS:NZ	2.38	0.56
5:dd:92:GLU:OE2	7:dr:55:ARG:NH1	2.38	0.56
7:ds:62:ILE:HG13	7:ds:63:ASP:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:dz:164:GLU:OE2	3:dz:180:HIS:NE2	2.38	0.56
1:an:71:LYS:CG	8:ak:70:TYR:OH	2.53	0.56
1:an:98:ASP:OD1	1:an:99:ALA:N	2.35	0.56
1:as:51:TYR:HB2	1:as:142:LEU:HD11	1.88	0.56
1:bg:250:ILE:HG22	1:bg:252:GLU:H	1.69	0.56
1:bt:98:ASP:OD1	1:bt:99:ALA:N	2.35	0.56
7:dx:93:ILE:HG23	7:dx:118:ARG:NH1	2.21	0.56
3:dy:129:VAL:HG13	3:dy:183:ARG:HE	1.70	0.56
1:af:89:ASP:OD1	1:af:90:TYR:N	2.38	0.56
1:cg:87:ILE:HB	1:cg:91:THR:HG21	1.87	0.56
3:cn:376:GLU:HB3	3:du:375:LYS:HE2	1.88	0.56
3:cp:304:VAL:HG22	3:cp:314:ILE:HG21	1.88	0.56
3:cp:334:TYR:HA	3:cp:337:VAL:HG12	1.88	0.56
3:cy:240:VAL:HG22	3:cy:280:GLU:HB3	1.88	0.56
3:dj:374:LYS:HZ2	3:du:372:PRO:HB3	1.69	0.56
6:dn:48:VAL:HG12	6:dn:92:PHE:HB3	1.88	0.56
3:dz:258:LEU:O	3:dz:262:GLN:HG2	2.06	0.56
1:ai:51:TYR:HB2	1:ai:142:LEU:HD21	1.88	0.56
2:bm:51:GLN:HE21	2:bm:54:ASP:HB2	1.71	0.56
2:cl:63:THR:O	2:cl:66:THR:OG1	2.21	0.56
3:cp:96:ILE:HD11	3:cp:352:LEU:HD11	1.88	0.56
4:ct:56:LYS:HA	4:ct:56:LYS:HE3	1.87	0.56
5:dd:40:GLU:HB3	5:dd:56:ILE:HD11	1.88	0.56
3:dy:377:GLU:HA	3:dy:380:ILE:HG22	1.86	0.56
2:ae:144:LYS:NZ	2:ae:149:GLN:OE1	2.29	0.56
1:ci:31:MET:HE2	2:cm:84:ASN:HA	1.87	0.56
3:cn:162:GLU:OE2	3:cn:181:HIS:NE2	2.39	0.56
3:cn:374:LYS:NZ	3:eb:372:PRO:CA	2.68	0.56
3:co:285:LEU:HD13	3:dz:284:VAL:HG11	1.87	0.56
6:dq:60:VAL:HB	6:dq:179:MET:HB3	1.87	0.56
7:ds:4:SER:HB2	7:ds:8:ARG:HH12	1.70	0.56
2:al:47:VAL:HG11	8:ak:104:PHE:HE2	1.69	0.56
1:ca:71:LYS:CD	8:bx:70:TYR:CE1	2.87	0.56
3:cy:328:THR:HA	3:cy:331:GLU:HG3	1.88	0.56
3:du:241:LYS:NZ	3:du:278:GLU:OE1	2.37	0.56
3:du:389:THR:HA	3:du:392:ILE:HG12	1.88	0.56
3:ec:71:MET:HG3	3:ec:340:LYS:HZ2	1.70	0.56
1:av:242:ASN:HB3	1:av:245:ILE:HD12	1.87	0.56
2:az:4:ILE:HD11	1:ba:220:ARG:HG2	1.88	0.56
1:bn:71:LYS:HZ3	8:bk:70:TYR:HE2	1.48	0.56
3:cq:251:ASP:N	8:ck:135:ASP:OD2	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:cq:380:ILE:HD11	3:cy:375:LYS:HA	1.88	0.56
3:cy:327:ASN:OD1	3:cy:328:THR:N	2.38	0.56
5:db:71:LYS:HB3	5:db:76:ASP:OD2	2.06	0.56
5:dk:18:ARG:HB3	5:dk:25:ARG:HE	1.70	0.56
3:du:66:VAL:HG13	3:du:67:ILE:HG13	1.88	0.56
3:dy:389:THR:HA	3:dy:392:ILE:HG12	1.87	0.56
3:eb:309:ILE:HD11	3:eb:314:ILE:HD13	1.88	0.56
2:bb:12:MET:HE3	1:bt:80:LYS:HG3	1.88	0.56
2:bm:7:SER:HB3	1:bn:58:ARG:HH21	1.70	0.56
1:bt:47:TYR:HB2	1:bu:77:THR:HG22	1.87	0.56
1:bu:79:ASP:OD1	1:bu:80:LYS:N	2.36	0.56
1:cf:283:ASN:HD21	1:cf:299:THR:HG1	1.47	0.56
3:cq:304:VAL:HG22	3:cq:314:ILE:HG21	1.88	0.56
5:de:130:ALA:N	3:ec:280:GLU:OE2	2.34	0.56
7:dv:8:ARG:O	7:dv:12:LYS:HG2	2.06	0.56
3:ec:121:ASP:OD2	3:ec:123:ARG:NE	2.26	0.56
5:dh:17:MET:HE3	5:dh:61:LEU:HD22	1.88	0.55
5:dh:109:MET:HE2	5:dh:109:MET:HA	1.88	0.55
6:dl:59:ARG:HH21	6:dl:211:THR:HG22	1.70	0.55
6:dl:114:GLN:HB2	6:dl:134:LYS:HD3	1.88	0.55
1:ai:264:VAL:HG23	1:ai:319:VAL:HG11	1.88	0.55
6:dm:5:ASN:HD21	6:dn:194:VAL:HG13	1.71	0.55
6:do:15:ARG:HH21	6:do:47:ILE:HG21	1.70	0.55
7:dt:25:ASN:HB2	7:dt:89:GLU:HB3	1.88	0.55
3:du:152:VAL:HG23	3:du:160:TYR:HA	1.87	0.55
3:du:251:ASP:OD1	3:du:252:ALA:N	2.38	0.55
8:bk:12:CYS:HG	8:bk:13:PRO:HD2	1.68	0.55
1:an:100:LEU:HD11	2:ay:16:LEU:HD11	1.88	0.55
1:bf:63:THR:HG22	1:bf:64:THR:N	2.21	0.55
1:bn:71:LYS:CD	8:bk:70:TYR:CE1	2.71	0.55
3:cp:169:SER:HB3	3:cp:176:PRO:HB3	1.87	0.55
3:cp:323:SER:O	3:cp:326:GLN:NE2	2.39	0.55
3:cq:78:ILE:HD12	3:cq:353:LEU:HD11	1.88	0.55
5:da:112:THR:O	5:da:116:LYS:HG3	2.07	0.55
5:df:16:GLN:HA	5:df:19:LYS:HG2	1.87	0.55
7:ds:26:LEU:HD22	7:ds:48:ILE:HD11	1.87	0.55
3:du:310:HIS:NE2	3:du:312:ILE:HG12	2.22	0.55
7:dw:8:ARG:HB3	7:dw:12:LYS:NZ	2.22	0.55
5:de:30:GLU:HA	5:de:33:TYR:HD2	1.72	0.55
3:eb:72:VAL:HG11	3:eb:101:VAL:HG22	1.88	0.55
2:ab:12:MET:HE2	1:as:142:LEU:HD22	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:bd:85:GLN:HG2	2:bd:86:MET:N	2.20	0.55
3:cn:168:VAL:HG22	3:cn:170:PRO:HD3	1.88	0.55
3:cn:389:THR:HA	3:cn:392:ILE:HG12	1.89	0.55
3:cp:160:TYR:OH	3:ea:139:ARG:NH1	2.36	0.55
4:ct:3:TYR:HE1	4:cu:77:ASP:HB2	1.71	0.55
3:ea:123:ARG:HH22	3:ea:129:VAL:HA	1.72	0.55
1:ai:113:ASN:HA	1:aj:94:LEU:HB3	1.88	0.55
4:cr:113:HIS:CE1	7:dw:60:ARG:HH22	2.24	0.55
4:cw:37:MET:HE1	4:cw:82:LYS:HG2	1.88	0.55
5:df:24:LEU:O	5:df:27:VAL:HG12	2.07	0.55
7:dw:4:SER:O	7:dw:8:ARG:HG3	2.07	0.55
3:dy:129:VAL:CG1	3:dy:183:ARG:HE	2.19	0.55
2:ac:77:TRP:O	1:as:71:LYS:NZ	2.28	0.55
2:bl:63:THR:O	2:bl:66:THR:OG1	2.21	0.55
2:br:90:ASP:OD1	2:br:91:GLY:N	2.40	0.55
1:cj:130:ARG:O	1:cj:135:ARG:NH1	2.39	0.55
3:co:72:VAL:HG11	3:co:101:VAL:HG22	1.88	0.55
3:cp:116:VAL:HA	3:cp:184:ILE:HG22	1.89	0.55
3:cq:322:VAL:HG11	3:cq:325:SER:HB3	1.88	0.55
6:dl:213:ILE:HD11	6:dl:217:LEU:HD23	1.88	0.55
3:du:334:TYR:CD1	3:du:369:LEU:HG	2.41	0.55
3:dy:382:LYS:NZ	3:ec:386:GLU:OE2	2.35	0.55
3:eb:151:ARG:HE	3:eb:152:VAL:N	2.05	0.55
2:ac:47:VAL:HG22	2:ac:59:VAL:HG12	1.87	0.55
2:be:107:LYS:NZ	2:be:121:ASP:OD2	2.40	0.55
5:df:107:ASN:O	5:df:107:ASN:ND2	2.40	0.55
3:dj:373:SER:O	3:dj:377:GLU:HG3	2.07	0.55
7:dt:62:ILE:HG13	7:dt:63:ASP:N	2.22	0.55
1:aw:250:ILE:HG22	1:aw:252:GLU:H	1.71	0.55
1:bf:88:ALA:HB2	8:ax:82:VAL:HG11	1.86	0.55
2:by:80:VAL:HG22	2:by:86:MET:HE1	1.89	0.55
1:cj:248:ASP:OD1	1:cj:249:SER:N	2.38	0.55
6:dm:151:ILE:HA	6:dm:154:ILE:HD13	1.89	0.55
6:dp:197:MET:HA	6:dp:197:MET:HE3	1.89	0.55
7:ds:5:GLN:O	7:ds:9:MET:HG2	2.05	0.55
3:dy:141:TYR:CE1	3:dy:170:PRO:HB3	2.42	0.55
8:ax:22:TYR:HA	8:ax:88:HIS:O	2.07	0.55
2:ac:4:ILE:HD11	1:ai:220:ARG:HG2	1.89	0.55
2:ac:146:LYS:O	2:ac:147:ASP:HB3	2.07	0.55
1:aj:126:GLN:NE2	1:aj:130:ARG:O	2.39	0.55
1:av:45:GLN:HG2	1:aw:272:MET:HE1	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:bz:4:ILE:HD11	1:ca:220:ARG:HG2	1.89	0.55
3:cq:97:ASP:HA	3:cq:100:LEU:HD12	1.88	0.55
3:cq:225:LEU:HD21	3:cy:231:ARG:HA	1.87	0.55
5:de:126:ARG:NH1	3:dj:248:ASP:OD2	2.40	0.55
3:dj:383:ASN:OD1	3:ec:382:LYS:HD2	2.07	0.55
6:dq:137:ILE:HB	6:dq:206:LEU:HD12	1.89	0.55
7:dv:41:ILE:HD12	7:dv:42:PRO:HD2	1.88	0.55
1:bj:223:LEU:HD13	1:bj:235:LEU:HD13	1.88	0.54
1:ca:98:ASP:OD1	1:ca:99:ALA:N	2.36	0.54
1:cj:285:LEU:HD12	1:cj:297:PRO:HG2	1.89	0.54
3:cn:121:ASP:OD2	3:cn:123:ARG:NH2	2.32	0.54
4:cs:38:TRP:CE2	4:cs:69:VAL:HG21	2.42	0.54
3:dz:301:ASP:HA	3:dz:304:VAL:HG12	1.89	0.54
8:ck:22:TYR:HA	8:ck:88:HIS:O	2.07	0.54
1:ai:284:MET:HG2	1:ai:298:CYS:HB3	1.90	0.54
1:bh:63:THR:OG1	1:bh:277:GLU:OE1	2.25	0.54
1:bn:119:ILE:O	1:bn:123:LYS:HG3	2.08	0.54
3:cp:284:VAL:HG12	3:dz:285:LEU:HD13	1.90	0.54
4:cv:38:TRP:CE2	4:cv:69:VAL:HG21	2.41	0.54
5:cx:30:GLU:HA	5:cx:33:TYR:HD2	1.72	0.54
7:dx:62:ILE:HG13	7:dx:63:ASP:N	2.20	0.54
8:bk:22:TYR:HA	8:bk:88:HIS:O	2.07	0.54
1:aw:123:LYS:NZ	3:dy:49:HIS:HB2	2.23	0.54
2:bm:13:ALA:HB3	1:bs:81:VAL:HG12	1.89	0.54
1:cj:214:LEU:HD12	1:cj:265:LEU:HD23	1.89	0.54
4:cs:31:PRO:HG2	7:dx:118:ARG:NH2	2.21	0.54
5:da:25:ARG:HB3	5:da:26:LYS:NZ	2.22	0.54
6:dl:129:GLN:HG2	6:dp:136:ALA:HB1	1.89	0.54
7:dr:62:ILE:HG13	7:dr:63:ASP:N	2.22	0.54
3:dy:194:PRO:HA	3:dy:197:ARG:HB3	1.88	0.54
1:at:54:GLY:HA3	1:at:149:ASN:ND2	2.23	0.54
2:ay:27:ASN:ND2	2:ay:98:THR:HG1	2.06	0.54
1:bh:76:MET:HG2	1:bh:103:SER:HB3	1.89	0.54
2:bm:90:ASP:OD1	2:bm:91:GLY:N	2.40	0.54
4:cr:38:TRP:CE2	4:cr:69:VAL:HG21	2.43	0.54
3:cy:123:ARG:HH22	3:cy:129:VAL:HA	1.73	0.54
5:cz:136:ARG:HH22	3:dy:271:ARG:HD2	1.73	0.54
5:dd:62:HIS:ND1	5:dd:112:THR:OG1	2.30	0.54
6:do:14:SER:OG	6:do:96:THR:OG1	2.22	0.54
3:du:151:ARG:NH2	3:du:161:GLY:O	2.37	0.54
1:aj:200:ILE:HD11	1:aj:314:VAL:HG23	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:at:207:GLN:O	1:at:208:HIS:ND1	2.40	0.54
2:ay:47:VAL:HG11	8:ax:104:PHE:CE2	2.43	0.54
1:bi:216:PRO:HG2	1:bi:219:MET:HG2	1.89	0.54
2:bp:104:MET:HE2	2:bp:126:GLU:HB2	1.89	0.54
3:cy:357:VAL:HG22	3:cy:359:GLU:H	1.72	0.54
6:do:21:ALA:HB3	6:do:90:MET:HB2	1.88	0.54
7:dv:62:ILE:HG13	7:dv:63:ASP:N	2.21	0.54
7:dx:99:ASP:OD1	7:dx:101:ARG:HG3	2.07	0.54
3:dz:379:GLU:O	3:dz:383:ASN:ND2	2.41	0.54
8:ak:22:TYR:HA	8:ak:88:HIS:O	2.07	0.54
1:bn:159:HIS:NE2	8:bk:29:VAL:HG21	2.22	0.54
1:cg:171:THR:HG21	1:cg:199:THR:HG21	1.89	0.54
3:co:162:GLU:OE2	3:co:166:TYR:OH	2.25	0.54
3:cp:150:LYS:HE3	3:cp:164:GLU:HB3	1.89	0.54
5:cz:13:ALA:O	5:cz:17:MET:HG3	2.08	0.54
7:dx:11:ARG:NH2	7:dx:78:ASN:OD1	2.41	0.54
3:dy:62:ARG:NH2	3:ec:307:SER:O	2.41	0.54
3:cy:304:VAL:HG22	3:cy:314:ILE:HG21	1.90	0.54
5:cz:132:MET:HE3	3:ec:243:LEU:HD12	1.90	0.54
3:dj:334:TYR:HA	3:dj:337:VAL:HG12	1.90	0.54
7:dw:24:MET:HG2	7:dw:90:ILE:HD13	1.90	0.54
3:dy:119:ILE:HA	3:dy:135:LEU:HA	1.88	0.54
1:au:111:LEU:HD12	1:au:147:LEU:HD23	1.90	0.54
1:bi:113:ASN:HA	1:bj:94:LEU:HB3	1.89	0.54
2:bq:9:GLN:NE2	2:bq:11:ASP:OD1	2.41	0.54
1:ci:171:THR:HB	1:ci:314:VAL:HG22	1.89	0.54
3:cn:158:PRO:HB3	3:du:118:ILE:HD11	1.90	0.54
4:cr:104:GLY:HA2	4:cr:123:PHE:HB2	1.89	0.54
5:cx:5:MET:SD	5:cx:10:LEU:HB2	2.47	0.54
5:dd:46:LYS:O	5:dd:49:LYS:NZ	2.39	0.54
3:du:153:THR:HA	3:du:160:TYR:HB2	1.90	0.54
3:du:331:GLU:HA	3:du:334:TYR:HD2	1.72	0.54
3:ea:329:ALA:O	3:ea:332:THR:OG1	2.24	0.54
3:ec:240:VAL:HB	3:ec:243:LEU:HD23	1.88	0.54
1:aa:82:GLY:HA3	1:aa:97:VAL:HG12	1.89	0.54
2:az:10:ARG:O	1:ba:146:GLN:NE2	2.40	0.54
1:bw:264:VAL:HG23	1:bw:319:VAL:HG21	1.89	0.54
3:cq:249:ASP:HB2	8:ck:132:LYS:HD3	1.88	0.54
3:cq:292:VAL:O	3:cq:296:LEU:HG	2.08	0.54
3:cq:346:ARG:HG2	3:cq:350:GLU:OE1	2.08	0.54
5:cz:38:MET:HE1	5:de:54:LYS:HD2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:cw:77:ASP:OD1	4:cw:78:GLU:N	2.41	0.54
5:df:131:LEU:HD13	3:dj:263:VAL:HG11	1.89	0.54
3:dy:93:SER:O	3:dy:95:LYS:NZ	2.41	0.54
3:dz:382:LYS:O	3:dz:386:GLU:HG3	2.08	0.54
3:eb:275:ILE:HG23	3:eb:280:GLU:HG3	1.90	0.54
2:be:83:GLN:HE21	2:be:85:GLN:HE21	1.56	0.53
2:cl:75:SER:O	2:cl:78:GLN:NE2	2.42	0.53
3:cp:328:THR:O	3:cp:331:GLU:HG3	2.08	0.53
4:cv:44:ILE:HB	4:cv:63:ILE:HB	1.89	0.53
3:dj:190:GLU:N	3:dj:190:GLU:OE2	2.40	0.53
3:du:97:ASP:O	3:du:101:VAL:HG23	2.08	0.53
8:bx:22:TYR:HA	8:bx:88:HIS:O	2.07	0.53
1:ag:47:TYR:HB2	1:ah:77:THR:HG22	1.90	0.53
3:cn:151:ARG:NH2	3:cn:163:PRO:HA	2.23	0.53
3:cn:328:THR:O	3:cn:331:GLU:HG3	2.08	0.53
3:cq:373:SER:O	3:cq:376:GLU:N	2.41	0.53
3:cy:381:THR:HA	3:cy:384:ASN:ND2	2.23	0.53
5:dg:16:GLN:NE2	5:dg:19:LYS:HE2	2.23	0.53
5:dk:77:LEU:HD21	7:dw:5:GLN:HE21	1.73	0.53
7:dr:61:GLU:OE2	7:dr:64:GLY:N	2.41	0.53
3:du:374:LYS:HA	3:du:377:GLU:OE2	2.08	0.53
1:an:71:LYS:NZ	8:ak:70:TYR:CE2	2.70	0.53
1:at:290:LYS:HG2	1:at:291:ASP:H	1.73	0.53
1:bt:250:ILE:HG22	1:bt:252:GLU:H	1.72	0.53
1:cf:79:ASP:OD1	1:cf:80:LYS:N	2.42	0.53
3:cn:277:ALA:HB3	3:eb:241:LYS:HD2	1.89	0.53
3:dy:151:ARG:HH22	3:dy:162:GLU:C	2.15	0.53
8:bx:108:GLN:HB2	8:bx:117:GLY:HA3	1.90	0.53
2:bd:84:ASN:HA	1:bh:31:MET:HE1	1.90	0.53
1:bh:110:ARG:HG2	1:bh:301:LYS:HG2	1.89	0.53
1:bs:219:MET:HE3	1:bs:319:VAL:HG12	1.89	0.53
1:bv:87:ILE:HD12	1:bv:91:THR:HG21	1.91	0.53
1:ca:87:ILE:HB	1:ca:91:THR:HG21	1.89	0.53
3:cq:225:LEU:O	3:cq:229:ILE:HG12	2.09	0.53
4:cw:82:LYS:O	4:cw:86:ILE:HG12	2.08	0.53
5:dg:58:LEU:HD11	5:dg:117:MET:HE2	1.91	0.53
3:dj:225:LEU:O	3:dj:229:ILE:HG12	2.08	0.53
3:dj:373:SER:HB2	3:dj:376:GLU:CG	2.38	0.53
6:do:120:GLN:NE2	6:do:124:ASP:OD1	2.41	0.53
3:dz:96:ILE:O	3:dz:99:SER:OG	2.25	0.53
3:dz:327:ASN:OD1	3:dz:328:THR:N	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:ck:108:GLN:HB2	8:ck:117:GLY:HA3	1.90	0.53
1:au:214:LEU:HD12	1:au:265:LEU:HD23	1.91	0.53
2:bd:17:PRO:HB3	2:bd:105:LEU:HD21	1.90	0.53
3:cp:414:LYS:HZ3	3:dz:408:SER:HB2	1.74	0.53
5:di:18:ARG:HD3	5:di:25:ARG:HD3	1.91	0.53
5:di:110:LEU:HD13	5:di:116:LYS:HB3	1.90	0.53
1:ah:35:THR:HG22	1:ah:38:GLU:HG3	1.90	0.53
2:al:34:VAL:HB	2:al:60:LYS:HB3	1.90	0.53
2:bm:4:ILE:HD11	1:bn:220:ARG:HG2	1.88	0.53
2:bm:114:PHE:CD2	8:bk:45:ILE:HD11	2.44	0.53
1:bu:89:ASP:OD1	1:bu:90:TYR:N	2.40	0.53
3:cn:257:ARG:HG3	5:dg:135:LEU:HD22	1.90	0.53
3:cy:78:ILE:HD11	3:cy:362:TRP:HB2	1.90	0.53
5:db:133:THR:HG23	3:ea:263:VAL:HG23	1.91	0.53
5:df:78:GLU:HG3	5:df:78:GLU:O	2.08	0.53
3:dy:278:GLU:HG3	3:dy:279:THR:HG23	1.91	0.53
3:ea:327:ASN:HA	3:ea:330:LEU:HG	1.90	0.53
1:an:205:ARG:CZ	2:ay:10:ARG:HD2	2.39	0.53
1:ba:51:TYR:HB2	1:ba:142:LEU:HD21	1.91	0.53
1:bn:159:HIS:CD2	8:bk:29:VAL:HG21	2.43	0.53
1:bn:264:VAL:HG23	1:bn:319:VAL:HG21	1.91	0.53
3:cq:208:LEU:HD23	3:cq:212:LEU:HD23	1.90	0.53
4:cv:72:PRO:HD3	4:cv:116:GLY:HA2	1.90	0.53
5:da:33:TYR:O	5:da:36:VAL:HG12	2.09	0.53
3:dj:376:GLU:O	3:dj:380:ILE:HG12	2.08	0.53
3:dy:60:ALA:HA	3:dy:63:ILE:HG22	1.91	0.53
8:ax:108:GLN:HB2	8:ax:117:GLY:HA3	1.90	0.53
1:au:227:MET:HE3	1:au:234:TYR:CE1	2.44	0.53
2:bl:118:VAL:O	2:bl:134:THR:OG1	2.26	0.53
5:db:131:LEU:HD22	3:ea:263:VAL:HG21	1.90	0.53
3:dj:209:ASN:OD1	3:dj:211:SER:OG	2.21	0.53
3:dj:373:SER:O	3:dj:376:GLU:HG3	2.09	0.53
6:dn:59:ARG:HH22	6:dn:76:ILE:HD13	1.74	0.53
7:dx:27:ILE:HG13	7:dx:47:VAL:HG12	1.90	0.53
3:eb:168:VAL:HG22	3:eb:170:PRO:HD3	1.90	0.53
1:af:233:SER:OG	1:af:236:ASP:OD2	2.25	0.53
1:an:51:TYR:HB2	1:an:142:LEU:HD21	1.91	0.53
1:at:87:ILE:HB	1:at:91:THR:HG21	1.90	0.53
2:cl:118:VAL:O	2:cl:134:THR:OG1	2.27	0.53
3:cn:334:TYR:HA	3:cn:337:VAL:HG12	1.91	0.53
3:cp:409:ILE:HG13	3:cp:409:ILE:O	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:cq:356:ILE:HG13	3:cq:357:VAL:HG13	1.91	0.53
5:db:72:GLY:N	5:db:76:ASP:OD2	2.41	0.53
3:dj:54:TYR:CE1	3:dj:61:LYS:HD2	2.44	0.53
3:dz:373:SER:O	3:dz:374:LYS:C	2.52	0.53
2:ab:48:VAL:HG11	2:ab:60:LYS:HD3	1.89	0.53
1:cg:199:THR:O	1:cg:203:ILE:HG12	2.09	0.53
1:ch:193:LEU:O	1:ch:197:ILE:HG13	2.08	0.53
3:cn:231:ARG:NH2	3:du:265:ASP:O	2.42	0.53
3:co:328:THR:O	3:co:331:GLU:HG3	2.09	0.53
3:co:389:THR:HA	3:co:392:ILE:HG12	1.91	0.53
3:cp:97:ASP:O	3:cp:101:VAL:HG23	2.09	0.53
4:cs:109:GLN:HA	4:cv:45:GLU:HB2	1.91	0.53
5:cx:18:ARG:NH2	5:cx:29:ASP:OD1	2.41	0.53
5:db:18:ARG:HD2	5:db:25:ARG:HA	1.90	0.53
5:dg:73:GLU:OE1	5:dg:75:GLU:HG3	2.08	0.53
6:dn:137:ILE:HB	6:dn:206:LEU:HD12	1.91	0.53
1:aw:220:ARG:HG3	1:aw:220:ARG:HH11	1.74	0.52
1:ch:272:MET:HE2	1:ch:272:MET:HA	1.90	0.52
3:co:214:ASP:HA	3:co:217:CYS:SG	2.50	0.52
5:cz:18:ARG:HD2	5:cz:25:ARG:HA	1.90	0.52
3:dj:401:GLU:O	3:dj:405:THR:HG23	2.09	0.52
3:du:374:LYS:O	3:du:375:LYS:C	2.49	0.52
2:ao:57:LYS:NZ	2:ao:69:TYR:OH	2.42	0.52
1:bs:171:THR:HB	1:bs:314:VAL:HG22	1.90	0.52
1:ch:290:LYS:HG2	1:ch:291:ASP:H	1.74	0.52
3:co:60:ALA:HA	3:co:63:ILE:HG22	1.92	0.52
3:co:249:ASP:N	3:co:253:GLN:OE1	2.42	0.52
3:cp:241:LYS:HG2	3:cp:279:THR:O	2.09	0.52
5:cx:62:HIS:ND1	5:cx:112:THR:OG1	2.43	0.52
3:dj:339:ARG:HD2	3:ec:69:GLU:HG3	1.92	0.52
6:dm:193:GLN:HG2	6:dm:194:VAL:H	1.74	0.52
3:dy:328:THR:HA	3:dy:331:GLU:HG3	1.91	0.52
3:ec:373:SER:O	3:ec:374:LYS:C	2.51	0.52
1:as:98:ASP:OD1	1:as:99:ALA:N	2.34	0.52
1:bf:91:THR:HG22	3:ec:41:PHE:CE1	2.45	0.52
2:bl:51:GLN:HG3	2:bl:56:HIS:HB3	1.90	0.52
2:bm:51:GLN:NE2	2:bm:54:ASP:HB2	2.24	0.52
1:ch:110:ARG:HG2	1:ch:301:LYS:HG2	1.89	0.52
3:cn:86:GLU:O	3:cn:90:LEU:HG	2.09	0.52
3:cp:148:ILE:HG23	3:cp:151:ARG:NH2	2.24	0.52
3:cq:254:TYR:CZ	8:ck:134:GLU:CA	2.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:dj:158:PRO:HB3	3:ec:118:ILE:HD11	1.91	0.52
6:dl:59:ARG:HH22	6:dl:76:ILE:HD13	1.75	0.52
3:dy:125:LEU:O	3:dy:183:ARG:NH1	2.42	0.52
3:dz:311:GLU:HG2	3:dz:315:LYS:HD3	1.92	0.52
3:dz:377:GLU:HA	3:dz:380:ILE:HG22	1.90	0.52
3:eb:304:VAL:HG12	3:eb:314:ILE:HG21	1.91	0.52
2:am:4:ILE:HD11	1:an:220:ARG:HG2	1.91	0.52
1:an:67:SER:HB2	1:aw:41:ARG:HH21	1.74	0.52
1:bu:277:GLU:HB2	1:bu:303:THR:HG21	1.91	0.52
1:bv:227:MET:HE1	1:bv:232:MET:HE3	1.91	0.52
3:cn:283:ASP:OD1	3:cn:284:VAL:N	2.42	0.52
3:cq:123:ARG:NH2	3:cq:130:LYS:H	2.01	0.52
5:dh:135:LEU:O	5:dh:136:ARG:HD3	2.10	0.52
5:dk:136:ARG:NH1	3:ea:258:LEU:HD23	2.24	0.52
3:dy:374:LYS:HA	3:dy:377:GLU:OE1	2.10	0.52
3:eb:411:PRO:HB2	3:eb:413:PHE:H	1.73	0.52
8:ak:108:GLN:HB2	8:ak:117:GLY:HA3	1.90	0.52
1:aw:123:LYS:HZ3	3:dy:49:HIS:HB2	1.74	0.52
1:bg:233:SER:OG	1:bg:236:ASP:OD2	2.26	0.52
1:bh:128:THR:HG23	1:bh:130:ARG:H	1.74	0.52
1:ca:71:LYS:HD3	8:bx:70:TYR:CE1	2.44	0.52
2:cl:158:LEU:CD2	8:ck:104:PHE:HB3	2.38	0.52
3:co:150:LYS:HG3	3:co:165:ILE:HD12	1.90	0.52
6:dq:48:VAL:HB	6:dq:90:MET:HE1	1.92	0.52
7:dr:24:MET:HG2	7:dr:90:ILE:HD13	1.92	0.52
3:dz:163:PRO:HG2	3:dz:166:TYR:CZ	2.45	0.52
1:ag:150:ARG:HG3	1:ag:154:LYS:HE3	1.89	0.52
2:br:120:LEU:HD13	2:br:134:THR:HG21	1.92	0.52
1:bv:79:ASP:HB2	1:bv:100:LEU:HB2	1.92	0.52
1:cg:51:TYR:HB2	1:cg:142:LEU:HD21	1.92	0.52
1:cg:89:ASP:OD1	1:cg:90:TYR:N	2.42	0.52
3:co:311:GLU:OE2	3:co:311:GLU:N	2.43	0.52
3:co:327:ASN:OD1	3:co:328:THR:N	2.43	0.52
3:co:338:ASP:OD1	3:co:341:ARG:NH2	2.27	0.52
6:do:194:VAL:HG12	6:do:195:ASN:OD1	2.10	0.52
3:dz:179:ILE:HG22	3:dz:180:HIS:O	2.09	0.52
3:ea:373:SER:H	3:ea:376:GLU:HG3	1.74	0.52
3:ec:251:ASP:OD1	3:ec:252:ALA:N	2.43	0.52
8:bk:108:GLN:HB2	8:bk:117:GLY:HA3	1.90	0.52
1:af:146:GLN:NE2	2:cb:10:ARG:O	2.42	0.52
1:aj:111:LEU:HD13	1:aj:147:LEU:HD23	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:bn:79:ASP:OD1	1:bn:80:LYS:N	2.41	0.52
2:cb:48:VAL:HG11	2:cb:60:LYS:HD3	1.92	0.52
3:cn:123:ARG:HH22	3:cn:130:LYS:N	2.07	0.52
3:cp:242:GLY:O	3:cp:245:GLU:HG3	2.09	0.52
3:cq:377:GLU:HA	3:cq:380:ILE:HB	1.90	0.52
4:cu:57:CYS:HB2	6:dn:1:MET:HE1	1.92	0.52
3:cy:271:ARG:HD2	5:dc:136:ARG:HH22	1.75	0.52
6:dl:3:LEU:HB3	6:dl:5:ASN:HD22	1.75	0.52
6:dp:27:GLU:O	6:dp:78:THR:OG1	2.21	0.52
3:ec:250:ASP:OD1	3:ec:251:ASP:N	2.43	0.52
1:af:155:GLY:HA2	1:af:161:ILE:HG22	1.90	0.52
2:al:118:VAL:O	2:al:134:THR:OG1	2.28	0.52
2:aq:134:THR:HG22	2:aq:136:TRP:H	1.75	0.52
4:cr:84:LYS:HE2	4:cw:3:TYR:HB2	1.91	0.52
5:da:116:LYS:HE2	5:di:108:MET:HG2	1.91	0.52
5:dd:135:LEU:HD12	5:dd:136:ARG:HD2	1.92	0.52
7:dw:26:LEU:HD23	7:dw:48:ILE:HD11	1.92	0.52
3:dy:392:ILE:HA	3:dy:395:GLN:NE2	2.24	0.52
1:at:51:TYR:HB2	1:at:142:LEU:HD21	1.92	0.52
3:co:78:ILE:HD11	3:co:362:TRP:HB2	1.92	0.52
3:cp:383:ASN:O	3:cp:386:GLU:HG3	2.10	0.52
3:cq:323:SER:O	3:cq:326:GLN:NE2	2.42	0.52
4:cr:57:CYS:HB3	4:cr:130:LYS:HD3	1.91	0.52
5:dc:29:ASP:HB3	5:dc:33:TYR:HE1	1.73	0.52
7:dt:44:MET:N	7:dt:44:MET:SD	2.83	0.52
3:ea:240:VAL:HG22	3:ea:280:GLU:HB3	1.92	0.52
3:ec:51:GLY:O	3:ec:55:ASN:ND2	2.42	0.52
1:as:180:ASP:O	1:as:183:THR:HG22	2.10	0.52
1:at:119:ILE:O	1:at:123:LYS:HG3	2.10	0.52
2:ay:64:THR:HG22	2:ay:122:VAL:HG22	1.91	0.52
1:ci:65:GLU:N	1:ci:277:GLU:OE2	2.42	0.52
1:cj:284:MET:HG2	1:cj:298:CYS:SG	2.50	0.52
3:cp:310:HIS:CD2	3:cp:312:ILE:HG12	2.45	0.52
6:dn:206:LEU:HD11	6:dn:210:PHE:HE1	1.75	0.52
6:do:12:GLU:HB3	6:do:165:THR:HG23	1.92	0.52
6:do:42:LYS:HD3	6:do:43:GLY:N	2.25	0.52
7:ds:98:VAL:HG21	7:ds:117:ARG:HG3	1.92	0.52
3:du:194:PRO:HA	3:du:197:ARG:HB3	1.92	0.52
2:ap:10:ARG:O	1:av:146:GLN:NE2	2.44	0.51
1:bw:200:ILE:HD11	1:bw:314:VAL:HG13	1.91	0.51
4:cv:102:PHE:HB3	4:cv:124:THR:HG23	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:cy:346:ARG:NH2	3:cy:350:GLU:OE2	2.43	0.51
5:cz:113:PRO:O	5:cz:117:MET:HG3	2.10	0.51
3:du:167:LYS:HZ3	3:du:169:SER:HB3	1.74	0.51
3:ea:165:ILE:CG2	3:ea:178:LEU:HD22	2.40	0.51
2:ay:63:THR:O	2:ay:66:THR:OG1	2.26	0.51
2:cb:17:PRO:HG3	2:cb:150:LEU:HD21	1.92	0.51
2:ce:109:THR:HG23	2:ce:110:GLU:HG3	1.92	0.51
4:ct:60:TYR:HB2	4:ct:127:VAL:HG12	1.92	0.51
5:dc:116:LYS:HD3	5:dd:108:MET:HG3	1.91	0.51
5:de:100:VAL:HG22	5:de:101:THR:HG23	1.92	0.51
3:dj:389:THR:HA	3:dj:392:ILE:HG12	1.92	0.51
5:dk:77:LEU:HD21	7:dw:5:GLN:HB2	1.92	0.51
6:dq:2:HIS:CG	6:dq:174:ALA:HB2	2.45	0.51
3:dy:72:VAL:HG11	3:dy:101:VAL:HG22	1.91	0.51
3:eb:327:ASN:OD1	3:eb:328:THR:N	2.43	0.51
2:ap:13:ALA:HB3	1:aw:81:VAL:HG12	1.93	0.51
2:ay:97:MET:HE1	2:ay:102:VAL:HB	1.91	0.51
2:bd:85:GLN:HG2	2:bd:86:MET:H	1.75	0.51
1:bf:184:MET:HG3	1:bf:222:VAL:HG22	1.92	0.51
1:ca:66:LEU:HD23	1:ca:279:PRO:HG3	1.92	0.51
2:cd:143:THR:O	2:cd:149:GLN:NE2	2.44	0.51
3:dy:108:ARG:HE	3:dy:207:VAL:HG11	1.75	0.51
1:af:118:SER:OG	1:af:121:GLU:HG3	2.10	0.51
1:ag:53:VAL:O	1:ag:149:ASN:ND2	2.43	0.51
1:at:167:HIS:HB3	1:at:170:ILE:HG23	1.92	0.51
2:bz:83:GLN:O	2:bz:85:GLN:NE2	2.43	0.51
1:cj:58:ARG:O	1:cj:269:LYS:NZ	2.34	0.51
3:co:53:PHE:CE2	3:co:213:ILE:HG23	2.46	0.51
3:cq:51:GLY:O	3:cq:55:ASN:ND2	2.43	0.51
3:cq:309:ILE:HD11	3:cq:314:ILE:HD13	1.92	0.51
3:dz:179:ILE:HG21	3:dz:184:ILE:HG23	1.92	0.51
3:ec:403:ARG:NH1	3:ec:419:ASN:O	2.43	0.51
1:af:76:MET:HE3	1:af:103:SER:HB3	1.91	0.51
2:be:127:LYS:NZ	2:be:129:ASP:OD1	2.43	0.51
1:bs:79:ASP:HB3	1:bs:100:LEU:HD23	1.91	0.51
3:cn:292:VAL:HG23	3:cn:293:PRO:HD3	1.93	0.51
4:cr:130:LYS:HE3	6:dl:103:CYS:HB3	1.91	0.51
5:dc:16:GLN:HA	5:dc:19:LYS:NZ	2.25	0.51
6:dl:14:SER:OG	6:dl:96:THR:OG1	2.28	0.51
6:dl:65:ASP:H	6:dl:72:THR:HB	1.75	0.51
1:bj:79:ASP:OD1	1:bj:80:LYS:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:bm:19:MET:HE3	1:bs:98:ASP:HB2	1.91	0.51
1:ca:250:ILE:HG22	1:ca:252:GLU:H	1.76	0.51
1:ci:277:GLU:HB2	1:ci:303:THR:HG21	1.92	0.51
3:cn:229:ILE:HG21	3:cn:289:ILE:HD13	1.92	0.51
3:cn:300:MET:O	3:cn:304:VAL:HG13	2.11	0.51
3:co:404:ASP:OD1	3:co:407:ARG:NH1	2.43	0.51
3:cq:327:ASN:OD1	3:cq:328:THR:N	2.42	0.51
4:cr:50:TYR:HD2	4:cr:55:ARG:HD2	1.76	0.51
3:dz:123:ARG:HH22	3:dz:130:LYS:H	1.57	0.51
3:ec:379:GLU:O	3:ec:382:LYS:HG2	2.11	0.51
2:bd:40:LEU:HD22	2:bd:85:GLN:OE1	2.10	0.51
1:bg:178:TRP:HB2	1:bg:219:MET:HE1	1.91	0.51
1:bn:54:GLY:HA3	1:bn:149:ASN:ND2	2.26	0.51
1:bs:41:ARG:NH2	1:bt:67:SER:OG	2.44	0.51
3:cp:244:ALA:HA	5:db:130:ALA:HB2	1.92	0.51
3:cq:376:GLU:O	3:cq:380:ILE:HG12	2.11	0.51
5:de:77:LEU:HD22	7:ds:2:ASN:ND2	2.25	0.51
3:dy:362:TRP:HZ3	3:dy:364:ILE:HB	1.74	0.51
3:dz:62:ARG:HG3	3:dz:62:ARG:HH11	1.76	0.51
1:ag:87:ILE:HB	1:ag:91:THR:HG21	1.93	0.51
2:aq:126:GLU:OE2	2:aq:138:TYR:OH	2.26	0.51
2:az:144:LYS:NZ	2:az:149:GLN:OE1	2.44	0.51
1:bg:248:ASP:OD1	1:bg:249:SER:N	2.43	0.51
1:bg:290:LYS:HG2	1:bg:291:ASP:H	1.76	0.51
1:bn:159:HIS:NE2	8:bk:29:VAL:CG2	2.74	0.51
1:bt:227:MET:HG2	1:bt:234:TYR:CZ	2.45	0.51
3:co:377:GLU:O	3:co:380:ILE:HG22	2.10	0.51
3:cp:166:TYR:HD2	3:cp:184:ILE:HD11	1.74	0.51
3:cp:300:MET:O	3:cp:304:VAL:HG23	2.10	0.51
3:cp:386:GLU:O	3:cp:390:LYS:HB2	2.11	0.51
4:cu:56:LYS:HD2	4:cu:131:GLU:OE2	2.10	0.51
4:cv:47:ASP:OD1	4:cv:47:ASP:N	2.42	0.51
5:cx:108:MET:HE1	5:dd:120:GLN:OE1	2.10	0.51
5:db:136:ARG:NH2	3:ea:271:ARG:HD2	2.25	0.51
5:di:52:TYR:O	5:di:56:ILE:HG12	2.10	0.51
5:di:62:HIS:HD1	5:di:112:THR:HG1	1.54	0.51
3:dj:78:ILE:HD12	3:dj:81:VAL:HG21	1.93	0.51
3:ea:328:THR:HA	3:ea:331:GLU:CD	2.36	0.51
3:ec:123:ARG:NH2	3:ec:130:LYS:H	2.08	0.51
1:aa:242:ASN:HB3	1:aa:245:ILE:HD12	1.93	0.51
2:ac:145:TYR:O	2:ac:146:LYS:C	2.54	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:an:66:LEU:HD23	1:aw:41:ARG:HD2	1.91	0.51
3:cn:304:VAL:HG12	3:cn:314:ILE:HG21	1.92	0.51
3:cq:311:GLU:HA	3:cq:314:ILE:HG22	1.93	0.51
3:cq:315:LYS:HD3	3:cq:317:LYS:HE3	1.91	0.51
4:cw:2:HIS:CE1	4:cw:45:GLU:HG2	2.45	0.51
3:cy:166:TYR:CD2	3:cy:184:ILE:HD11	2.46	0.51
3:cy:382:LYS:O	3:cy:386:GLU:HG3	2.11	0.51
5:cz:18:ARG:HG2	5:cz:25:ARG:HD3	1.91	0.51
6:dm:151:ILE:HG22	6:dm:155:LEU:HD23	1.93	0.51
1:bj:51:TYR:CD1	2:bl:10:ARG:HD3	2.46	0.51
2:bz:16:LEU:HD11	1:cf:100:LEU:HD21	1.93	0.51
1:ca:73:PHE:HB2	1:cj:43:LYS:HE2	1.93	0.51
3:co:127:SER:O	3:co:183:ARG:NH2	2.42	0.51
3:co:179:ILE:HG22	3:co:180:HIS:O	2.10	0.51
3:cq:254:TYR:CE2	8:ck:134:GLU:N	2.79	0.51
4:cs:102:PHE:HB3	4:cs:124:THR:HG23	1.93	0.51
4:ct:2:HIS:NE2	4:ct:45:GLU:HG2	2.26	0.51
5:da:124:ARG:HG2	5:da:124:ARG:HH11	1.76	0.51
3:dz:373:SER:OG	3:dz:376:GLU:HB3	2.11	0.51
2:ay:120:LEU:HD13	2:ay:134:THR:HG21	1.93	0.50
1:ba:54:GLY:HA3	1:ba:149:ASN:ND2	2.26	0.50
3:cn:244:ALA:HA	5:dg:130:ALA:HB2	1.92	0.50
3:co:153:THR:HA	3:co:160:TYR:HB2	1.92	0.50
3:cp:414:LYS:NZ	3:dz:408:SER:HB2	2.26	0.50
4:cu:19:ASP:OD1	4:cu:20:PHE:N	2.45	0.50
5:cx:33:TYR:O	5:cx:37:GLU:HG2	2.10	0.50
5:di:18:ARG:HB3	5:di:25:ARG:HE	1.76	0.50
5:di:29:ASP:OD1	5:di:30:GLU:N	2.44	0.50
3:dj:232:ARG:NH1	3:ec:267:SER:OG	2.45	0.50
3:dj:328:THR:O	3:dj:331:GLU:HG3	2.10	0.50
3:dj:401:GLU:HB3	3:ec:416:LYS:NZ	2.26	0.50
6:dm:42:LYS:NZ	6:dm:64:THR:O	2.27	0.50
7:ds:3:TYR:HA	7:ds:6:ILE:HD13	1.93	0.50
3:dy:267:SER:OG	3:ec:235:GLN:OE1	2.29	0.50
3:ea:62:ARG:NH2	3:ea:313:ILE:O	2.43	0.50
1:af:111:LEU:HD13	1:af:147:LEU:HD23	1.93	0.50
1:bh:110:ARG:O	1:bh:111:LEU:HD23	2.11	0.50
1:bv:200:ILE:HD13	1:bv:210:ALA:HB2	1.93	0.50
3:co:225:LEU:O	3:co:229:ILE:HG12	2.11	0.50
3:cp:87:PHE:HB3	3:cp:88:LYS:HZ2	1.75	0.50
1:aa:177:LYS:HE2	1:aa:180:ASP:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:bp:10:ARG:O	1:bv:146:GLN:NE2	2.33	0.50
1:bs:58:ARG:HH11	1:bs:58:ARG:HG3	1.77	0.50
1:bw:76:MET:HE1	1:ca:35:THR:HG21	1.93	0.50
1:bw:213:ILE:HG23	1:bw:266:VAL:HG22	1.93	0.50
2:cl:40:LEU:HD23	2:cl:87:ILE:HG22	1.92	0.50
3:cq:83:ASP:HB3	3:cq:86:GLU:OE2	2.12	0.50
3:cy:285:LEU:HD13	3:eb:284:VAL:HG12	1.94	0.50
6:dp:27:GLU:N	6:dp:78:THR:OG1	2.43	0.50
3:dy:373:SER:O	3:dy:377:GLU:HG3	2.12	0.50
3:ec:325:SER:O	3:ec:328:THR:HG22	2.11	0.50
1:af:277:GLU:H	1:af:303:THR:HG22	1.75	0.50
1:bw:196:ALA:HB1	1:bw:314:VAL:HG21	1.92	0.50
4:ct:92:ASP:OD1	4:ct:93:GLY:N	2.44	0.50
3:cy:310:HIS:HB3	3:eb:316:ASN:OD1	2.10	0.50
6:dp:137:ILE:HB	6:dp:206:LEU:HD12	1.94	0.50
3:du:123:ARG:HH22	3:du:129:VAL:HA	1.77	0.50
1:bu:171:THR:HB	1:bu:314:VAL:HG22	1.93	0.50
5:cx:108:MET:HG3	5:dd:116:LYS:HB3	1.92	0.50
5:dk:17:MET:HE3	5:dk:61:LEU:HD22	1.94	0.50
3:du:310:HIS:CD2	3:du:312:ILE:HG12	2.46	0.50
3:ea:116:VAL:HA	3:ea:184:ILE:HG22	1.93	0.50
3:ea:346:ARG:HG2	3:ea:350:GLU:OE2	2.12	0.50
2:az:10:ARG:HB3	1:ba:52:PRO:HD2	1.94	0.50
2:cb:123:ASP:N	2:cb:123:ASP:OD1	2.42	0.50
3:co:159:ARG:HH21	3:co:181:HIS:HB3	1.76	0.50
3:cq:229:ILE:HD13	3:eb:269:VAL:HG11	1.93	0.50
3:cy:62:ARG:O	3:cy:66:VAL:HG13	2.11	0.50
7:dt:35:ASP:OD1	7:dt:36:GLU:HG3	2.12	0.50
3:du:359:GLU:OE2	3:du:362:TRP:HB3	2.11	0.50
3:ec:143:ARG:HG2	3:ec:143:ARG:HH11	1.76	0.50
3:ec:374:LYS:O	3:ec:377:GLU:HG3	2.12	0.50
2:bp:12:MET:HE3	1:bw:80:LYS:HG3	1.94	0.50
1:bu:82:GLY:HA3	1:bu:97:VAL:HG12	1.94	0.50
1:bw:285:LEU:HD12	1:bw:297:PRO:HG2	1.94	0.50
3:co:405:THR:O	3:co:408:SER:OG	2.26	0.50
3:cp:259:ARG:HD3	5:di:129:PHE:HE2	1.77	0.50
3:cq:62:ARG:O	3:cq:66:VAL:HG13	2.11	0.50
4:cr:81:LEU:O	4:cr:84:LYS:HG2	2.12	0.50
6:dn:14:SER:OG	6:dn:96:THR:OG1	2.28	0.50
3:dz:326:GLN:NE2	3:dz:326:GLN:H	2.10	0.50
3:dz:403:ARG:HH22	3:dz:417:ASP:HA	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:ea:235:GLN:OE1	3:ea:236:ALA:N	2.43	0.50
2:ap:46:GLN:NE2	2:ap:60:LYS:HE3	2.26	0.50
1:av:47:TYR:HD1	1:aw:309:ARG:HH21	1.60	0.50
1:bf:93:ASP:OD2	8:ax:25:ASP:OD1	2.29	0.50
1:bg:89:ASP:OD1	1:bg:90:TYR:N	2.44	0.50
1:bn:200:ILE:HD11	1:bn:314:VAL:HG23	1.93	0.50
2:bq:97:MET:HG2	2:bq:155:LEU:HD12	1.92	0.50
2:cd:126:GLU:OE2	2:cd:138:TYR:OH	2.22	0.50
3:co:375:LYS:O	3:co:378:SER:HB2	2.12	0.50
4:cw:82:LYS:HE3	4:cw:86:ILE:HD11	1.93	0.50
6:dn:112:GLY:N	6:dn:135:SER:OG	2.40	0.50
3:eb:141:TYR:CE2	3:eb:170:PRO:HB3	2.47	0.50
1:ah:113:ASN:HA	1:ai:94:LEU:HB3	1.94	0.50
2:am:10:ARG:HH11	1:as:205:ARG:HH12	1.58	0.50
1:bn:79:ASP:OD1	1:bw:51:TYR:OH	2.26	0.50
2:cm:22:ASP:OD1	2:cm:22:ASP:N	2.44	0.50
3:cp:133:ALA:C	3:cp:134:LYS:HD3	2.36	0.50
3:cp:394:GLU:HG2	3:cp:395:GLN:OE1	2.11	0.50
3:cq:139:ARG:NH2	3:cq:177:TYR:OH	2.45	0.50
3:cq:159:ARG:HH22	3:cq:181:HIS:CG	2.30	0.50
4:cs:104:GLY:HA2	4:cs:123:PHE:HB2	1.94	0.50
4:cw:72:PRO:HD3	4:cw:116:GLY:HA2	1.94	0.50
5:dh:45:GLN:NE2	5:dh:49:LYS:HA	2.27	0.50
6:dn:50:GLN:O	6:dn:91:SER:OG	2.23	0.50
6:do:137:ILE:HB	6:do:206:LEU:HD12	1.94	0.50
6:dp:95:ILE:HD12	6:dp:95:ILE:H	1.76	0.50
3:ea:334:TYR:HA	3:ea:337:VAL:HG12	1.92	0.50
3:eb:135:LEU:HD21	3:eb:355:PHE:HB3	1.92	0.50
1:ah:89:ASP:OD1	1:ah:90:TYR:N	2.44	0.49
2:ao:48:VAL:HG11	2:ao:60:LYS:HD3	1.94	0.49
1:bf:196:ALA:HB2	1:bf:316:ILE:HD11	1.94	0.49
1:bh:82:GLY:HA3	1:bh:97:VAL:HG12	1.94	0.49
3:co:403:ARG:HA	3:co:406:LEU:HG	1.94	0.49
3:cq:70:GLU:HG3	3:ea:339:ARG:HH21	1.77	0.49
3:cy:128:PRO:HG3	3:cy:180:HIS:CD2	2.47	0.49
3:dj:409:ILE:HG13	3:dj:409:ILE:O	2.11	0.49
6:dp:14:SER:OG	6:dp:96:THR:OG1	2.24	0.49
3:dy:373:SER:O	3:dy:374:LYS:C	2.54	0.49
3:ea:255:ALA:HA	3:ea:258:LEU:HD12	1.93	0.49
3:eb:222:CYS:SG	3:eb:299:LYS:NZ	2.85	0.49
1:af:220:ARG:NH1	2:cb:6:ALA:HB2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:ah:111:LEU:HD12	1:ah:147:LEU:HD23	1.94	0.49
2:al:106:SER:OG	2:al:126:GLU:OE1	2.22	0.49
1:av:250:ILE:HB	1:av:253:LEU:HD13	1.93	0.49
1:bf:82:GLY:HA3	1:bf:97:VAL:HG12	1.94	0.49
1:bg:85:GLN:HG3	1:bg:95:PRO:HG3	1.94	0.49
2:bo:4:ILE:HD12	1:cf:220:ARG:HG2	1.94	0.49
1:bt:35:THR:OG1	1:bt:38:GLU:OE1	2.21	0.49
1:bw:239:LYS:NZ	1:bw:245:ILE:O	2.44	0.49
3:co:123:ARG:NH1	3:co:130:LYS:HG3	2.27	0.49
3:cp:119:ILE:HA	3:cp:135:LEU:HA	1.94	0.49
3:cp:310:HIS:CE1	3:cp:333:PHE:HB2	2.46	0.49
3:cp:325:SER:OG	3:ea:326:GLN:NE2	2.45	0.49
4:cr:5:LEU:HD21	4:cr:125:VAL:HG23	1.93	0.49
5:da:25:ARG:HB3	5:da:26:LYS:HZ2	1.77	0.49
5:de:73:GLU:N	5:de:76:ASP:OD1	2.45	0.49
5:df:135:LEU:HD13	3:du:257:ARG:HE	1.77	0.49
7:ds:101:ARG:HH21	7:ds:113:ARG:NH1	2.10	0.49
3:du:193:THR:OG1	3:du:196:MET:SD	2.57	0.49
7:dw:8:ARG:HB3	7:dw:12:LYS:HZ3	1.77	0.49
3:eb:149:GLU:HG3	3:eb:178:LEU:HD11	1.93	0.49
3:ec:85:LYS:HA	3:ec:85:LYS:HE2	1.94	0.49
1:av:180:ASP:O	1:av:183:THR:OG1	2.26	0.49
1:ca:113:ASN:HA	1:cf:94:LEU:HB3	1.94	0.49
2:cb:120:LEU:HA	2:cb:126:GLU:HA	1.93	0.49
4:cs:38:TRP:NE1	7:dx:120:SER:OG	2.43	0.49
5:cx:16:GLN:HG3	5:cx:54:LYS:HZ2	1.76	0.49
3:cy:232:ARG:NH1	3:eb:267:SER:OG	2.45	0.49
3:cy:254:TYR:O	3:cy:258:LEU:HD23	2.12	0.49
3:cy:334:TYR:HB3	3:cy:369:LEU:HG	1.93	0.49
3:dj:304:VAL:HG22	3:dj:314:ILE:HG21	1.94	0.49
3:dz:310:HIS:HE1	3:dz:333:PHE:HB2	1.77	0.49
3:dz:392:ILE:HA	3:dz:395:GLN:NE2	2.28	0.49
3:ea:304:VAL:HG22	3:ea:314:ILE:HG21	1.93	0.49
3:eb:334:TYR:CD1	3:eb:369:LEU:HG	2.46	0.49
1:aa:226:ARG:NH2	1:aa:230:THR:O	2.45	0.49
2:ao:17:PRO:HG3	2:ao:150:LEU:HD21	1.93	0.49
2:ap:16:LEU:HD11	1:aw:100:LEU:HD11	1.93	0.49
1:at:171:THR:HB	1:at:314:VAL:HG22	1.94	0.49
1:bn:107:LYS:O	1:bn:303:THR:OG1	2.27	0.49
3:cn:382:LYS:HE2	3:eb:383:ASN:HB3	1.94	0.49
3:co:374:LYS:NZ	3:dy:372:PRO:HB3	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:dg:77:LEU:HD23	5:dg:77:LEU:H	1.77	0.49
5:dk:4:ILE:N	5:dk:40:GLU:OE1	2.45	0.49
6:dn:21:ALA:O	6:dn:89:THR:OG1	2.25	0.49
7:dr:28:LYS:O	7:dr:46:GLN:HB3	2.13	0.49
8:ak:115:VAL:HG21	8:ak:139:ILE:HD11	1.95	0.49
1:aa:217:PRO:O	1:aa:220:ARG:HG3	2.13	0.49
2:ab:47:VAL:HG22	2:ab:59:VAL:HG12	1.94	0.49
1:bw:113:ASN:OD1	1:bw:144:HIS:NE2	2.46	0.49
3:cn:267:SER:OG	3:eb:235:GLN:OE1	2.27	0.49
5:dg:4:ILE:HD12	5:dg:10:LEU:HD13	1.93	0.49
3:dj:322:VAL:HG11	3:dj:325:SER:HB3	1.93	0.49
3:dy:259:ARG:NH2	3:ec:248:ASP:OD2	2.46	0.49
3:eb:392:ILE:HA	3:eb:395:GLN:NE2	2.27	0.49
3:ec:148:ILE:HD12	3:ec:163:PRO:HG3	1.94	0.49
1:ai:33:ILE:HD13	1:an:132:LEU:HD13	1.94	0.49
2:bl:9:GLN:NE2	2:bl:11:ASP:OD1	2.45	0.49
1:bs:54:GLY:HA3	1:bs:149:ASN:ND2	2.28	0.49
3:cn:374:LYS:HZ2	3:eb:372:PRO:CA	2.25	0.49
3:cp:121:ASP:OD2	3:cp:123:ARG:NE	2.31	0.49
3:cp:342:GLU:OE1	3:cp:346:ARG:NE	2.39	0.49
7:dt:5:GLN:O	7:dt:9:MET:HG2	2.12	0.49
2:ad:90:ASP:OD1	1:ai:160:LYS:NZ	2.46	0.49
1:ai:108:VAL:HG22	1:ai:303:THR:HG22	1.95	0.49
1:aj:288:GLN:NE2	1:an:290:LYS:O	2.45	0.49
3:cn:239:LYS:HE3	3:cn:281:GLU:OE2	2.13	0.49
3:cn:323:SER:O	3:cn:326:GLN:NE2	2.45	0.49
3:cy:374:LYS:CA	3:cy:377:GLU:HG2	2.43	0.49
5:da:66:LEU:HD22	5:dh:113:PRO:HB3	1.93	0.49
5:db:44:CYS:SG	5:di:124:ARG:NH1	2.82	0.49
3:du:328:THR:HA	3:du:331:GLU:OE2	2.12	0.49
3:dy:326:GLN:HG3	3:ec:328:THR:HG21	1.95	0.49
3:eb:395:GLN:HE21	3:eb:397:ILE:HD12	1.77	0.49
1:bg:40:HIS:HD1	1:bh:72:THR:HG1	1.60	0.49
1:bn:180:ASP:OD1	1:bn:183:THR:OG1	2.31	0.49
2:bp:13:ALA:HB3	1:bw:81:VAL:HG12	1.93	0.49
2:br:144:LYS:HE3	2:br:147:ASP:HA	1.94	0.49
2:cc:13:ALA:HB3	1:cj:81:VAL:HG12	1.94	0.49
3:cn:327:ASN:OD1	3:cn:328:THR:N	2.46	0.49
3:co:123:ARG:NH2	3:co:130:LYS:H	2.10	0.49
3:cq:251:ASP:OD1	3:cq:252:ALA:N	2.45	0.49
4:cr:26:ASN:OD1	4:cv:73:GLY:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:dt:58:ASN:OD1	7:dt:59:ALA:N	2.45	0.49
3:dz:346:ARG:HG3	3:dz:364:ILE:HD11	1.95	0.49
3:ea:331:GLU:HA	3:ea:334:TYR:HD2	1.77	0.49
3:ea:403:ARG:O	3:ea:407:ARG:HD3	2.12	0.49
1:aa:108:VAL:HG13	1:aa:303:THR:HG22	1.95	0.49
1:au:110:ARG:HG2	1:au:301:LYS:HG2	1.94	0.49
1:bi:142:LEU:O	1:bi:146:GLN:HG3	2.13	0.49
2:cm:156:HIS:ND1	2:cm:157:GLN:O	2.45	0.49
3:cp:251:ASP:CG	8:ak:137:TYR:OH	2.55	0.49
3:dj:386:GLU:OE1	3:du:390:LYS:NZ	2.42	0.49
6:dm:12:GLU:HG3	6:dm:95:ILE:HD12	1.95	0.49
2:bc:139:ALA:HB3	2:bc:152:GLU:HG2	1.95	0.49
1:bn:109:PHE:CE1	1:bn:161:ILE:HD11	2.47	0.49
1:bv:73:PHE:CE1	1:bv:106:GLY:HA3	2.48	0.49
1:cg:128:THR:HG23	1:cg:130:ARG:H	1.78	0.49
3:cp:405:THR:O	3:cp:409:ILE:HG12	2.13	0.49
5:dh:4:ILE:HD12	5:dh:10:LEU:HD13	1.95	0.49
6:dl:179:MET:HB2	6:dl:211:THR:OG1	2.12	0.49
3:dy:66:VAL:HG23	3:ec:339:ARG:HH12	1.78	0.49
3:dy:268:GLY:HA3	3:dy:271:ARG:HH21	1.78	0.49
3:dy:392:ILE:HA	3:dy:395:GLN:HE22	1.78	0.49
3:eb:409:ILE:O	3:eb:409:ILE:HG13	2.13	0.49
3:ec:403:ARG:NH2	3:ec:416:LYS:O	2.45	0.49
8:ck:115:VAL:HG21	8:ck:139:ILE:HD11	1.95	0.49
8:ax:115:VAL:HG21	8:ax:139:ILE:HD11	1.95	0.49
2:am:82:ALA:HB3	2:am:87:ILE:HD11	1.94	0.48
1:at:198:GLU:O	1:at:202:THR:HG23	2.13	0.48
1:aw:284:MET:HG2	1:aw:298:CYS:SG	2.53	0.48
2:bc:49:GLN:HB3	2:bc:58:LEU:HD12	1.95	0.48
1:ca:79:ASP:OD1	1:ca:80:LYS:N	2.42	0.48
3:cn:165:ILE:HG22	3:cn:178:LEU:HD12	1.93	0.48
5:dg:62:HIS:HD1	5:dg:112:THR:HG1	1.57	0.48
6:dq:52:THR:HG23	6:dq:89:THR:HG22	1.95	0.48
7:ds:8:ARG:HH11	7:ds:8:ARG:HG3	1.77	0.48
3:ea:383:ASN:ND2	3:ea:383:ASN:H	2.10	0.48
3:ec:97:ASP:O	3:ec:101:VAL:HG23	2.13	0.48
3:ec:135:LEU:HD21	3:ec:356:ILE:HB	1.94	0.48
2:am:12:MET:SD	1:an:142:LEU:HD23	2.53	0.48
2:cc:99:SER:HA	2:cc:155:LEU:O	2.13	0.48
1:cj:113:ASN:OD1	1:cj:144:HIS:NE2	2.46	0.48
3:cq:251:ASP:HA	8:ck:135:ASP:OD2	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:cq:374:LYS:O	3:cq:375:LYS:C	2.55	0.48
5:de:113:PRO:HA	5:de:116:LYS:HD2	1.95	0.48
3:dz:216:ILE:HD13	3:dz:303:ILE:HD12	1.94	0.48
3:ea:143:ARG:HD3	3:ea:203:TRP:CZ3	2.48	0.48
2:ac:77:TRP:HD1	2:ac:78:GLN:HG2	1.78	0.48
1:af:257:ASP:OD1	1:af:261:THR:HG22	2.13	0.48
1:ag:272:MET:HE2	1:ag:272:MET:N	2.28	0.48
1:ah:82:GLY:HA3	1:ah:97:VAL:HG12	1.93	0.48
1:an:98:ASP:OD2	2:ay:74:ARG:NH2	2.46	0.48
2:ar:71:VAL:HG23	2:ar:155:LEU:HD21	1.95	0.48
1:ba:233:SER:OG	1:ba:236:ASP:OD1	2.31	0.48
2:by:158:LEU:CD2	8:bx:104:PHE:HB3	2.43	0.48
3:cp:407:ARG:HB3	3:cp:415:LEU:HD21	1.94	0.48
5:cx:10:LEU:HD21	5:cx:33:TYR:HD1	1.78	0.48
3:cy:57:ASN:OD1	3:cy:58:ALA:N	2.45	0.48
3:cy:259:ARG:HD2	5:dc:129:PHE:HE2	1.77	0.48
5:de:17:MET:HE3	5:de:61:LEU:HD22	1.96	0.48
3:dj:310:HIS:O	3:dj:314:ILE:HG22	2.14	0.48
7:dt:63:ASP:OD1	7:dt:65:GLU:HB2	2.13	0.48
3:dz:382:LYS:C	3:dz:382:LYS:HD3	2.37	0.48
3:eb:344:ASP:C	3:eb:347:PRO:HD2	2.38	0.48
8:ak:29:VAL:HG12	8:ak:30:ALA:N	2.29	0.48
1:au:179:ILE:HG12	1:au:219:MET:HE1	1.95	0.48
1:bn:201:GLU:OE2	1:bn:209:ARG:NH1	2.46	0.48
1:bt:119:ILE:O	1:bt:123:LYS:HG3	2.12	0.48
1:ca:89:ASP:OD2	2:cm:75:SER:OG	2.32	0.48
3:cn:230:LEU:HG	3:eb:225:LEU:HD23	1.94	0.48
3:cp:65:ASP:O	3:cp:68:PRO:HD2	2.14	0.48
4:cw:54:ASP:OD1	4:cw:54:ASP:N	2.45	0.48
3:cy:403:ARG:NE	3:cy:419:ASN:O	2.47	0.48
5:dc:88:SER:OG	5:dk:94:SER:OG	2.30	0.48
5:de:124:ARG:HG2	5:de:124:ARG:HH11	1.79	0.48
3:dj:332:THR:HA	3:dj:335:LYS:HG2	1.95	0.48
3:du:373:SER:C	3:du:377:GLU:HG3	2.38	0.48
3:dz:190:GLU:OE1	3:dz:190:GLU:N	2.45	0.48
3:eb:283:ASP:OD1	3:eb:284:VAL:N	2.43	0.48
3:eb:294:GLU:OE1	3:eb:294:GLU:N	2.43	0.48
8:bk:115:VAL:HG21	8:bk:139:ILE:HD11	1.95	0.48
8:bx:115:VAL:HG21	8:bx:139:ILE:HD11	1.95	0.48
8:ck:29:VAL:HG12	8:ck:30:ALA:N	2.28	0.48
1:an:285:LEU:HB2	1:an:297:PRO:HG2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:ay:47:VAL:HG11	8:ax:104:PHE:HE2	1.78	0.48
2:bb:17:PRO:HG3	2:bb:150:LEU:HD21	1.96	0.48
2:br:77:TRP:O	1:bu:71:LYS:NZ	2.47	0.48
1:bt:89:ASP:OD1	1:bt:90:TYR:N	2.46	0.48
1:bw:61:PRO:HD2	1:bw:274:MET:HG2	1.96	0.48
2:bz:99:SER:HA	2:bz:155:LEU:O	2.13	0.48
3:cq:209:ASN:O	3:cq:213:ILE:HG12	2.12	0.48
4:cr:52:SER:OG	4:cr:54:ASP:OD1	2.30	0.48
3:cy:62:ARG:HH11	3:cy:62:ARG:HG3	1.79	0.48
3:cy:353:LEU:HD23	3:cy:356:ILE:HD11	1.95	0.48
3:dj:220:ASP:OD1	3:dj:221:TYR:N	2.46	0.48
3:dz:165:ILE:HG22	3:dz:178:LEU:HD12	1.96	0.48
1:af:249:SER:OG	2:cb:5:ASN:O	2.31	0.48
2:bm:22:ASP:OD2	2:bm:101:ARG:NH1	2.47	0.48
1:bt:285:LEU:HB2	1:bt:297:PRO:HG2	1.95	0.48
3:co:177:TYR:CE1	3:co:179:ILE:HD11	2.49	0.48
3:cq:67:ILE:HG21	3:cq:340:LYS:HD2	1.96	0.48
3:cq:124:MET:O	3:cq:127:SER:OG	2.28	0.48
4:cr:3:TYR:HE1	4:cv:77:ASP:HB2	1.77	0.48
4:ct:19:ASP:OD1	4:ct:20:PHE:N	2.46	0.48
5:cz:136:ARG:HH22	3:dy:271:ARG:HH11	1.62	0.48
3:dj:327:ASN:OD1	3:dj:328:THR:N	2.47	0.48
6:dl:198:GLU:OE2	6:dq:2:HIS:NE2	2.47	0.48
7:ds:28:LYS:O	7:ds:46:GLN:HB3	2.13	0.48
1:ah:128:THR:HG23	1:ah:130:ARG:H	1.79	0.48
1:as:93:ASP:OD2	8:ak:25:ASP:CG	2.56	0.48
1:au:290:LYS:HG2	1:au:291:ASP:H	1.79	0.48
1:bj:277:GLU:HB2	1:bj:303:THR:HG21	1.96	0.48
3:cn:195:GLN:OE1	3:cn:195:GLN:N	2.46	0.48
3:co:310:HIS:CE1	3:co:333:PHE:HB2	2.39	0.48
5:dc:116:LYS:HD3	5:dd:108:MET:CG	2.43	0.48
5:df:87:PHE:HE1	5:df:97:PHE:HZ	1.60	0.48
3:dj:374:LYS:HG3	3:dj:375:LYS:N	2.28	0.48
6:dp:28:LYS:NZ	6:dp:29:ASN:OD1	2.26	0.48
3:du:385:VAL:HG11	3:du:413:PHE:HE2	1.78	0.48
3:dz:374:LYS:CA	3:dz:377:GLU:HG3	2.43	0.48
3:ea:336:LEU:HA	3:ea:339:ARG:NH1	2.28	0.48
1:af:51:TYR:HB2	1:af:142:LEU:HD21	1.95	0.48
2:ay:73:ILE:O	2:ay:88:TYR:OH	2.25	0.48
1:bj:63:THR:HG22	1:bj:275:SER:OG	2.14	0.48
1:bs:252:GLU:OE1	1:bs:252:GLU:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:bu:235:LEU:HD21	1:bu:239:LYS:HE3	1.96	0.48
2:by:34:VAL:HG12	2:by:36:GLU:H	1.78	0.48
3:cq:214:ASP:OD1	3:cq:215:ALA:N	2.46	0.48
4:cr:20:PHE:CZ	4:cr:37:MET:HG3	2.45	0.48
4:cw:99:GLY:HA3	4:cw:127:VAL:HG22	1.96	0.48
3:cy:142:ASP:OD1	3:cy:143:ARG:N	2.38	0.48
5:cz:42:PHE:O	5:de:124:ARG:NH1	2.47	0.48
5:dg:24:LEU:HD12	5:dg:32:LEU:HD21	1.94	0.48
5:dg:83:ARG:NH2	5:dg:99:GLU:OE1	2.47	0.48
5:dk:77:LEU:HD22	7:dw:2:ASN:ND2	2.29	0.48
6:dl:59:ARG:NH2	6:dl:76:ILE:HD13	2.29	0.48
7:ds:63:ASP:OD1	7:ds:65:GLU:HG3	2.13	0.48
3:dy:275:ILE:HD11	3:ec:239:LYS:HE3	1.95	0.48
3:dz:310:HIS:CD2	3:dz:312:ILE:HG12	2.49	0.48
3:eb:121:ASP:OD1	3:eb:130:LYS:NZ	2.37	0.48
8:bk:29:VAL:HG12	8:bk:30:ALA:N	2.28	0.48
2:ay:34:VAL:HG12	2:ay:36:GLU:H	1.79	0.48
1:bt:199:THR:O	1:bt:203:ILE:HG12	2.13	0.48
1:bv:227:MET:HE3	1:bv:230:THR:HG21	1.95	0.48
3:cn:148:ILE:HG23	3:cn:151:ARG:NH2	2.28	0.48
3:cp:151:ARG:HH22	3:cp:163:PRO:HB3	1.77	0.48
3:cq:121:ASP:OD2	3:cq:123:ARG:NE	2.35	0.48
4:cr:81:LEU:HA	4:cr:84:LYS:CE	2.43	0.48
3:cy:251:ASP:OD1	3:cy:251:ASP:N	2.47	0.48
5:dc:124:ARG:HH11	5:dc:124:ARG:HG3	1.78	0.48
3:du:60:ALA:HA	3:du:63:ILE:HG22	1.94	0.48
7:dx:23:PRO:HG2	7:dx:91:ASP:HA	1.95	0.48
3:ec:310:HIS:NE2	3:ec:312:ILE:HG12	2.29	0.48
8:bx:29:VAL:HG12	8:bx:30:ALA:N	2.28	0.48
2:ab:18:GLY:HA3	2:ab:41:VAL:HG12	1.96	0.48
2:ap:57:LYS:NZ	2:ap:69:TYR:OH	2.47	0.48
1:av:277:GLU:HB3	1:av:303:THR:HG21	1.95	0.48
2:ay:157:GLN:OE1	2:ay:158:LEU:N	2.47	0.48
1:bf:54:GLY:HA3	1:bf:149:ASN:ND2	2.28	0.48
2:bp:47:VAL:HG22	2:bp:59:VAL:HG12	1.95	0.48
1:ca:285:LEU:HB2	1:ca:297:PRO:HG2	1.93	0.48
3:cn:310:HIS:CE1	3:cn:333:PHE:HB2	2.41	0.48
3:co:382:LYS:O	3:co:386:GLU:HG3	2.14	0.48
4:ct:52:SER:CB	6:dn:103:CYS:HB2	2.43	0.48
4:cw:27:ARG:HH22	7:dw:42:PRO:HG3	1.78	0.48
5:cx:18:ARG:HG2	5:cx:25:ARG:HD3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:cy:151:ARG:NH1	3:cy:152:VAL:O	2.47	0.48
5:da:13:ALA:O	5:da:17:MET:HG3	2.13	0.48
5:dk:77:LEU:HD22	7:dw:2:ASN:HD21	1.77	0.48
3:du:334:TYR:HA	3:du:337:VAL:HG12	1.95	0.48
3:dy:97:ASP:O	3:dy:101:VAL:HG23	2.14	0.48
3:dy:334:TYR:HA	3:dy:337:VAL:HG12	1.96	0.48
3:dy:374:LYS:HG3	3:dy:375:LYS:N	2.25	0.48
3:ec:346:ARG:O	3:ec:349:LEU:N	2.47	0.48
2:bq:134:THR:HG22	2:bq:136:TRP:H	1.79	0.47
1:bv:280:GLU:HB3	1:bv:301:LYS:HB2	1.95	0.47
3:cy:179:ILE:HG22	3:cy:180:HIS:O	2.13	0.47
3:cy:373:SER:O	3:cy:376:GLU:N	2.48	0.47
3:dj:60:ALA:O	3:dj:64:VAL:HG12	2.14	0.47
3:dy:333:PHE:O	3:dy:336:LEU:HG	2.14	0.47
3:dz:388:VAL:HG13	3:dz:389:THR:HG23	1.96	0.47
3:ea:118:ILE:HG13	3:ea:136:GLU:HG3	1.95	0.47
1:bh:252:GLU:OE1	1:bh:252:GLU:N	2.47	0.47
2:bm:146:LYS:O	2:bm:148:ILE:HG13	2.13	0.47
1:bn:51:TYR:HB2	1:bn:142:LEU:HD21	1.96	0.47
1:cf:277:GLU:H	1:cf:303:THR:HG22	1.80	0.47
3:cp:209:ASN:OD1	3:cp:211:SER:OG	2.27	0.47
3:cq:259:ARG:HD3	5:dk:129:PHE:HE2	1.79	0.47
4:cu:31:PRO:HB2	7:dt:118:ARG:HH12	1.78	0.47
5:da:131:LEU:H	3:dz:259:ARG:HH21	1.62	0.47
5:df:132:MET:SD	3:du:243:LEU:HD21	2.54	0.47
6:dq:171:VAL:HG21	6:dq:178:ARG:HH21	1.77	0.47
3:du:177:TYR:CE2	3:du:179:ILE:HD11	2.47	0.47
3:du:240:VAL:HB	3:du:243:LEU:HD12	1.96	0.47
3:du:392:ILE:HA	3:du:395:GLN:NE2	2.29	0.47
3:dz:304:VAL:HG23	3:dz:309:ILE:O	2.13	0.47
3:dz:382:LYS:O	3:dz:382:LYS:HD3	2.13	0.47
3:ea:353:LEU:O	3:ea:357:VAL:HG22	2.13	0.47
3:eb:123:ARG:NH2	3:eb:130:LYS:H	2.10	0.47
3:ec:353:LEU:O	3:ec:357:VAL:HG12	2.14	0.47
2:bb:118:VAL:O	2:bb:134:THR:OG1	2.29	0.47
2:bc:58:LEU:HD21	1:bs:158:PRO:HB3	1.95	0.47
1:bf:63:THR:CG2	1:bf:65:GLU:HG3	2.44	0.47
1:bn:71:LYS:HE2	8:bk:70:TYR:CD2	2.49	0.47
1:bv:51:TYR:HB2	1:bv:142:LEU:HD21	1.96	0.47
2:by:34:VAL:HB	2:by:60:LYS:HB3	1.95	0.47
2:ce:63:THR:O	2:ce:66:THR:OG1	2.27	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:cm:17:PRO:HG3	2:cm:150:LEU:HD21	1.96	0.47
3:cn:356:ILE:HG23	3:cn:357:VAL:HG13	1.95	0.47
3:co:118:ILE:HG13	3:co:136:GLU:HG3	1.97	0.47
3:co:159:ARG:NH2	3:co:181:HIS:HB3	2.30	0.47
5:cx:10:LEU:HD21	5:cx:33:TYR:CD1	2.49	0.47
5:dd:6:ASN:HD21	5:dd:9:THR:HG23	1.78	0.47
6:dl:190:PRO:HG2	6:dq:178:ARG:NH1	2.29	0.47
7:dv:34:TYR:HA	7:dv:40:GLU:HG2	1.95	0.47
3:dy:341:ARG:HG2	3:dy:345:TYR:HB3	1.97	0.47
3:dz:209:ASN:OD1	3:dz:211:SER:OG	2.22	0.47
3:ea:310:HIS:NE2	3:ea:333:PHE:HB2	2.28	0.47
3:eb:165:ILE:HG22	3:eb:178:LEU:HD12	1.96	0.47
3:eb:190:GLU:OE1	3:eb:190:GLU:N	2.47	0.47
1:ai:34:TRP:NE1	1:an:128:THR:HG21	2.30	0.47
1:ci:40:HIS:ND1	1:cj:72:THR:OG1	2.43	0.47
3:cp:239:LYS:O	3:cp:280:GLU:HA	2.13	0.47
4:cr:31:PRO:HB2	7:dw:118:ARG:HH12	1.80	0.47
5:cz:33:TYR:O	5:cz:37:GLU:OE1	2.32	0.47
5:df:6:ASN:HB3	5:df:9:THR:HG23	1.96	0.47
3:dj:106:TRP:CZ2	3:du:194:PRO:HD3	2.49	0.47
5:dk:48:PHE:O	5:dk:49:LYS:HG2	2.15	0.47
5:dk:130:ALA:HB2	3:ea:244:ALA:HA	1.95	0.47
7:ds:26:LEU:HB3	7:ds:48:ILE:HG13	1.95	0.47
3:dy:141:TYR:HE1	3:dy:170:PRO:HB3	1.79	0.47
3:ea:323:SER:O	3:ea:326:GLN:NE2	2.47	0.47
8:ax:29:VAL:HG12	8:ax:30:ALA:N	2.29	0.47
1:ai:199:THR:HA	1:ai:202:THR:HG22	1.97	0.47
2:ao:74:ARG:HG3	2:ao:86:MET:HE1	1.96	0.47
2:ay:126:GLU:OE1	2:ay:138:TYR:OH	2.25	0.47
1:bf:190:GLU:OE1	1:bf:238:PHE:HB2	2.15	0.47
1:bh:227:MET:HG2	1:bh:234:TYR:CD1	2.50	0.47
1:bs:280:GLU:HB3	1:bs:301:LYS:HB2	1.96	0.47
3:cn:271:ARG:HG2	5:cx:136:ARG:HH22	1.80	0.47
3:cn:310:HIS:CD2	3:cn:312:ILE:HG12	2.49	0.47
3:cq:142:ASP:OD1	3:cq:143:ARG:N	2.42	0.47
4:cu:17:TYR:OH	4:cu:85:GLU:OE1	2.32	0.47
4:cv:52:SER:HB3	6:dp:103:CYS:HB2	1.96	0.47
3:cy:47:SER:HA	3:cy:144:PHE:HZ	1.79	0.47
5:de:119:GLU:OE1	5:de:119:GLU:HA	2.15	0.47
3:dj:346:ARG:HH12	3:dj:364:ILE:HB	1.79	0.47
6:do:61:LEU:HD11	6:do:76:ILE:HG22	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:dy:133:ALA:C	3:dy:134:LYS:HD3	2.39	0.47
3:dz:353:LEU:O	3:dz:357:VAL:HG12	2.14	0.47
3:ec:67:ILE:CG2	3:ec:340:LYS:HE2	2.45	0.47
2:ac:17:PRO:HG3	2:ac:150:LEU:HD21	1.97	0.47
1:ba:151:LEU:HD11	1:ba:161:ILE:HD12	1.97	0.47
1:bu:290:LYS:HG2	1:bu:291:ASP:H	1.78	0.47
1:ca:81:VAL:HG12	2:cl:13:ALA:HB3	1.96	0.47
3:cn:123:ARG:NH2	3:cn:130:LYS:H	2.12	0.47
3:co:373:SER:O	3:co:374:LYS:C	2.57	0.47
3:cq:97:ASP:O	3:cq:101:VAL:HG23	2.14	0.47
3:cq:240:VAL:HG11	5:dk:129:PHE:HB3	1.97	0.47
4:cr:82:LYS:O	4:cr:86:ILE:HG12	2.15	0.47
4:cu:92:ASP:OD1	4:cu:93:GLY:N	2.47	0.47
3:cy:62:ARG:NH2	3:cy:313:ILE:O	2.47	0.47
5:da:89:LEU:HD23	5:da:92:GLU:HG3	1.97	0.47
3:dj:251:ASP:OD1	3:dj:252:ALA:N	2.48	0.47
6:dp:42:LYS:NZ	6:dp:64:THR:O	2.31	0.47
7:dr:25:ASN:HB2	7:dr:89:GLU:HB3	1.96	0.47
1:af:79:ASP:OD1	1:af:80:LYS:N	2.41	0.47
1:an:73:PHE:CZ	1:an:106:GLY:HA3	2.49	0.47
1:ba:285:LEU:HB2	1:ba:297:PRO:HG2	1.97	0.47
2:bm:35:ASN:HD22	2:bm:58:LEU:HD23	1.80	0.47
1:bn:93:ASP:HB3	2:by:24:SER:HB3	1.96	0.47
1:ci:188:THR:O	1:ci:192:GLU:HG3	2.14	0.47
1:cj:55:SER:OG	1:cj:250:ILE:HD12	2.15	0.47
3:cn:235:GLN:NE2	3:du:267:SER:HB2	2.30	0.47
3:cn:374:LYS:HZ1	3:eb:372:PRO:HA	1.79	0.47
4:cs:33:LYS:HB3	7:dx:92:GLY:O	2.14	0.47
4:ct:38:TRP:CE2	4:ct:69:VAL:HG21	2.50	0.47
3:cy:190:GLU:N	3:cy:190:GLU:OE2	2.48	0.47
5:db:62:HIS:ND1	5:db:112:THR:OG1	2.35	0.47
5:dd:77:LEU:HD21	7:dr:5:GLN:HB2	1.96	0.47
5:dh:83:ARG:HH11	5:dh:83:ARG:HG3	1.80	0.47
3:du:327:ASN:OD1	3:du:328:THR:N	2.48	0.47
7:dw:11:ARG:NH2	7:dw:78:ASN:OD1	2.48	0.47
3:dy:185:PHE:CE2	3:dy:348:LEU:HD22	2.49	0.47
3:dy:199:GLN:OE1	3:dy:199:GLN:N	2.48	0.47
3:dy:404:ASP:OD1	3:dy:407:ARG:NH1	2.47	0.47
3:dz:151:ARG:HH22	3:dz:162:GLU:C	2.22	0.47
3:ea:318:ASN:OD1	3:ea:319:VAL:N	2.48	0.47
3:eb:300:MET:O	3:eb:304:VAL:HG13	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:ec:60:ALA:O	3:ec:64:VAL:HG22	2.15	0.47
3:ec:64:VAL:HG23	3:ec:65:ASP:OD1	2.14	0.47
3:ec:300:MET:O	3:ec:304:VAL:HG13	2.15	0.47
3:ec:379:GLU:O	3:ec:383:ASN:ND2	2.48	0.47
1:av:277:GLU:OE2	1:av:278:ILE:N	2.48	0.47
1:bg:47:TYR:HB2	1:bh:77:THR:HG22	1.96	0.47
2:bz:139:ALA:HB3	2:bz:152:GLU:HG2	1.97	0.47
3:cn:373:SER:O	3:cn:375:LYS:N	2.48	0.47
3:co:120:ASN:OD1	3:co:134:LYS:HB2	2.14	0.47
3:co:334:TYR:HA	3:co:337:VAL:HG12	1.96	0.47
3:cp:116:VAL:HG23	3:cp:184:ILE:HG22	1.96	0.47
3:cp:346:ARG:O	3:cp:349:LEU:N	2.48	0.47
5:df:83:ARG:NH1	5:dg:100:VAL:HA	2.24	0.47
6:dn:47:ILE:HD12	6:dn:59:ARG:O	2.14	0.47
6:do:178:ARG:HG3	6:do:212:PHE:CD1	2.48	0.47
3:dz:403:ARG:HB2	3:dz:407:ARG:HH21	1.80	0.47
3:ec:299:LYS:O	3:ec:303:ILE:HG12	2.15	0.47
1:at:227:MET:O	1:at:230:THR:OG1	2.32	0.47
1:aw:67:SER:OG	1:aw:70:ASP:OD1	2.30	0.47
2:br:104:MET:SD	2:br:153:VAL:HG21	2.55	0.47
3:cn:68:PRO:HA	3:cn:71:MET:HE2	1.97	0.47
3:co:395:GLN:N	3:co:395:GLN:OE1	2.47	0.47
4:cv:110:ILE:HG13	4:cv:119:ILE:HG12	1.96	0.47
5:dc:5:MET:HE2	5:dc:10:LEU:HB2	1.96	0.47
5:dc:95:GLN:HE22	7:dr:5:GLN:NE2	2.12	0.47
5:dg:6:ASN:OD1	5:dg:9:THR:HG22	2.15	0.47
5:dh:6:ASN:OD1	5:dh:9:THR:HG22	2.15	0.47
3:dj:125:LEU:O	3:dj:183:ARG:NE	2.48	0.47
3:dj:300:MET:O	3:dj:304:VAL:HG23	2.14	0.47
6:dn:56:MET:O	6:dn:56:MET:HG2	2.15	0.47
6:do:179:MET:HB2	6:do:211:THR:OG1	2.15	0.47
3:du:121:ASP:OD2	3:du:123:ARG:NE	2.30	0.47
3:ea:59:THR:O	3:ea:63:ILE:HG12	2.14	0.47
2:ab:126:GLU:OE2	2:ab:138:TYR:OH	2.25	0.47
1:ag:285:LEU:HB2	1:ag:297:PRO:HG2	1.97	0.47
1:ah:252:GLU:OE2	1:ah:252:GLU:N	2.46	0.47
2:bd:36:GLU:O	2:bd:36:GLU:HG2	2.13	0.47
2:br:78:GLN:HG3	1:bv:88:ALA:HB1	1.97	0.47
1:cj:55:SER:O	1:cj:59:VAL:HG13	2.14	0.47
3:cp:353:LEU:O	3:cp:357:VAL:HG22	2.15	0.47
5:dd:18:ARG:HH22	5:dd:29:ASP:HB3	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:df:18:ARG:HH11	5:df:25:ARG:HA	1.80	0.47
5:di:32:LEU:O	5:di:36:VAL:HG12	2.15	0.47
6:dq:112:GLY:O	6:dq:134:LYS:NZ	2.45	0.47
7:dt:4:SER:O	7:dt:8:ARG:HD3	2.15	0.47
3:du:133:ALA:C	3:du:134:LYS:HD3	2.39	0.47
3:dz:117:ALA:HB1	3:dz:135:LEU:HD11	1.96	0.47
3:eb:81:VAL:HA	3:eb:359:GLU:OE2	2.15	0.47
3:eb:310:HIS:CD2	3:eb:312:ILE:HG12	2.50	0.47
1:au:108:VAL:HG22	1:au:303:THR:HG22	1.98	0.46
1:bi:226:ARG:HB3	1:bj:237:TYR:CZ	2.50	0.46
1:bn:227:MET:HE1	1:bn:237:TYR:CD2	2.50	0.46
1:bv:199:THR:HA	1:bv:202:THR:HG22	1.97	0.46
1:ca:51:TYR:HB2	1:ca:142:LEU:HD21	1.96	0.46
3:co:322:VAL:HG11	3:co:325:SER:HB3	1.96	0.46
3:cp:240:VAL:HB	3:cp:243:LEU:HB2	1.97	0.46
3:cq:332:THR:O	3:cq:335:LYS:HG2	2.14	0.46
3:cy:377:GLU:HA	3:cy:380:ILE:HG22	1.96	0.46
3:dj:93:SER:O	3:dj:95:LYS:NZ	2.40	0.46
3:dy:284:VAL:HG12	3:ec:285:LEU:HD13	1.97	0.46
1:af:226:ARG:HB2	1:ag:237:TYR:OH	2.15	0.46
2:az:154:GLN:HE22	8:ax:145:GLN:CD	2.21	0.46
2:bz:10:ARG:O	1:ca:146:GLN:NE2	2.47	0.46
1:ca:213:ILE:HG23	1:ca:266:VAL:HG22	1.97	0.46
2:cc:48:VAL:HG11	2:cc:60:LYS:HD3	1.96	0.46
3:cn:68:PRO:HB3	3:cn:104:LEU:HB3	1.96	0.46
3:cn:334:TYR:O	3:cn:337:VAL:HG12	2.14	0.46
4:cs:52:SER:OG	4:cs:54:ASP:OD1	2.27	0.46
4:cw:20:PHE:HZ	4:cw:37:MET:HG3	1.80	0.46
3:cy:116:VAL:HG23	3:cy:184:ILE:HG22	1.96	0.46
3:cy:244:ALA:HA	5:dd:130:ALA:HB2	1.96	0.46
5:dc:90:SER:OG	5:dc:91:GLY:N	2.48	0.46
5:dd:30:GLU:HA	5:dd:33:TYR:HD2	1.79	0.46
5:dd:110:LEU:HD23	5:dd:110:LEU:H	1.80	0.46
3:dj:168:VAL:HG22	3:dj:170:PRO:HD3	1.97	0.46
3:du:228:GLN:OE1	3:du:232:ARG:NH1	2.48	0.46
3:ea:327:ASN:O	3:ea:330:LEU:HG	2.15	0.46
3:eb:389:THR:HA	3:eb:392:ILE:HG12	1.96	0.46
1:bg:227:MET:HB2	1:bg:230:THR:OG1	2.16	0.46
2:ce:107:LYS:NZ	2:ce:121:ASP:OD2	2.36	0.46
2:cl:107:LYS:NZ	2:cl:127:LYS:HE3	2.29	0.46
3:cn:378:SER:O	3:cn:382:LYS:NZ	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:cq:58:ALA:O	3:cq:61:LYS:HB3	2.16	0.46
3:cq:300:MET:O	3:cq:304:VAL:HG23	2.15	0.46
3:cy:60:ALA:HA	3:cy:63:ILE:HG22	1.97	0.46
5:dd:109:MET:HG2	5:dd:119:GLU:CD	2.40	0.46
3:dj:357:VAL:HG22	3:dj:359:GLU:H	1.79	0.46
6:dm:21:ALA:HB3	6:dm:90:MET:HB2	1.97	0.46
6:dn:10:PHE:CE1	6:dn:100:GLU:HB2	2.51	0.46
3:ea:143:ARG:HE	3:ea:144:PHE:HE1	1.63	0.46
3:eb:194:PRO:HA	3:eb:197:ARG:HB3	1.97	0.46
3:ec:60:ALA:HA	3:ec:63:ILE:HG22	1.96	0.46
1:au:128:THR:HG23	1:au:130:ARG:H	1.81	0.46
1:bh:35:THR:HG23	1:bh:37:GLN:H	1.80	0.46
1:bv:178:TRP:NE1	1:bv:192:GLU:OE2	2.40	0.46
3:cn:179:ILE:HG21	3:cn:184:ILE:HG13	1.97	0.46
3:cp:327:ASN:OD1	3:cp:328:THR:N	2.48	0.46
3:cy:180:HIS:HB3	3:cy:183:ARG:NE	2.30	0.46
5:de:109:MET:HG3	5:de:119:GLU:OE2	2.15	0.46
6:dm:193:GLN:HB3	6:dm:196:GLU:OE2	2.15	0.46
6:do:207:LYS:HE2	6:do:207:LYS:HA	1.98	0.46
7:ds:44:MET:N	7:ds:44:MET:SD	2.88	0.46
3:du:165:ILE:HG22	3:du:178:LEU:HD12	1.96	0.46
3:ea:194:PRO:HB2	3:ea:198:LYS:NZ	2.31	0.46
3:ea:322:VAL:HG11	3:ea:325:SER:HB3	1.98	0.46
3:ec:330:LEU:HD13	3:ec:334:TYR:HE2	1.79	0.46
3:ec:333:PHE:O	3:ec:336:LEU:HG	2.15	0.46
1:as:82:GLY:HA3	1:as:97:VAL:HG12	1.98	0.46
1:ca:89:ASP:OD1	1:ca:90:TYR:N	2.49	0.46
3:co:190:GLU:OE1	3:co:190:GLU:N	2.48	0.46
3:cp:153:THR:HG22	3:cp:153:THR:O	2.15	0.46
3:cq:285:LEU:HD13	3:cy:284:VAL:HG12	1.97	0.46
4:ct:95:MET:HE2	4:ct:95:MET:HB2	1.85	0.46
4:cw:2:HIS:NE2	4:cw:45:GLU:HG2	2.30	0.46
3:cy:334:TYR:HA	3:cy:337:VAL:CG1	2.42	0.46
5:dc:48:PHE:C	5:dc:50:ASP:H	2.24	0.46
6:dq:90:MET:HE3	6:dq:91:SER:N	2.26	0.46
7:ds:56:ARG:NH2	7:ds:58:ASN:HB2	2.21	0.46
3:du:152:VAL:HG13	3:du:164:GLU:HB2	1.97	0.46
7:dx:28:LYS:NZ	7:dx:83:ASN:OD1	2.30	0.46
8:ax:8:LEU:HD23	8:ax:18:ASP:CA	2.44	0.46
2:aq:143:THR:OG1	2:aq:144:LYS:N	2.48	0.46
1:as:56:ALA:HB1	1:as:152:VAL:HG11	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:bd:134:THR:HG22	2:bd:136:TRP:H	1.81	0.46
1:bs:180:ASP:O	1:bs:183:THR:HG22	2.16	0.46
2:bz:23:THR:HG22	1:cf:96:LEU:HD21	1.98	0.46
3:co:325:SER:O	3:co:328:THR:OG1	2.34	0.46
3:cq:83:ASP:OD2	3:cq:85:LYS:HE2	2.14	0.46
3:cq:221:TYR:OH	3:cy:231:ARG:HD3	2.15	0.46
3:cy:247:CYS:SG	5:dc:124:ARG:NH1	2.89	0.46
5:dg:29:ASP:OD1	5:dg:30:GLU:N	2.49	0.46
5:dh:125:ARG:HD3	5:dh:125:ARG:HA	1.78	0.46
3:dj:374:LYS:HZ3	3:du:372:PRO:HB3	1.76	0.46
6:dn:145:HIS:HB2	6:dn:200:VAL:HG13	1.98	0.46
1:aa:239:LYS:HE2	1:aa:239:LYS:HB3	1.71	0.46
1:at:102:THR:HG22	1:at:103:SER:N	2.30	0.46
1:bs:79:ASP:OD1	1:bs:80:LYS:N	2.49	0.46
1:bt:63:THR:O	1:bt:277:GLU:HG3	2.15	0.46
1:bt:290:LYS:HG2	1:bt:291:ASP:N	2.27	0.46
3:cn:375:LYS:O	3:cn:378:SER:HB2	2.16	0.46
3:co:310:HIS:O	3:co:314:ILE:HG22	2.14	0.46
4:cw:24:MET:HE2	4:cw:24:MET:HA	1.97	0.46
3:dj:239:LYS:O	3:dj:280:GLU:HA	2.15	0.46
3:dj:254:TYR:CD2	8:bk:132:LYS:HE2	2.50	0.46
6:do:1:MET:HA	6:dq:197:MET:HE1	1.98	0.46
6:do:206:LEU:HD23	6:do:206:LEU:HA	1.84	0.46
7:dt:26:LEU:HB2	7:dt:50:ILE:HG13	1.98	0.46
3:dz:67:ILE:HG23	3:dz:337:VAL:HG23	1.97	0.46
3:dz:167:LYS:HE3	3:dz:176:PRO:HB2	1.98	0.46
3:dz:384:ASN:HA	3:dz:387:SER:OG	2.16	0.46
2:ae:153:VAL:HG12	2:ae:155:LEU:HD12	1.98	0.46
2:al:21:ALA:HB3	2:al:101:ARG:HB2	1.98	0.46
2:aq:84:ASN:HA	1:au:31:MET:HE3	1.98	0.46
2:aq:106:SER:OG	2:aq:151:VAL:HG12	2.16	0.46
1:au:47:TYR:HB2	1:av:77:THR:HG22	1.97	0.46
2:ay:51:GLN:O	8:ax:128:GLY:O	2.33	0.46
2:az:12:MET:SD	1:ba:142:LEU:HD23	2.56	0.46
2:bp:4:ILE:HD11	1:bv:220:ARG:HG2	1.97	0.46
2:bp:82:ALA:O	2:bp:83:GLN:HG2	2.16	0.46
1:bs:248:ASP:OD1	1:bs:249:SER:N	2.48	0.46
1:bu:111:LEU:HD12	1:bu:147:LEU:HD23	1.97	0.46
2:ce:49:GLN:HG2	2:ce:58:LEU:HD12	1.97	0.46
1:ch:284:MET:HG3	1:ch:298:CYS:SG	2.56	0.46
3:cn:60:ALA:HA	3:cn:63:ILE:HG22	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:cn:229:ILE:HD13	3:dj:269:VAL:HG21	1.97	0.46
3:cq:325:SER:OG	3:cy:326:GLN:NE2	2.49	0.46
3:cq:336:LEU:HG	3:cq:339:ARG:HH21	1.80	0.46
4:cs:82:LYS:O	4:cs:86:ILE:HG12	2.16	0.46
5:de:131:LEU:HD21	3:ec:263:VAL:HG11	1.97	0.46
6:dp:48:VAL:HG12	6:dp:92:PHE:HB3	1.97	0.46
7:dt:99:ASP:OD1	7:dt:100:ALA:N	2.48	0.46
3:dy:185:PHE:HE2	3:dy:348:LEU:HD22	1.81	0.46
3:eb:172:ASP:O	3:eb:174:ILE:HG13	2.16	0.46
3:ec:374:LYS:O	3:ec:375:LYS:C	2.59	0.46
1:aa:132:LEU:HD13	1:ci:33:ILE:HD13	1.97	0.46
2:ac:146:LYS:O	2:ac:147:ASP:CB	2.64	0.46
1:ai:119:ILE:O	1:ai:123:LYS:HG3	2.16	0.46
1:as:277:GLU:H	1:as:303:THR:HG22	1.81	0.46
1:av:248:ASP:OD1	1:av:249:SER:N	2.42	0.46
2:br:47:VAL:HG22	2:br:59:VAL:HG12	1.97	0.46
1:ca:110:ARG:NH1	1:ca:299:THR:OG1	2.48	0.46
3:cn:401:GLU:O	3:cn:405:THR:HG23	2.16	0.46
3:cp:413:PHE:HA	3:dz:405:THR:HG23	1.98	0.46
5:db:48:PHE:C	5:db:50:ASP:H	2.24	0.46
5:db:75:GLU:OE1	5:db:75:GLU:N	2.44	0.46
7:dt:24:MET:HG2	7:dt:90:ILE:HD13	1.98	0.46
3:du:399:LEU:O	3:du:403:ARG:HG2	2.16	0.46
7:dv:19:ASP:OD2	7:dw:106:SER:HB2	2.15	0.46
3:dz:312:ILE:HG13	3:dz:313:ILE:HG13	1.98	0.46
2:ab:17:PRO:HG3	2:ab:150:LEU:HD21	1.98	0.46
2:aq:91:GLY:HA3	1:av:160:LYS:HD3	1.98	0.46
1:av:272:MET:N	1:av:272:MET:SD	2.89	0.46
1:aw:292:LEU:HD11	8:ax:6:LEU:HD21	1.98	0.46
3:co:326:GLN:NE2	3:dy:328:THR:OG1	2.40	0.46
3:cp:381:THR:O	3:cp:385:VAL:HG12	2.15	0.46
3:cq:310:HIS:CD2	3:cq:312:ILE:HG12	2.51	0.46
4:cu:3:TYR:H	4:cw:84:LYS:HE2	1.80	0.46
5:da:115:GLY:O	5:da:119:GLU:HG2	2.16	0.46
5:dd:6:ASN:OD1	5:dd:8:GLU:N	2.49	0.46
5:dh:119:GLU:OE1	5:dh:119:GLU:HA	2.16	0.46
3:dj:97:ASP:O	3:dj:101:VAL:HG23	2.16	0.46
3:dj:244:ALA:N	3:ec:276:ASP:OD2	2.48	0.46
3:dj:374:LYS:HG3	3:dj:375:LYS:H	1.80	0.46
5:dk:50:ASP:OD1	5:dk:51:ALA:N	2.49	0.46
3:dz:334:TYR:HA	3:dz:337:VAL:HG12	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:am:40:LEU:HA	2:am:87:ILE:HG22	1.97	0.45
1:an:108:VAL:HG22	1:an:303:THR:HG22	1.97	0.45
1:at:165:PHE:O	1:at:172:LYS:NZ	2.49	0.45
2:bl:136:TRP:CD2	2:bl:155:LEU:HD22	2.51	0.45
1:bn:207:GLN:NE2	1:bw:50:ASP:OD2	2.49	0.45
2:bo:99:SER:HA	2:bo:155:LEU:O	2.15	0.45
3:cn:326:GLN:H	3:cn:326:GLN:CD	2.23	0.45
3:co:414:LYS:HD3	3:dy:404:ASP:HB3	1.99	0.45
3:cp:402:ALA:O	3:cp:405:THR:OG1	2.31	0.45
5:cx:16:GLN:HA	5:cx:19:LYS:HG2	1.98	0.45
3:cy:177:TYR:CD2	3:cy:179:ILE:HD11	2.51	0.45
3:dj:328:THR:HA	3:dj:331:GLU:HG3	1.97	0.45
1:aa:220:ARG:HD2	2:cm:4:ILE:HG13	1.98	0.45
2:ab:139:ALA:HB3	2:ab:152:GLU:HG2	1.97	0.45
1:bg:216:PRO:HG2	1:bg:219:MET:HG3	1.99	0.45
2:bm:17:PRO:HB3	2:bm:105:LEU:HD11	1.98	0.45
2:bp:48:VAL:HG11	2:bp:60:LYS:HD3	1.98	0.45
1:bt:280:GLU:HB3	1:bt:301:LYS:HB2	1.98	0.45
2:cc:16:LEU:HD11	1:cj:100:LEU:HD21	1.97	0.45
1:cf:248:ASP:OD1	1:cf:249:SER:N	2.45	0.45
3:co:311:GLU:OE1	3:dz:317:LYS:HG3	2.16	0.45
3:cp:57:ASN:OD1	3:cp:58:ALA:N	2.49	0.45
3:cp:392:ILE:HA	3:cp:395:GLN:NE2	2.30	0.45
4:cs:72:PRO:O	7:dx:87:TYR:OH	2.33	0.45
5:dd:135:LEU:O	5:dd:136:ARG:HD3	2.15	0.45
3:dj:123:ARG:NH2	3:dj:130:LYS:H	2.00	0.45
3:dj:373:SER:HB2	3:dj:376:GLU:HG2	1.98	0.45
3:du:266:ASN:O	3:du:271:ARG:NH1	2.49	0.45
3:ea:83:ASP:OD1	3:ea:84:GLU:N	2.49	0.45
3:ea:327:ASN:O	3:ea:331:GLU:OE1	2.34	0.45
2:ae:25:LYS:HB3	2:ae:25:LYS:HE3	1.82	0.45
1:aj:146:GLN:NE2	2:al:10:ARG:O	2.46	0.45
2:am:80:VAL:HG13	2:am:87:ILE:HG13	1.99	0.45
1:as:63:THR:OG1	1:as:277:GLU:OE2	2.34	0.45
1:av:87:ILE:HD12	1:av:91:THR:HG21	1.98	0.45
1:av:151:LEU:HD11	1:av:161:ILE:HD13	1.98	0.45
1:aw:52:PRO:HB2	2:ay:9:GLN:HA	1.97	0.45
2:bb:9:GLN:NE2	2:bb:11:ASP:OD1	2.40	0.45
1:bt:113:ASN:OD1	1:bt:144:HIS:NE2	2.42	0.45
1:bu:76:MET:HG2	1:bu:103:SER:HB3	1.98	0.45
1:bw:142:LEU:O	1:bw:146:GLN:HG2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:ce:33:VAL:HG11	1:ch:159:HIS:NE2	2.31	0.45
3:cn:118:ILE:HD11	3:eb:158:PRO:HB3	1.98	0.45
3:co:97:ASP:O	3:co:101:VAL:HG23	2.17	0.45
5:da:124:ARG:HG2	5:da:124:ARG:NH1	2.31	0.45
6:dn:179:MET:HB2	6:dn:211:THR:OG1	2.16	0.45
7:dt:28:LYS:O	7:dt:46:GLN:HB3	2.16	0.45
3:dy:209:ASN:O	3:dy:213:ILE:HG12	2.16	0.45
3:dy:346:ARG:HG2	3:dy:350:GLU:OE2	2.16	0.45
3:dy:411:PRO:HB2	3:dy:413:PHE:H	1.81	0.45
3:dz:103:ALA:HA	3:dz:140:VAL:HG21	1.98	0.45
3:ec:190:GLU:OE1	3:ec:190:GLU:N	2.49	0.45
1:bh:227:MET:HG2	1:bh:234:TYR:CE1	2.51	0.45
2:bm:110:GLU:N	2:bm:110:GLU:OE1	2.49	0.45
1:bs:178:TRP:NE1	1:bs:192:GLU:OE2	2.30	0.45
3:cn:97:ASP:O	3:cn:101:VAL:HG23	2.15	0.45
3:cn:194:PRO:HD3	3:du:106:TRP:CZ2	2.52	0.45
3:cq:305:SER:HB2	3:cy:315:LYS:HG3	1.97	0.45
5:db:102:LYS:O	5:db:102:LYS:HD3	2.16	0.45
5:de:21:VAL:HG13	5:de:24:LEU:HB2	1.97	0.45
5:df:21:VAL:O	5:df:21:VAL:HG13	2.16	0.45
3:dj:330:LEU:HB3	3:dj:334:TYR:CE2	2.52	0.45
3:dj:373:SER:HB2	3:dj:376:GLU:HG3	1.98	0.45
3:du:116:VAL:HA	3:du:184:ILE:HG22	1.98	0.45
3:dz:177:TYR:CE1	3:dz:179:ILE:HD11	2.46	0.45
3:eb:188:ASP:OD1	3:eb:204:GLY:N	2.47	0.45
3:ec:278:GLU:N	3:ec:278:GLU:OE2	2.50	0.45
1:bg:184:MET:HG2	1:bg:222:VAL:HG22	1.98	0.45
1:bn:111:LEU:HG	1:bn:147:LEU:HD23	1.99	0.45
2:by:46:GLN:OE1	2:by:66:THR:HB	2.17	0.45
1:cj:226:ARG:NH1	1:cj:230:THR:O	2.50	0.45
6:dm:3:LEU:HD12	6:dm:4:PRO:HD2	1.97	0.45
6:do:65:ASP:H	6:do:72:THR:HB	1.81	0.45
7:dr:41:ILE:HD12	7:dr:42:PRO:HD2	1.98	0.45
7:dr:84:GLU:HG3	7:dw:68:ARG:HD2	1.99	0.45
3:du:123:ARG:NH2	3:du:130:LYS:H	2.13	0.45
3:dz:346:ARG:HG2	3:dz:350:GLU:OE1	2.17	0.45
3:eb:241:LYS:HG2	3:eb:279:THR:O	2.16	0.45
3:eb:353:LEU:O	3:eb:357:VAL:HG22	2.15	0.45
1:aa:217:PRO:HD2	1:aa:254:GLU:HG2	1.97	0.45
2:ap:97:MET:HE3	2:ap:102:VAL:HB	1.99	0.45
2:aq:110:GLU:OE2	2:aq:110:GLU:N	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:at:54:GLY:HA3	1:at:149:ASN:HD22	1.82	0.45
1:au:250:ILE:HB	1:au:252:GLU:HG2	1.99	0.45
1:ba:89:ASP:N	1:ba:89:ASP:OD1	2.49	0.45
1:bg:227:MET:HG2	1:bg:234:TYR:CZ	2.52	0.45
2:bl:54:ASP:OD1	2:bl:55:GLY:N	2.50	0.45
1:bn:218:SER:HG	1:bn:262:LYS:HZ3	1.56	0.45
1:bw:206:GLY:HA2	1:bw:209:ARG:HH12	1.82	0.45
3:co:374:LYS:NZ	3:dy:372:PRO:HA	2.31	0.45
3:cp:382:LYS:HD3	3:dz:386:GLU:OE1	2.17	0.45
3:cq:239:LYS:HD3	3:cy:275:ILE:HD11	1.98	0.45
4:cr:50:TYR:CE1	4:cr:58:LYS:HE3	2.52	0.45
3:cy:135:LEU:HD21	3:cy:356:ILE:HG22	1.98	0.45
3:cy:270:GLY:C	3:cy:271:ARG:HD3	2.42	0.45
5:dg:62:HIS:HB2	5:dg:114:TRP:HB2	1.98	0.45
6:dq:9:ILE:CD1	6:dq:169:MET:HG3	2.47	0.45
6:dq:144:ALA:HB1	6:dq:197:MET:HE2	1.97	0.45
6:dq:178:ARG:O	6:dq:179:MET:HE2	2.17	0.45
7:dw:88:ILE:HG22	7:dw:90:ILE:HG12	1.98	0.45
3:dy:402:ALA:O	3:dy:405:THR:OG1	2.31	0.45
3:ec:347:PRO:HA	3:ec:350:GLU:CD	2.42	0.45
8:bx:124:TRP:CE2	8:bx:143:VAL:HG13	2.52	0.45
1:aa:302:CYS:SG	1:aa:303:THR:N	2.90	0.45
2:ae:79:THR:OG1	2:ae:86:MET:SD	2.70	0.45
1:ai:75:TYR:CZ	1:ai:104:GLU:HB2	2.52	0.45
1:ai:213:ILE:HG12	1:ai:266:VAL:HG13	1.98	0.45
1:bg:270:ASN:HB3	1:bg:273:ASN:OD1	2.16	0.45
3:cn:378:SER:O	3:cn:381:THR:OG1	2.30	0.45
3:co:67:ILE:HG23	3:co:337:VAL:HG23	1.99	0.45
4:cw:100:TYR:OH	4:cw:126:ARG:NH1	2.50	0.45
3:cy:390:LYS:HD2	3:cy:390:LYS:C	2.42	0.45
6:dm:83:VAL:HG13	6:dm:84:PHE:CD1	2.51	0.45
6:dm:118:THR:HG22	6:dm:129:GLN:HB3	1.98	0.45
7:dv:11:ARG:HG3	7:dv:77:ASN:HD21	1.81	0.45
3:dz:143:ARG:HD3	3:dz:203:TRP:CD1	2.52	0.45
1:ai:67:SER:HB3	1:ai:70:ASP:OD1	2.16	0.45
1:aj:290:LYS:HG2	1:aj:291:ASP:H	1.82	0.45
2:al:90:ASP:OD1	2:al:90:ASP:N	2.50	0.45
1:au:73:PHE:CZ	1:au:106:GLY:HA3	2.52	0.45
2:be:153:VAL:HG12	2:be:155:LEU:HD12	1.98	0.45
1:bj:290:LYS:HG2	1:bj:291:ASP:H	1.82	0.45
1:bn:270:ASN:OD1	1:bn:271:PRO:HD2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:bp:8:TYR:OH	1:bw:202:THR:HG22	2.16	0.45
1:bv:302:CYS:SG	1:bv:303:THR:N	2.90	0.45
1:bw:87:ILE:HD12	1:bw:91:THR:HG21	1.99	0.45
3:co:209:ASN:OD1	3:co:210:LYS:N	2.50	0.45
4:cr:20:PHE:CE2	4:cr:39:LEU:HG	2.52	0.45
5:de:73:GLU:OE1	5:de:74:ASP:N	2.50	0.45
6:do:189:ILE:O	6:do:189:ILE:HG13	2.16	0.45
7:dr:22:ARG:HG3	7:dx:107:LEU:HB2	1.99	0.45
3:dy:386:GLU:O	3:dy:390:LYS:HB2	2.16	0.45
1:ah:93:ASP:C	1:ah:94:LEU:HD12	2.41	0.45
2:bo:9:GLN:NE2	2:bo:11:ASP:OD1	2.49	0.45
2:bz:126:GLU:OE2	2:bz:138:TYR:OH	2.22	0.45
2:cb:46:GLN:OE1	2:cb:66:THR:HG21	2.17	0.45
2:cb:57:LYS:NZ	2:cb:69:TYR:OH	2.50	0.45
1:ch:73:PHE:CZ	1:ch:106:GLY:HA3	2.52	0.45
3:cq:362:TRP:HE1	3:cq:364:ILE:HD11	1.82	0.45
3:cy:328:THR:O	3:cy:331:GLU:HG3	2.17	0.45
5:cz:99:GLU:CD	5:cz:102:LYS:H	2.22	0.45
3:dj:403:ARG:NH1	3:dj:415:LEU:HD21	2.32	0.45
6:dm:50:GLN:O	6:dm:91:SER:OG	2.21	0.45
6:do:112:GLY:N	6:do:135:SER:OG	2.44	0.45
3:dz:365:GLU:OE1	3:dz:365:GLU:N	2.50	0.45
3:ea:71:MET:CE	3:ea:341:ARG:HA	2.47	0.45
3:ea:159:ARG:NH1	3:ea:164:GLU:HG2	2.27	0.45
3:ea:411:PRO:HB2	3:ea:413:PHE:H	1.81	0.45
3:eb:121:ASP:OD2	3:eb:123:ARG:NE	2.30	0.45
3:ec:165:ILE:HG22	3:ec:178:LEU:HD12	1.99	0.45
1:ah:115:TYR:HA	1:ai:96:LEU:HD22	1.99	0.45
1:an:110:ARG:NH1	1:an:299:THR:OG1	2.50	0.45
2:ap:62:LEU:HD23	2:ap:124:GLY:HA2	1.97	0.45
1:bv:118:SER:OG	1:bv:121:GLU:HG3	2.16	0.45
3:cn:214:ASP:OD1	3:cn:215:ALA:N	2.50	0.45
3:co:84:GLU:O	3:co:88:LYS:HG2	2.17	0.45
3:cp:372:PRO:HA	3:ea:374:LYS:NZ	2.32	0.45
5:de:83:ARG:HD2	5:df:100:VAL:HG23	1.99	0.45
3:dj:233:LYS:HD3	3:du:229:ILE:HD13	1.99	0.45
3:dj:289:ILE:O	3:dj:289:ILE:HG13	2.17	0.45
6:dp:26:ASN:HB2	6:dp:78:THR:O	2.17	0.45
3:du:188:ASP:OD1	3:du:189:GLY:N	2.46	0.45
3:dz:323:SER:O	3:dz:326:GLN:OE1	2.35	0.45
3:ea:102:ASP:N	3:ea:102:ASP:OD1	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:eb:346:ARG:O	3:eb:349:LEU:N	2.50	0.45
8:ak:124:TRP:CE2	8:ak:143:VAL:HG13	2.52	0.45
1:as:290:LYS:HG2	1:as:291:ASP:H	1.82	0.44
1:au:89:ASP:OD1	1:au:90:TYR:N	2.48	0.44
2:bc:30:GLY:HA3	1:bt:91:THR:HB	1.99	0.44
1:bh:111:LEU:HD13	1:bh:147:LEU:HD23	1.98	0.44
1:bs:277:GLU:HB2	1:bs:303:THR:HG21	1.99	0.44
1:bw:69:THR:HG21	1:ca:127:ALA:HB2	1.99	0.44
1:ch:252:GLU:N	1:ch:252:GLU:OE1	2.50	0.44
3:cq:283:ASP:OD1	3:cq:284:VAL:N	2.48	0.44
4:ct:81:LEU:HA	4:ct:84:LYS:NZ	2.32	0.44
3:cy:411:PRO:HB2	3:cy:413:PHE:H	1.83	0.44
3:dj:333:PHE:O	3:dj:336:LEU:HG	2.17	0.44
6:dn:53:TRP:CZ2	6:dn:84:PHE:HB3	2.52	0.44
6:dq:54:ALA:O	6:dq:57:VAL:HG12	2.17	0.44
3:du:93:SER:O	3:du:95:LYS:NZ	2.41	0.44
3:du:310:HIS:O	3:du:313:ILE:HG22	2.17	0.44
3:dy:299:LYS:O	3:dy:303:ILE:HG12	2.16	0.44
8:bk:8:LEU:HD23	8:bk:18:ASP:C	2.42	0.44
2:ae:77:TRP:O	1:ah:71:LYS:NZ	2.50	0.44
2:be:40:LEU:HD23	2:be:87:ILE:HG22	1.99	0.44
1:bg:113:ASN:HD22	1:bh:84:ALA:HB2	1.81	0.44
2:bl:97:MET:HG2	2:bl:155:LEU:HD12	2.00	0.44
2:bq:90:ASP:OD1	2:bq:91:GLY:N	2.50	0.44
1:ch:51:TYR:HB2	1:ch:142:LEU:HD21	1.99	0.44
1:cj:66:LEU:HD22	1:cj:277:GLU:HG2	1.99	0.44
2:cl:120:LEU:HD13	2:cl:134:THR:HG21	1.98	0.44
3:cn:233:LYS:HD3	3:eb:229:ILE:HD12	1.99	0.44
3:cn:281:GLU:OE1	3:cn:281:GLU:N	2.50	0.44
3:cp:326:GLN:NE2	3:dz:325:SER:OG	2.50	0.44
4:cr:23:TYR:HD1	4:cr:29:PHE:HB3	1.82	0.44
4:cs:77:ASP:OD1	4:cs:77:ASP:N	2.50	0.44
4:cv:23:TYR:HD1	4:cv:29:PHE:HB3	1.81	0.44
5:da:83:ARG:HH11	5:dh:100:VAL:HG23	1.82	0.44
5:de:82:ARG:HH22	5:de:84:VAL:HG12	1.81	0.44
6:do:55:LYS:HB2	6:do:55:LYS:HE3	1.80	0.44
7:dw:87:TYR:HE1	7:dw:96:VAL:HG22	1.82	0.44
3:dy:69:GLU:OE2	3:ec:339:ARG:NE	2.50	0.44
3:dy:83:ASP:OD1	3:dy:84:GLU:N	2.50	0.44
3:eb:207:VAL:HG13	3:eb:208:LEU:HD12	1.99	0.44
3:ec:133:ALA:C	3:ec:134:LYS:HD3	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:an:71:LYS:CE	8:ak:70:TYR:CE2	3.00	0.44
1:au:200:ILE:HD11	1:au:314:VAL:HG23	1.98	0.44
1:aw:184:MET:HE2	1:aw:225:ILE:HD11	2.00	0.44
2:ay:49:GLN:HE21	2:ay:58:LEU:HD13	1.82	0.44
1:ba:54:GLY:HA3	1:ba:149:ASN:HD22	1.82	0.44
2:bd:26:TYR:HB2	2:bd:97:MET:HE3	1.99	0.44
1:bn:89:ASP:OD1	1:bn:89:ASP:N	2.50	0.44
1:bs:175:SER:HB2	1:bs:192:GLU:CD	2.42	0.44
1:cf:67:SER:HB3	1:cf:70:ASP:OD2	2.17	0.44
1:ch:67:SER:HB3	1:ch:70:ASP:OD1	2.16	0.44
1:ci:219:MET:HE2	1:ci:219:MET:HA	1.99	0.44
3:cn:325:SER:O	3:cn:328:THR:OG1	2.30	0.44
3:cq:125:LEU:O	3:cq:183:ARG:NE	2.51	0.44
4:cw:94:LYS:HB3	4:cw:101:ILE:HD12	2.00	0.44
5:da:103:ASN:OD1	5:da:104:GLN:N	2.50	0.44
5:db:108:MET:HE2	5:di:116:LYS:HB2	2.00	0.44
5:db:124:ARG:CZ	5:dk:42:PHE:HA	2.48	0.44
5:de:6:ASN:ND2	5:de:8:GLU:OE2	2.51	0.44
5:de:77:LEU:HD23	7:ds:8:ARG:HH21	1.83	0.44
3:dj:412:GLU:HG3	3:du:409:ILE:HG21	1.99	0.44
3:du:386:GLU:O	3:du:390:LYS:HB2	2.18	0.44
3:eb:133:ALA:C	3:eb:134:LYS:HD3	2.42	0.44
3:ec:63:ILE:HG23	3:ec:64:VAL:HG13	1.99	0.44
8:bk:79:ASP:OD2	8:bk:80:GLY:N	2.51	0.44
1:as:66:LEU:HD23	1:as:279:PRO:HG3	1.98	0.44
1:as:197:ILE:O	1:as:200:ILE:HG22	2.17	0.44
1:au:180:ASP:O	1:au:183:THR:OG1	2.26	0.44
2:ay:40:LEU:HD23	2:ay:87:ILE:HG22	2.00	0.44
1:bf:89:ASP:OD2	8:ax:70:TYR:HD2	2.00	0.44
1:bg:50:ASP:HB2	1:bh:207:GLN:HE22	1.81	0.44
1:cg:167:HIS:O	1:cg:172:LYS:NZ	2.46	0.44
3:cp:83:ASP:OD2	3:cp:85:LYS:HE2	2.18	0.44
5:cx:90:SER:OG	5:cx:91:GLY:N	2.50	0.44
5:cz:72:GLY:HA3	5:cz:75:GLU:CD	2.42	0.44
5:de:73:GLU:CD	5:de:75:GLU:H	2.25	0.44
3:dj:135:LEU:HB3	3:dj:356:ILE:HD11	1.99	0.44
6:dn:54:ALA:O	6:dn:57:VAL:HG12	2.17	0.44
7:ds:23:PRO:HG2	7:ds:91:ASP:HA	1.99	0.44
7:ds:99:ASP:HB3	7:ds:115:VAL:HG22	2.00	0.44
3:dy:294:GLU:OE1	3:dy:294:GLU:N	2.50	0.44
3:dy:403:ARG:O	3:dy:407:ARG:HD3	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:ea:374:LYS:O	3:ea:375:LYS:C	2.58	0.44
3:ea:403:ARG:C	3:ea:407:ARG:HH11	2.26	0.44
3:eb:54:TYR:CE1	3:eb:61:LYS:HD2	2.52	0.44
3:eb:329:ALA:O	3:eb:332:THR:OG1	2.33	0.44
3:ec:209:ASN:OD1	3:ec:211:SER:OG	2.26	0.44
3:ec:266:ASN:O	3:ec:271:ARG:HD2	2.17	0.44
1:as:56:ALA:HB2	1:as:153:PHE:CE2	2.52	0.44
2:bd:14:ILE:HB	2:bd:143:THR:HG21	1.98	0.44
1:bg:284:MET:HG2	1:bg:298:CYS:SG	2.58	0.44
1:bw:44:SER:HA	1:bw:128:THR:HG21	1.99	0.44
1:cj:52:PRO:HD2	2:cl:10:ARG:HB3	2.00	0.44
3:cn:207:VAL:HG13	3:cn:208:LEU:HD12	1.99	0.44
3:cp:62:ARG:O	3:cp:66:VAL:HG13	2.17	0.44
3:cp:67:ILE:HB	3:cp:108:ARG:HH22	1.83	0.44
3:cq:179:ILE:HG22	3:cq:180:HIS:O	2.18	0.44
4:cw:39:LEU:HD23	4:cw:39:LEU:HA	1.85	0.44
5:cx:48:PHE:C	5:cx:50:ASP:H	2.26	0.44
3:cy:123:ARG:NH2	3:cy:129:VAL:HA	2.32	0.44
3:cy:310:HIS:NE2	3:cy:333:PHE:HB2	2.33	0.44
3:cy:389:THR:HA	3:cy:392:ILE:HG12	1.98	0.44
5:da:125:ARG:HD3	5:da:125:ARG:HA	1.64	0.44
6:dp:169:MET:HE2	6:dp:178:ARG:HD2	2.00	0.44
3:dy:328:THR:O	3:dy:331:GLU:HG3	2.18	0.44
3:dz:377:GLU:O	3:dz:380:ILE:HG22	2.18	0.44
3:ea:292:VAL:HG23	3:ea:293:PRO:HD3	2.00	0.44
3:ec:346:ARG:O	3:ec:349:LEU:HB2	2.18	0.44
1:aa:96:LEU:HA	1:aj:114:ALA:O	2.18	0.44
2:ab:99:SER:HA	2:ab:155:LEU:O	2.18	0.44
1:ai:242:ASN:HB3	1:ai:245:ILE:HD13	1.99	0.44
2:al:99:SER:HA	2:al:155:LEU:O	2.17	0.44
1:au:82:GLY:HA3	1:au:97:VAL:HG12	1.99	0.44
1:bu:66:LEU:HD22	1:bu:277:GLU:HG3	1.99	0.44
2:by:25:LYS:HE2	2:by:25:LYS:HB3	1.84	0.44
1:cf:274:MET:HE1	1:cf:313:ILE:HD11	2.00	0.44
3:cn:374:LYS:NZ	3:eb:372:PRO:HB3	2.32	0.44
3:co:53:PHE:HE2	3:co:213:ILE:HG23	1.81	0.44
3:co:237:VAL:HB	3:co:283:ASP:OD1	2.18	0.44
3:co:354:PRO:HG3	3:co:362:TRP:HZ2	1.83	0.44
4:ct:102:PHE:HB3	4:ct:124:THR:HG23	1.99	0.44
3:cy:403:ARG:CZ	3:cy:415:LEU:HD21	2.47	0.44
3:cy:409:ILE:HG13	3:cy:409:ILE:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:dd:50:ASP:OD1	5:dd:50:ASP:N	2.50	0.44
5:dk:103:ASN:ND2	5:dk:111:SER:HA	2.32	0.44
6:dq:112:GLY:N	6:dq:135:SER:OG	2.46	0.44
7:dr:44:MET:N	7:dr:44:MET:SD	2.91	0.44
7:dr:70:SER:O	7:dr:118:ARG:HB2	2.18	0.44
3:dz:403:ARG:HA	3:dz:406:LEU:HG	2.00	0.44
3:ea:123:ARG:NH2	3:ea:130:LYS:H	2.14	0.44
3:ea:133:ALA:C	3:ea:134:LYS:HD3	2.41	0.44
3:ec:83:ASP:OD1	3:ec:84:GLU:N	2.50	0.44
8:bx:79:ASP:OD2	8:bx:80:GLY:N	2.51	0.44
1:aw:50:ASP:OD1	1:aw:51:TYR:N	2.50	0.44
2:az:74:ARG:HG2	2:az:86:MET:HE1	2.00	0.44
1:bi:252:GLU:N	1:bi:252:GLU:OE2	2.48	0.44
2:ce:25:LYS:HB3	2:ce:25:LYS:HE2	1.78	0.44
1:ci:216:PRO:HG2	1:ci:219:MET:HG2	2.00	0.44
3:cn:151:ARG:HH22	3:cn:163:PRO:HB3	1.82	0.44
3:cq:373:SER:C	3:cq:377:GLU:OE1	2.60	0.44
3:cy:138:VAL:HG21	3:cy:352:LEU:HD11	2.00	0.44
5:cz:116:LYS:HE2	5:dh:108:MET:HG3	2.00	0.44
5:df:41:LEU:O	5:dg:124:ARG:NE	2.51	0.44
6:dl:21:ALA:HB3	6:dl:90:MET:HB2	1.98	0.44
6:dn:206:LEU:HD23	6:dn:206:LEU:HA	1.84	0.44
6:dq:186:PHE:HE2	6:dq:188:ASP:HB2	1.83	0.44
7:dt:72:ILE:HG22	7:dt:73:LEU:O	2.18	0.44
3:du:262:GLN:OE1	3:du:262:GLN:HA	2.18	0.44
3:dy:401:GLU:O	3:dy:405:THR:HG23	2.18	0.44
3:eb:123:ARG:HH22	3:eb:130:LYS:N	2.12	0.44
3:ec:77:LYS:HE2	3:ec:77:LYS:HB3	1.71	0.44
3:ec:79:SER:OG	3:ec:363:SER:HB3	2.18	0.44
1:as:270:ASN:HB3	1:as:273:ASN:OD1	2.18	0.44
1:aw:179:ILE:HG13	1:aw:219:MET:HE1	2.00	0.44
1:bg:188:THR:O	1:bg:192:GLU:HG3	2.18	0.44
2:bm:25:LYS:NZ	8:bk:21:THR:HB	2.33	0.44
1:bu:198:GLU:OE2	1:bu:202:THR:OG1	2.35	0.44
1:bw:74:GLU:HG3	1:bw:104:GLU:O	2.18	0.44
2:bz:42:GLY:O	2:bz:104:MET:HG3	2.17	0.44
2:ce:153:VAL:HG12	2:ce:155:LEU:HD12	1.99	0.44
1:cg:184:MET:HE2	1:cg:225:ILE:HD11	2.00	0.44
3:co:114:ALA:HB1	3:co:184:ILE:HD11	1.99	0.44
3:cp:125:LEU:HD13	3:cp:179:ILE:HD13	2.00	0.44
3:cq:123:ARG:HH22	3:cq:130:LYS:N	2.07	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:cq:239:LYS:O	3:cq:280:GLU:HA	2.18	0.44
4:cv:130:LYS:NZ	6:dp:103:CYS:HB3	2.33	0.44
4:cw:80:ARG:O	4:cw:84:LYS:HG3	2.18	0.44
5:cx:18:ARG:HH11	5:cx:25:ARG:HA	1.82	0.44
5:cx:77:LEU:HD11	7:dr:12:LYS:NZ	2.33	0.44
3:cy:191:ARG:HD3	3:eb:101:VAL:HG12	2.00	0.44
5:da:59:TYR:O	5:da:63:LEU:HD23	2.18	0.44
5:df:46:LYS:O	5:df:49:LYS:NZ	2.50	0.44
3:dj:77:LYS:NZ	3:dj:367:GLU:HA	2.33	0.44
3:dj:150:LYS:HB3	3:dj:165:ILE:HG12	2.00	0.44
3:du:134:LYS:O	3:du:135:LEU:HD22	2.17	0.44
3:du:159:ARG:O	3:du:162:GLU:HG2	2.17	0.44
3:dy:248:ASP:OD1	3:dy:248:ASP:N	2.47	0.44
3:ea:398:ASP:OD1	3:ea:399:LEU:N	2.47	0.44
3:eb:123:ARG:HH22	3:eb:129:VAL:HA	1.83	0.44
3:eb:197:ARG:HG3	3:eb:202:GLY:HA2	2.00	0.44
3:eb:328:THR:HA	3:eb:331:GLU:CG	2.47	0.44
8:ak:79:ASP:OD2	8:ak:80:GLY:N	2.51	0.44
8:ck:124:TRP:CE2	8:ck:143:VAL:HG13	2.52	0.44
8:ax:124:TRP:CE2	8:ax:143:VAL:HG13	2.52	0.44
1:aa:71:LYS:CG	8:ck:70:TYR:OH	2.66	0.44
1:av:130:ARG:HE	1:ba:33:ILE:HG22	1.82	0.44
1:ba:63:THR:O	1:ba:277:GLU:HG3	2.17	0.44
2:cc:12:MET:HE3	1:cj:80:LYS:HG3	2.00	0.44
2:cl:41:VAL:HG12	2:cl:86:MET:O	2.18	0.44
3:co:150:LYS:HB2	3:co:165:ILE:HB	2.00	0.44
3:cq:196:MET:HA	3:cq:199:GLN:HG2	1.99	0.44
4:cu:82:LYS:O	4:cu:86:ILE:HG12	2.17	0.44
4:cv:31:PRO:HB2	7:dr:118:ARG:HH12	1.82	0.44
3:cy:97:ASP:O	3:cy:101:VAL:HG23	2.17	0.44
5:cz:130:ALA:HB2	3:ec:244:ALA:HA	1.99	0.44
5:da:102:LYS:O	5:da:102:LYS:HD3	2.18	0.44
6:dm:45:TYR:CD1	6:dm:62:ILE:HD13	2.53	0.44
6:do:117:TYR:HE1	6:do:119:TYR:HB3	1.83	0.44
6:dq:179:MET:HB2	6:dq:211:THR:OG1	2.18	0.44
7:dr:99:ASP:OD1	7:dr:101:ARG:HG3	2.18	0.44
7:dx:71:ASP:OD1	7:dx:117:ARG:HA	2.18	0.44
3:dy:407:ARG:HB3	3:dy:415:LEU:HD21	1.99	0.44
3:dz:349:LEU:O	3:dz:353:LEU:HD23	2.18	0.44
3:eb:346:ARG:HG2	3:eb:350:GLU:OE1	2.17	0.44
3:ec:340:LYS:HD2	3:ec:340:LYS:C	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:bk:124:TRP:CE2	8:bk:143:VAL:HG13	2.52	0.44
8:ax:79:ASP:OD2	8:ax:80:GLY:N	2.51	0.44
1:af:188:THR:O	1:af:192:GLU:HG2	2.18	0.43
2:am:13:ALA:HB3	1:as:81:VAL:HG12	2.00	0.43
2:am:143:THR:HG22	2:am:144:LYS:N	2.32	0.43
1:an:45:GLN:NE2	1:an:46:SER:O	2.50	0.43
2:ap:126:GLU:OE1	2:ap:138:TYR:OH	2.35	0.43
1:at:229:GLU:HG3	1:at:229:GLU:O	2.18	0.43
1:aw:85:GLN:HG3	1:aw:95:PRO:HG3	1.99	0.43
2:bp:126:GLU:OE2	2:bp:138:TYR:OH	2.26	0.43
1:cf:76:MET:HE3	1:cf:103:SER:HB3	1.99	0.43
1:cf:199:THR:O	1:cf:203:ILE:HG12	2.17	0.43
3:co:378:SER:OG	3:dy:380:ILE:HD11	2.18	0.43
3:cp:328:THR:OG1	3:ea:326:GLN:NE2	2.50	0.43
4:cs:23:TYR:HB2	4:cs:29:PHE:CD2	2.53	0.43
3:cy:72:VAL:HG11	3:cy:101:VAL:HG22	2.00	0.43
3:dj:77:LYS:HB2	3:dj:365:GLU:OE2	2.18	0.43
3:dj:353:LEU:O	3:dj:357:VAL:HG12	2.17	0.43
6:dp:185:SER:O	6:dp:202:LEU:HD12	2.17	0.43
3:ea:328:THR:HA	3:ea:331:GLU:OE1	2.17	0.43
3:ea:373:SER:O	3:ea:375:LYS:N	2.51	0.43
3:eb:77:LYS:HG3	3:eb:365:GLU:HB2	2.00	0.43
3:ec:202:GLY:O	3:ec:203:TRP:HD1	2.01	0.43
1:au:285:LEU:HB2	1:au:297:PRO:HG2	2.01	0.43
1:bf:89:ASP:OD2	8:ax:70:TYR:CD2	2.71	0.43
1:bg:207:GLN:O	1:bg:208:HIS:ND1	2.51	0.43
1:bh:107:LYS:HE2	1:bh:107:LYS:HB2	1.90	0.43
1:bs:67:SER:OG	1:bs:68:PRO:HD2	2.18	0.43
1:ch:200:ILE:HD11	1:ch:312:THR:HA	2.00	0.43
3:cn:292:VAL:CG2	3:cn:293:PRO:HD3	2.48	0.43
3:cq:229:ILE:HD11	3:eb:269:VAL:HG21	2.00	0.43
3:cq:325:SER:HB2	3:cy:323:SER:HA	1.99	0.43
3:cq:350:GLU:HG2	3:cy:95:LYS:HD3	2.00	0.43
4:cv:2:HIS:CE1	4:cv:45:GLU:HG3	2.53	0.43
3:cy:143:ARG:HD2	3:cy:143:ARG:C	2.43	0.43
3:cy:143:ARG:HD3	3:cy:203:TRP:CZ3	2.53	0.43
3:cy:239:LYS:HB3	3:eb:277:ALA:HB2	1.99	0.43
5:de:24:LEU:HD12	5:de:27:VAL:HG21	2.00	0.43
3:dj:326:GLN:HE21	3:du:328:THR:HG21	1.82	0.43
7:dv:27:ILE:HB	7:dv:87:TYR:HB2	1.99	0.43
3:dz:344:ASP:O	3:dz:347:PRO:HD2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:aa:51:TYR:HB2	1:aa:142:LEU:HD21	2.00	0.43
1:au:284:MET:HG2	1:au:298:CYS:SG	2.57	0.43
1:av:226:ARG:HB3	1:aw:237:TYR:CZ	2.53	0.43
1:bj:198:GLU:OE2	1:bj:198:GLU:HA	2.18	0.43
2:bl:158:LEU:CD2	8:bk:104:PHE:HB3	2.48	0.43
2:bp:75:SER:OG	1:cg:89:ASP:OD2	2.35	0.43
1:bu:75:TYR:CZ	1:bu:104:GLU:HB2	2.51	0.43
1:cg:47:TYR:HE2	1:ch:308:TYR:HB3	1.84	0.43
3:co:123:ARG:HH22	3:co:130:LYS:N	2.13	0.43
3:co:325:SER:HB2	3:dz:323:SER:HA	1.99	0.43
3:cp:365:GLU:OE1	3:cp:366:PHE:N	2.51	0.43
3:cq:386:GLU:O	3:cq:390:LYS:HB3	2.18	0.43
5:de:57:ALA:O	5:de:61:LEU:HD23	2.19	0.43
5:dh:130:ALA:HB3	3:dy:244:ALA:HA	2.01	0.43
6:dq:15:ARG:HH21	6:dq:47:ILE:HG21	1.82	0.43
3:ea:417:ASP:OD1	3:ea:418:GLY:N	2.51	0.43
3:ec:86:GLU:O	3:ec:90:LEU:HD23	2.19	0.43
3:ec:389:THR:HA	3:ec:392:ILE:HG12	2.00	0.43
8:ck:79:ASP:OD2	8:ck:80:GLY:N	2.51	0.43
1:ai:233:SER:OG	1:ai:236:ASP:OD2	2.34	0.43
1:bf:76:MET:SD	1:bf:103:SER:OG	2.76	0.43
1:bf:90:TYR:O	8:ax:84:ASN:OD1	2.35	0.43
1:bu:219:MET:HE3	1:bu:319:VAL:HG12	1.99	0.43
1:bw:272:MET:N	1:bw:272:MET:SD	2.91	0.43
1:ci:270:ASN:HB3	1:ci:273:ASN:HD22	1.83	0.43
3:cn:153:THR:HA	3:cn:160:TYR:HB2	1.98	0.43
3:cn:295:PHE:O	3:cn:299:LYS:HG2	2.18	0.43
3:cp:389:THR:HA	3:cp:392:ILE:HG12	2.00	0.43
3:cq:62:ARG:NH1	3:ea:305:SER:O	2.51	0.43
3:cq:375:LYS:O	3:cq:378:SER:OG	2.26	0.43
4:ct:16:LYS:HE3	4:ct:89:PHE:CD1	2.53	0.43
5:cx:21:VAL:HG21	5:cx:61:LEU:HD21	2.00	0.43
5:dh:73:GLU:OE1	5:dh:74:ASP:N	2.51	0.43
5:dh:83:ARG:HG3	5:dh:83:ARG:NH1	2.33	0.43
3:dj:116:VAL:HG12	3:dj:184:ILE:HD11	2.00	0.43
6:dp:178:ARG:HG2	6:dp:212:PHE:CD1	2.53	0.43
6:dq:186:PHE:CE2	6:dq:188:ASP:HB2	2.53	0.43
3:ea:404:ASP:OD1	3:ea:407:ARG:NH1	2.51	0.43
3:eb:326:GLN:CD	3:eb:326:GLN:H	2.26	0.43
3:ec:141:TYR:CZ	3:ec:170:PRO:HB3	2.53	0.43
1:af:56:ALA:HB1	1:af:152:VAL:HG11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:af:111:LEU:HD22	1:af:147:LEU:HD21	2.00	0.43
1:ag:102:THR:HG22	1:ag:103:SER:N	2.33	0.43
1:ah:76:MET:HG3	1:ah:103:SER:HB3	2.01	0.43
1:ah:79:ASP:OD1	1:ah:80:LYS:N	2.49	0.43
2:ap:139:ALA:HB3	2:ap:152:GLU:OE1	2.18	0.43
1:bg:119:ILE:O	1:bg:123:LYS:HG3	2.18	0.43
1:bh:87:ILE:HD12	1:bh:91:THR:HG21	2.01	0.43
1:bj:232:MET:HE3	1:bj:236:ASP:HB3	1.99	0.43
2:bq:16:LEU:H	2:bq:19:MET:HE3	1.83	0.43
2:by:136:TRP:CD2	2:by:155:LEU:HG	2.52	0.43
1:ca:41:ARG:HD3	1:ca:42:ILE:H	1.83	0.43
1:ca:73:PHE:CZ	1:ca:106:GLY:HA3	2.53	0.43
3:cn:271:ARG:HG2	5:cx:136:ARG:NH2	2.33	0.43
3:cp:377:GLU:O	3:cp:381:THR:HG23	2.18	0.43
3:cq:254:TYR:CZ	8:ck:134:GLU:N	2.87	0.43
3:cq:254:TYR:CE1	8:ck:134:GLU:HA	2.53	0.43
3:cq:284:VAL:HG22	3:ea:285:LEU:HD13	1.99	0.43
4:cr:24:MET:HE3	4:cr:24:MET:HB3	1.91	0.43
3:cy:123:ARG:HH22	3:cy:130:LYS:N	2.13	0.43
5:da:35:TRP:HE1	5:da:70:LEU:HD13	1.83	0.43
5:dc:100:VAL:HG12	5:dd:83:ARG:HB2	2.00	0.43
5:df:48:PHE:C	5:df:50:ASP:H	2.27	0.43
5:dk:24:LEU:HD13	5:dk:27:VAL:HG21	2.01	0.43
7:ds:99:ASP:OD1	7:ds:101:ARG:N	2.52	0.43
3:du:333:PHE:O	3:du:336:LEU:HG	2.19	0.43
7:dv:1:MET:SD	7:dv:1:MET:N	2.78	0.43
3:ea:403:ARG:O	3:ea:406:LEU:HG	2.19	0.43
1:af:280:GLU:HB3	1:af:301:LYS:HB2	2.01	0.43
1:an:184:MET:SD	1:an:225:ILE:HD11	2.59	0.43
1:at:309:ARG:HD3	1:at:309:ARG:HA	1.87	0.43
1:aw:201:GLU:OE2	1:aw:209:ARG:NH1	2.47	0.43
2:ay:47:VAL:HG21	2:ay:57:LYS:HD3	2.00	0.43
2:ay:49:GLN:NE2	2:ay:58:LEU:HD13	2.34	0.43
1:bj:41:ARG:HH21	3:dj:201:GLN:HE22	1.66	0.43
1:ca:140:CYS:O	1:ca:144:HIS:ND1	2.47	0.43
3:cn:346:ARG:O	3:cn:349:LEU:N	2.51	0.43
3:co:199:GLN:O	3:co:199:GLN:NE2	2.42	0.43
4:cs:2:HIS:NE2	4:cs:45:GLU:HG3	2.33	0.43
5:df:4:ILE:HG13	5:df:5:MET:O	2.18	0.43
7:dw:78:ASN:HB3	7:dw:110:VAL:O	2.19	0.43
3:dz:149:GLU:HG3	3:dz:178:LEU:HD11	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:ea:194:PRO:HB2	3:ea:198:LYS:HZ2	1.83	0.43
3:eb:414:LYS:HD3	3:eb:414:LYS:C	2.43	0.43
2:al:34:VAL:HG22	2:al:58:LEU:HG	2.00	0.43
2:bb:6:ALA:HA	1:bs:249:SER:OG	2.18	0.43
2:bc:110:GLU:OE1	2:bc:110:GLU:N	2.52	0.43
1:bt:207:GLN:O	1:bt:208:HIS:ND1	2.51	0.43
1:bv:226:ARG:HB3	1:bw:237:TYR:CZ	2.53	0.43
1:ca:280:GLU:HB3	1:ca:301:LYS:HB2	2.01	0.43
1:ch:82:GLY:HA3	1:ch:97:VAL:HG12	2.01	0.43
3:cn:322:VAL:HG11	3:cn:325:SER:HB3	2.00	0.43
3:cq:372:PRO:CB	3:cq:377:GLU:OE2	2.67	0.43
4:cs:81:LEU:O	4:cs:85:GLU:OE1	2.37	0.43
4:cu:72:PRO:HD3	4:cu:116:GLY:HA2	2.01	0.43
4:cv:54:ASP:HA	6:dp:6:GLY:HA2	2.00	0.43
5:cx:108:MET:HG3	5:dd:116:LYS:HD2	1.99	0.43
3:cy:57:ASN:O	3:cy:61:LYS:HG3	2.19	0.43
3:cy:151:ARG:HH22	3:cy:161:GLY:H	1.66	0.43
6:dl:206:LEU:HD23	6:dl:206:LEU:HA	1.83	0.43
7:dt:28:LYS:HB2	7:dt:46:GLN:HG2	2.00	0.43
7:dt:28:LYS:NZ	7:dt:86:ASP:OD1	2.51	0.43
3:du:190:GLU:OE1	3:du:190:GLU:N	2.52	0.43
3:dz:87:PHE:O	3:dz:90:LEU:HG	2.19	0.43
3:ec:149:GLU:HG3	3:ec:178:LEU:HD11	2.01	0.43
1:ag:119:ILE:O	1:ag:123:LYS:HG3	2.18	0.43
1:an:82:GLY:HA3	1:an:97:VAL:HG12	2.01	0.43
2:ap:17:PRO:HG3	2:ap:150:LEU:HD21	1.99	0.43
1:av:98:ASP:CG	1:av:99:ALA:H	2.27	0.43
1:ba:72:THR:OG1	1:bj:40:HIS:ND1	2.40	0.43
2:bm:20:VAL:O	1:bs:96:LEU:HD12	2.19	0.43
2:cc:74:ARG:HG2	2:cc:86:MET:HE1	2.01	0.43
1:ci:167:HIS:CD2	1:ci:307:ILE:HD12	2.54	0.43
3:cn:67:ILE:CG2	3:cn:340:LYS:HE2	2.49	0.43
3:co:304:VAL:HG22	3:co:314:ILE:HG21	2.01	0.43
3:cp:212:LEU:HD13	3:cp:306:LEU:HD22	2.00	0.43
4:cu:110:ILE:HG13	4:cu:119:ILE:HG12	2.00	0.43
4:cw:52:SER:HB3	4:cw:57:CYS:SG	2.59	0.43
3:cy:196:MET:HE2	3:cy:196:MET:HA	2.00	0.43
5:dc:14:VAL:O	5:dc:17:MET:HG2	2.19	0.43
5:dc:61:LEU:HD23	5:dc:61:LEU:HA	1.91	0.43
6:dl:9:ILE:HD13	6:dl:141:TYR:CE2	2.53	0.43
6:dm:47:ILE:HD12	6:dm:59:ARG:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:dr:97:VAL:O	7:dr:97:VAL:HG13	2.19	0.43
3:du:123:ARG:NH2	3:du:129:VAL:HA	2.34	0.43
3:du:395:GLN:OE1	3:du:395:GLN:N	2.51	0.43
3:dy:239:LYS:HB2	3:dy:281:GLU:HG3	2.01	0.43
3:eb:328:THR:O	3:eb:331:GLU:HG3	2.18	0.43
1:af:184:MET:HE1	1:af:221:LYS:HG3	2.01	0.43
2:am:14:ILE:HG22	1:as:83:THR:HB	2.01	0.43
1:as:199:THR:O	1:as:203:ILE:HG12	2.19	0.43
1:at:80:LYS:HE2	1:at:80:LYS:HB3	1.87	0.43
1:aw:207:GLN:HA	1:aw:207:GLN:OE1	2.18	0.43
1:ba:93:ASP:HB3	2:bl:24:SER:HB3	2.00	0.43
1:bf:63:THR:CG2	1:bf:64:THR:N	2.82	0.43
1:bu:227:MET:HE3	1:bu:230:THR:HG21	2.01	0.43
2:by:158:LEU:HD21	8:bx:104:PHE:HB3	2.01	0.43
2:cc:40:LEU:HD23	2:cc:87:ILE:HG22	2.01	0.43
3:cn:247:CYS:HB3	3:cn:250:ASP:OD2	2.19	0.43
3:cp:123:ARG:NH2	3:cp:130:LYS:H	2.00	0.43
3:cp:149:GLU:HG3	3:cp:178:LEU:HD11	2.00	0.43
3:cq:235:GLN:NE2	3:cy:267:SER:HB2	2.26	0.43
3:cq:372:PRO:CA	3:cy:374:LYS:NZ	2.79	0.43
4:cu:16:LYS:HG3	4:cu:17:TYR:CE2	2.54	0.43
3:cy:295:PHE:CZ	3:cy:299:LYS:HE3	2.54	0.43
5:db:29:ASP:OD2	5:db:33:TYR:HE1	2.02	0.43
5:db:48:PHE:CD1	5:db:125:ARG:HG2	2.54	0.43
5:db:124:ARG:NH1	5:dk:42:PHE:HA	2.34	0.43
6:dl:47:ILE:HD12	6:dl:59:ARG:O	2.18	0.43
6:dl:66:ALA:HA	6:dl:71:ILE:HD12	2.01	0.43
6:dn:45:TYR:CD1	6:dn:62:ILE:HD13	2.54	0.43
6:do:2:HIS:CG	6:do:174:ALA:HB2	2.53	0.43
3:dz:310:HIS:NE2	3:dz:329:ALA:HB1	2.34	0.43
3:ea:208:LEU:HB3	3:ea:213:ILE:HD11	2.01	0.43
3:ea:319:VAL:HG21	3:ea:322:VAL:HG12	2.01	0.43
3:ec:228:GLN:O	3:ec:232:ARG:HG2	2.19	0.43
2:al:47:VAL:HA	2:al:59:VAL:HG12	2.01	0.43
2:ap:141:GLY:HA3	2:ap:152:GLU:HB3	2.01	0.43
1:aw:241:GLN:OE1	1:aw:241:GLN:HA	2.19	0.43
1:bj:241:GLN:OE1	1:bj:241:GLN:HA	2.18	0.43
2:bm:144:LYS:HG2	2:bm:145:TYR:O	2.18	0.43
1:bn:71:LYS:HD3	1:bw:39:LEU:HD13	2.00	0.43
2:br:40:LEU:HD23	2:br:87:ILE:HG22	2.00	0.43
3:cn:58:ALA:O	3:cn:62:ARG:HG3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:cn:67:ILE:HB	3:cn:68:PRO:HD3	2.01	0.43
3:cq:372:PRO:HA	3:cy:374:LYS:HZ1	1.80	0.43
3:cq:403:ARG:HA	3:cq:406:LEU:HG	2.01	0.43
4:cr:4:GLU:HB3	4:cr:98:VAL:HG21	1.99	0.43
5:de:7:GLN:O	5:de:11:ILE:HG12	2.19	0.43
5:dh:107:ASN:C	5:dh:109:MET:H	2.27	0.43
3:dj:118:ILE:HG22	3:dj:136:GLU:OE2	2.19	0.43
6:dm:61:LEU:HD11	6:dm:76:ILE:HG22	2.01	0.43
6:do:47:ILE:HD13	6:do:60:VAL:HG22	1.99	0.43
6:dq:14:SER:OG	6:dq:96:THR:OG1	2.30	0.43
6:dq:187:ASN:HB3	6:dq:201:GLU:HB3	1.99	0.43
3:du:239:LYS:O	3:du:280:GLU:HA	2.18	0.43
3:dy:409:ILE:O	3:dy:409:ILE:HG13	2.19	0.43
3:ec:310:HIS:O	3:ec:314:ILE:HG22	2.18	0.43
1:ai:226:ARG:HA	1:ai:233:SER:HA	1.99	0.42
1:ai:250:ILE:HB	1:ai:253:LEU:HD12	2.01	0.42
1:an:270:ASN:OD1	1:an:271:PRO:HD2	2.19	0.42
2:az:68:PRO:HG3	2:az:134:THR:HG22	2.01	0.42
2:bb:62:LEU:HD21	2:bb:132:ILE:HD13	2.01	0.42
2:bp:118:VAL:HG21	2:bp:153:VAL:HG13	2.01	0.42
1:bs:193:LEU:O	1:bs:197:ILE:HG12	2.19	0.42
1:bs:215:ILE:O	1:bs:249:SER:HA	2.19	0.42
2:cb:27:ASN:ND2	2:cb:98:THR:OG1	2.48	0.42
1:ci:87:ILE:HD12	1:ci:91:THR:HG21	2.00	0.42
3:cn:403:ARG:HA	3:cn:406:LEU:HG	2.01	0.42
3:cq:133:ALA:HB3	3:cq:358:ASP:OD1	2.19	0.42
4:cu:61:ILE:HD13	4:cu:126:ARG:HG3	2.01	0.42
5:cx:83:ARG:NH2	5:dg:82:ARG:HG2	2.34	0.42
3:cy:329:ALA:O	3:cy:332:THR:OG1	2.31	0.42
5:dg:103:ASN:C	5:dg:103:ASN:HD22	2.27	0.42
5:di:29:ASP:HB2	5:di:33:TYR:HE2	1.84	0.42
3:dj:116:VAL:O	3:dj:138:VAL:HA	2.19	0.42
3:du:330:LEU:HB3	3:du:334:TYR:HE2	1.84	0.42
7:dx:28:LYS:O	7:dx:46:GLN:HB3	2.19	0.42
3:ea:135:LEU:HD23	3:ea:356:ILE:HD11	2.01	0.42
1:at:184:MET:SD	1:at:225:ILE:HD11	2.59	0.42
2:bb:57:LYS:NZ	2:bb:69:TYR:OH	2.52	0.42
1:bf:87:ILE:HD12	3:ec:41:PHE:HZ	1.84	0.42
1:bj:43:LYS:HD3	1:bj:43:LYS:HA	1.90	0.42
2:bm:12:MET:SD	1:bn:142:LEU:HD23	2.59	0.42
1:bn:71:LYS:HG3	8:bk:70:TYR:OH	2.16	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:bp:84:ASN:HA	1:ca:31:MET:HE2	1.99	0.42
3:co:403:ARG:O	3:co:407:ARG:HD3	2.19	0.42
3:cp:316:ASN:ND2	3:dz:308:GLY:O	2.52	0.42
3:cq:126:THR:O	3:cq:180:HIS:HB2	2.20	0.42
4:ct:25:GLU:OE1	4:ct:42:ASN:HA	2.19	0.42
4:cw:92:ASP:OD1	4:cw:103:GLU:HA	2.19	0.42
3:cy:60:ALA:O	3:cy:64:VAL:HG12	2.19	0.42
3:cy:269:VAL:HG21	3:ea:229:ILE:HD13	2.00	0.42
5:dc:102:LYS:O	5:dc:102:LYS:HD3	2.20	0.42
3:dj:308:GLY:O	3:ec:316:ASN:ND2	2.52	0.42
7:dt:103:VAL:HG13	7:dt:103:VAL:O	2.19	0.42
3:du:102:ASP:OD1	3:du:102:ASP:N	2.53	0.42
7:dv:65:GLU:HB3	7:dv:67:ILE:HD11	2.01	0.42
3:dy:249:ASP:O	8:ax:135:ASP:CG	2.62	0.42
3:dy:270:GLY:C	3:dy:271:ARG:HD3	2.44	0.42
3:eb:124:MET:O	3:eb:127:SER:OG	2.32	0.42
3:ec:346:ARG:HH11	3:ec:346:ARG:HG3	1.85	0.42
2:ab:108:SER:OG	2:ab:109:THR:N	2.51	0.42
2:az:104:MET:HE3	2:az:153:VAL:HG11	2.01	0.42
2:bd:29:ASP:OD2	2:bd:57:LYS:NZ	2.42	0.42
1:bi:30:THR:HA	1:bs:100:LEU:HD11	2.00	0.42
2:bm:16:LEU:HB2	2:bm:19:MET:SD	2.58	0.42
1:cj:99:ALA:O	1:cj:100:LEU:HD23	2.19	0.42
3:cn:152:VAL:O	3:cn:161:GLY:N	2.38	0.42
3:co:281:GLU:N	3:co:281:GLU:OE1	2.52	0.42
3:cp:153:THR:HA	3:cp:160:TYR:HB2	2.00	0.42
3:cq:216:ILE:HD13	3:cq:303:ILE:HD12	2.01	0.42
4:ct:52:SER:OG	4:ct:54:ASP:OD1	2.35	0.42
5:de:21:VAL:HG13	5:de:21:VAL:O	2.19	0.42
5:dg:48:PHE:HD1	5:dg:125:ARG:HG2	1.84	0.42
3:dj:344:ASP:C	3:dj:347:PRO:HD2	2.44	0.42
3:du:336:LEU:HA	3:du:339:ARG:HH12	1.84	0.42
3:eb:341:ARG:NH2	3:eb:366:PHE:HB3	2.33	0.42
3:ec:311:GLU:HG2	3:ec:312:ILE:N	2.35	0.42
1:ai:59:VAL:HG21	1:ai:250:ILE:HD11	2.01	0.42
1:ai:274:MET:HE2	1:ai:274:MET:HB3	1.93	0.42
2:ao:108:SER:OG	2:ao:128:SER:N	2.52	0.42
1:av:291:ASP:OD2	1:bg:92:ASP:HA	2.19	0.42
1:bh:79:ASP:OD1	1:bh:80:LYS:N	2.47	0.42
1:bw:73:PHE:HZ	1:bw:306:THR:HG21	1.84	0.42
1:ca:180:ASP:OD1	1:ca:180:ASP:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:co:394:GLU:N	3:co:394:GLU:OE2	2.52	0.42
3:cp:68:PRO:O	3:cp:71:MET:HB3	2.19	0.42
3:cp:333:PHE:O	3:cp:336:LEU:HG	2.19	0.42
3:cy:177:TYR:HD2	3:cy:179:ILE:HD11	1.84	0.42
5:dc:16:GLN:HG2	5:dc:19:LYS:NZ	2.34	0.42
5:dc:54:LYS:NZ	5:dd:37:GLU:OE1	2.37	0.42
5:df:131:LEU:H	3:dj:259:ARG:HH21	1.66	0.42
5:dk:102:LYS:HD3	5:dk:104:GLN:HE22	1.84	0.42
6:dp:112:GLY:N	6:dp:135:SER:OG	2.49	0.42
3:du:157:SER:O	3:du:160:TYR:HD1	2.02	0.42
3:dy:403:ARG:HG3	3:dy:407:ARG:NH1	2.34	0.42
1:an:151:LEU:HD23	1:an:151:LEU:HA	1.88	0.42
1:at:284:MET:HG2	1:at:298:CYS:SG	2.59	0.42
2:az:3:GLN:HA	2:az:3:GLN:OE1	2.20	0.42
1:bg:71:LYS:HE2	1:bg:71:LYS:HB3	1.75	0.42
1:bi:204:THR:O	1:bi:207:GLN:HG2	2.20	0.42
1:bn:123:LYS:HA	1:bn:126:GLN:HG2	2.01	0.42
1:bt:71:LYS:HB3	1:bt:71:LYS:HE2	1.72	0.42
3:cn:275:ILE:HD12	3:cn:281:GLU:HA	2.01	0.42
3:cq:372:PRO:HB2	3:cq:377:GLU:OE2	2.19	0.42
5:cx:7:GLN:O	5:cx:11:ILE:HG12	2.20	0.42
5:da:48:PHE:C	5:da:50:ASP:H	2.28	0.42
5:db:7:GLN:O	5:db:11:ILE:HG12	2.19	0.42
3:dj:330:LEU:O	3:dj:334:TYR:CD2	2.72	0.42
3:dz:386:GLU:O	3:dz:390:LYS:HB2	2.19	0.42
3:eb:167:LYS:HA	3:eb:178:LEU:HD13	2.01	0.42
8:bx:8:LEU:HG	8:bx:19:THR:HG23	2.02	0.42
1:aa:272:MET:HE3	1:aj:45:GLN:HG2	2.02	0.42
1:ai:127:ALA:HB2	1:as:69:THR:HG21	2.00	0.42
2:al:127:LYS:HG2	2:al:129:ASP:H	1.84	0.42
2:am:16:LEU:HD11	1:as:100:LEU:HD21	2.02	0.42
2:ap:139:ALA:HB2	2:ap:154:GLN:HB2	2.00	0.42
1:at:47:TYR:HD1	1:au:309:ARG:HH21	1.66	0.42
1:av:113:ASN:HA	1:aw:94:LEU:HB3	2.01	0.42
2:be:25:LYS:HB3	2:be:25:LYS:HE2	1.89	0.42
1:bu:177:LYS:O	1:bu:185:LYS:NZ	2.51	0.42
2:cd:97:MET:HE2	2:cd:100:GLY:HA3	2.00	0.42
3:cp:214:ASP:OD1	3:cp:215:ALA:N	2.53	0.42
3:cp:249:ASP:N	3:cp:253:GLN:OE1	2.51	0.42
4:cr:84:LYS:HZ3	4:cw:3:TYR:CB	2.32	0.42
4:cr:108:HIS:CE1	4:cr:122:ARG:HE	2.38	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:cx:77:LEU:O	5:cx:79:SER:N	2.49	0.42
5:db:24:LEU:HD23	5:db:27:VAL:HG21	2.01	0.42
5:de:130:ALA:CB	3:dj:244:ALA:HA	2.49	0.42
3:dj:126:THR:O	3:dj:180:HIS:HB2	2.18	0.42
3:dy:163:PRO:HG2	3:dy:166:TYR:OH	2.20	0.42
3:dy:200:ASN:ND2	3:dy:204:GLY:O	2.53	0.42
3:ea:377:GLU:HA	3:ea:380:ILE:CG2	2.41	0.42
1:aa:73:PHE:CZ	1:aa:106:GLY:HA3	2.55	0.42
1:ag:177:LYS:HB2	1:ag:180:ASP:HB3	2.02	0.42
1:aj:249:SER:HB3	2:al:6:ALA:HA	2.02	0.42
1:an:212:ASN:HD22	1:an:269:LYS:HB2	1.84	0.42
1:as:142:LEU:HD23	1:as:146:GLN:HG3	2.01	0.42
2:bb:102:VAL:HG12	2:bb:155:LEU:HD11	2.02	0.42
2:bd:118:VAL:HG23	2:bd:138:TYR:CZ	2.54	0.42
1:bg:184:MET:HE3	1:bg:184:MET:HB2	1.92	0.42
2:bq:57:LYS:NZ	2:bq:69:TYR:OH	2.53	0.42
2:bq:143:THR:OG1	2:bq:144:LYS:N	2.53	0.42
1:bs:58:ARG:HG3	1:bs:58:ARG:NH1	2.34	0.42
1:bv:157:ALA:HB3	1:bv:158:PRO:HD3	2.00	0.42
1:ci:66:LEU:HD13	1:ci:277:GLU:HG3	2.01	0.42
1:ci:184:MET:SD	1:ci:225:ILE:HD11	2.60	0.42
3:cp:329:ALA:O	3:cp:332:THR:OG1	2.35	0.42
3:cq:295:PHE:CE2	3:cy:289:ILE:HD12	2.55	0.42
4:cu:57:CYS:HB3	4:cu:130:LYS:HD3	2.01	0.42
4:cv:45:GLU:N	4:cv:45:GLU:OE2	2.53	0.42
4:cw:1:MET:HB2	4:cw:4:GLU:OE1	2.19	0.42
5:da:116:LYS:HE2	5:di:108:MET:CG	2.50	0.42
5:de:34:ALA:O	5:de:37:GLU:HG3	2.20	0.42
5:de:131:LEU:CD2	3:ec:263:VAL:HG11	2.50	0.42
5:di:4:ILE:HD11	5:di:10:LEU:HB2	2.01	0.42
6:dl:21:ALA:O	6:dl:89:THR:OG1	2.31	0.42
6:do:54:ALA:O	6:do:57:VAL:HG12	2.20	0.42
6:dp:12:GLU:HB3	6:dp:165:THR:HG23	2.02	0.42
6:dp:65:ASP:H	6:dp:72:THR:HB	1.84	0.42
6:dp:117:TYR:HB3	6:dp:130:ILE:HG13	2.01	0.42
3:du:139:ARG:NH2	3:du:141:TYR:OH	2.53	0.42
3:du:322:VAL:HG11	3:du:325:SER:HB3	2.02	0.42
3:dy:416:LYS:NZ	3:dy:417:ASP:O	2.53	0.42
3:ea:330:LEU:HD13	3:ea:334:TYR:HE2	1.85	0.42
1:aj:52:PRO:HD2	2:al:10:ARG:HB3	2.01	0.42
1:aj:150:ARG:HG3	1:aj:154:LYS:HE2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:aj:284:MET:HG2	1:aj:298:CYS:SG	2.59	0.42
1:bi:277:GLU:HB3	1:bi:303:THR:HG21	2.02	0.42
1:bs:175:SER:HB2	1:bs:192:GLU:OE1	2.20	0.42
1:bs:190:GLU:OE1	1:bs:238:PHE:HB2	2.20	0.42
1:bw:227:MET:HE3	1:bw:227:MET:HB2	1.93	0.42
1:cf:51:TYR:HB2	1:cf:142:LEU:HD21	2.02	0.42
1:cg:142:LEU:HD12	1:cg:142:LEU:HA	1.89	0.42
3:cn:71:MET:SD	3:cn:345:TYR:HB2	2.59	0.42
3:co:304:VAL:HG13	3:co:309:ILE:O	2.19	0.42
3:cp:88:LYS:HA	3:cp:88:LYS:HD3	1.85	0.42
3:cp:150:LYS:HE3	3:cp:165:ILE:HG12	2.01	0.42
3:cp:328:THR:O	3:cp:332:THR:HG23	2.20	0.42
3:cq:338:ASP:O	3:cq:342:GLU:OE1	2.38	0.42
3:cq:403:ARG:O	3:cq:407:ARG:HG2	2.19	0.42
3:cy:315:LYS:NZ	3:cy:317:LYS:HE3	2.35	0.42
3:cy:325:SER:O	3:cy:328:THR:HG22	2.20	0.42
3:cy:353:LEU:HA	3:cy:356:ILE:HG12	2.02	0.42
5:dc:62:HIS:HB2	5:dc:114:TRP:HB2	2.00	0.42
3:dj:374:LYS:HA	3:dj:377:GLU:HG3	2.02	0.42
6:dl:134:LYS:NZ	6:dp:186:PHE:O	2.51	0.42
6:dq:3:LEU:HG	6:dq:5:ASN:HD22	1.84	0.42
3:dy:310:HIS:NE2	3:dy:333:PHE:HB2	2.35	0.42
3:dz:78:ILE:HD12	3:dz:363:SER:O	2.20	0.42
3:eb:193:THR:HG21	3:eb:195:GLN:HE21	1.85	0.42
1:at:71:LYS:HB3	1:at:71:LYS:HE2	1.75	0.42
1:ba:71:LYS:CE	8:ax:70:TYR:CE2	3.03	0.42
2:bb:83:GLN:HE21	2:bb:85:GLN:HE21	1.67	0.42
2:be:83:GLN:NE2	2:be:85:GLN:HE21	2.17	0.42
1:bf:215:ILE:O	1:bf:249:SER:HA	2.20	0.42
1:bf:277:GLU:HB2	1:bf:303:THR:CG2	2.50	0.42
1:bi:184:MET:SD	1:bi:225:ILE:HD11	2.59	0.42
2:br:46:GLN:HB3	2:br:62:LEU:HD12	2.02	0.42
1:bs:277:GLU:H	1:bs:303:THR:HG22	1.84	0.42
1:bt:277:GLU:HB2	1:bt:303:THR:HG21	2.01	0.42
2:bz:110:GLU:OE1	2:bz:110:GLU:N	2.53	0.42
2:cc:18:GLY:O	2:cc:74:ARG:N	2.53	0.42
3:cn:133:ALA:C	3:cn:134:LYS:HD3	2.44	0.42
3:cq:353:LEU:HD22	3:cq:362:TRP:CE2	2.54	0.42
4:cr:106:ILE:HB	4:cr:122:ARG:O	2.19	0.42
4:cv:23:TYR:HB2	4:cv:29:PHE:CD2	2.55	0.42
5:dc:90:SER:HB3	5:dk:92:GLU:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:df:90:SER:HB3	5:dg:92:GLU:O	2.20	0.42
5:di:135:LEU:HD23	5:di:135:LEU:HA	1.91	0.42
3:dj:67:ILE:HB	3:dj:68:PRO:HD3	2.02	0.42
6:dl:2:HIS:CG	6:dl:174:ALA:HB2	2.55	0.42
6:dl:53:TRP:NE1	6:dl:85:PRO:O	2.51	0.42
8:ax:8:LEU:HD23	8:ax:18:ASP:HA	2.00	0.42
1:af:101:GLY:O	1:ci:31:MET:HB2	2.20	0.42
2:ap:47:VAL:HG22	2:ap:59:VAL:HG12	2.02	0.42
1:aw:73:PHE:CZ	1:aw:106:GLY:HA3	2.55	0.42
1:aw:198:GLU:HA	1:aw:198:GLU:OE2	2.19	0.42
2:bl:34:VAL:HG12	2:bl:60:LYS:HB3	2.01	0.42
1:bw:303:THR:HG23	1:bw:304:GLY:O	2.19	0.42
2:bz:10:ARG:HB3	1:ca:52:PRO:HD2	2.00	0.42
2:cc:17:PRO:HG3	2:cc:150:LEU:HD21	2.01	0.42
3:cn:327:ASN:O	3:cn:330:LEU:HG	2.20	0.42
4:cr:112:LYS:HG2	4:cr:117:TRP:CZ2	2.54	0.42
5:da:129:PHE:HB3	3:dz:240:VAL:HG21	2.02	0.42
5:df:87:PHE:HD2	7:dx:17:PHE:HE1	1.68	0.42
6:dp:194:VAL:HG12	6:dp:195:ASN:OD1	2.19	0.42
6:dq:159:ASP:OD2	6:dq:186:PHE:N	2.49	0.42
3:dz:327:ASN:HA	3:dz:330:LEU:HG	2.01	0.42
1:ag:89:ASP:OD1	1:ag:90:TYR:N	2.53	0.41
1:bj:41:ARG:HB3	1:bj:41:ARG:CZ	2.50	0.41
2:br:55:GLY:O	1:bv:85:GLN:NE2	2.53	0.41
1:bt:111:LEU:HD22	1:bt:147:LEU:HD21	2.02	0.41
1:bu:99:ALA:O	1:bu:100:LEU:HD23	2.20	0.41
1:bw:53:VAL:HA	1:bw:146:GLN:OE1	2.19	0.41
1:bw:55:SER:OG	1:bw:250:ILE:HD12	2.20	0.41
1:bw:201:GLU:OE2	1:bw:209:ARG:NH1	2.53	0.41
1:cj:151:LEU:HD23	1:cj:151:LEU:HA	1.94	0.41
4:cw:38:TRP:CE2	4:cw:69:VAL:HG21	2.55	0.41
3:cy:180:HIS:HB3	3:cy:183:ARG:HE	1.85	0.41
5:cz:124:ARG:HD3	3:dy:245:GLU:OE2	2.19	0.41
5:da:109:MET:HB3	5:da:119:GLU:OE2	2.18	0.41
3:dj:310:HIS:CE1	3:dj:333:PHE:HB2	2.51	0.41
6:do:177:MET:O	6:do:212:PHE:HA	2.20	0.41
6:dp:47:ILE:HD12	6:dp:59:ARG:O	2.20	0.41
6:dq:45:TYR:CD1	6:dq:62:ILE:HD13	2.54	0.41
7:ds:11:ARG:NH2	7:ds:78:ASN:OD1	2.53	0.41
3:du:143:ARG:HD3	3:du:203:TRP:CZ3	2.55	0.41
3:du:219:TYR:CE1	3:du:300:MET:HG2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:dv:68:ARG:HB3	7:dw:84:GLU:HB2	2.01	0.41
2:al:101:ARG:NH1	2:al:154:GLN:OE1	2.54	0.41
2:al:145:TYR:HB3	2:al:148:ILE:CG1	2.51	0.41
1:aw:180:ASP:OD1	1:aw:183:THR:HB	2.20	0.41
1:ba:159:HIS:NE2	8:ax:29:VAL:HG21	2.34	0.41
2:bb:47:VAL:HG22	2:bb:59:VAL:HG12	2.01	0.41
1:bh:290:LYS:CG	1:bh:291:ASP:H	2.31	0.41
2:bz:17:PRO:HG3	2:bz:150:LEU:HD21	2.03	0.41
2:cb:144:LYS:HD3	2:cb:147:ASP:HA	2.02	0.41
2:cl:139:ALA:HB3	2:cl:152:GLU:HG2	2.02	0.41
3:cn:143:ARG:HE	3:cn:144:PHE:HE1	1.68	0.41
3:cn:310:HIS:O	3:cn:314:ILE:HG22	2.20	0.41
3:co:239:LYS:NZ	3:dz:277:ALA:HA	2.35	0.41
3:cq:124:MET:HE1	3:cq:126:THR:HB	2.01	0.41
3:cy:328:THR:HA	3:cy:331:GLU:CG	2.50	0.41
3:cy:374:LYS:HA	3:cy:377:GLU:CG	2.47	0.41
5:cz:38:MET:HE2	5:cz:38:MET:HA	2.01	0.41
3:du:128:PRO:HG3	3:du:180:HIS:NE2	2.34	0.41
7:dv:22:ARG:HG2	7:dw:107:LEU:HB2	2.02	0.41
3:dy:249:ASP:O	8:ax:135:ASP:OD2	2.38	0.41
1:af:266:VAL:HB	1:af:314:VAL:CG1	2.51	0.41
1:aj:54:GLY:HA3	1:aj:149:ASN:ND2	2.36	0.41
1:at:227:MET:HB3	1:at:230:THR:OG1	2.20	0.41
1:av:29:ALA:HA	2:az:84:ASN:HB3	2.03	0.41
1:av:190:GLU:OE2	1:av:234:TYR:HD2	2.04	0.41
2:bd:90:ASP:OD1	2:bd:91:GLY:N	2.53	0.41
1:ca:272:MET:HE2	1:ca:272:MET:HA	2.01	0.41
1:cf:171:THR:HB	1:cf:314:VAL:HG22	2.01	0.41
1:cg:54:GLY:HA3	1:cg:149:ASN:ND2	2.35	0.41
1:cg:71:LYS:HE2	1:cg:71:LYS:HB3	1.75	0.41
3:cn:130:LYS:HD2	3:cn:131:PRO:O	2.20	0.41
3:co:220:ASP:HA	3:co:223:GLU:OE2	2.20	0.41
3:cp:151:ARG:NH2	3:cp:163:PRO:HA	2.35	0.41
3:cq:148:ILE:HG23	3:cq:163:PRO:HB3	2.02	0.41
4:cs:26:ASN:HD21	4:ct:72:PRO:HA	1.84	0.41
4:cu:34:ASP:OD1	4:cu:36:GLY:N	2.48	0.41
3:cy:372:PRO:HG3	3:eb:374:LYS:HZ2	1.86	0.41
3:cy:403:ARG:HA	3:cy:406:LEU:HG	2.02	0.41
5:da:63:LEU:HD12	5:dh:117:MET:HE2	2.02	0.41
5:db:124:ARG:HD3	3:ea:245:GLU:OE2	2.20	0.41
6:dl:131:PRO:HG3	6:dp:183:ILE:HG21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:dn:9:ILE:HG21	6:dn:141:TYR:HE2	1.85	0.41
6:dp:186:PHE:HE1	6:dp:188:ASP:HB3	1.85	0.41
7:ds:6:ILE:H	7:ds:6:ILE:HD12	1.85	0.41
3:du:147:THR:OG1	3:du:167:LYS:HB3	2.20	0.41
3:du:392:ILE:HA	3:du:395:GLN:HE22	1.84	0.41
7:dx:102:PRO:O	7:dx:104:GLN:HG3	2.21	0.41
3:dy:151:ARG:NH2	3:dy:152:VAL:O	2.45	0.41
3:ea:386:GLU:O	3:ea:390:LYS:HB2	2.20	0.41
3:eb:262:GLN:HA	3:eb:262:GLN:OE1	2.20	0.41
1:ah:45:GLN:CD	1:ai:272:MET:HE1	2.45	0.41
1:ah:284:MET:HG2	1:ah:298:CYS:SG	2.60	0.41
1:ai:87:ILE:HD12	1:ai:91:THR:HG21	2.02	0.41
2:al:48:VAL:HG11	2:al:60:LYS:HD3	2.03	0.41
2:aq:106:SER:OG	2:aq:151:VAL:CG1	2.68	0.41
2:cc:146:LYS:HB3	2:cc:146:LYS:HE2	1.73	0.41
2:ce:46:GLN:NE2	2:ce:60:LYS:HE3	2.36	0.41
1:ch:75:TYR:CZ	1:ch:104:GLU:HB2	2.56	0.41
1:ch:233:SER:OG	1:ch:236:ASP:OD2	2.37	0.41
1:ci:157:ALA:HB3	1:ci:158:PRO:HD3	2.03	0.41
3:cn:382:LYS:HD2	3:eb:387:SER:HB3	2.02	0.41
3:co:88:LYS:N	3:co:88:LYS:HD2	2.36	0.41
3:cp:121:ASP:OD1	3:cp:130:LYS:NZ	2.52	0.41
3:cp:177:TYR:CE2	3:cp:179:ILE:HD11	2.55	0.41
3:cp:202:GLY:O	3:cp:203:TRP:HD1	2.02	0.41
3:cp:347:PRO:HA	3:cp:350:GLU:CD	2.45	0.41
4:cs:37:MET:HE1	4:cs:79:ALA:HA	2.02	0.41
4:cu:26:ASN:O	4:cu:27:ARG:HD2	2.21	0.41
5:dd:135:LEU:C	5:dd:136:ARG:HD3	2.45	0.41
3:dj:83:ASP:OD2	3:dj:85:LYS:HE2	2.21	0.41
6:dl:26:ASN:HB2	6:dl:78:THR:O	2.20	0.41
6:dn:207:LYS:HB2	6:dn:207:LYS:HE2	1.89	0.41
7:ds:8:ARG:HG3	7:ds:8:ARG:NH1	2.35	0.41
7:ds:78:ASN:HB3	7:ds:110:VAL:O	2.21	0.41
3:du:40:PRO:HG2	3:du:43:MET:HB2	2.00	0.41
3:du:96:ILE:HG22	3:du:96:ILE:O	2.20	0.41
3:dy:360:GLN:OE1	3:dy:361:GLU:HB3	2.21	0.41
3:dy:417:ASP:OD1	3:dy:418:GLY:N	2.53	0.41
3:dz:123:ARG:CZ	3:dz:130:LYS:HG3	2.50	0.41
3:dz:311:GLU:HA	3:dz:314:ILE:HG22	2.03	0.41
3:ea:246:MET:HE2	3:ea:246:MET:HB2	1.95	0.41
3:ea:377:GLU:CA	3:ea:380:ILE:HG22	2.42	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:ea:403:ARG:HA	3:ea:406:LEU:HG	2.01	0.41
3:eb:403:ARG:HA	3:eb:406:LEU:HG	2.02	0.41
1:aa:214:LEU:HD23	1:aa:248:ASP:HB3	2.02	0.41
1:av:30:THR:O	1:av:30:THR:HG22	2.21	0.41
2:ay:25:LYS:NZ	2:az:25:LYS:HG3	2.35	0.41
2:ay:39:VAL:HG21	2:ay:94:ILE:HD12	2.03	0.41
1:bj:250:ILE:HG22	1:bj:252:GLU:H	1.85	0.41
1:cg:55:SER:OG	1:cg:250:ILE:HD12	2.20	0.41
1:cg:302:CYS:SG	1:cg:303:THR:N	2.93	0.41
3:co:120:ASN:ND2	3:co:120:ASN:O	2.54	0.41
3:co:134:LYS:O	3:co:135:LEU:HD12	2.20	0.41
3:cp:378:SER:O	3:cp:381:THR:OG1	2.38	0.41
3:cq:401:GLU:O	3:cq:405:THR:HG23	2.21	0.41
5:cx:54:LYS:HE2	5:dg:38:MET:HG3	2.02	0.41
3:cy:283:ASP:OD1	3:cy:284:VAL:N	2.54	0.41
6:dq:171:VAL:HG21	6:dq:178:ARG:NH2	2.35	0.41
7:dr:106:SER:HA	7:dw:22:ARG:HD2	2.02	0.41
7:ds:9:MET:HA	7:ds:9:MET:HE3	2.02	0.41
3:dy:87:PHE:O	3:dy:90:LEU:HG	2.20	0.41
3:ea:220:ASP:HA	3:ea:223:GLU:OE1	2.20	0.41
3:ec:119:ILE:CG2	3:ec:183:ARG:HH21	2.33	0.41
3:ec:225:LEU:HD23	3:ec:225:LEU:HA	1.94	0.41
1:aa:38:GLU:OE1	1:ci:130:ARG:NH2	2.54	0.41
1:af:90:TYR:CD2	8:ck:66:PHE:HE2	2.39	0.41
1:au:113:ASN:HA	1:av:95:PRO:HD2	2.02	0.41
1:bj:285:LEU:HB2	1:bj:297:PRO:HG2	2.02	0.41
1:bn:43:LYS:HA	1:bn:43:LYS:HD3	1.80	0.41
1:bv:180:ASP:O	1:bv:183:THR:OG1	2.35	0.41
2:cd:90:ASP:OD1	2:cd:91:GLY:N	2.54	0.41
1:cg:113:ASN:OD1	1:cg:144:HIS:NE2	2.53	0.41
3:cq:270:GLY:C	3:cq:271:ARG:HD3	2.46	0.41
4:ct:3:TYR:CE1	4:cu:77:ASP:HB2	2.55	0.41
5:dc:94:SER:HG	5:dd:88:SER:HG	1.67	0.41
5:de:108:MET:HE3	5:de:108:MET:HB3	1.91	0.41
5:df:108:MET:HG3	5:dg:116:LYS:HB3	2.02	0.41
5:di:58:LEU:HD23	5:di:58:LEU:HA	1.85	0.41
5:dk:130:ALA:CB	3:ea:244:ALA:HA	2.51	0.41
6:dl:157:LYS:HE3	6:dl:157:LYS:HB2	1.81	0.41
6:dn:12:GLU:HB3	6:dn:165:THR:HG23	2.01	0.41
3:dy:102:ASP:O	3:dy:106:TRP:CD1	2.73	0.41
3:ea:401:GLU:O	3:ea:405:THR:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:bf:277:GLU:H	1:bf:303:THR:HG22	1.84	0.41
1:bj:51:TYR:HD1	2:bl:10:ARG:HD3	1.84	0.41
2:bm:107:LYS:HE2	2:bm:125:GLN:HB2	2.02	0.41
1:ca:227:MET:HE3	1:ca:227:MET:HB2	1.85	0.41
3:cn:243:LEU:HD21	5:dg:132:MET:HE3	2.01	0.41
3:co:37:SER:OG	3:co:38:PRO:HD3	2.21	0.41
3:co:92:ASP:HB2	3:co:95:LYS:NZ	2.36	0.41
3:co:139:ARG:NH1	3:dy:160:TYR:OH	2.54	0.41
3:co:251:ASP:OD1	3:co:251:ASP:N	2.53	0.41
3:cp:258:LEU:O	3:cp:262:GLN:HG2	2.21	0.41
4:cr:73:GLY:N	4:cw:26:ASN:OD1	2.53	0.41
5:cz:102:LYS:O	5:cz:102:LYS:HG3	2.21	0.41
5:db:82:ARG:HD2	5:di:97:PHE:CD2	2.56	0.41
5:df:135:LEU:HD13	3:du:257:ARG:NE	2.35	0.41
3:dj:316:ASN:OD1	3:du:310:HIS:HB3	2.20	0.41
3:dj:339:ARG:NE	3:ec:69:GLU:OE2	2.54	0.41
6:dm:178:ARG:HH21	6:dn:190:PRO:HG2	1.86	0.41
6:dp:10:PHE:CE1	6:dp:100:GLU:HB3	2.56	0.41
3:du:208:LEU:HD23	3:du:213:ILE:HD11	2.02	0.41
3:du:416:LYS:NZ	3:du:417:ASP:O	2.50	0.41
3:dy:126:THR:O	3:dy:180:HIS:HB2	2.21	0.41
1:af:40:HIS:NE2	1:ag:74:GLU:OE2	2.54	0.41
1:af:184:MET:SD	1:af:225:ILE:HD11	2.60	0.41
2:al:32:CYS:O	2:al:58:LEU:HD12	2.21	0.41
1:aw:101:GLY:O	1:ba:31:MET:HB2	2.21	0.41
1:aw:154:LYS:HE3	1:aw:154:LYS:HB2	1.91	0.41
1:ba:113:ASN:OD1	1:ba:144:HIS:NE2	2.53	0.41
1:bi:215:ILE:O	1:bi:249:SER:HA	2.20	0.41
1:bn:75:TYR:OH	1:bn:104:GLU:OE1	2.26	0.41
1:bu:110:ARG:NH2	1:bu:299:THR:OG1	2.54	0.41
2:bz:15:ALA:O	2:bz:16:LEU:HD22	2.21	0.41
1:ca:93:ASP:HB3	2:cl:24:SER:HB3	2.03	0.41
1:ci:193:LEU:HD23	1:ci:193:LEU:HA	1.92	0.41
3:cq:382:LYS:HE2	3:ea:383:ASN:HB3	2.02	0.41
5:cz:99:GLU:OE2	5:cz:102:LYS:N	2.33	0.41
5:di:135:LEU:HB2	5:di:136:ARG:HH22	1.85	0.41
3:dj:125:LEU:HD13	3:dj:179:ILE:HD13	2.03	0.41
5:dk:113:PRO:O	5:dk:117:MET:HG3	2.21	0.41
6:dl:12:GLU:HG2	6:dl:95:ILE:HG23	2.01	0.41
6:dm:2:HIS:CG	6:dm:174:ALA:HB2	2.56	0.41
7:dr:103:VAL:HG13	7:dr:110:VAL:HG23	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:dz:102:ASP:OD1	3:dz:102:ASP:N	2.53	0.41
3:ea:198:LYS:HD3	3:ea:198:LYS:N	2.35	0.41
3:ec:327:ASN:O	3:ec:330:LEU:HG	2.20	0.41
1:aa:93:ASP:HB2	2:al:22:ASP:HB2	2.03	0.41
1:aa:151:LEU:HD11	1:aa:161:ILE:HD12	2.03	0.41
1:an:98:ASP:CG	1:an:99:ALA:H	2.25	0.41
1:an:270:ASN:HB3	1:an:273:ASN:OD1	2.21	0.41
2:ar:90:ASP:OD1	2:ar:91:GLY:N	2.54	0.41
2:ar:99:SER:HA	2:ar:155:LEU:O	2.21	0.41
2:bc:127:LYS:HG2	2:bc:128:SER:O	2.21	0.41
1:bh:93:ASP:OD1	1:bh:93:ASP:N	2.54	0.41
1:bh:178:TRP:CD2	1:bh:319:VAL:HG13	2.56	0.41
2:bl:64:THR:HG22	2:bl:122:VAL:HG22	2.03	0.41
2:bl:158:LEU:HD21	8:bk:104:PHE:HB3	2.02	0.41
2:bo:17:PRO:HG3	2:bo:150:LEU:HD21	2.03	0.41
2:bo:40:LEU:HD13	2:bo:87:ILE:HG22	2.02	0.41
2:ce:104:MET:HE1	2:ce:136:TRP:CZ3	2.56	0.41
1:cf:184:MET:SD	1:cf:225:ILE:HD11	2.61	0.41
2:cm:63:THR:O	2:cm:66:THR:OG1	2.20	0.41
3:cn:400:GLU:HA	3:cn:400:GLU:OE1	2.21	0.41
3:co:310:HIS:O	3:co:313:ILE:HG22	2.21	0.41
3:cq:225:LEU:HD23	3:cy:230:LEU:HG	2.03	0.41
3:cq:359:GLU:OE2	3:cq:361:GLU:N	2.54	0.41
4:cr:25:GLU:OE1	4:cr:42:ASN:HA	2.21	0.41
5:db:77:LEU:HD21	7:dv:12:LYS:NZ	2.36	0.41
5:dd:22:PRO:O	5:dd:25:ARG:HG3	2.20	0.41
5:dd:58:LEU:HD12	5:dd:58:LEU:HA	1.95	0.41
5:df:48:PHE:O	5:df:49:LYS:HG2	2.21	0.41
5:df:129:PHE:HD2	3:dj:240:VAL:HG11	1.85	0.41
3:dj:194:PRO:HD3	3:ec:106:TRP:NE1	2.36	0.41
6:dn:65:ASP:H	6:dn:72:THR:HB	1.85	0.41
6:do:48:VAL:HG22	6:do:59:ARG:O	2.21	0.41
6:do:117:TYR:CE1	6:do:119:TYR:HB3	2.56	0.41
6:do:178:ARG:O	6:do:179:MET:HE2	2.21	0.41
6:dp:25:THR:OG1	6:dp:26:ASN:N	2.54	0.41
3:du:123:ARG:NH2	3:du:130:LYS:HG2	2.35	0.41
3:du:301:ASP:HA	3:du:304:VAL:HG12	2.02	0.41
3:du:336:LEU:HA	3:du:339:ARG:NH1	2.35	0.41
7:dv:88:ILE:HG22	7:dv:90:ILE:HG12	2.02	0.41
7:dx:81:GLU:OE1	7:dx:83:ASN:ND2	2.53	0.41
3:dy:327:ASN:OD1	3:dy:328:THR:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:dz:304:VAL:CG2	3:dz:310:HIS:HA	2.51	0.41
3:dz:342:GLU:OE2	3:dz:346:ARG:NE	2.54	0.41
3:dz:411:PRO:HB2	3:dz:413:PHE:H	1.84	0.41
3:eb:180:HIS:CE1	3:eb:182:THR:HG23	2.56	0.41
3:eb:395:GLN:N	3:eb:395:GLN:OE1	2.54	0.41
3:eb:407:ARG:HH12	3:eb:417:ASP:HA	1.85	0.41
3:ec:70:GLU:HA	3:ec:73:THR:HG22	2.03	0.41
8:bk:7:PHE:C	8:bk:8:LEU:HD22	2.46	0.41
1:ba:74:GLU:OE1	1:bj:42:ILE:HG12	2.21	0.41
2:bc:17:PRO:HG3	2:bc:150:LEU:HD21	2.03	0.41
1:bj:51:TYR:HB2	1:bj:142:LEU:HD21	2.02	0.41
1:bj:196:ALA:O	1:bj:200:ILE:HG13	2.21	0.41
1:bt:65:GLU:HG2	1:bt:65:GLU:O	2.21	0.41
1:bv:45:GLN:HA	1:bv:45:GLN:OE1	2.21	0.41
2:cb:120:LEU:HG	2:cb:134:THR:HG21	2.02	0.41
3:cn:124:MET:HG3	3:cn:127:SER:H	1.86	0.41
3:cn:267:SER:OG	3:cn:268:GLY:N	2.53	0.41
3:cn:382:LYS:HE3	3:eb:384:ASN:HA	2.03	0.41
3:co:193:THR:HA	3:dz:106:TRP:CH2	2.56	0.41
4:ct:102:PHE:HE1	4:ct:126:ARG:HH11	1.69	0.41
5:cx:35:TRP:HE1	5:cx:70:LEU:HD13	1.86	0.41
5:dh:136:ARG:NH2	3:dy:261:ALA:HA	2.36	0.41
6:do:173:LYS:HA	6:do:173:LYS:HD3	1.77	0.41
7:dt:41:ILE:HD12	7:dt:42:PRO:HD2	2.03	0.41
7:dv:28:LYS:O	7:dv:46:GLN:HB3	2.21	0.41
3:dy:299:LYS:HD3	3:dy:299:LYS:HA	1.93	0.41
3:eb:147:THR:OG1	3:eb:167:LYS:HB3	2.21	0.41
3:eb:346:ARG:O	3:eb:349:LEU:HB2	2.20	0.41
1:ag:190:GLU:HA	1:ag:190:GLU:OE2	2.21	0.40
1:bf:242:ASN:HB3	1:bf:245:ILE:HD12	2.02	0.40
1:bf:256:ILE:HG12	1:bf:261:THR:HG23	2.01	0.40
1:ci:169:ASN:O	1:ci:310:PRO:HB2	2.21	0.40
3:cp:199:GLN:HE21	3:cp:199:GLN:HB3	1.73	0.40
5:cz:21:VAL:O	5:cz:21:VAL:HG13	2.21	0.40
5:dc:18:ARG:NH2	5:dc:29:ASP:OD1	2.54	0.40
5:dd:61:LEU:HD23	5:dd:61:LEU:HA	1.91	0.40
5:dh:57:ALA:O	5:dh:61:LEU:HD23	2.20	0.40
5:di:78:GLU:N	5:di:78:GLU:OE1	2.54	0.40
3:dj:314:ILE:HG23	3:dj:315:LYS:N	2.36	0.40
6:do:47:ILE:HD12	6:do:59:ARG:O	2.21	0.40
6:dp:193:GLN:HG2	6:dp:194:VAL:H	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:ds:7:GLU:OE2	7:ds:7:GLU:HA	2.21	0.40
3:du:96:ILE:O	3:du:100:LEU:HG	2.22	0.40
7:dw:3:TYR:HA	7:dw:6:ILE:HD13	2.03	0.40
3:dy:166:TYR:CD1	3:dy:184:ILE:HD11	2.57	0.40
3:dy:246:MET:HE2	3:dy:252:ALA:HB1	2.02	0.40
3:ea:239:LYS:O	3:ea:280:GLU:HA	2.21	0.40
3:eb:67:ILE:HB	3:eb:108:ARG:HH22	1.86	0.40
3:eb:311:GLU:HG2	3:eb:312:ILE:N	2.36	0.40
8:ak:130:PHE:CD1	8:ak:139:ILE:HG22	2.56	0.40
8:bx:132:LYS:HE3	8:bx:135:ASP:HA	2.03	0.40
1:af:124:ALA:O	1:af:128:THR:HG23	2.22	0.40
1:ah:273:ASN:HD21	1:ah:309:ARG:HH11	1.70	0.40
1:aj:151:LEU:HD23	1:aj:151:LEU:HA	1.90	0.40
2:am:99:SER:HA	2:am:155:LEU:O	2.22	0.40
1:aw:208:HIS:CE1	1:aw:309:ARG:HH11	2.40	0.40
2:az:16:LEU:HD21	1:bf:100:LEU:HD11	2.04	0.40
1:ba:262:LYS:HB2	1:ba:319:VAL:HG13	2.03	0.40
2:bc:134:THR:HG22	2:bc:135:THR:N	2.36	0.40
1:bn:159:HIS:CD2	8:bk:29:VAL:CG2	3.04	0.40
1:ca:118:SER:OG	1:ca:121:GLU:OE1	2.36	0.40
1:cf:99:ALA:C	1:cf:100:LEU:HD12	2.47	0.40
3:cn:340:LYS:C	3:cn:340:LYS:HD2	2.46	0.40
3:cp:322:VAL:HG11	3:cp:325:SER:HB3	2.03	0.40
3:cy:235:GLN:HE22	3:eb:268:GLY:H	1.69	0.40
5:dk:5:MET:SD	5:dk:5:MET:N	2.94	0.40
6:dm:129:GLN:NE2	6:dn:138:SER:OG	2.54	0.40
6:dm:206:LEU:C	6:dm:207:LYS:HD2	2.46	0.40
7:dr:71:ASP:OD1	7:dr:71:ASP:N	2.54	0.40
7:dt:107:LEU:HD23	7:dt:108:GLU:N	2.36	0.40
3:du:118:ILE:HG13	3:du:136:GLU:HG3	2.02	0.40
3:dy:251:ASP:OD1	3:dy:252:ALA:N	2.54	0.40
3:dy:403:ARG:HG3	3:dy:407:ARG:HH12	1.86	0.40
3:ea:57:ASN:OD1	3:ea:58:ALA:N	2.55	0.40
3:ea:302:ARG:O	3:ea:306:LEU:HG	2.20	0.40
3:eb:383:ASN:O	3:eb:386:GLU:HG3	2.21	0.40
2:ab:90:ASP:OD1	2:ab:91:GLY:N	2.54	0.40
1:at:56:ALA:HB1	1:at:152:VAL:HG11	2.03	0.40
1:au:79:ASP:OD1	1:au:80:LYS:N	2.48	0.40
1:av:186:PRO:HG2	1:av:187:GLU:OE1	2.21	0.40
1:ba:177:LYS:HE2	1:ba:177:LYS:HB3	1.88	0.40
1:bf:93:ASP:OD2	8:ax:25:ASP:CG	2.64	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:bn:158:PRO:HG2	8:bk:46:VAL:HG21	2.03	0.40
2:bp:22:ASP:OD2	1:bw:93:ASP:HB2	2.21	0.40
2:bp:24:SER:O	2:bp:26:TYR:HD1	2.05	0.40
2:bz:118:VAL:O	2:bz:134:THR:OG1	2.36	0.40
2:cc:24:SER:O	2:cc:26:TYR:HD1	2.04	0.40
3:cn:120:ASN:HB2	3:cn:134:LYS:HG2	2.03	0.40
3:cn:392:ILE:HA	3:cn:395:GLN:NE2	2.36	0.40
3:co:244:ALA:HB2	3:dz:276:ASP:HB2	2.03	0.40
3:cp:106:TRP:CE2	3:dz:194:PRO:HD3	2.57	0.40
3:cp:241:LYS:HD3	3:ea:277:ALA:HB3	2.02	0.40
4:cr:31:PRO:HB2	7:dw:118:ARG:NH1	2.37	0.40
4:ct:37:MET:HE2	4:ct:37:MET:HB3	1.87	0.40
5:dd:20:LEU:HD23	5:dd:20:LEU:HA	1.91	0.40
3:du:403:ARG:O	3:du:407:ARG:HG2	2.21	0.40
7:dx:7:GLU:CD	7:dx:110:VAL:HG12	2.47	0.40
3:dz:124:MET:O	3:dz:127:SER:OG	2.35	0.40
3:dz:235:GLN:NE2	3:dz:236:ALA:O	2.50	0.40
3:ec:347:PRO:HA	3:ec:350:GLU:OE2	2.21	0.40
8:bk:132:LYS:HE3	8:bk:135:ASP:HA	2.03	0.40
8:bk:133:HIS:HB2	8:bk:138:ILE:CG1	2.51	0.40
1:aa:229:GLU:HG3	1:aa:229:GLU:O	2.21	0.40
1:ag:71:LYS:HB3	1:ag:71:LYS:HE2	1.76	0.40
1:aj:116:LEU:HD13	8:ak:3:TYR:CE1	2.56	0.40
1:at:215:ILE:O	1:at:249:SER:HA	2.21	0.40
2:az:75:SER:O	2:az:79:THR:OG1	2.32	0.40
2:az:83:GLN:HG3	2:az:83:GLN:O	2.21	0.40
2:az:114:PHE:CD1	8:ax:45:ILE:HD11	2.57	0.40
1:ba:43:LYS:NZ	1:bf:65:GLU:OE2	2.33	0.40
1:bw:248:ASP:OD1	1:bw:249:SER:N	2.54	0.40
2:ce:82:ALA:O	2:ce:83:GLN:HG2	2.22	0.40
2:ce:141:GLY:HA3	2:ce:152:GLU:HB2	2.04	0.40
1:ci:280:GLU:HB3	1:ci:301:LYS:HB2	2.03	0.40
3:cn:124:MET:O	3:cn:127:SER:OG	2.32	0.40
3:cn:220:ASP:HA	3:cn:223:GLU:HG3	2.03	0.40
3:co:126:THR:O	3:co:180:HIS:HB2	2.21	0.40
3:cp:304:VAL:HG13	3:cp:309:ILE:O	2.20	0.40
5:cx:120:GLN:OE1	5:cx:120:GLN:HA	2.21	0.40
5:dc:107:ASN:C	5:dc:109:MET:H	2.29	0.40
5:dd:24:LEU:HD23	5:dd:24:LEU:HA	1.87	0.40
5:dd:77:LEU:H	7:dr:8:ARG:HH12	1.68	0.40
5:de:24:LEU:HD12	5:de:24:LEU:HA	1.96	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:de:82:ARG:NH2	5:df:97:PHE:CD2	2.90	0.40
5:dh:12:ALA:O	5:dh:15:GLU:HG3	2.22	0.40
6:dm:133:PHE:CD1	6:dm:133:PHE:C	3.00	0.40
6:dm:183:ILE:HG12	6:dm:207:LYS:HD3	2.03	0.40
6:dn:25:THR:HG23	6:dn:27:GLU:OE1	2.21	0.40
6:dn:66:ALA:HA	6:dn:71:ILE:HD12	2.02	0.40
6:dp:83:VAL:HG13	6:dp:84:PHE:CD1	2.56	0.40
7:dr:52:GLY:HA3	7:dr:76:PHE:CD1	2.57	0.40
3:du:38:PRO:O	3:du:39:LYS:NZ	2.44	0.40
3:dz:409:ILE:O	3:dz:409:ILE:HG13	2.22	0.40
3:ec:335:LYS:HB3	3:ec:335:LYS:HE3	1.88	0.40
8:bk:29:VAL:CG1	8:bk:30:ALA:N	2.84	0.40
2:ac:40:LEU:HD23	2:ac:87:ILE:HG22	2.04	0.40
1:af:283:ASN:OD1	1:af:284:MET:N	2.54	0.40
1:ah:108:VAL:HG22	1:ah:303:THR:HG22	2.03	0.40
2:al:143:THR:O	2:al:149:GLN:NE2	2.48	0.40
1:an:71:LYS:HG3	8:ak:70:TYR:OH	2.22	0.40
2:bd:136:TRP:CE2	2:bd:155:LEU:HD23	2.56	0.40
1:bj:184:MET:SD	1:bj:225:ILE:HD11	2.62	0.40
1:bs:77:THR:OG1	1:bs:102:THR:HB	2.21	0.40
1:bs:88:ALA:HB2	8:bk:82:VAL:HG11	1.96	0.40
1:bw:290:LYS:HG2	1:bw:291:ASP:H	1.86	0.40
1:ca:270:ASN:OD1	1:ca:271:PRO:HD2	2.21	0.40
3:cp:251:ASP:CG	8:ak:137:TYR:HH	2.29	0.40
3:cp:345:TYR:O	3:cp:348:LEU:HB2	2.21	0.40
4:cu:38:TRP:CE2	4:cu:69:VAL:HG21	2.57	0.40
3:cy:87:PHE:O	3:cy:90:LEU:HG	2.20	0.40
3:cy:295:PHE:O	3:cy:298:SER:OG	2.34	0.40
3:cy:351:PHE:HD2	3:cy:352:LEU:HD22	1.86	0.40
5:db:116:LYS:HD3	5:dk:108:MET:CG	2.49	0.40
5:dc:38:MET:HE2	5:dc:38:MET:HB3	1.85	0.40
5:dc:124:ARG:HG3	5:dc:124:ARG:NH1	2.36	0.40
5:dd:72:GLY:HA2	5:dd:76:ASP:OD2	2.21	0.40
5:dd:135:LEU:HD12	5:dd:136:ARG:CD	2.51	0.40
5:de:65:PHE:HE1	5:de:70:LEU:HD23	1.86	0.40
5:dg:102:LYS:NZ	5:dg:104:GLN:HE22	2.18	0.40
5:di:109:MET:HG2	5:di:119:GLU:OE1	2.20	0.40
6:do:48:VAL:HG12	6:do:92:PHE:HB3	2.03	0.40
7:dx:7:GLU:HA	7:dx:7:GLU:OE2	2.22	0.40
7:dx:29:GLN:HA	7:dx:44:MET:HE1	2.04	0.40
3:dy:87:PHE:HZ	3:dy:353:LEU:HD11	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:dy:88:LYS:HB3	3:dy:88:LYS:HE3	1.84	0.40
3:ea:348:LEU:HD23	3:ea:348:LEU:HA	1.88	0.40
3:ec:219:TYR:CE1	3:ec:300:MET:HE3	2.57	0.40
8:bx:29:VAL:CG1	8:bx:30:ALA:N	2.85	0.40
8:bx:130:PHE:CD1	8:bx:139:ILE:HG22	2.56	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all EM entries.

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	aa	290/319 (91%)	282 (97%)	8 (3%)	0	100	100
1	af	290/319 (91%)	283 (98%)	7 (2%)	0	100	100
1	ag	289/319 (91%)	280 (97%)	9 (3%)	0	100	100
1	ah	290/319 (91%)	284 (98%)	6 (2%)	0	100	100
1	ai	289/319 (91%)	282 (98%)	7 (2%)	0	100	100
1	aj	280/319 (88%)	271 (97%)	9 (3%)	0	100	100
1	an	290/319 (91%)	283 (98%)	7 (2%)	0	100	100
1	as	290/319 (91%)	280 (97%)	10 (3%)	0	100	100
1	at	289/319 (91%)	278 (96%)	11 (4%)	0	100	100
1	au	290/319 (91%)	284 (98%)	6 (2%)	0	100	100
1	av	289/319 (91%)	283 (98%)	6 (2%)	0	100	100
1	aw	280/319 (88%)	272 (97%)	8 (3%)	0	100	100
1	ba	290/319 (91%)	283 (98%)	7 (2%)	0	100	100
1	bf	290/319 (91%)	283 (98%)	7 (2%)	0	100	100
1	bg	289/319 (91%)	277 (96%)	12 (4%)	0	100	100
1	bh	290/319 (91%)	282 (97%)	8 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	bi	289/319 (91%)	282 (98%)	7 (2%)	0	100	100
1	bj	280/319 (88%)	274 (98%)	6 (2%)	0	100	100
1	bn	290/319 (91%)	285 (98%)	5 (2%)	0	100	100
1	bs	290/319 (91%)	283 (98%)	7 (2%)	0	100	100
1	bt	289/319 (91%)	280 (97%)	9 (3%)	0	100	100
1	bu	290/319 (91%)	284 (98%)	6 (2%)	0	100	100
1	bv	289/319 (91%)	283 (98%)	6 (2%)	0	100	100
1	bw	280/319 (88%)	273 (98%)	7 (2%)	0	100	100
1	ca	290/319 (91%)	281 (97%)	9 (3%)	0	100	100
1	cf	290/319 (91%)	284 (98%)	6 (2%)	0	100	100
1	cg	289/319 (91%)	278 (96%)	11 (4%)	0	100	100
1	ch	290/319 (91%)	282 (97%)	8 (3%)	0	100	100
1	ci	289/319 (91%)	284 (98%)	5 (2%)	0	100	100
1	cj	280/319 (88%)	274 (98%)	6 (2%)	0	100	100
2	ab	154/158 (98%)	150 (97%)	4 (3%)	0	100	100
2	ac	154/158 (98%)	149 (97%)	5 (3%)	0	100	100
2	ad	154/158 (98%)	151 (98%)	3 (2%)	0	100	100
2	ae	154/158 (98%)	151 (98%)	3 (2%)	0	100	100
2	al	154/158 (98%)	150 (97%)	4 (3%)	0	100	100
2	am	154/158 (98%)	149 (97%)	5 (3%)	0	100	100
2	ao	154/158 (98%)	150 (97%)	4 (3%)	0	100	100
2	ap	154/158 (98%)	149 (97%)	5 (3%)	0	100	100
2	aq	154/158 (98%)	151 (98%)	3 (2%)	0	100	100
2	ar	154/158 (98%)	150 (97%)	4 (3%)	0	100	100
2	ay	154/158 (98%)	149 (97%)	5 (3%)	0	100	100
2	az	154/158 (98%)	149 (97%)	5 (3%)	0	100	100
2	bb	154/158 (98%)	149 (97%)	5 (3%)	0	100	100
2	bc	154/158 (98%)	148 (96%)	6 (4%)	0	100	100
2	bd	154/158 (98%)	148 (96%)	6 (4%)	0	100	100
2	be	154/158 (98%)	151 (98%)	3 (2%)	0	100	100
2	bl	154/158 (98%)	148 (96%)	6 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	bm	154/158 (98%)	149 (97%)	5 (3%)	0	100	100
2	bo	154/158 (98%)	149 (97%)	5 (3%)	0	100	100
2	bp	154/158 (98%)	150 (97%)	4 (3%)	0	100	100
2	bq	154/158 (98%)	151 (98%)	3 (2%)	0	100	100
2	br	154/158 (98%)	153 (99%)	1 (1%)	0	100	100
2	by	154/158 (98%)	150 (97%)	4 (3%)	0	100	100
2	bz	154/158 (98%)	151 (98%)	3 (2%)	0	100	100
2	cb	154/158 (98%)	150 (97%)	4 (3%)	0	100	100
2	cc	154/158 (98%)	150 (97%)	4 (3%)	0	100	100
2	cd	154/158 (98%)	150 (97%)	4 (3%)	0	100	100
2	ce	154/158 (98%)	149 (97%)	5 (3%)	0	100	100
2	cl	154/158 (98%)	150 (97%)	4 (3%)	0	100	100
2	cm	154/158 (98%)	148 (96%)	6 (4%)	0	100	100
3	cn	372/444 (84%)	351 (94%)	21 (6%)	0	100	100
3	co	381/444 (86%)	359 (94%)	22 (6%)	0	100	100
3	cp	369/444 (83%)	347 (94%)	22 (6%)	0	100	100
3	cq	372/444 (84%)	351 (94%)	21 (6%)	0	100	100
3	cy	381/444 (86%)	367 (96%)	14 (4%)	0	100	100
3	dj	371/444 (84%)	353 (95%)	18 (5%)	0	100	100
3	du	381/444 (86%)	356 (93%)	24 (6%)	1 (0%)	37	68
3	dy	371/444 (84%)	348 (94%)	23 (6%)	0	100	100
3	dz	372/444 (84%)	358 (96%)	13 (4%)	1 (0%)	37	68
3	ea	381/444 (86%)	361 (95%)	19 (5%)	1 (0%)	37	68
3	eb	372/444 (84%)	353 (95%)	19 (5%)	0	100	100
3	ec	380/444 (86%)	360 (95%)	20 (5%)	0	100	100
4	cr	130/132 (98%)	123 (95%)	7 (5%)	0	100	100
4	cs	130/132 (98%)	122 (94%)	8 (6%)	0	100	100
4	ct	130/132 (98%)	126 (97%)	4 (3%)	0	100	100
4	cu	130/132 (98%)	126 (97%)	4 (3%)	0	100	100
4	cv	130/132 (98%)	126 (97%)	4 (3%)	0	100	100
4	cw	130/132 (98%)	124 (95%)	6 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
5	cx	131/140 (94%)	122 (93%)	9 (7%)	0	100	100
5	cz	131/140 (94%)	121 (92%)	10 (8%)	0	100	100
5	da	131/140 (94%)	122 (93%)	9 (7%)	0	100	100
5	db	131/140 (94%)	123 (94%)	8 (6%)	0	100	100
5	dc	131/140 (94%)	122 (93%)	9 (7%)	0	100	100
5	dd	131/140 (94%)	122 (93%)	9 (7%)	0	100	100
5	de	131/140 (94%)	121 (92%)	10 (8%)	0	100	100
5	df	131/140 (94%)	121 (92%)	10 (8%)	0	100	100
5	dg	131/140 (94%)	120 (92%)	11 (8%)	0	100	100
5	dh	131/140 (94%)	117 (89%)	14 (11%)	0	100	100
5	di	131/140 (94%)	121 (92%)	10 (8%)	0	100	100
5	dk	131/140 (94%)	121 (92%)	10 (8%)	0	100	100
6	dl	217/222 (98%)	211 (97%)	6 (3%)	0	100	100
6	dm	217/222 (98%)	212 (98%)	5 (2%)	0	100	100
6	dn	217/222 (98%)	212 (98%)	5 (2%)	0	100	100
6	do	217/222 (98%)	211 (97%)	6 (3%)	0	100	100
6	dp	217/222 (98%)	212 (98%)	5 (2%)	0	100	100
6	dq	217/222 (98%)	210 (97%)	7 (3%)	0	100	100
7	dr	119/123 (97%)	100 (84%)	19 (16%)	0	100	100
7	ds	119/123 (97%)	101 (85%)	18 (15%)	0	100	100
7	dt	119/123 (97%)	101 (85%)	18 (15%)	0	100	100
7	dv	119/123 (97%)	99 (83%)	20 (17%)	0	100	100
7	dw	119/123 (97%)	95 (80%)	24 (20%)	0	100	100
7	dx	119/123 (97%)	100 (84%)	19 (16%)	0	100	100
8	ak	148/255 (58%)	145 (98%)	3 (2%)	0	100	100
8	ax	148/255 (58%)	145 (98%)	3 (2%)	0	100	100
8	bk	148/255 (58%)	145 (98%)	3 (2%)	0	100	100
8	bx	148/255 (58%)	146 (99%)	2 (1%)	0	100	100
8	ck	148/255 (58%)	145 (98%)	3 (2%)	0	100	100
All	All	22871/25455 (90%)	21960 (96%)	908 (4%)	3 (0%)	100	100

All (3) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	du	374	LYS
3	ea	374	LYS
3	dz	374	LYS

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 PDB entries followed by that with respect to all EM entries.

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	aa	251/274 (92%)	251 (100%)	0	100	100
1	af	251/274 (92%)	251 (100%)	0	100	100
1	ag	251/274 (92%)	251 (100%)	0	100	100
1	ah	251/274 (92%)	251 (100%)	0	100	100
1	ai	251/274 (92%)	251 (100%)	0	100	100
1	aj	245/274 (89%)	245 (100%)	0	100	100
1	an	251/274 (92%)	251 (100%)	0	100	100
1	as	251/274 (92%)	251 (100%)	0	100	100
1	at	251/274 (92%)	251 (100%)	0	100	100
1	au	251/274 (92%)	251 (100%)	0	100	100
1	av	251/274 (92%)	251 (100%)	0	100	100
1	aw	245/274 (89%)	245 (100%)	0	100	100
1	ba	251/274 (92%)	251 (100%)	0	100	100
1	bf	251/274 (92%)	251 (100%)	0	100	100
1	bg	251/274 (92%)	251 (100%)	0	100	100
1	bh	251/274 (92%)	251 (100%)	0	100	100
1	bi	251/274 (92%)	251 (100%)	0	100	100
1	bj	245/274 (89%)	245 (100%)	0	100	100
1	bn	251/274 (92%)	251 (100%)	0	100	100
1	bs	251/274 (92%)	251 (100%)	0	100	100
1	bt	251/274 (92%)	251 (100%)	0	100	100
1	bu	251/274 (92%)	251 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	bv	251/274 (92%)	251 (100%)	0	100	100
1	bw	245/274 (89%)	245 (100%)	0	100	100
1	ca	251/274 (92%)	251 (100%)	0	100	100
1	cf	251/274 (92%)	250 (100%)	1 (0%)	89	95
1	cg	251/274 (92%)	251 (100%)	0	100	100
1	ch	251/274 (92%)	251 (100%)	0	100	100
1	ci	251/274 (92%)	251 (100%)	0	100	100
1	cj	245/274 (89%)	244 (100%)	1 (0%)	89	95
2	ab	125/126 (99%)	125 (100%)	0	100	100
2	ac	125/126 (99%)	122 (98%)	3 (2%)	44	68
2	ad	125/126 (99%)	125 (100%)	0	100	100
2	ae	125/126 (99%)	125 (100%)	0	100	100
2	al	125/126 (99%)	125 (100%)	0	100	100
2	am	125/126 (99%)	125 (100%)	0	100	100
2	ao	125/126 (99%)	124 (99%)	1 (1%)	79	88
2	ap	125/126 (99%)	125 (100%)	0	100	100
2	aq	125/126 (99%)	125 (100%)	0	100	100
2	ar	125/126 (99%)	125 (100%)	0	100	100
2	ay	125/126 (99%)	125 (100%)	0	100	100
2	az	125/126 (99%)	125 (100%)	0	100	100
2	bb	125/126 (99%)	125 (100%)	0	100	100
2	bc	125/126 (99%)	125 (100%)	0	100	100
2	bd	125/126 (99%)	125 (100%)	0	100	100
2	be	125/126 (99%)	125 (100%)	0	100	100
2	bl	125/126 (99%)	125 (100%)	0	100	100
2	bm	125/126 (99%)	125 (100%)	0	100	100
2	bo	125/126 (99%)	125 (100%)	0	100	100
2	bp	125/126 (99%)	125 (100%)	0	100	100
2	bq	125/126 (99%)	125 (100%)	0	100	100
2	br	125/126 (99%)	125 (100%)	0	100	100
2	by	125/126 (99%)	125 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	bz	125/126 (99%)	125 (100%)	0	100	100
2	cb	125/126 (99%)	125 (100%)	0	100	100
2	cc	125/126 (99%)	125 (100%)	0	100	100
2	cd	125/126 (99%)	125 (100%)	0	100	100
2	ce	125/126 (99%)	125 (100%)	0	100	100
2	cl	125/126 (99%)	125 (100%)	0	100	100
2	cm	125/126 (99%)	125 (100%)	0	100	100
3	cn	324/383 (85%)	323 (100%)	1 (0%)	91	96
3	co	333/383 (87%)	333 (100%)	0	100	100
3	cp	322/383 (84%)	322 (100%)	0	100	100
3	cq	324/383 (85%)	324 (100%)	0	100	100
3	cy	333/383 (87%)	333 (100%)	0	100	100
3	dj	324/383 (85%)	324 (100%)	0	100	100
3	du	333/383 (87%)	333 (100%)	0	100	100
3	dy	324/383 (85%)	324 (100%)	0	100	100
3	dz	324/383 (85%)	323 (100%)	1 (0%)	91	96
3	ea	333/383 (87%)	332 (100%)	1 (0%)	91	96
3	eb	324/383 (85%)	324 (100%)	0	100	100
3	ec	332/383 (87%)	332 (100%)	0	100	100
4	cr	112/112 (100%)	112 (100%)	0	100	100
4	cs	112/112 (100%)	112 (100%)	0	100	100
4	ct	112/112 (100%)	112 (100%)	0	100	100
4	cu	112/112 (100%)	112 (100%)	0	100	100
4	cv	112/112 (100%)	112 (100%)	0	100	100
4	cw	112/112 (100%)	112 (100%)	0	100	100
5	cx	112/116 (97%)	112 (100%)	0	100	100
5	cz	112/116 (97%)	112 (100%)	0	100	100
5	da	112/116 (97%)	112 (100%)	0	100	100
5	db	112/116 (97%)	112 (100%)	0	100	100
5	dc	112/116 (97%)	112 (100%)	0	100	100
5	dd	112/116 (97%)	111 (99%)	1 (1%)	75	86

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	de	112/116 (97%)	112 (100%)	0	100	100
5	df	112/116 (97%)	112 (100%)	0	100	100
5	dg	112/116 (97%)	111 (99%)	1 (1%)	75	86
5	dh	112/116 (97%)	112 (100%)	0	100	100
5	di	112/116 (97%)	112 (100%)	0	100	100
5	dk	112/116 (97%)	112 (100%)	0	100	100
6	dl	187/188 (100%)	187 (100%)	0	100	100
6	dm	187/188 (100%)	187 (100%)	0	100	100
6	dn	187/188 (100%)	187 (100%)	0	100	100
6	do	187/188 (100%)	187 (100%)	0	100	100
6	dp	187/188 (100%)	187 (100%)	0	100	100
6	dq	187/188 (100%)	187 (100%)	0	100	100
7	dr	104/104 (100%)	104 (100%)	0	100	100
7	ds	104/104 (100%)	104 (100%)	0	100	100
7	dt	104/104 (100%)	104 (100%)	0	100	100
7	dv	104/104 (100%)	104 (100%)	0	100	100
7	dw	104/104 (100%)	104 (100%)	0	100	100
7	dx	104/104 (100%)	104 (100%)	0	100	100
8	ak	114/200 (57%)	114 (100%)	0	100	100
8	ax	114/200 (57%)	114 (100%)	0	100	100
8	bk	114/200 (57%)	114 (100%)	0	100	100
8	bx	114/200 (57%)	114 (100%)	0	100	100
8	ck	114/200 (57%)	114 (100%)	0	100	100
All	All	19512/21412 (91%)	19501 (100%)	11 (0%)	92	97

All (11) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	ac	146	LYS
2	ac	147	ASP
2	ac	148	ILE
2	ao	83	GLN
1	cf	166	ASN
1	cj	45	GLN

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Mol	Chain	Res	Type
3	cn	201	GLN
5	dd	103	ASN
5	dg	103	ASN
3	dz	326	GLN
3	ea	383	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (177) such sidechains are listed below:

Mol	Chain	Res	Type
1	aa	45	GLN
1	aa	283	ASN
2	ab	76	HIS
2	ab	157	GLN
2	ac	157	GLN
2	ad	95	ASN
2	ad	125	GLN
2	ae	35	ASN
2	ae	76	HIS
1	af	208	HIS
1	af	241	GLN
1	ag	273	ASN
1	ah	45	GLN
1	ah	141	GLN
1	ah	144	HIS
1	ah	149	ASN
1	ai	37	GLN
1	ai	146	GLN
1	ai	207	GLN
1	aj	273	ASN
2	al	35	ASN
2	al	157	GLN
2	am	156	HIS
1	an	45	GLN
1	an	141	GLN
1	an	146	GLN
1	an	212	ASN
2	ao	76	HIS
2	ao	95	ASN
2	ap	27	ASN
2	ap	125	GLN
2	aq	46	GLN
2	aq	95	ASN

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Mol	Chain	Res	Type
2	ar	76	HIS
1	as	126	GLN
1	as	144	HIS
1	at	40	HIS
1	at	45	GLN
1	at	85	GLN
1	at	167	HIS
1	au	144	HIS
1	au	149	ASN
1	au	212	ASN
1	av	146	GLN
1	aw	159	HIS
2	ay	85	GLN
2	az	51	GLN
2	az	78	GLN
2	az	154	GLN
1	ba	146	GLN
1	ba	208	HIS
2	bb	76	HIS
2	bb	83	GLN
2	bb	149	GLN
2	bc	27	ASN
2	bc	149	GLN
2	bd	27	ASN
2	bd	78	GLN
2	bd	81	ASN
2	be	85	GLN
1	bf	167	HIS
1	bf	208	HIS
1	bg	241	GLN
1	bh	37	GLN
1	bh	149	ASN
1	bh	242	ASN
1	bh	273	ASN
1	bi	149	ASN
1	bi	242	ASN
1	bj	144	HIS
1	bj	159	HIS
1	bj	169	ASN
1	bj	273	ASN
2	bl	157	GLN
2	bm	51	GLN

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Mol	Chain	Res	Type
2	bm	78	GLN
1	bn	166	ASN
1	bn	283	ASN
2	bo	154	GLN
2	bo	157	GLN
2	bp	27	ASN
2	bp	149	GLN
1	bs	159	HIS
1	bt	37	GLN
1	bu	166	ASN
1	bw	45	GLN
1	bw	85	GLN
2	by	157	GLN
2	bz	27	ASN
2	bz	51	GLN
1	ca	146	GLN
1	ca	149	ASN
1	ca	293	HIS
2	cb	27	ASN
2	cb	125	GLN
2	cb	156	HIS
2	cc	81	ASN
2	cc	149	GLN
1	cf	195	GLN
1	cf	212	ASN
1	cg	37	GLN
1	cg	242	ASN
1	ch	37	GLN
1	ch	242	ASN
1	ch	273	ASN
1	ci	159	HIS
1	ci	242	ASN
1	ci	273	ASN
1	cj	146	GLN
1	cj	159	HIS
2	cm	46	GLN
3	cn	55	ASN
3	cn	120	ASN
3	cn	154	ASN
3	cn	200	ASN
3	cn	262	GLN
3	cn	310	HIS

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Mol	Chain	Res	Type
3	co	49	HIS
3	co	228	GLN
3	cp	310	HIS
3	cp	318	ASN
3	cq	209	ASN
3	cq	235	GLN
3	cq	310	HIS
3	cq	318	ASN
4	cs	42	ASN
4	cs	108	HIS
4	ct	42	ASN
4	cv	2	HIS
4	cv	42	ASN
4	cv	108	HIS
5	cx	16	GLN
3	cy	209	ASN
3	cy	384	ASN
5	cz	16	GLN
5	db	16	GLN
5	dc	45	GLN
5	dc	95	GLN
5	dd	103	ASN
5	de	103	ASN
5	df	7	GLN
5	df	16	GLN
5	df	95	GLN
3	dj	55	ASN
3	dj	235	GLN
3	dj	262	GLN
5	dk	103	ASN
6	dl	114	GLN
6	dl	115	GLN
6	dl	120	GLN
6	dm	105	GLN
6	dm	115	GLN
6	dm	129	GLN
6	dp	115	GLN
6	dq	8	GLN
7	dr	83	ASN
7	ds	2	ASN
7	dt	80	HIS
3	du	120	ASN

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Mol	Chain	Res	Type
7	dv	83	ASN
7	dw	80	HIS
7	dw	83	ASN
7	dx	80	HIS
3	dz	234	GLN
3	dz	316	ASN
3	ea	326	GLN
3	ea	383	ASN
3	eb	310	HIS
3	ec	181	HIS
3	ec	253	GLN
3	ec	266	ASN
8	ak	72	HIS
8	ak	146	ASN
8	bk	72	HIS
8	bx	72	HIS
8	ck	72	HIS
8	ax	72	HIS

5.3.3 RNA (i)

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains (i)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

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.

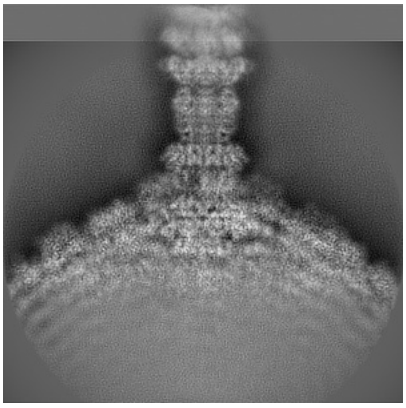
6 Map visualisation (i)

This section contains visualisations of the EMDB entry EMD-62433. These allow visual inspection of the internal detail of the map and identification of artifacts.

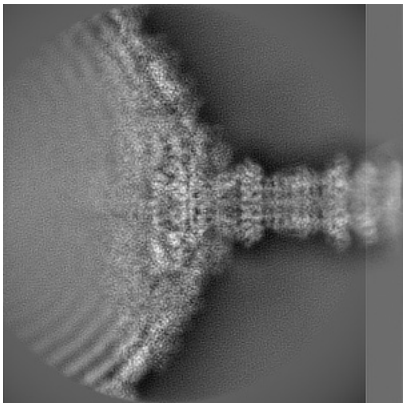
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections (i)

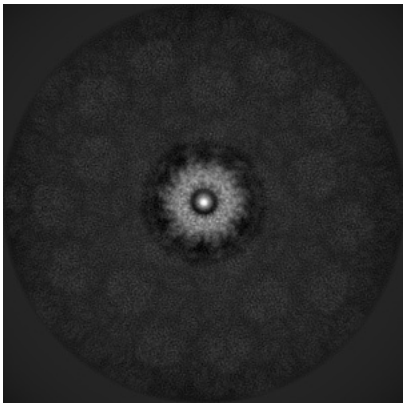
6.1.1 Primary map



X



Y

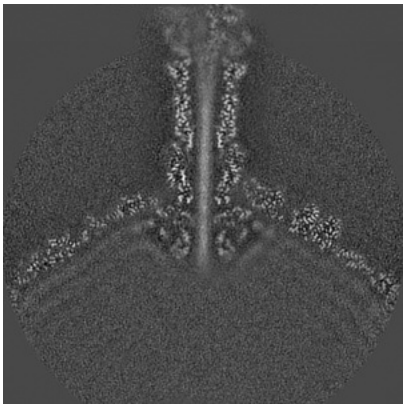


Z

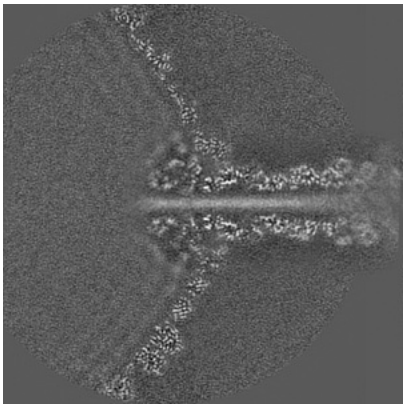
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

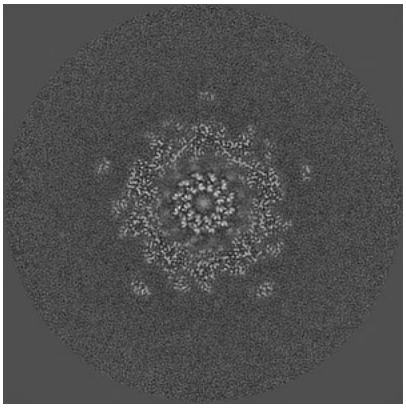
6.2.1 Primary map



X Index: 160



Y Index: 160

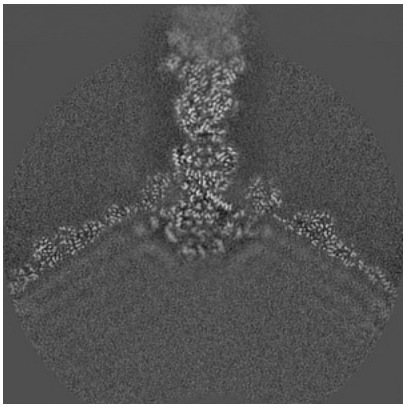


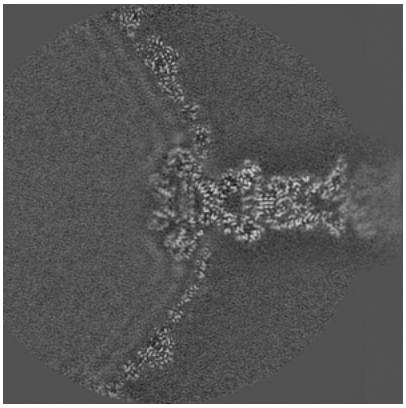
Z Index: 160

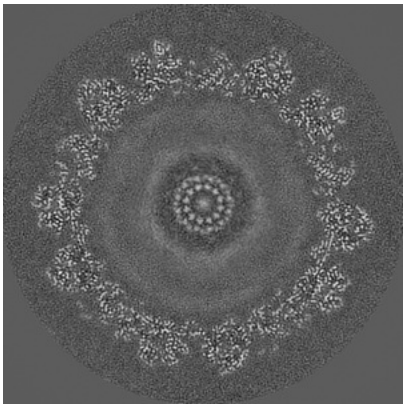
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

6.3.1 Primary map


X Index: 176

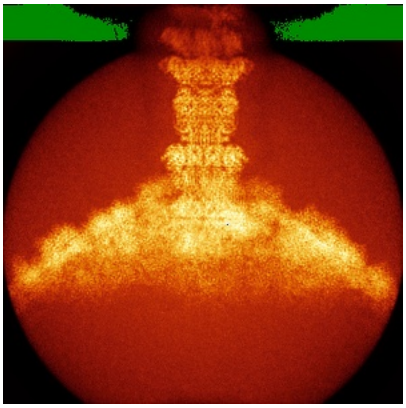

Y Index: 149

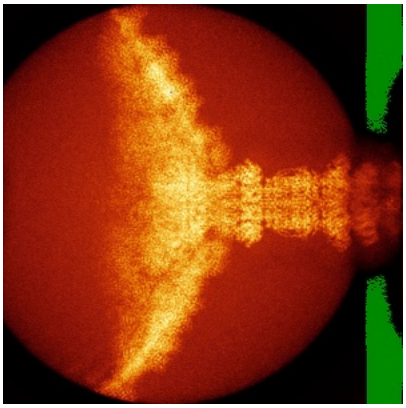

Z Index: 126

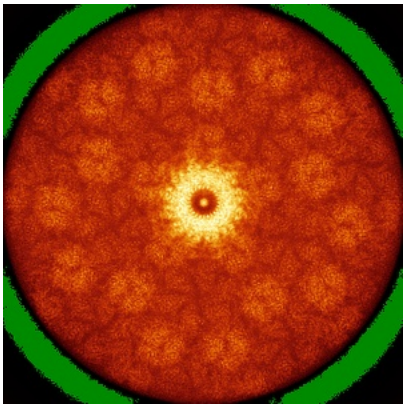
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

6.4.1 Primary map


X

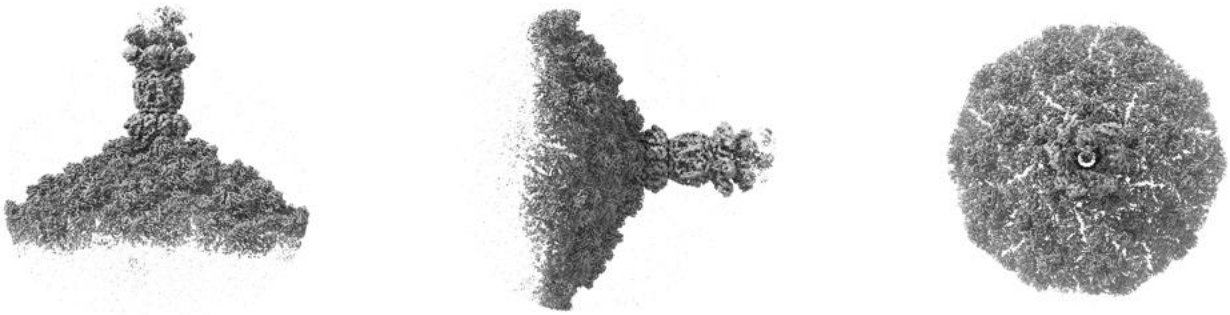

Y


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 3.36. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

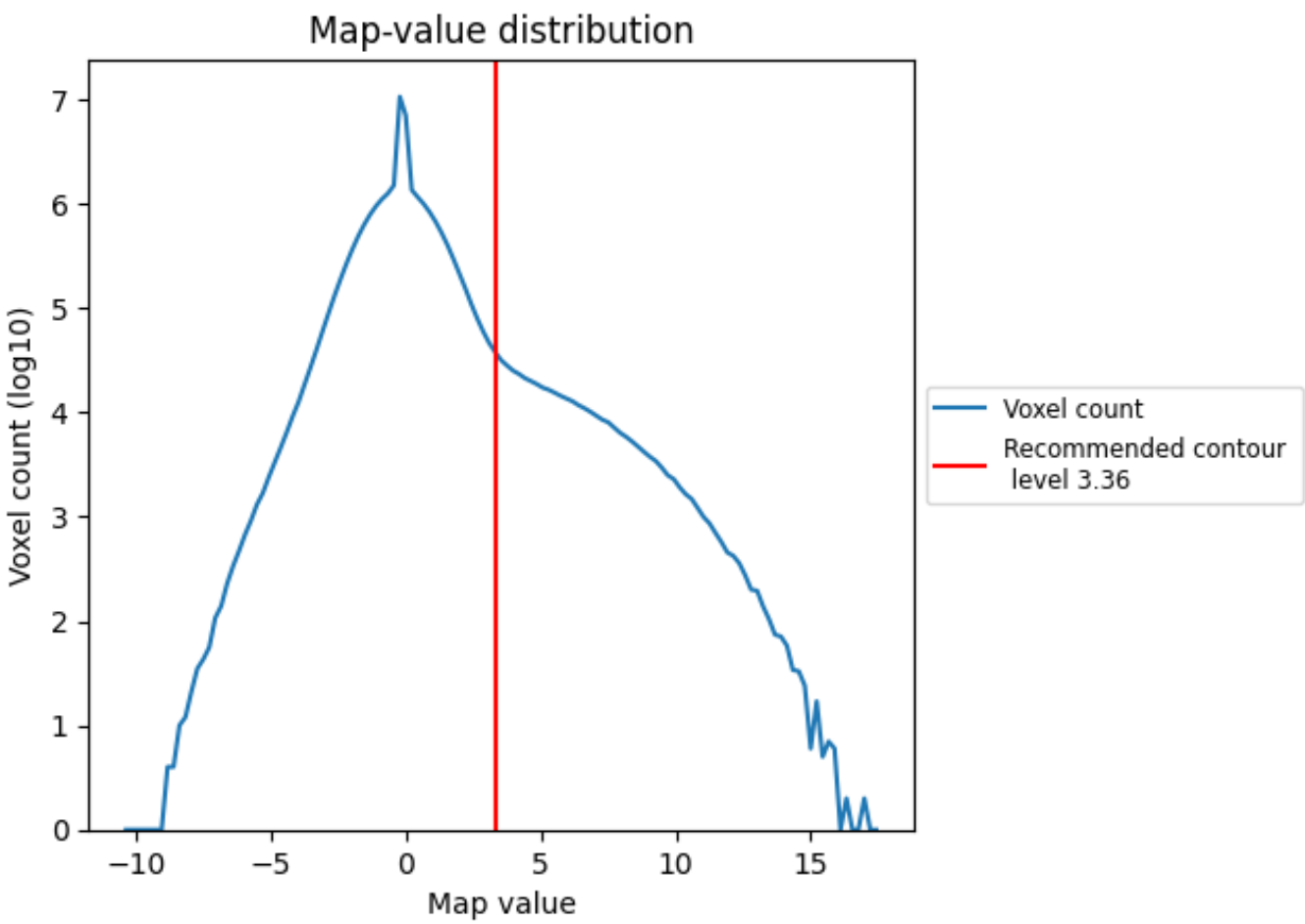
6.6 Mask visualisation (i)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis (i)

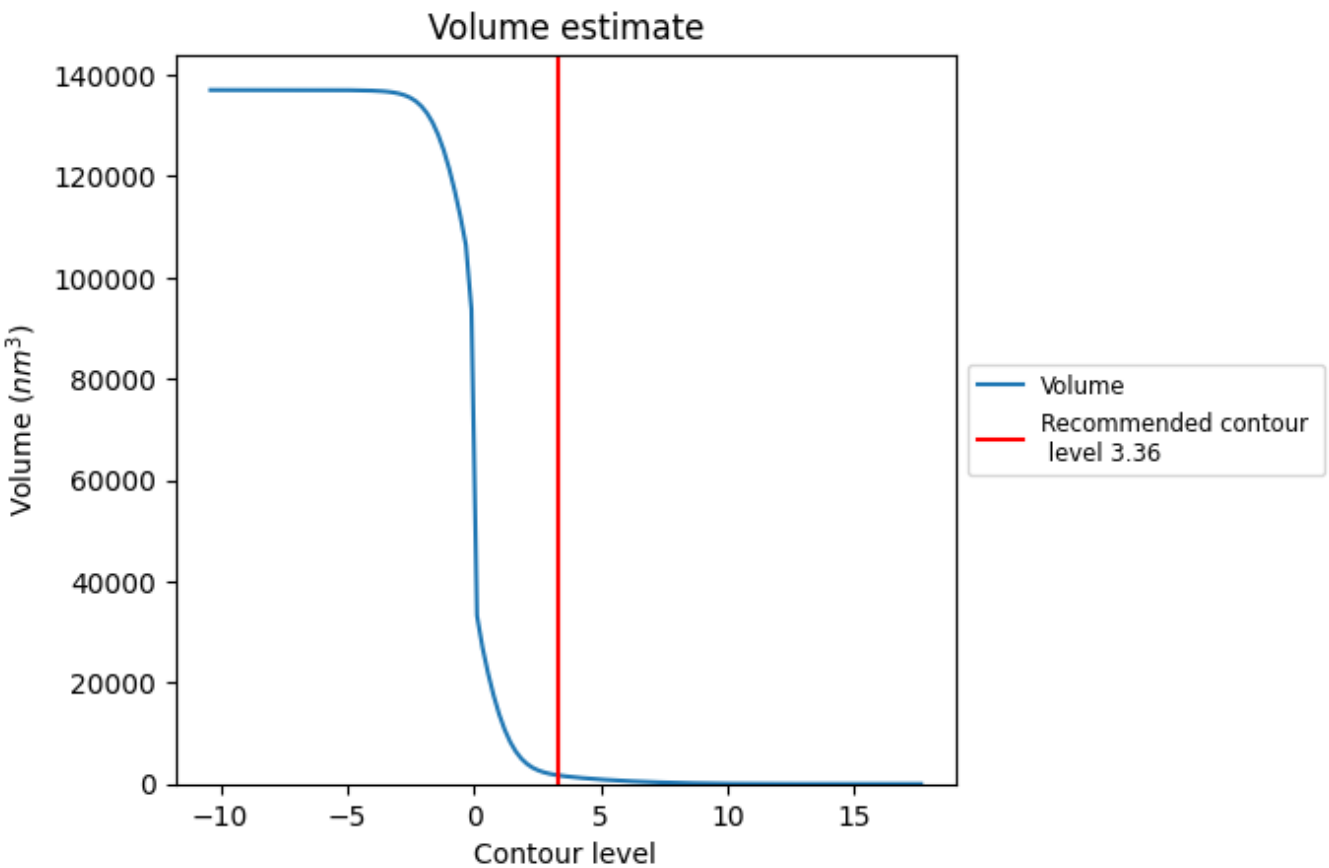
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution (i)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

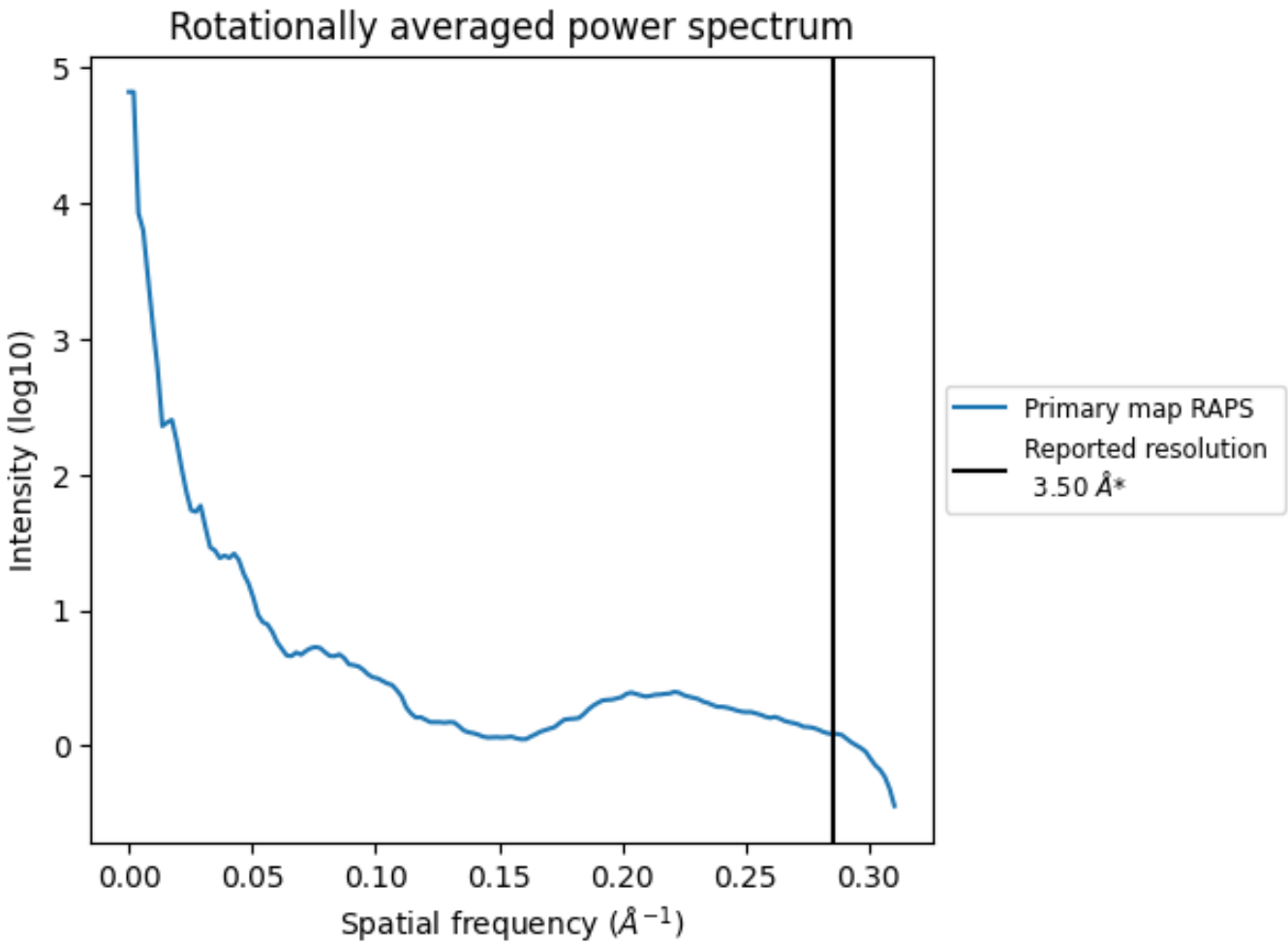
7.2 Volume estimate (i)



The volume at the recommended contour level is 1690 nm^3; this corresponds to an approximate mass of 1526 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum (i)



*Reported resolution corresponds to spatial frequency of 0.286 Å^{-1}

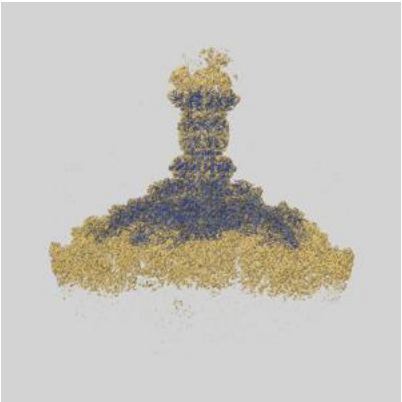
8 Fourier-Shell correlation (i)

This section was not generated. No FSC curve or half-maps provided.

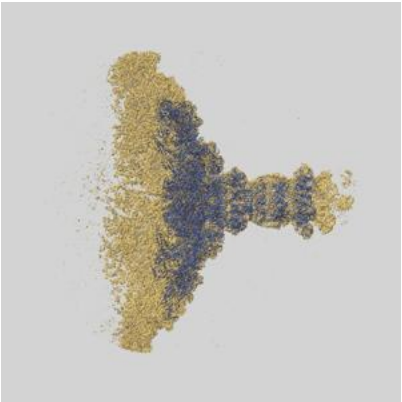
9 Map-model fit (i)

This section contains information regarding the fit between EMDB map EMD-62433 and PDB model 9KMH. Per-residue inclusion information can be found in section 3 on page 13.

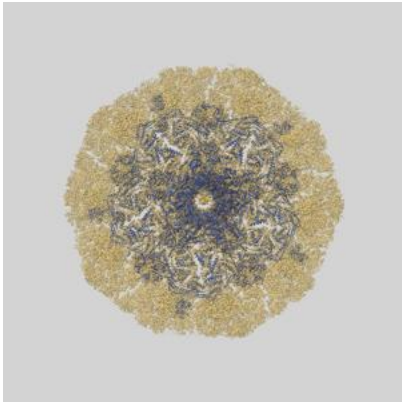
9.1 Map-model overlay (i)



X



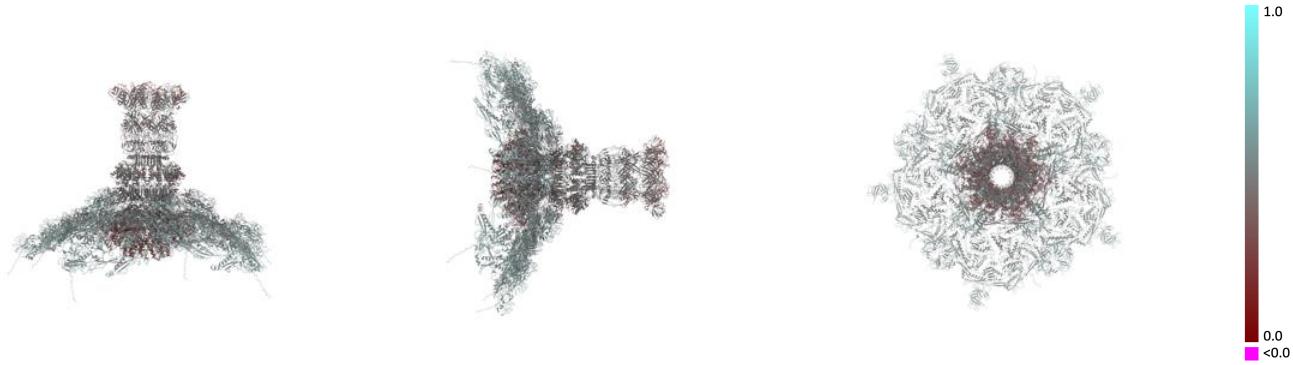
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 3.36 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

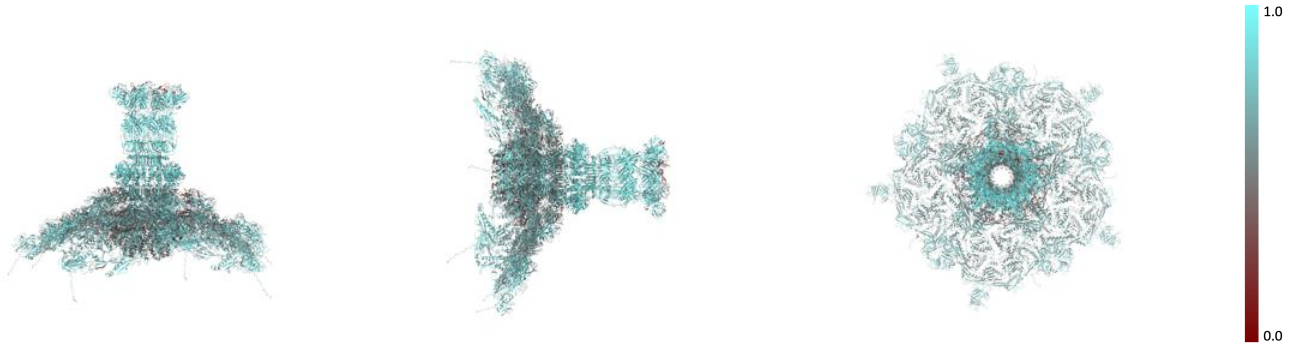
9.2 Q-score mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

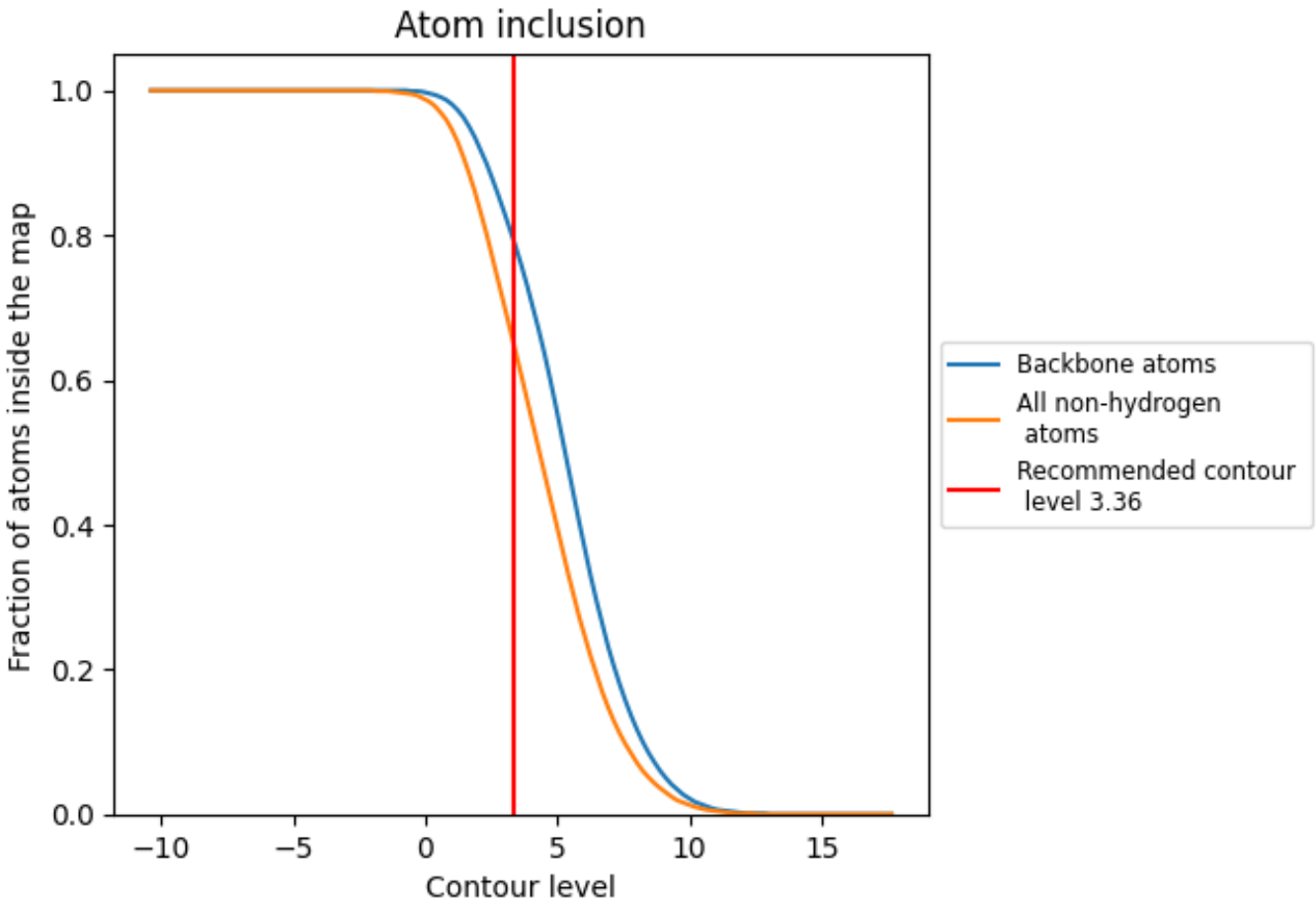
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (3.36).

9.4 Atom inclusion (i)



At the recommended contour level, 79% of all backbone atoms, 65% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary (i)

The table lists the average atom inclusion at the recommended contour level (3.36) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.6480	0.4750
aa	0.6000	0.5120
ab	0.6800	0.5390
ac	0.6770	0.5390
ad	0.6870	0.5420
ae	0.6590	0.5320
af	0.6290	0.5230
ag	0.6460	0.5240
ah	0.6380	0.5260
ai	0.6370	0.5300
aj	0.5970	0.5180
ak	0.5340	0.4730
al	0.5930	0.5130
am	0.6660	0.5350
an	0.5950	0.5110
ao	0.6840	0.5390
ap	0.6890	0.5370
aq	0.6780	0.5360
ar	0.6720	0.5350
as	0.6240	0.5200
at	0.6430	0.5280
au	0.6380	0.5220
av	0.6450	0.5260
aw	0.5910	0.5240
ax	0.4840	0.4480
ay	0.5310	0.4970
az	0.6550	0.5290
ba	0.5950	0.5200
bb	0.6740	0.5410
bc	0.6800	0.5420
bd	0.6840	0.5380
be	0.6730	0.5390
bf	0.6370	0.5250
bg	0.6460	0.5270
bh	0.6360	0.5230

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Chain	Atom inclusion	Q-score
bi	0.6530	0.5280
bj	0.5970	0.5170
bk	0.5500	0.4700
bl	0.5850	0.5130
bm	0.6550	0.5350
bn	0.5840	0.5110
bo	0.6880	0.5430
bp	0.6790	0.5360
bq	0.6870	0.5370
br	0.6740	0.5360
bs	0.6210	0.5200
bt	0.6310	0.5220
bu	0.6380	0.5220
bv	0.6390	0.5270
bw	0.5870	0.5150
bx	0.5050	0.4650
by	0.5310	0.4990
bz	0.6530	0.5270
ca	0.5800	0.5110
cb	0.6800	0.5410
cc	0.6980	0.5420
cd	0.6830	0.5330
ce	0.6710	0.5330
cf	0.6280	0.5190
cg	0.6370	0.5290
ch	0.6310	0.5200
ci	0.6430	0.5290
cj	0.6030	0.5170
ck	0.5350	0.4630
cl	0.5610	0.4990
cm	0.6510	0.5340
cn	0.5660	0.3690
co	0.5800	0.3690
cp	0.5870	0.3720
cq	0.5820	0.3720
cr	0.8530	0.4620
cs	0.8500	0.4530
ct	0.8560	0.4620
cu	0.8580	0.4610
cv	0.8640	0.4750
cw	0.8440	0.4400
cx	0.8090	0.4660

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Chain	Atom inclusion	Q-score
cy	0.5600	0.3750
cz	0.8140	0.4460
da	0.8020	0.4500
db	0.7900	0.4550
dc	0.7990	0.4510
dd	0.8040	0.4510
de	0.8070	0.4380
df	0.8020	0.4510
dg	0.8090	0.4550
dh	0.8170	0.4480
di	0.7990	0.4410
dj	0.5680	0.3720
dk	0.7880	0.4480
dl	0.7280	0.4070
dm	0.6680	0.4000
dn	0.6830	0.4040
do	0.7120	0.4100
dp	0.6900	0.4060
dq	0.7320	0.4050
dr	0.8140	0.4460
ds	0.8290	0.4430
dt	0.8470	0.4570
du	0.5730	0.3760
dv	0.8290	0.4510
dw	0.8210	0.4470
dx	0.8350	0.4440
dy	0.5590	0.3640
dz	0.5810	0.3670
ea	0.5710	0.3810
eb	0.5560	0.3550
ec	0.5510	0.3680