



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 01:15 PM UTC

PDB ID : 9K09 / pdb_00009k09
EMDB ID : EMD-61942
Title : Cyanophage A4 portal-tail complex
Authors : Hou, P.; Li, Q.; Zhou, C.Z.
Deposited on : 2024-10-15
Resolution : 2.60 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 ⓘ symbol.

The types of validation reports are described at

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

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

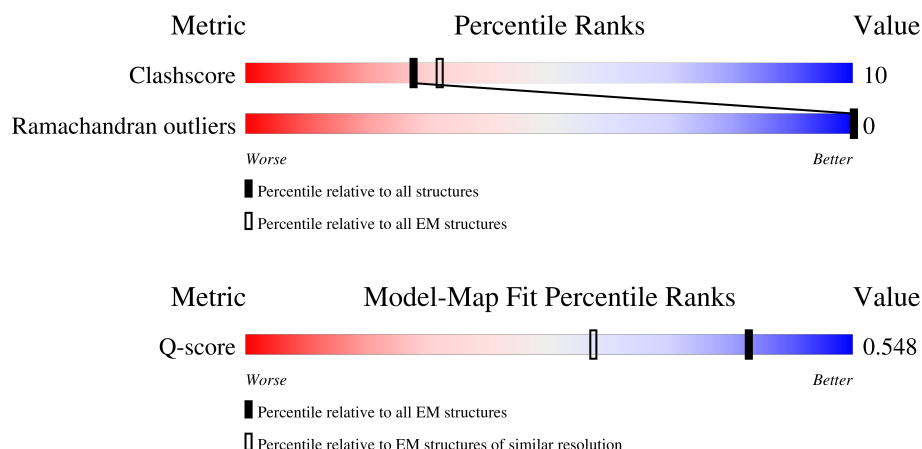
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance

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

The reported resolution of this entry is 2.60 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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Q-score	-	25397	8728 (2.10 - 3.10)

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 $\leq 5\%$. 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	A	372	
1	B	372	
1	C	372	
1	P	372	
1	Q	372	

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Mol	Chain	Length	Quality of chain
1	R	372	
1	X	372	
1	Y	372	
1	Z	372	
1	a	372	
1	b	372	
1	c	372	
1	p	372	
1	q	372	
1	r	372	
1	x	372	
1	y	372	
1	z	372	
2	D	653	
2	E	653	
2	F	653	
2	G	653	
2	H	653	
2	I	653	
2	J	653	
2	K	653	
2	L	653	
2	M	653	
2	N	653	
2	O	653	

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Mol	Chain	Length	Quality of chain	
3	U	1015		.
3	V	1015		.
3	W	1015		.
3	u	1015		.
3	v	1015		.
3	w	1015		.
4	d	217		
4	e	217		
4	f	217		
4	g	217		
4	h	217		
4	i	217		
4	j	217		
4	k	217		
4	l	217		
4	m	217		
4	n	217		
4	o	217		

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 173160 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 Tail fiber protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	B	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	C	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	P	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	Q	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	R	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	X	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	Y	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	Z	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	a	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	b	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	c	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	p	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	q	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	r	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	x	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		
1	y	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	z	372	Total	C	N	O	S	0	0
			2814	1776	477	556	5		

- Molecule 2 is a protein called Portal protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	D	555	Total	C	N	O	S	0	0
			4508	2847	774	869	18		
2	E	555	Total	C	N	O	S	0	0
			4508	2847	774	869	18		
2	F	555	Total	C	N	O	S	0	0
			4508	2847	774	869	18		
2	G	555	Total	C	N	O	S	0	0
			4508	2847	774	869	18		
2	H	555	Total	C	N	O	S	0	0
			4508	2847	774	869	18		
2	I	555	Total	C	N	O	S	0	0
			4508	2847	774	869	18		
2	J	555	Total	C	N	O	S	0	0
			4508	2847	774	869	18		
2	K	555	Total	C	N	O	S	0	0
			4508	2847	774	869	18		
2	L	555	Total	C	N	O	S	0	0
			4508	2847	774	869	18		
2	M	555	Total	C	N	O	S	0	0
			4508	2847	774	869	18		
2	N	555	Total	C	N	O	S	0	0
			4508	2847	774	869	18		
2	O	555	Total	C	N	O	S	0	0
			4508	2847	774	869	18		

- Molecule 3 is a protein called Tail tubular protein B.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	U	1005	Total	C	N	O	S	0	0
			7926	5031	1329	1553	13		
3	V	1005	Total	C	N	O	S	0	0
			7926	5031	1329	1553	13		
3	W	1005	Total	C	N	O	S	0	0
			7926	5031	1329	1553	13		
3	u	1005	Total	C	N	O	S	0	0
			7926	5031	1329	1553	13		

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Mol	Chain	Residues	Atoms					AltConf	Trace
3	v	1005	Total	C	N	O	S	0	0
			7926	5031	1329	1553	13		
3	w	1005	Total	C	N	O	S	0	0
			7926	5031	1329	1553	13		

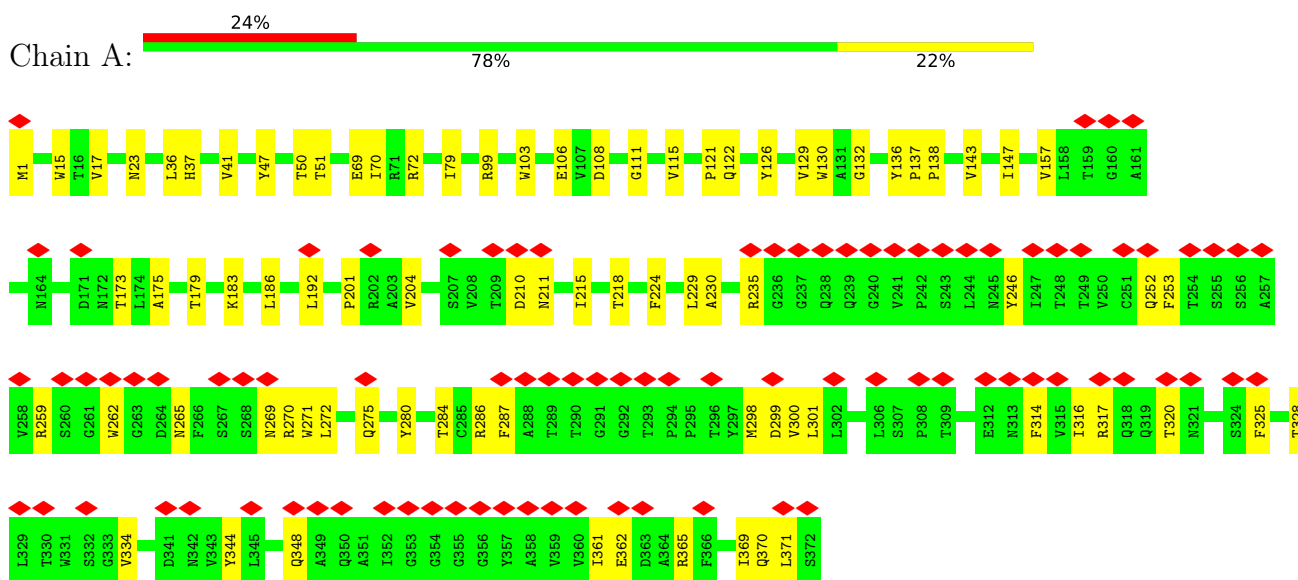
- Molecule 4 is a protein called Tail tubular protein A.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	d	216	Total	C	N	O	S	0	0
			1738	1096	299	339	4		
4	e	216	Total	C	N	O	S	0	0
			1738	1096	299	339	4		
4	f	216	Total	C	N	O	S	0	0
			1738	1096	299	339	4		
4	g	216	Total	C	N	O	S	0	0
			1738	1096	299	339	4		
4	h	216	Total	C	N	O	S	0	0
			1738	1096	299	339	4		
4	i	216	Total	C	N	O	S	0	0
			1738	1096	299	339	4		
4	j	216	Total	C	N	O	S	0	0
			1738	1096	299	339	4		
4	k	216	Total	C	N	O	S	0	0
			1738	1096	299	339	4		
4	l	216	Total	C	N	O	S	0	0
			1738	1096	299	339	4		
4	m	216	Total	C	N	O	S	0	0
			1738	1096	299	339	4		
4	n	216	Total	C	N	O	S	0	0
			1738	1096	299	339	4		
4	o	216	Total	C	N	O	S	0	0
			1738	1096	299	339	4		

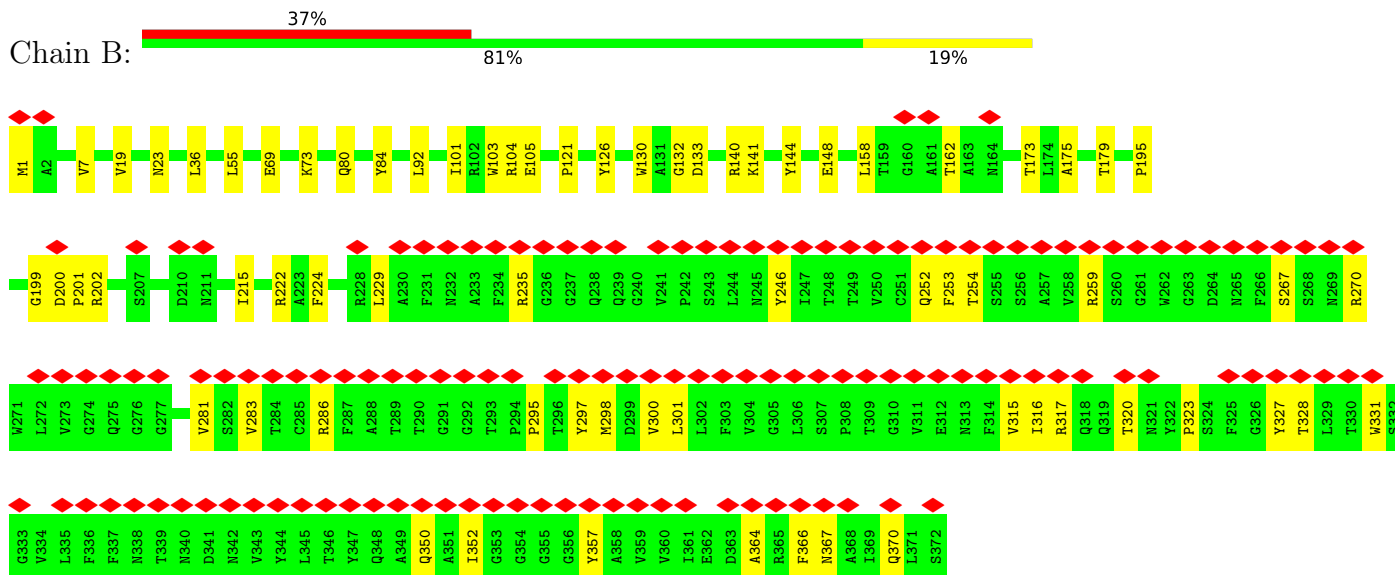
3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and 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.

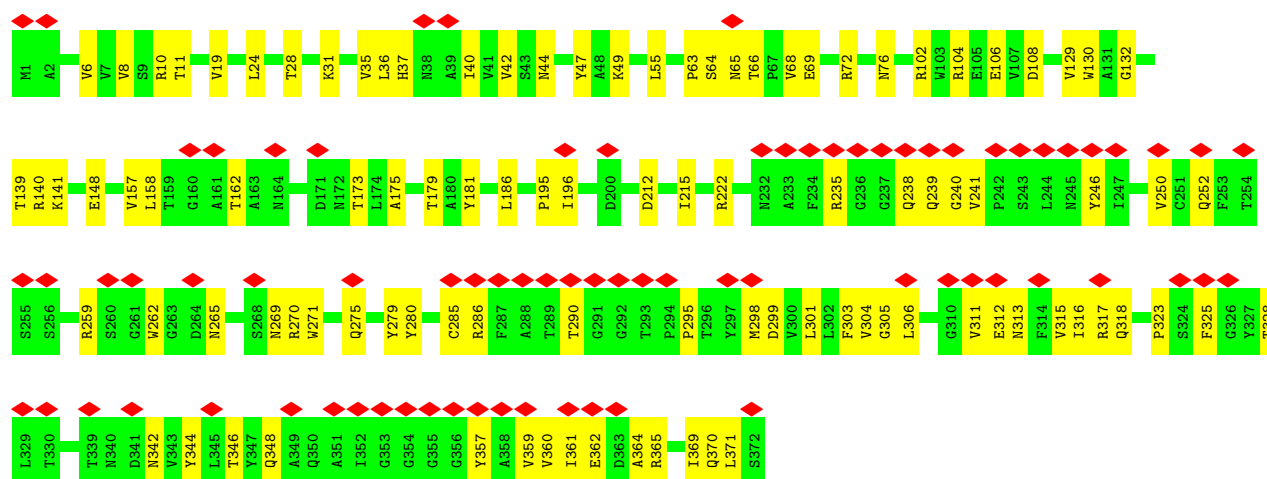
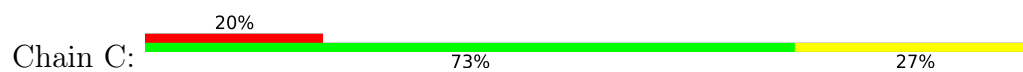
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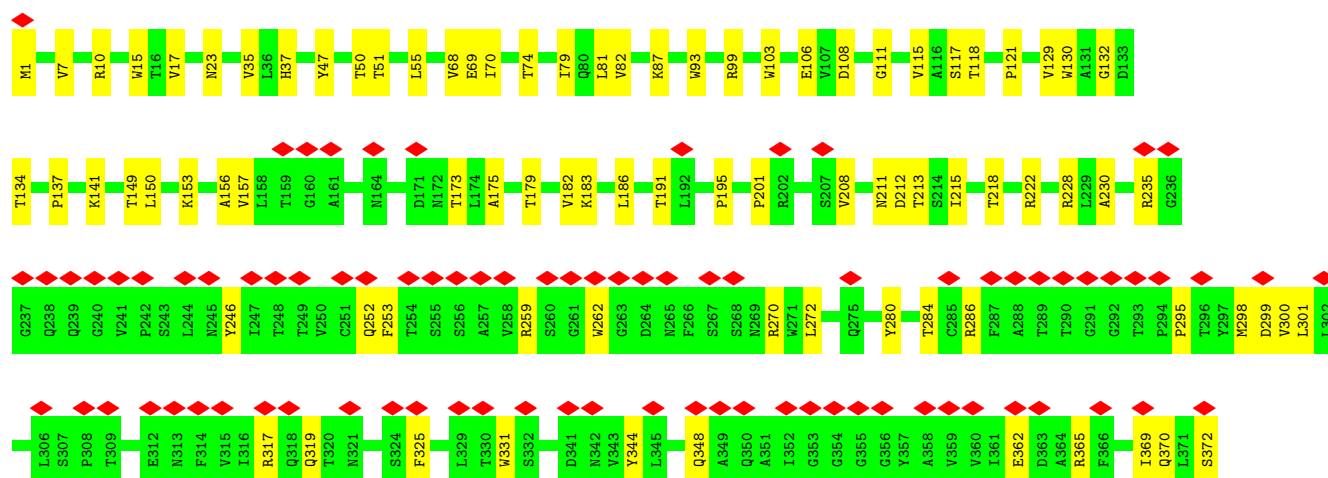
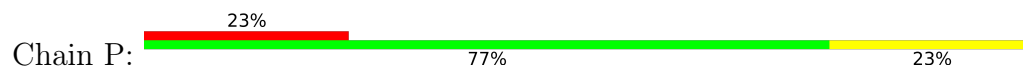
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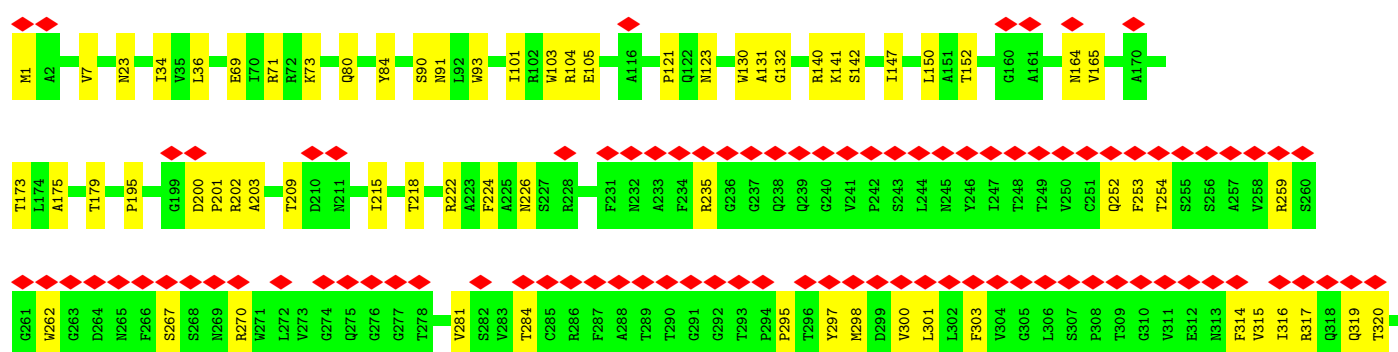
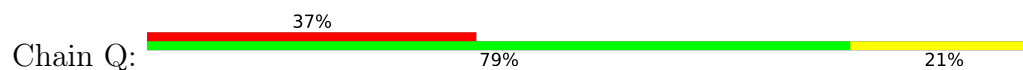
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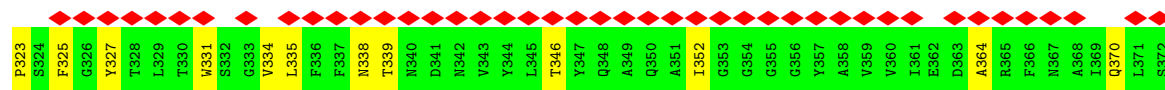


• Molecule 1: Tail fiber protein

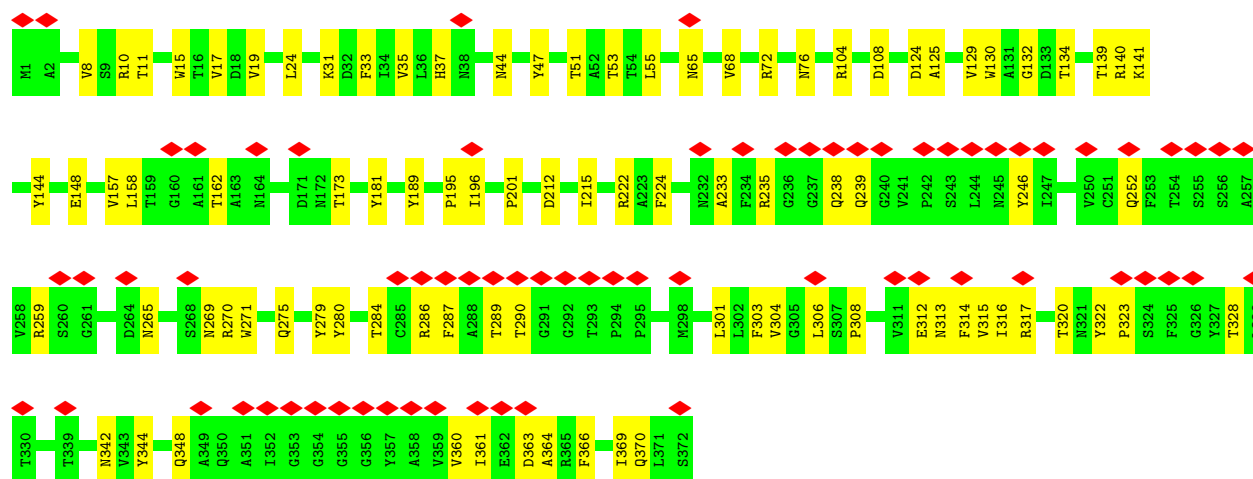
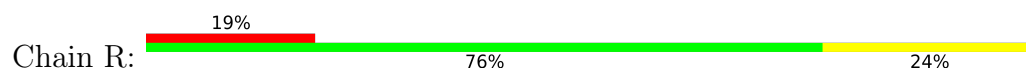


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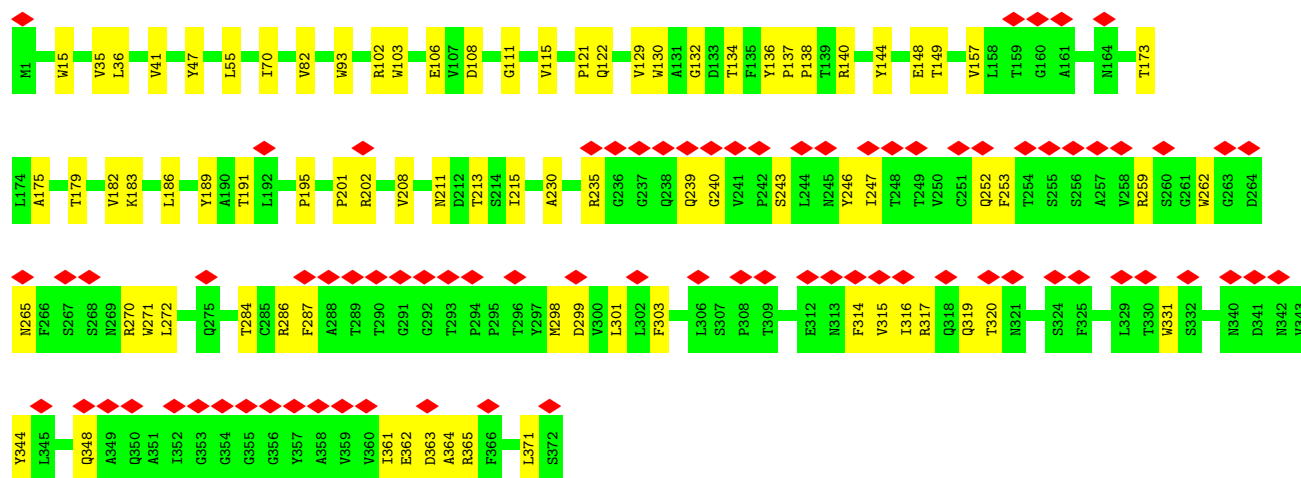
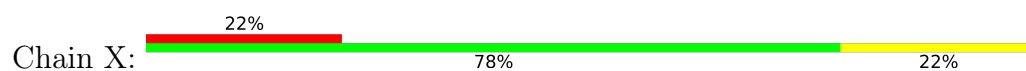




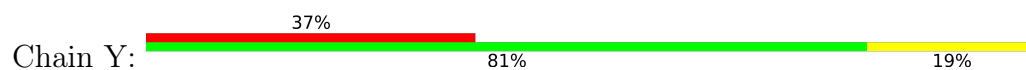
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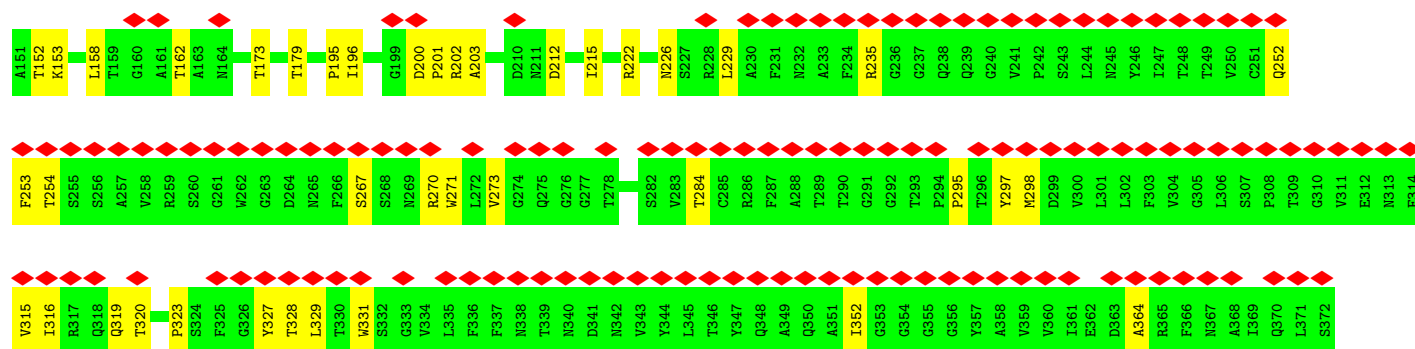


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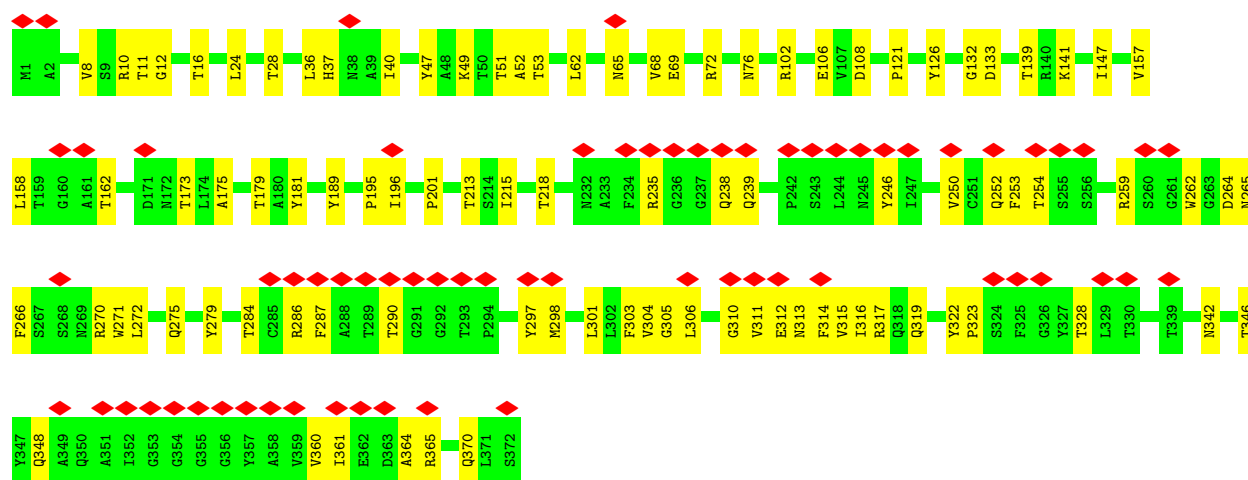
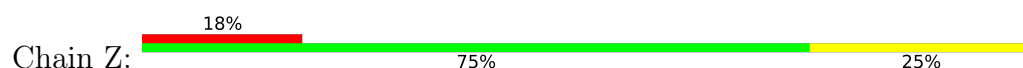


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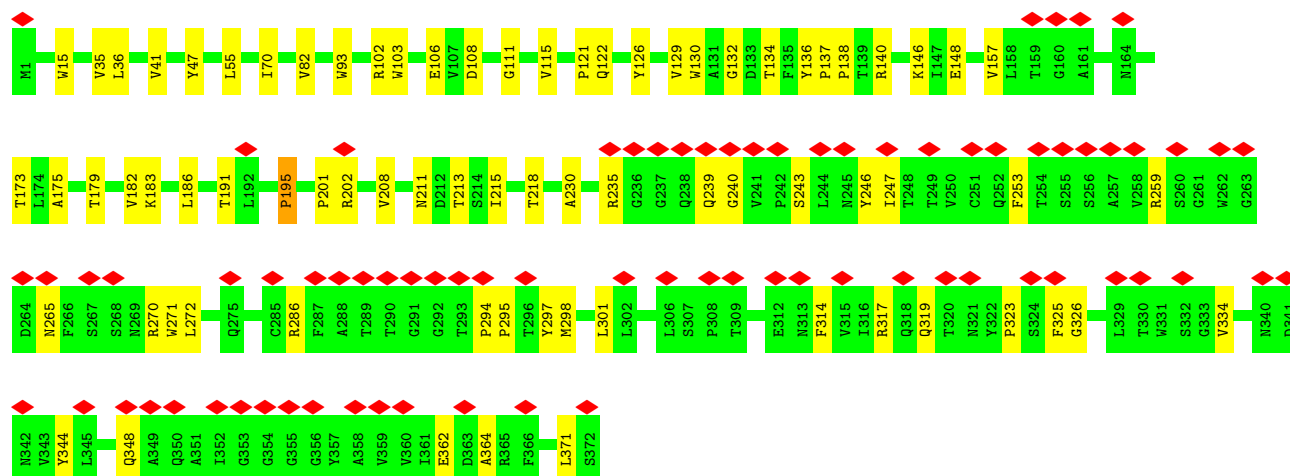
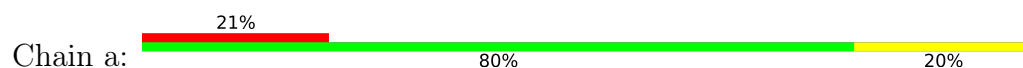




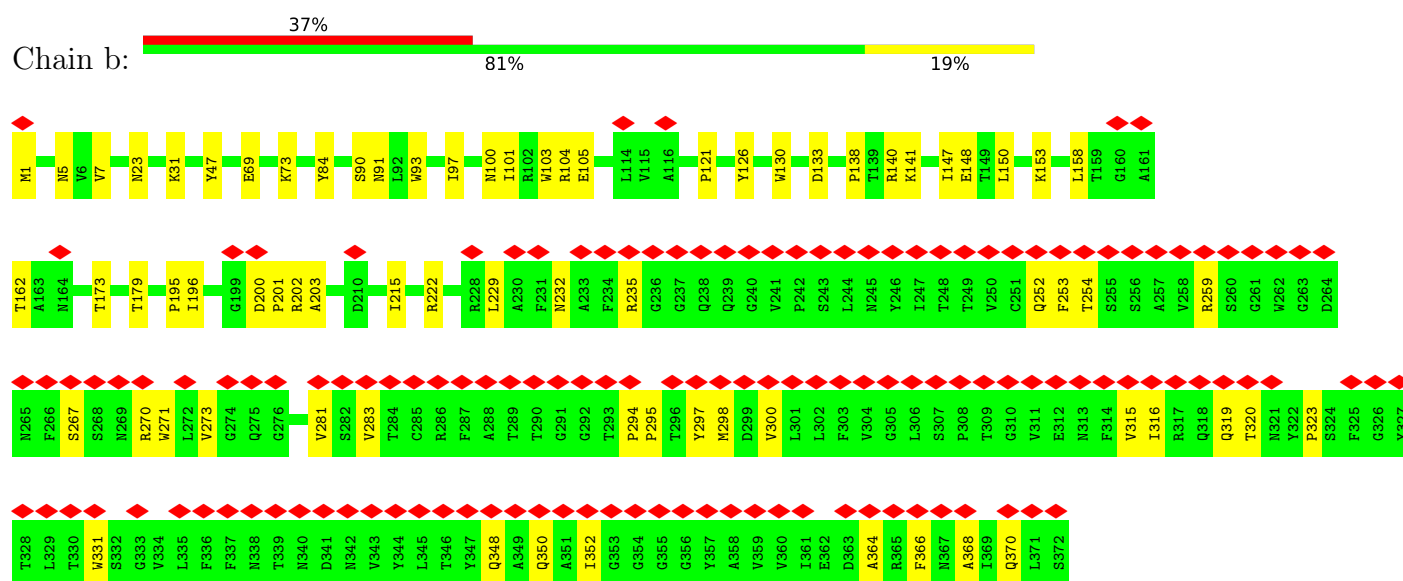
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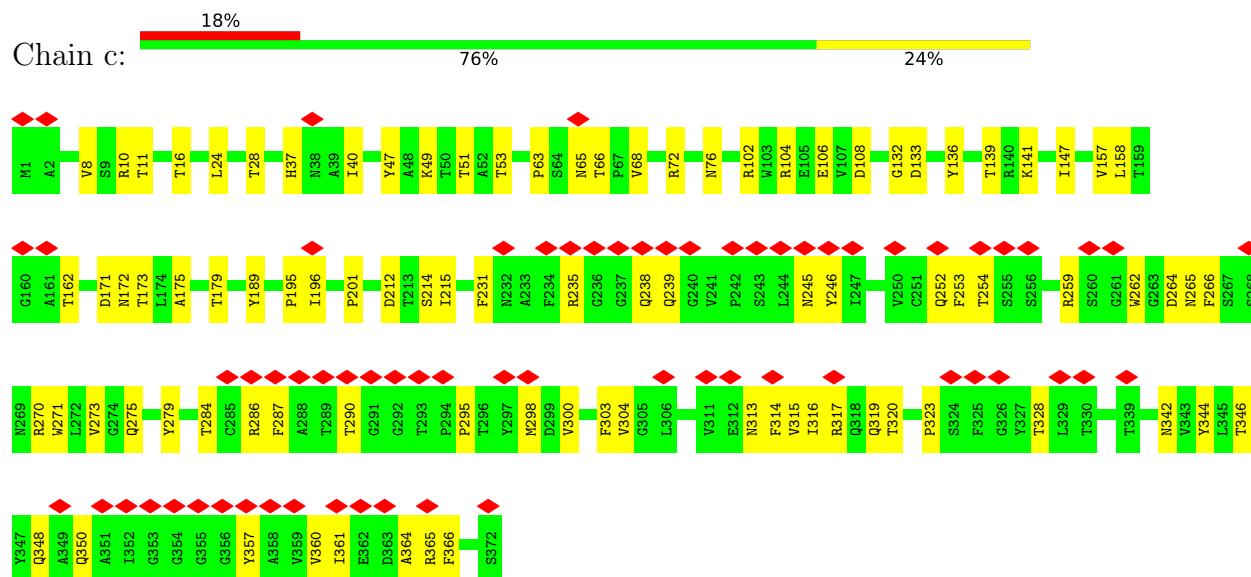
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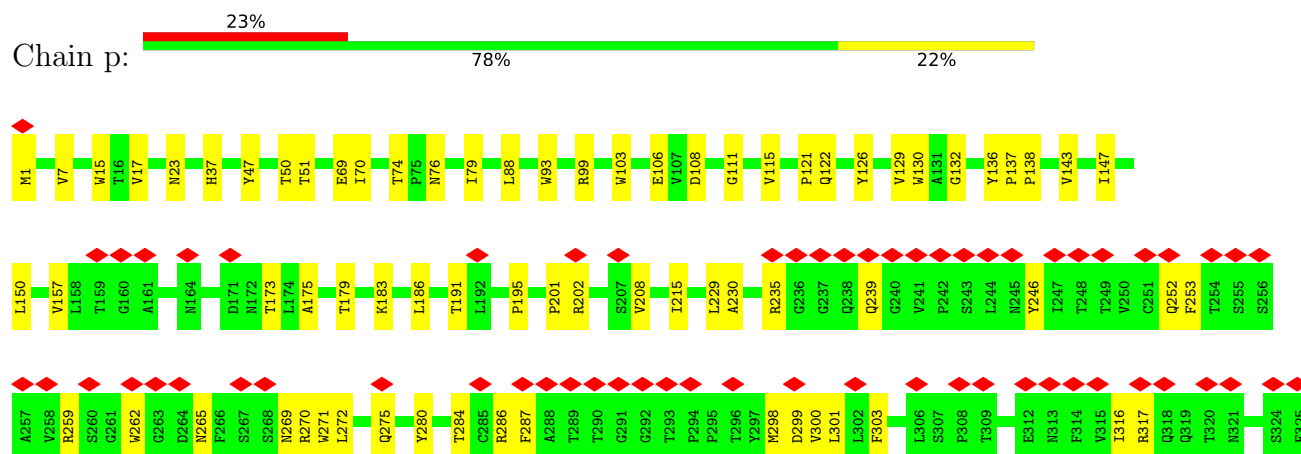
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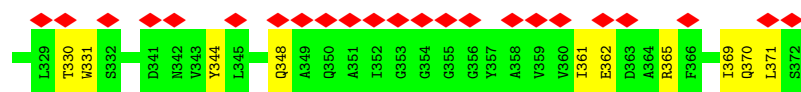


- Molecule 1: Tail fiber protein

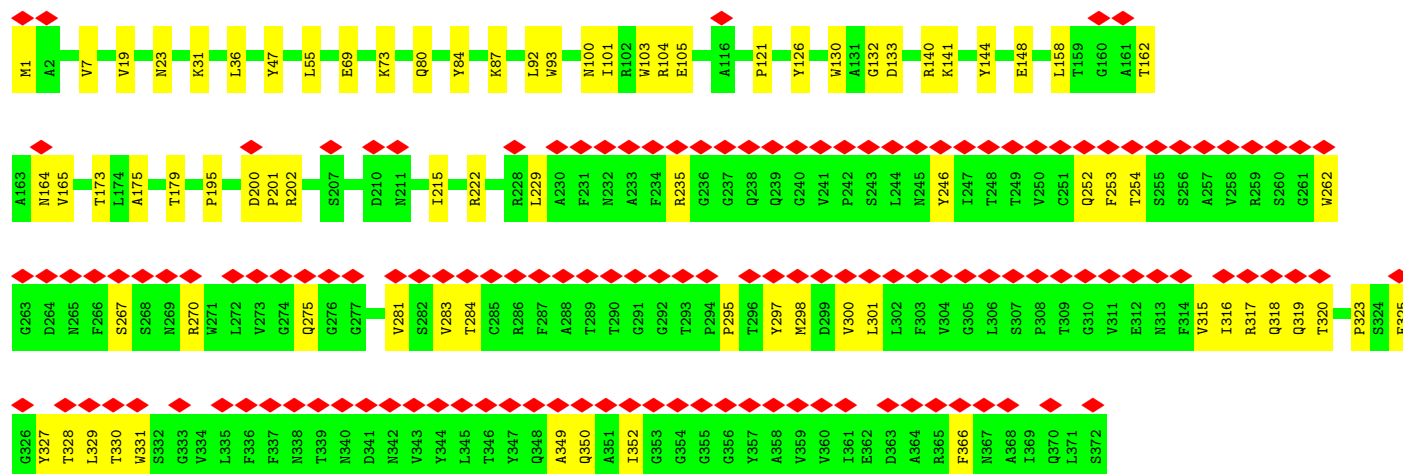
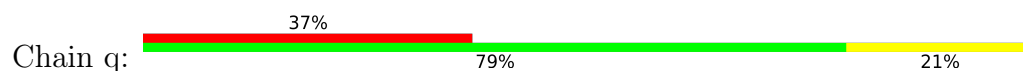


- Molecule 1: Tail fiber protein

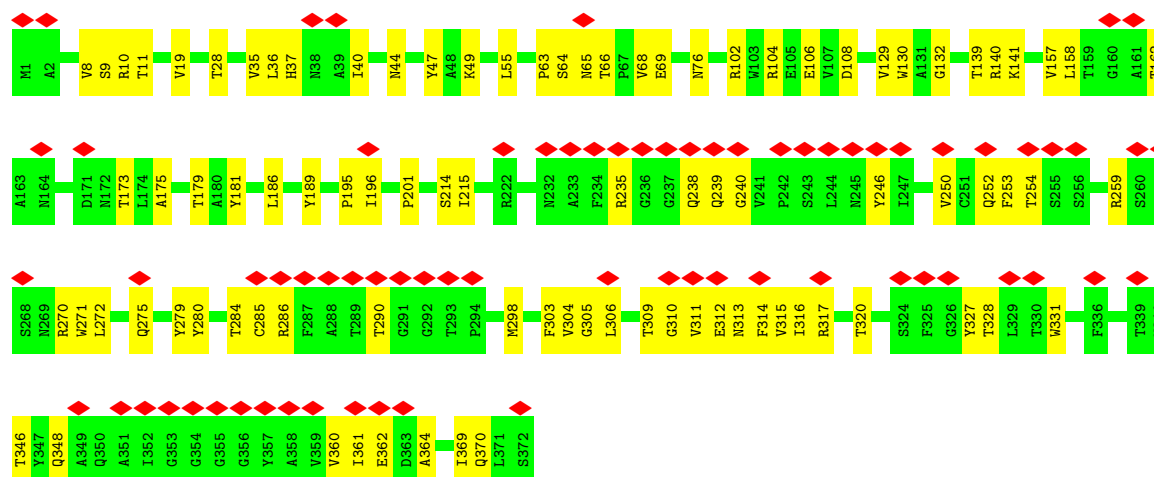
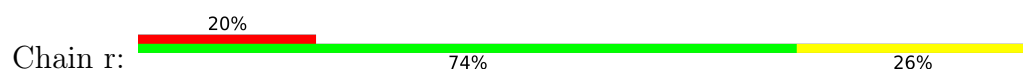




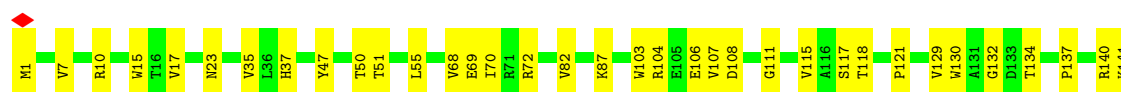
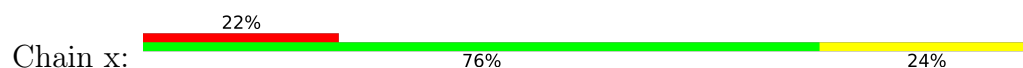
• Molecule 1: Tail fiber protein

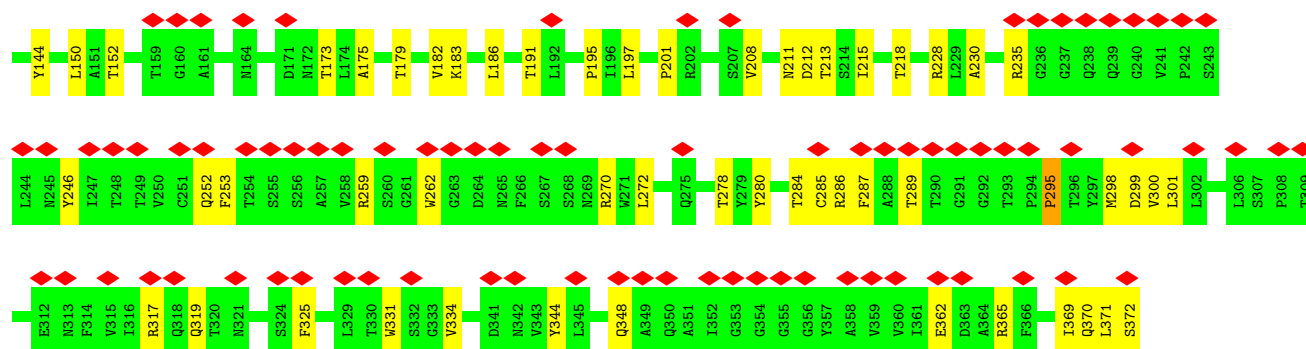


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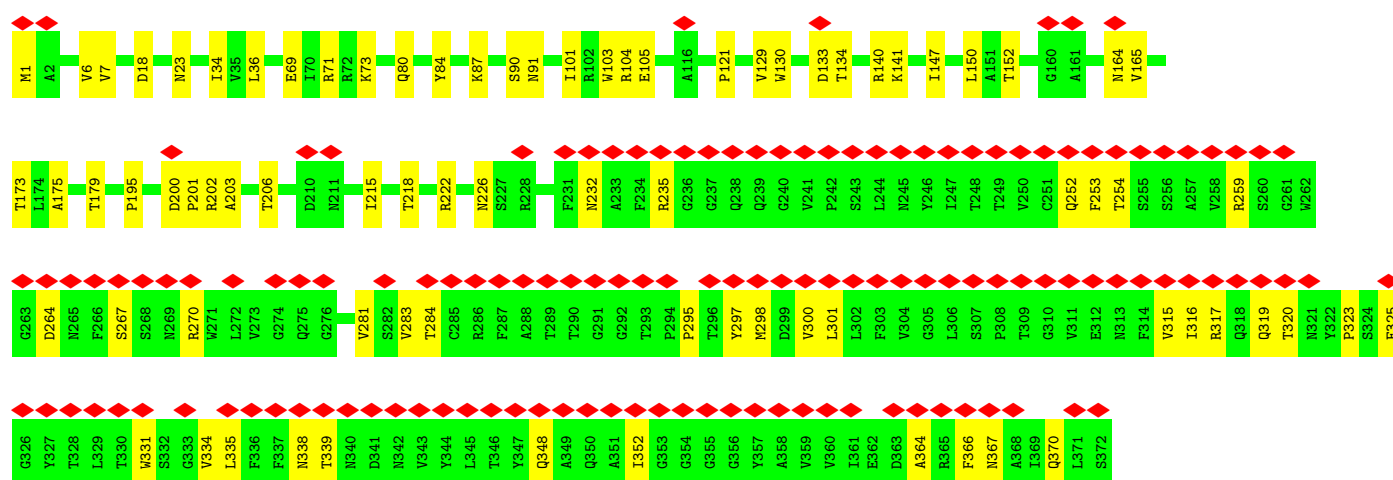
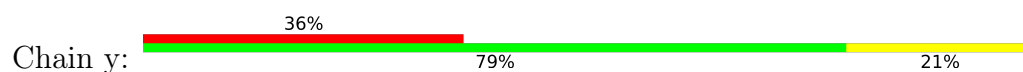


• Molecule 1: Tail fiber protein

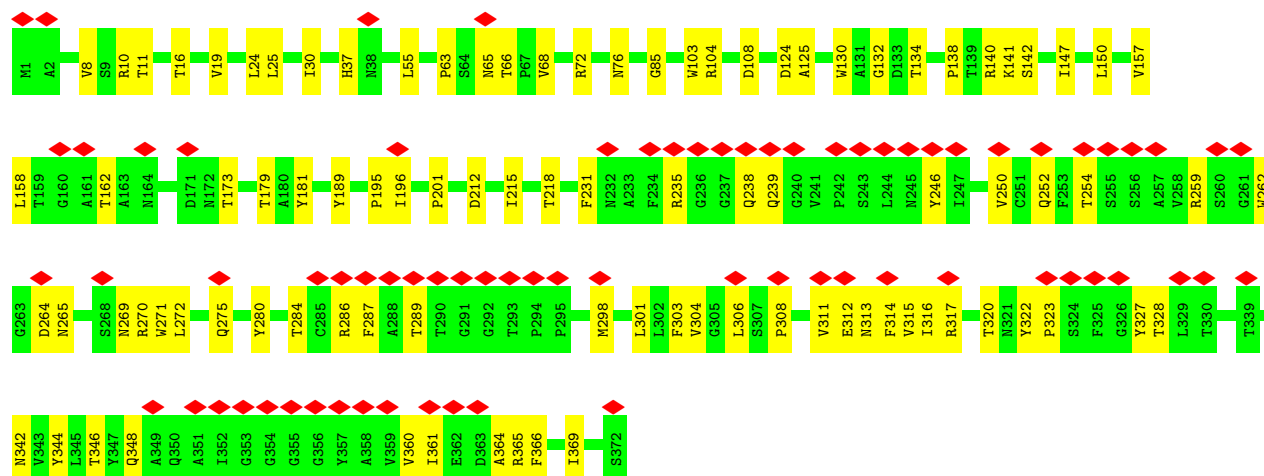
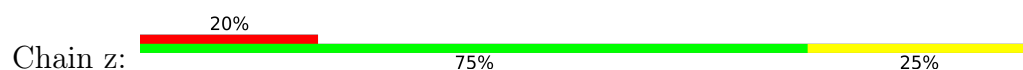




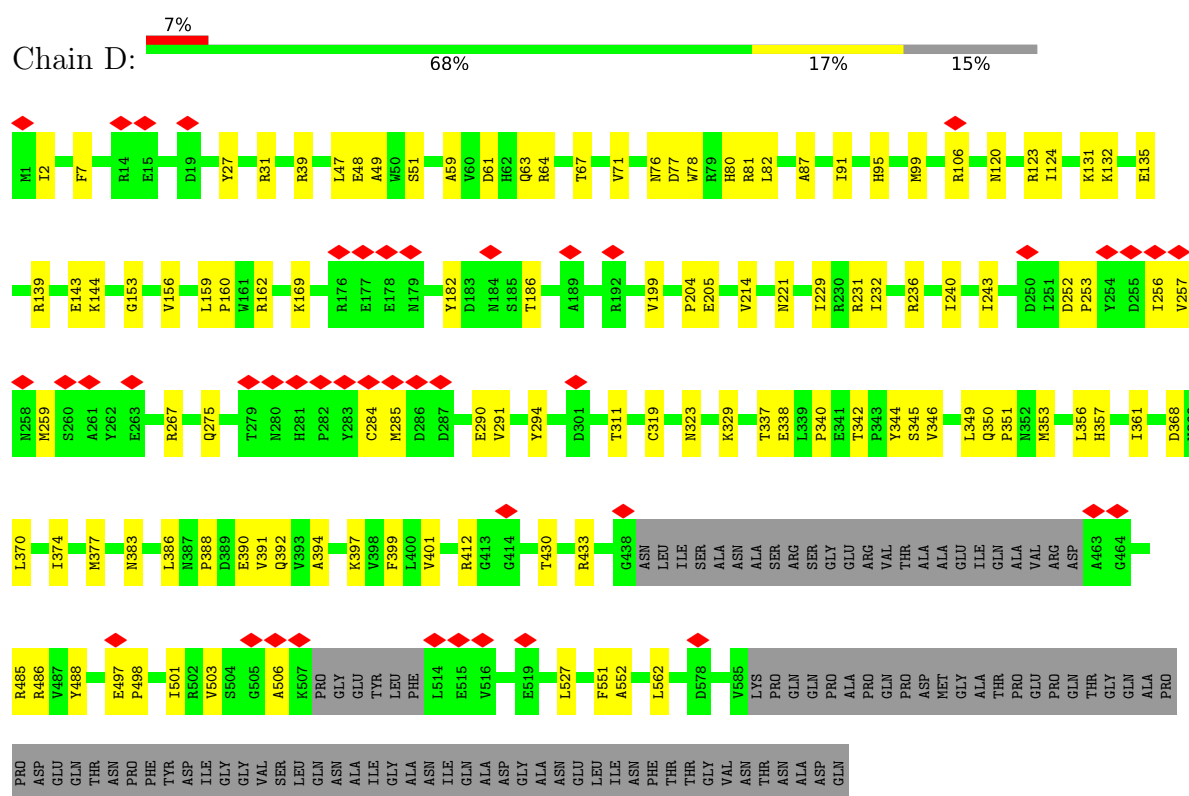
• Molecule 1: Tail fiber protein



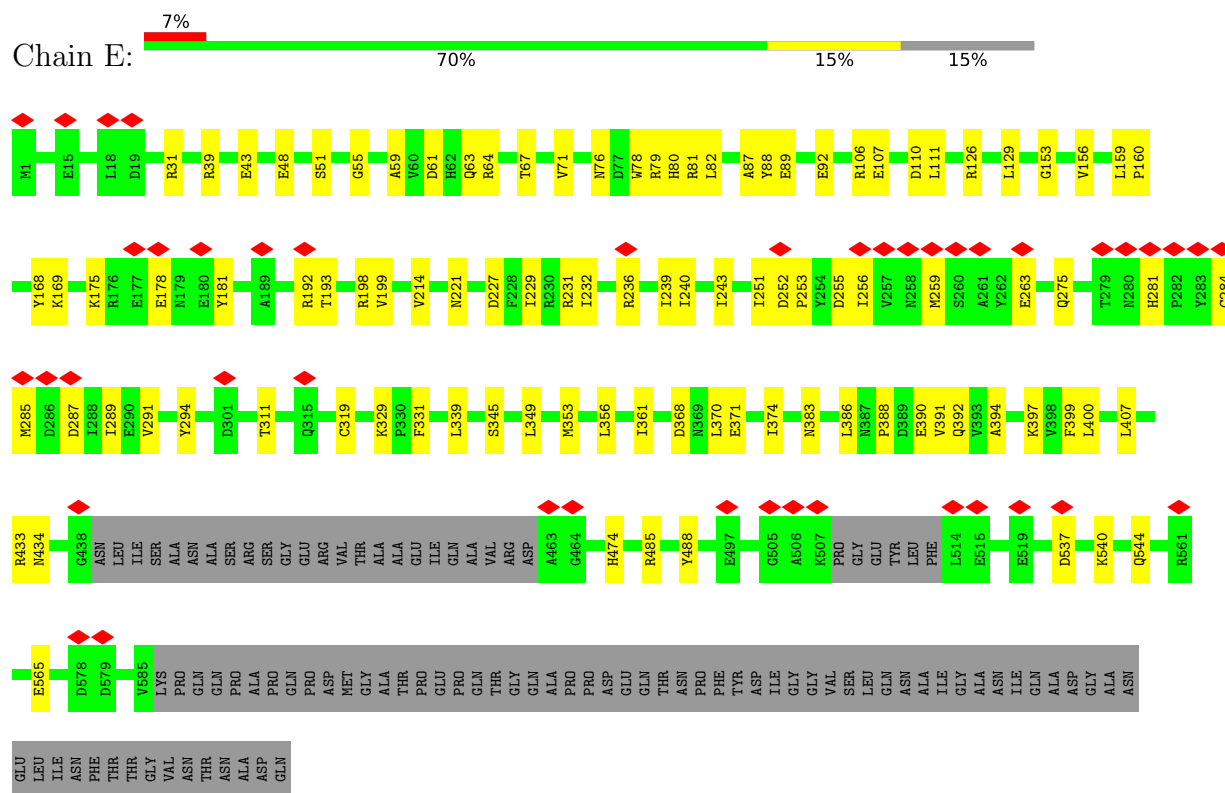
• Molecule 1: Tail fiber protein



• Molecule 2: Portal protein

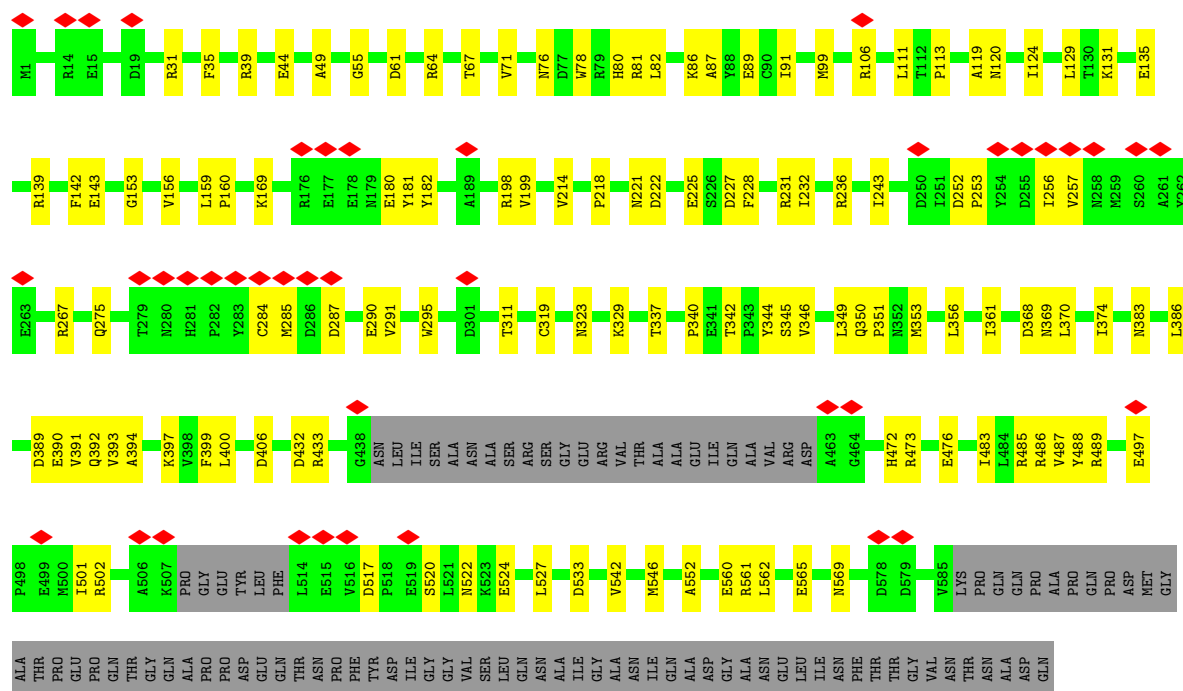


- Molecule 2: Portal protein

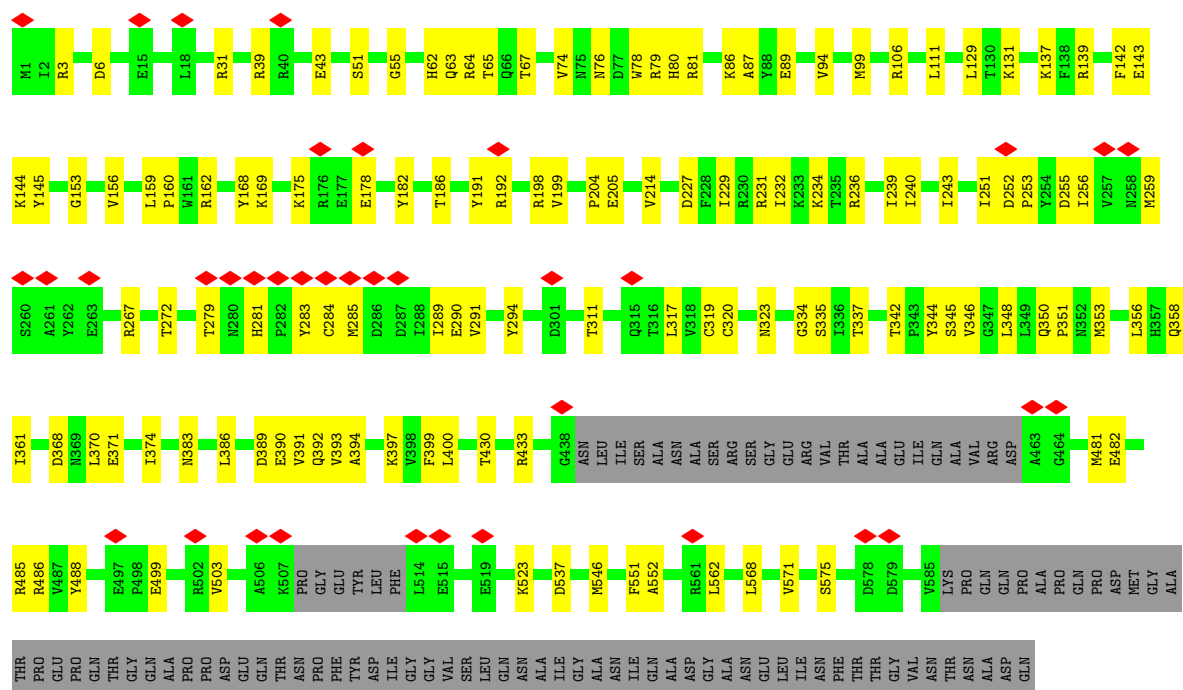


- Molecule 2: Portal protein



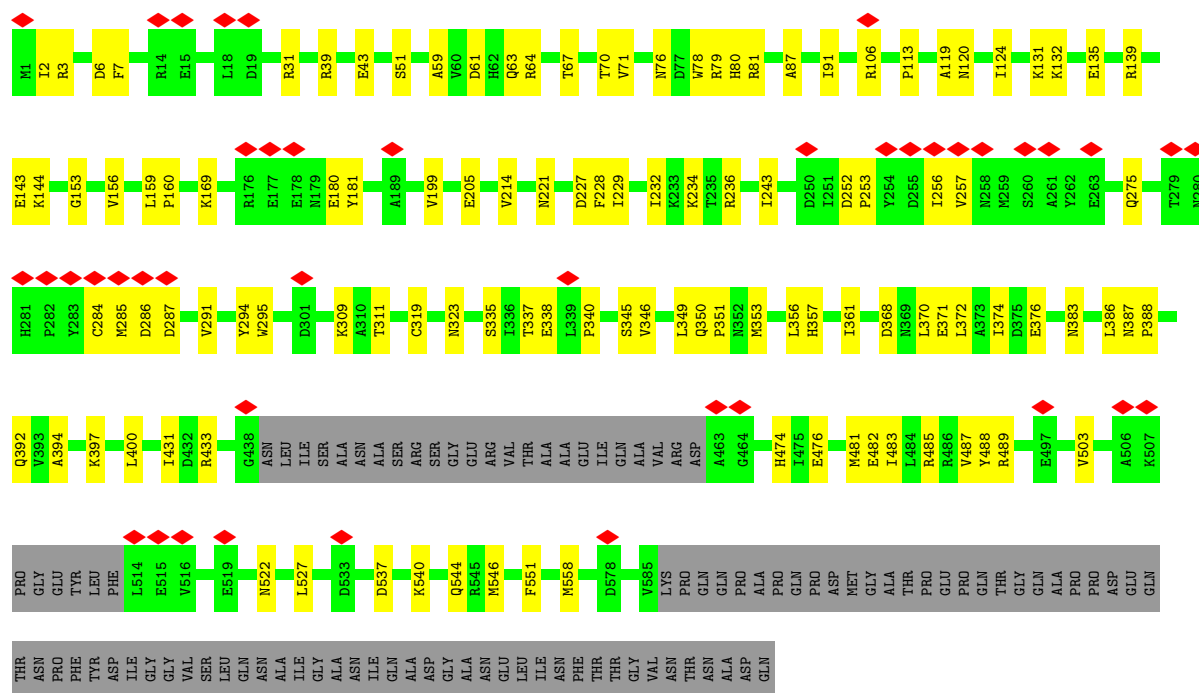


- Molecule 2: Portal protein

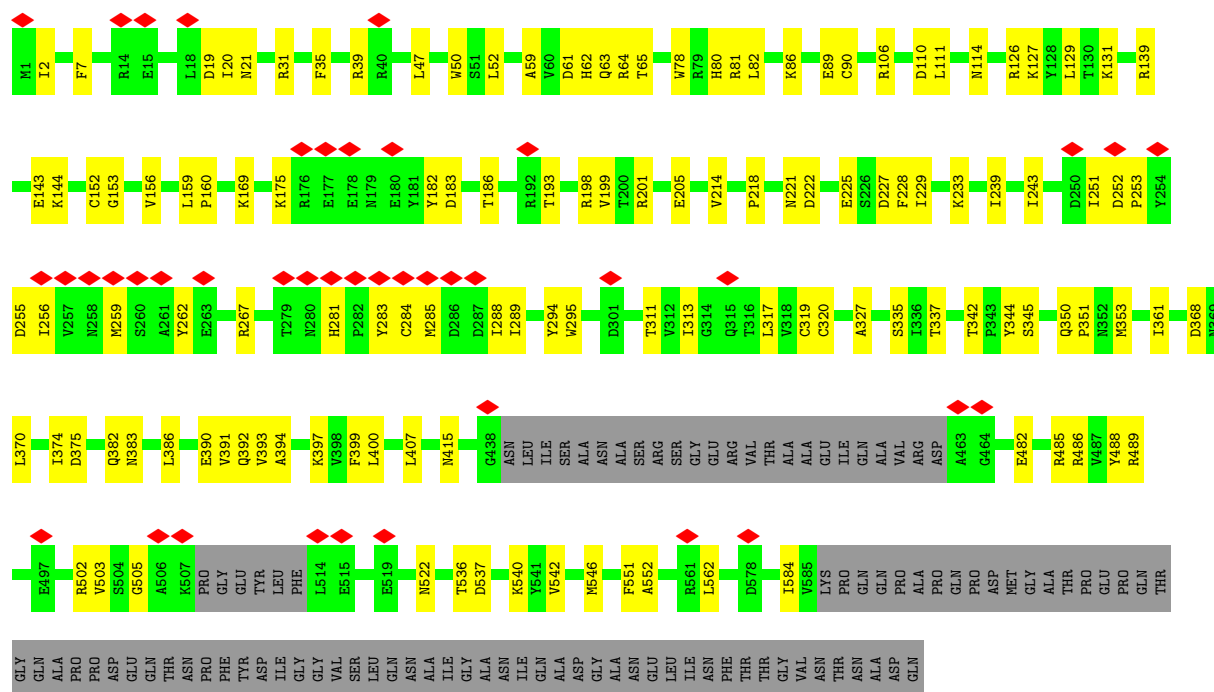


- Molecule 2: Portal protein



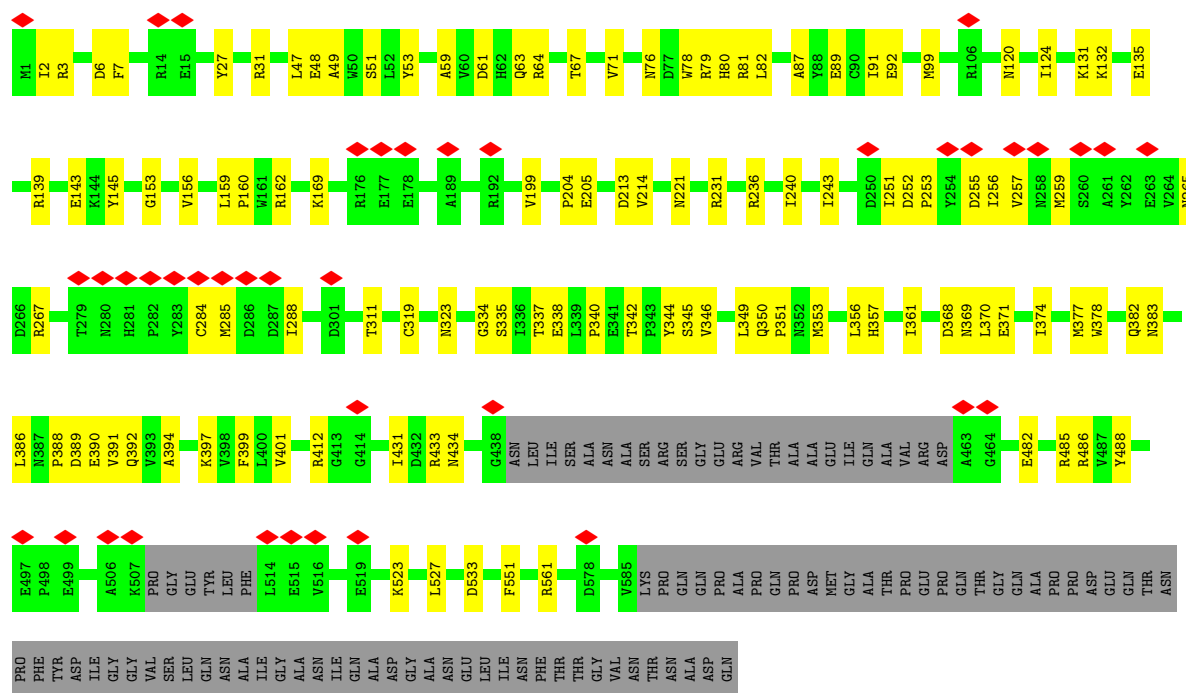


• Molecule 2: Portal protein

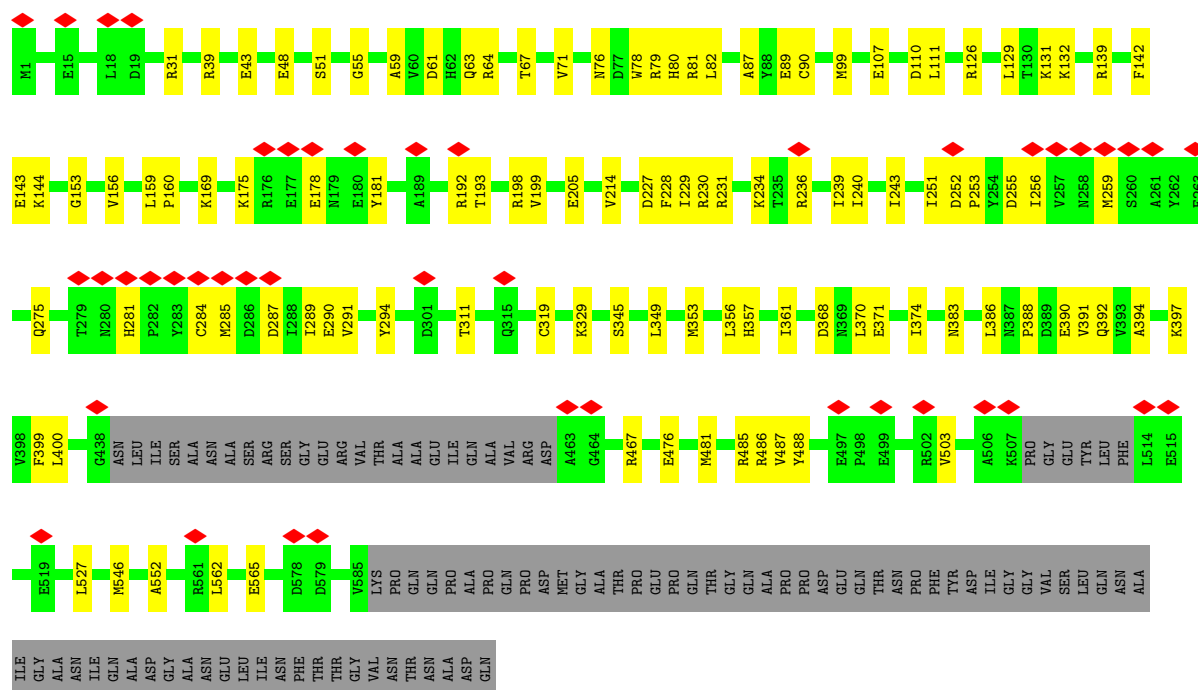


• Molecule 2: Portal protein





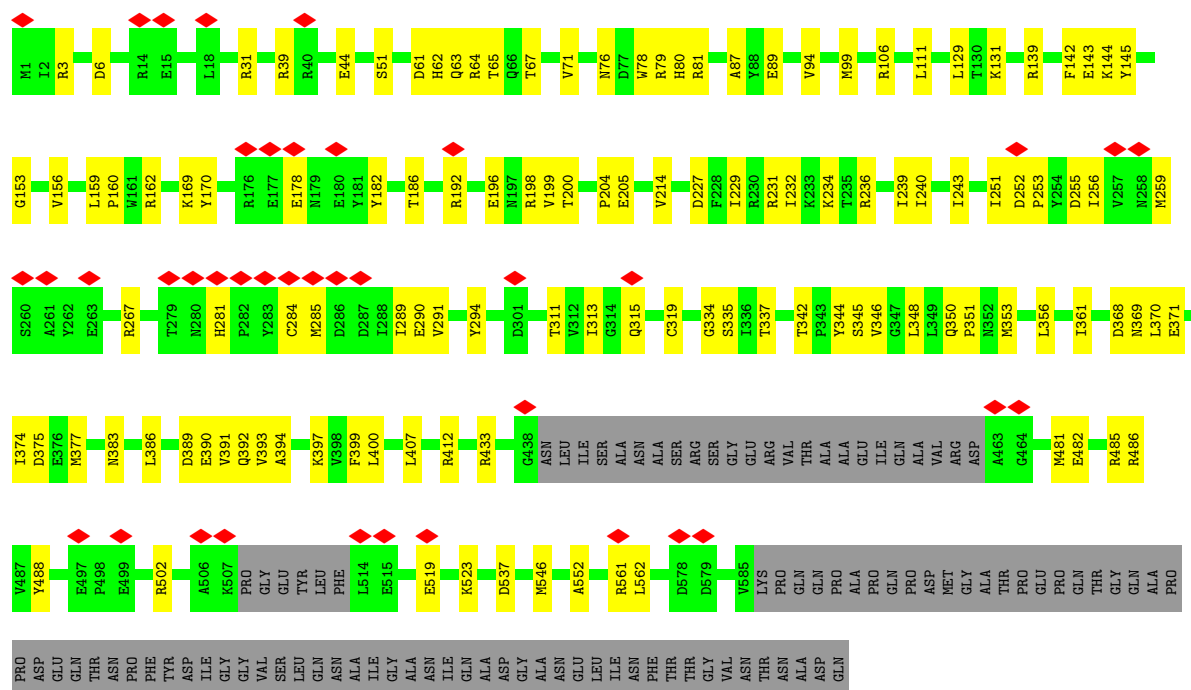
• Molecule 2: Portal protein



• Molecule 2: Portal protein

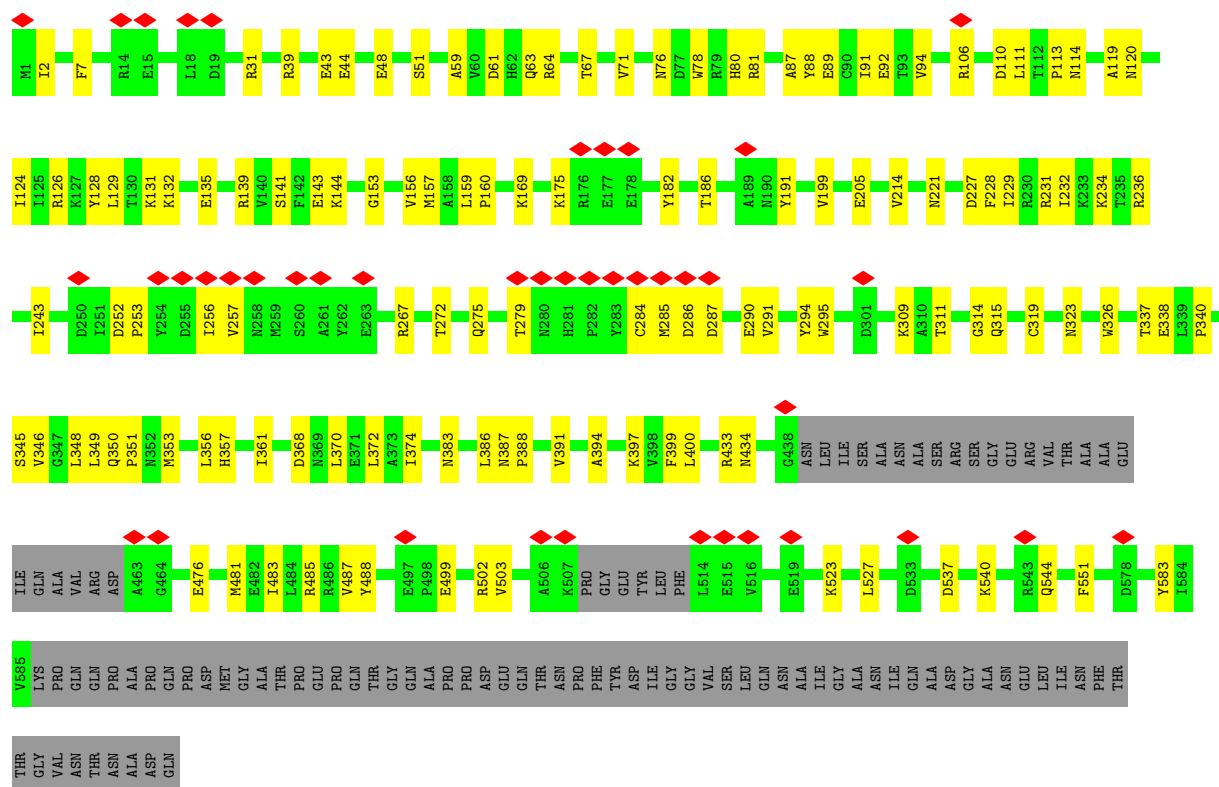


- Molecule 2: Portal protein

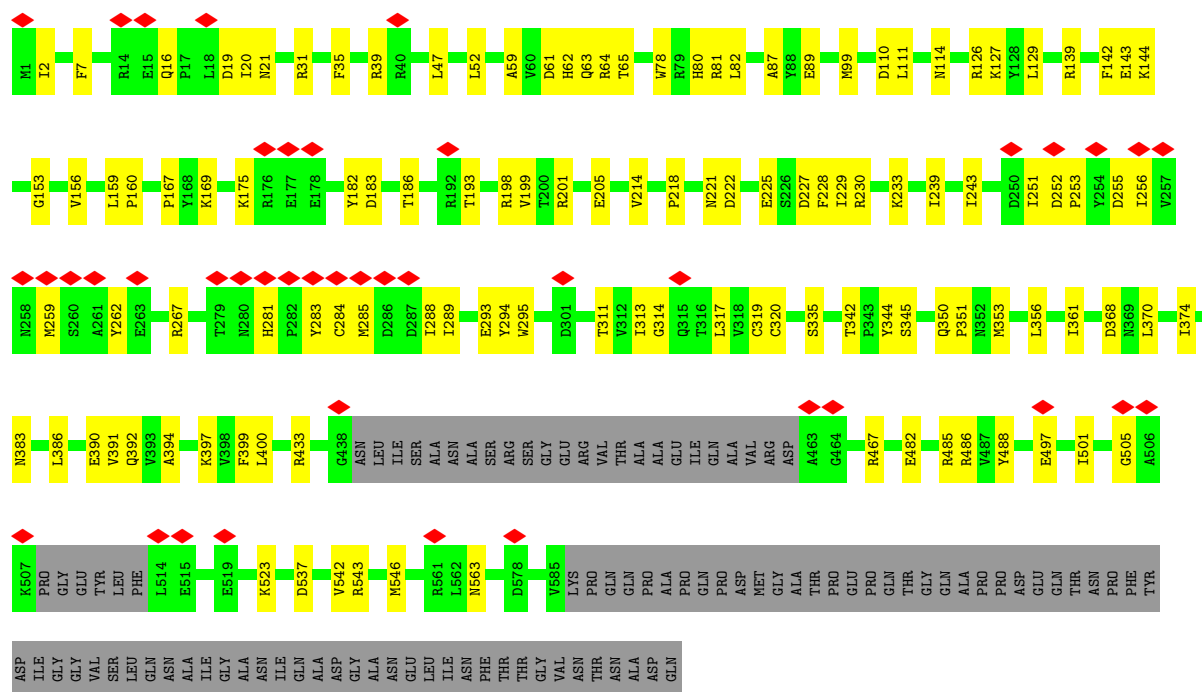


- Molecule 2: Portal protein

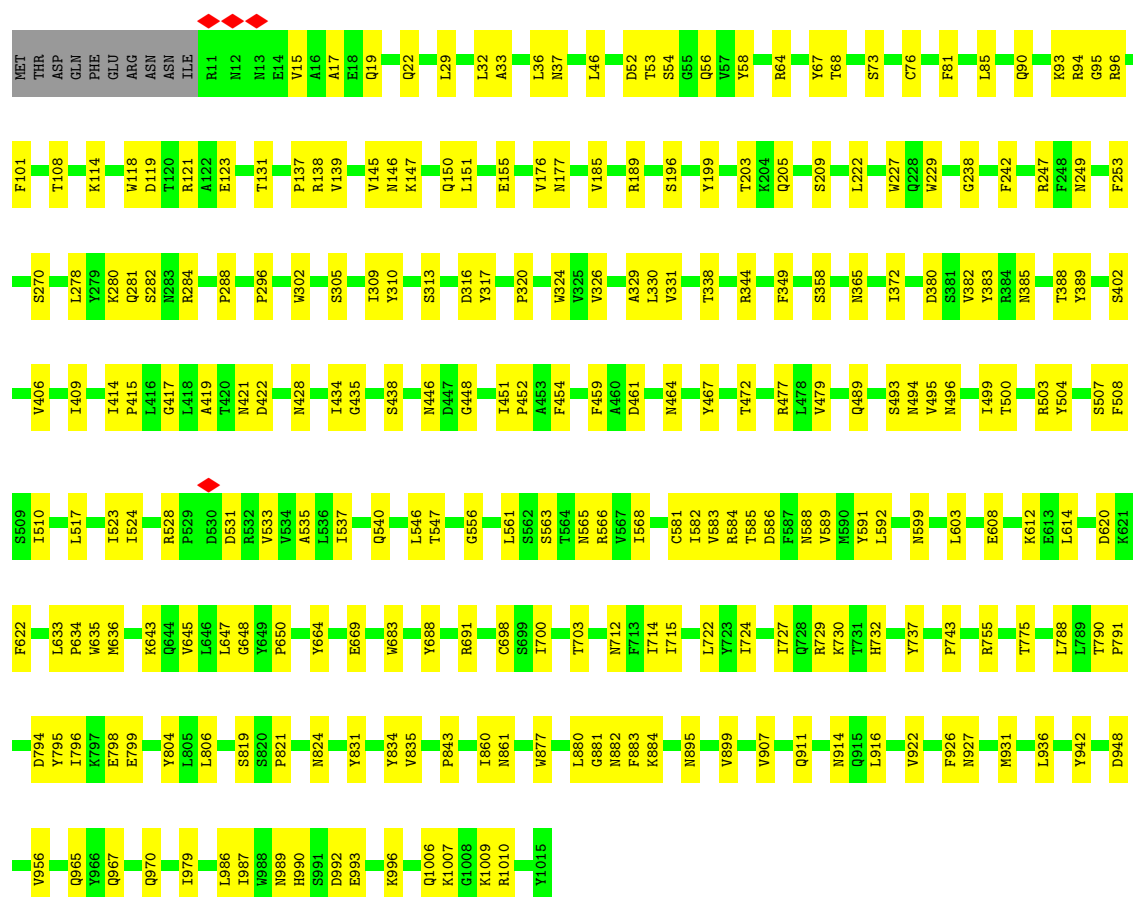




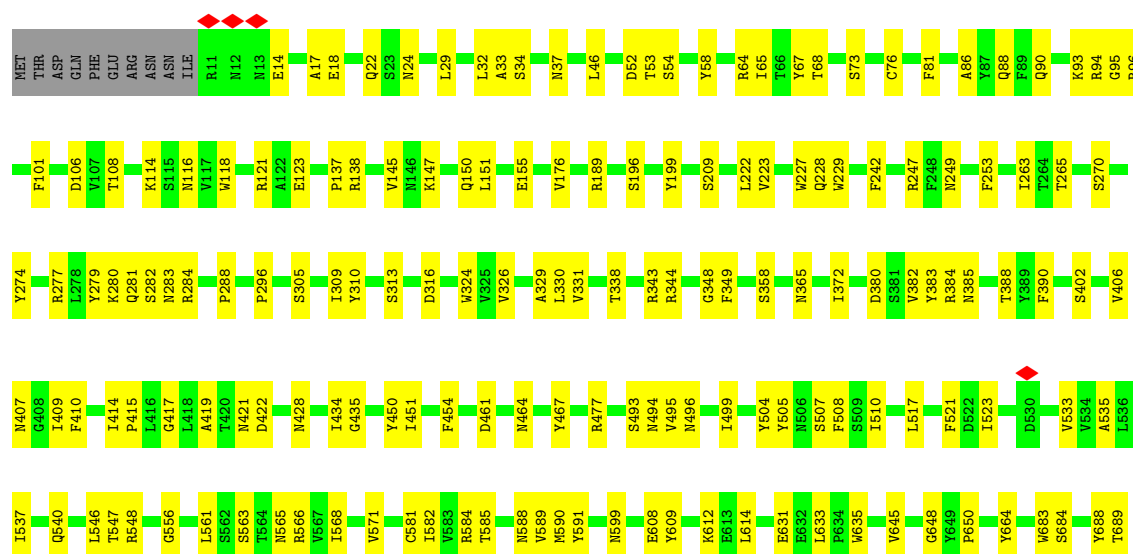
• Molecule 2: Portal protein



• Molecule 3: Tail tubular protein B

Chain U:  74% 25%

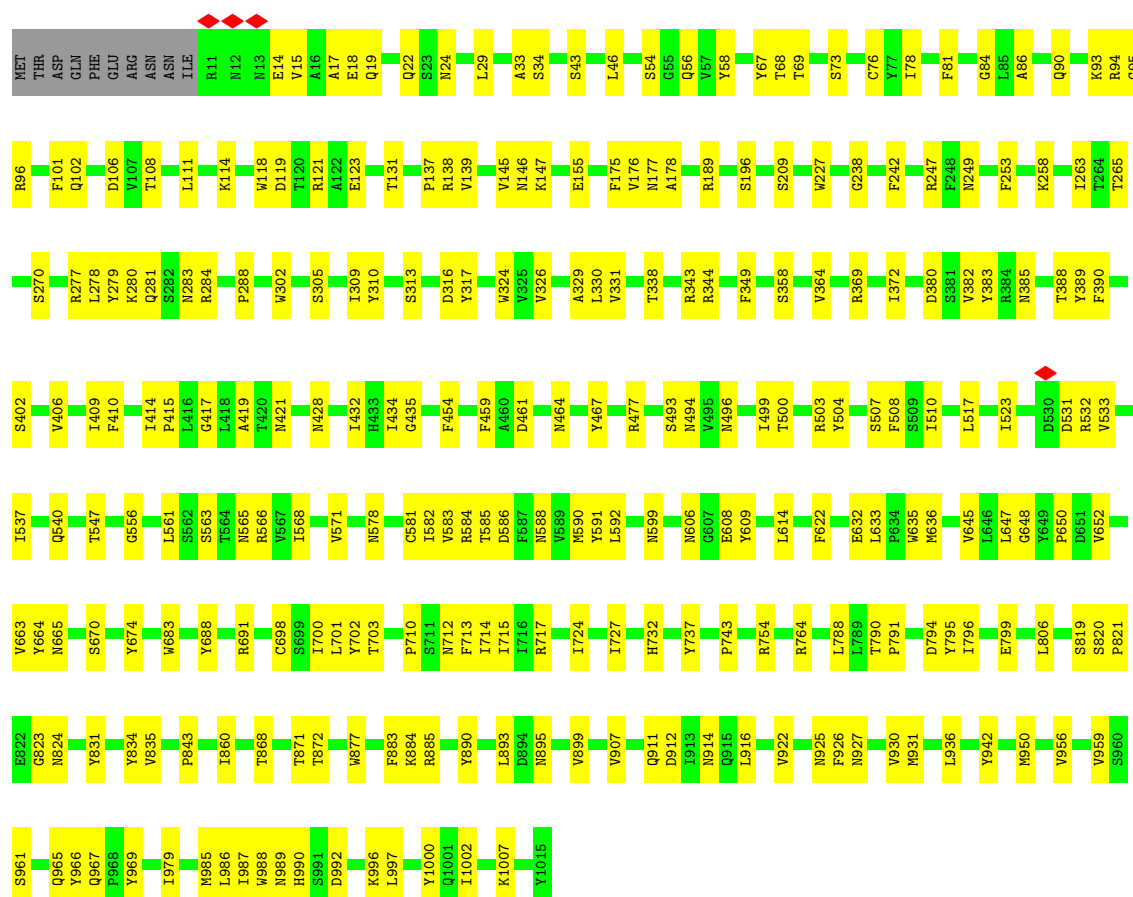
• Molecule 3: Tail tubular protein B

Chain V:  75% 24%



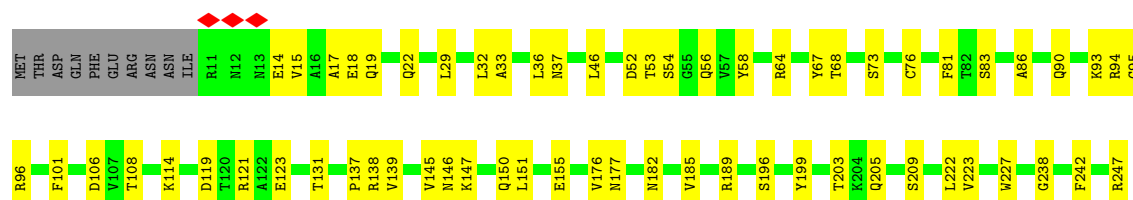
• Molecule 3: Tail tubular protein B

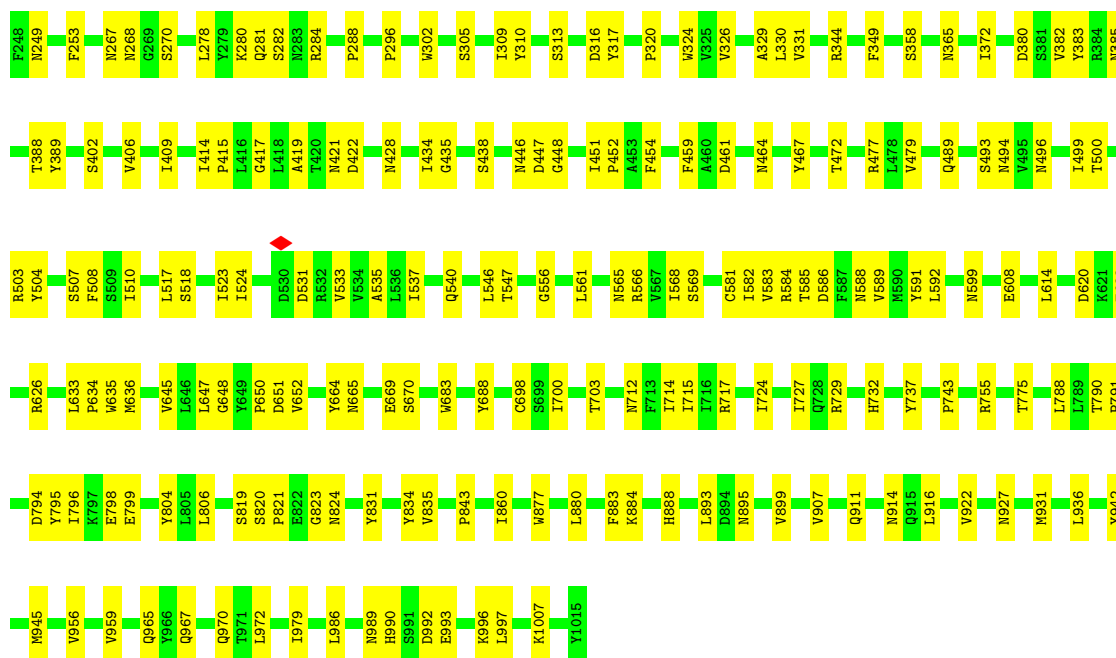
Chain W: 74% 25% .



• Molecule 3: Tail tubular protein B

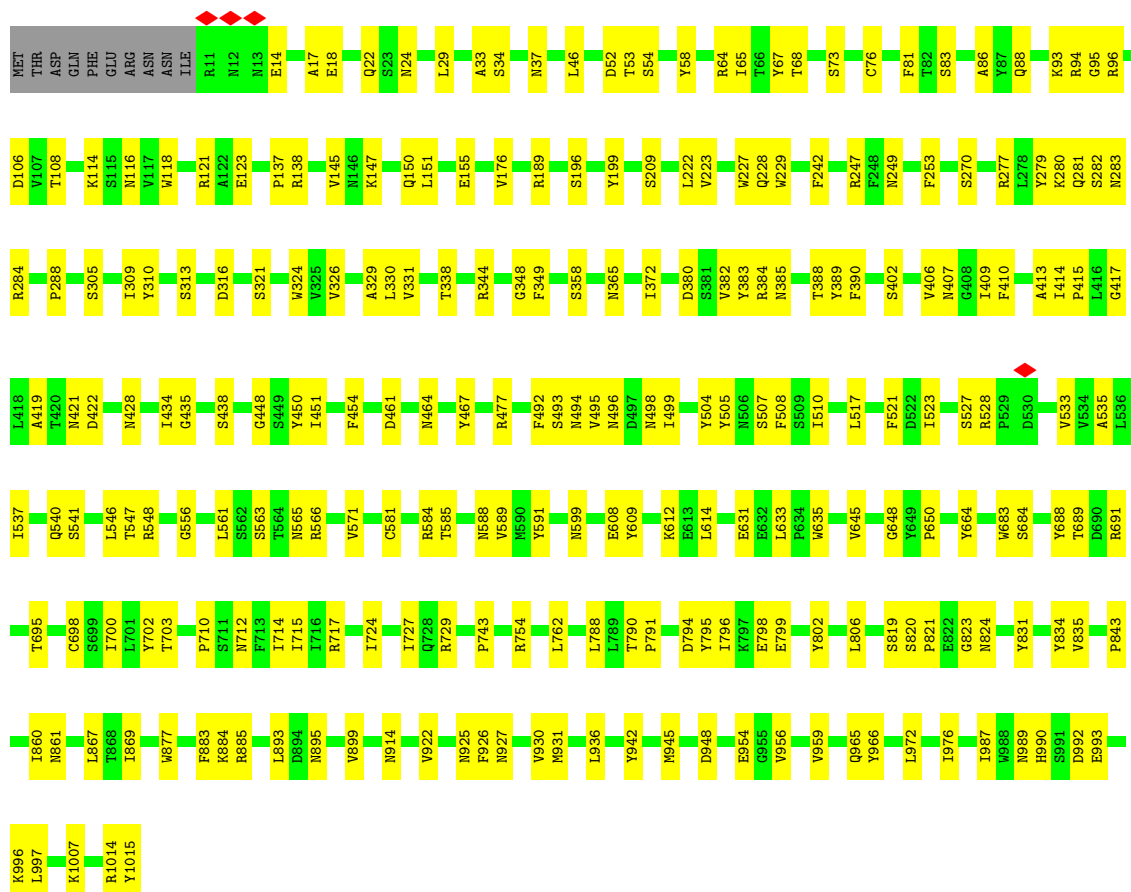
Chain u: 74% 25% .





• Molecule 3: Tail tubular protein B

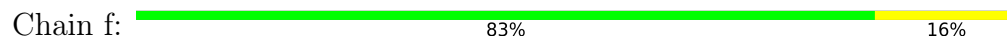
Chain v: 75% 24%



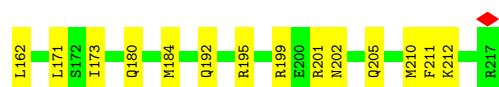
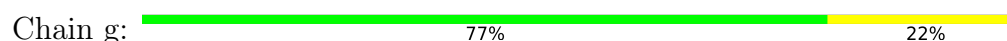




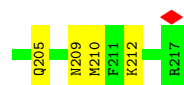
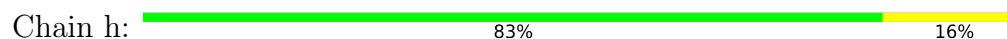
- Molecule 4: Tail tubular protein A



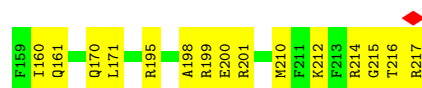
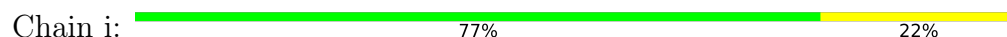
- Molecule 4: Tail tubular protein A



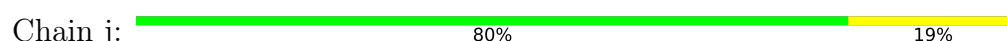
- Molecule 4: Tail tubular protein A

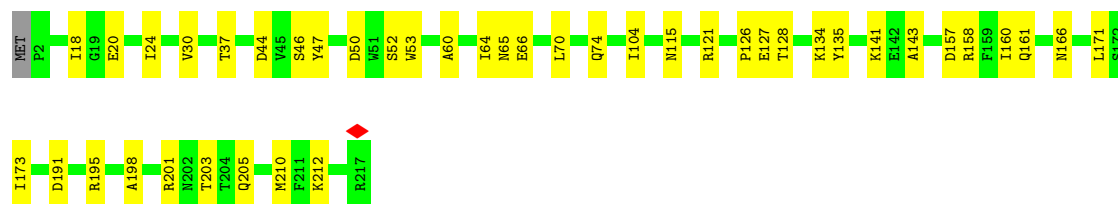


- Molecule 4: Tail tubular protein A

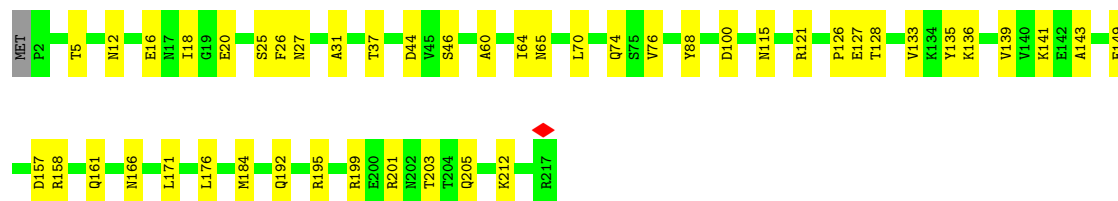
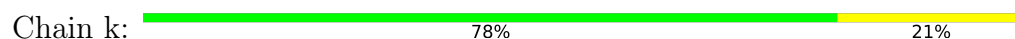


- Molecule 4: Tail tubular protein A

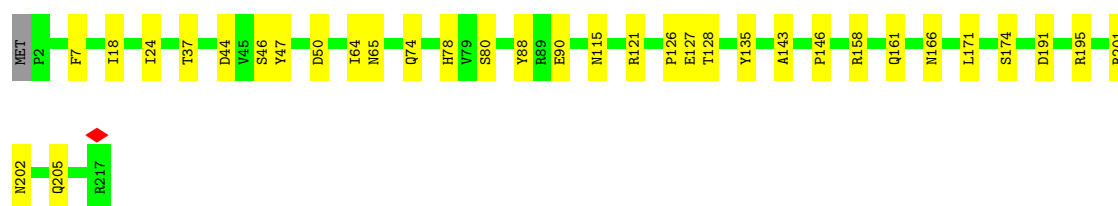
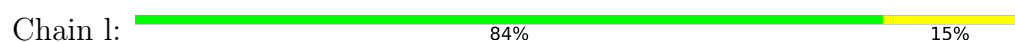




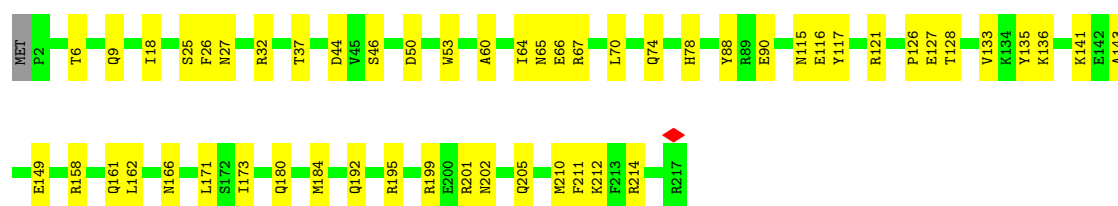
- Molecule 4: Tail tubular protein A



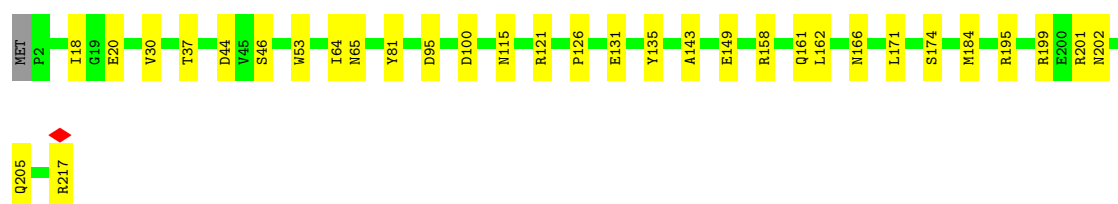
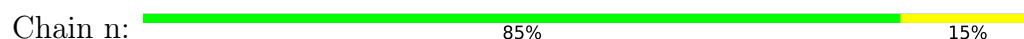
- Molecule 4: Tail tubular protein A



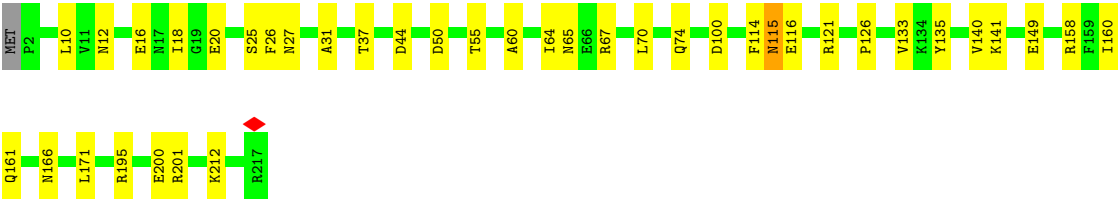
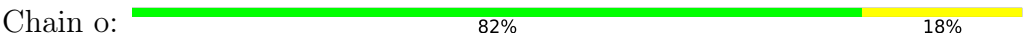
- Molecule 4: Tail tubular protein A



- Molecule 4: Tail tubular protein A



- Molecule 4: Tail tubular protein A



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	106052	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING ONLY	Depositor
Microscope	FEI TECNAI F30	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	55	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor
Maximum map value	0.076	Depositor
Minimum map value	-0.039	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.003	Depositor
Recommended contour level	0.01	Depositor
Map size ($\text{\AA}$)	445.12003, 445.12003, 445.12003	wwPDB
Map dimensions	416, 416, 416	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.07, 1.07, 1.07	Depositor

5 Model quality

5.1 Standard geometry

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	A	0.15	0/2875	0.38	0/3943
1	B	0.13	0/2875	0.35	0/3943
1	C	0.16	0/2875	0.43	0/3943
1	P	0.15	0/2875	0.44	1/3943 (0.0%)
1	Q	0.14	0/2875	0.36	0/3943
1	R	0.15	0/2875	0.41	0/3943
1	X	0.15	0/2875	0.37	0/3943
1	Y	0.13	0/2875	0.35	0/3943
1	Z	0.16	0/2875	0.42	0/3943
1	a	0.15	0/2875	0.40	1/3943 (0.0%)
1	b	0.13	0/2875	0.35	0/3943
1	c	0.14	0/2875	0.40	0/3943
1	p	0.14	0/2875	0.37	0/3943
1	q	0.13	0/2875	0.35	0/3943
1	r	0.16	0/2875	0.42	0/3943
1	x	0.16	0/2875	0.44	2/3943 (0.1%)
1	y	0.14	0/2875	0.36	0/3943
1	z	0.15	0/2875	0.40	0/3943
2	D	0.15	0/4610	0.39	0/6265
2	E	0.15	0/4610	0.40	2/6265 (0.0%)
2	F	0.14	0/4610	0.39	0/6265
2	G	0.15	0/4610	0.42	2/6265 (0.0%)
2	H	0.15	0/4610	0.40	0/6265
2	I	0.15	0/4610	0.40	2/6265 (0.0%)
2	J	0.15	0/4610	0.41	2/6265 (0.0%)
2	K	0.15	0/4610	0.40	2/6265 (0.0%)
2	L	0.13	0/4610	0.38	0/6265
2	M	0.15	0/4610	0.46	3/6265 (0.0%)
2	N	0.15	0/4610	0.41	0/6265
2	O	0.14	0/4610	0.41	2/6265 (0.0%)
3	U	0.16	0/8125	0.39	0/11114
3	V	0.14	0/8125	0.38	0/11114
3	W	0.14	0/8125	0.37	0/11114
3	u	0.14	0/8125	0.39	0/11114

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
3	v	0.14	0/8125	0.38	0/11114
3	w	0.14	0/8125	0.37	0/11114
4	d	0.15	0/1775	0.35	0/2410
4	e	0.16	0/1775	0.45	2/2410 (0.1%)
4	f	0.14	0/1775	0.34	0/2410
4	g	0.18	0/1775	0.38	0/2410
4	h	0.14	0/1775	0.35	0/2410
4	i	0.18	0/1775	0.40	0/2410
4	j	0.15	0/1775	0.36	0/2410
4	k	0.18	0/1775	0.37	0/2410
4	l	0.13	0/1775	0.34	0/2410
4	m	0.18	0/1775	0.37	0/2410
4	n	0.14	0/1775	0.36	0/2410
4	o	0.14	0/1775	0.46	4/2410 (0.2%)
All	All	0.15	0/177120	0.39	25/241758 (0.0%)

There are no bond length outliers.

All (25) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	M	315	GLN	N-CA-CB	-13.24	88.12	110.49
1	P	295	PRO	CA-N-CD	-9.73	98.38	112.00
1	x	295	PRO	CA-N-CD	-9.52	98.67	112.00
4	e	214	ARG	N-CA-C	-8.65	97.68	110.48
4	o	115	ASN	N-CA-C	8.50	123.96	107.98
4	o	114	PHE	CB-CA-C	-7.91	97.89	110.79
4	e	214	ARG	CB-CA-C	7.09	122.50	109.46
2	M	251	ILE	CA-C-N	7.02	131.03	121.20
2	M	251	ILE	C-N-CA	7.02	131.03	121.20
2	G	251	ILE	CA-C-N	6.98	130.98	121.20
2	G	251	ILE	C-N-CA	6.98	130.98	121.20
4	o	114	PHE	N-CA-C	6.66	119.78	107.99
2	J	251	ILE	CA-C-N	6.24	130.28	121.61
2	J	251	ILE	C-N-CA	6.24	130.28	121.61
2	I	251	ILE	CA-C-N	6.18	130.19	121.61
2	I	251	ILE	C-N-CA	6.18	130.19	121.61
2	O	251	ILE	CA-C-N	6.13	130.13	121.61
2	O	251	ILE	C-N-CA	6.13	130.13	121.61
1	a	195	PRO	CA-N-CD	-5.72	103.99	112.00
1	x	295	PRO	CB-CA-C	-5.43	104.45	111.46
2	E	251	ILE	CA-C-N	5.33	129.02	121.61
2	E	251	ILE	C-N-CA	5.33	129.02	121.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	o	115	ASN	N-CA-CB	-5.29	102.65	110.49
2	K	251	ILE	CA-C-N	5.17	128.80	121.61
2	K	251	ILE	C-N-CA	5.17	128.80	121.61

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	2814	0	2757	78	0
1	B	2814	0	2757	63	0
1	C	2814	0	2757	87	0
1	P	2814	0	2757	94	0
1	Q	2814	0	2757	77	0
1	R	2814	0	2757	81	0
1	X	2814	0	2757	100	0
1	Y	2814	0	2757	63	0
1	Z	2814	0	2757	78	0
1	a	2814	0	2757	76	0
1	b	2814	0	2757	66	0
1	c	2814	0	2757	80	0
1	p	2814	0	2757	77	0
1	q	2814	0	2757	69	0
1	r	2814	0	2757	81	0
1	x	2814	0	2757	98	0
1	y	2814	0	2757	80	0
1	z	2814	0	2757	90	0
2	D	4508	0	4358	81	0
2	E	4508	0	4358	74	0
2	F	4508	0	4358	95	0
2	G	4508	0	4358	103	0
2	H	4508	0	4358	84	0
2	I	4508	0	4358	92	0
2	J	4508	0	4358	83	0
2	K	4508	0	4358	75	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	L	4508	0	4358	96	0
2	M	4508	0	4358	98	0
2	N	4508	0	4358	93	0
2	O	4508	0	4358	92	0
3	U	7926	0	7612	189	0
3	V	7926	0	7612	171	0
3	W	7926	0	7612	163	0
3	u	7926	0	7612	167	0
3	v	7926	0	7612	159	0
3	w	7926	0	7612	159	0
4	d	1738	0	1689	33	0
4	e	1738	0	1689	36	0
4	f	1738	0	1689	34	0
4	g	1738	0	1689	35	0
4	h	1738	0	1689	33	0
4	i	1738	0	1689	45	0
4	j	1738	0	1689	36	0
4	k	1738	0	1689	36	0
4	l	1738	0	1689	24	0
4	m	1738	0	1689	47	0
4	n	1738	0	1689	30	0
4	o	1738	0	1689	30	0
All	All	173160	0	167862	3301	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 10.

All (3301) 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:x:301:LEU:HD23	1:x:317:ARG:CD	1.25	1.61
1:X:301:LEU:HD13	1:X:317:ARG:CZ	1.21	1.57
1:P:301:LEU:CD2	1:P:317:ARG:HD3	1.14	1.56
1:X:301:LEU:CD2	1:X:317:ARG:HD3	1.13	1.53
1:X:301:LEU:HD22	1:X:317:ARG:CD	1.06	1.50
1:x:301:LEU:CD2	1:x:317:ARG:HD3	0.97	1.45
1:P:301:LEU:HD23	1:P:317:ARG:CD	1.53	1.38
1:X:301:LEU:CD1	1:X:317:ARG:CZ	2.12	1.27
1:x:301:LEU:CD2	1:x:317:ARG:CD	1.89	1.25
4:i:214:ARG:O	4:i:217:ARG:NH1	1.69	1.25
1:a:314:PHE:CE1	1:a:317:ARG:NH1	2.06	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:i:214:ARG:C	4:i:217:ARG:HH12	1.46	1.22
1:X:301:LEU:HD13	1:X:317:ARG:NH2	1.55	1.19
1:P:301:LEU:CD2	1:P:317:ARG:CD	2.10	1.17
3:U:1010:ARG:NH1	4:f:18:ILE:O	1.78	1.17
2:M:394:ALA:HB2	4:m:214:ARG:NH2	1.58	1.16
3:U:1010:ARG:HH22	4:f:176:LEU:CD1	1.58	1.15
3:U:1010:ARG:HH22	4:f:176:LEU:HD13	0.93	1.09
1:P:301:LEU:HD21	1:P:317:ARG:HD3	1.30	1.09
1:p:300:VAL:O	1:p:317:ARG:HG3	1.52	1.08
1:X:301:LEU:HA	1:X:317:ARG:HG2	1.14	1.07
1:a:301:LEU:CA	1:a:317:ARG:HG2	1.85	1.07
1:x:301:LEU:HD21	1:x:317:ARG:HD3	1.35	1.05
3:U:1009:LYS:NZ	3:V:1003:ILE:HD12	1.70	1.05
2:M:394:ALA:CB	4:m:214:ARG:HH22	1.70	1.05
3:U:1009:LYS:NZ	3:V:1003:ILE:CD1	2.19	1.04
1:a:301:LEU:HA	1:a:317:ARG:CG	1.89	1.02
3:U:882:ASN:ND2	3:U:1006:GLN:NE2	2.08	1.02
1:X:301:LEU:HD13	1:X:317:ARG:NE	1.74	1.01
3:U:1010:ARG:NH2	4:f:176:LEU:HD13	1.76	1.00
3:V:274:TYR:HE1	3:V:343:ARG:HH12	0.98	0.97
1:A:317:ARG:NH2	1:B:286:ARG:HH21	1.62	0.96
2:D:433:ARG:NH1	2:O:89:GLU:OE1	1.98	0.96
1:a:301:LEU:HA	1:a:317:ARG:HG2	0.96	0.95
1:P:300:VAL:O	1:P:317:ARG:HG3	1.67	0.94
1:X:301:LEU:CA	1:X:317:ARG:HG2	1.96	0.94
1:x:300:VAL:O	1:x:317:ARG:HG3	1.68	0.93
1:P:317:ARG:HH12	1:Q:325:PHE:HB3	1.33	0.93
3:U:882:ASN:ND2	3:U:1006:GLN:HE21	1.66	0.92
1:x:301:LEU:HD21	1:x:317:ARG:CD	1.90	0.92
1:p:301:LEU:HD13	1:p:317:ARG:HD3	1.52	0.92
1:X:301:LEU:HB3	1:X:317:ARG:HE	1.33	0.91
1:X:314:PHE:CE1	1:X:317:ARG:HG3	2.05	0.91
1:P:153:LYS:NZ	1:R:148:GLU:O	2.05	0.90
1:X:301:LEU:HD22	1:X:317:ARG:NE	1.85	0.90
3:U:1009:LYS:HZ3	3:V:1003:ILE:CD1	1.82	0.90
1:P:317:ARG:NH1	1:P:319:GLN:NE2	2.17	0.90
1:X:301:LEU:HB3	1:X:317:ARG:NE	1.86	0.90
3:U:1009:LYS:HZ3	3:V:1003:ILE:HD11	1.37	0.89
3:V:263:ILE:O	3:V:343:ARG:NH1	2.06	0.88
1:C:238:GLN:HE21	1:C:360:VAL:HB	1.38	0.88
1:a:314:PHE:CE1	1:a:317:ARG:HG3	2.08	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:298:MET:HE2	1:c:323:PRO:HB3	1.56	0.87
2:M:394:ALA:HB2	4:m:214:ARG:HH22	1.27	0.86
3:U:882:ASN:HD22	3:U:1006:GLN:NE2	1.67	0.86
1:x:301:LEU:HD23	1:x:317:ARG:CG	2.05	0.86
1:B:298:MET:HG2	1:B:323:PRO:HB3	1.56	0.85
1:x:301:LEU:CG	1:x:317:ARG:HD3	2.04	0.85
3:V:263:ILE:O	3:V:343:ARG:CZ	2.24	0.85
1:Z:298:MET:HE2	1:Z:323:PRO:HB3	1.58	0.85
4:f:44:ASP:OD1	4:g:195:ARG:NH2	2.08	0.85
1:y:133:ASP:HB2	1:z:141:LYS:HZ3	1.41	0.84
2:M:394:ALA:CB	4:m:214:ARG:NH2	2.32	0.84
4:l:44:ASP:OD1	4:m:195:ARG:NH2	2.10	0.84
1:p:230:ALA:HA	1:p:259:ARG:HD3	1.59	0.84
4:i:214:ARG:C	4:i:217:ARG:NH1	2.25	0.83
1:r:9:SER:OG	1:r:65:ASN:O	1.97	0.82
1:x:230:ALA:HA	1:x:259:ARG:HD3	1.60	0.82
2:G:89:GLU:OE2	2:H:433:ARG:NH1	2.12	0.82
1:P:230:ALA:HA	1:P:259:ARG:HD3	1.61	0.81
2:I:89:GLU:OE1	2:J:433:ARG:NH1	2.13	0.81
2:J:350:GLN:HA	2:J:353:MET:HE3	1.62	0.81
1:x:317:ARG:NH1	1:x:319:GLN:NE2	2.29	0.81
1:q:132:GLY:H	1:r:141:LYS:HD3	1.46	0.81
4:g:44:ASP:OD1	4:h:195:ARG:NH2	2.14	0.80
1:A:230:ALA:HA	1:A:259:ARG:HD3	1.61	0.80
1:B:200:ASP:O	1:B:202:ARG:NH1	2.14	0.80
3:U:882:ASN:CG	3:U:1006:GLN:HE21	1.88	0.80
1:A:317:ARG:NH2	1:B:286:ARG:NH2	2.30	0.80
2:G:76:ASN:HB3	4:e:216:THR:HG23	1.64	0.80
1:X:301:LEU:HD23	1:X:317:ARG:HD3	1.57	0.80
3:w:196:SER:HG	3:w:209:SER:HG	1.29	0.80
1:B:132:GLY:H	1:C:141:LYS:HD3	1.46	0.80
4:i:215:GLY:HA3	4:i:217:ARG:HH11	1.46	0.80
3:v:284:ARG:HA	3:v:288:PRO:HG3	1.64	0.79
4:l:50:ASP:OD1	4:m:199:ARG:NH2	2.15	0.79
2:D:392:GLN:HG2	4:d:212:LYS:HB2	1.65	0.79
1:q:200:ASP:O	1:q:202:ARG:NH1	2.15	0.79
4:i:44:ASP:OD1	4:j:195:ARG:NH2	2.16	0.79
4:j:44:ASP:OD1	4:k:195:ARG:NH2	2.15	0.79
2:G:137:LYS:NZ	2:H:482:GLU:OE1	2.15	0.78
1:P:317:ARG:NH1	1:P:319:GLN:HE21	1.79	0.78
1:x:183:LYS:NZ	1:z:181:TYR:OH	2.16	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:106:ARG:NH2	2:G:537:ASP:OD2	2.16	0.78
1:Q:7:VAL:HG22	1:Q:69:GLU:HG2	1.66	0.78
1:Q:200:ASP:O	1:Q:202:ARG:NH1	2.17	0.78
3:U:64:ARG:HH12	3:U:729:ARG:HG3	1.48	0.78
1:x:317:ARG:HH12	1:y:325:PHE:HB3	1.47	0.78
3:v:196:SER:HG	3:v:209:SER:HG	1.31	0.77
1:z:141:LYS:N	1:z:141:LYS:HD2	1.99	0.77
2:L:231:ARG:HH22	2:L:265:ASN:HB2	1.49	0.77
1:P:183:LYS:NZ	1:R:181:TYR:OH	2.17	0.77
1:X:301:LEU:CD2	1:X:317:ARG:CD	1.99	0.77
2:O:392:GLN:HG2	4:o:212:LYS:HB2	1.65	0.77
1:y:200:ASP:O	1:y:202:ARG:NH1	2.16	0.77
1:C:298:MET:HE3	1:C:323:PRO:HB3	1.67	0.76
2:K:31:ARG:NH2	2:K:227:ASP:OD2	2.18	0.76
3:U:1010:ARG:NH2	4:f:176:LEU:CD1	2.42	0.76
1:X:183:LYS:NZ	1:Z:181:TYR:OH	2.18	0.76
1:A:183:LYS:NZ	1:C:181:TYR:OH	2.18	0.76
2:E:392:GLN:HG2	4:e:212:LYS:HB2	1.67	0.76
1:p:183:LYS:NZ	1:r:181:TYR:OH	2.17	0.76
2:L:106:ARG:NH2	2:M:537:ASP:OD2	2.18	0.76
4:d:191:ASP:OD2	4:d:195:ARG:NH1	2.18	0.76
1:b:200:ASP:O	1:b:202:ARG:NH1	2.19	0.76
1:X:314:PHE:HE1	1:X:317:ARG:HG3	1.51	0.75
2:E:31:ARG:NH2	2:E:227:ASP:OD2	2.18	0.75
2:E:48:GLU:HG3	2:E:353:MET:HE1	1.67	0.75
3:V:196:SER:HG	3:V:209:SER:HG	1.29	0.75
2:D:383:ASN:HD21	2:D:386:LEU:HB3	1.49	0.75
2:J:231:ARG:HH22	2:J:265:ASN:HB2	1.50	0.75
2:M:236:ARG:NH1	2:M:256:ILE:O	2.20	0.75
3:V:274:TYR:HE1	3:V:343:ARG:NH1	1.78	0.75
1:A:301:LEU:CD2	1:A:317:ARG:HD3	2.15	0.75
2:N:243:ILE:HG21	2:N:253:PRO:HG3	1.67	0.75
1:a:314:PHE:HE1	1:a:317:ARG:HH11	1.31	0.75
2:J:392:GLN:HG2	4:j:212:LYS:HB2	1.69	0.75
2:M:131:LYS:NZ	2:N:114:ASN:OD1	2.18	0.75
1:P:301:LEU:HD23	1:P:317:ARG:CG	2.17	0.75
2:K:129:LEU:HD11	2:K:488:TYR:HB3	1.67	0.74
4:j:191:ASP:OD2	4:j:195:ARG:NH1	2.18	0.74
2:G:236:ARG:NH1	2:G:256:ILE:O	2.20	0.74
2:K:89:GLU:OE2	2:L:433:ARG:NH1	2.20	0.74
2:K:392:GLN:HG2	4:k:212:LYS:HB2	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U:834:TYR:HB2	3:U:861:ASN:HB2	1.68	0.74
4:h:44:ASP:OD1	4:i:195:ARG:NH2	2.18	0.74
1:X:301:LEU:CD1	1:X:317:ARG:NH2	2.41	0.74
1:p:317:ARG:HH12	1:q:325:PHE:HB3	1.51	0.74
2:L:44:GLU:OE2	2:L:267:ARG:NH1	2.18	0.74
1:P:301:LEU:HD21	1:P:317:ARG:CD	1.99	0.74
3:W:196:SER:HG	3:W:209:SER:HG	1.30	0.73
3:V:284:ARG:HA	3:V:288:PRO:HG3	1.71	0.73
1:X:301:LEU:CG	1:X:317:ARG:NE	2.52	0.73
2:J:61:ASP:OD1	2:J:81:ARG:NH1	2.21	0.73
3:u:86:ALA:O	3:u:189:ARG:NH1	2.20	0.73
2:H:392:GLN:HG2	4:h:212:LYS:HB2	1.70	0.73
3:U:64:ARG:NH2	3:U:729:ARG:HE	1.86	0.73
4:d:44:ASP:OD1	4:e:195:ARG:NH2	2.16	0.73
3:w:265:THR:O	3:w:343:ARG:NH1	2.21	0.73
1:C:315:VAL:HG23	1:C:316:ILE:HG22	1.71	0.73
2:E:89:GLU:OE2	2:F:433:ARG:NH1	2.21	0.73
3:V:274:TYR:CE1	3:V:343:ARG:NH1	2.51	0.73
1:Y:298:MET:HG2	1:Y:323:PRO:HB3	1.70	0.73
1:R:315:VAL:HG23	1:R:316:ILE:HG22	1.70	0.73
3:U:1009:LYS:HZ2	3:V:1003:ILE:HD12	1.53	0.73
4:n:44:ASP:OD1	4:o:195:ARG:NH2	2.21	0.73
1:a:230:ALA:HA	1:a:259:ARG:HD3	1.71	0.73
1:y:298:MET:HB2	1:y:320:THR:HG22	1.69	0.73
2:O:482:GLU:OE2	2:O:486:ARG:NH1	2.22	0.72
2:F:169:LYS:HG2	2:F:199:VAL:HG12	1.71	0.72
2:G:394:ALA:HB3	2:G:397:LYS:HB2	1.72	0.72
3:U:196:SER:HG	3:U:209:SER:HG	1.34	0.72
2:K:61:ASP:OD1	2:K:81:ARG:NH2	2.22	0.72
3:W:265:THR:O	3:W:343:ARG:NH1	2.21	0.72
1:X:230:ALA:HA	1:X:259:ARG:HD3	1.70	0.72
4:f:191:ASP:OD2	4:f:195:ARG:NH1	2.22	0.72
1:y:133:ASP:HB2	1:z:141:LYS:NZ	2.05	0.72
2:D:139:ARG:NH1	2:D:143:GLU:OE2	2.22	0.72
3:U:584:ARG:HG2	3:U:589:VAL:HG12	1.71	0.72
2:D:350:GLN:HA	2:D:353:MET:HE3	1.71	0.72
2:E:175:LYS:NZ	2:E:193:THR:OG1	2.21	0.72
3:V:584:ARG:HG2	3:V:589:VAL:HG12	1.70	0.72
2:M:106:ARG:NH2	2:N:537:ASP:OD2	2.22	0.71
3:V:263:ILE:O	3:V:343:ARG:HD2	1.90	0.71
2:D:61:ASP:OD1	2:D:81:ARG:NH1	2.22	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:p:132:GLY:HA2	1:q:141:LYS:HD2	1.71	0.71
1:A:1:MET:HE3	1:A:23:ASN:HD21	1.55	0.71
1:B:7:VAL:HG22	1:B:69:GLU:HG3	1.73	0.71
1:C:238:GLN:NE2	1:C:360:VAL:HB	2.06	0.71
2:G:106:ARG:NH2	2:H:537:ASP:OD2	2.22	0.71
2:K:175:LYS:NZ	2:K:193:THR:OG1	2.23	0.71
2:M:160:PRO:HB3	2:M:205:GLU:HG3	1.73	0.71
1:Q:315:VAL:HG23	1:Q:316:ILE:HG22	1.71	0.71
3:V:799:GLU:HG2	3:V:936:LEU:HB2	1.71	0.71
3:w:86:ALA:O	3:w:189:ARG:NH2	2.23	0.71
2:G:234:LYS:HD3	2:G:291:VAL:HG21	1.72	0.71
3:V:523:ILE:HG12	3:V:566:ARG:HD2	1.73	0.71
2:H:485:ARG:HA	2:H:488:TYR:CE2	2.26	0.71
3:u:86:ALA:HB3	3:u:189:ARG:HH12	1.55	0.71
2:F:82:LEU:HD11	2:G:358:GLN:HE21	1.56	0.71
2:K:79:ARG:NH1	2:K:371:GLU:OE2	2.20	0.71
3:W:86:ALA:O	3:W:189:ARG:NH2	2.23	0.71
2:G:160:PRO:HB3	2:G:205:GLU:HG3	1.72	0.70
2:N:89:GLU:OE1	2:O:433:ARG:NE	2.24	0.70
1:P:301:LEU:CG	1:P:317:ARG:HD3	2.18	0.70
4:k:44:ASP:OD1	4:l:195:ARG:NH2	2.23	0.70
2:L:169:LYS:HG2	2:L:199:VAL:HG12	1.72	0.70
1:c:315:VAL:HG23	1:c:316:ILE:HG22	1.72	0.70
2:E:61:ASP:OD1	2:E:81:ARG:NH2	2.24	0.70
1:X:148:GLU:OE1	1:Z:126:TYR:OH	2.07	0.70
4:f:50:ASP:OD1	4:g:199:ARG:NH2	2.25	0.70
3:u:196:SER:HG	3:u:209:SER:HG	1.34	0.70
3:u:584:ARG:HG2	3:u:589:VAL:HG12	1.73	0.70
3:v:563:SER:O	3:v:566:ARG:NH1	2.24	0.70
2:M:392:GLN:HG2	4:m:212:LYS:HB2	1.72	0.70
2:F:485:ARG:HA	2:F:488:TYR:CE2	2.27	0.70
3:U:882:ASN:HD22	3:U:1006:GLN:HE22	1.38	0.70
3:v:584:ARG:HG2	3:v:589:VAL:HG12	1.71	0.70
2:F:392:GLN:HG2	4:f:212:LYS:HB2	1.74	0.70
4:d:199:ARG:NH2	4:o:50:ASP:OD1	2.23	0.70
1:z:315:VAL:HG23	1:z:316:ILE:HG22	1.74	0.70
2:G:139:ARG:NH1	2:G:143:GLU:OE2	2.24	0.70
2:I:31:ARG:NH2	2:I:227:ASP:OD2	2.25	0.70
1:Y:200:ASP:O	1:Y:202:ARG:NH1	2.23	0.70
2:G:482:GLU:OE2	2:G:486:ARG:NH1	2.25	0.70
1:q:7:VAL:HG22	1:q:69:GLU:HG3	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:153:GLY:O	2:H:345:SER:OG	2.10	0.70
1:X:301:LEU:CB	1:X:317:ARG:NE	2.55	0.70
1:b:7:VAL:HG22	1:b:69:GLU:HG3	1.74	0.70
2:N:485:ARG:HA	2:N:488:TYR:CE2	2.26	0.69
4:n:100:ASP:OD1	4:n:121:ARG:NH2	2.24	0.69
2:H:489:ARG:NH2	2:H:522:ASN:OD1	2.25	0.69
2:I:153:GLY:O	2:I:345:SER:OG	2.10	0.69
3:v:799:GLU:HG2	3:v:936:LEU:HB2	1.72	0.69
3:V:588:ASN:HD22	3:V:599:ASN:HD22	1.38	0.69
3:v:588:ASN:HD22	3:v:599:ASN:HD22	1.38	0.69
3:U:177:ASN:ND2	3:U:446:ASN:OD1	2.26	0.69
4:l:191:ASP:OD2	4:l:195:ARG:NH1	2.25	0.69
3:W:523:ILE:HG12	3:W:566:ARG:HD2	1.75	0.69
4:h:100:ASP:OD1	4:h:121:ARG:NH2	2.24	0.69
2:H:275:GLN:HG2	2:I:342:THR:HG21	1.75	0.69
2:K:234:LYS:HD3	2:K:291:VAL:HG21	1.73	0.69
1:X:314:PHE:CZ	1:X:317:ARG:HG3	2.27	0.69
1:b:315:VAL:HG23	1:b:316:ILE:HG22	1.75	0.69
3:u:177:ASN:ND2	3:u:446:ASN:OD1	2.26	0.69
1:y:298:MET:HG2	1:y:323:PRO:HB3	1.74	0.69
2:H:31:ARG:NH2	2:H:227:ASP:OD2	2.26	0.69
1:a:314:PHE:HE1	1:a:317:ARG:HG3	1.54	0.69
1:P:301:LEU:HD23	1:P:317:ARG:HD3	0.69	0.68
2:J:485:ARG:HA	2:J:488:TYR:CE2	2.28	0.68
1:a:314:PHE:CZ	1:a:317:ARG:NH1	2.61	0.68
2:E:383:ASN:HD21	2:E:386:LEU:HB3	1.58	0.68
1:A:262:TRP:HE3	1:A:275:GLN:HG3	1.58	0.68
2:H:234:LYS:HD3	2:H:291:VAL:HG21	1.75	0.68
4:i:215:GLY:HA3	4:i:217:ARG:NH1	2.09	0.68
4:i:215:GLY:CA	4:i:217:ARG:HH11	2.06	0.68
4:i:215:GLY:CA	4:i:217:ARG:NH1	2.57	0.68
2:O:31:ARG:NH2	2:O:227:ASP:OD2	2.25	0.68
1:Q:298:MET:HB2	1:Q:320:THR:HG22	1.74	0.68
2:J:399:PHE:HA	4:k:205:GLN:HE22	1.58	0.68
2:M:399:PHE:HA	4:n:205:GLN:HE22	1.57	0.68
1:P:134:THR:HG23	1:Q:123:ASN:HD22	1.57	0.68
3:U:882:ASN:CB	3:U:1006:GLN:HE21	2.07	0.68
2:D:394:ALA:HB3	2:D:397:LYS:HB2	1.74	0.68
1:a:314:PHE:CZ	1:a:317:ARG:HG3	2.29	0.68
1:x:317:ARG:NH1	1:x:319:GLN:HE21	1.90	0.68
2:J:394:ALA:HB3	2:J:397:LYS:HB2	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:w:985:MET:HE2	3:w:1002:ILE:HD11	1.76	0.68
2:G:399:PHE:HA	4:h:205:GLN:HE22	1.58	0.68
2:K:394:ALA:HB3	2:K:397:LYS:HB2	1.76	0.68
1:r:315:VAL:HG23	1:r:316:ILE:HG22	1.74	0.68
2:F:153:GLY:O	2:F:345:SER:OG	2.12	0.67
1:b:298:MET:HG2	1:b:323:PRO:HB3	1.76	0.67
1:y:319:GLN:NE2	1:z:320:THR:OG1	2.27	0.67
3:U:500:THR:HG21	3:U:503:ARG:HH11	1.60	0.67
3:U:563:SER:O	3:U:566:ARG:NH1	2.27	0.67
1:B:315:VAL:HG23	1:B:316:ILE:HG22	1.76	0.67
2:N:31:ARG:NH2	2:N:227:ASP:OD2	2.27	0.67
1:P:132:GLY:HA2	1:Q:141:LYS:HE2	1.75	0.67
3:U:523:ILE:HG12	3:U:566:ARG:HD2	1.77	0.67
4:e:100:ASP:OD1	4:e:121:ARG:NH2	2.27	0.67
1:q:315:VAL:HG23	1:q:316:ILE:HG22	1.76	0.67
2:K:153:GLY:O	2:K:345:SER:OG	2.12	0.67
3:W:985:MET:HE2	3:W:1002:ILE:HD11	1.75	0.67
1:p:270:ARG:NH1	1:p:272:LEU:HB2	2.10	0.67
3:w:277:ARG:NH1	3:w:279:TYR:OH	2.27	0.67
4:m:173:ILE:HG12	4:n:184:MET:HE2	1.76	0.67
1:p:300:VAL:C	1:p:317:ARG:HG3	2.19	0.67
2:D:485:ARG:HA	2:D:488:TYR:CE2	2.30	0.67
2:M:482:GLU:OE2	2:M:486:ARG:NH1	2.27	0.67
3:W:96:ARG:HG3	3:W:123:GLU:HG3	1.77	0.67
1:X:213:THR:OG1	1:Y:203:ALA:O	2.11	0.67
2:D:383:ASN:HD21	2:D:386:LEU:CB	2.06	0.67
2:J:482:GLU:OE2	2:J:486:ARG:NH1	2.28	0.67
4:m:44:ASP:OD1	4:n:195:ARG:NH2	2.27	0.67
3:w:523:ILE:HG12	3:w:566:ARG:HD2	1.75	0.67
2:O:153:GLY:O	2:O:345:SER:OG	2.12	0.67
1:A:210:ASP:O	1:B:222:ARG:NH1	2.28	0.67
4:i:100:ASP:OD1	4:i:121:ARG:NH2	2.28	0.67
4:i:158:ARG:NH1	4:i:200:GLU:OE2	2.27	0.67
4:j:47:TYR:HD2	4:k:192:GLN:HE22	1.40	0.67
3:w:96:ARG:HG3	3:w:123:GLU:HG3	1.77	0.67
3:u:500:THR:HG21	3:u:503:ARG:HH11	1.60	0.66
1:x:132:GLY:HA2	1:y:141:LYS:HD2	1.75	0.66
2:G:153:GLY:O	2:G:345:SER:OG	2.13	0.66
2:L:153:GLY:O	2:L:345:SER:OG	2.12	0.66
2:M:234:LYS:HD3	2:M:291:VAL:HG21	1.75	0.66
3:U:979:ILE:HD12	4:e:20:GLU:HG2	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:73:LYS:NZ	1:Z:108:ASP:OD1	2.24	0.66
1:A:132:GLY:HA2	1:B:141:LYS:HD2	1.77	0.66
1:B:73:LYS:NZ	1:C:108:ASP:OD1	2.25	0.66
2:E:252:ASP:HB3	2:E:255:ASP:HB2	1.77	0.66
2:K:383:ASN:HD21	2:K:386:LEU:HB3	1.59	0.66
2:N:48:GLU:OE2	2:N:357:HIS:NE2	2.27	0.66
3:W:277:ARG:NH1	3:W:279:TYR:OH	2.27	0.66
2:G:390:GLU:HB3	4:h:205:GLN:HG2	1.76	0.66
2:L:67:THR:HG21	2:L:76:ASN:HD22	1.61	0.66
2:M:153:GLY:O	2:M:345:SER:OG	2.13	0.66
3:W:500:THR:HG21	3:W:503:ARG:HH21	1.59	0.66
3:W:927:ASN:ND2	3:W:942:TYR:O	2.29	0.66
1:Y:315:VAL:HG23	1:Y:316:ILE:HG22	1.76	0.66
1:Z:173:THR:HG23	1:Z:175:ALA:H	1.60	0.66
2:M:394:ALA:HB3	2:M:397:LYS:HB2	1.77	0.66
2:N:234:LYS:HD3	2:N:291:VAL:HG21	1.76	0.66
3:U:729:ARG:HG2	3:U:861:ASN:OD1	1.96	0.66
1:a:132:GLY:HA2	1:b:141:LYS:HD2	1.77	0.66
4:o:100:ASP:OD1	4:o:121:ARG:NH2	2.28	0.66
1:p:262:TRP:HE3	1:p:275:GLN:HG3	1.61	0.66
1:y:315:VAL:HG23	1:y:316:ILE:HG22	1.77	0.66
2:F:156:VAL:HG21	2:F:214:VAL:HG11	1.77	0.66
2:G:31:ARG:NH2	2:G:227:ASP:OD2	2.29	0.66
2:K:485:ARG:HA	2:K:488:TYR:CE2	2.31	0.66
3:W:284:ARG:HA	3:W:288:PRO:HG3	1.77	0.66
1:b:298:MET:HB2	1:b:320:THR:HG22	1.77	0.66
3:u:58:TYR:HB3	3:u:996:LYS:HG3	1.77	0.66
2:E:89:GLU:CD	2:F:433:ARG:HH11	2.03	0.66
2:O:252:ASP:HB3	2:O:255:ASP:HB2	1.78	0.66
3:W:58:TYR:HB3	3:W:996:LYS:HG3	1.77	0.66
4:f:18:ILE:HD13	4:f:171:LEU:HD13	1.78	0.66
3:w:500:THR:HG21	3:w:503:ARG:HH21	1.59	0.66
1:P:228:ARG:NH1	1:P:370:GLN:OE1	2.29	0.66
1:X:286:ARG:HH12	1:Z:317:ARG:HB3	1.60	0.66
4:d:173:ILE:HG12	4:e:184:MET:HE2	1.78	0.66
4:o:20:GLU:HG2	3:w:979:ILE:HD12	1.78	0.66
1:z:11:THR:HG1	1:z:65:ASN:H	1.42	0.66
2:F:542:VAL:HG12	2:F:546:MET:HE2	1.77	0.66
2:G:252:ASP:HB3	2:G:255:ASP:HB2	1.78	0.66
2:L:156:VAL:HG21	2:L:214:VAL:HG11	1.76	0.66
2:O:342:THR:HG22	2:O:344:TYR:H	1.61	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:137:PRO:HD3	1:Q:121:PRO:HG3	1.78	0.66
3:w:927:ASN:ND2	3:w:942:TYR:O	2.29	0.66
2:L:350:GLN:HA	2:L:353:MET:HE3	1.77	0.66
4:d:195:ARG:NH2	4:o:44:ASP:OD1	2.28	0.66
1:x:72:ARG:NE	1:x:106:GLU:OE2	2.18	0.66
2:I:252:ASP:HB3	2:I:255:ASP:HB2	1.78	0.65
2:O:156:VAL:HG21	2:O:214:VAL:HG11	1.78	0.65
3:U:790:THR:H	3:U:794:ASP:HB2	1.61	0.65
3:V:563:SER:O	3:V:566:ARG:NH1	2.28	0.65
3:W:563:SER:O	3:W:566:ARG:NH1	2.30	0.65
3:W:588:ASN:HD22	3:W:599:ASN:HD22	1.44	0.65
4:g:173:ILE:HG12	4:h:184:MET:HE2	1.76	0.65
4:k:20:GLU:HG2	3:u:979:ILE:HD12	1.78	0.65
1:r:303:PHE:HD2	1:r:311:VAL:HA	1.60	0.65
2:F:86:LYS:NZ	2:F:432:ASP:OD1	2.30	0.65
2:J:153:GLY:O	2:J:345:SER:OG	2.14	0.65
4:k:100:ASP:OD1	4:k:121:ARG:NH2	2.28	0.65
2:F:44:GLU:OE2	2:F:267:ARG:NH2	2.28	0.65
2:L:221:ASN:ND2	2:L:340:PRO:O	2.29	0.65
1:X:137:PRO:HD3	1:Y:121:PRO:HG3	1.78	0.65
1:x:213:THR:OG1	1:y:203:ALA:O	2.13	0.65
1:C:11:THR:HG1	1:C:65:ASN:H	1.44	0.65
2:F:350:GLN:HA	2:F:353:MET:HE3	1.77	0.65
2:J:342:THR:HG22	2:J:344:TYR:H	1.62	0.65
1:Z:305:GLY:HA2	1:Z:312:GLU:OE1	1.96	0.65
1:c:28:THR:HA	1:c:49:LYS:HE2	1.79	0.65
4:j:18:ILE:HD13	4:j:171:LEU:HD13	1.78	0.65
1:p:300:VAL:O	1:p:317:ARG:CG	2.38	0.65
3:u:626:ARG:NH1	3:v:695:THR:O	2.29	0.65
3:w:58:TYR:HB3	3:w:996:LYS:HG3	1.76	0.65
1:x:137:PRO:HD3	1:y:121:PRO:HG3	1.78	0.65
2:E:394:ALA:HB3	2:E:397:LYS:HB2	1.77	0.65
2:F:231:ARG:NH1	2:F:290:GLU:OE1	2.30	0.65
2:G:285:MET:SD	2:H:31:ARG:NH1	2.70	0.65
3:V:277:ARG:NH1	3:V:279:TYR:OH	2.30	0.65
4:k:12:ASN:O	4:k:16:GLU:HG2	1.96	0.65
1:Q:73:LYS:NZ	1:R:108:ASP:OD1	2.26	0.65
1:X:132:GLY:HA2	1:Y:141:LYS:HD2	1.78	0.65
2:I:399:PHE:HA	4:j:205:GLN:HE22	1.61	0.65
2:M:252:ASP:HB3	2:M:255:ASP:HB2	1.78	0.65
2:N:394:ALA:HB3	2:N:397:LYS:HB2	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:d:18:ILE:HD13	4:d:171:LEU:HD13	1.78	0.65
3:w:563:SER:O	3:w:566:ARG:NH1	2.30	0.65
2:O:383:ASN:HD21	2:O:386:LEU:HB3	1.62	0.65
3:W:967:GLN:NE2	3:W:969:TYR:O	2.30	0.65
2:E:399:PHE:HA	4:f:205:GLN:HE22	1.61	0.65
2:F:221:ASN:ND2	2:F:340:PRO:O	2.29	0.65
2:H:131:LYS:NZ	2:H:135:GLU:OE2	2.26	0.65
2:K:252:ASP:HB3	2:K:255:ASP:HB2	1.77	0.65
2:M:390:GLU:HB3	4:n:205:GLN:HG2	1.78	0.65
3:U:58:TYR:HB3	3:U:996:LYS:HG3	1.78	0.65
4:j:158:ARG:O	4:j:161:GLN:NE2	2.31	0.65
4:n:174:SER:O	3:w:885:ARG:NH2	2.27	0.65
3:w:588:ASN:HD22	3:w:599:ASN:HD22	1.44	0.65
1:A:15:TRP:HA	4:k:133:VAL:HG11	1.79	0.64
1:C:304:VAL:HG23	1:C:313:ASN:HB2	1.80	0.64
2:F:390:GLU:HB3	4:g:205:GLN:HG2	1.79	0.64
1:Q:297:TYR:OH	1:Q:319:GLN:OE1	2.14	0.64
3:W:979:ILE:HD12	4:i:20:GLU:HG2	1.77	0.64
4:g:50:ASP:OD1	4:h:199:ARG:NH2	2.30	0.64
4:j:173:ILE:HG12	4:k:184:MET:HE2	1.78	0.64
1:A:137:PRO:HD3	1:B:121:PRO:HG3	1.79	0.64
2:D:143:GLU:OE1	2:E:474:HIS:ND1	2.30	0.64
2:D:153:GLY:O	2:D:345:SER:OG	2.14	0.64
2:F:61:ASP:OD1	2:F:81:ARG:NH2	2.30	0.64
2:F:394:ALA:HB3	2:F:397:LYS:HB2	1.80	0.64
2:K:144:LYS:NZ	2:L:338:GLU:OE1	2.25	0.64
2:L:489:ARG:NH2	2:L:522:ASN:OD1	2.28	0.64
1:a:179:THR:OG1	1:c:173:THR:O	2.16	0.64
3:v:155:GLU:HG2	3:v:223:VAL:HG22	1.78	0.64
3:w:284:ARG:HA	3:w:288:PRO:HG3	1.77	0.64
2:J:99:MET:HE2	2:J:143:GLU:HG2	1.80	0.64
2:L:61:ASP:OD1	2:L:81:ARG:NH2	2.30	0.64
3:V:155:GLU:HG2	3:V:223:VAL:HG22	1.78	0.64
1:r:28:THR:HA	1:r:49:LYS:HE2	1.80	0.64
2:J:67:THR:HG21	2:J:76:ASN:HD22	1.62	0.64
3:W:885:ARG:NH2	4:h:174:SER:O	2.28	0.64
4:f:158:ARG:O	4:f:161:GLN:NE2	2.31	0.64
3:u:799:GLU:HB3	3:u:936:LEU:HD12	1.80	0.64
3:u:927:ASN:ND2	3:u:942:TYR:O	2.30	0.64
2:D:67:THR:HG21	2:D:76:ASN:HD22	1.61	0.64
2:D:399:PHE:HA	4:e:205:GLN:HE22	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:64:ARG:NH2	2:E:80:HIS:O	2.30	0.64
2:M:31:ARG:NH2	2:M:227:ASP:OD2	2.30	0.64
3:W:121:ARG:NH2	3:W:145:VAL:O	2.30	0.64
4:e:133:VAL:HG11	1:p:15:TRP:HA	1.80	0.64
3:u:790:THR:H	3:u:794:ASP:HB2	1.61	0.64
2:I:342:THR:HG22	2:I:344:TYR:H	1.63	0.64
2:L:275:GLN:HG2	2:M:342:THR:HG21	1.79	0.64
3:U:253:PHE:HA	3:U:309:ILE:HD13	1.80	0.64
3:V:383:TYR:HD1	3:V:415:PRO:HB2	1.62	0.64
1:X:208:VAL:O	1:Y:222:ARG:NH2	2.31	0.64
1:X:301:LEU:CD1	1:X:317:ARG:NE	2.45	0.64
4:h:115:ASN:HB2	4:h:121:ARG:HG3	1.80	0.64
4:m:50:ASP:OD1	4:n:199:ARG:NH2	2.30	0.64
1:x:103:TRP:CD2	1:y:104:ARG:HD2	2.32	0.64
1:P:103:TRP:CD2	1:Q:104:ARG:HD2	2.33	0.63
1:q:319:GLN:NE2	1:r:320:THR:OG1	2.31	0.63
2:F:275:GLN:HG2	2:G:342:THR:HG21	1.81	0.63
2:O:399:PHE:HA	4:d:205:GLN:HE22	1.62	0.63
3:V:17:ALA:O	3:V:22:GLN:NE2	2.31	0.63
1:b:319:GLN:NE2	1:c:320:THR:OG1	2.31	0.63
4:l:18:ILE:HD13	4:l:171:LEU:HD13	1.78	0.63
3:v:383:TYR:HD1	3:v:415:PRO:HB2	1.62	0.63
3:w:121:ARG:NH2	3:w:145:VAL:O	2.30	0.63
1:B:133:ASP:OD1	1:C:140:ARG:NH2	2.31	0.63
2:K:565:GLU:OE2	2:L:561:ARG:NH1	2.31	0.63
4:h:158:ARG:O	4:h:161:GLN:NE2	2.32	0.63
1:x:228:ARG:NH1	1:x:370:GLN:OE1	2.32	0.63
2:K:329:LYS:O	2:K:486:ARG:NH1	2.31	0.63
1:X:286:ARG:HD2	1:X:363:ASP:HB2	1.78	0.63
1:a:15:TRP:HA	4:m:133:VAL:HG11	1.81	0.63
1:a:108:ASP:OD2	1:c:76:ASN:ND2	2.25	0.63
4:n:115:ASN:HB2	4:n:121:ARG:HG3	1.80	0.63
1:p:137:PRO:HD3	1:q:121:PRO:HG3	1.80	0.63
1:p:301:LEU:CD1	1:p:317:ARG:HD3	2.27	0.63
1:q:133:ASP:OD1	1:r:140:ARG:NH2	2.31	0.63
3:v:277:ARG:NH1	3:v:279:TYR:OH	2.32	0.63
1:x:300:VAL:C	1:x:317:ARG:HG3	2.22	0.63
1:C:240:GLY:HA2	1:C:360:VAL:HG12	1.81	0.63
1:X:15:TRP:HA	4:g:133:VAL:HG11	1.81	0.63
1:Y:36:LEU:HB2	1:Y:69:GLU:HB3	1.81	0.63
1:Y:235:ARG:HB2	1:Y:253:PHE:HA	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:28:THR:HA	1:Z:49:LYS:HE2	1.79	0.63
1:A:211:ASN:HA	1:B:222:ARG:HH22	1.64	0.63
1:C:28:THR:HA	1:C:49:LYS:HE2	1.79	0.63
2:K:78:TRP:HE1	2:K:361:ILE:HG23	1.63	0.63
4:i:37:THR:HG21	4:i:171:LEU:HG	1.81	0.63
4:i:133:VAL:HG11	1:x:15:TRP:HA	1.79	0.63
1:A:103:TRP:CD2	1:B:104:ARG:HD2	2.33	0.63
2:F:31:ARG:NH2	2:F:227:ASP:OD2	2.30	0.63
1:Q:314:PHE:HZ	1:Q:317:ARG:HB2	1.63	0.63
3:U:477:ARG:NH2	3:U:517:LEU:O	2.32	0.63
3:W:877:TRP:HB2	3:W:884:LYS:HE2	1.80	0.63
1:a:208:VAL:O	1:b:222:ARG:NH2	2.32	0.63
4:l:158:ARG:O	4:l:161:GLN:NE2	2.32	0.63
3:u:253:PHE:HA	3:u:309:ILE:HD13	1.79	0.63
3:u:280:LYS:HG3	3:u:281:GLN:HG3	1.81	0.63
3:v:17:ALA:O	3:v:22:GLN:NE2	2.31	0.63
2:K:64:ARG:NH2	2:K:80:HIS:O	2.32	0.63
1:P:15:TRP:HA	4:o:133:VAL:HG11	1.80	0.63
1:X:195:PRO:HD2	1:Z:201:PRO:HA	1.81	0.63
1:a:137:PRO:HD3	1:b:121:PRO:HG3	1.81	0.63
3:u:535:ALA:HB3	3:u:546:LEU:HB2	1.81	0.63
3:w:365:ASN:ND2	3:w:422:ASP:OD1	2.31	0.63
1:P:317:ARG:NH1	1:Q:325:PHE:HB3	2.08	0.63
3:U:799:GLU:HB3	3:U:936:LEU:HD12	1.80	0.63
1:A:286:ARG:HH12	1:C:317:ARG:HB3	1.63	0.62
2:D:337:THR:HB	2:D:346:VAL:HB	1.79	0.62
2:F:80:HIS:CE1	2:G:358:GLN:HE22	2.16	0.62
2:N:275:GLN:HG2	2:O:342:THR:HG21	1.81	0.62
3:U:535:ALA:HB3	3:U:546:LEU:HB2	1.81	0.62
3:W:17:ALA:O	3:W:22:GLN:NE2	2.33	0.62
4:d:149:GLU:OE2	4:d:149:GLU:N	2.29	0.62
4:h:18:ILE:HD13	4:h:171:LEU:HD13	1.81	0.62
3:u:309:ILE:O	3:v:338:THR:OG1	2.17	0.62
3:u:489:GLN:HG3	3:u:524:ILE:HG13	1.80	0.62
3:w:17:ALA:O	3:w:22:GLN:NE2	2.33	0.62
2:F:131:LYS:NZ	2:F:135:GLU:OE2	2.25	0.62
2:J:169:LYS:HG2	2:J:199:VAL:HG12	1.80	0.62
2:N:221:ASN:ND2	2:N:340:PRO:O	2.32	0.62
1:Q:298:MET:HG2	1:Q:323:PRO:HB3	1.80	0.62
1:r:8:VAL:HG11	1:r:10:ARG:HE	1.64	0.62
2:I:392:GLN:HG2	4:i:212:LYS:HB2	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U:927:ASN:ND2	3:U:942:TYR:O	2.33	0.62
3:V:950:MET:HE3	1:p:88:LEU:HD11	1.82	0.62
1:b:103:TRP:CD2	1:c:104:ARG:HD2	2.34	0.62
1:A:252:GLN:HG2	1:A:269:ASN:HD21	1.65	0.62
2:F:67:THR:HG21	2:F:76:ASN:HD22	1.64	0.62
2:I:542:VAL:HG12	2:I:546:MET:HE2	1.81	0.62
2:K:390:GLU:HB3	4:l:205:GLN:HG2	1.81	0.62
1:p:252:GLN:HG2	1:p:269:ASN:HD21	1.64	0.62
1:x:301:LEU:CD2	1:x:317:ARG:NE	2.62	0.62
1:C:158:LEU:HD13	1:C:162:THR:HG21	1.82	0.62
1:C:235:ARG:HB3	1:C:364:ALA:HB3	1.81	0.62
2:D:342:THR:HG22	2:D:344:TYR:H	1.65	0.62
2:E:156:VAL:HG21	2:E:214:VAL:HG11	1.82	0.62
2:E:243:ILE:HG21	2:E:253:PRO:HG3	1.81	0.62
2:J:131:LYS:NZ	2:J:135:GLU:OE2	2.25	0.62
3:v:309:ILE:O	3:w:338:THR:OG1	2.16	0.62
2:G:383:ASN:HD21	2:G:386:LEU:HB3	1.65	0.62
2:H:383:ASN:HD21	2:H:386:LEU:HB3	1.65	0.62
3:U:309:ILE:O	3:V:338:THR:OG1	2.16	0.62
3:u:121:ARG:NH2	3:u:145:VAL:O	2.33	0.62
3:w:877:TRP:HB2	3:w:884:LYS:HE2	1.80	0.62
2:I:407:LEU:HD21	4:i:210:MET:HE1	1.81	0.62
2:N:131:LYS:NZ	2:N:135:GLU:OE2	2.28	0.62
2:O:542:VAL:HG12	2:O:546:MET:HE2	1.81	0.62
1:P:213:THR:OG1	1:Q:203:ALA:O	2.13	0.62
1:q:235:ARG:HB2	1:q:253:PHE:HA	1.81	0.62
3:u:588:ASN:HD22	3:u:599:ASN:HD22	1.48	0.62
3:v:477:ARG:NH2	3:v:517:LEU:O	2.32	0.62
2:E:153:GLY:O	2:E:345:SER:OG	2.15	0.62
2:M:156:VAL:HG21	2:M:214:VAL:HG11	1.82	0.62
2:N:153:GLY:O	2:N:345:SER:OG	2.18	0.62
3:W:280:LYS:HG3	3:W:281:GLN:HG3	1.82	0.62
1:a:319:GLN:NE2	1:b:320:THR:OG1	2.33	0.62
1:c:270:ARG:HD2	1:c:342:ASN:HD21	1.64	0.62
1:C:265:ASN:ND2	1:z:132:GLY:O	2.32	0.62
2:K:243:ILE:HG21	2:K:253:PRO:HG3	1.82	0.62
2:O:394:ALA:HB3	2:O:397:LYS:HB2	1.82	0.62
1:R:158:LEU:HD13	1:R:162:THR:HG21	1.81	0.62
3:U:37:ASN:ND2	3:V:24:ASN:OD1	2.31	0.62
4:k:176:LEU:HD21	3:u:979:ILE:HD13	1.82	0.62
4:n:158:ARG:O	4:n:161:GLN:NE2	2.31	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:79:ARG:NH1	2:G:371:GLU:OE1	2.29	0.62
2:H:64:ARG:NH2	2:H:80:HIS:O	2.33	0.62
2:I:482:GLU:OE2	2:I:486:ARG:NH1	2.32	0.62
1:Q:319:GLN:NE2	1:R:320:THR:OG1	2.32	0.62
3:U:280:LYS:HG3	3:U:281:GLN:HG3	1.82	0.62
3:U:979:ILE:HD13	4:e:176:LEU:HD21	1.82	0.62
3:W:494:ASN:HD22	3:W:499:ILE:HG12	1.64	0.62
1:X:301:LEU:CD2	1:X:317:ARG:NE	2.52	0.62
1:X:301:LEU:CG	1:X:317:ARG:CD	2.78	0.62
1:Z:132:GLY:O	1:z:265:ASN:ND2	2.32	0.62
1:p:235:ARG:HB2	1:p:253:PHE:HA	1.82	0.62
3:w:93:LYS:NZ	3:w:95:GLY:O	2.31	0.62
3:V:58:TYR:HB3	3:V:996:LYS:HG3	1.82	0.61
1:y:73:LYS:NZ	1:z:108:ASP:OD1	2.27	0.61
3:w:280:LYS:HG3	3:w:281:GLN:HG3	1.82	0.61
2:J:337:THR:HB	2:J:346:VAL:HB	1.79	0.61
1:P:108:ASP:OD2	1:R:76:ASN:ND2	2.24	0.61
3:V:309:ILE:O	3:W:338:THR:OG1	2.16	0.61
4:n:18:ILE:HD13	4:n:171:LEU:HD13	1.82	0.61
1:z:158:LEU:HD13	1:z:162:THR:HG21	1.82	0.61
3:U:588:ASN:HD22	3:U:599:ASN:HD22	1.48	0.61
2:I:156:VAL:HG21	2:I:214:VAL:HG11	1.82	0.61
2:M:383:ASN:HD21	2:M:386:LEU:HB3	1.64	0.61
2:N:383:ASN:HD21	2:N:386:LEU:HB3	1.65	0.61
1:p:316:ILE:HG13	1:q:328:THR:HB	1.82	0.61
1:z:252:GLN:HE22	1:z:269:ASN:HD22	1.47	0.61
1:B:298:MET:HB2	1:B:320:THR:HG22	1.81	0.61
2:D:169:LYS:HG2	2:D:199:VAL:HG12	1.81	0.61
2:H:243:ILE:HG21	2:H:253:PRO:HG3	1.82	0.61
2:N:337:THR:HB	2:N:346:VAL:HB	1.82	0.61
2:L:86:LYS:NZ	2:L:432:ASP:OD1	2.32	0.61
3:V:93:LYS:NZ	3:V:95:GLY:O	2.32	0.61
2:D:131:LYS:HD3	2:D:503:VAL:HG13	1.82	0.61
2:D:132:LYS:NZ	2:D:205:GLU:OE2	2.34	0.61
2:E:390:GLU:HB3	4:f:205:GLN:HG2	1.82	0.61
2:I:61:ASP:OD1	2:I:81:ARG:NH2	2.33	0.61
2:N:132:LYS:NZ	2:N:205:GLU:OE2	2.34	0.61
3:V:877:TRP:HB2	3:V:884:LYS:HE2	1.83	0.61
1:a:286:ARG:HH12	1:c:317:ARG:HB3	1.64	0.61
1:r:238:GLN:OE1	1:r:360:VAL:HB	2.00	0.61
3:U:17:ALA:O	3:U:22:GLN:NE2	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:V:477:ARG:NH2	3:V:517:LEU:O	2.33	0.61
1:r:158:LEU:HD13	1:r:162:THR:HG21	1.83	0.61
3:v:58:TYR:HB3	3:v:996:LYS:HG3	1.82	0.61
3:w:967:GLN:NE2	3:w:969:TYR:O	2.34	0.61
2:G:89:GLU:CD	2:H:433:ARG:HH11	2.07	0.61
2:L:399:PHE:HA	4:m:205:GLN:HE22	1.64	0.61
3:U:338:THR:OG1	3:w:309:ILE:O	2.18	0.61
4:d:75:SER:OG	4:d:77:LYS:NZ	2.34	0.61
4:f:75:SER:OG	4:f:77:LYS:NZ	2.34	0.61
1:C:139:THR:HG22	1:C:141:LYS:H	1.66	0.60
2:O:59:ALA:O	2:O:63:GLN:HG3	2.01	0.60
1:X:108:ASP:OD2	1:Z:76:ASN:ND2	2.25	0.60
1:x:108:ASP:OD2	1:z:76:ASN:ND2	2.24	0.60
1:y:7:VAL:CG2	1:y:69:GLU:HG2	2.31	0.60
2:F:243:ILE:HG21	2:F:253:PRO:HG3	1.82	0.60
2:F:399:PHE:HA	4:g:205:GLN:HE22	1.67	0.60
3:V:927:ASN:ND2	3:V:942:TYR:O	2.33	0.60
1:c:173:THR:HG23	1:c:175:ALA:H	1.66	0.60
4:d:158:ARG:O	4:d:161:GLN:NE2	2.34	0.60
1:p:298:MET:HE3	1:p:299:ASP:H	1.67	0.60
3:u:37:ASN:ND2	3:v:24:ASN:OD1	2.31	0.60
3:v:927:ASN:ND2	3:v:942:TYR:O	2.33	0.60
1:x:372:SER:HA	1:y:226:ASN:HD22	1.65	0.60
2:E:79:ARG:NH1	2:E:371:GLU:OE1	2.27	0.60
2:H:78:TRP:HE1	2:H:361:ILE:HG23	1.67	0.60
2:H:236:ARG:NH1	2:H:286:ASP:O	2.33	0.60
2:M:79:ARG:NH1	2:M:371:GLU:OE1	2.32	0.60
2:N:64:ARG:NH2	2:N:80:HIS:O	2.33	0.60
1:P:300:VAL:C	1:P:317:ARG:HG3	2.27	0.60
3:U:93:LYS:NZ	3:U:95:GLY:O	2.33	0.60
3:U:121:ARG:NH2	3:U:145:VAL:O	2.33	0.60
4:e:158:ARG:O	4:e:161:GLN:NE2	2.34	0.60
1:p:103:TRP:CD2	1:q:104:ARG:HD2	2.37	0.60
1:z:11:THR:HG1	1:z:65:ASN:N	1.99	0.60
1:A:122:GLN:HG3	1:A:136:TYR:HB3	1.84	0.60
2:E:485:ARG:HA	2:E:488:TYR:CE2	2.37	0.60
2:G:156:VAL:HG21	2:G:214:VAL:HG11	1.83	0.60
2:K:156:VAL:HG21	2:K:214:VAL:HG11	1.82	0.60
2:N:236:ARG:NH1	2:N:286:ASP:O	2.34	0.60
1:Z:270:ARG:HH11	1:Z:272:LEU:HD23	1.65	0.60
2:F:329:LYS:O	2:F:486:ARG:NH1	2.34	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:67:THR:HG21	2:K:76:ASN:HD22	1.66	0.60
2:M:342:THR:HG22	2:M:344:TYR:H	1.66	0.60
3:v:280:LYS:HG3	3:v:281:GLN:HG3	1.84	0.60
1:C:173:THR:HG23	1:C:175:ALA:H	1.66	0.60
2:H:394:ALA:HB3	2:H:397:LYS:HB2	1.82	0.60
2:L:131:LYS:NZ	2:L:135:GLU:OE2	2.25	0.60
3:W:925:ASN:O	3:W:989:ASN:ND2	2.35	0.60
1:b:235:ARG:HB2	1:b:253:PHE:HA	1.84	0.60
4:e:44:ASP:OD1	4:f:195:ARG:NH2	2.35	0.60
1:A:36:LEU:HB2	1:A:69:GLU:HB3	1.84	0.60
2:J:139:ARG:O	2:J:143:GLU:HG3	2.02	0.60
2:L:31:ARG:NH2	2:L:227:ASP:OD2	2.31	0.60
1:R:235:ARG:HB3	1:R:364:ALA:HB3	1.84	0.60
3:u:155:GLU:HG2	3:u:223:VAL:HG22	1.82	0.60
1:y:36:LEU:HB2	1:y:69:GLU:HB3	1.84	0.60
2:D:78:TRP:HE1	2:D:361:ILE:HG23	1.66	0.60
2:K:178:GLU:OE2	2:K:192:ARG:NH1	2.35	0.60
3:V:253:PHE:HA	3:V:309:ILE:HD13	1.83	0.60
1:c:304:VAL:HG23	1:c:313:ASN:HB2	1.81	0.60
4:k:158:ARG:O	4:k:161:GLN:NE2	2.33	0.60
1:q:73:LYS:NZ	1:r:108:ASP:OD1	2.24	0.60
3:u:477:ARG:NH2	3:u:517:LEU:O	2.35	0.60
3:w:253:PHE:HA	3:w:309:ILE:HD13	1.83	0.60
2:D:131:LYS:NZ	2:D:135:GLU:OE2	2.26	0.60
2:I:390:GLU:HB3	4:j:205:GLN:HG2	1.84	0.60
1:b:215:ILE:HD12	1:c:215:ILE:HG21	1.84	0.60
3:u:798:GLU:OE1	3:v:966:TYR:OH	2.17	0.60
3:v:253:PHE:HA	3:v:309:ILE:HD13	1.83	0.60
3:v:877:TRP:HB2	3:v:884:LYS:HE2	1.83	0.60
1:A:270:ARG:NH1	1:A:272:LEU:HB2	2.16	0.60
2:D:156:VAL:HG21	2:D:214:VAL:HG11	1.84	0.60
1:Q:295:PRO:HD2	1:Q:323:PRO:HG2	1.84	0.60
3:U:489:GLN:HG3	3:U:524:ILE:HG13	1.84	0.60
1:c:11:THR:OG1	1:c:65:ASN:N	2.33	0.60
2:H:156:VAL:HG21	2:H:214:VAL:HG11	1.84	0.59
2:H:350:GLN:HA	2:H:353:MET:HE3	1.83	0.59
2:I:243:ILE:HG21	2:I:253:PRO:HG3	1.84	0.59
2:O:390:GLU:HB3	4:d:205:GLN:HG2	1.83	0.59
1:R:139:THR:HG22	1:R:141:LYS:H	1.67	0.59
1:Y:298:MET:HB2	1:Y:320:THR:HG22	1.83	0.59
1:Z:139:THR:HG22	1:Z:141:LYS:H	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:u:17:ALA:O	3:u:22:GLN:NE2	2.35	0.59
3:u:182:ASN:ND2	3:u:447:ASP:OD2	2.34	0.59
3:v:121:ARG:NH2	3:v:145:VAL:O	2.35	0.59
3:w:799:GLU:HB3	3:w:936:LEU:HD12	1.83	0.59
3:w:834:TYR:OH	3:w:992:ASP:OD2	2.17	0.59
2:G:178:GLU:OE2	2:G:192:ARG:NH1	2.35	0.59
2:M:3:ARG:NE	2:M:6:ASP:OD1	2.33	0.59
3:W:872:THR:HG21	3:W:985:MET:HE3	1.84	0.59
2:G:392:GLN:HG2	4:g:212:LYS:HB2	1.84	0.59
2:L:243:ILE:HG21	2:L:253:PRO:HG3	1.84	0.59
2:M:243:ILE:HG21	2:M:253:PRO:HG3	1.84	0.59
2:O:243:ILE:HG21	2:O:253:PRO:HG3	1.85	0.59
1:X:301:LEU:CD1	1:X:317:ARG:NH1	2.64	0.59
1:q:281:VAL:HG23	1:q:331:TRP:HZ3	1.67	0.59
1:r:173:THR:HG23	1:r:175:ALA:H	1.67	0.59
3:u:494:ASN:HD22	3:u:499:ILE:HG12	1.66	0.59
1:z:238:GLN:OE1	1:z:360:VAL:HB	2.02	0.59
1:B:235:ARG:HB2	1:B:253:PHE:HA	1.82	0.59
2:F:489:ARG:NH2	2:F:522:ASN:OD1	2.36	0.59
1:X:270:ARG:NH1	1:X:272:LEU:HB2	2.17	0.59
1:Y:297:TYR:HB3	1:Y:352:ILE:HB	1.83	0.59
1:p:208:VAL:O	1:q:222:ARG:NH2	2.35	0.59
2:J:243:ILE:HG21	2:J:253:PRO:HG3	1.83	0.59
1:Z:315:VAL:HG23	1:Z:316:ILE:HG22	1.85	0.59
1:a:270:ARG:NH1	1:a:272:LEU:HB2	2.17	0.59
1:c:303:PHE:CE1	1:c:314:PHE:HB2	2.36	0.59
1:A:317:ARG:HH21	1:B:286:ARG:HH21	1.49	0.59
2:E:178:GLU:OE2	2:E:192:ARG:NH1	2.36	0.59
2:F:120:ASN:O	2:F:124:ILE:HG12	2.03	0.59
2:G:342:THR:HG22	2:G:344:TYR:H	1.66	0.59
2:K:169:LYS:HG2	2:K:199:VAL:HG22	1.84	0.59
1:P:270:ARG:NH1	1:P:272:LEU:HB2	2.17	0.59
1:Q:235:ARG:HB2	1:Q:253:PHE:HA	1.85	0.59
3:V:798:GLU:OE1	3:W:966:TYR:OH	2.20	0.59
3:V:834:TYR:OH	3:V:992:ASP:OD2	2.17	0.59
3:W:253:PHE:HA	3:W:309:ILE:HD13	1.83	0.59
1:p:122:GLN:HG3	1:p:136:TYR:HB3	1.84	0.59
1:r:11:THR:HG1	1:r:65:ASN:H	1.47	0.59
3:u:956:VAL:HG12	1:x:87:LYS:HD2	1.84	0.59
1:x:270:ARG:NH1	1:x:272:LEU:HB2	2.18	0.59
1:B:297:TYR:HB3	1:B:352:ILE:HB	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:106:ARG:NH2	2:I:537:ASP:OD2	2.35	0.59
2:J:383:ASN:HD21	2:J:386:LEU:HB3	1.67	0.59
2:M:139:ARG:O	2:M:143:GLU:HG3	2.02	0.59
2:N:78:TRP:HE1	2:N:361:ILE:HG23	1.66	0.59
3:V:280:LYS:HG3	3:V:281:GLN:HG3	1.84	0.59
1:r:139:THR:HG22	1:r:141:LYS:H	1.66	0.59
3:v:52:ASP:OD1	3:v:53:THR:N	2.36	0.59
2:I:383:ASN:HD21	2:I:386:LEU:HB3	1.67	0.59
2:J:132:LYS:NZ	2:J:205:GLU:OE2	2.35	0.59
1:P:129:VAL:HG13	1:P:130:TRP:HD1	1.68	0.59
3:W:703:THR:OG1	3:W:712:ASN:ND2	2.36	0.59
3:w:383:TYR:HD1	3:w:415:PRO:HB2	1.68	0.59
2:N:120:ASN:O	2:N:124:ILE:HG12	2.02	0.59
2:O:61:ASP:OD1	2:O:81:ARG:NH2	2.32	0.59
1:P:87:LYS:HD2	3:U:956:VAL:HG12	1.85	0.59
3:U:494:ASN:HD22	3:U:499:ILE:HG12	1.68	0.59
3:V:52:ASP:OD1	3:V:53:THR:N	2.36	0.59
1:Z:10:ARG:NH1	1:Z:16:THR:O	2.36	0.59
1:c:238:GLN:OE1	1:c:360:VAL:HB	2.03	0.59
3:u:52:ASP:OD1	3:u:53:THR:N	2.35	0.59
3:w:147:LYS:NZ	3:w:467:TYR:OH	2.35	0.59
2:H:221:ASN:ND2	2:H:340:PRO:O	2.34	0.59
3:W:147:LYS:NZ	3:W:467:TYR:OH	2.35	0.59
1:Z:238:GLN:OE1	1:Z:360:VAL:HB	2.03	0.59
1:p:286:ARG:HB3	1:p:362:GLU:HG2	1.84	0.59
2:D:243:ILE:HG21	2:D:253:PRO:HG3	1.85	0.58
2:I:311:THR:HB	2:I:319:CYS:HB3	1.85	0.58
1:Y:235:ARG:HG3	1:Y:254:THR:HG23	1.86	0.58
4:h:37:THR:HG21	4:h:171:LEU:HG	1.86	0.58
2:G:243:ILE:HG21	2:G:253:PRO:HG3	1.85	0.58
2:G:281:HIS:CE1	2:G:284:CYS:HB2	2.39	0.58
2:G:485:ARG:HA	2:G:488:TYR:CE2	2.38	0.58
2:I:169:LYS:HG2	2:I:199:VAL:HG22	1.86	0.58
2:N:433:ARG:NH1	2:N:434:ASN:OD1	2.36	0.58
3:U:608:GLU:HG2	3:V:540:GLN:HG2	1.84	0.58
1:p:371:LEU:HD12	1:q:229:LEU:HB2	1.84	0.58
3:w:67:TYR:HB2	3:w:108:THR:HB	1.84	0.58
1:z:270:ARG:NH1	1:z:272:LEU:HD23	2.17	0.58
1:A:298:MET:HE3	1:A:299:ASP:H	1.69	0.58
2:M:485:ARG:HA	2:M:488:TYR:CE2	2.38	0.58
2:N:488:TYR:OH	2:N:527:LEU:O	2.20	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:11:THR:OG1	1:R:65:ASN:N	2.35	0.58
1:R:270:ARG:HB3	1:R:344:TYR:CE1	2.39	0.58
3:U:883:PHE:HB2	3:U:1007:LYS:HB2	1.84	0.58
3:W:67:TYR:HB2	3:W:108:THR:HB	1.84	0.58
3:W:263:ILE:O	3:W:343:ARG:NH1	2.32	0.58
3:W:383:TYR:HD1	3:W:415:PRO:HB2	1.68	0.58
4:m:37:THR:HG21	4:m:171:LEU:HG	1.86	0.58
1:r:239:GLN:HG2	1:r:361:ILE:HG22	1.86	0.58
2:F:383:ASN:HD21	2:F:386:LEU:HB3	1.69	0.58
2:H:372:LEU:HD21	4:g:211:PHE:HB2	1.86	0.58
2:H:488:TYR:OH	2:H:527:LEU:O	2.21	0.58
2:K:131:LYS:HD3	2:K:503:VAL:HG13	1.86	0.58
3:U:52:ASP:OD1	3:U:53:THR:N	2.35	0.58
3:W:834:TYR:OH	3:W:992:ASP:OD2	2.17	0.58
4:k:37:THR:HG21	4:k:171:LEU:HG	1.86	0.58
1:r:270:ARG:NH1	1:r:272:LEU:HD23	2.19	0.58
3:w:925:ASN:O	3:w:989:ASN:ND2	2.37	0.58
1:C:239:GLN:HG2	1:C:361:ILE:HG22	1.86	0.58
2:J:156:VAL:HG21	2:J:214:VAL:HG11	1.85	0.58
1:R:287:PHE:HE1	1:R:361:ILE:HD12	1.69	0.58
3:U:147:LYS:NZ	3:U:467:TYR:OH	2.36	0.58
3:U:1009:LYS:NZ	3:V:1003:ILE:HD11	2.00	0.58
3:V:263:ILE:O	3:V:343:ARG:CD	2.51	0.58
4:n:37:THR:HG21	4:n:171:LEU:HG	1.86	0.58
1:q:246:TYR:N	1:q:350:GLN:OE1	2.37	0.58
1:z:314:PHE:HZ	1:z:317:ARG:HB2	1.68	0.58
2:F:232:ILE:HB	2:F:291:VAL:HB	1.85	0.58
2:O:110:ASP:OD1	2:O:126:ARG:NH1	2.35	0.58
3:V:64:ARG:NH1	3:V:65:ILE:O	2.37	0.58
4:m:18:ILE:HD13	4:m:171:LEU:HD13	1.85	0.58
3:u:523:ILE:HG12	3:u:566:ARG:HD2	1.84	0.58
1:z:298:MET:HE3	1:z:327:TYR:HE1	1.68	0.58
2:E:275:GLN:HG2	2:F:342:THR:HG21	1.86	0.58
2:G:143:GLU:OE1	2:H:474:HIS:ND1	2.36	0.58
2:H:483:ILE:O	2:H:487:VAL:HG23	2.04	0.58
3:V:365:ASN:ND2	3:V:422:ASP:OD1	2.36	0.58
3:W:930:VAL:HG22	3:W:985:MET:HG2	1.86	0.58
1:q:215:ILE:HD12	1:r:215:ILE:HG21	1.84	0.58
1:r:304:VAL:CG2	1:r:313:ASN:HB2	2.34	0.58
3:w:872:THR:HG21	3:w:985:MET:HE3	1.84	0.58
2:F:520:SER:HB2	2:F:524:GLU:OE2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:106:ARG:NH2	2:O:537:ASP:OD2	2.36	0.58
3:V:1014:ARG:HH21	3:W:967:GLN:HG3	1.69	0.58
1:r:304:VAL:HG23	1:r:313:ASN:HB2	1.85	0.58
1:A:211:ASN:HA	1:B:222:ARG:HH12	1.69	0.58
2:D:48:GLU:OE2	2:D:357:HIS:NE2	2.36	0.58
2:E:198:ARG:NH1	2:F:323:ASN:O	2.33	0.58
2:N:61:ASP:OD1	2:N:81:ARG:NH2	2.36	0.58
2:N:80:HIS:ND1	2:N:368:ASP:OD1	2.25	0.58
1:R:238:GLN:OE1	1:R:360:VAL:HB	2.03	0.58
3:U:882:ASN:OD1	3:U:1009:LYS:HG3	2.04	0.58
3:V:34:SER:HB2	3:W:56:GLN:HE21	1.68	0.58
3:V:121:ARG:NH2	3:V:145:VAL:O	2.36	0.58
1:p:179:THR:OG1	1:r:173:THR:O	2.21	0.58
1:q:235:ARG:HG3	1:q:254:THR:HG23	1.86	0.58
3:v:365:ASN:ND2	3:v:422:ASP:OD1	2.37	0.58
3:w:703:THR:OG1	3:w:712:ASN:ND2	2.36	0.58
1:P:195:PRO:HD2	1:R:201:PRO:HA	1.85	0.57
3:V:37:ASN:ND2	3:W:24:ASN:OD1	2.34	0.57
1:Z:270:ARG:NH1	1:Z:272:LEU:HD23	2.19	0.57
2:O:485:ARG:HA	2:O:488:TYR:CE1	2.39	0.57
3:U:724:ILE:HG13	3:U:727:ILE:HG12	1.86	0.57
3:V:344:ARG:HG3	3:V:410:PHE:HB3	1.86	0.57
4:g:74:GLN:NE2	4:g:141:LYS:O	2.37	0.57
3:v:34:SER:HB2	3:w:56:GLN:HE21	1.68	0.57
1:A:108:ASP:OD2	1:C:76:ASN:ND2	2.25	0.57
2:K:275:GLN:HG2	2:L:342:THR:HG21	1.85	0.57
2:L:428:GLU:OE2	2:M:433:ARG:NH1	2.37	0.57
2:M:89:GLU:CD	2:N:433:ARG:HH11	2.11	0.57
3:U:365:ASN:ND2	3:U:422:ASP:OD1	2.37	0.57
1:Y:215:ILE:HD12	1:Z:215:ILE:HG21	1.86	0.57
1:Y:295:PRO:HG2	1:Y:298:MET:HE2	1.87	0.57
3:v:64:ARG:NH1	3:v:65:ILE:O	2.37	0.57
2:L:542:VAL:O	2:L:546:MET:HG3	2.03	0.57
2:N:169:LYS:HG2	2:N:199:VAL:HG12	1.85	0.57
1:Y:69:GLU:OE2	1:Y:136:TYR:OH	2.21	0.57
1:p:195:PRO:HD2	1:r:201:PRO:HA	1.86	0.57
1:y:295:PRO:HD2	1:y:323:PRO:HG2	1.85	0.57
1:z:298:MET:HE2	1:z:323:PRO:HB3	1.86	0.57
2:D:64:ARG:NH2	2:D:80:HIS:O	2.38	0.57
2:G:337:THR:HB	2:G:346:VAL:HB	1.86	0.57
2:M:178:GLU:OE2	2:M:192:ARG:NH1	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:V:150:GLN:HE21	3:V:228:GLN:HE21	1.52	0.57
4:f:37:THR:HG21	4:f:171:LEU:HG	1.86	0.57
4:l:37:THR:HG21	4:l:171:LEU:HG	1.87	0.57
2:I:110:ASP:OD1	2:I:126:ARG:NH1	2.36	0.57
1:Q:215:ILE:HD12	1:R:215:ILE:HG21	1.87	0.57
1:Y:327:TYR:HE2	1:Y:329:LEU:HD21	1.69	0.57
1:Z:11:THR:OG1	1:Z:65:ASN:N	2.34	0.57
3:v:81:PHE:HZ	3:v:137:PRO:HB2	1.69	0.57
3:v:1014:ARG:HH21	3:w:967:GLN:HG3	1.69	0.57
3:w:494:ASN:HD22	3:w:499:ILE:HG12	1.70	0.57
2:F:311:THR:HB	2:F:319:CYS:HB3	1.87	0.57
2:G:76:ASN:HB3	4:e:216:THR:CG2	2.33	0.57
2:H:61:ASP:OD1	2:H:81:ARG:NH2	2.37	0.57
3:U:1009:LYS:HZ1	3:V:1003:ILE:HD12	1.62	0.57
4:g:37:THR:HG21	4:g:171:LEU:HG	1.86	0.57
1:p:284:THR:HG22	1:p:365:ARG:HB2	1.86	0.57
1:x:50:THR:HG22	1:x:51:THR:HG23	1.87	0.57
2:L:236:ARG:NH1	2:L:286:ASP:O	2.38	0.57
1:c:139:THR:HG22	1:c:141:LYS:H	1.70	0.57
4:e:37:THR:HG21	4:e:171:LEU:HG	1.86	0.57
1:A:246:TYR:HA	1:A:348:GLN:HB3	1.87	0.57
2:D:221:ASN:ND2	2:D:340:PRO:O	2.35	0.57
2:N:87:ALA:HB2	2:N:356:LEU:HD13	1.85	0.57
2:O:311:THR:HB	2:O:319:CYS:HB3	1.87	0.57
1:Q:130:TRP:HZ2	1:Q:142:SER:HB3	1.69	0.57
1:b:235:ARG:HG3	1:b:254:THR:HG23	1.86	0.57
3:u:147:LYS:NZ	3:u:467:TYR:OH	2.37	0.57
1:z:235:ARG:NH2	1:z:252:GLN:HB2	2.20	0.57
2:E:78:TRP:HE1	2:E:361:ILE:HG23	1.69	0.57
2:L:389:ASP:OD1	4:l:202:ASN:ND2	2.27	0.57
3:V:67:TYR:HB2	3:V:108:THR:HB	1.87	0.57
3:W:93:LYS:NZ	3:W:95:GLY:O	2.31	0.57
1:b:73:LYS:NZ	1:c:108:ASP:OD1	2.25	0.57
4:j:64:ILE:HG22	4:j:65:ASN:H	1.70	0.57
4:m:74:GLN:NE2	4:m:141:LYS:O	2.37	0.57
3:u:83:SER:OG	3:u:155:GLU:OE2	2.16	0.57
3:w:263:ILE:O	3:w:343:ARG:NH1	2.32	0.57
3:w:835:VAL:HG22	3:w:860:ILE:HD12	1.86	0.57
3:w:930:VAL:HG22	3:w:985:MET:HG2	1.87	0.57
2:I:144:LYS:NZ	2:J:338:GLU:OE1	2.28	0.56
2:N:483:ILE:O	2:N:487:VAL:HG23	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:208:VAL:O	1:Q:222:ARG:NH2	2.38	0.56
3:U:798:GLU:OE1	3:V:966:TYR:OH	2.17	0.56
3:W:90:GLN:HB2	3:W:101:PHE:HB2	1.87	0.56
4:i:115:ASN:HB2	4:i:121:ARG:HG3	1.87	0.56
2:L:485:ARG:HA	2:L:488:TYR:CE2	2.40	0.56
3:U:56:GLN:HE21	3:w:34:SER:HB2	1.71	0.56
1:X:179:THR:OG1	1:Z:173:THR:O	2.22	0.56
4:m:158:ARG:O	4:m:161:GLN:NE2	2.38	0.56
3:u:537:ILE:HD11	3:u:584:ARG:HG3	1.85	0.56
3:v:494:ASN:HD22	3:v:499:ILE:HG12	1.70	0.56
2:D:120:ASN:OD1	2:D:123:ARG:NH1	2.38	0.56
2:D:488:TYR:OH	2:D:527:LEU:O	2.20	0.56
2:G:311:THR:HB	2:G:319:CYS:HB3	1.87	0.56
1:R:15:TRP:CZ3	1:R:17:VAL:HG22	2.39	0.56
3:V:494:ASN:HD22	3:V:499:ILE:HG12	1.70	0.56
1:a:235:ARG:HB2	1:a:253:PHE:HA	1.87	0.56
4:g:18:ILE:HD13	4:g:171:LEU:HD13	1.85	0.56
2:L:311:THR:HB	2:L:319:CYS:HB3	1.87	0.56
2:O:256:ILE:HA	2:O:259:MET:HB2	1.87	0.56
1:R:235:ARG:NH2	1:R:252:GLN:HB2	2.20	0.56
3:W:835:VAL:HG22	3:W:860:ILE:HD12	1.86	0.56
1:b:295:PRO:HG2	1:b:298:MET:HE2	1.87	0.56
4:o:37:THR:HG21	4:o:171:LEU:HG	1.87	0.56
3:u:821:PRO:HB3	3:u:990:HIS:ND1	2.21	0.56
1:x:208:VAL:O	1:y:222:ARG:NH2	2.38	0.56
1:y:235:ARG:HB2	1:y:253:PHE:HA	1.87	0.56
1:z:287:PHE:HE1	1:z:361:ILE:HD12	1.71	0.56
2:L:390:GLU:HB3	4:m:205:GLN:HG2	1.88	0.56
2:O:127:LYS:NZ	2:O:505:GLY:O	2.33	0.56
1:R:265:ASN:ND2	1:c:132:GLY:O	2.38	0.56
3:U:537:ILE:HD11	3:U:584:ARG:HG3	1.86	0.56
3:U:821:PRO:HB3	3:U:990:HIS:ND1	2.21	0.56
3:u:883:PHE:HB2	3:u:1007:LYS:HB2	1.87	0.56
3:v:67:TYR:HB2	3:v:108:THR:HB	1.87	0.56
1:C:235:ARG:HH12	1:C:252:GLN:HB2	1.71	0.56
2:I:198:ARG:NH1	2:J:323:ASN:O	2.37	0.56
2:J:488:TYR:OH	2:J:527:LEU:O	2.18	0.56
1:P:50:THR:HG22	1:P:51:THR:HG23	1.87	0.56
3:U:313:SER:HB3	3:U:316:ASP:HB2	1.87	0.56
3:V:372:ILE:HD13	3:V:380:ASP:HA	1.88	0.56
4:j:20:GLU:HG3	4:j:30:VAL:HG21	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:u:93:LYS:NZ	3:u:95:GLY:O	2.33	0.56
3:v:96:ARG:NH1	3:v:116:ASN:OD1	2.39	0.56
1:C:303:PHE:HD2	1:C:311:VAL:HA	1.71	0.56
2:D:329:LYS:O	2:D:486:ARG:NH1	2.39	0.56
2:E:311:THR:HB	2:E:319:CYS:HB3	1.88	0.56
2:J:78:TRP:HE1	2:J:361:ILE:HG23	1.70	0.56
2:K:311:THR:HB	2:K:319:CYS:HB3	1.88	0.56
3:V:81:PHE:HZ	3:V:137:PRO:HB2	1.70	0.56
3:V:96:ARG:HG3	3:V:123:GLU:HG3	1.86	0.56
4:j:37:THR:HG21	4:j:171:LEU:HG	1.88	0.56
3:v:96:ARG:HG3	3:v:123:GLU:HG3	1.86	0.56
3:v:835:VAL:HG22	3:v:860:ILE:HD12	1.88	0.56
1:x:191:THR:HG22	1:z:189:TYR:CE1	2.41	0.56
1:x:334:VAL:HG23	1:y:367:ASN:HD22	1.71	0.56
2:L:49:ALA:HB2	2:L:353:MET:HE2	1.86	0.56
2:L:79:ARG:NH1	2:L:371:GLU:OE2	2.29	0.56
2:L:383:ASN:HD21	2:L:386:LEU:HB3	1.71	0.56
2:N:502:ARG:HH21	2:O:523:LYS:NZ	2.03	0.56
1:P:301:LEU:HB2	1:P:348:GLN:HB2	1.86	0.56
3:U:1010:ARG:HH12	4:f:176:LEU:HD11	1.70	0.56
1:Z:36:LEU:HB2	1:Z:69:GLU:HB3	1.88	0.56
3:u:365:ASN:ND2	3:u:422:ASP:OD1	2.37	0.56
2:F:49:ALA:HB2	2:F:353:MET:HE2	1.88	0.56
2:H:180:GLU:HG2	2:H:181:TYR:CD1	2.40	0.56
2:L:329:LYS:O	2:L:486:ARG:NH1	2.39	0.56
1:X:186:LEU:HD12	1:Z:189:TYR:CD2	2.41	0.56
1:X:298:MET:HE3	1:X:299:ASP:H	1.71	0.56
2:H:120:ASN:O	2:H:124:ILE:HG12	2.06	0.56
2:H:132:LYS:NZ	2:H:205:GLU:OE2	2.38	0.56
2:I:111:LEU:HD11	2:I:129:LEU:HD12	1.88	0.56
2:K:110:ASP:HA	2:K:126:ARG:HE	1.71	0.56
2:L:120:ASN:O	2:L:124:ILE:HG12	2.05	0.56
2:N:400:LEU:HD13	4:o:201:ARG:HD2	1.88	0.56
3:V:388:THR:HG22	3:V:409:ILE:HG22	1.88	0.56
1:Z:158:LEU:HD13	1:Z:162:THR:HG21	1.88	0.56
1:r:270:ARG:HH11	1:r:272:LEU:HD23	1.71	0.56
3:u:608:GLU:HG2	3:v:540:GLN:HG2	1.88	0.56
2:E:329:LYS:HD2	2:E:331:PHE:HB2	1.88	0.55
1:R:11:THR:HG1	1:R:65:ASN:N	2.04	0.55
1:R:11:THR:HG1	1:R:65:ASN:H	1.54	0.55
3:U:472:THR:HG22	3:U:479:VAL:HB	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:V:96:ARG:NH1	3:V:116:ASN:OD1	2.38	0.55
4:h:20:GLU:HG3	4:h:30:VAL:HG21	1.88	0.55
4:o:115:ASN:HB2	4:o:121:ARG:HG3	1.88	0.55
3:w:724:ILE:HG13	3:w:727:ILE:HG12	1.87	0.55
3:w:788:LEU:HD21	3:w:824:ASN:HB3	1.88	0.55
1:X:303:PHE:HZ	1:X:317:ARG:HH21	1.54	0.55
1:a:186:LEU:HD12	1:c:189:TYR:CD2	2.41	0.55
1:c:102:ARG:O	1:c:106:GLU:HG3	2.07	0.55
1:q:173:THR:HG23	1:q:175:ALA:H	1.71	0.55
1:r:238:GLN:NE2	1:r:362:GLU:OE1	2.39	0.55
1:A:179:THR:OG1	1:C:173:THR:O	2.23	0.55
2:F:342:THR:HG22	2:F:344:TYR:H	1.72	0.55
2:F:473:ARG:NH2	2:F:476:GLU:OE1	2.39	0.55
2:G:240:ILE:HG12	2:G:256:ILE:HD11	1.89	0.55
2:M:281:HIS:CE1	2:M:284:CYS:HB2	2.41	0.55
1:Q:235:ARG:HG3	1:Q:254:THR:HG23	1.88	0.55
3:u:472:THR:HG22	3:u:479:VAL:HB	1.87	0.55
1:y:338:ASN:OD1	1:y:339:THR:N	2.40	0.55
1:A:235:ARG:HB2	1:A:253:PHE:HA	1.88	0.55
1:A:301:LEU:CD2	1:A:317:ARG:CD	2.84	0.55
1:B:173:THR:HG23	1:B:175:ALA:H	1.71	0.55
1:B:235:ARG:HG3	1:B:254:THR:HG23	1.87	0.55
2:G:400:LEU:HD13	4:h:201:ARG:HD2	1.88	0.55
1:P:317:ARG:NH2	1:Q:325:PHE:O	2.39	0.55
3:V:835:VAL:HG22	3:V:860:ILE:HD12	1.87	0.55
3:W:788:LEU:HD21	3:W:824:ASN:HB3	1.88	0.55
1:a:122:GLN:HG3	1:a:136:TYR:HB3	1.88	0.55
3:u:989:ASN:HD21	3:u:993:GLU:HB2	1.71	0.55
3:w:90:GLN:HB2	3:w:101:PHE:HB2	1.87	0.55
1:x:201:PRO:HB2	1:z:215:ILE:HD13	1.89	0.55
2:M:337:THR:HB	2:M:346:VAL:HB	1.87	0.55
3:U:461:ASP:OD2	3:U:464:ASN:ND2	2.37	0.55
3:W:34:SER:HB2	3:u:56:GLN:HE21	1.71	0.55
1:Z:102:ARG:O	1:Z:106:GLU:HG3	2.06	0.55
1:p:246:TYR:HA	1:p:348:GLN:HB3	1.89	0.55
3:u:835:VAL:HG22	3:u:860:ILE:HD12	1.88	0.55
2:F:488:TYR:OH	2:F:527:LEU:O	2.21	0.55
2:L:565:GLU:HA	2:M:561:ARG:NH1	2.20	0.55
2:O:169:LYS:HG2	2:O:199:VAL:HG22	1.88	0.55
1:X:173:THR:O	1:Y:179:THR:OG1	2.25	0.55
1:c:37:HIS:NE2	1:c:47:TYR:OH	2.30	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:74:GLN:NE2	4:e:141:LYS:O	2.39	0.55
1:r:11:THR:OG1	1:r:65:ASN:N	2.33	0.55
3:v:86:ALA:O	3:v:189:ARG:NH2	2.40	0.55
3:w:372:ILE:HD13	3:w:380:ASP:HA	1.89	0.55
2:I:394:ALA:HB3	2:I:397:LYS:HB2	1.87	0.55
2:J:221:ASN:ND2	2:J:340:PRO:O	2.39	0.55
2:N:502:ARG:HH21	2:O:523:LYS:HZ3	1.54	0.55
1:R:33:PHE:O	1:R:44:ASN:ND2	2.40	0.55
3:W:724:ILE:HG13	3:W:727:ILE:HG12	1.87	0.55
1:Z:147:ILE:O	1:Z:147:ILE:CG2	2.55	0.55
4:i:18:ILE:HD13	4:i:171:LEU:HD13	1.88	0.55
1:y:101:ILE:O	1:y:105:GLU:HG3	2.07	0.55
1:y:331:TRP:HE1	1:z:284:THR:HG21	1.72	0.55
3:V:147:LYS:NZ	3:V:467:TYR:OH	2.40	0.55
1:Z:147:ILE:O	1:Z:147:ILE:HG22	2.06	0.55
1:Z:304:VAL:HG23	1:Z:313:ASN:HB2	1.87	0.55
4:o:12:ASN:O	4:o:16:GLU:HG2	2.07	0.55
1:x:72:ARG:O	1:x:106:GLU:HG2	2.07	0.55
1:y:130:TRP:CD1	1:z:140:ARG:HH21	2.24	0.55
2:E:110:ASP:HA	2:E:126:ARG:HE	1.72	0.55
2:K:111:LEU:HD11	2:K:129:LEU:HD12	1.88	0.55
2:L:342:THR:HG22	2:L:344:TYR:H	1.72	0.55
3:V:313:SER:HB3	3:V:316:ASP:HB2	1.89	0.55
1:Y:101:ILE:O	1:Y:105:GLU:HG3	2.06	0.55
4:i:64:ILE:HG22	4:i:65:ASN:H	1.72	0.55
4:o:64:ILE:HG22	4:o:65:ASN:H	1.72	0.55
3:v:372:ILE:HD13	3:v:380:ASP:HA	1.88	0.55
2:E:400:LEU:HD13	4:f:201:ARG:HD2	1.87	0.55
2:G:51:SER:O	2:G:63:GLN:NE2	2.36	0.55
3:W:372:ILE:HD13	3:W:380:ASP:HA	1.89	0.55
1:y:235:ARG:HG3	1:y:254:THR:HG23	1.89	0.55
1:a:195:PRO:HD2	1:c:201:PRO:HA	1.89	0.54
1:b:101:ILE:O	1:b:105:GLU:HG3	2.07	0.54
4:e:18:ILE:HD13	4:e:171:LEU:HD13	1.89	0.54
4:k:74:GLN:NE2	4:k:141:LYS:O	2.39	0.54
3:u:14:GLU:O	3:u:18:GLU:HG3	2.06	0.54
3:u:755:ARG:HG3	3:u:804:TYR:HD1	1.72	0.54
3:v:150:GLN:HE21	3:v:228:GLN:HE21	1.54	0.54
3:v:492:PHE:CE1	3:v:523:ILE:HD12	2.42	0.54
1:y:319:GLN:HE22	1:z:322:TYR:H	1.54	0.54
1:B:215:ILE:HD12	1:C:215:ILE:HG21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:481:MET:O	2:G:485:ARG:HG3	2.07	0.54
2:M:400:LEU:HD13	4:n:201:ARG:HD2	1.88	0.54
1:P:129:VAL:HG13	1:P:130:TRP:CD1	2.42	0.54
1:P:299:ASP:OD1	1:P:319:GLN:NE2	2.39	0.54
1:Z:304:VAL:CG2	1:Z:313:ASN:HB2	2.37	0.54
1:a:201:PRO:HB3	1:b:195:PRO:HD2	1.89	0.54
1:p:129:VAL:HG13	1:p:130:TRP:CD1	2.42	0.54
1:A:126:TYR:OH	1:B:148:GLU:OE1	2.16	0.54
2:J:64:ARG:NH2	2:J:80:HIS:O	2.39	0.54
2:L:473:ARG:NH2	2:L:476:GLU:OE1	2.39	0.54
2:M:240:ILE:HG12	2:M:256:ILE:HD11	1.88	0.54
2:M:285:MET:HE1	2:N:31:ARG:HH12	1.72	0.54
2:M:311:THR:HB	2:M:319:CYS:HB3	1.90	0.54
1:Q:101:ILE:O	1:Q:105:GLU:HG3	2.08	0.54
3:V:831:TYR:OH	3:V:843:PRO:O	2.26	0.54
1:X:301:LEU:CD2	1:X:317:ARG:CG	2.82	0.54
1:c:147:ILE:O	1:c:147:ILE:HG22	2.06	0.54
1:p:317:ARG:HH22	1:q:325:PHE:HB3	1.72	0.54
3:w:114:LYS:HD2	3:w:227:TRP:HD1	1.73	0.54
1:z:304:VAL:HG23	1:z:313:ASN:HB2	1.89	0.54
2:D:49:ALA:HB2	2:D:353:MET:HE2	1.90	0.54
2:I:256:ILE:HA	2:I:259:MET:HB2	1.88	0.54
1:X:82:VAL:HG23	1:Y:90:SER:HB2	1.89	0.54
1:Y:7:VAL:HG22	1:Y:69:GLU:HG3	1.90	0.54
1:c:147:ILE:O	1:c:147:ILE:CG2	2.55	0.54
3:u:313:SER:HB3	3:u:316:ASP:HB2	1.87	0.54
3:u:788:LEU:HD21	3:u:824:ASN:HB3	1.89	0.54
1:y:133:ASP:N	1:z:141:LYS:HE2	2.22	0.54
1:y:173:THR:HG23	1:y:175:ALA:H	1.72	0.54
2:E:129:LEU:HD11	2:E:488:TYR:HB3	1.90	0.54
2:I:175:LYS:HZ3	2:I:193:THR:HG1	1.51	0.54
1:P:130:TRP:CD1	1:Q:140:ARG:HD2	2.43	0.54
1:Q:173:THR:HG23	1:Q:175:ALA:H	1.71	0.54
3:V:90:GLN:HB2	3:V:101:PHE:HB2	1.88	0.54
1:c:158:LEU:HD13	1:c:162:THR:HG21	1.90	0.54
1:r:305:GLY:HA2	1:r:312:GLU:OE1	2.07	0.54
3:u:724:ILE:HG13	3:u:727:ILE:HG12	1.89	0.54
1:y:215:ILE:HD12	1:z:215:ILE:HG21	1.90	0.54
2:E:407:LEU:HD21	4:e:210:MET:HE1	1.89	0.54
2:J:79:ARG:NH2	2:J:371:GLU:OE2	2.35	0.54
2:M:80:HIS:ND1	2:M:368:ASP:OD1	2.30	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U:788:LEU:HD21	3:U:824:ASN:HB3	1.88	0.54
1:Z:235:ARG:HB2	1:Z:253:PHE:HA	1.88	0.54
4:i:12:ASN:O	4:i:16:GLU:HG2	2.07	0.54
1:x:1:MET:SD	1:x:23:ASN:ND2	2.81	0.54
1:x:195:PRO:HD2	1:z:201:PRO:HA	1.89	0.54
1:A:314:PHE:HZ	1:A:317:ARG:HG2	1.73	0.54
2:J:213:ASP:OD1	2:J:231:ARG:NH2	2.40	0.54
2:M:51:SER:O	2:M:63:GLN:NE2	2.35	0.54
3:V:885:ARG:NH2	4:f:174:SER:O	2.26	0.54
1:Y:130:TRP:HZ2	1:Y:142:SER:HB3	1.72	0.54
4:d:37:THR:HG21	4:d:171:LEU:HG	1.90	0.54
4:g:64:ILE:HG22	4:g:65:ASN:H	1.73	0.54
3:u:383:TYR:HD1	3:u:415:PRO:HB2	1.72	0.54
3:u:834:TYR:OH	3:u:992:ASP:OD2	2.17	0.54
1:y:7:VAL:HG22	1:y:69:GLU:HG2	1.90	0.54
2:I:183:ASP:OD1	2:I:186:THR:OG1	2.24	0.54
1:p:108:ASP:OD2	1:r:76:ASN:ND2	2.26	0.54
3:w:831:TYR:OH	3:w:843:PRO:O	2.25	0.54
1:C:290:THR:HG23	1:C:360:VAL:HG21	1.89	0.54
1:C:304:VAL:CG2	1:C:313:ASN:HB2	2.38	0.54
1:Z:266:PHE:HD1	1:Z:271:TRP:HB2	1.73	0.54
1:C:11:THR:HG1	1:C:65:ASN:N	2.05	0.54
2:H:78:TRP:HB3	2:H:368:ASP:OD2	2.08	0.54
2:N:92:GLU:OE2	2:O:467:ARG:NH2	2.41	0.54
2:N:156:VAL:HG21	2:N:214:VAL:HG11	1.89	0.54
3:W:114:LYS:HD2	3:W:227:TRP:HD1	1.73	0.54
4:d:64:ILE:HG22	4:d:65:ASN:H	1.73	0.54
4:m:64:ILE:HG22	4:m:65:ASN:H	1.73	0.54
1:p:301:LEU:HB2	1:p:317:ARG:HD3	1.90	0.54
1:q:201:PRO:HB3	1:r:195:PRO:HD2	1.90	0.54
3:v:388:THR:HG22	3:v:409:ILE:HG22	1.90	0.54
1:z:259:ARG:NE	1:z:264:ASP:OD2	2.40	0.54
1:A:129:VAL:HG13	1:A:130:TRP:CD1	2.42	0.53
1:C:8:VAL:HG11	1:C:10:ARG:HE	1.71	0.53
3:V:263:ILE:O	3:V:343:ARG:NE	2.40	0.53
3:W:388:THR:HG22	3:W:409:ILE:HG22	1.90	0.53
3:W:831:TYR:OH	3:W:843:PRO:O	2.24	0.53
1:X:122:GLN:HG3	1:X:136:TYR:HB3	1.91	0.53
4:e:64:ILE:HG22	4:e:65:ASN:H	1.73	0.53
1:r:303:PHE:CD2	1:r:311:VAL:HA	2.43	0.53
3:w:176:VAL:HG23	3:w:177:ASN:OD1	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:x:130:TRP:CD1	1:y:140:ARG:HD2	2.43	0.53
1:B:246:TYR:N	1:B:350:GLN:OE1	2.39	0.53
2:E:39:ARG:O	2:E:43:GLU:HG3	2.08	0.53
2:G:111:LEU:HD11	2:G:129:LEU:HD12	1.90	0.53
2:O:391:VAL:HA	2:O:399:PHE:HE1	1.73	0.53
3:V:86:ALA:O	3:V:189:ARG:NH2	2.41	0.53
3:V:265:THR:O	3:V:343:ARG:NH2	2.41	0.53
4:i:158:ARG:O	4:i:161:GLN:NE2	2.41	0.53
4:k:115:ASN:HB2	4:k:121:ARG:HG3	1.89	0.53
3:v:93:LYS:NZ	3:v:95:GLY:O	2.32	0.53
1:x:215:ILE:HD13	1:y:201:PRO:HB2	1.90	0.53
1:z:11:THR:OG1	1:z:65:ASN:N	2.35	0.53
2:D:323:ASN:O	2:O:198:ARG:NH1	2.39	0.53
2:L:399:PHE:HE2	2:M:377:MET:HE2	1.72	0.53
3:V:461:ASP:OD2	3:V:464:ASN:ND2	2.41	0.53
1:b:97:ILE:O	1:b:101:ILE:HG12	2.08	0.53
4:f:64:ILE:HG22	4:f:65:ASN:H	1.74	0.53
4:k:64:ILE:HG22	4:k:65:ASN:H	1.73	0.53
3:v:414:ILE:HB	3:v:415:PRO:HD3	1.90	0.53
3:w:388:THR:HG22	3:w:409:ILE:HG22	1.90	0.53
3:w:790:THR:H	3:w:794:ASP:HB2	1.72	0.53
2:D:311:THR:HB	2:D:319:CYS:HB3	1.91	0.53
2:K:400:LEU:HD13	4:l:201:ARG:HD2	1.90	0.53
1:P:300:VAL:O	1:P:317:ARG:CG	2.50	0.53
3:U:383:TYR:HD1	3:U:415:PRO:HB2	1.72	0.53
3:U:388:THR:HG22	3:U:409:ILE:HG22	1.91	0.53
3:W:176:VAL:HG23	3:W:177:ASN:OD1	2.07	0.53
1:Y:97:ILE:O	1:Y:101:ILE:HG12	2.08	0.53
1:b:281:VAL:HG23	1:b:331:TRP:HZ3	1.74	0.53
3:v:831:TYR:OH	3:v:843:PRO:O	2.26	0.53
1:z:262:TRP:O	1:z:275:GLN:NE2	2.41	0.53
1:z:280:TYR:HB3	1:z:369:ILE:HB	1.91	0.53
2:H:400:LEU:HD13	4:i:201:ARG:HD2	1.90	0.53
2:I:502:ARG:HG2	2:J:523:LYS:HB3	1.89	0.53
1:R:252:GLN:HE22	1:R:269:ASN:HD22	1.54	0.53
3:W:893:LEU:HD23	3:W:997:LEU:HA	1.90	0.53
1:X:286:ARG:HB2	1:X:362:GLU:O	2.09	0.53
4:o:18:ILE:HD13	4:o:171:LEU:HD13	1.89	0.53
3:v:68:THR:HG23	3:v:714:ILE:HG12	1.90	0.53
1:x:179:THR:OG1	1:z:173:THR:O	2.26	0.53
2:E:111:LEU:HD11	2:E:129:LEU:HD12	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:78:TRP:HB3	2:I:368:ASP:OD2	2.09	0.53
2:I:80:HIS:ND1	2:I:368:ASP:OD1	2.28	0.53
1:X:93:TRP:HB2	1:Y:93:TRP:HH2	1.73	0.53
1:X:246:TYR:HA	1:X:348:GLN:HB3	1.91	0.53
1:Z:301:LEU:HG	1:Z:314:PHE:CE1	2.44	0.53
4:i:47:TYR:OH	4:j:158:ARG:NH1	2.33	0.53
4:i:116:GLU:HG2	4:i:117:TYR:H	1.74	0.53
1:r:235:ARG:HH12	1:r:252:GLN:HB2	1.72	0.53
1:A:301:LEU:HD23	1:A:317:ARG:CD	2.38	0.53
2:G:256:ILE:HA	2:G:259:MET:HB2	1.91	0.53
2:K:488:TYR:OH	2:K:527:LEU:O	2.19	0.53
2:M:64:ARG:NH2	2:M:80:HIS:O	2.42	0.53
3:u:461:ASP:OD2	3:u:464:ASN:ND2	2.38	0.53
3:u:743:PRO:HG2	3:u:819:SER:HB3	1.90	0.53
3:v:313:SER:HB3	3:v:316:ASP:HB2	1.89	0.53
1:B:281:VAL:HG23	1:B:331:TRP:HZ3	1.74	0.53
2:J:311:THR:HB	2:J:319:CYS:HB3	1.91	0.53
2:M:198:ARG:NH1	2:N:323:ASN:O	2.37	0.53
2:O:183:ASP:OD1	2:O:186:THR:OG1	2.25	0.53
2:O:222:ASP:HB3	2:O:225:GLU:HB2	1.91	0.53
1:Q:316:ILE:HG13	1:R:328:THR:HB	1.91	0.53
3:U:67:TYR:HB2	3:U:108:THR:HB	1.90	0.53
3:U:755:ARG:HG3	3:U:804:TYR:HD1	1.73	0.53
1:Y:327:TYR:CE2	1:Y:329:LEU:HD21	2.43	0.53
1:Z:265:ASN:ND2	1:r:132:GLY:O	2.42	0.53
1:a:215:ILE:HD13	1:b:201:PRO:HB2	1.91	0.53
1:b:130:TRP:CZ3	1:b:138:PRO:HB3	2.44	0.53
1:P:372:SER:HA	1:Q:226:ASN:HB2	1.91	0.53
3:U:881:GLY:C	3:U:1009:LYS:HG2	2.34	0.53
3:V:67:TYR:HB3	3:V:715:ILE:HB	1.90	0.53
1:Z:265:ASN:OD1	1:Z:266:PHE:N	2.42	0.53
2:L:64:ARG:NH2	2:L:80:HIS:O	2.41	0.53
1:P:1:MET:SD	1:P:23:ASN:ND2	2.81	0.53
3:U:372:ILE:HD13	3:U:380:ASP:HA	1.91	0.53
3:U:459:PHE:HZ	3:U:510:ILE:HD12	1.75	0.53
3:u:67:TYR:HB3	3:u:715:ILE:HB	1.91	0.53
2:D:99:MET:HE2	2:D:143:GLU:HG2	1.91	0.52
2:D:390:GLU:HB3	4:e:205:GLN:HG2	1.90	0.52
2:G:144:LYS:HG2	2:H:338:GLU:OE2	2.09	0.52
2:H:39:ARG:O	2:H:43:GLU:HG3	2.09	0.52
2:I:222:ASP:HB3	2:I:225:GLU:HB2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:256:ILE:HA	2:M:259:MET:HB2	1.91	0.52
1:R:306:LEU:N	1:R:312:GLU:OE1	2.38	0.52
3:U:67:TYR:HB3	3:U:715:ILE:HB	1.90	0.52
3:V:608:GLU:HG2	3:W:540:GLN:HG2	1.91	0.52
4:k:25:SER:OG	4:k:27:ASN:ND2	2.42	0.52
1:p:317:ARG:NH1	1:q:325:PHE:HB3	2.23	0.52
3:v:523:ILE:HG12	3:v:566:ARG:HD2	1.92	0.52
3:v:834:TYR:OH	3:v:992:ASP:OD2	2.17	0.52
3:w:581:CYS:HB3	3:w:592:LEU:HB3	1.91	0.52
2:D:430:THR:HG23	2:D:433:ARG:HH21	1.74	0.52
2:M:397:LYS:HE2	4:n:205:GLN:HE21	1.73	0.52
2:N:78:TRP:HB3	2:N:368:ASP:OD2	2.09	0.52
1:Q:132:GLY:HA2	1:R:141:LYS:HD2	1.90	0.52
3:V:68:THR:HG23	3:V:714:ILE:HG12	1.91	0.52
3:V:743:PRO:HG2	3:V:819:SER:HB3	1.91	0.52
3:W:310:TYR:HB3	3:W:326:VAL:HG21	1.91	0.52
1:Z:259:ARG:NE	1:Z:264:ASP:OD2	2.40	0.52
4:k:18:ILE:HD13	4:k:171:LEU:HD13	1.90	0.52
3:v:67:TYR:HB3	3:v:715:ILE:HB	1.90	0.52
1:x:173:THR:O	1:y:179:THR:OG1	2.28	0.52
1:A:173:THR:O	1:B:179:THR:OG1	2.27	0.52
2:F:337:THR:HB	2:F:346:VAL:HB	1.90	0.52
2:J:80:HIS:ND1	2:J:368:ASP:OD1	2.27	0.52
2:O:111:LEU:HD11	2:O:129:LEU:HD12	1.91	0.52
3:W:461:ASP:OD2	3:W:464:ASN:ND2	2.42	0.52
1:Y:71:ARG:NH2	1:Y:117:SER:OG	2.39	0.52
1:a:82:VAL:HG23	1:b:90:SER:HB2	1.90	0.52
4:m:67:ARG:HD2	4:m:115:ASN:HD22	1.74	0.52
3:u:477:ARG:NH1	3:u:561:LEU:O	2.42	0.52
2:G:64:ARG:NH2	2:G:80:HIS:O	2.42	0.52
3:W:581:CYS:HB3	3:W:592:LEU:HB3	1.92	0.52
1:X:215:ILE:HD13	1:Y:201:PRO:HB2	1.91	0.52
1:r:305:GLY:HA3	1:r:310:GLY:HA3	1.92	0.52
3:u:388:THR:HG22	3:u:409:ILE:HG22	1.91	0.52
1:x:301:LEU:HB2	1:x:348:GLN:HB2	1.90	0.52
1:x:334:VAL:HG11	1:y:232:ASN:HD22	1.74	0.52
1:Y:7:VAL:HB	1:Y:133:ASP:HA	1.91	0.52
2:G:231:ARG:NH1	2:G:290:GLU:OE2	2.43	0.52
3:U:477:ARG:NH1	3:U:561:LEU:O	2.43	0.52
1:b:7:VAL:HB	1:b:133:ASP:HA	1.91	0.52
1:C:270:ARG:HD2	1:C:342:ASN:OD1	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:565:GLU:O	2:F:569:ASN:ND2	2.43	0.52
2:G:397:LYS:HE2	4:h:205:GLN:HE21	1.74	0.52
4:j:50:ASP:OD1	4:k:199:ARG:NH1	2.43	0.52
1:p:215:ILE:HD13	1:q:201:PRO:HB2	1.92	0.52
1:r:240:GLY:HA2	1:r:360:VAL:HG12	1.91	0.52
2:H:67:THR:HG21	2:H:76:ASN:HD22	1.74	0.52
2:H:80:HIS:ND1	2:H:368:ASP:OD1	2.26	0.52
2:H:311:THR:HB	2:H:319:CYS:HB3	1.92	0.52
2:K:239:ILE:HD12	2:K:289:ILE:HD12	1.91	0.52
2:N:39:ARG:O	2:N:43:GLU:HG3	2.10	0.52
1:R:15:TRP:HH2	1:R:68:VAL:HG21	1.74	0.52
1:R:303:PHE:CE2	1:R:314:PHE:HB2	2.45	0.52
3:V:114:LYS:HD2	3:V:227:TRP:HD1	1.75	0.52
3:W:743:PRO:HG2	3:W:819:SER:HB3	1.91	0.52
4:l:64:ILE:HG22	4:l:65:ASN:H	1.75	0.52
4:n:64:ILE:HG22	4:n:65:ASN:H	1.75	0.52
3:u:90:GLN:HB2	3:u:101:PHE:HB2	1.91	0.52
3:w:310:TYR:HB3	3:w:326:VAL:HG21	1.92	0.52
2:L:91:ILE:HD11	2:L:349:LEU:HG	1.92	0.52
1:R:301:LEU:HB3	1:R:303:PHE:HE1	1.75	0.52
1:R:314:PHE:HZ	1:R:317:ARG:HB2	1.75	0.52
3:U:791:PRO:HA	3:U:795:TYR:CZ	2.45	0.52
3:w:247:ARG:NH2	3:w:329:ALA:O	2.43	0.52
1:z:306:LEU:N	1:z:312:GLU:OE1	2.38	0.52
1:B:201:PRO:HB3	1:C:195:PRO:HD2	1.91	0.52
2:F:502:ARG:NH1	2:G:523:LYS:HE3	2.25	0.52
1:R:37:HIS:CD2	1:R:68:VAL:HG12	2.45	0.52
3:U:743:PRO:HG2	3:U:819:SER:HB3	1.90	0.52
3:W:454:PHE:HB2	3:W:507:SER:HA	1.92	0.52
1:X:239:GLN:OE1	1:X:240:GLY:N	2.43	0.52
1:Y:158:LEU:HB3	1:Y:162:THR:HG21	1.92	0.52
1:a:298:MET:HE3	1:a:323:PRO:HB3	1.91	0.52
1:q:283:VAL:HG12	1:q:366:PHE:HD1	1.75	0.52
1:q:327:TYR:CE2	1:q:329:LEU:HD21	2.44	0.52
3:u:96:ARG:HG3	3:u:123:GLU:HG3	1.92	0.52
3:u:877:TRP:HB2	3:u:884:LYS:HE2	1.92	0.52
1:x:117:SER:OG	1:x:118:THR:N	2.43	0.52
2:I:391:VAL:HA	2:I:399:PHE:HE1	1.75	0.51
2:J:236:ARG:HD3	2:J:257:VAL:HG22	1.91	0.51
2:J:335:SER:OG	2:J:338:GLU:OE2	2.27	0.51
3:U:73:SER:OG	3:U:94:ARG:NE	2.37	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:V:548:ARG:NE	3:V:631:GLU:OE2	2.38	0.51
3:V:724:ILE:HG13	3:V:727:ILE:HG12	1.92	0.51
3:W:496:ASN:HB2	3:W:504:TYR:CD1	2.45	0.51
1:a:246:TYR:HA	1:a:348:GLN:HB3	1.92	0.51
4:h:64:ILE:HG22	4:h:65:ASN:H	1.75	0.51
3:w:461:ASP:OD2	3:w:464:ASN:ND2	2.41	0.51
3:w:477:ARG:NH2	3:w:517:LEU:O	2.43	0.51
1:x:334:VAL:HG23	1:y:367:ASN:ND2	2.25	0.51
1:C:238:GLN:OE1	1:C:362:GLU:HB3	2.10	0.51
1:P:191:THR:HG22	1:R:189:TYR:CE1	2.46	0.51
3:U:414:ILE:HB	3:U:415:PRO:HD3	1.92	0.51
3:W:247:ARG:NH2	3:W:329:ALA:O	2.43	0.51
1:a:286:ARG:NH1	1:c:317:ARG:HB3	2.25	0.51
1:b:267:SER:HB2	1:b:270:ARG:HG2	1.92	0.51
3:v:114:LYS:HD2	3:v:227:TRP:HD1	1.75	0.51
3:v:242:PHE:CG	3:v:417:GLY:HA3	2.46	0.51
1:x:82:VAL:HG23	1:y:90:SER:HB2	1.92	0.51
1:z:10:ARG:NH1	1:z:16:THR:O	2.43	0.51
1:P:173:THR:O	1:Q:179:THR:OG1	2.26	0.51
1:P:317:ARG:NH1	1:P:319:GLN:HE22	2.03	0.51
3:V:358:SER:HB3	3:V:402:SER:HB2	1.93	0.51
3:W:414:ILE:HB	3:W:415:PRO:HD3	1.92	0.51
1:a:129:VAL:HG13	1:a:130:TRP:CD1	2.45	0.51
1:a:334:VAL:HG11	1:b:232:ASN:HD22	1.76	0.51
4:o:158:ARG:NH1	4:o:200:GLU:OE2	2.39	0.51
3:u:459:PHE:HZ	3:u:510:ILE:HD12	1.75	0.51
3:u:831:TYR:OH	3:u:843:PRO:O	2.26	0.51
3:v:788:LEU:HD21	3:v:824:ASN:HB3	1.93	0.51
1:x:301:LEU:HD21	1:x:317:ARG:NE	2.23	0.51
1:y:259:ARG:NH1	1:y:370:GLN:OE1	2.29	0.51
1:A:37:HIS:NE2	1:A:47:TYR:OH	2.26	0.51
2:M:231:ARG:NH1	2:M:290:GLU:OE2	2.44	0.51
1:P:179:THR:OG1	1:R:173:THR:O	2.26	0.51
1:R:280:TYR:HB3	1:R:369:ILE:HB	1.92	0.51
3:U:270:SER:OG	3:V:421:ASN:ND2	2.44	0.51
3:U:282:SER:HB3	3:w:317:TYR:H	1.76	0.51
3:U:989:ASN:HD21	3:U:993:GLU:HB2	1.74	0.51
3:V:73:SER:OG	3:V:94:ARG:NE	2.36	0.51
3:V:914:ASN:O	1:q:87:LYS:NZ	2.44	0.51
1:Z:12:GLY:H	1:Z:62:LEU:HB3	1.74	0.51
1:p:173:THR:O	1:q:179:THR:OG1	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:u:372:ILE:HD13	3:u:380:ASP:HA	1.91	0.51
1:x:7:VAL:HG22	1:x:69:GLU:HG2	1.92	0.51
1:x:129:VAL:HG13	1:x:130:TRP:HD1	1.74	0.51
1:z:19:VAL:HG21	1:z:55:LEU:HD13	1.91	0.51
1:z:303:PHE:CE2	1:z:314:PHE:HB2	2.45	0.51
1:B:283:VAL:HG12	1:B:366:PHE:HD1	1.76	0.51
2:E:89:GLU:OE1	2:F:433:ARG:HD2	2.10	0.51
2:F:236:ARG:HE	2:F:257:VAL:HA	1.74	0.51
2:J:256:ILE:HA	2:J:259:MET:HG2	1.92	0.51
2:L:139:ARG:O	2:L:143:GLU:HG3	2.11	0.51
2:M:391:VAL:HA	2:M:399:PHE:HE1	1.75	0.51
1:P:317:ARG:HH12	1:P:319:GLN:NE2	2.01	0.51
3:W:583:VAL:HG22	3:W:636:MET:HE2	1.92	0.51
1:r:11:THR:HG1	1:r:65:ASN:N	2.07	0.51
3:u:791:PRO:HA	3:u:795:TYR:CZ	2.45	0.51
3:v:724:ILE:HG13	3:v:727:ILE:HG12	1.93	0.51
1:y:202:ARG:HH21	1:z:196:ILE:HD11	1.75	0.51
2:E:239:ILE:HD12	2:E:289:ILE:HD12	1.92	0.51
2:F:139:ARG:O	2:F:143:GLU:HG3	2.10	0.51
2:M:111:LEU:HD11	2:M:129:LEU:HD12	1.92	0.51
1:P:215:ILE:HD13	1:Q:201:PRO:HB2	1.91	0.51
3:U:635:TRP:CE2	3:U:648:GLY:HA3	2.46	0.51
3:W:790:THR:H	3:W:794:ASP:HB2	1.76	0.51
1:X:201:PRO:HB3	1:Y:195:PRO:HD2	1.92	0.51
1:X:301:LEU:CB	1:X:317:ARG:HG2	2.40	0.51
1:Y:267:SER:HB2	1:Y:270:ARG:HG2	1.92	0.51
1:c:266:PHE:HD1	1:c:271:TRP:HB2	1.76	0.51
4:g:158:ARG:O	4:g:161:GLN:NE2	2.39	0.51
1:p:1:MET:SD	1:p:23:ASN:ND2	2.83	0.51
3:v:798:GLU:OE2	3:w:966:TYR:OH	2.21	0.51
3:w:922:VAL:O	3:w:965:GLN:NE2	2.44	0.51
2:I:127:LYS:NZ	2:I:505:GLY:O	2.36	0.51
2:N:499:GLU:O	2:N:503:VAL:HG23	2.10	0.51
3:U:81:PHE:HZ	3:U:137:PRO:HB2	1.76	0.51
4:g:67:ARG:HD2	4:g:115:ASN:HD22	1.74	0.51
1:p:298:MET:HE3	1:p:299:ASP:N	2.26	0.51
3:u:414:ILE:HB	3:u:415:PRO:HD3	1.92	0.51
3:v:461:ASP:OD2	3:v:464:ASN:ND2	2.40	0.51
1:C:37:HIS:HD2	1:C:68:VAL:HG12	1.75	0.51
2:D:240:ILE:HG12	2:D:256:ILE:HD11	1.93	0.51
2:F:483:ILE:O	2:F:487:VAL:HG23	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:91:ASN:OD1	3:w:754:ARG:NH2	2.40	0.51
3:U:114:LYS:HD2	3:U:227:TRP:HD1	1.76	0.51
3:U:877:TRP:HB2	3:U:884:LYS:HE2	1.92	0.51
4:d:50:ASP:OD1	4:e:199:ARG:NH1	2.43	0.51
1:p:147:ILE:HA	1:p:150:LEU:HD12	1.93	0.51
3:w:414:ILE:HB	3:w:415:PRO:HD3	1.91	0.51
1:A:301:LEU:HD23	1:A:317:ARG:HD3	1.90	0.51
2:E:107:GLU:OE1	2:E:126:ARG:NH2	2.44	0.51
2:F:78:TRP:HB3	2:F:368:ASP:OD2	2.11	0.51
2:F:502:ARG:HH12	2:G:523:LYS:HE3	1.76	0.51
2:H:87:ALA:HB2	2:H:356:LEU:HD13	1.92	0.51
2:N:311:THR:HB	2:N:319:CYS:HB3	1.93	0.51
3:V:242:PHE:CG	3:V:417:GLY:HA3	2.46	0.51
1:b:201:PRO:HB3	1:c:195:PRO:HD2	1.92	0.51
1:c:10:ARG:NH1	1:c:16:THR:O	2.43	0.51
4:j:74:GLN:NE2	4:j:141:LYS:O	2.43	0.51
3:u:635:TRP:CE2	3:u:648:GLY:HA3	2.46	0.51
1:x:286:ARG:HB3	1:x:362:GLU:HG2	1.92	0.51
1:B:202:ARG:HH21	1:C:196:ILE:HD11	1.75	0.51
1:C:270:ARG:HB3	1:C:344:TYR:CE1	2.46	0.51
2:I:233:LYS:HE3	2:I:262:TYR:CE2	2.46	0.51
2:J:49:ALA:HB2	2:J:353:MET:HE2	1.93	0.51
2:K:198:ARG:NH1	2:L:323:ASN:O	2.33	0.51
3:U:599:ASN:HB3	3:U:614:LEU:HD11	1.92	0.51
3:V:989:ASN:HD21	3:V:993:GLU:HB2	1.75	0.51
1:Y:331:TRP:HE1	1:Z:284:THR:HG21	1.75	0.51
4:i:55:THR:HG22	4:i:140:VAL:HG22	1.93	0.51
4:m:25:SER:OG	4:m:27:ASN:ND2	2.44	0.51
3:v:762:LEU:HD13	3:v:802:TYR:CE1	2.46	0.51
3:v:893:LEU:HD23	3:v:997:LEU:HA	1.92	0.51
2:D:162:ARG:NH2	2:D:204:PRO:O	2.44	0.50
3:V:791:PRO:HA	3:V:795:TYR:CZ	2.47	0.50
3:W:799:GLU:HB3	3:W:936:LEU:HD12	1.91	0.50
4:i:10:LEU:HD12	4:i:160:ILE:HG23	1.93	0.50
4:o:10:LEU:HD12	4:o:160:ILE:HG23	1.93	0.50
3:w:893:LEU:HD23	3:w:997:LEU:HA	1.92	0.50
2:O:259:MET:HE2	2:O:313:ILE:HG22	1.93	0.50
1:P:212:ASP:O	1:Q:218:THR:OG1	2.27	0.50
3:U:523:ILE:HD13	3:U:568:ILE:HD11	1.93	0.50
3:V:537:ILE:HD11	3:V:584:ARG:HG3	1.94	0.50
3:V:893:LEU:HD23	3:V:997:LEU:HA	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:37:HIS:O	1:Z:40:ILE:HG12	2.11	0.50
1:Z:37:HIS:NE2	1:Z:47:TYR:OH	2.30	0.50
1:b:331:TRP:HE1	1:c:284:THR:HG21	1.75	0.50
4:e:115:ASN:HB2	4:e:121:ARG:HG3	1.93	0.50
4:n:20:GLU:HG3	4:n:30:VAL:HG21	1.92	0.50
1:p:17:VAL:HG11	1:p:70:ILE:HD13	1.94	0.50
1:r:298:MET:HE3	1:r:327:TYR:HE1	1.75	0.50
3:u:67:TYR:HB2	3:u:108:THR:HB	1.92	0.50
3:v:820:SER:OG	3:v:823:GLY:O	2.28	0.50
3:v:989:ASN:HD21	3:v:993:GLU:HB2	1.75	0.50
2:D:275:GLN:HE21	2:E:339:LEU:HD12	1.76	0.50
2:F:389:ASP:C	2:F:392:GLN:HE22	2.20	0.50
2:J:67:THR:HG21	2:J:76:ASN:ND2	2.27	0.50
2:J:390:GLU:HB3	4:k:205:GLN:HG2	1.93	0.50
2:L:394:ALA:HB3	2:L:397:LYS:HB2	1.93	0.50
3:U:831:TYR:OH	3:U:843:PRO:O	2.27	0.50
3:V:788:LEU:HD21	3:V:824:ASN:HB3	1.93	0.50
1:a:173:THR:O	1:b:179:THR:OG1	2.28	0.50
1:p:126:TYR:OH	1:q:148:GLU:OE1	2.16	0.50
3:v:743:PRO:HG2	3:v:819:SER:HB3	1.92	0.50
3:w:743:PRO:HG2	3:w:819:SER:HB3	1.92	0.50
1:z:246:TYR:HA	1:z:348:GLN:HB3	1.92	0.50
2:J:162:ARG:NH2	2:J:204:PRO:O	2.44	0.50
2:M:99:MET:HE1	2:M:142:PHE:HD2	1.77	0.50
2:O:233:LYS:HE3	2:O:262:TYR:CE2	2.46	0.50
1:Q:281:VAL:HG23	1:Q:331:TRP:HZ3	1.75	0.50
1:Q:331:TRP:HE1	1:R:284:THR:HG21	1.75	0.50
3:W:14:GLU:O	3:W:18:GLU:HG3	2.12	0.50
3:W:317:TYR:H	3:u:282:SER:HB3	1.76	0.50
1:a:286:ARG:HB3	1:a:362:GLU:HG2	1.93	0.50
3:v:37:ASN:ND2	3:w:24:ASN:OD1	2.34	0.50
3:v:585:THR:OG1	3:v:588:ASN:OD1	2.29	0.50
3:w:493:SER:HB3	3:w:508:PHE:CE1	2.47	0.50
1:x:235:ARG:HB2	1:x:253:PHE:HA	1.94	0.50
1:z:235:ARG:HB3	1:z:364:ALA:HB3	1.94	0.50
1:C:262:TRP:O	1:C:275:GLN:NE2	2.43	0.50
2:I:370:LEU:O	2:I:374:ILE:HG12	2.11	0.50
2:K:131:LYS:NZ	2:L:114:ASN:OD1	2.34	0.50
2:O:39:ARG:NH1	2:O:214:VAL:O	2.37	0.50
1:P:7:VAL:HG22	1:P:69:GLU:HG2	1.93	0.50
1:R:8:VAL:HG11	1:R:10:ARG:HE	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:V:414:ILE:HB	3:V:415:PRO:HD3	1.92	0.50
3:W:242:PHE:CG	3:W:417:GLY:HA3	2.47	0.50
1:b:130:TRP:HZ3	1:b:138:PRO:HB3	1.77	0.50
1:r:262:TRP:O	1:r:275:GLN:NE2	2.45	0.50
1:y:267:SER:HB2	1:y:270:ARG:HG2	1.93	0.50
1:z:270:ARG:HB3	1:z:344:TYR:CE1	2.47	0.50
2:G:169:LYS:HG2	2:G:199:VAL:HG22	1.92	0.50
3:W:537:ILE:HD11	3:W:584:ARG:HG3	1.93	0.50
1:c:235:ARG:HB2	1:c:253:PHE:HA	1.93	0.50
3:u:388:THR:HB	3:u:406:VAL:HG21	1.92	0.50
3:u:599:ASN:HB3	3:u:614:LEU:HD11	1.93	0.50
3:w:454:PHE:HB2	3:w:507:SER:HA	1.92	0.50
3:w:599:ASN:HB3	3:w:614:LEU:HD11	1.94	0.50
1:x:129:VAL:HG13	1:x:130:TRP:CD1	2.46	0.50
1:x:186:LEU:HD12	1:z:189:TYR:CD2	2.47	0.50
1:x:278:THR:HB	1:x:372:SER:H	1.77	0.50
1:y:7:VAL:HG22	1:y:69:GLU:HA	1.94	0.50
2:D:391:VAL:HA	2:D:399:PHE:HE1	1.77	0.50
2:I:201:ARG:NH1	2:I:205:GLU:OE2	2.45	0.50
1:X:303:PHE:HZ	1:X:317:ARG:NH2	2.09	0.50
1:Z:305:GLY:HA2	1:Z:312:GLU:CD	2.37	0.50
3:u:931:MET:HE1	3:u:986:LEU:HD13	1.94	0.50
3:v:358:SER:HB3	3:v:402:SER:HB2	1.93	0.50
1:A:211:ASN:HA	1:B:222:ARG:NH2	2.27	0.50
2:E:240:ILE:HG12	2:E:256:ILE:HD11	1.94	0.50
2:K:240:ILE:HG12	2:K:256:ILE:HD11	1.94	0.50
2:O:239:ILE:HD12	2:O:289:ILE:HD12	1.93	0.50
1:Q:130:TRP:CD1	1:R:140:ARG:HH21	2.29	0.50
3:v:922:VAL:O	3:v:965:GLN:NE2	2.45	0.50
3:w:106:ASP:OD1	3:w:717:ARG:NE	2.45	0.50
1:y:281:VAL:HG23	1:y:331:TRP:HZ3	1.77	0.50
2:F:400:LEU:HD13	4:g:201:ARG:HD2	1.93	0.50
2:L:395:PRO:HA	2:M:375:ASP:HB3	1.93	0.50
2:O:129:LEU:HD11	2:O:488:TYR:HB3	1.94	0.50
2:O:400:LEU:HD13	4:d:201:ARG:HD2	1.93	0.50
1:Q:123:ASN:O	1:Q:123:ASN:OD1	2.30	0.50
3:V:247:ARG:NH2	3:V:329:ALA:O	2.45	0.50
4:d:162:LEU:HD13	4:d:192:GLN:HG2	1.93	0.50
3:v:73:SER:OG	3:v:94:ARG:NE	2.36	0.50
3:v:535:ALA:HB3	3:v:546:LEU:HB2	1.94	0.50
3:v:927:ASN:HD22	3:v:942:TYR:HA	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:w:242:PHE:CG	3:w:417:GLY:HA3	2.46	0.50
1:z:8:VAL:HG11	1:z:10:ARG:HE	1.76	0.50
1:z:270:ARG:HH11	1:z:272:LEU:HD23	1.77	0.50
2:J:370:LEU:O	2:J:374:ILE:HG12	2.12	0.49
2:N:370:LEU:O	2:N:374:ILE:HG12	2.11	0.49
3:U:189:ARG:O	3:U:691:ARG:NH2	2.44	0.49
3:V:922:VAL:O	3:V:965:GLN:NE2	2.45	0.49
1:X:129:VAL:HG13	1:X:130:TRP:CD1	2.47	0.49
1:a:130:TRP:CD1	1:b:140:ARG:HD2	2.47	0.49
1:b:158:LEU:HB3	1:b:162:THR:HG21	1.92	0.49
3:w:358:SER:HB3	3:w:402:SER:HB2	1.94	0.49
1:y:173:THR:O	1:z:179:THR:OG1	2.29	0.49
2:F:67:THR:HG21	2:F:76:ASN:ND2	2.26	0.49
3:W:635:TRP:CE2	3:W:648:GLY:HA3	2.47	0.49
3:u:114:LYS:HD2	3:u:227:TRP:HD1	1.76	0.49
1:x:299:ASP:OD1	1:x:319:GLN:NE2	2.45	0.49
1:C:305:GLY:HA2	1:C:312:GLU:CD	2.37	0.49
2:D:67:THR:HG21	2:D:76:ASN:ND2	2.26	0.49
2:G:391:VAL:HA	2:G:399:PHE:HE1	1.77	0.49
2:J:3:ARG:NH1	2:J:6:ASP:OD1	2.43	0.49
2:L:78:TRP:HE1	2:L:361:ILE:HG23	1.77	0.49
3:U:358:SER:HB3	3:U:402:SER:HB2	1.95	0.49
3:W:388:THR:HB	3:W:406:VAL:HG21	1.95	0.49
3:W:434:ILE:HG13	3:W:435:GLY:H	1.77	0.49
1:Z:306:LEU:HA	1:Z:342:ASN:O	2.12	0.49
1:b:5:ASN:ND2	1:b:69:GLU:OE2	2.41	0.49
3:v:556:GLY:O	3:v:565:ASN:ND2	2.45	0.49
1:z:25:LEU:HD12	1:z:30:ILE:HG21	1.94	0.49
1:C:305:GLY:HA2	1:C:312:GLU:OE1	2.12	0.49
2:F:78:TRP:HE1	2:F:361:ILE:HG23	1.76	0.49
2:N:175:LYS:NZ	2:N:191:TYR:O	2.30	0.49
1:P:246:TYR:HA	1:P:348:GLN:HB3	1.95	0.49
1:Q:298:MET:CG	1:Q:323:PRO:HB3	2.41	0.49
3:U:242:PHE:CG	3:U:417:GLY:HA3	2.48	0.49
3:U:493:SER:HB3	3:U:508:PHE:CE1	2.47	0.49
3:V:635:TRP:CE2	3:V:648:GLY:HA3	2.48	0.49
1:r:270:ARG:HB3	1:r:344:TYR:CE1	2.48	0.49
3:u:131:THR:HG22	3:u:139:VAL:HG22	1.94	0.49
3:u:358:SER:HB3	3:u:402:SER:HB2	1.94	0.49
3:v:344:ARG:HG3	3:v:410:PHE:HB3	1.94	0.49
3:v:537:ILE:HD11	3:v:584:ARG:HG3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:v:599:ASN:HB3	3:v:614:LEU:HD11	1.95	0.49
1:A:17:VAL:HG11	1:A:70:ILE:HD13	1.94	0.49
1:C:64:SER:C	1:C:65:ASN:OD1	2.56	0.49
2:E:433:ARG:NH1	2:E:434:ASN:OD1	2.45	0.49
3:V:434:ILE:HG13	3:V:435:GLY:H	1.77	0.49
3:W:931:MET:HE1	3:W:986:LEU:HD13	1.95	0.49
1:Y:271:TRP:CZ3	1:Y:273:VAL:HG22	2.47	0.49
4:d:74:GLN:NE2	4:d:141:LYS:O	2.46	0.49
1:p:37:HIS:NE2	1:p:47:TYR:OH	2.26	0.49
1:q:202:ARG:HH21	1:r:196:ILE:HD11	1.77	0.49
3:v:492:PHE:HE1	3:v:523:ILE:HD12	1.77	0.49
3:v:791:PRO:HA	3:v:795:TYR:CZ	2.46	0.49
3:w:537:ILE:HD11	3:w:584:ARG:HG3	1.93	0.49
2:E:48:GLU:HG3	2:E:353:MET:CE	2.41	0.49
2:E:181:TYR:HB3	2:F:169:LYS:HG3	1.94	0.49
2:J:120:ASN:O	2:J:124:ILE:HG13	2.13	0.49
2:K:181:TYR:HB3	2:L:169:LYS:HG3	1.95	0.49
2:N:67:THR:HG21	2:N:76:ASN:HD22	1.78	0.49
3:U:931:MET:HE1	3:U:986:LEU:HD13	1.94	0.49
4:e:25:SER:OG	4:e:27:ASN:ND2	2.45	0.49
4:g:116:GLU:HG2	4:g:117:TYR:H	1.78	0.49
3:u:922:VAL:O	3:u:965:GLN:NE2	2.45	0.49
3:w:14:GLU:O	3:w:18:GLU:HG3	2.12	0.49
1:B:202:ARG:NH2	1:C:196:ILE:HD11	2.27	0.49
2:D:51:SER:O	2:D:63:GLN:NE2	2.40	0.49
2:G:175:LYS:HE3	2:G:191:TYR:HB2	1.94	0.49
2:H:144:LYS:HE3	2:I:221:ASN:ND2	2.28	0.49
2:M:239:ILE:HD12	2:M:289:ILE:HD12	1.94	0.49
2:M:389:ASP:CG	4:m:202:ASN:HD21	2.21	0.49
3:U:703:THR:OG1	3:U:712:ASN:ND2	2.42	0.49
3:V:510:ILE:HG12	3:V:521:PHE:HA	1.94	0.49
3:V:599:ASN:HB3	3:V:614:LEU:HD11	1.94	0.49
3:W:791:PRO:HA	3:W:795:TYR:CZ	2.47	0.49
1:q:126:TYR:HA	1:q:130:TRP:NE1	2.28	0.49
3:v:310:TYR:HB3	3:v:326:VAL:HG21	1.95	0.49
3:v:493:SER:HB3	3:v:508:PHE:CE1	2.47	0.49
3:w:732:HIS:ND1	3:w:737:TYR:OH	2.43	0.49
3:w:791:PRO:HA	3:w:795:TYR:CZ	2.48	0.49
1:x:317:ARG:NH2	1:y:325:PHE:O	2.46	0.49
2:D:236:ARG:HD3	2:D:257:VAL:HG22	1.93	0.49
2:E:236:ARG:NE	2:E:287:ASP:HA	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:393:VAL:HG13	4:g:210:MET:HG3	1.93	0.49
2:M:94:VAL:HG11	2:M:348:LEU:HD11	1.95	0.49
1:R:308:PRO:HD3	1:R:344:TYR:CE2	2.48	0.49
3:U:927:ASN:HD22	3:U:942:TYR:HA	1.76	0.49
3:V:310:TYR:HB3	3:V:326:VAL:HG21	1.95	0.49
3:V:535:ALA:HB3	3:V:546:LEU:HB2	1.94	0.49
3:W:67:TYR:HB3	3:W:715:ILE:HB	1.95	0.49
3:W:556:GLY:O	3:W:565:ASN:ND2	2.45	0.49
1:a:138:PRO:HB3	1:b:140:ARG:HG2	1.95	0.49
3:v:147:LYS:NZ	3:v:467:TYR:OH	2.40	0.49
1:B:173:THR:O	1:C:179:THR:OG1	2.30	0.49
2:G:389:ASP:CG	4:g:202:ASN:HD21	2.21	0.49
2:H:370:LEU:O	2:H:374:ILE:HG12	2.13	0.49
2:J:391:VAL:HA	2:J:399:PHE:HE1	1.76	0.49
2:K:236:ARG:NE	2:K:287:ASP:HA	2.28	0.49
2:O:175:LYS:HZ3	2:O:193:THR:HG1	1.53	0.49
3:V:688:TYR:CE1	3:V:698:CYS:HB3	2.48	0.49
4:m:127:GLU:HG3	4:m:128:THR:HG23	1.94	0.49
1:q:173:THR:O	1:r:179:THR:OG1	2.29	0.49
3:v:434:ILE:HG13	3:v:435:GLY:H	1.77	0.49
3:v:477:ARG:NH1	3:v:561:LEU:O	2.46	0.49
3:v:635:TRP:CE2	3:v:648:GLY:HA3	2.48	0.49
3:w:434:ILE:HG13	3:w:435:GLY:H	1.76	0.49
1:x:372:SER:HA	1:y:226:ASN:ND2	2.28	0.49
1:C:37:HIS:CD2	1:C:68:VAL:HG12	2.47	0.49
2:L:400:LEU:HD13	4:m:201:ARG:HD2	1.95	0.49
3:U:967:GLN:NE2	3:U:970:GLN:OE1	2.46	0.49
3:V:263:ILE:HG23	3:V:343:ARG:HB2	1.95	0.49
3:W:599:ASN:HB3	3:W:614:LEU:HD11	1.94	0.49
1:b:271:TRP:CZ3	1:b:273:VAL:HG22	2.47	0.49
4:g:25:SER:OG	4:g:27:ASN:ND2	2.45	0.49
1:q:202:ARG:NH2	1:r:196:ILE:HD11	2.28	0.49
1:r:235:ARG:HB2	1:r:253:PHE:HA	1.94	0.49
3:v:247:ARG:NH2	3:v:329:ALA:O	2.45	0.49
3:v:925:ASN:HB3	3:v:993:GLU:OE1	2.13	0.49
3:w:556:GLY:O	3:w:565:ASN:ND2	2.45	0.49
1:B:19:VAL:HG11	1:B:55:LEU:HD12	1.94	0.48
2:D:91:ILE:HD11	2:D:349:LEU:HG	1.94	0.48
2:E:67:THR:HG21	2:E:76:ASN:HD22	1.78	0.48
2:I:400:LEU:HD13	4:j:201:ARG:HD2	1.94	0.48
2:K:87:ALA:HB2	2:K:356:LEU:HD13	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:89:GLU:OE2	2:M:433:ARG:HG2	2.13	0.48
2:O:139:ARG:O	2:O:143:GLU:HG3	2.13	0.48
2:O:201:ARG:NH1	2:O:205:GLU:OE2	2.45	0.48
1:Q:34:ILE:HG22	1:Q:71:ARG:HB2	1.95	0.48
1:R:246:TYR:HA	1:R:348:GLN:HB3	1.94	0.48
3:U:528:ARG:HG3	3:U:528:ARG:HH11	1.78	0.48
3:W:496:ASN:HB2	3:W:504:TYR:HD1	1.77	0.48
1:c:11:THR:HG1	1:c:65:ASN:N	2.10	0.48
1:c:270:ARG:HB3	1:c:344:TYR:CE1	2.48	0.48
1:c:303:PHE:HB2	1:c:346:THR:OG1	2.12	0.48
3:u:242:PHE:CG	3:u:417:GLY:HA3	2.48	0.48
1:x:246:TYR:HA	1:x:348:GLN:HB3	1.94	0.48
2:H:79:ARG:NH1	2:H:371:GLU:OE1	2.37	0.48
2:J:240:ILE:HG12	2:J:256:ILE:HD11	1.95	0.48
1:P:286:ARG:HB3	1:P:362:GLU:HG2	1.95	0.48
1:Q:202:ARG:HH21	1:R:196:ILE:HD11	1.77	0.48
3:W:175:PHE:HB3	3:W:178:ALA:HB2	1.95	0.48
3:W:358:SER:HB3	3:W:402:SER:HB2	1.94	0.48
3:W:493:SER:HB3	3:W:508:PHE:CE1	2.48	0.48
1:X:270:ARG:HH11	1:X:272:LEU:HB2	1.78	0.48
4:f:165:TYR:HE2	4:f:192:GLN:NE2	2.11	0.48
3:u:496:ASN:HB2	3:u:504:TYR:HD1	1.78	0.48
3:w:388:THR:HB	3:w:406:VAL:HG21	1.95	0.48
1:y:103:TRP:CD1	1:z:104:ARG:HH21	2.31	0.48
1:y:297:TYR:HB3	1:y:352:ILE:HB	1.95	0.48
1:z:37:HIS:CD2	1:z:68:VAL:HG12	2.48	0.48
1:A:286:ARG:HB3	1:A:362:GLU:HG2	1.96	0.48
2:D:501:ILE:HG23	2:D:506:ALA:HB3	1.95	0.48
2:M:44:GLU:OE2	2:M:267:ARG:NH2	2.45	0.48
2:N:94:VAL:HG11	2:N:348:LEU:HD11	1.95	0.48
3:U:90:GLN:HB2	3:U:101:PHE:HB2	1.95	0.48
3:V:925:ASN:HB3	3:V:993:GLU:OE1	2.13	0.48
3:W:73:SER:OG	3:W:94:ARG:NE	2.40	0.48
1:X:191:THR:HG22	1:Z:189:TYR:CE1	2.48	0.48
4:i:74:GLN:NE2	4:i:141:LYS:O	2.44	0.48
4:m:116:GLU:HG2	4:m:117:TYR:H	1.78	0.48
3:u:493:SER:HB3	3:u:508:PHE:CE1	2.48	0.48
3:v:305:SER:O	3:v:324:TRP:HB2	2.13	0.48
3:v:956:VAL:HG23	3:v:959:VAL:HB	1.96	0.48
1:A:215:ILE:HD13	1:B:201:PRO:HB2	1.95	0.48
1:B:126:TYR:HA	1:B:130:TRP:NE1	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:80:HIS:ND1	2:E:368:ASP:OD1	2.28	0.48
2:I:239:ILE:HD12	2:I:289:ILE:HD12	1.95	0.48
2:J:252:ASP:O	2:J:256:ILE:HG23	2.13	0.48
2:K:391:VAL:HA	2:K:399:PHE:HE1	1.77	0.48
2:L:55:GLY:O	2:M:350:GLN:NE2	2.46	0.48
1:P:201:PRO:HB2	1:R:215:ILE:HD13	1.95	0.48
3:W:86:ALA:HB3	3:W:189:ARG:HH22	1.79	0.48
1:X:235:ARG:HH12	1:X:252:GLN:HE21	1.62	0.48
4:f:115:ASN:ND2	4:f:121:ARG:HD2	2.29	0.48
4:g:127:GLU:HG3	4:g:128:THR:HG23	1.94	0.48
3:u:523:ILE:HD13	3:u:568:ILE:HD11	1.94	0.48
3:w:67:TYR:HB3	3:w:715:ILE:HB	1.95	0.48
2:G:129:LEU:HD11	2:G:488:TYR:HB3	1.96	0.48
2:G:370:LEU:O	2:G:374:ILE:HG12	2.14	0.48
1:Q:314:PHE:CZ	1:Q:317:ARG:HB2	2.47	0.48
3:V:477:ARG:NH1	3:V:561:LEU:O	2.46	0.48
3:V:493:SER:HB3	3:V:508:PHE:CE1	2.48	0.48
1:Z:24:LEU:HD23	1:Z:72:ARG:HG3	1.96	0.48
1:a:235:ARG:HB3	1:a:364:ALA:HB3	1.96	0.48
1:p:138:PRO:HB3	1:q:140:ARG:HG2	1.95	0.48
3:w:86:ALA:HB3	3:w:189:ARG:HH22	1.79	0.48
3:w:175:PHE:HB3	3:w:178:ALA:HB2	1.95	0.48
2:F:64:ARG:NH2	2:F:80:HIS:O	2.47	0.48
2:O:182:TYR:HD1	2:O:186:THR:HG21	1.79	0.48
1:Q:69:GLU:OE2	1:Q:71:ARG:HG2	2.13	0.48
3:U:454:PHE:HB2	3:U:507:SER:HA	1.95	0.48
3:W:249:ASN:HA	3:W:330:LEU:HD22	1.96	0.48
3:W:688:TYR:CE1	3:W:698:CYS:HB3	2.49	0.48
1:X:284:THR:HB	1:X:365:ARG:HB2	1.96	0.48
1:c:259:ARG:NE	1:c:264:ASP:OD2	2.41	0.48
3:v:688:TYR:CE1	3:v:698:CYS:HB3	2.47	0.48
3:w:344:ARG:HB3	3:w:389:TYR:CZ	2.48	0.48
1:x:259:ARG:HE	1:x:262:TRP:CG	2.32	0.48
2:G:67:THR:OG1	2:G:76:ASN:ND2	2.44	0.48
2:G:335:SER:HB2	2:G:345:SER:HB3	1.96	0.48
2:I:62:HIS:O	2:I:65:THR:OG1	2.31	0.48
2:L:390:GLU:O	2:L:397:LYS:NZ	2.44	0.48
2:O:370:LEU:O	2:O:374:ILE:HG12	2.13	0.48
3:U:834:TYR:OH	3:U:992:ASP:OD2	2.18	0.48
3:V:927:ASN:HD22	3:V:942:TYR:HA	1.77	0.48
3:W:313:SER:HB3	3:W:316:ASP:HB2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:201:PRO:HB3	1:Z:195:PRO:HD2	1.96	0.48
1:c:37:HIS:CD2	1:c:68:VAL:HG12	2.49	0.48
1:A:284:THR:OG1	1:A:365:ARG:HB2	2.14	0.48
2:F:252:ASP:O	2:F:256:ILE:HG23	2.14	0.48
2:G:239:ILE:HD12	2:G:289:ILE:HD12	1.96	0.48
2:N:295:TRP:CH2	2:N:309:LYS:HD2	2.49	0.48
1:P:117:SER:OG	1:P:118:THR:N	2.45	0.48
3:U:229:TRP:NE1	3:U:448:GLY:O	2.45	0.48
3:U:247:ARG:NH2	3:U:329:ALA:O	2.47	0.48
3:V:914:ASN:ND2	1:q:80:GLN:OE1	2.47	0.48
1:c:246:TYR:HA	1:c:348:GLN:HB3	1.95	0.48
4:l:115:ASN:ND2	4:l:121:ARG:HD2	2.28	0.48
4:o:55:THR:HG22	4:o:140:VAL:HG22	1.95	0.48
1:p:111:GLY:HA3	1:p:115:VAL:CG2	2.44	0.48
1:p:270:ARG:HG3	1:p:344:TYR:CZ	2.48	0.48
1:r:235:ARG:HB3	1:r:364:ALA:HB3	1.94	0.48
1:A:111:GLY:HA3	1:A:115:VAL:CG2	2.44	0.48
2:F:129:LEU:HD21	2:F:488:TYR:HB3	1.96	0.48
2:I:485:ARG:HA	2:I:488:TYR:CD2	2.49	0.48
2:O:182:TYR:CD1	2:O:186:THR:HG21	2.49	0.48
3:U:683:TRP:HB2	3:U:700:ILE:HG13	1.96	0.48
3:W:344:ARG:HB3	3:W:389:TYR:CZ	2.48	0.48
1:X:130:TRP:CD1	1:Y:140:ARG:HD2	2.49	0.48
1:a:129:VAL:HG13	1:a:130:TRP:HD1	1.77	0.48
1:a:191:THR:HG22	1:c:189:TYR:CE1	2.48	0.48
1:c:24:LEU:HD23	1:c:72:ARG:HG3	1.96	0.48
4:j:46:SER:HB3	4:j:143:ALA:HB2	1.94	0.48
1:q:19:VAL:HG11	1:q:55:LEU:HD12	1.95	0.48
3:w:820:SER:OG	3:w:823:GLY:O	2.31	0.48
1:A:129:VAL:HG13	1:A:130:TRP:HD1	1.79	0.48
2:G:94:VAL:HG11	2:G:348:LEU:HD11	1.95	0.48
2:G:162:ARG:NH2	2:G:204:PRO:O	2.47	0.48
2:H:51:SER:O	2:H:63:GLN:NE2	2.42	0.48
2:M:169:LYS:HG2	2:M:199:VAL:HG22	1.95	0.48
2:M:370:LEU:O	2:M:374:ILE:HG12	2.14	0.48
2:O:230:ARG:NH2	2:O:293:GLU:OE1	2.36	0.48
1:Q:103:TRP:CD1	1:R:104:ARG:HH21	2.32	0.48
3:U:15:VAL:HG12	3:U:19:GLN:OE1	2.14	0.48
3:U:452:PRO:HG2	3:U:503:ARG:HH21	1.79	0.48
3:u:585:THR:OG1	3:u:588:ASN:OD1	2.32	0.48
3:v:249:ASN:HA	3:v:330:LEU:HD22	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:w:249:ASN:HA	3:w:330:LEU:HD22	1.96	0.48
2:F:55:GLY:O	2:G:350:GLN:NE2	2.47	0.47
2:I:78:TRP:HE1	2:I:361:ILE:HG23	1.78	0.47
2:L:67:THR:HG21	2:L:76:ASN:ND2	2.26	0.47
4:i:214:ARG:O	4:i:217:ARG:CZ	2.55	0.47
1:p:270:ARG:HH11	1:p:272:LEU:HB2	1.78	0.47
1:q:262:TRP:HZ3	1:q:275:GLN:HG3	1.78	0.47
3:w:364:VAL:HB	3:w:369:ARG:HE	1.78	0.47
3:w:688:TYR:CE1	3:w:698:CYS:HB3	2.49	0.47
1:x:280:TYR:HB3	1:x:369:ILE:HB	1.96	0.47
1:A:371:LEU:HD13	1:B:229:LEU:HD12	1.95	0.47
2:D:159:LEU:HB3	2:D:160:PRO:HD2	1.97	0.47
2:D:377:MET:HE1	2:D:412:ARG:NH2	2.29	0.47
2:F:236:ARG:HH11	2:F:236:ARG:HG3	1.78	0.47
2:H:252:ASP:O	2:H:256:ILE:HG23	2.15	0.47
2:I:52:LEU:HD12	2:I:353:MET:SD	2.54	0.47
2:J:53:TYR:OH	2:J:92:GLU:OE2	2.31	0.47
2:O:397:LYS:HE2	4:d:205:GLN:HE21	1.78	0.47
1:P:186:LEU:HD12	1:R:189:TYR:CD2	2.49	0.47
1:P:270:ARG:HG3	1:P:344:TYR:CZ	2.49	0.47
1:Q:201:PRO:HB3	1:R:195:PRO:HD2	1.96	0.47
3:U:249:ASN:HA	3:U:330:LEU:HD22	1.96	0.47
3:U:581:CYS:O	3:U:591:TYR:HA	2.13	0.47
3:U:835:VAL:HG22	3:U:860:ILE:HD12	1.95	0.47
3:V:150:GLN:NE2	3:V:451:ILE:HG13	2.29	0.47
3:V:956:VAL:HG23	3:V:959:VAL:HB	1.94	0.47
1:Z:235:ARG:HG3	1:Z:254:THR:HG23	1.96	0.47
1:x:197:LEU:HD11	1:y:195:PRO:HG3	1.97	0.47
1:y:7:VAL:HG21	1:y:69:GLU:HG2	1.95	0.47
1:A:138:PRO:HB3	1:B:140:ARG:HG2	1.96	0.47
2:E:370:LEU:O	2:E:374:ILE:HG12	2.15	0.47
2:N:110:ASP:OD1	2:N:126:ARG:NH1	2.46	0.47
1:P:317:ARG:HH11	1:P:319:GLN:HE21	1.61	0.47
3:U:36:LEU:HD21	3:U:880:LEU:HD21	1.97	0.47
3:V:249:ASN:HA	3:V:330:LEU:HD22	1.97	0.47
3:W:372:ILE:HD11	3:W:385:ASN:HB3	1.97	0.47
1:a:93:TRP:HB2	1:b:93:TRP:HH2	1.80	0.47
2:D:433:ARG:HG2	2:O:89:GLU:OE1	2.13	0.47
2:K:370:LEU:O	2:K:374:ILE:HG12	2.13	0.47
1:P:10:ARG:HH21	1:P:17:VAL:HA	1.79	0.47
1:Q:164:ASN:OD1	1:Q:165:VAL:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:235:ARG:HH21	1:R:252:GLN:C	2.22	0.47
3:U:131:THR:HG22	3:U:139:VAL:HG22	1.95	0.47
3:U:599:ASN:ND2	3:U:614:LEU:HD21	2.30	0.47
3:V:914:ASN:HB3	1:q:84:TYR:CD2	2.50	0.47
1:Z:275:GLN:O	1:Z:279:TYR:OH	2.27	0.47
4:g:6:THR:OG1	4:g:9:GLN:HG3	2.15	0.47
1:p:93:TRP:HB2	1:q:93:TRP:HH2	1.79	0.47
3:u:249:ASN:HA	3:u:330:LEU:HD22	1.97	0.47
3:w:931:MET:HE1	3:w:986:LEU:HD13	1.95	0.47
1:y:164:ASN:OD1	1:y:165:VAL:N	2.47	0.47
2:I:397:LYS:HE2	4:j:205:GLN:HE21	1.79	0.47
2:L:485:ARG:HA	2:L:488:TYR:CD2	2.50	0.47
3:U:790:THR:N	3:U:794:ASP:HB2	2.29	0.47
3:V:270:SER:OG	3:W:421:ASN:ND2	2.45	0.47
3:V:305:SER:O	3:V:324:TRP:HB2	2.14	0.47
3:V:585:THR:OG1	3:V:588:ASN:OD1	2.30	0.47
1:X:144:TYR:O	1:X:148:GLU:HG2	2.14	0.47
1:c:235:ARG:HG3	1:c:254:THR:HG23	1.96	0.47
4:n:44:ASP:CG	4:o:195:ARG:HH22	2.19	0.47
3:v:150:GLN:NE2	3:v:451:ILE:HG13	2.28	0.47
3:w:258:LYS:HB2	3:w:324:TRP:CZ3	2.49	0.47
3:w:496:ASN:HB2	3:w:504:TYR:CD1	2.49	0.47
1:x:10:ARG:HH21	1:x:17:VAL:HA	1.79	0.47
1:x:55:LEU:HD12	1:x:70:ILE:HD13	1.95	0.47
2:E:391:VAL:HA	2:E:399:PHE:HE1	1.78	0.47
2:E:565:GLU:OE2	2:F:561:ARG:NH1	2.48	0.47
2:G:43:GLU:HB3	2:G:267:ARG:HD2	1.95	0.47
2:M:232:ILE:HB	2:M:291:VAL:HB	1.97	0.47
2:N:231:ARG:NH1	2:N:290:GLU:OE2	2.48	0.47
2:N:252:ASP:O	2:N:256:ILE:HG23	2.13	0.47
2:O:64:ARG:NH2	2:O:80:HIS:O	2.47	0.47
2:O:78:TRP:HB3	2:O:368:ASP:OD2	2.14	0.47
1:Q:235:ARG:NH1	1:Q:252:GLN:HB2	2.30	0.47
1:R:132:GLY:O	1:r:265:ASN:ND2	2.47	0.47
3:U:29:LEU:HD13	3:U:46:LEU:H	1.80	0.47
3:W:820:SER:OG	3:W:823:GLY:O	2.31	0.47
1:c:287:PHE:HE1	1:c:361:ILE:HD12	1.80	0.47
4:d:20:GLU:HG3	4:d:30:VAL:HG11	1.97	0.47
4:i:67:ARG:HD2	4:i:115:ASN:HD22	1.79	0.47
4:l:46:SER:HB3	4:l:143:ALA:HB2	1.96	0.47
4:m:6:THR:OG1	4:m:9:GLN:HG3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:u:927:ASN:HD22	3:u:942:TYR:HA	1.78	0.47
3:v:454:PHE:HB2	3:v:507:SER:HA	1.96	0.47
3:w:189:ARG:O	3:w:691:ARG:NH2	2.48	0.47
3:w:372:ILE:HD11	3:w:385:ASN:HB3	1.97	0.47
3:w:683:TRP:HE3	3:w:700:ILE:HG22	1.79	0.47
1:A:201:PRO:HB3	1:B:195:PRO:HD2	1.95	0.47
1:A:280:TYR:HB2	1:A:371:LEU:HD11	1.96	0.47
1:B:101:ILE:O	1:B:105:GLU:HG3	2.15	0.47
1:B:224:PHE:CZ	1:C:222:ARG:HG3	2.50	0.47
2:F:560:GLU:HG3	2:F:561:ARG:HG3	1.95	0.47
2:G:159:LEU:HB3	2:G:160:PRO:HD2	1.97	0.47
2:G:160:PRO:HB3	2:G:205:GLU:CG	2.43	0.47
2:H:132:LYS:HE3	2:H:160:PRO:HG3	1.97	0.47
2:J:397:LYS:HE2	4:k:205:GLN:HE21	1.80	0.47
2:M:144:LYS:NZ	2:N:338:GLU:HB2	2.29	0.47
2:N:144:LYS:HE3	2:O:221:ASN:ND2	2.30	0.47
2:O:52:LEU:HD12	2:O:353:MET:SD	2.55	0.47
1:P:74:THR:OG1	1:P:106:GLU:OE2	2.23	0.47
1:P:259:ARG:HE	1:P:262:TRP:CG	2.33	0.47
1:R:270:ARG:HD2	1:R:342:ASN:HD21	1.80	0.47
3:U:96:ARG:HG3	3:U:123:GLU:HG3	1.95	0.47
3:V:88:GLN:HG2	3:V:689:THR:HB	1.97	0.47
3:V:454:PHE:HB2	3:V:507:SER:HA	1.97	0.47
3:V:820:SER:OG	3:V:823:GLY:O	2.28	0.47
3:W:189:ARG:O	3:W:691:ARG:NH2	2.48	0.47
3:W:364:VAL:HB	3:W:369:ARG:HE	1.80	0.47
1:X:314:PHE:HE1	1:X:317:ARG:CG	2.22	0.47
1:a:111:GLY:HA3	1:a:115:VAL:CG2	2.44	0.47
4:k:5:THR:OG1	4:k:157:ASP:OD1	2.33	0.47
1:p:330:THR:O	1:q:330:THR:HG21	2.15	0.47
1:r:235:ARG:NH1	1:r:252:GLN:HB2	2.28	0.47
3:u:320:PRO:HG2	3:v:419:ALA:HB2	1.96	0.47
3:u:434:ILE:HG13	3:u:435:GLY:H	1.80	0.47
3:u:452:PRO:HG2	3:u:503:ARG:HH21	1.80	0.47
3:u:581:CYS:O	3:u:591:TYR:HA	2.13	0.47
3:u:599:ASN:ND2	3:u:614:LEU:HD21	2.29	0.47
3:v:548:ARG:NE	3:v:631:GLU:OE2	2.38	0.47
3:w:895:ASN:O	3:w:899:VAL:HG13	2.15	0.47
3:w:927:ASN:HD22	3:w:942:TYR:HA	1.78	0.47
1:x:144:TYR:HB2	1:z:130:TRP:HB3	1.96	0.47
1:x:270:ARG:HG3	1:x:344:TYR:CZ	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:201:PRO:HB2	1:C:215:ILE:HD13	1.96	0.47
2:G:131:LYS:HD3	2:G:503:VAL:HG13	1.97	0.47
2:N:129:LEU:HD21	2:N:488:TYR:HB3	1.95	0.47
2:N:175:LYS:HE3	2:N:191:TYR:HB2	1.97	0.47
2:O:390:GLU:O	2:O:397:LYS:NZ	2.41	0.47
1:Q:80:GLN:OE1	3:U:914:ASN:ND2	2.47	0.47
1:R:304:VAL:HG23	1:R:313:ASN:HB2	1.96	0.47
3:U:775:THR:HG21	3:U:799:GLU:HG2	1.97	0.47
3:V:29:LEU:HD13	3:V:46:LEU:H	1.80	0.47
3:W:922:VAL:O	3:W:965:GLN:NE2	2.47	0.47
3:W:927:ASN:HD22	3:W:942:TYR:HA	1.79	0.47
1:X:111:GLY:HA3	1:X:115:VAL:CG2	2.44	0.47
4:l:47:TYR:OH	4:m:158:ARG:NH1	2.47	0.47
1:p:129:VAL:HG13	1:p:130:TRP:HD1	1.79	0.47
1:q:101:ILE:O	1:q:105:GLU:HG3	2.14	0.47
1:r:290:THR:HG23	1:r:360:VAL:HG21	1.97	0.47
3:v:14:GLU:O	3:v:18:GLU:HG3	2.15	0.47
3:v:305:SER:O	3:v:321:SER:HB3	2.15	0.47
2:E:106:ARG:HH12	2:F:533:ASP:HB2	1.80	0.47
2:N:372:LEU:HD21	4:m:211:PHE:HB2	1.97	0.47
3:W:258:LYS:HB2	3:W:324:TRP:CZ3	2.49	0.47
1:X:243:SER:HB2	1:X:247:ILE:HD12	1.96	0.47
1:X:319:GLN:NE2	1:Y:320:THR:OG1	2.47	0.47
1:Z:266:PHE:CD1	1:Z:271:TRP:HB2	2.50	0.47
1:a:371:LEU:HG	1:b:229:LEU:HD12	1.97	0.47
4:d:180:GLN:O	4:d:184:MET:HG3	2.15	0.47
4:i:37:THR:HG23	4:i:170:GLN:HG2	1.97	0.47
4:o:60:ALA:HA	4:o:70:LEU:HD23	1.97	0.47
3:w:313:SER:HB3	3:w:316:ASP:HB2	1.96	0.47
1:B:80:GLN:OE1	3:v:914:ASN:ND2	2.47	0.47
2:D:338:GLU:HB3	2:O:144:LYS:HE3	1.97	0.47
2:H:295:TRP:CH2	2:H:309:LYS:HD2	2.50	0.47
2:I:64:ARG:NH2	2:I:80:HIS:O	2.48	0.47
2:K:59:ALA:O	2:K:63:GLN:HG3	2.14	0.47
2:L:370:LEU:O	2:L:374:ILE:HG12	2.15	0.47
2:L:472:HIS:CD2	2:L:473:ARG:HH21	2.33	0.47
1:R:10:ARG:HD2	1:R:15:TRP:CE3	2.50	0.47
3:U:33:ALA:HA	3:V:54:SER:HB2	1.97	0.47
3:U:722:LEU:HB2	3:U:727:ILE:HD13	1.97	0.47
3:V:14:GLU:O	3:V:18:GLU:HG3	2.15	0.47
1:Y:173:THR:O	1:Z:179:THR:OG1	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:d:115:ASN:ND2	4:d:121:ARG:HD2	2.30	0.47
4:o:158:ARG:O	4:o:161:GLN:NE2	2.44	0.47
1:q:301:LEU:HG	1:q:317:ARG:HG3	1.97	0.47
3:u:29:LEU:HD13	3:u:46:LEU:H	1.80	0.47
1:y:7:VAL:HB	1:y:133:ASP:HA	1.95	0.47
1:y:201:PRO:HB3	1:z:195:PRO:HD2	1.96	0.47
1:A:229:LEU:HA	1:A:369:ILE:HD13	1.96	0.46
2:D:120:ASN:O	2:D:124:ILE:HG13	2.15	0.46
2:F:159:LEU:HB3	2:F:160:PRO:HD2	1.97	0.46
2:F:370:LEU:O	2:F:374:ILE:HG12	2.15	0.46
2:M:377:MET:SD	2:M:412:ARG:NH2	2.88	0.46
1:X:235:ARG:NH1	1:X:252:GLN:HG3	2.30	0.46
1:X:235:ARG:HB2	1:X:253:PHE:HA	1.96	0.46
4:i:25:SER:OG	4:i:27:ASN:ND2	2.48	0.46
4:i:126:PRO:HG3	4:i:135:TYR:CE2	2.50	0.46
1:p:301:LEU:HD12	1:p:317:ARG:HB2	1.97	0.46
3:u:247:ARG:NH2	3:u:329:ALA:O	2.48	0.46
3:u:914:ASN:ND2	1:y:80:GLN:OE1	2.47	0.46
3:v:510:ILE:HG12	3:v:521:PHE:HA	1.96	0.46
1:x:104:ARG:HG2	1:z:103:TRP:CD2	2.50	0.46
2:D:77:ASP:HB3	4:n:217:ARG:H	1.81	0.46
2:E:349:LEU:O	2:E:353:MET:HG3	2.15	0.46
2:F:517:ASP:OD1	2:F:520:SER:OG	2.27	0.46
2:G:3:ARG:NE	2:G:6:ASP:OD1	2.39	0.46
2:I:259:MET:HE2	2:I:313:ILE:HG22	1.97	0.46
2:K:107:GLU:OE1	2:K:126:ARG:NH2	2.45	0.46
2:L:252:ASP:O	2:L:256:ILE:HG23	2.15	0.46
1:P:121:PRO:HA	1:P:137:PRO:O	2.16	0.46
3:U:317:TYR:H	3:V:282:SER:HB3	1.80	0.46
3:U:533:VAL:HG22	3:U:547:THR:HG22	1.98	0.46
1:Z:238:GLN:CD	1:Z:360:VAL:HB	2.40	0.46
1:c:8:VAL:HG11	1:c:10:ARG:HE	1.79	0.46
4:k:44:ASP:HB3	4:k:166:ASN:HD21	1.80	0.46
1:r:305:GLY:HA2	1:r:312:GLU:CD	2.41	0.46
3:u:270:SER:OG	3:v:421:ASN:ND2	2.44	0.46
3:u:775:THR:HG21	3:u:799:GLU:HG2	1.97	0.46
3:u:895:ASN:O	3:u:899:VAL:HG13	2.16	0.46
3:v:729:ARG:HG3	3:v:861:ASN:OD1	2.15	0.46
3:w:81:PHE:HZ	3:w:137:PRO:HB2	1.80	0.46
1:A:270:ARG:HH11	1:A:272:LEU:HB2	1.80	0.46
2:E:159:LEU:HB3	2:E:160:PRO:HD2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:540:LYS:O	2:E:544:GLN:HG3	2.15	0.46
2:F:91:ILE:HD11	2:F:349:LEU:HG	1.96	0.46
2:G:175:LYS:NZ	2:G:191:TYR:O	2.41	0.46
2:H:70:THR:HG21	2:H:357:HIS:HD2	1.79	0.46
1:Q:36:LEU:HB2	1:Q:69:GLU:HB3	1.96	0.46
3:U:434:ILE:HG13	3:U:435:GLY:H	1.79	0.46
3:U:438:SER:HA	3:U:448:GLY:HA3	1.97	0.46
3:W:81:PHE:HZ	3:W:137:PRO:HB2	1.80	0.46
1:Z:37:HIS:CD2	1:Z:68:VAL:HG12	2.51	0.46
1:Z:297:TYR:HE1	1:Z:319:GLN:HB3	1.80	0.46
1:a:243:SER:HB2	1:a:247:ILE:HD12	1.97	0.46
1:b:283:VAL:HG12	1:b:366:PHE:HD1	1.80	0.46
1:b:295:PRO:HD2	1:b:323:PRO:HG2	1.97	0.46
4:m:162:LEU:HD13	4:m:192:GLN:HG2	1.96	0.46
1:q:262:TRP:CZ3	1:q:275:GLN:HG3	2.50	0.46
3:w:633:LEU:HB2	3:w:650:PRO:HG3	1.98	0.46
1:z:147:ILE:HA	1:z:150:LEU:HD12	1.97	0.46
2:H:350:GLN:HB3	2:H:351:PRO:HD3	1.95	0.46
2:K:481:MET:O	2:K:485:ARG:HG3	2.15	0.46
2:L:159:LEU:HB3	2:L:160:PRO:HD2	1.98	0.46
3:U:310:TYR:HB3	3:U:326:VAL:HG21	1.98	0.46
3:U:931:MET:CE	3:U:986:LEU:HD13	2.46	0.46
1:Y:147:ILE:HA	1:Y:150:LEU:HD12	1.98	0.46
4:j:115:ASN:ND2	4:j:121:ARG:HD2	2.30	0.46
4:o:25:SER:OG	4:o:27:ASN:ND2	2.48	0.46
1:q:164:ASN:OD1	1:q:165:VAL:N	2.47	0.46
3:w:102:GLN:HB2	3:w:111:LEU:HD11	1.98	0.46
1:x:317:ARG:HH12	1:x:319:GLN:NE2	2.08	0.46
1:x:325:PHE:HB3	1:z:317:ARG:CZ	2.45	0.46
1:x:371:LEU:O	1:y:226:ASN:HA	2.15	0.46
1:z:304:VAL:CG2	1:z:313:ASN:HB2	2.45	0.46
2:D:59:ALA:O	2:D:63:GLN:HG3	2.15	0.46
2:E:87:ALA:HB2	2:E:356:LEU:HD13	1.98	0.46
2:E:169:LYS:HG2	2:E:199:VAL:HG22	1.97	0.46
3:U:320:PRO:HG2	3:V:419:ALA:HB2	1.97	0.46
3:W:270:SER:OG	3:u:421:ASN:ND2	2.46	0.46
3:W:912:ASP:OD2	1:Y:83:THR:OG1	2.31	0.46
4:i:60:ALA:HA	4:i:70:LEU:HD23	1.97	0.46
1:r:102:ARG:O	1:r:106:GLU:HG3	2.15	0.46
3:v:29:LEU:HD13	3:v:46:LEU:H	1.80	0.46
1:x:300:VAL:O	1:x:317:ARG:CG	2.52	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:270:ARG:HG3	1:A:344:TYR:CZ	2.50	0.46
1:C:265:ASN:O	1:C:271:TRP:HD1	1.98	0.46
2:D:47:LEU:HD22	2:D:267:ARG:HG3	1.97	0.46
2:E:374:ILE:HG22	2:F:369:ASN:HD22	1.81	0.46
2:H:485:ARG:O	2:H:489:ARG:HG3	2.16	0.46
2:K:67:THR:HG21	2:K:76:ASN:ND2	2.30	0.46
2:K:159:LEU:HB3	2:K:160:PRO:HD2	1.96	0.46
2:K:256:ILE:HA	2:K:259:MET:HB2	1.97	0.46
2:L:111:LEU:HD11	2:L:129:LEU:HD22	1.97	0.46
2:L:502:ARG:NH1	2:M:523:LYS:HG3	2.31	0.46
1:P:55:LEU:HD12	1:P:70:ILE:HD13	1.97	0.46
1:P:301:LEU:HD23	1:P:317:ARG:CB	2.46	0.46
3:U:344:ARG:HB3	3:U:389:TYR:CE1	2.51	0.46
3:U:643:LYS:HE2	3:w:595:THR:HG21	1.98	0.46
3:U:1009:LYS:HZ1	3:V:1003:ILE:CD1	2.20	0.46
1:Z:8:VAL:HG11	1:Z:10:ARG:HE	1.79	0.46
1:a:314:PHE:CD1	1:a:317:ARG:NH1	2.74	0.46
1:b:202:ARG:HH21	1:c:196:ILE:HD11	1.81	0.46
3:u:344:ARG:HB3	3:u:389:TYR:CE1	2.51	0.46
3:u:683:TRP:HB2	3:u:700:ILE:HG13	1.98	0.46
3:v:388:THR:HB	3:v:406:VAL:HG21	1.96	0.46
3:v:683:TRP:HB2	3:v:700:ILE:HG13	1.98	0.46
1:y:202:ARG:NH2	1:z:196:ILE:HD11	2.31	0.46
2:D:182:TYR:O	2:E:168:TYR:HB2	2.15	0.46
2:D:370:LEU:O	2:D:374:ILE:HG12	2.15	0.46
2:E:256:ILE:HA	2:E:259:MET:HB2	1.97	0.46
2:G:252:ASP:O	2:G:256:ILE:HG23	2.16	0.46
2:J:433:ARG:NH1	2:J:434:ASN:OD1	2.48	0.46
2:L:87:ALA:HB2	2:L:356:LEU:HD13	1.97	0.46
2:L:337:THR:HB	2:L:346:VAL:HB	1.96	0.46
1:P:156:ALA:HB3	1:R:162:THR:HG23	1.97	0.46
3:U:64:ARG:HH22	3:U:729:ARG:HB2	1.81	0.46
3:U:585:THR:OG1	3:U:588:ASN:OD1	2.32	0.46
3:V:683:TRP:HB2	3:V:700:ILE:HG13	1.97	0.46
3:V:895:ASN:O	3:V:899:VAL:HG13	2.16	0.46
1:Y:319:GLN:HE22	1:Z:322:TYR:HB2	1.80	0.46
1:b:300:VAL:HA	1:b:348:GLN:O	2.16	0.46
4:h:44:ASP:CG	4:i:195:ARG:HH22	2.20	0.46
4:m:44:ASP:HB3	4:m:166:ASN:HD21	1.79	0.46
1:r:63:PRO:HD2	1:r:66:THR:HG21	1.97	0.46
3:v:176:VAL:HG12	3:v:199:TYR:CZ	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:w:533:VAL:HG22	3:w:547:THR:HG22	1.98	0.46
1:x:270:ARG:HH11	1:x:272:LEU:HB2	1.81	0.46
1:C:6:VAL:O	1:C:69:GLU:HA	2.16	0.46
2:D:182:TYR:CD1	2:D:186:THR:HG21	2.51	0.46
2:E:51:SER:O	2:E:63:GLN:NE2	2.44	0.46
2:G:80:HIS:ND1	2:G:368:ASP:OD1	2.28	0.46
2:G:285:MET:HE1	2:H:31:ARG:HH12	1.79	0.46
2:I:47:LEU:HD22	2:I:267:ARG:HG3	1.98	0.46
2:J:159:LEU:HB3	2:J:160:PRO:HD2	1.98	0.46
2:M:129:LEU:HD11	2:M:488:TYR:HB3	1.97	0.46
1:R:238:GLN:CD	1:R:360:VAL:HB	2.41	0.46
1:R:304:VAL:CG2	1:R:313:ASN:HB2	2.45	0.46
3:U:882:ASN:ND2	3:U:1006:GLN:HE22	1.99	0.46
3:V:533:VAL:HG22	3:V:547:THR:HG22	1.97	0.46
3:W:895:ASN:O	3:W:899:VAL:HG13	2.15	0.46
1:X:103:TRP:CG	1:Y:104:ARG:HD2	2.51	0.46
1:X:129:VAL:HG13	1:X:130:TRP:HD1	1.79	0.46
1:c:238:GLN:CD	1:c:360:VAL:HB	2.40	0.46
4:m:126:PRO:HG3	4:m:135:TYR:CE2	2.51	0.46
1:p:201:PRO:HB2	1:r:215:ILE:HD13	1.98	0.46
3:u:967:GLN:NE2	3:u:970:GLN:OE1	2.49	0.46
3:v:83:SER:OG	3:v:155:GLU:OE2	2.22	0.46
1:x:111:GLY:HA3	1:x:115:VAL:CG2	2.45	0.46
2:F:181:TYR:HB2	2:G:169:LYS:NZ	2.31	0.46
2:H:159:LEU:HB3	2:H:160:PRO:HD2	1.98	0.46
2:I:393:VAL:HG23	4:i:210:MET:HG3	1.98	0.46
2:J:87:ALA:HB2	2:J:356:LEU:HD13	1.97	0.46
2:J:377:MET:HE1	2:J:412:ARG:NH2	2.31	0.46
2:M:62:HIS:O	2:M:65:THR:OG1	2.30	0.46
2:N:59:ALA:O	2:N:63:GLN:HG3	2.16	0.46
3:V:729:ARG:HG3	3:V:861:ASN:OD1	2.16	0.46
3:W:533:VAL:HG22	3:W:547:THR:HG22	1.98	0.46
1:a:270:ARG:HH11	1:a:272:LEU:HB2	1.79	0.46
1:a:314:PHE:CZ	1:a:317:ARG:CZ	2.99	0.46
1:c:259:ARG:HD2	1:c:262:TRP:CD1	2.50	0.46
1:q:158:LEU:HB3	1:q:162:THR:HG21	1.96	0.46
1:r:259:ARG:NE	1:r:264:ASP:OD2	2.35	0.46
3:u:36:LEU:HD21	3:u:880:LEU:HD21	1.97	0.46
1:y:235:ARG:NH1	1:y:252:GLN:HB2	2.31	0.46
1:A:286:ARG:NH1	1:C:317:ARG:HB3	2.29	0.46
2:E:252:ASP:O	2:E:256:ILE:HG23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:552:ALA:HB3	2:F:562:LEU:HD11	1.98	0.46
2:J:252:ASP:HB3	2:J:255:ASP:HB3	1.98	0.46
3:U:388:THR:HB	3:U:406:VAL:HG21	1.98	0.46
3:V:388:THR:HB	3:V:406:VAL:HG21	1.96	0.46
4:i:215:GLY:N	4:i:217:ARG:NH1	2.63	0.46
3:v:533:VAL:HG22	3:v:547:THR:HG22	1.98	0.46
3:w:523:ILE:HD13	3:w:568:ILE:HD11	1.98	0.46
1:A:224:PHE:CZ	1:B:222:ARG:HG2	2.51	0.45
1:A:334:VAL:HG23	1:B:367:ASN:HD22	1.81	0.45
2:D:2:ILE:HD12	2:D:7:PHE:CE2	2.50	0.45
2:I:59:ALA:O	2:I:63:GLN:HG3	2.16	0.45
2:K:48:GLU:OE2	2:K:357:HIS:NE2	2.48	0.45
2:K:51:SER:O	2:K:63:GLN:NE2	2.37	0.45
3:U:732:HIS:ND1	3:U:737:TYR:OH	2.42	0.45
3:U:895:ASN:O	3:U:899:VAL:HG13	2.16	0.45
3:V:189:ARG:O	3:V:691:ARG:NH2	2.49	0.45
1:c:266:PHE:CD1	1:c:271:TRP:HB2	2.51	0.45
4:e:127:GLU:HG3	4:e:128:THR:HG23	1.98	0.45
4:j:44:ASP:HB3	4:j:166:ASN:ND2	2.31	0.45
3:u:68:THR:HG23	3:u:714:ILE:HG12	1.97	0.45
3:u:150:GLN:NE2	3:u:451:ILE:HG13	2.31	0.45
3:u:533:VAL:HG22	3:u:547:THR:HG22	1.97	0.45
3:v:895:ASN:O	3:v:899:VAL:HG13	2.16	0.45
1:x:121:PRO:HA	1:x:137:PRO:O	2.16	0.45
1:A:186:LEU:HD11	1:C:186:LEU:HD23	1.98	0.45
2:F:472:HIS:CD2	2:F:473:ARG:HH21	2.34	0.45
2:I:139:ARG:O	2:I:143:GLU:HG3	2.15	0.45
2:K:252:ASP:O	2:K:256:ILE:HG23	2.16	0.45
2:O:62:HIS:O	2:O:65:THR:OG1	2.30	0.45
1:P:111:GLY:HA3	1:P:115:VAL:CG2	2.46	0.45
1:Q:259:ARG:NH1	1:Q:370:GLN:OE1	2.34	0.45
3:U:583:VAL:HG22	3:U:636:MET:HE2	1.98	0.45
3:W:106:ASP:OD1	3:W:717:ARG:NE	2.46	0.45
3:W:633:LEU:HB2	3:W:650:PRO:HG3	1.97	0.45
3:W:683:TRP:HE3	3:W:700:ILE:HG22	1.79	0.45
1:c:63:PRO:HD2	1:c:66:THR:HG21	1.98	0.45
4:d:46:SER:HB3	4:d:143:ALA:HB2	1.97	0.45
4:h:64:ILE:O	4:h:65:ASN:C	2.59	0.45
1:q:295:PRO:HD2	1:q:323:PRO:HG2	1.97	0.45
3:w:586:ASP:N	3:w:586:ASP:OD1	2.48	0.45
1:x:289:THR:HG21	1:x:295:PRO:HG2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:301:LEU:HD23	1:A:317:ARG:CB	2.46	0.45
2:D:182:TYR:HD1	2:D:186:THR:HG21	1.80	0.45
2:H:67:THR:HG21	2:H:76:ASN:ND2	2.30	0.45
2:H:131:LYS:NZ	2:I:522:ASN:O	2.42	0.45
2:H:388:PRO:HG3	4:h:201:ARG:HD3	1.98	0.45
3:U:688:TYR:CE1	3:U:698:CYS:HB3	2.52	0.45
3:V:382:VAL:HB	3:V:385:ASN:ND2	2.32	0.45
3:V:556:GLY:O	3:V:565:ASN:ND2	2.47	0.45
3:V:799:GLU:CD	3:V:1014:ARG:HH22	2.24	0.45
1:c:300:VAL:O	1:c:317:ARG:HA	2.16	0.45
4:g:126:PRO:HG3	4:g:135:TYR:CE2	2.51	0.45
4:j:126:PRO:HG3	4:j:135:TYR:CE1	2.51	0.45
4:j:127:GLU:HG3	4:j:128:THR:HG23	1.98	0.45
4:k:44:ASP:HB3	4:k:166:ASN:ND2	2.32	0.45
4:l:64:ILE:O	4:l:65:ASN:C	2.60	0.45
4:l:126:PRO:HG3	4:l:135:TYR:CE2	2.52	0.45
4:n:64:ILE:O	4:n:65:ASN:C	2.59	0.45
4:o:126:PRO:HG3	4:o:135:TYR:CE2	2.50	0.45
1:p:186:LEU:HD11	1:r:186:LEU:HD23	1.98	0.45
3:u:119:ASP:H	3:u:146:ASN:HD21	1.64	0.45
3:u:310:TYR:HB3	3:u:326:VAL:HG21	1.98	0.45
3:u:703:THR:OG1	3:u:712:ASN:ND2	2.41	0.45
3:u:931:MET:CE	3:u:986:LEU:HD13	2.46	0.45
3:v:390:PHE:HB2	3:v:406:VAL:HA	1.98	0.45
1:y:298:MET:CG	1:y:323:PRO:HB3	2.44	0.45
2:G:39:ARG:NH1	2:G:214:VAL:O	2.40	0.45
2:L:89:GLU:OE1	2:M:433:ARG:NE	2.50	0.45
3:W:585:THR:OG1	3:W:588:ASN:OD1	2.34	0.45
1:Z:11:THR:HG1	1:Z:65:ASN:N	2.14	0.45
4:d:127:GLU:HG3	4:d:128:THR:HG23	1.98	0.45
4:m:64:ILE:O	4:m:65:ASN:C	2.60	0.45
3:u:33:ALA:HA	3:v:54:SER:HB2	1.97	0.45
3:u:732:HIS:HD1	3:u:737:TYR:HH	1.63	0.45
3:w:305:SER:O	3:w:324:TRP:HB2	2.16	0.45
1:z:24:LEU:HD23	1:z:72:ARG:HG3	1.99	0.45
1:B:158:LEU:HB3	1:B:162:THR:HG21	1.98	0.45
2:F:228:PHE:HB3	2:F:295:TRP:HB2	1.98	0.45
2:I:182:TYR:CD1	2:I:186:THR:HG21	2.52	0.45
2:M:78:TRP:HE1	2:M:361:ILE:HG23	1.82	0.45
2:M:481:MET:O	2:M:485:ARG:HG3	2.15	0.45
2:N:67:THR:HG21	2:N:76:ASN:ND2	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:O:52:LEU:HA	2:O:63:GLN:NE2	2.30	0.45
1:Q:84:TYR:CD1	3:U:914:ASN:HB3	2.52	0.45
1:R:286:ARG:HH21	1:R:363:ASP:CG	2.25	0.45
3:V:523:ILE:HD13	3:V:568:ILE:HD11	1.98	0.45
3:V:703:THR:OG1	3:V:712:ASN:ND2	2.43	0.45
1:X:371:LEU:HG	1:Y:229:LEU:HD12	1.97	0.45
1:p:202:ARG:HD3	1:r:214:SER:HA	1.98	0.45
1:q:267:SER:HB2	1:q:270:ARG:HG2	1.99	0.45
3:u:586:ASP:OD1	3:u:586:ASP:N	2.49	0.45
3:v:477:ARG:HE	3:v:495:VAL:HG22	1.82	0.45
1:A:1:MET:HB2	1:A:23:ASN:ND2	2.31	0.45
1:B:301:LEU:HG	1:B:317:ARG:HG3	1.99	0.45
2:F:253:PRO:O	2:F:256:ILE:HG12	2.17	0.45
2:H:387:ASN:HB3	4:h:202:ASN:HD21	1.81	0.45
2:M:252:ASP:O	2:M:256:ILE:HG23	2.16	0.45
2:N:132:LYS:HE3	2:N:160:PRO:HG3	1.99	0.45
2:O:78:TRP:HE1	2:O:361:ILE:HG23	1.82	0.45
2:O:159:LEU:HB3	2:O:160:PRO:HD2	1.99	0.45
1:R:51:THR:HG22	1:R:53:THR:H	1.81	0.45
3:U:54:SER:HB2	3:w:33:ALA:HA	1.98	0.45
3:W:78:ILE:HB	3:W:700:ILE:HD11	1.99	0.45
3:W:305:SER:O	3:W:324:TRP:HB2	2.16	0.45
3:W:582:ILE:HD12	3:W:590:MET:O	2.17	0.45
1:b:202:ARG:NH2	1:c:196:ILE:HD11	2.31	0.45
4:l:174:SER:O	3:v:885:ARG:NH2	2.28	0.45
4:m:195:ARG:O	4:m:199:ARG:HG3	2.16	0.45
1:q:331:TRP:HE1	1:r:284:THR:HG21	1.80	0.45
3:u:15:VAL:HG12	3:u:19:GLN:OE1	2.16	0.45
3:u:81:PHE:HZ	3:u:137:PRO:HB2	1.82	0.45
3:v:382:VAL:HB	3:v:385:ASN:ND2	2.32	0.45
1:y:7:VAL:CG1	1:y:133:ASP:HA	2.46	0.45
2:E:229:ILE:HG12	2:E:294:TYR:HD1	1.81	0.45
2:F:113:PRO:HG3	2:F:119:ALA:HA	1.99	0.45
2:I:159:LEU:HB3	2:I:160:PRO:HD2	1.99	0.45
2:I:546:MET:HG2	2:J:551:PHE:CE1	2.52	0.45
2:M:39:ARG:NH1	2:M:214:VAL:O	2.41	0.45
2:M:145:TYR:OH	2:M:334:GLY:HA3	2.17	0.45
2:M:229:ILE:HG12	2:M:294:TYR:HD1	1.81	0.45
2:O:2:ILE:HG12	2:O:20:ILE:HG21	1.98	0.45
1:Q:267:SER:HB2	1:Q:270:ARG:HG2	1.99	0.45
3:W:102:GLN:HB2	3:W:111:LEU:HD11	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:W:119:ASP:H	3:W:146:ASN:HD21	1.65	0.45
3:W:382:VAL:HB	3:W:385:ASN:ND2	2.32	0.45
1:Z:259:ARG:HD2	1:Z:262:TRP:CD1	2.51	0.45
1:Z:284:THR:HB	1:Z:365:ARG:HB2	1.99	0.45
1:c:157:VAL:O	1:c:157:VAL:HG13	2.16	0.45
4:f:47:TYR:OH	4:g:158:ARG:NH1	2.48	0.45
4:i:66:GLU:OE2	4:i:121:ARG:NH1	2.50	0.45
1:q:318:GLN:HB2	1:q:329:LEU:HD22	1.98	0.45
3:v:270:SER:OG	3:w:421:ASN:ND2	2.46	0.45
3:w:635:TRP:CE2	3:w:648:GLY:HA3	2.52	0.45
1:A:211:ASN:HA	1:B:222:ARG:NH1	2.31	0.45
1:C:235:ARG:H	1:C:365:ARG:HH21	1.64	0.45
2:I:131:LYS:HD3	2:I:503:VAL:HG13	1.99	0.45
2:K:87:ALA:HB1	2:K:349:LEU:HD21	1.99	0.45
2:M:196:GLU:OE1	2:N:326:TRP:NE1	2.48	0.45
2:N:387:ASN:HB3	4:n:202:ASN:HD21	1.81	0.45
1:P:182:VAL:O	1:P:186:LEU:HD23	2.17	0.45
3:U:150:GLN:NE2	3:U:451:ILE:HG13	2.31	0.45
3:U:494:ASN:ND2	3:U:499:ILE:HG12	2.32	0.45
3:V:930:VAL:HG21	3:V:976:ILE:HG21	1.99	0.45
3:W:956:VAL:HG23	3:W:959:VAL:HB	1.98	0.45
1:Y:31:LYS:NZ	1:Y:47:TYR:O	2.43	0.45
1:a:326:GLY:O	1:c:319:GLN:NE2	2.46	0.45
1:c:238:GLN:OE1	1:c:239:GLN:N	2.49	0.45
4:i:26:PHE:CE2	4:i:149:GLU:HG3	2.52	0.45
1:p:287:PHE:HD2	1:p:300:VAL:HG21	1.81	0.45
1:q:36:LEU:HB2	1:q:69:GLU:HB3	1.99	0.45
3:u:106:ASP:OD1	3:u:717:ARG:NE	2.48	0.45
3:u:583:VAL:HG22	3:u:636:MET:HE2	1.98	0.45
3:w:581:CYS:O	3:w:591:TYR:HA	2.17	0.45
3:w:585:THR:OG1	3:w:588:ASN:OD1	2.34	0.45
1:x:182:VAL:O	1:x:186:LEU:HD23	2.16	0.45
1:x:284:THR:OG1	1:x:365:ARG:HB2	2.17	0.45
1:B:36:LEU:HB2	1:B:69:GLU:HB3	1.99	0.45
1:C:238:GLN:NE2	1:C:361:ILE:O	2.50	0.45
2:D:27:TYR:O	2:D:31:ARG:HG2	2.17	0.45
2:D:82:LEU:HD21	2:E:71:VAL:HG13	1.98	0.45
2:E:374:ILE:HG22	2:F:369:ASN:ND2	2.32	0.45
2:G:62:HIS:O	2:G:65:THR:OG1	2.31	0.45
2:H:546:MET:HG2	2:I:551:PHE:CE1	2.52	0.45
2:I:39:ARG:NH1	2:I:214:VAL:O	2.41	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:382:GLN:HG2	4:j:198:ALA:HB2	1.99	0.45
2:N:51:SER:O	2:N:63:GLN:NE2	2.41	0.45
3:V:633:LEU:HB2	3:V:650:PRO:HG3	1.99	0.45
3:W:390:PHE:HB2	3:W:406:VAL:HA	1.99	0.45
1:a:103:TRP:CG	1:b:104:ARG:HD2	2.51	0.45
1:b:91:ASN:OD1	3:v:754:ARG:NH2	2.44	0.45
4:j:134:LYS:HE2	4:j:134:LYS:HB3	1.78	0.45
3:u:73:SER:OG	3:u:94:ARG:NE	2.38	0.45
3:u:790:THR:N	3:u:794:ASP:HB2	2.28	0.45
3:u:820:SER:OG	3:u:823:GLY:O	2.32	0.45
3:v:633:LEU:HB2	3:v:650:PRO:HG3	1.99	0.45
3:w:73:SER:OG	3:w:94:ARG:NE	2.40	0.45
1:x:287:PHE:HD2	1:x:300:VAL:HG21	1.82	0.45
1:z:238:GLN:CD	1:z:360:VAL:HB	2.41	0.45
1:B:80:GLN:HG2	1:B:92:LEU:HD13	1.99	0.45
2:I:2:ILE:HG12	2:I:20:ILE:HG21	1.99	0.45
2:J:48:GLU:OE1	2:J:357:HIS:NE2	2.50	0.45
2:K:229:ILE:HG12	2:K:294:TYR:HD1	1.81	0.45
2:L:222:ASP:HB3	2:L:225:GLU:HB2	1.99	0.45
1:P:149:THR:O	1:Q:152:THR:HG22	2.17	0.45
1:P:286:ARG:HH12	1:R:317:ARG:HB3	1.82	0.45
3:W:581:CYS:O	3:W:591:TYR:HA	2.16	0.45
1:Z:157:VAL:O	1:Z:157:VAL:HG13	2.17	0.45
1:a:121:PRO:HA	1:a:137:PRO:O	2.17	0.45
1:b:297:TYR:HB3	1:b:352:ILE:HB	1.98	0.45
1:c:235:ARG:HB3	1:c:364:ALA:HB3	1.99	0.45
4:d:126:PRO:HG3	4:d:135:TYR:CE1	2.51	0.45
4:f:126:PRO:HG3	4:f:135:TYR:CE1	2.51	0.45
4:g:64:ILE:O	4:g:65:ASN:C	2.60	0.45
4:g:180:GLN:O	4:g:184:MET:HG3	2.17	0.45
1:p:7:VAL:HG22	1:p:69:GLU:HG2	1.98	0.45
1:r:35:VAL:HG11	1:r:47:TYR:CZ	2.51	0.45
3:v:189:ARG:O	3:v:691:ARG:NH2	2.50	0.45
3:v:283:ASN:HD21	3:v:414:ILE:HG22	1.81	0.45
3:v:796:ILE:HG12	3:v:806:LEU:HD11	1.99	0.45
1:B:317:ARG:CZ	1:C:325:PHE:HB2	2.47	0.44
2:E:67:THR:HG21	2:E:76:ASN:ND2	2.31	0.44
2:G:571:VAL:O	2:G:575:SER:OG	2.34	0.44
2:N:388:PRO:HG3	4:n:201:ARG:HD3	1.99	0.44
2:N:503:VAL:HG22	2:O:523:LYS:HE2	1.98	0.44
1:P:82:VAL:HG23	1:Q:90:SER:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:287:PHE:HE1	1:Z:361:ILE:HD12	1.82	0.44
1:c:11:THR:HG1	1:c:65:ASN:H	1.57	0.44
4:k:64:ILE:O	4:k:65:ASN:C	2.60	0.44
4:k:127:GLU:HG3	4:k:128:THR:HG23	1.98	0.44
4:m:180:GLN:O	4:m:184:MET:HG3	2.17	0.44
4:o:64:ILE:O	4:o:65:ASN:C	2.60	0.44
1:r:157:VAL:O	1:r:157:VAL:HG13	2.18	0.44
3:v:703:THR:OG1	3:v:712:ASN:ND2	2.43	0.44
3:w:29:LEU:HD13	3:w:46:LEU:H	1.82	0.44
1:C:24:LEU:HD23	1:C:72:ARG:HG3	2.00	0.44
2:I:327:ALA:HB2	2:I:489:ARG:HB2	1.99	0.44
2:L:232:ILE:HB	2:L:291:VAL:HB	1.98	0.44
2:M:87:ALA:HB2	2:M:356:LEU:HD13	1.99	0.44
2:N:540:LYS:O	2:N:544:GLN:HG3	2.17	0.44
1:P:130:TRP:HB3	1:Q:140:ARG:HB3	1.99	0.44
1:R:275:GLN:O	1:R:279:TYR:OH	2.32	0.44
4:f:64:ILE:O	4:f:65:ASN:C	2.60	0.44
2:D:252:ASP:O	2:D:256:ILE:HG23	2.17	0.44
2:H:376:GLU:OE2	2:I:415:ASN:ND2	2.51	0.44
2:I:2:ILE:HD12	2:I:7:PHE:CE2	2.53	0.44
2:I:82:LEU:HD21	2:J:71:VAL:HG13	1.99	0.44
2:N:111:LEU:HD11	2:N:129:LEU:HD22	1.99	0.44
2:N:159:LEU:HB3	2:N:160:PRO:HD2	2.00	0.44
2:O:2:ILE:HD12	2:O:7:PHE:CE2	2.53	0.44
1:R:37:HIS:HD2	1:R:68:VAL:HG12	1.82	0.44
1:R:238:GLN:OE1	1:R:239:GLN:N	2.50	0.44
1:Z:246:TYR:HA	1:Z:348:GLN:HB3	1.99	0.44
4:k:126:PRO:HG3	4:k:135:TYR:CE2	2.52	0.44
1:p:157:VAL:O	1:p:157:VAL:HG13	2.18	0.44
1:q:297:TYR:HB3	1:q:352:ILE:HB	1.99	0.44
3:u:305:SER:O	3:u:324:TRP:HB2	2.17	0.44
1:x:152:THR:HA	1:z:150:LEU:HA	2.00	0.44
1:C:285:CYS:HB2	1:C:361:ILE:HD11	1.99	0.44
2:D:231:ARG:NH2	2:D:290:GLU:OE1	2.38	0.44
2:F:546:MET:HG2	2:G:551:PHE:CE1	2.52	0.44
2:G:285:MET:CE	2:H:31:ARG:HH12	2.31	0.44
2:G:568:LEU:HB2	2:H:558:MET:HG2	2.00	0.44
2:J:91:ILE:HD11	2:J:349:LEU:HG	1.99	0.44
2:L:499:GLU:O	2:L:503:VAL:HG23	2.17	0.44
2:L:552:ALA:HB3	2:L:562:LEU:HD11	1.99	0.44
2:N:253:PRO:O	2:N:256:ILE:HG12	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:476:GLU:O	2:N:481:MET:HG2	2.17	0.44
1:P:132:GLY:HA2	1:Q:141:LYS:CE	2.43	0.44
3:U:645:VAL:HB	3:U:664:TYR:HB3	1.99	0.44
3:V:390:PHE:HB2	3:V:406:VAL:HA	1.98	0.44
1:X:140:ARG:NE	1:Z:133:ASP:OD2	2.50	0.44
1:X:157:VAL:O	1:X:157:VAL:HG13	2.18	0.44
1:a:301:LEU:CB	1:a:317:ARG:HG2	2.46	0.44
1:c:37:HIS:O	1:c:40:ILE:HG12	2.17	0.44
4:n:126:PRO:HB3	4:n:131:GLU:HG3	2.00	0.44
1:q:295:PRO:HG2	1:q:298:MET:HE2	1.99	0.44
3:u:732:HIS:ND1	3:u:737:TYR:OH	2.42	0.44
3:v:930:VAL:HG21	3:v:976:ILE:HG21	1.99	0.44
3:w:382:VAL:HB	3:w:385:ASN:ND2	2.32	0.44
1:y:235:ARG:HB3	1:y:364:ALA:HB3	1.99	0.44
1:A:157:VAL:HG13	1:A:157:VAL:O	2.18	0.44
1:B:84:TYR:CD1	3:v:914:ASN:HB3	2.52	0.44
1:C:246:TYR:OH	1:C:299:ASP:OD2	2.23	0.44
1:C:275:GLN:O	1:C:279:TYR:OH	2.26	0.44
2:E:87:ALA:HB1	2:E:349:LEU:HD21	2.00	0.44
2:O:21:ASN:HD22	2:O:317:LEU:HD23	1.83	0.44
1:P:235:ARG:NH1	1:P:252:GLN:HG3	2.33	0.44
1:P:235:ARG:HB2	1:P:253:PHE:HA	1.99	0.44
1:P:317:ARG:HH22	1:Q:325:PHE:HB3	1.82	0.44
3:W:754:ARG:NH2	1:y:91:ASN:OD1	2.42	0.44
4:d:192:GLN:NE2	4:o:44:ASP:OD1	2.46	0.44
4:i:64:ILE:O	4:i:65:ASN:C	2.60	0.44
4:m:44:ASP:HB3	4:m:166:ASN:ND2	2.33	0.44
1:p:317:ARG:NH2	1:q:325:PHE:O	2.51	0.44
1:r:298:MET:HE3	1:r:327:TYR:CE1	2.53	0.44
1:B:267:SER:HB2	1:B:270:ARG:HG2	2.00	0.44
2:I:485:ARG:HA	2:I:488:TYR:CE2	2.52	0.44
2:N:44:GLU:CD	2:N:267:ARG:HH12	2.26	0.44
2:O:252:ASP:O	2:O:256:ILE:HG23	2.17	0.44
1:Q:235:ARG:HB3	1:Q:364:ALA:HB3	1.99	0.44
3:U:382:VAL:HB	3:U:385:ASN:ND2	2.33	0.44
3:W:586:ASP:OD1	3:W:586:ASP:N	2.48	0.44
1:a:186:LEU:HB3	1:c:189:TYR:HE2	1.83	0.44
1:b:173:THR:O	1:c:179:THR:OG1	2.34	0.44
4:f:127:GLU:HG3	4:f:128:THR:HG23	1.99	0.44
4:g:162:LEU:HD13	4:g:192:GLN:HG2	2.00	0.44
4:h:100:ASP:OD2	4:i:138:TYR:OH	2.25	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:n:81:TYR:OH	4:n:131:GLU:OE1	2.30	0.44
4:o:67:ARG:HD2	4:o:115:ASN:HD22	1.81	0.44
1:p:201:PRO:HB3	1:q:195:PRO:HD2	1.99	0.44
1:C:102:ARG:O	1:C:106:GLU:HG3	2.17	0.44
2:F:80:HIS:CE1	2:G:74:VAL:HG11	2.53	0.44
2:F:87:ALA:HB2	2:F:356:LEU:HD13	1.98	0.44
2:H:113:PRO:HG3	2:H:119:ALA:HA	2.00	0.44
2:K:89:GLU:HG3	2:K:90:CYS:N	2.32	0.44
1:Q:202:ARG:NH2	1:R:196:ILE:HD11	2.33	0.44
3:V:926:PHE:CD2	3:V:987:ILE:HG23	2.52	0.44
3:W:238:GLY:HA3	3:W:419:ALA:O	2.18	0.44
3:W:459:PHE:CZ	3:W:510:ILE:HD12	2.52	0.44
1:X:121:PRO:HA	1:X:137:PRO:O	2.18	0.44
4:h:53:TRP:CD1	4:h:53:TRP:H	2.36	0.44
4:j:20:GLU:OE1	3:u:888:HIS:NE2	2.40	0.44
4:o:74:GLN:NE2	4:o:141:LYS:O	2.44	0.44
3:u:32:LEU:HG	3:v:54:SER:HB3	1.99	0.44
3:u:477:ARG:HH21	3:u:518:SER:HA	1.83	0.44
3:v:284:ARG:HH21	3:v:413:ALA:C	2.26	0.44
1:y:334:VAL:O	1:y:335:LEU:HD12	2.17	0.44
1:z:301:LEU:HD12	1:z:317:ARG:HG3	1.99	0.44
2:D:106:ARG:NH1	2:E:537:ASP:OD2	2.51	0.44
2:D:229:ILE:HG12	2:D:294:TYR:HD1	1.83	0.44
2:D:232:ILE:HB	2:D:291:VAL:HB	1.99	0.44
2:F:284:CYS:O	2:F:285:MET:HB2	2.18	0.44
2:H:59:ALA:O	2:H:63:GLN:HG3	2.17	0.44
2:J:350:GLN:HB3	2:J:351:PRO:HD3	1.99	0.44
2:K:281:HIS:CE1	2:K:284:CYS:HB2	2.53	0.44
2:K:284:CYS:O	2:K:285:MET:HB2	2.18	0.44
2:L:113:PRO:HG3	2:L:119:ALA:HA	2.00	0.44
2:M:335:SER:HB2	2:M:345:SER:HB3	1.98	0.44
2:N:232:ILE:HB	2:N:291:VAL:HB	1.98	0.44
1:P:141:LYS:HD3	1:R:134:THR:HG22	2.00	0.44
1:P:270:ARG:HH11	1:P:272:LEU:HB2	1.81	0.44
3:U:119:ASP:H	3:U:146:ASN:HD21	1.64	0.44
3:V:645:VAL:HB	3:V:664:TYR:HB3	1.99	0.44
3:V:931:MET:HE3	3:V:936:LEU:HA	2.00	0.44
3:W:29:LEU:HD13	3:W:46:LEU:H	1.82	0.44
3:W:33:ALA:HA	3:u:54:SER:HB2	1.98	0.44
3:W:732:HIS:ND1	3:W:737:TYR:OH	2.42	0.44
4:e:76:VAL:HG22	4:e:139:VAL:HG12	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:126:PRO:HG3	4:e:135:TYR:CE2	2.52	0.44
4:l:74:GLN:OE1	4:m:199:ARG:NH1	2.45	0.44
3:u:688:TYR:CE1	3:u:698:CYS:HB3	2.53	0.44
3:v:645:VAL:HB	3:v:664:TYR:HB3	1.99	0.44
3:w:645:VAL:HB	3:w:664:TYR:HB3	2.00	0.44
1:x:298:MET:HE3	1:x:299:ASP:H	1.82	0.44
1:x:301:LEU:HD23	1:x:317:ARG:CB	2.47	0.44
1:z:63:PRO:HD2	1:z:66:THR:HG21	1.99	0.44
1:z:238:GLN:OE1	1:z:239:GLN:N	2.51	0.44
1:A:287:PHE:HD2	1:A:300:VAL:HG21	1.83	0.44
1:A:328:THR:O	1:C:318:GLN:NE2	2.51	0.44
1:C:37:HIS:ND1	1:C:42:VAL:HG21	2.33	0.44
1:C:157:VAL:HG13	1:C:157:VAL:O	2.18	0.44
2:D:256:ILE:HA	2:D:259:MET:HB2	2.00	0.44
2:E:281:HIS:CE1	2:E:284:CYS:HB2	2.53	0.44
2:G:55:GLY:O	2:H:350:GLN:NE2	2.51	0.44
2:G:198:ARG:NH1	2:H:323:ASN:O	2.39	0.44
2:K:129:LEU:HD22	2:K:487:VAL:HG12	1.99	0.44
2:K:132:LYS:NZ	2:K:205:GLU:OE2	2.35	0.44
2:L:350:GLN:HB3	2:L:351:PRO:HD3	1.99	0.44
2:M:350:GLN:HB3	2:M:351:PRO:HD3	2.00	0.44
2:O:139:ARG:NH1	2:O:143:GLU:OE2	2.51	0.44
1:R:265:ASN:O	1:R:271:TRP:HD1	2.01	0.44
3:W:608:GLU:CD	3:u:540:GLN:HG2	2.43	0.44
3:W:645:VAL:HB	3:W:664:TYR:HB3	2.00	0.44
1:a:239:GLN:NE2	1:a:240:GLY:O	2.50	0.44
1:b:84:TYR:CD1	3:w:914:ASN:HB3	2.52	0.44
4:o:44:ASP:HB3	4:o:166:ASN:HD21	1.83	0.44
1:q:298:MET:HB2	1:q:320:THR:HG22	2.00	0.44
1:r:36:LEU:HD12	1:r:69:GLU:OE2	2.17	0.44
3:u:138:ARG:HA	3:u:151:LEU:O	2.18	0.44
1:x:235:ARG:NH1	1:x:252:GLN:HG3	2.32	0.44
1:y:34:ILE:HG22	1:y:71:ARG:HB2	2.00	0.44
1:z:235:ARG:HG3	1:z:254:THR:HG23	2.00	0.44
2:D:80:HIS:ND1	2:D:368:ASP:OD1	2.30	0.43
2:D:397:LYS:HE2	4:e:205:GLN:HE21	1.82	0.43
2:D:551:PHE:CE1	2:O:546:MET:HG2	2.53	0.43
2:F:350:GLN:HB3	2:F:351:PRO:HD3	1.99	0.43
2:G:350:GLN:HB3	2:G:351:PRO:HD3	2.00	0.43
2:H:476:GLU:O	2:H:481:MET:HG2	2.18	0.43
2:I:502:ARG:HE	2:J:523:LYS:HG3	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:K:476:GLU:O	2:K:481:MET:HG2	2.18	0.43
2:N:91:ILE:HD11	2:N:349:LEU:HG	1.99	0.43
1:P:325:PHE:HB3	1:R:317:ARG:CZ	2.49	0.43
1:R:19:VAL:HG21	1:R:55:LEU:HD13	1.99	0.43
3:U:586:ASP:OD1	3:U:586:ASP:N	2.49	0.43
3:W:911:GLN:NE2	3:W:916:LEU:HD22	2.33	0.43
3:W:914:ASN:HB3	1:Y:84:TYR:CD1	2.52	0.43
1:a:297:TYR:CE1	1:a:319:GLN:HB2	2.52	0.43
1:c:314:PHE:HZ	1:c:317:ARG:HB2	1.83	0.43
4:d:53:TRP:CD1	4:d:53:TRP:H	2.35	0.43
4:g:66:GLU:HG2	4:g:121:ARG:HG2	2.01	0.43
1:r:246:TYR:HA	1:r:348:GLN:HB3	2.00	0.43
3:w:911:GLN:NE2	3:w:916:LEU:HD22	2.33	0.43
1:z:252:GLN:NE2	1:z:269:ASN:HD22	2.14	0.43
1:B:300:VAL:N	1:B:327:TYR:OH	2.50	0.43
1:C:31:LYS:NZ	1:C:44:ASN:O	2.38	0.43
2:G:229:ILE:HG12	2:G:294:TYR:HD1	1.82	0.43
2:H:335:SER:HB2	2:H:345:SER:HB3	2.00	0.43
2:L:253:PRO:O	2:L:256:ILE:HG12	2.17	0.43
2:M:393:VAL:HG13	4:m:210:MET:HG3	2.00	0.43
2:M:502:ARG:HG2	2:N:523:LYS:HB3	1.99	0.43
3:U:664:TYR:OH	3:U:669:GLU:HG2	2.18	0.43
3:U:882:ASN:N	3:U:1009:LYS:HG2	2.32	0.43
3:V:581:CYS:O	3:V:591:TYR:HA	2.18	0.43
1:a:218:THR:OG1	1:c:212:ASP:O	2.35	0.43
1:a:294:PRO:HA	1:a:295:PRO:HD2	1.93	0.43
1:b:126:TYR:HA	1:b:130:TRP:NE1	2.34	0.43
1:c:304:VAL:CG2	1:c:313:ASN:HB2	2.46	0.43
4:e:64:ILE:O	4:e:65:ASN:C	2.60	0.43
3:u:454:PHE:HB2	3:u:507:SER:HA	1.99	0.43
3:v:790:THR:H	3:v:794:ASP:HB2	1.83	0.43
3:v:799:GLU:CD	3:v:1014:ARG:HH22	2.26	0.43
3:v:926:PHE:CD2	3:v:987:ILE:HG23	2.52	0.43
3:w:390:PHE:HB2	3:w:406:VAL:HA	1.99	0.43
1:A:50:THR:HG22	1:A:51:THR:HG23	2.01	0.43
1:A:192:LEU:HD12	1:C:196:ILE:O	2.18	0.43
1:C:306:LEU:HA	1:C:342:ASN:O	2.18	0.43
2:H:2:ILE:HD12	2:H:7:PHE:CE2	2.53	0.43
2:I:52:LEU:HA	2:I:63:GLN:NE2	2.33	0.43
2:J:388:PRO:HB2	4:j:203:THR:OG1	2.18	0.43
2:L:284:CYS:O	2:L:285:MET:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:159:LEU:HB3	2:M:160:PRO:HD2	1.99	0.43
2:M:162:ARG:NH2	2:M:204:PRO:O	2.51	0.43
1:Q:301:LEU:HG	1:Q:317:ARG:HG3	2.00	0.43
1:R:31:LYS:HZ1	1:R:44:ASN:C	2.26	0.43
1:R:259:ARG:NH1	1:R:370:GLN:OE1	2.45	0.43
3:U:32:LEU:HG	3:V:54:SER:HB3	1.99	0.43
3:U:68:THR:HG23	3:U:714:ILE:HG12	2.01	0.43
3:V:496:ASN:HB2	3:V:504:TYR:CD1	2.53	0.43
3:W:68:THR:HG23	3:W:714:ILE:HG12	2.00	0.43
3:W:278:LEU:HD13	3:W:302:TRP:CZ2	2.53	0.43
3:W:477:ARG:NH2	3:W:517:LEU:O	2.50	0.43
3:W:523:ILE:HD13	3:W:568:ILE:HD11	2.00	0.43
1:Z:238:GLN:OE1	1:Z:239:GLN:N	2.51	0.43
4:o:26:PHE:CE2	4:o:149:GLU:HG3	2.52	0.43
1:p:74:THR:OG1	1:p:106:GLU:OE2	2.36	0.43
1:r:265:ASN:O	1:r:271:TRP:HD1	2.01	0.43
3:u:296:PRO:HD2	3:u:310:TYR:CE2	2.54	0.43
3:u:893:LEU:HD13	3:u:997:LEU:HA	1.99	0.43
3:w:68:THR:HG23	3:w:714:ILE:HG12	2.00	0.43
3:w:78:ILE:HB	3:w:700:ILE:HD11	1.99	0.43
3:w:283:ASN:OD1	3:w:284:ARG:N	2.51	0.43
1:C:40:ILE:HD12	1:b:196:ILE:HD13	1.99	0.43
2:H:232:ILE:HB	2:H:291:VAL:HB	2.00	0.43
2:M:160:PRO:HB3	2:M:205:GLU:CG	2.47	0.43
2:N:2:ILE:HD12	2:N:7:PHE:CE2	2.53	0.43
2:N:113:PRO:HG3	2:N:119:ALA:HA	2.00	0.43
3:U:700:ILE:HG22	3:U:715:ILE:HG12	2.01	0.43
1:a:134:THR:O	1:a:134:THR:HG22	2.19	0.43
1:b:100:ASN:O	1:b:104:ARG:HG3	2.17	0.43
4:g:26:PHE:CE2	4:g:149:GLU:HG3	2.54	0.43
4:h:126:PRO:HB3	4:h:131:GLU:HG3	2.00	0.43
4:m:26:PHE:CE2	4:m:149:GLU:HG3	2.54	0.43
1:q:100:ASN:O	1:q:104:ARG:HG3	2.19	0.43
1:q:235:ARG:NH1	1:q:252:GLN:HB2	2.34	0.43
3:u:914:ASN:HB3	1:y:84:TYR:CD1	2.52	0.43
3:v:33:ALA:HA	3:w:54:SER:HB2	2.00	0.43
3:v:138:ARG:HA	3:v:151:LEU:O	2.18	0.43
3:v:883:PHE:HB2	3:v:1007:LYS:HB2	2.01	0.43
1:y:301:LEU:HG	1:y:317:ARG:HG3	2.01	0.43
1:A:298:MET:HE3	1:A:299:ASP:N	2.33	0.43
1:C:63:PRO:HD2	1:C:66:THR:HG21	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:280:TYR:HB3	1:C:369:ILE:HB	2.01	0.43
2:D:71:VAL:HG13	2:O:82:LEU:HD21	1.99	0.43
2:L:565:GLU:HA	2:M:561:ARG:HH12	1.84	0.43
2:N:350:GLN:HB3	2:N:351:PRO:HD3	2.00	0.43
2:N:502:ARG:NH2	2:O:523:LYS:HG2	2.34	0.43
3:U:305:SER:O	3:U:324:TRP:HB2	2.17	0.43
3:V:33:ALA:HA	3:W:54:SER:HB2	1.99	0.43
3:W:283:ASN:OD1	3:W:284:ARG:N	2.51	0.43
3:W:652:VAL:O	3:W:764:ARG:NH1	2.52	0.43
1:Z:303:PHE:HD2	1:Z:311:VAL:HA	1.83	0.43
1:b:103:TRP:CE3	1:c:104:ARG:HD2	2.54	0.43
4:l:127:GLU:HG3	4:l:128:THR:HG23	1.99	0.43
1:p:79:ILE:HD11	1:p:99:ARG:HD2	2.00	0.43
1:r:280:TYR:HB3	1:r:369:ILE:HB	2.00	0.43
3:u:452:PRO:HG2	3:u:503:ARG:NH2	2.34	0.43
3:v:344:ARG:HB3	3:v:389:TYR:CZ	2.53	0.43
3:w:582:ILE:HD12	3:w:590:MET:O	2.19	0.43
1:x:103:TRP:CE3	1:y:104:ARG:HD2	2.54	0.43
1:x:140:ARG:HB3	1:z:138:PRO:HB3	2.00	0.43
1:x:285:CYS:HB3	1:x:287:PHE:CE1	2.53	0.43
1:z:286:ARG:HA	1:z:328:THR:HA	1.99	0.43
1:z:301:LEU:HB3	1:z:303:PHE:HE1	1.82	0.43
1:A:301:LEU:HD23	1:A:317:ARG:HB3	2.00	0.43
2:F:86:LYS:HD2	2:F:89:GLU:OE2	2.19	0.43
2:I:106:ARG:HH12	2:J:533:ASP:HB2	1.84	0.43
2:J:253:PRO:O	2:J:256:ILE:HG12	2.18	0.43
2:K:231:ARG:NE	2:K:290:GLU:OE2	2.47	0.43
2:L:483:ILE:O	2:L:487:VAL:HG23	2.19	0.43
1:P:211:ASN:HB2	1:Q:222:ARG:NH1	2.33	0.43
3:U:56:GLN:OE1	3:U:996:LYS:HE2	2.18	0.43
3:U:1010:ARG:NH1	4:f:176:LEU:HD11	2.34	0.43
1:X:182:VAL:O	1:X:186:LEU:HD23	2.18	0.43
1:X:211:ASN:CG	1:Y:222:ARG:HD2	2.43	0.43
1:Y:298:MET:CG	1:Y:323:PRO:HB3	2.45	0.43
1:a:173:THR:HG23	1:a:175:ALA:H	1.83	0.43
1:a:301:LEU:HB3	1:a:317:ARG:HD3	1.51	0.43
4:h:95:ASP:OD1	4:h:95:ASP:N	2.51	0.43
1:p:259:ARG:NH2	1:p:370:GLN:OE1	2.52	0.43
3:u:620:ASP:OD1	3:u:620:ASP:N	2.50	0.43
1:x:141:LYS:HD3	1:z:134:THR:HG22	2.00	0.43
1:z:124:ASP:HB3	1:z:125:ALA:H	1.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:144:TYR:O	1:B:148:GLU:HG2	2.19	0.43
2:D:350:GLN:HB3	2:D:351:PRO:HD3	2.00	0.43
2:E:284:CYS:O	2:E:285:MET:HB2	2.18	0.43
2:F:391:VAL:HA	2:F:399:PHE:HE1	1.82	0.43
2:F:497:GLU:O	2:F:501:ILE:HG12	2.19	0.43
2:G:81:ARG:N	2:H:71:VAL:O	2.46	0.43
2:G:350:GLN:HA	2:G:353:MET:HE2	2.00	0.43
2:I:252:ASP:O	2:I:256:ILE:HG23	2.17	0.43
2:N:88:TYR:O	2:N:92:GLU:OE1	2.37	0.43
1:P:301:LEU:HD23	1:P:317:ARG:HB2	2.00	0.43
3:U:238:GLY:HA3	3:U:419:ALA:O	2.18	0.43
3:U:540:GLN:HG2	3:w:608:GLU:CD	2.43	0.43
3:U:922:VAL:O	3:U:965:GLN:NE2	2.52	0.43
3:V:138:ARG:HA	3:V:151:LEU:O	2.19	0.43
1:X:286:ARG:O	1:X:361:ILE:HA	2.19	0.43
4:h:81:TYR:OH	4:h:131:GLU:OE1	2.30	0.43
4:h:126:PRO:HG3	4:h:135:TYR:CE2	2.53	0.43
3:u:249:ASN:ND2	3:u:331:VAL:HB	2.34	0.43
3:u:382:VAL:HB	3:u:385:ASN:ND2	2.33	0.43
3:u:664:TYR:OH	3:u:669:GLU:HG2	2.19	0.43
3:u:700:ILE:HG22	3:u:715:ILE:HG12	2.00	0.43
3:v:496:ASN:HB2	3:v:504:TYR:CD1	2.54	0.43
1:x:134:THR:O	1:x:134:THR:HG22	2.19	0.43
1:B:235:ARG:NH1	1:B:252:GLN:HB2	2.34	0.43
1:C:11:THR:OG1	1:C:65:ASN:N	2.35	0.43
2:E:59:ALA:O	2:E:63:GLN:HG3	2.18	0.43
2:I:228:PHE:HB3	2:I:295:TRP:HB2	1.99	0.43
2:J:252:ASP:HB3	2:J:255:ASP:CB	2.49	0.43
2:K:55:GLY:O	2:L:350:GLN:NE2	2.52	0.43
2:K:374:ILE:HG22	2:L:369:ASN:ND2	2.33	0.43
2:O:259:MET:HE1	2:O:314:GLY:HA3	1.99	0.43
1:P:284:THR:OG1	1:P:365:ARG:HB2	2.19	0.43
1:R:157:VAL:O	1:R:157:VAL:HG13	2.19	0.43
3:U:582:ILE:CD1	3:U:591:TYR:HB3	2.49	0.43
3:V:796:ILE:HG12	3:V:806:LEU:HD11	2.00	0.43
1:X:270:ARG:HG3	1:X:344:TYR:CZ	2.54	0.43
1:X:287:PHE:CE1	1:X:361:ILE:HB	2.53	0.43
1:Y:1:MET:HB2	1:Y:23:ASN:HD21	1.84	0.43
4:j:47:TYR:HD2	4:k:192:GLN:NE2	2.14	0.43
1:p:50:THR:HG22	1:p:51:THR:HG23	2.00	0.43
1:p:143:VAL:O	1:p:147:ILE:HG13	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:p:229:LEU:HA	1:p:369:ILE:HD13	2.01	0.43
3:u:907:VAL:HA	3:u:911:GLN:HE21	1.83	0.43
3:w:349:PHE:CD2	3:w:428:ASN:HB2	2.54	0.43
1:B:295:PRO:HG3	1:B:357:TYR:CE1	2.54	0.43
1:C:269:ASN:ND2	1:C:344:TYR:HE1	2.17	0.43
2:D:388:PRO:HB2	4:d:203:THR:OG1	2.19	0.43
2:G:86:LYS:HD2	2:G:89:GLU:OE2	2.19	0.43
2:H:169:LYS:HG2	2:H:199:VAL:HG12	2.00	0.43
2:J:59:ALA:O	2:J:63:GLN:HG3	2.18	0.43
2:M:61:ASP:OD1	2:M:81:ARG:NH1	2.52	0.43
1:P:35:VAL:HG11	1:P:47:TYR:CE1	2.53	0.43
3:U:138:ARG:HA	3:U:151:LEU:O	2.19	0.43
3:V:589:VAL:O	3:V:599:ASN:HA	2.19	0.43
3:W:665:ASN:HB3	3:W:670:SER:OG	2.19	0.43
3:W:950:MET:HE2	3:W:961:SER:OG	2.19	0.43
1:X:371:LEU:O	1:Y:226:ASN:HA	2.19	0.43
1:a:157:VAL:HG13	1:a:157:VAL:O	2.18	0.43
1:q:144:TYR:O	1:q:148:GLU:HG2	2.19	0.43
3:u:203:THR:HG23	3:u:205:GLN:HG3	2.01	0.43
3:u:238:GLY:HA3	3:u:419:ALA:O	2.19	0.43
3:u:278:LEU:HD12	3:u:302:TRP:CD2	2.54	0.43
3:v:73:SER:HB3	3:v:76:CYS:SG	2.59	0.43
3:w:119:ASP:H	3:w:146:ASN:HD21	1.65	0.43
3:w:278:LEU:HD13	3:w:302:TRP:CZ2	2.53	0.43
1:x:301:LEU:CG	1:x:317:ARG:CD	2.82	0.43
1:y:295:PRO:HD2	1:y:323:PRO:CG	2.48	0.43
1:z:270:ARG:HB2	1:z:342:ASN:OD1	2.18	0.43
1:C:235:ARG:NH2	1:C:239:GLN:HB3	2.34	0.43
1:C:303:PHE:CD2	1:C:311:VAL:HA	2.52	0.43
2:D:284:CYS:O	2:D:285:MET:HB2	2.18	0.43
2:K:39:ARG:O	2:K:43:GLU:HG3	2.19	0.43
2:N:284:CYS:O	2:N:285:MET:HB2	2.19	0.43
2:O:16:GLN:OE1	2:O:16:GLN:N	2.51	0.43
1:P:331:TRP:HE1	1:Q:284:THR:HG21	1.83	0.43
1:Q:1:MET:HB2	1:Q:23:ASN:HD21	1.84	0.43
3:U:296:PRO:HD2	3:U:310:TYR:CE2	2.54	0.43
3:U:349:PHE:CD2	3:U:428:ASN:HB2	2.54	0.43
3:V:106:ASP:OD1	3:V:717:ARG:NE	2.52	0.43
3:V:684:SER:HB3	3:V:700:ILE:HD11	2.01	0.43
1:X:55:LEU:HD12	1:X:70:ILE:HD13	2.01	0.43
1:Y:100:ASN:O	1:Y:104:ARG:HG3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:c:51:THR:HG22	1:c:53:THR:H	1.84	0.43
4:j:66:GLU:HG2	4:j:104:ILE:HG21	2.01	0.43
4:n:53:TRP:CD1	4:n:53:TRP:H	2.36	0.43
4:n:126:PRO:HG3	4:n:135:TYR:CE2	2.53	0.43
1:p:331:TRP:HE1	1:q:284:THR:HG21	1.84	0.43
1:r:37:HIS:CD2	1:r:68:VAL:HG12	2.54	0.43
3:u:176:VAL:HG12	3:u:199:TYR:CZ	2.54	0.43
3:u:438:SER:HA	3:u:448:GLY:HA3	2.01	0.43
3:u:589:VAL:O	3:u:599:ASN:HA	2.18	0.43
3:v:931:MET:HE3	3:v:936:LEU:HA	2.00	0.43
1:C:286:ARG:HA	1:C:328:THR:HA	2.01	0.42
2:G:182:TYR:CD1	2:G:186:THR:HG21	2.54	0.42
2:G:546:MET:HG2	2:H:551:PHE:CE1	2.54	0.42
2:H:284:CYS:O	2:H:285:MET:HB2	2.19	0.42
2:I:182:TYR:HD1	2:I:186:THR:HG21	1.83	0.42
2:I:317:LEU:HD21	2:I:320:CYS:HB2	2.01	0.42
2:J:2:ILE:HD12	2:J:7:PHE:CE2	2.54	0.42
2:O:281:HIS:HB2	2:O:283:TYR:O	2.19	0.42
1:Q:147:ILE:HA	1:Q:150:LEU:HD12	2.00	0.42
1:R:24:LEU:HD23	1:R:72:ARG:HG3	2.01	0.42
3:U:452:PRO:HG2	3:U:503:ARG:NH2	2.33	0.42
3:W:344:ARG:HG3	3:W:410:PHE:CD1	2.54	0.42
3:W:349:PHE:CD2	3:W:428:ASN:HB2	2.54	0.42
3:W:477:ARG:NH1	3:W:561:LEU:O	2.52	0.42
3:W:622:PHE:HE1	3:W:647:LEU:HD21	1.84	0.42
1:a:35:VAL:HG11	1:a:47:TYR:CE1	2.54	0.42
1:b:298:MET:HA	1:b:350:GLN:O	2.19	0.42
1:c:275:GLN:O	1:c:279:TYR:OH	2.26	0.42
4:g:6:THR:HG1	4:g:9:GLN:HG3	1.84	0.42
4:k:76:VAL:HG22	4:k:139:VAL:HG12	2.00	0.42
4:m:66:GLU:HG2	4:m:121:ARG:HG2	2.01	0.42
1:p:280:TYR:HB3	1:p:369:ILE:HB	2.01	0.42
1:r:64:SER:C	1:r:65:ASN:OD1	2.61	0.42
3:v:684:SER:HB3	3:v:700:ILE:HD11	2.01	0.42
3:w:249:ASN:ND2	3:w:331:VAL:HB	2.34	0.42
1:z:231:PHE:HZ	1:z:366:PHE:CE2	2.37	0.42
1:A:173:THR:HG23	1:A:175:ALA:H	1.84	0.42
1:C:303:PHE:CE2	1:C:311:VAL:HB	2.54	0.42
2:I:89:GLU:HG3	2:I:90:CYS:N	2.35	0.42
2:I:337:THR:H	2:I:345:SER:HB2	1.84	0.42
2:J:356:LEU:HD23	2:J:431:ILE:HD13	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:M:81:ARG:N	2:N:71:VAL:O	2.46	0.42
1:Q:334:VAL:O	1:Q:335:LEU:HD12	2.18	0.42
1:Q:338:ASN:OD1	1:Q:339:THR:N	2.53	0.42
1:R:235:ARG:HH21	1:R:252:GLN:HB2	1.84	0.42
3:U:85:LEU:HG	3:U:155:GLU:HG3	1.99	0.42
3:U:556:GLY:O	3:U:565:ASN:ND2	2.51	0.42
3:U:1010:ARG:HH22	4:f:176:LEU:HD11	1.70	0.42
3:W:796:ILE:HG12	3:W:806:LEU:HD11	2.01	0.42
1:c:235:ARG:HD2	1:c:252:GLN:O	2.18	0.42
4:m:60:ALA:HA	4:m:70:LEU:HD23	2.01	0.42
3:u:185:VAL:HG22	3:u:222:LEU:HD12	2.00	0.42
3:u:582:ILE:CD1	3:u:591:TYR:HB3	2.49	0.42
3:w:459:PHE:CZ	3:w:510:ILE:HD12	2.54	0.42
3:w:531:ASP:OD1	3:w:532:ARG:N	2.52	0.42
1:x:173:THR:HG23	1:x:175:ALA:H	1.83	0.42
1:z:308:PRO:HD3	1:z:344:TYR:CE2	2.54	0.42
1:A:316:ILE:HG13	1:B:328:THR:HB	2.01	0.42
1:A:325:PHE:HB3	1:C:317:ARG:CZ	2.49	0.42
2:D:401:VAL:O	4:e:201:ARG:NH2	2.52	0.42
2:H:91:ILE:HG12	2:H:349:LEU:HD21	2.00	0.42
2:K:76:ASN:HB3	4:i:216:THR:HG22	2.00	0.42
2:N:141:SER:HB3	2:N:157:MET:HE1	2.02	0.42
2:O:228:PHE:HB3	2:O:295:TRP:HB2	2.02	0.42
2:O:485:ARG:HA	2:O:488:TYR:CD1	2.55	0.42
1:P:186:LEU:O	1:R:189:TYR:HE2	2.03	0.42
3:V:588:ASN:ND2	3:V:599:ASN:HD22	2.13	0.42
3:W:683:TRP:CE3	3:W:700:ILE:HG22	2.54	0.42
1:X:138:PRO:HB3	1:Y:140:ARG:HG2	2.02	0.42
1:X:315:VAL:HG23	1:X:316:ILE:HG22	2.01	0.42
1:Z:290:THR:HG23	1:Z:360:VAL:HG21	2.01	0.42
1:b:235:ARG:NH1	1:b:252:GLN:HB2	2.35	0.42
4:e:46:SER:HB3	4:e:143:ALA:HB2	2.01	0.42
4:i:26:PHE:HD1	4:i:31:ALA:HB1	1.84	0.42
1:p:173:THR:HG23	1:p:175:ALA:H	1.84	0.42
1:r:250:VAL:HG12	1:r:346:THR:HG22	2.00	0.42
3:u:73:SER:HB3	3:u:76:CYS:SG	2.59	0.42
3:u:349:PHE:CD2	3:u:428:ASN:HB2	2.54	0.42
3:v:383:TYR:CE2	3:v:384:ARG:HG3	2.54	0.42
2:I:382:GLN:HG2	4:i:198:ALA:HB2	2.02	0.42
2:J:27:TYR:O	2:J:31:ARG:HG2	2.19	0.42
2:J:284:CYS:O	2:J:285:MET:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:35:PHE:CD1	2:L:218:PRO:HD3	2.54	0.42
2:N:182:TYR:CD1	2:N:186:THR:HG21	2.55	0.42
1:R:129:VAL:HG13	1:R:130:TRP:HD1	1.83	0.42
3:U:907:VAL:HA	3:U:911:GLN:HE21	1.83	0.42
1:a:126:TYR:CE2	1:a:146:LYS:HE2	2.55	0.42
4:i:116:GLU:O	4:j:52:SER:HB2	2.19	0.42
4:j:53:TRP:CD1	4:j:53:TRP:H	2.36	0.42
1:p:301:LEU:HD23	1:p:348:GLN:HE21	1.84	0.42
1:r:129:VAL:HG13	1:r:130:TRP:HD1	1.85	0.42
3:u:645:VAL:HB	3:u:664:TYR:HB3	2.01	0.42
3:u:945:MET:SD	3:u:972:LEU:HD11	2.60	0.42
3:v:945:MET:SD	3:v:972:LEU:HD11	2.60	0.42
3:w:796:ILE:HG12	3:w:806:LEU:HD11	2.02	0.42
3:w:956:VAL:HG23	3:w:959:VAL:HB	2.01	0.42
1:x:35:VAL:HG11	1:x:47:TYR:CE1	2.54	0.42
1:y:1:MET:HB2	1:y:23:ASN:HD21	1.85	0.42
2:D:390:GLU:O	2:D:397:LYS:NZ	2.42	0.42
2:F:236:ARG:NH1	2:F:287:ASP:HA	2.34	0.42
2:G:99:MET:HE1	2:G:142:PHE:HD2	1.84	0.42
2:J:51:SER:O	2:J:63:GLN:NE2	2.41	0.42
2:L:374:ILE:HG22	2:M:369:ASN:ND2	2.34	0.42
2:M:394:ALA:HB1	4:m:214:ARG:HH22	1.72	0.42
2:O:19:ASP:OD2	2:O:21:ASN:HB2	2.19	0.42
2:O:47:LEU:HD22	2:O:267:ARG:HG3	2.00	0.42
2:O:497:GLU:O	2:O:501:ILE:HG12	2.20	0.42
1:P:134:THR:HG22	1:P:134:THR:O	2.19	0.42
1:Q:209:THR:HG22	1:Q:262:TRP:NE1	2.35	0.42
3:U:633:LEU:HB2	3:U:650:PRO:HG3	2.02	0.42
3:U:948:ASP:OD1	3:U:948:ASP:N	2.49	0.42
3:V:73:SER:HB3	3:V:76:CYS:SG	2.59	0.42
1:c:171:ASP:OD1	1:c:173:THR:HG22	2.19	0.42
4:n:149:GLU:OE2	4:n:149:GLU:N	2.50	0.42
1:r:306:LEU:HA	1:r:342:ASN:O	2.20	0.42
3:u:76:CYS:HB2	3:u:683:TRP:CG	2.55	0.42
3:v:249:ASN:ND2	3:v:331:VAL:HB	2.35	0.42
3:v:504:TYR:HB3	3:v:505:TYR:CD2	2.54	0.42
3:w:665:ASN:HB3	3:w:670:SER:OG	2.19	0.42
3:w:683:TRP:CE3	3:w:700:ILE:HG22	2.54	0.42
1:y:331:TRP:NE1	1:z:284:THR:HG21	2.32	0.42
1:z:250:VAL:HG22	1:z:346:THR:HG22	2.02	0.42
2:D:497:GLU:N	2:D:498:PRO:HD2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:111:LEU:HD11	2:F:129:LEU:HD22	2.02	0.42
2:K:139:ARG:NH1	2:K:143:GLU:OE1	2.53	0.42
2:L:80:HIS:ND1	2:L:368:ASP:OD1	2.31	0.42
2:L:82:LEU:HD21	2:M:71:VAL:HG13	2.00	0.42
2:L:229:ILE:HG12	2:L:294:TYR:HD1	1.84	0.42
2:L:374:ILE:HG22	2:M:369:ASN:HD22	1.83	0.42
2:O:253:PRO:O	2:O:256:ILE:HG12	2.20	0.42
1:P:173:THR:HG23	1:P:175:ALA:H	1.85	0.42
3:U:249:ASN:ND2	3:U:331:VAL:HB	2.34	0.42
3:U:496:ASN:HB2	3:U:504:TYR:HD1	1.84	0.42
3:U:620:ASP:OD1	3:U:620:ASP:N	2.51	0.42
3:V:477:ARG:HE	3:V:495:VAL:HG22	1.83	0.42
3:V:504:TYR:HB3	3:V:505:TYR:CD2	2.54	0.42
3:W:15:VAL:HG12	3:W:19:GLN:OE1	2.19	0.42
1:X:134:THR:HG22	1:X:134:THR:O	2.19	0.42
1:X:173:THR:HG23	1:X:175:ALA:H	1.83	0.42
1:Z:235:ARG:HD2	1:Z:252:GLN:O	2.19	0.42
1:Z:235:ARG:HB3	1:Z:364:ALA:HB3	2.00	0.42
3:u:284:ARG:HA	3:u:288:PRO:HG3	2.01	0.42
3:v:349:PHE:CD2	3:v:428:ASN:HB2	2.54	0.42
3:w:238:GLY:HA3	3:w:419:ALA:O	2.19	0.42
3:w:477:ARG:NH1	3:w:561:LEU:O	2.53	0.42
1:y:6:VAL:HG11	1:y:18:ASP:O	2.20	0.42
1:C:19:VAL:HG21	1:C:55:LEU:HD13	2.00	0.42
1:C:259:ARG:NH1	1:C:370:GLN:OE1	2.44	0.42
2:F:39:ARG:NH1	2:F:214:VAL:O	2.42	0.42
2:F:393:VAL:HG23	4:f:210:MET:HB3	2.02	0.42
2:G:87:ALA:HB2	2:G:356:LEU:HD13	2.00	0.42
2:H:131:LYS:HE2	2:I:114:ASN:OD1	2.20	0.42
2:O:99:MET:HE1	2:O:142:PHE:HD2	1.85	0.42
2:O:233:LYS:HG2	2:O:288:ILE:HG21	2.02	0.42
1:R:124:ASP:HB3	1:R:125:ALA:H	1.58	0.42
3:V:155:GLU:HA	3:V:222:LEU:O	2.20	0.42
3:W:138:ARG:NH2	3:W:504:TYR:O	2.52	0.42
1:X:36:LEU:HG	1:X:41:VAL:HG12	2.02	0.42
4:j:64:ILE:O	4:j:65:ASN:C	2.63	0.42
4:k:60:ALA:HA	4:k:70:LEU:HD23	2.01	0.42
4:l:44:ASP:HB3	4:l:166:ASN:ND2	2.34	0.42
1:q:31:LYS:NZ	1:q:47:TYR:O	2.47	0.42
1:r:259:ARG:NH1	1:r:370:GLN:OE1	2.47	0.42
3:u:569:SER:OG	3:v:541:SER:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:u:914:ASN:O	1:y:87:LYS:NZ	2.52	0.42
3:v:155:GLU:HA	3:v:222:LEU:O	2.20	0.42
3:v:372:ILE:HD11	3:v:385:ASN:HB3	2.02	0.42
3:v:581:CYS:O	3:v:591:TYR:HA	2.19	0.42
3:w:652:VAL:O	3:w:764:ARG:NH1	2.53	0.42
1:z:235:ARG:O	1:z:365:ARG:NH2	2.52	0.42
1:C:239:GLN:HG2	1:C:361:ILE:CG2	2.50	0.42
2:D:236:ARG:NE	2:D:257:VAL:HA	2.35	0.42
2:L:313:ILE:O	2:L:316:THR:HG22	2.20	0.42
1:P:150:LEU:HA	1:Q:152:THR:HA	2.01	0.42
1:P:300:VAL:O	1:P:317:ARG:HA	2.20	0.42
1:Q:224:PHE:HZ	1:R:222:ARG:HG3	1.85	0.42
3:U:589:VAL:O	3:U:599:ASN:HA	2.19	0.42
3:U:592:LEU:HD22	3:U:647:LEU:HD11	2.02	0.42
3:V:599:ASN:ND2	3:V:614:LEU:HD21	2.35	0.42
3:W:249:ASN:ND2	3:W:331:VAL:HB	2.34	0.42
3:W:531:ASP:OD1	3:W:532:ARG:N	2.53	0.42
3:W:700:ILE:C	3:W:701:LEU:HD12	2.45	0.42
1:X:303:PHE:CZ	1:X:317:ARG:NH2	2.81	0.42
1:Y:235:ARG:NH1	1:Y:252:GLN:HB2	2.35	0.42
1:Z:305:GLY:HA3	1:Z:310:GLY:HA3	2.01	0.42
1:a:270:ARG:HG3	1:a:344:TYR:CZ	2.55	0.42
1:a:301:LEU:CB	1:a:317:ARG:CG	2.97	0.42
1:b:1:MET:HB2	1:b:23:ASN:HD21	1.85	0.42
1:b:147:ILE:HA	1:b:150:LEU:HD12	2.02	0.42
1:b:235:ARG:HB3	1:b:364:ALA:HB3	2.00	0.42
4:o:26:PHE:HD1	4:o:31:ALA:HB1	1.84	0.42
1:p:287:PHE:CE2	1:p:300:VAL:HG11	2.55	0.42
1:q:103:TRP:CE3	1:r:104:ARG:HG2	2.55	0.42
3:u:494:ASN:ND2	3:u:499:ILE:HG12	2.34	0.42
3:v:589:VAL:O	3:v:599:ASN:HA	2.19	0.42
1:x:317:ARG:NH1	1:x:319:GLN:HE22	2.12	0.42
1:y:283:VAL:HG12	1:y:366:PHE:HD1	1.84	0.42
1:A:72:ARG:NE	1:A:106:GLU:OE2	2.41	0.42
2:H:337:THR:HB	2:H:346:VAL:HB	2.01	0.42
2:H:540:LYS:O	2:H:544:GLN:HG3	2.18	0.42
2:I:35:PHE:CD1	2:I:218:PRO:HD3	2.55	0.42
2:I:584:ILE:HG23	2:J:561:ARG:HG3	2.01	0.42
2:L:314:GLY:O	2:L:315:GLN:HB2	2.20	0.42
2:L:397:LYS:HE2	4:m:205:GLN:HE21	1.84	0.42
2:M:552:ALA:HB3	2:M:562:LEU:HD11	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:131:LYS:HE2	2:O:114:ASN:OD1	2.20	0.42
2:O:80:HIS:ND1	2:O:368:ASP:OD1	2.30	0.42
1:P:37:HIS:CD2	1:P:68:VAL:HG22	2.55	0.42
1:P:81:LEU:HD23	1:P:81:LEU:HA	1.93	0.42
3:U:176:VAL:HG12	3:U:199:TYR:CZ	2.54	0.42
3:U:278:LEU:HD12	3:U:302:TRP:CD2	2.55	0.42
3:U:284:ARG:HA	3:U:288:PRO:HG3	2.02	0.42
3:U:421:ASN:ND2	3:w:270:SER:OG	2.49	0.42
3:W:907:VAL:HA	3:W:911:GLN:HE21	1.85	0.42
1:X:202:ARG:HD2	1:Z:213:THR:OG1	2.19	0.42
1:Y:212:ASP:O	1:Z:218:THR:OG1	2.37	0.42
1:a:36:LEU:HG	1:a:41:VAL:HG12	2.02	0.42
1:a:202:ARG:HD3	1:c:214:SER:HA	2.01	0.42
1:c:284:THR:HB	1:c:365:ARG:HB2	2.02	0.42
4:e:26:PHE:HD1	4:e:31:ALA:HB1	1.85	0.42
4:f:74:GLN:NE2	4:f:141:LYS:O	2.46	0.42
4:h:50:ASP:OD1	4:i:199:ARG:NH2	2.53	0.42
4:k:26:PHE:CE2	4:k:149:GLU:HG3	2.55	0.42
1:q:300:VAL:HG22	1:q:349:ALA:HA	2.02	0.42
1:r:285:CYS:HB2	1:r:361:ILE:HD11	2.01	0.42
3:u:956:VAL:HG23	3:u:959:VAL:HB	2.02	0.42
3:w:69:THR:HG23	3:w:713:PHE:HB3	2.02	0.42
3:w:907:VAL:HA	3:w:911:GLN:HE21	1.85	0.42
1:x:191:THR:HG22	1:z:189:TYR:HE1	1.83	0.42
1:x:212:ASP:O	1:y:218:THR:OG1	2.37	0.42
1:A:143:VAL:O	1:A:147:ILE:HG13	2.20	0.42
1:A:287:PHE:HE1	1:A:361:ILE:HD12	1.85	0.42
1:B:103:TRP:CE3	1:C:104:ARG:HG2	2.55	0.42
1:B:259:ARG:NH1	1:B:370:GLN:OE1	2.38	0.42
2:E:231:ARG:NH2	2:E:263:GLU:O	2.53	0.42
2:J:401:VAL:O	4:k:201:ARG:NH2	2.53	0.42
2:K:349:LEU:O	2:K:353:MET:HG3	2.19	0.42
2:L:39:ARG:NH1	2:L:214:VAL:O	2.43	0.42
2:O:317:LEU:HD21	2:O:320:CYS:HB2	2.01	0.42
1:Q:295:PRO:HD2	1:Q:323:PRO:CG	2.50	0.42
1:R:233:ALA:HB3	1:R:366:PHE:HB3	2.02	0.42
3:U:911:GLN:NE2	3:U:916:LEU:HD22	2.35	0.42
3:V:383:TYR:CE2	3:V:384:ARG:HG3	2.55	0.42
1:X:301:LEU:CB	1:X:317:ARG:CD	2.97	0.42
1:Z:301:LEU:HD12	1:Z:317:ARG:HG3	2.02	0.42
1:a:325:PHE:HB3	1:c:317:ARG:CZ	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:o:115:ASN:C	4:o:116:GLU:OE1	2.62	0.42
1:p:371:LEU:HG	1:q:229:LEU:HD12	2.01	0.42
1:q:1:MET:HB2	1:q:23:ASN:HD21	1.84	0.42
1:r:235:ARG:HG3	1:r:254:THR:HG23	2.02	0.42
3:u:317:TYR:H	3:v:282:SER:HB3	1.85	0.42
3:u:496:ASN:HB2	3:u:504:TYR:CD1	2.54	0.42
3:u:633:LEU:HB2	3:u:650:PRO:HG3	2.02	0.42
3:u:911:GLN:NE2	3:u:916:LEU:HD22	2.34	0.42
3:v:571:VAL:HG13	3:v:609:TYR:O	2.20	0.42
3:w:15:VAL:HG12	3:w:19:GLN:OE1	2.20	0.42
3:w:147:LYS:HE2	3:w:432:ILE:O	2.20	0.42
3:w:529:PRO:O	3:w:549:GLN:NE2	2.52	0.42
3:w:700:ILE:C	3:w:701:LEU:HD12	2.45	0.42
1:x:331:TRP:HE1	1:y:284:THR:HG21	1.84	0.42
1:A:265:ASN:O	1:A:271:TRP:HD1	2.03	0.41
2:F:390:GLU:O	2:F:397:LYS:NZ	2.45	0.41
2:G:389:ASP:OD1	2:G:390:GLU:HG3	2.20	0.41
2:H:229:ILE:HG12	2:H:294:TYR:HD1	1.85	0.41
2:I:144:LYS:HE3	2:J:338:GLU:HB3	2.01	0.41
2:I:374:ILE:HG22	2:J:369:ASN:ND2	2.35	0.41
2:M:407:LEU:HD21	4:m:210:MET:HE1	2.01	0.41
2:M:546:MET:HG2	2:N:551:PHE:CE1	2.55	0.41
2:O:167:PRO:HD3	2:O:201:ARG:NH1	2.35	0.41
2:O:335:SER:HB2	2:O:345:SER:HB3	2.02	0.41
3:U:603:LEU:N	3:U:608:GLU:O	2.52	0.41
3:U:634:PRO:HA	3:U:648:GLY:O	2.20	0.41
3:V:229:TRP:CZ2	3:V:450:TYR:HB3	2.55	0.41
3:V:883:PHE:HB2	3:V:1007:LYS:HB2	2.01	0.41
3:V:950:MET:SD	3:V:961:SER:OG	2.76	0.41
3:W:914:ASN:O	1:Y:87:LYS:NZ	2.51	0.41
1:X:186:LEU:HB3	1:Z:189:TYR:HE2	1.85	0.41
1:Z:235:ARG:NH1	1:Z:252:GLN:HB2	2.35	0.41
1:a:314:PHE:CE1	1:a:317:ARG:CZ	2.94	0.41
1:c:245:ASN:HA	1:c:350:GLN:NE2	2.35	0.41
4:d:66:GLU:HG2	4:d:104:ILE:HG21	2.01	0.41
4:f:95:ASP:OD1	4:f:95:ASP:N	2.50	0.41
4:l:24:ILE:HG21	3:v:954:GLU:HB2	2.02	0.41
4:n:95:ASP:OD1	4:n:95:ASP:N	2.51	0.41
3:u:56:GLN:OE1	3:u:996:LYS:HE2	2.18	0.41
3:w:344:ARG:HG3	3:w:410:PHE:CD1	2.54	0.41
1:x:37:HIS:CD2	1:x:68:VAL:HG22	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:x:211:ASN:CG	1:y:222:ARG:HD2	2.45	0.41
1:y:300:VAL:HA	1:y:348:GLN:O	2.20	0.41
2:D:236:ARG:HE	2:D:257:VAL:HA	1.84	0.41
2:F:222:ASP:HB3	2:F:225:GLU:HB2	2.01	0.41
2:J:47:LEU:HD22	2:J:267:ARG:HG3	2.00	0.41
2:J:285:MET:HE2	2:J:288:ILE:HG13	2.02	0.41
2:K:99:MET:HE1	2:K:142:PHE:HD2	1.85	0.41
2:L:39:ARG:O	2:L:43:GLU:HG3	2.21	0.41
2:L:391:VAL:HA	2:L:399:PHE:HE1	1.86	0.41
2:M:182:TYR:CD1	2:M:186:THR:HG21	2.55	0.41
2:N:228:PHE:HB3	2:N:295:TRP:HB2	2.02	0.41
1:P:93:TRP:HB2	1:Q:93:TRP:HH2	1.84	0.41
1:Q:131:ALA:HB2	1:R:144:TYR:HE2	1.86	0.41
1:Z:51:THR:HG22	1:Z:53:THR:H	1.84	0.41
1:Z:259:ARG:NH2	1:Z:370:GLN:OE1	2.47	0.41
4:f:7:PHE:CD1	4:f:146:PRO:HG2	2.55	0.41
1:q:298:MET:HG2	1:q:323:PRO:HB3	2.02	0.41
1:r:275:GLN:O	1:r:279:TYR:OH	2.28	0.41
3:u:64:ARG:HH21	3:u:729:ARG:HH21	1.67	0.41
3:w:78:ILE:HB	3:w:700:ILE:CD1	2.50	0.41
1:z:157:VAL:O	1:z:157:VAL:HG13	2.19	0.41
1:A:121:PRO:HA	1:A:137:PRO:O	2.20	0.41
1:A:204:VAL:HG21	1:B:199:GLY:O	2.21	0.41
1:C:129:VAL:HG13	1:C:130:TRP:HD1	1.84	0.41
2:F:35:PHE:CD1	2:F:218:PRO:HD3	2.54	0.41
2:F:180:GLU:HG2	2:G:499:GLU:OE1	2.20	0.41
2:H:228:PHE:HB3	2:H:295:TRP:HB2	2.01	0.41
2:I:19:ASP:OD2	2:I:21:ASN:HB2	2.19	0.41
2:J:80:HIS:HE1	2:J:371:GLU:HG2	1.84	0.41
2:J:236:ARG:HE	2:J:257:VAL:HA	1.84	0.41
2:J:378:TRP:CD1	4:j:210:MET:HG3	2.56	0.41
2:K:82:LEU:HD21	2:L:71:VAL:HG13	2.02	0.41
2:L:430:THR:HG23	2:L:433:ARG:HH21	1.85	0.41
2:M:485:ARG:HA	2:M:488:TYR:CD2	2.55	0.41
3:V:372:ILE:HD11	3:V:385:ASN:HB3	2.02	0.41
3:V:945:MET:SD	3:V:972:LEU:HD11	2.60	0.41
3:W:131:THR:HG22	3:W:139:VAL:HG22	2.02	0.41
1:X:259:ARG:HG3	1:X:262:TRP:CD1	2.55	0.41
1:Z:286:ARG:HA	1:Z:328:THR:HA	2.01	0.41
1:c:37:HIS:HD2	1:c:68:VAL:HG12	1.85	0.41
4:e:88:TYR:CZ	4:e:136:LYS:HE2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:k:88:TYR:CZ	4:k:136:LYS:HE2	2.56	0.41
1:p:121:PRO:HA	1:p:137:PRO:O	2.20	0.41
1:p:191:THR:HA	1:r:189:TYR:HA	2.02	0.41
3:v:229:TRP:CZ2	3:v:450:TYR:HB3	2.55	0.41
1:z:130:TRP:HZ2	1:z:142:SER:HG	1.69	0.41
1:B:235:ARG:HB3	1:B:364:ALA:HB3	2.01	0.41
2:E:485:ARG:HA	2:E:488:TYR:CD2	2.55	0.41
2:F:80:HIS:HD2	2:F:368:ASP:OD1	2.02	0.41
2:G:485:ARG:HA	2:G:488:TYR:CD2	2.56	0.41
2:H:131:LYS:HD3	2:H:503:VAL:HG12	2.02	0.41
2:I:86:LYS:HA	2:I:89:GLU:HG2	2.02	0.41
2:I:229:ILE:HG12	2:I:294:TYR:HD1	1.86	0.41
2:I:253:PRO:O	2:I:256:ILE:HG12	2.20	0.41
2:I:281:HIS:HB2	2:I:283:TYR:O	2.21	0.41
2:M:234:LYS:HB3	2:M:234:LYS:HE3	1.94	0.41
2:N:229:ILE:HG12	2:N:294:TYR:HD1	1.84	0.41
2:N:502:ARG:HH21	2:O:523:LYS:HG2	1.85	0.41
2:O:35:PHE:CD1	2:O:218:PRO:HD3	2.55	0.41
3:U:185:VAL:HG22	3:U:222:LEU:HD12	2.02	0.41
3:U:730:LYS:HD3	3:U:737:TYR:CD1	2.56	0.41
3:U:796:ILE:HG12	3:U:806:LEU:HD11	2.03	0.41
3:V:249:ASN:ND2	3:V:331:VAL:HB	2.35	0.41
3:V:571:VAL:HG13	3:V:609:TYR:O	2.20	0.41
3:V:790:THR:H	3:V:794:ASP:HB2	1.85	0.41
1:X:149:THR:O	1:Y:152:THR:HG22	2.20	0.41
1:X:265:ASN:O	1:X:271:TRP:HD1	2.04	0.41
1:a:148:GLU:O	1:b:153:LYS:HE3	2.21	0.41
4:d:44:ASP:HB3	4:d:166:ASN:ND2	2.36	0.41
4:e:26:PHE:CE2	4:e:149:GLU:HG3	2.56	0.41
4:l:78:HIS:ND1	4:l:90:GLU:OE2	2.50	0.41
4:l:80:SER:HB3	4:l:88:TYR:HB3	2.03	0.41
3:u:556:GLY:O	3:u:565:ASN:ND2	2.52	0.41
3:u:592:LEU:HD22	3:u:647:LEU:HD11	2.01	0.41
3:u:634:PRO:HA	3:u:648:GLY:O	2.20	0.41
3:w:56:GLN:OE1	3:w:996:LYS:HE2	2.20	0.41
3:w:76:CYS:HA	3:w:93:LYS:O	2.20	0.41
3:w:663:VAL:HG21	3:w:674:TYR:CZ	2.55	0.41
1:x:17:VAL:HG11	1:x:70:ILE:HD12	2.02	0.41
1:A:369:ILE:HD11	1:C:371:LEU:HD13	2.03	0.41
1:C:132:GLY:O	1:c:265:ASN:ND2	2.53	0.41
2:D:39:ARG:NH1	2:D:214:VAL:O	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:87:ALA:HB2	2:D:356:LEU:HD13	2.01	0.41
2:I:375:ASP:HA	2:J:369:ASN:ND2	2.36	0.41
2:J:82:LEU:HD21	2:K:71:VAL:HG13	2.01	0.41
2:N:272:THR:HG21	2:N:279:THR:HG21	2.03	0.41
1:Q:297:TYR:HB3	1:Q:352:ILE:HB	2.02	0.41
1:R:35:VAL:HG21	1:R:47:TYR:CD1	2.54	0.41
3:V:348:GLY:HA2	3:V:407:ASN:HD21	1.85	0.41
3:V:349:PHE:CD2	3:V:428:ASN:HB2	2.55	0.41
3:W:821:PRO:HB3	3:W:990:HIS:CG	2.56	0.41
1:X:186:LEU:HA	1:X:189:TYR:HD2	1.86	0.41
1:X:298:MET:HE3	1:X:299:ASP:N	2.34	0.41
4:e:60:ALA:HA	4:e:70:LEU:HD23	2.02	0.41
4:g:60:ALA:HA	4:g:70:LEU:HD23	2.01	0.41
4:h:149:GLU:OE2	4:h:149:GLU:N	2.50	0.41
4:l:7:PHE:CD1	4:l:146:PRO:HG2	2.56	0.41
1:p:284:THR:HG21	1:r:331:TRP:HE1	1.85	0.41
1:r:303:PHE:CZ	1:r:314:PHE:HB2	2.56	0.41
3:u:531:ASP:OD1	3:u:547:THR:HB	2.20	0.41
3:u:796:ILE:HG12	3:u:806:LEU:HD11	2.03	0.41
1:y:259:ARG:NE	1:y:264:ASP:OD2	2.33	0.41
2:D:552:ALA:HB3	2:D:562:LEU:HD11	2.02	0.41
2:I:233:LYS:HG2	2:I:288:ILE:HG21	2.02	0.41
2:K:388:PRO:HB2	4:k:203:THR:CG2	2.50	0.41
2:M:259:MET:HE2	2:M:313:ILE:HG22	2.03	0.41
2:O:350:GLN:HB3	2:O:351:PRO:HD3	2.03	0.41
1:P:79:ILE:HD11	1:P:99:ARG:HD2	2.02	0.41
1:Q:331:TRP:NE1	1:R:284:THR:HG21	2.35	0.41
3:U:203:THR:HG23	3:U:205:GLN:HG3	2.03	0.41
1:X:298:MET:HB3	1:X:320:THR:HG22	2.03	0.41
1:a:265:ASN:O	1:a:271:TRP:HD1	2.04	0.41
1:b:259:ARG:NH1	1:b:370:GLN:OE1	2.44	0.41
1:c:286:ARG:HA	1:c:328:THR:HA	2.02	0.41
4:k:46:SER:HB3	4:k:143:ALA:HB2	2.02	0.41
4:m:88:TYR:CZ	4:m:136:LYS:HE2	2.56	0.41
4:n:44:ASP:HB3	4:n:166:ASN:ND2	2.34	0.41
1:p:286:ARG:HH12	1:r:317:ARG:HB3	1.84	0.41
1:r:309:THR:O	1:r:311:VAL:HG13	2.21	0.41
3:v:494:ASN:ND2	3:v:499:ILE:HG12	2.35	0.41
1:y:129:VAL:HG12	1:z:140:ARG:HH22	1.85	0.41
1:y:206:THR:HG21	1:z:218:THR:HG21	2.02	0.41
1:z:37:HIS:HD2	1:z:68:VAL:HG12	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:253:PRO:O	2:E:256:ILE:HG12	2.20	0.41
2:F:383:ASN:HD22	2:F:406:ASP:CG	2.29	0.41
2:G:430:THR:HG23	2:G:433:ARG:NH2	2.35	0.41
2:I:21:ASN:HD22	2:I:317:LEU:HD23	1.85	0.41
2:J:89:GLU:HG2	2:K:467:ARG:HH12	1.86	0.41
2:K:374:ILE:HG22	2:L:369:ASN:HD22	1.84	0.41
2:K:546:MET:HG2	2:L:551:PHE:CE1	2.56	0.41
2:L:139:ARG:NH1	2:L:143:GLU:OE1	2.53	0.41
2:L:485:ARG:O	2:L:489:ARG:HG3	2.21	0.41
2:M:519:GLU:O	2:M:523:LYS:HG2	2.20	0.41
1:Q:319:GLN:HE22	1:R:322:TYR:H	1.67	0.41
1:R:10:ARG:HD2	1:R:15:TRP:CZ3	2.55	0.41
3:U:73:SER:HB3	3:U:76:CYS:SG	2.61	0.41
3:V:283:ASN:ND2	3:V:414:ILE:O	2.54	0.41
3:V:599:ASN:OD1	3:V:612:LYS:HB3	2.21	0.41
3:V:754:ARG:HH22	1:Y:91:ASN:CG	2.29	0.41
3:V:867:LEU:HD13	3:V:990:HIS:CD2	2.56	0.41
3:W:69:THR:HG23	3:W:713:PHE:HB3	2.02	0.41
3:W:76:CYS:HA	3:W:93:LYS:O	2.20	0.41
3:W:147:LYS:HE2	3:W:432:ILE:O	2.20	0.41
3:W:868:THR:O	3:W:988:TRP:HA	2.20	0.41
3:W:926:PHE:CD2	3:W:987:ILE:HG23	2.56	0.41
1:X:35:VAL:HG11	1:X:47:TYR:CE1	2.54	0.41
1:Y:137:PRO:HD3	1:Z:121:PRO:HG2	2.03	0.41
1:a:211:ASN:CG	1:b:222:ARG:HD2	2.45	0.41
4:g:53:TRP:CD1	4:g:53:TRP:H	2.38	0.41
4:h:88:TYR:CZ	4:h:136:LYS:HE2	2.56	0.41
1:q:80:GLN:HG2	1:q:92:LEU:HD13	2.03	0.41
1:r:286:ARG:HA	1:r:328:THR:HA	2.02	0.41
3:u:622:PHE:HE1	3:u:647:LEU:HD21	1.86	0.41
3:v:88:GLN:HG2	3:v:689:THR:HB	2.03	0.41
3:v:608:GLU:CD	3:w:540:GLN:HG2	2.45	0.41
3:w:131:THR:HG22	3:w:139:VAL:HG22	2.02	0.41
1:A:259:ARG:NH2	1:A:370:GLN:OE1	2.53	0.41
1:B:295:PRO:HG3	1:B:357:TYR:CZ	2.55	0.41
1:C:301:LEU:HD23	1:C:303:PHE:HE1	1.85	0.41
2:D:95:HIS:O	2:D:99:MET:HG2	2.21	0.41
2:D:144:LYS:HE3	2:E:221:ASN:ND2	2.35	0.41
2:E:88:TYR:O	2:E:92:GLU:HG2	2.21	0.41
2:K:228:PHE:CE1	2:K:230:ARG:HB2	2.56	0.41
2:M:170:TYR:CE1	2:M:200:THR:HG22	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:236:ARG:NH1	2:N:287:ASP:HA	2.36	0.41
1:R:290:THR:HG23	1:R:360:VAL:HG21	2.03	0.41
3:U:531:ASP:OD1	3:U:547:THR:HB	2.20	0.41
3:V:803:ILE:HD13	3:V:803:ILE:HA	1.89	0.41
3:W:702:TYR:CG	3:W:710:PRO:HB3	2.56	0.41
3:W:883:PHE:HB2	3:W:1007:LYS:HB2	2.03	0.41
1:Y:202:ARG:NH2	1:Z:196:ILE:HD11	2.35	0.41
1:a:55:LEU:HD12	1:a:70:ILE:HD13	2.02	0.41
1:c:271:TRP:CZ3	1:c:273:VAL:HG22	2.55	0.41
4:d:47:TYR:HE1	4:d:74:GLN:HG2	1.85	0.41
1:p:239:GLN:O	1:p:361:ILE:HG12	2.21	0.41
1:q:284:THR:HA	1:q:329:LEU:O	2.20	0.41
3:v:599:ASN:ND2	3:v:614:LEU:HD21	2.35	0.41
3:w:496:ASN:HB2	3:w:504:TYR:HD1	1.85	0.41
1:A:36:LEU:HG	1:A:41:VAL:HG12	2.02	0.41
1:A:79:ILE:HD11	1:A:99:ARG:HD2	2.03	0.41
1:A:218:THR:OG1	1:C:212:ASP:O	2.34	0.41
1:A:298:MET:HB3	1:A:320:THR:HG22	2.02	0.41
1:B:126:TYR:OH	1:C:148:GLU:OE1	2.33	0.41
1:C:250:VAL:HG12	1:C:346:THR:HG22	2.03	0.41
2:E:82:LEU:HD21	2:F:71:VAL:HG13	2.03	0.41
2:G:64:ARG:O	4:e:216:THR:HG21	2.21	0.41
2:G:145:TYR:OH	2:G:334:GLY:HA3	2.20	0.41
2:G:232:ILE:HB	2:G:291:VAL:HB	2.03	0.41
2:H:3:ARG:HD3	2:H:6:ASP:OD1	2.21	0.41
2:H:236:ARG:NH1	2:H:287:ASP:HA	2.35	0.41
2:H:236:ARG:HE	2:H:257:VAL:HA	1.85	0.41
2:H:253:PRO:O	2:H:256:ILE:HG12	2.20	0.41
2:I:50:TRP:NE1	2:I:152:CYS:SG	2.94	0.41
2:I:284:CYS:O	2:I:285:MET:HG2	2.21	0.41
2:I:335:SER:HB2	2:I:345:SER:HB3	2.03	0.41
2:J:145:TYR:OH	2:J:334:GLY:HA3	2.21	0.41
2:K:552:ALA:HB3	2:K:562:LEU:HD11	2.03	0.41
2:L:99:MET:HE1	2:L:142:PHE:HD2	1.86	0.41
2:L:228:PHE:HB3	2:L:295:TRP:HB2	2.01	0.41
2:M:291:VAL:HG22	2:M:313:ILE:HD13	2.03	0.41
2:N:314:GLY:O	2:N:315:GLN:HB2	2.21	0.41
2:O:281:HIS:CD2	2:O:284:CYS:HB2	2.56	0.41
2:O:284:CYS:O	2:O:285:MET:HG2	2.21	0.41
1:R:289:THR:HG23	1:R:323:PRO:HB2	2.01	0.41
3:U:76:CYS:HB2	3:U:683:TRP:CG	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U:622:PHE:HE1	3:U:647:LEU:HD21	1.86	0.41
3:V:32:LEU:HG	3:W:54:SER:HB3	2.02	0.41
3:V:93:LYS:HG3	3:V:118:TRP:CZ3	2.56	0.41
3:V:296:PRO:HD2	3:V:310:TYR:CE2	2.56	0.41
3:W:78:ILE:HB	3:W:700:ILE:CD1	2.50	0.41
3:W:606:ASN:OD1	3:W:606:ASN:N	2.53	0.41
3:W:890:TYR:O	3:W:1000:TYR:HA	2.20	0.41
1:X:331:TRP:HE1	1:Y:284:THR:HG21	1.86	0.41
1:Y:5:ASN:ND2	1:Y:71:ARG:HG2	2.36	0.41
1:Y:235:ARG:HB3	1:Y:364:ALA:HB3	2.03	0.41
1:a:102:ARG:O	1:a:106:GLU:HG3	2.21	0.41
1:a:182:VAL:O	1:a:186:LEU:HD23	2.20	0.41
4:e:53:TRP:CD1	4:e:53:TRP:H	2.39	0.41
4:f:165:TYR:HE2	4:f:192:GLN:CD	2.29	0.41
4:g:88:TYR:CZ	4:g:136:LYS:HE2	2.55	0.41
4:h:44:ASP:HB3	4:h:166:ASN:ND2	2.36	0.41
4:k:26:PHE:HD1	4:k:31:ALA:HB1	1.85	0.41
4:m:53:TRP:CD1	4:m:53:TRP:H	2.38	0.41
1:p:265:ASN:O	1:p:271:TRP:HD1	2.04	0.41
3:u:500:THR:HG21	3:u:503:ARG:HD3	2.03	0.41
3:v:106:ASP:OD1	3:v:717:ARG:NE	2.52	0.41
3:v:438:SER:HA	3:v:448:GLY:HA3	2.02	0.41
3:w:578:ASN:HD22	3:w:632:GLU:HA	1.85	0.41
3:w:583:VAL:HG22	3:w:636:MET:HE2	2.02	0.41
3:w:821:PRO:HB3	3:w:990:HIS:CG	2.56	0.41
3:w:883:PHE:HB2	3:w:1007:LYS:HB2	2.03	0.41
1:z:265:ASN:O	1:z:271:TRP:HD1	2.04	0.41
2:E:388:PRO:HB2	4:e:203:THR:CG2	2.51	0.41
2:F:99:MET:HE1	2:F:142:PHE:HD2	1.85	0.41
2:G:284:CYS:O	2:G:285:MET:HB2	2.21	0.41
2:N:350:GLN:HA	2:N:353:MET:SD	2.61	0.41
1:P:218:THR:OG1	1:R:212:ASP:O	2.36	0.41
1:P:222:ARG:HD3	1:R:224:PHE:CZ	2.56	0.41
3:U:599:ASN:OD1	3:U:612:LYS:HB3	2.21	0.41
3:V:702:TYR:CG	3:V:710:PRO:HB3	2.56	0.41
3:W:663:VAL:HG21	3:W:674:TYR:CZ	2.55	0.41
1:X:102:ARG:O	1:X:106:GLU:HG3	2.21	0.41
1:Z:49:LYS:HE3	1:Z:52:ALA:HA	2.03	0.41
4:d:64:ILE:O	4:d:65:ASN:C	2.63	0.41
1:p:301:LEU:HG	1:p:303:PHE:CE1	2.56	0.41
3:v:495:VAL:HB	3:v:498:ASN:OD1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:v:821:PRO:HB3	3:v:990:HIS:CG	2.56	0.41
1:x:186:LEU:O	1:z:189:TYR:HE2	2.02	0.41
1:y:134:THR:H	1:z:141:LYS:HE2	1.86	0.41
1:y:147:ILE:HA	1:y:150:LEU:HD12	2.02	0.41
1:z:303:PHE:HD2	1:z:311:VAL:HA	1.86	0.41
1:C:36:LEU:HD23	1:C:36:LEU:HA	1.85	0.40
1:C:246:TYR:HA	1:C:348:GLN:HB3	2.03	0.40
1:C:295:PRO:HG3	1:C:357:TYR:CE2	2.56	0.40
2:F:182:TYR:O	2:G:168:TYR:HB2	2.21	0.40
2:I:536:THR:O	2:I:540:LYS:HG3	2.20	0.40
2:K:253:PRO:O	2:K:256:ILE:HG12	2.21	0.40
2:L:236:ARG:NH1	2:L:287:ASP:HA	2.36	0.40
2:M:350:GLN:HA	2:M:353:MET:HE2	2.02	0.40
2:N:128:TYR:HE1	2:N:503:VAL:HG21	1.86	0.40
1:P:298:MET:HE3	1:P:299:ASP:H	1.85	0.40
1:Q:300:VAL:N	1:Q:327:TYR:OH	2.54	0.40
1:a:126:TYR:OH	1:b:148:GLU:OE2	2.32	0.40
1:a:183:LYS:HG3	1:c:172:ASN:CG	2.46	0.40
1:b:294:PRO:HA	1:b:295:PRO:HD3	1.97	0.40
1:b:298:MET:CG	1:b:323:PRO:HB3	2.47	0.40
1:b:331:TRP:NE1	1:c:284:THR:HG21	2.37	0.40
1:c:290:THR:HG23	1:c:360:VAL:HG21	2.02	0.40
4:f:49:TYR:HB3	4:f:51:TRP:CE2	2.56	0.40
4:g:78:HIS:ND1	4:g:90:GLU:OE2	2.54	0.40
4:j:157:ASP:HA	4:j:160:ILE:HG12	2.02	0.40
4:n:46:SER:HB3	4:n:143:ALA:HB2	2.03	0.40
1:q:1:MET:HB2	1:q:23:ASN:ND2	2.36	0.40
1:r:35:VAL:HG23	1:r:44:ASN:HB2	2.03	0.40
3:u:500:THR:HG21	3:u:503:ARG:NH1	2.33	0.40
3:v:867:LEU:HD21	3:v:869:ILE:HD11	2.03	0.40
3:w:868:THR:O	3:w:988:TRP:HA	2.20	0.40
1:A:265:ASN:HB3	1:A:272:LEU:HB3	2.04	0.40
1:B:1:MET:HB2	1:B:23:ASN:HD21	1.86	0.40
1:C:35:VAL:HG21	1:C:47:TYR:CD1	2.56	0.40
2:G:272:THR:HG21	2:G:279:THR:HG21	2.03	0.40
2:I:552:ALA:HB3	2:I:562:LEU:HD11	2.04	0.40
2:M:67:THR:OG1	2:M:76:ASN:ND2	2.43	0.40
2:O:87:ALA:HB2	2:O:356:LEU:HD13	2.03	0.40
2:O:229:ILE:HG12	2:O:294:TYR:HD1	1.86	0.40
1:P:157:VAL:O	1:P:157:VAL:HG13	2.21	0.40
3:U:477:ARG:HE	3:U:495:VAL:HG22	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:U:926:PHE:CD2	3:U:987:ILE:HG23	2.55	0.40
3:V:700:ILE:HG22	3:V:715:ILE:HG12	2.04	0.40
3:W:43:SER:OG	3:W:871:THR:O	2.26	0.40
3:W:56:GLN:OE1	3:W:996:LYS:HE2	2.21	0.40
3:W:578:ASN:HD22	3:W:632:GLU:HA	1.85	0.40
1:X:148:GLU:O	1:Y:153:LYS:HE3	2.21	0.40
1:X:303:PHE:CZ	1:X:314:PHE:HD1	2.39	0.40
1:X:316:ILE:HG13	1:Y:328:THR:HB	2.03	0.40
1:Z:315:VAL:HG23	1:Z:316:ILE:N	2.35	0.40
1:c:133:ASP:OD2	1:c:136:TYR:HB2	2.22	0.40
4:h:209:ASN:OD1	4:h:210:MET:N	2.54	0.40
4:m:78:HIS:ND1	4:m:90:GLU:OE2	2.53	0.40
4:n:161:GLN:HG2	4:n:162:LEU:N	2.36	0.40
1:p:301:LEU:HD13	1:p:317:ARG:CD	2.36	0.40
3:u:651:ASP:OD1	3:u:652:VAL:N	2.50	0.40
3:v:702:TYR:CG	3:v:710:PRO:HB3	2.56	0.40
1:x:150:LEU:HA	1:y:152:THR:HA	2.01	0.40
1:z:235:ARG:HH21	1:z:252:GLN:HB2	1.83	0.40
2:E:55:GLY:O	2:F:350:GLN:NE2	2.55	0.40
2:G:78:TRP:HE1	2:G:361:ILE:HG23	1.85	0.40
2:G:317:LEU:HD21	2:G:320:CYS:HB2	2.03	0.40
2:G:552:ALA:HB3	2:G:562:LEU:HD11	2.02	0.40
2:H:356:LEU:HD23	2:H:431:ILE:HD13	2.04	0.40
2:J:389:ASP:OD1	2:J:390:GLU:HG3	2.20	0.40
2:K:78:TRP:HB3	2:K:368:ASP:OD2	2.22	0.40
2:L:56:THR:HG21	2:L:274:PHE:O	2.22	0.40
2:N:139:ARG:O	2:N:143:GLU:HG3	2.21	0.40
1:P:201:PRO:HB3	1:Q:195:PRO:HD2	2.03	0.40
1:P:280:TYR:HB3	1:P:369:ILE:HB	2.03	0.40
3:V:176:VAL:HG12	3:V:199:TYR:CZ	2.56	0.40
3:V:582:ILE:HD12	3:V:590:MET:O	2.22	0.40
3:W:494:ASN:ND2	3:W:499:ILE:HG12	2.34	0.40
4:h:37:THR:HG23	4:h:170:GLN:HB3	2.04	0.40
4:m:32:ARG:NH2	3:v:1015:TYR:O	2.49	0.40
1:r:19:VAL:HG21	1:r:55:LEU:HD13	2.03	0.40
3:v:348:GLY:HA2	3:v:407:ASN:HD21	1.86	0.40
3:w:722:LEU:HB2	3:w:727:ILE:HD13	2.04	0.40
1:C:241:VAL:HG22	1:C:359:VAL:O	2.21	0.40
2:E:232:ILE:HB	2:E:291:VAL:HB	2.03	0.40
2:H:139:ARG:O	2:H:143:GLU:HG3	2.21	0.40
2:L:129:LEU:HD21	2:L:488:TYR:HB3	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:N:236:ARG:HE	2:N:257:VAL:HA	1.86	0.40
2:N:391:VAL:HA	2:N:399:PHE:HE1	1.86	0.40
2:O:543:ARG:HA	2:O:546:MET:HE3	2.03	0.40
1:Q:303:PHE:HB2	1:Q:346:THR:OG1	2.21	0.40
1:X:235:ARG:HB3	1:X:364:ALA:HB3	2.03	0.40
1:Z:250:VAL:HG12	1:Z:346:THR:HG22	2.02	0.40
1:a:140:ARG:NE	1:c:133:ASP:OD2	2.52	0.40
1:a:213:THR:HB	1:b:203:ALA:O	2.21	0.40
1:b:281:VAL:HG12	1:b:368:ALA:HB2	2.04	0.40
4:d:49:TYR:HB3	4:d:51:TRP:CE2	2.57	0.40
4:e:161:GLN:HG2	4:e:162:LEU:N	2.37	0.40
4:j:60:ALA:HA	4:j:70:LEU:HD23	2.03	0.40
1:r:303:PHE:HE2	1:r:311:VAL:HB	1.87	0.40
3:v:93:LYS:HG3	3:v:118:TRP:CZ3	2.56	0.40
3:v:527:SER:OG	3:v:528:ARG:N	2.54	0.40
3:v:599:ASN:OD1	3:v:612:LYS:HB3	2.21	0.40
3:v:948:ASP:OD1	3:v:948:ASP:N	2.54	0.40
3:w:93:LYS:HG3	3:w:118:TRP:CZ3	2.57	0.40
1:x:301:LEU:HD23	1:x:317:ARG:HD3	0.40	0.40
1:z:289:THR:HG23	1:z:323:PRO:HB2	2.04	0.40
2:F:198:ARG:NH1	2:G:323:ASN:O	2.48	0.40
2:G:236:ARG:HG2	2:G:289:ILE:HD11	2.02	0.40
2:G:281:HIS:HB2	2:G:283:TYR:O	2.22	0.40
2:I:350:GLN:HB3	2:I:351:PRO:HD3	2.04	0.40
2:N:583:TYR:HA	2:O:563:ASN:HB3	2.03	0.40
3:U:93:LYS:HG3	3:U:118:TRP:CZ3	2.57	0.40
3:V:867:LEU:HD21	3:V:869:ILE:HD11	2.03	0.40
3:W:84:GLY:HA3	3:W:155:GLU:OE2	2.22	0.40
3:W:93:LYS:HG3	3:W:118:TRP:CZ3	2.57	0.40
3:W:344:ARG:HB3	3:W:389:TYR:CE1	2.57	0.40
3:W:571:VAL:HG13	3:W:609:TYR:O	2.22	0.40
1:Y:196:ILE:HD13	1:r:40:ILE:HD12	2.03	0.40
1:b:31:LYS:NZ	1:b:47:TYR:O	2.46	0.40
1:c:231:PHE:HZ	1:c:366:PHE:CE2	2.39	0.40
1:c:295:PRO:HD3	1:c:357:TYR:CG	2.56	0.40
4:j:24:ILE:HB	1:z:85:GLY:HA3	2.04	0.40
4:m:46:SER:HB3	4:m:143:ALA:HB2	2.04	0.40
4:o:44:ASP:HB3	4:o:166:ASN:ND2	2.37	0.40
1:p:76:ASN:HA	1:q:104:ARG:HH21	1.87	0.40
1:r:239:GLN:HG2	1:r:361:ILE:CG2	2.51	0.40
3:u:267:ASN:OD1	3:u:268:ASN:N	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:u:665:ASN:HB3	3:u:670:SER:OG	2.22	0.40
3:v:700:ILE:HG22	3:v:715:ILE:HG12	2.04	0.40
3:w:535:ALA:HB3	3:w:546:LEU:HB2	2.03	0.40
3:w:606:ASN:N	3:w:606:ASN:OD1	2.53	0.40
3:w:702:TYR:CG	3:w:710:PRO:HB3	2.56	0.40
3:w:730:LYS:HD3	3:w:737:TYR:CD1	2.57	0.40
3:w:890:TYR:O	3:w:1000:TYR:HA	2.21	0.40
3:w:926:PHE:CD2	3:w:987:ILE:HG23	2.55	0.40
1:x:103:TRP:CZ3	1:x:107:VAL:HG21	2.57	0.40
1:x:218:THR:OG1	1:z:212:ASP:O	2.34	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	A	370/372 (100%)	352 (95%)	18 (5%)	0	100	100
1	B	370/372 (100%)	358 (97%)	12 (3%)	0	100	100
1	C	370/372 (100%)	360 (97%)	10 (3%)	0	100	100
1	P	370/372 (100%)	351 (95%)	19 (5%)	0	100	100
1	Q	370/372 (100%)	358 (97%)	12 (3%)	0	100	100
1	R	370/372 (100%)	353 (95%)	17 (5%)	0	100	100
1	X	370/372 (100%)	353 (95%)	17 (5%)	0	100	100
1	Y	370/372 (100%)	360 (97%)	10 (3%)	0	100	100
1	Z	370/372 (100%)	356 (96%)	14 (4%)	0	100	100
1	a	370/372 (100%)	352 (95%)	18 (5%)	0	100	100
1	b	370/372 (100%)	358 (97%)	12 (3%)	0	100	100
1	c	370/372 (100%)	355 (96%)	15 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	p	370/372 (100%)	352 (95%)	18 (5%)	0	100	100
1	q	370/372 (100%)	359 (97%)	11 (3%)	0	100	100
1	r	370/372 (100%)	356 (96%)	14 (4%)	0	100	100
1	x	370/372 (100%)	353 (95%)	17 (5%)	0	100	100
1	y	370/372 (100%)	360 (97%)	10 (3%)	0	100	100
1	z	370/372 (100%)	356 (96%)	14 (4%)	0	100	100
2	D	549/653 (84%)	540 (98%)	9 (2%)	0	100	100
2	E	549/653 (84%)	540 (98%)	9 (2%)	0	100	100
2	F	549/653 (84%)	541 (98%)	8 (2%)	0	100	100
2	G	549/653 (84%)	537 (98%)	12 (2%)	0	100	100
2	H	549/653 (84%)	539 (98%)	10 (2%)	0	100	100
2	I	549/653 (84%)	539 (98%)	10 (2%)	0	100	100
2	J	549/653 (84%)	540 (98%)	9 (2%)	0	100	100
2	K	549/653 (84%)	541 (98%)	8 (2%)	0	100	100
2	L	549/653 (84%)	540 (98%)	9 (2%)	0	100	100
2	M	549/653 (84%)	536 (98%)	13 (2%)	0	100	100
2	N	549/653 (84%)	539 (98%)	10 (2%)	0	100	100
2	O	549/653 (84%)	537 (98%)	12 (2%)	0	100	100
3	U	1003/1015 (99%)	986 (98%)	17 (2%)	0	100	100
3	V	1003/1015 (99%)	990 (99%)	13 (1%)	0	100	100
3	W	1003/1015 (99%)	988 (98%)	15 (2%)	0	100	100
3	u	1003/1015 (99%)	987 (98%)	16 (2%)	0	100	100
3	v	1003/1015 (99%)	988 (98%)	15 (2%)	0	100	100
3	w	1003/1015 (99%)	986 (98%)	17 (2%)	0	100	100
4	d	214/217 (99%)	210 (98%)	4 (2%)	0	100	100
4	e	214/217 (99%)	210 (98%)	4 (2%)	0	100	100
4	f	214/217 (99%)	207 (97%)	7 (3%)	0	100	100
4	g	214/217 (99%)	207 (97%)	7 (3%)	0	100	100
4	h	214/217 (99%)	207 (97%)	7 (3%)	0	100	100
4	i	214/217 (99%)	209 (98%)	5 (2%)	0	100	100
4	j	214/217 (99%)	210 (98%)	4 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	k	214/217 (99%)	208 (97%)	6 (3%)	0	100	100
4	l	214/217 (99%)	207 (97%)	7 (3%)	0	100	100
4	m	214/217 (99%)	207 (97%)	7 (3%)	0	100	100
4	n	214/217 (99%)	206 (96%)	8 (4%)	0	100	100
4	o	214/217 (99%)	207 (97%)	7 (3%)	0	100	100
All	All	21834/23226 (94%)	21291 (98%)	543 (2%)	0	100	100

There are no Ramachandran outliers to report.

5.3.2 Protein sidechains [i](#)

There are no protein residues with a non-rotameric sidechain to report in this entry.

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.

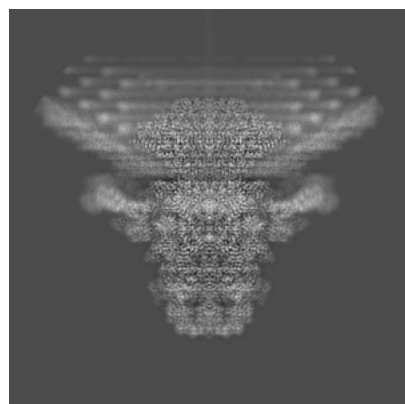
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-61942. These allow visual inspection of the internal detail of the map and identification of artifacts.

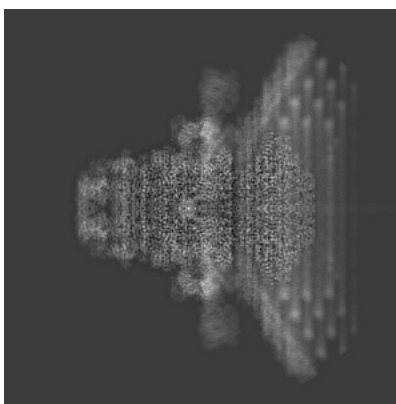
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

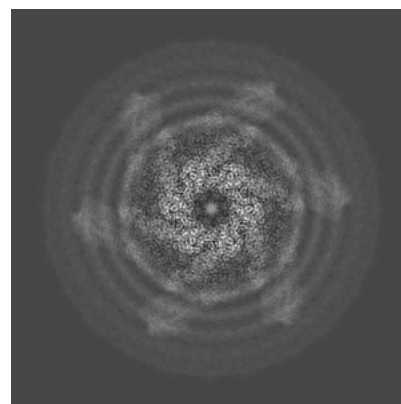
6.1.1 Primary map



X

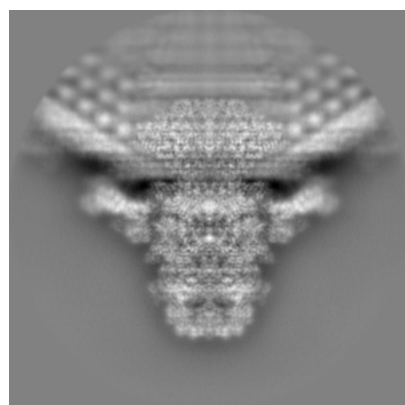


Y

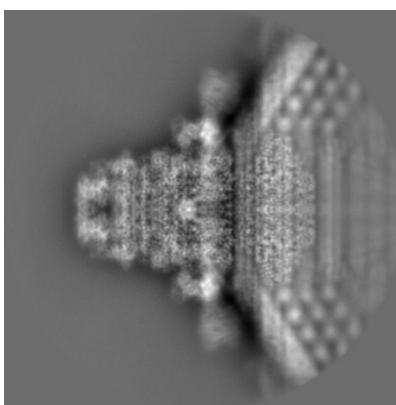


Z

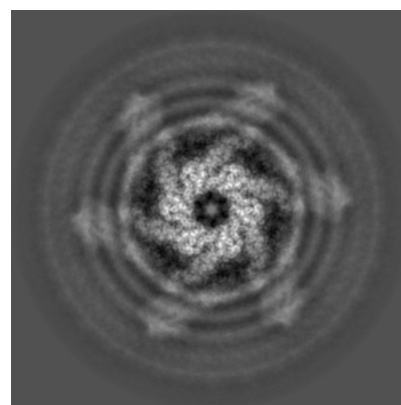
6.1.2 Raw map



X



Y



Z

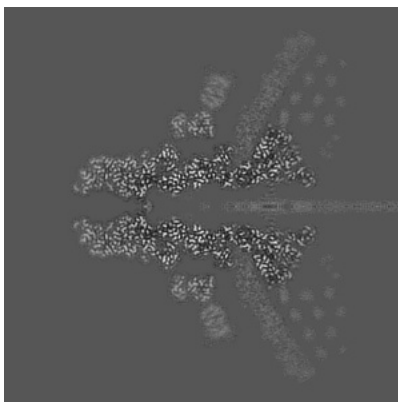
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

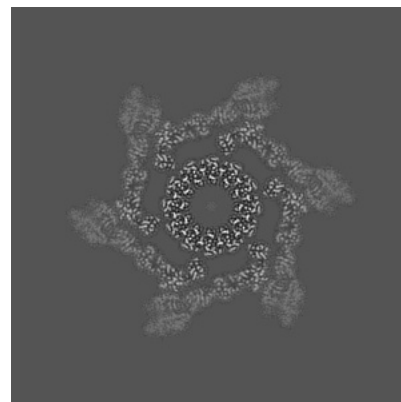
6.2.1 Primary map



X Index: 208

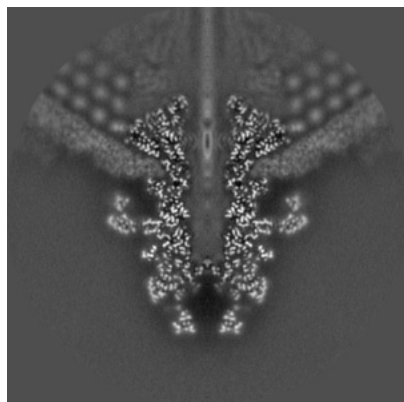


Y Index: 208

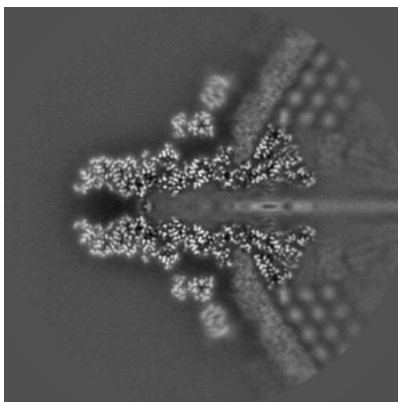


Z Index: 208

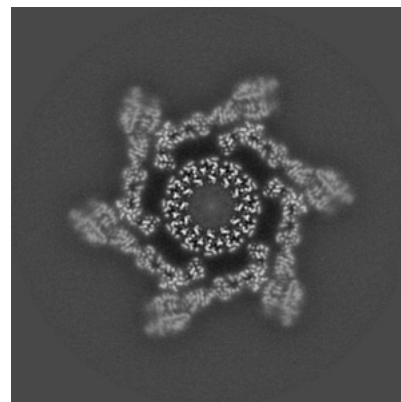
6.2.2 Raw map



X Index: 208



Y Index: 208

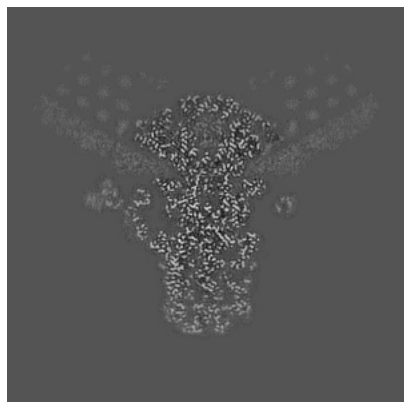


Z Index: 208

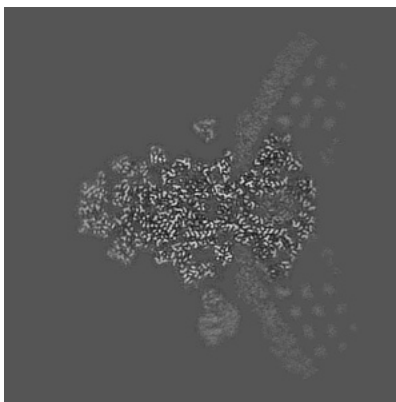
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

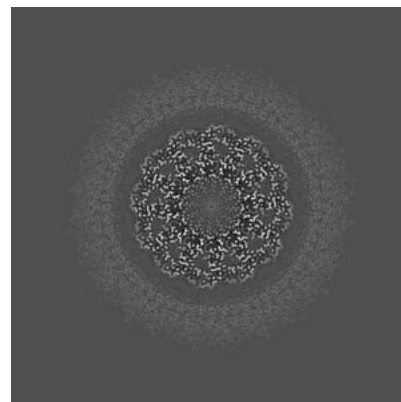
6.3.1 Primary map



X Index: 182

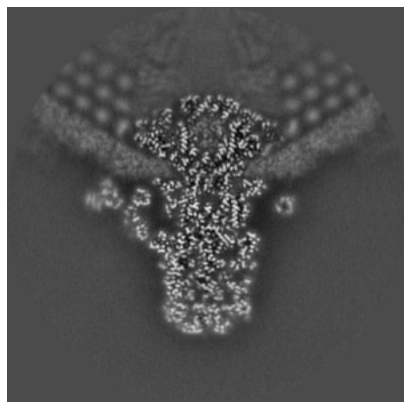


Y Index: 183

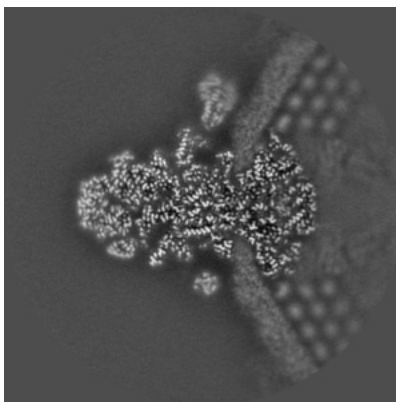


Z Index: 277

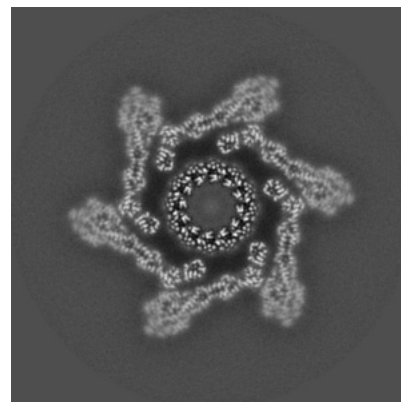
6.3.2 Raw map



X Index: 182



Y Index: 237

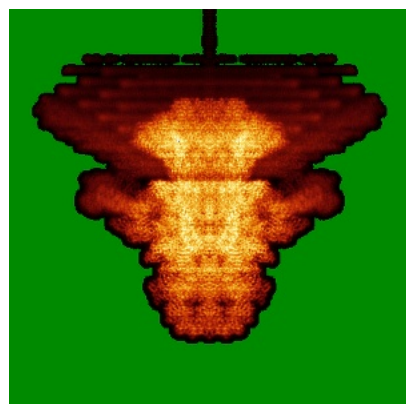


Z Index: 212

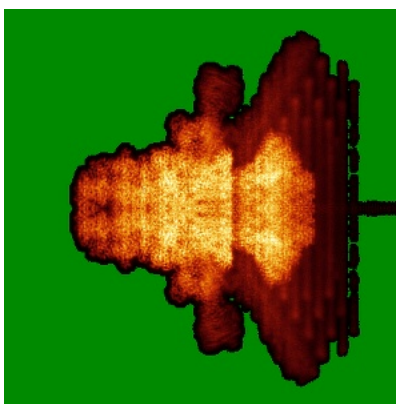
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

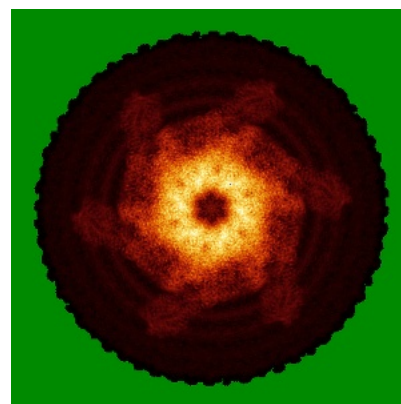
6.4.1 Primary map



X

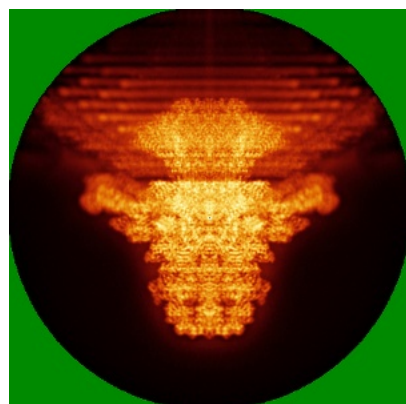


Y

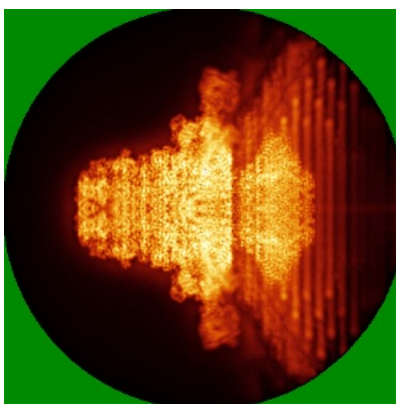


Z

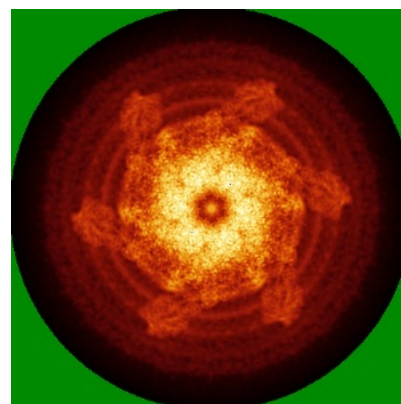
6.4.2 Raw map



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



The images above show the 3D surface view of the map at the recommended contour level 0.01. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

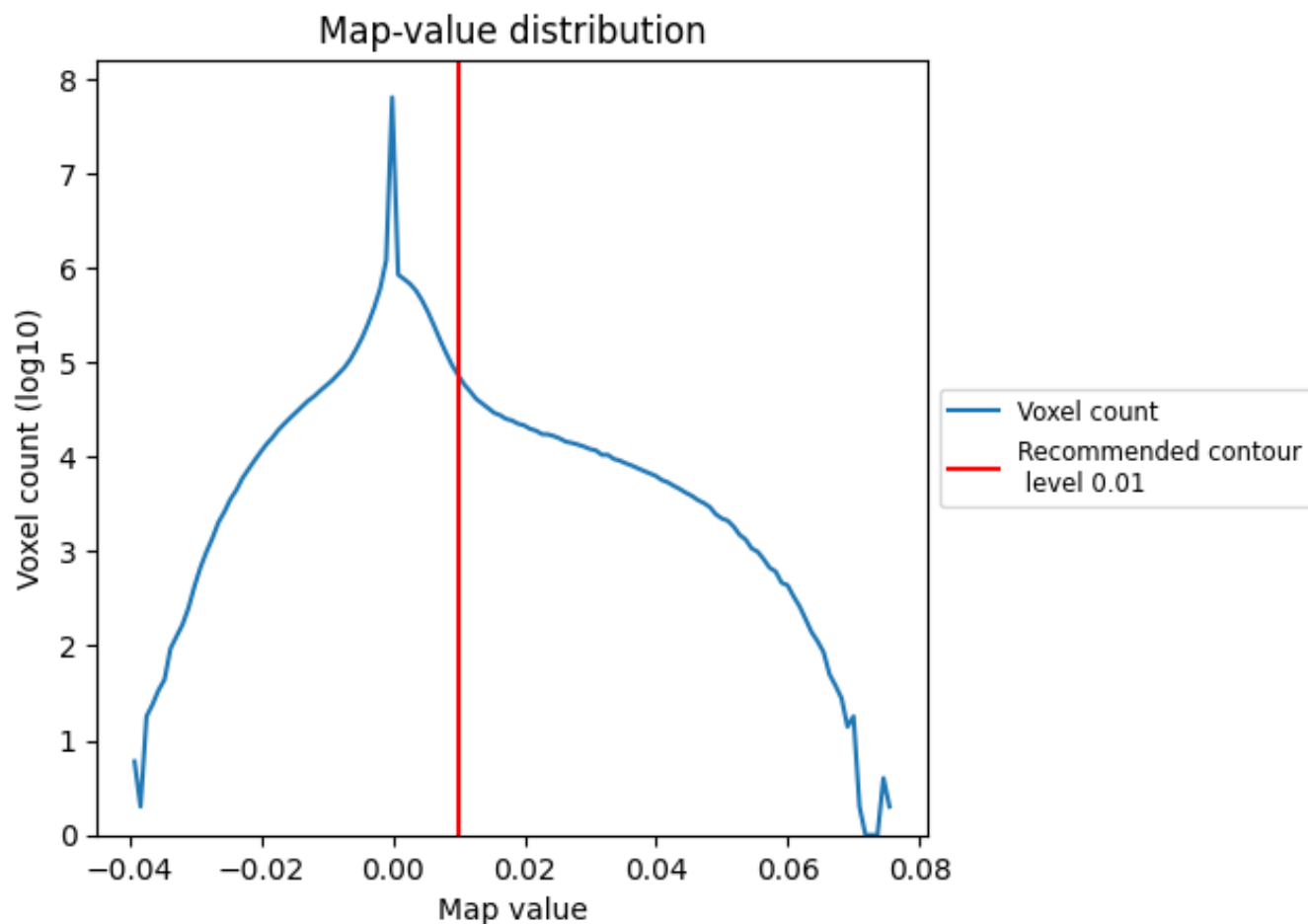
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

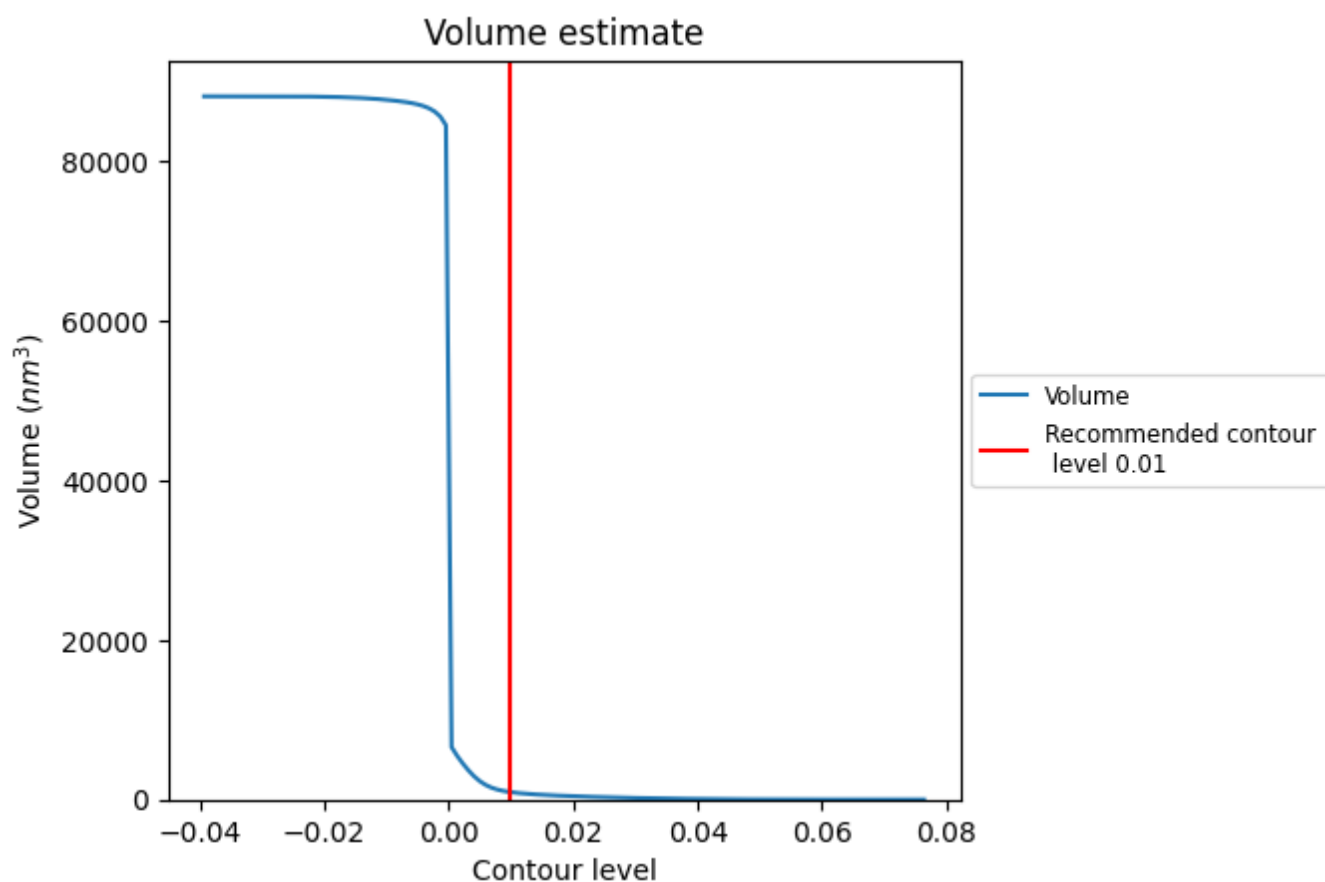
This section contains the results of statistical analysis of the map.

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.

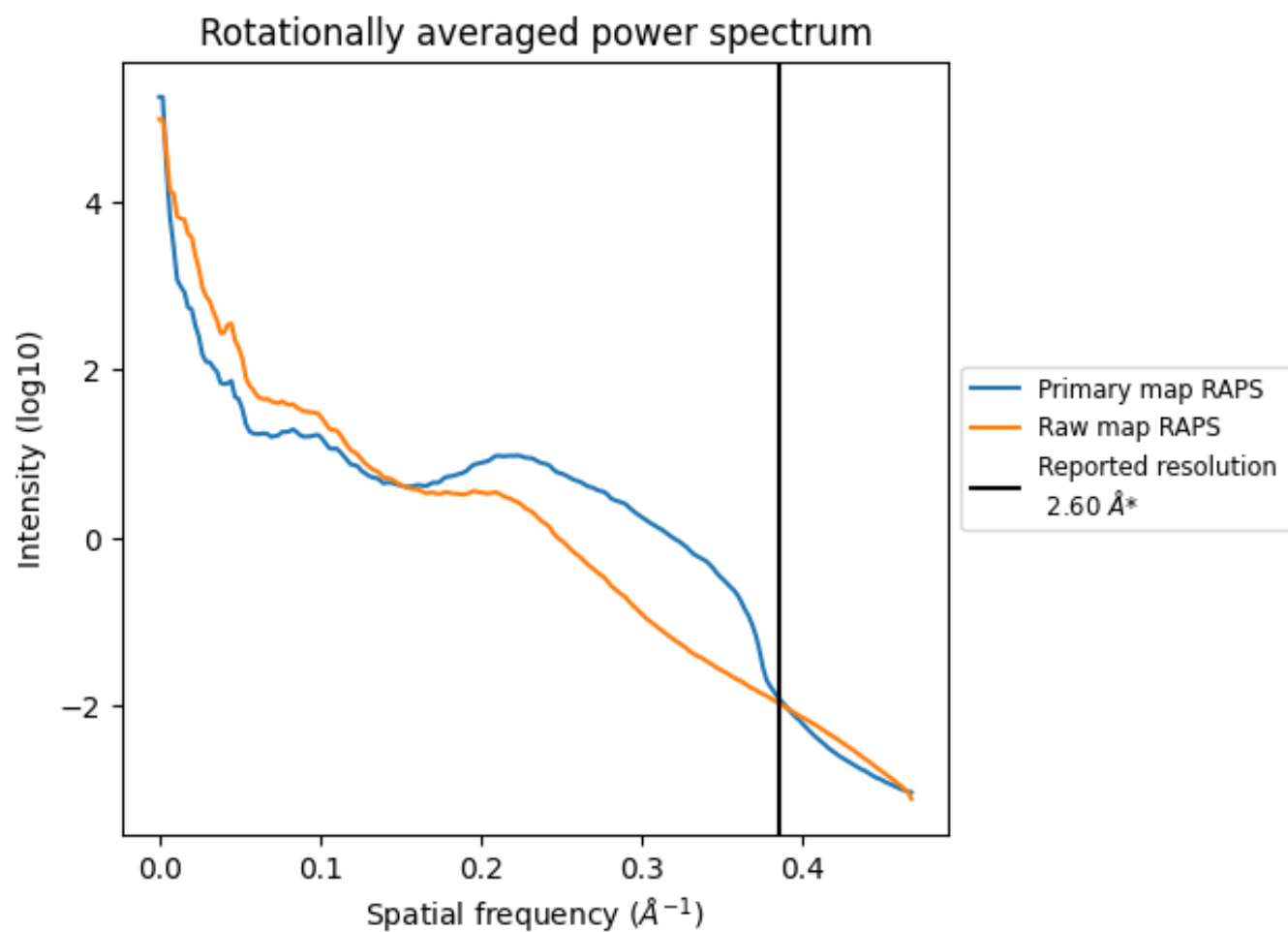
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 931 nm³; this corresponds to an approximate mass of 841 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 ⓘ

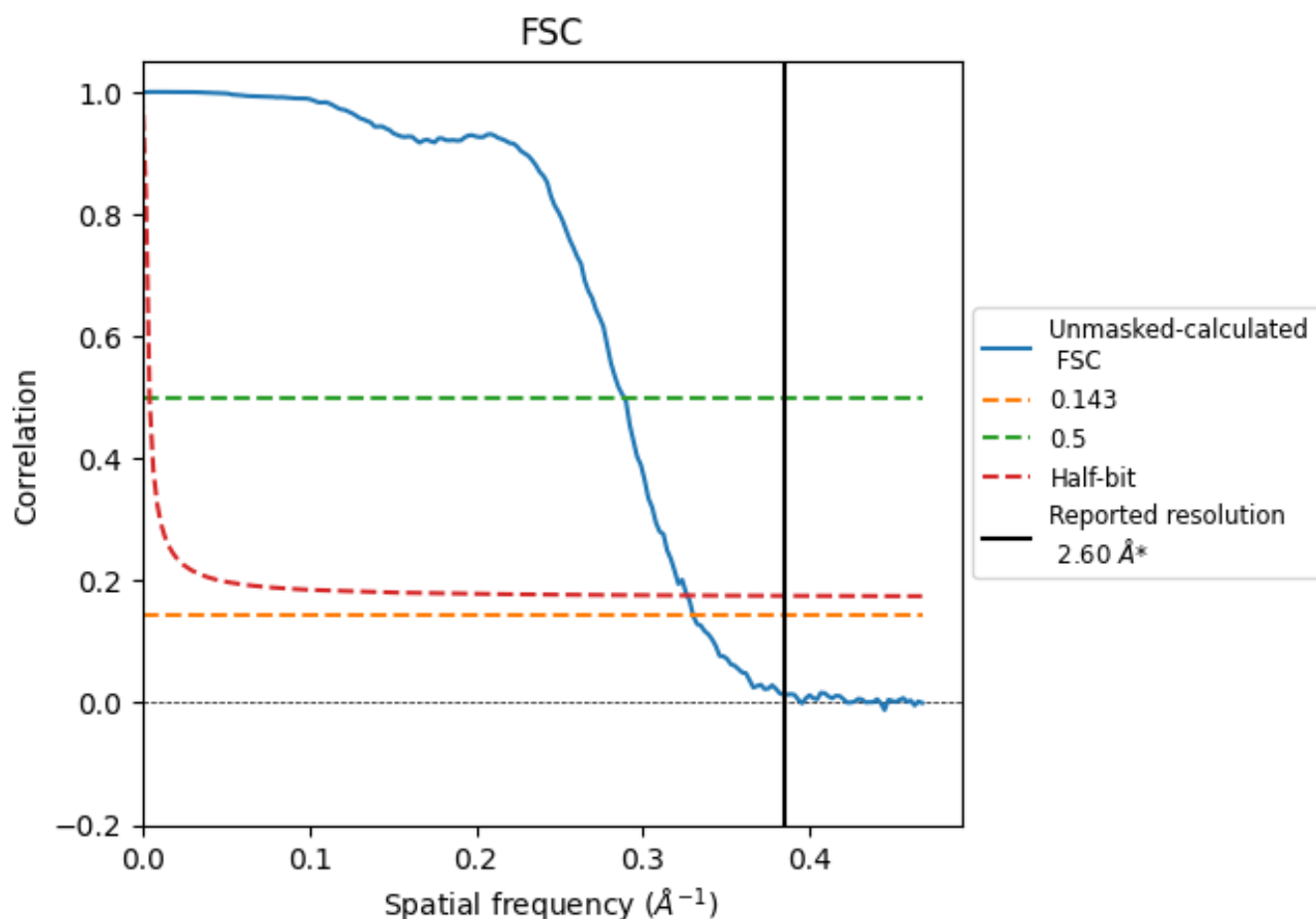


*Reported resolution corresponds to spatial frequency of 0.385 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.385 Å⁻¹

8.2 Resolution estimates [i](#)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.60	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	3.03	3.47	3.06

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.03 differs from the reported value 2.6 by more than 10 %

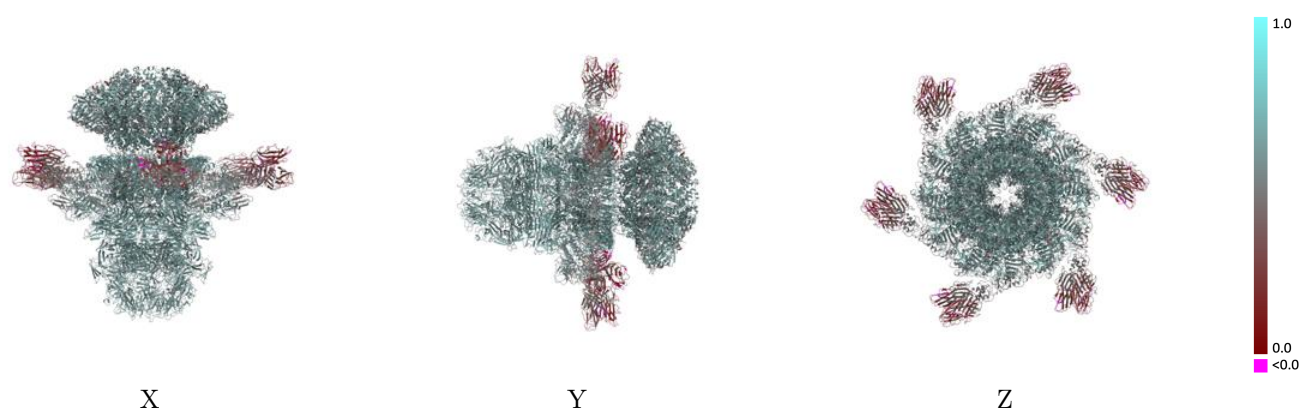
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-61942 and PDB model 9K09. Per-residue inclusion information can be found in section 3 on page 8.

9.1 Map-model overlay [i](#)

This section was not generated.

9.2 Q-score mapped to coordinate model [i](#)

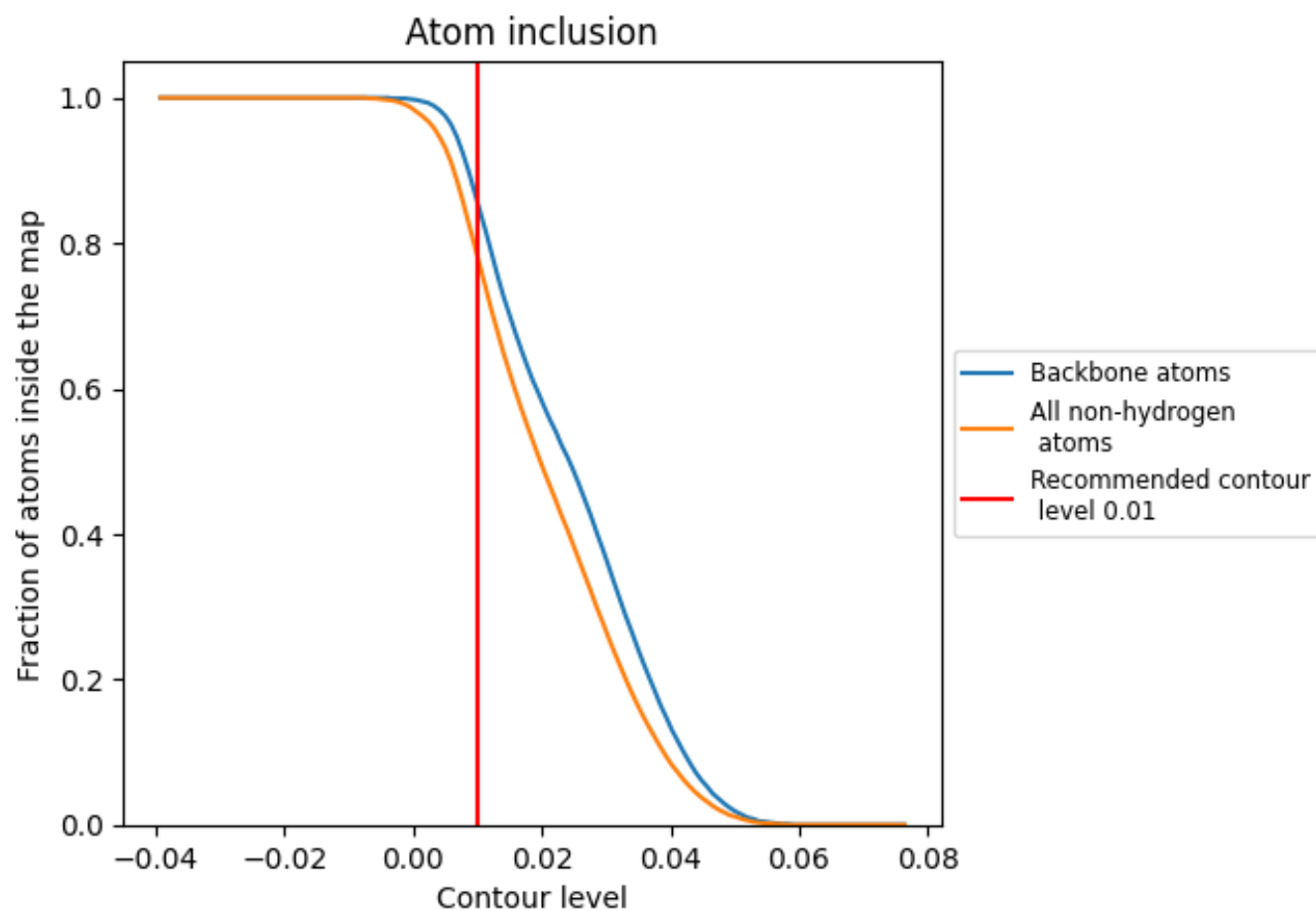


The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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](#)

This section was not generated.

9.4 Atom inclusion [i](#)



At the recommended contour level, 86% of all backbone atoms, 78% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.01) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.7810	 0.5480
A	 0.6570	 0.4550
B	 0.5680	 0.4190
C	 0.6580	 0.4350
D	 0.7780	 0.5790
E	 0.7740	 0.5750
F	 0.7750	 0.5740
G	 0.7780	 0.5770
H	 0.7790	 0.5750
I	 0.7710	 0.5740
J	 0.7770	 0.5780
K	 0.7740	 0.5760
L	 0.7740	 0.5750
M	 0.7750	 0.5760
N	 0.7790	 0.5750
O	 0.7700	 0.5740
P	 0.6620	 0.4550
Q	 0.5660	 0.4180
R	 0.6540	 0.4360
U	 0.8990	 0.6030
V	 0.9020	 0.6040
W	 0.9020	 0.6050
X	 0.6630	 0.4530
Y	 0.5690	 0.4200
Z	 0.6580	 0.4330
a	 0.6610	 0.4530
b	 0.5700	 0.4190
c	 0.6610	 0.4370
d	 0.9000	 0.6140
e	 0.8960	 0.6150
f	 0.8980	 0.6180
g	 0.8950	 0.6140
h	 0.8980	 0.6200
i	 0.8930	 0.6130
j	 0.8970	 0.6130



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Chain	Atom inclusion	Q-score
k	 0.8960	 0.6160
l	 0.8980	 0.6220
m	 0.8940	 0.6160
n	 0.8980	 0.6220
o	 0.8900	 0.6120
p	 0.6610	 0.4540
q	 0.5680	 0.4210
r	 0.6500	 0.4310
u	 0.8990	 0.6050
v	 0.9020	 0.6050
w	 0.9020	 0.6050
x	 0.6590	 0.4550
y	 0.5640	 0.4160
z	 0.6530	 0.4380