



Full wwPDB EM Validation Report ⓘ

Mar 9, 2026 – 03:13 PM UTC

PDB ID : 8BFL / pdb_00008bfl
EMDB ID : EMD-13862
Title : Jumbo Phage phi-kp24 empty capsid hexamers
Authors : Ouyang, R.
Deposited on : 2022-10-26
Resolution : 4.10 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

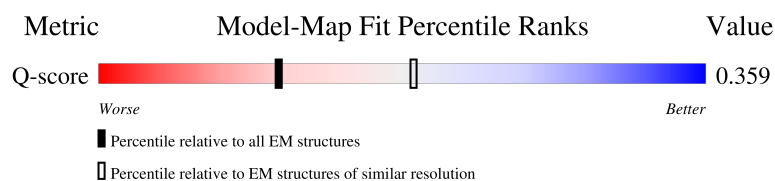
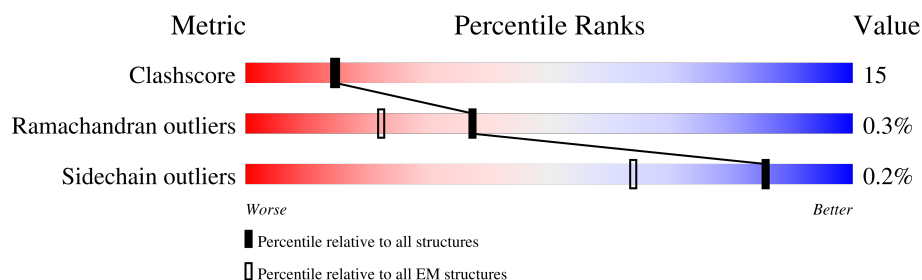
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.10 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	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	6458 (3.60 - 4.60)

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	570	14% 67% 32% .
1	B	570	11% 66% 33% .
1	C	570	12% 65% 34% .
1	D	570	14% 66% 34% .

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Mol	Chain	Length	Quality of chain	
1	E	570	12%	66% 34%
1	F	570	14%	65% 35%
1	G	570	12%	67% 33%
1	H	570	10%	73% 27%
1	I	570	10%	69% 30%
1	J	570	10%	65% 35%
1	K	570	11%	67% 32%
1	L	570	11%	71% 29%
1	M	570	12%	71% 29%
1	N	570	14%	68% 32%
1	O	570	14%	72% 28%
1	P	570	11%	68% 31%
1	Q	570	13%	65% 34%
1	R	570	14%	71% 29%
1	S	570	11%	72% 27%
1	T	570	11%	72% 28%
1	U	570	12%	68% 32%
1	V	570	9%	71% 29%
1	W	570	11%	68% 32%
1	X	570	12%	69% 31%
1	Y	570	9%	67% 32%
1	Z	570	9%	63% 36%
1	a	570	12%	66% 33%
1	b	570	10%	70% 30%
1	c	570	10%	71% 29%

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Mol	Chain	Length	Quality of chain
1	d	570	
1	e	570	
1	f	570	
1	g	570	
1	h	570	
1	i	570	
1	j	570	
1	k	570	
1	l	570	
1	m	570	
1	n	570	
1	o	570	
1	p	570	

2 Entry composition

There is only 1 type of molecule in this entry. The entry contains 188286 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Major head protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	B	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	C	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	D	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	E	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	F	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	G	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	H	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	I	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	J	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	K	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	L	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	M	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	N	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	O	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	P	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	Q	570	Total 4483	C 2835	N 761	O 873	S 14	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	R	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	S	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	T	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	U	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	V	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	W	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	X	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	Y	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	Z	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	a	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	b	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	c	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	d	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	e	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	f	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	g	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	h	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	i	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	j	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	k	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	l	570	Total 4483	C 2835	N 761	O 873	S 14	0	0

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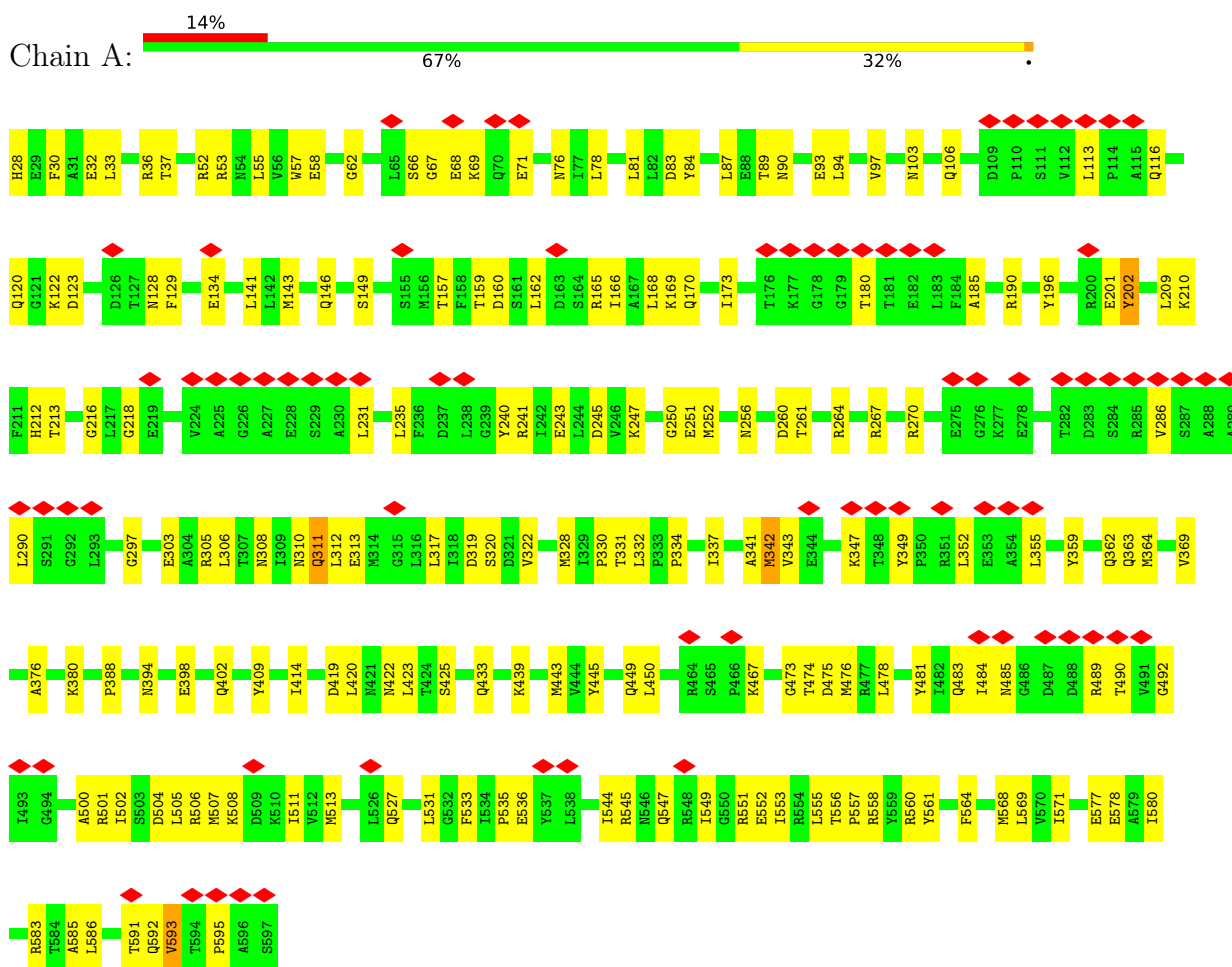
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Mol	Chain	Residues	Atoms					AltConf	Trace
1	m	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	n	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	o	570	Total 4483	C 2835	N 761	O 873	S 14	0	0
1	p	570	Total 4483	C 2835	N 761	O 873	S 14	0	0

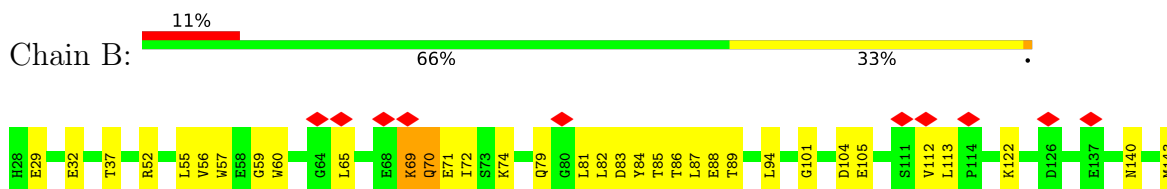
3 Residue-property plots

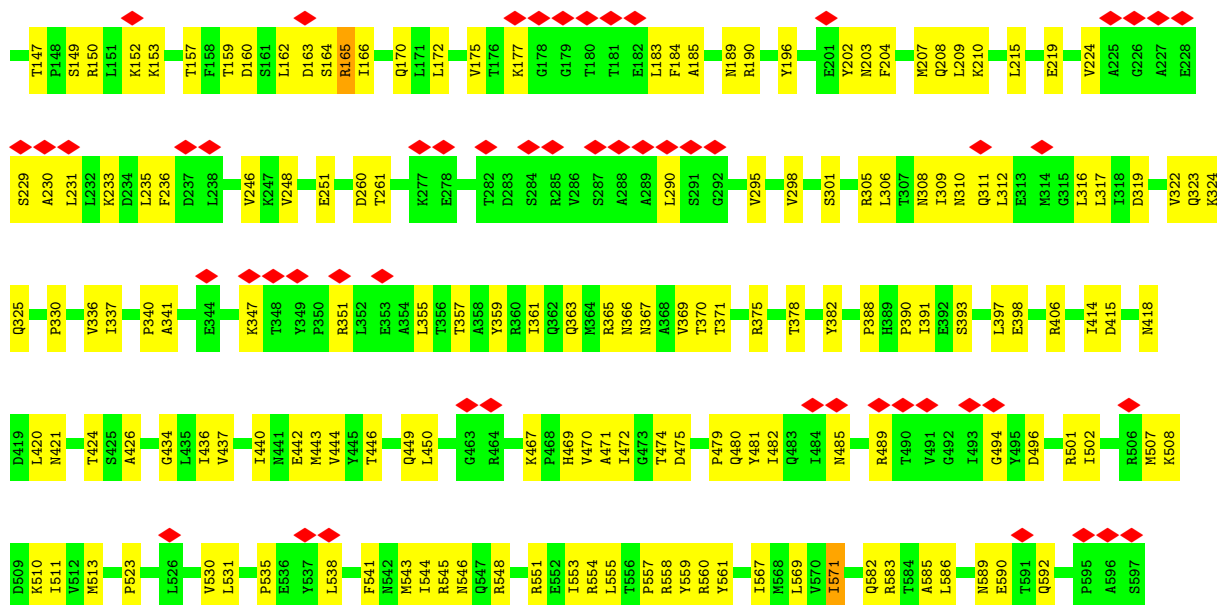
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: Major head protein

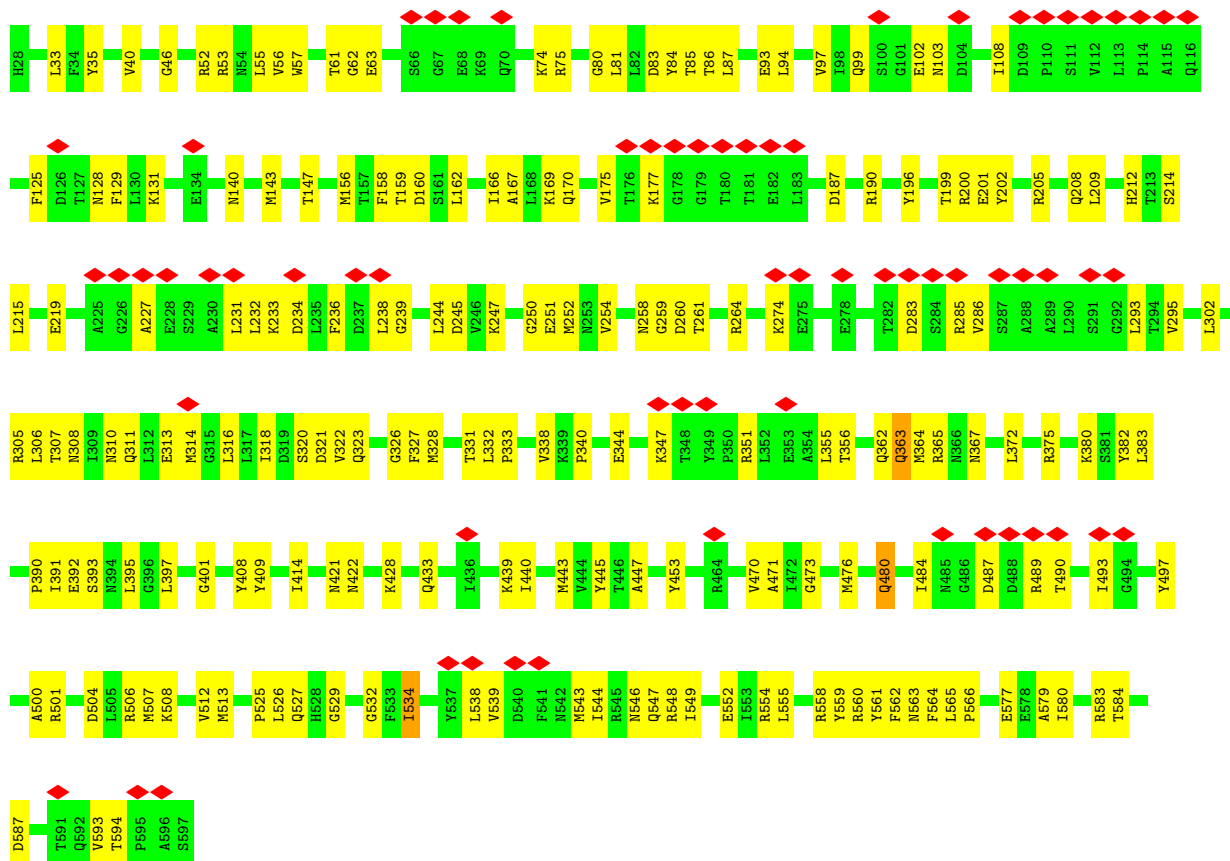


• Molecule 1: Major head protein





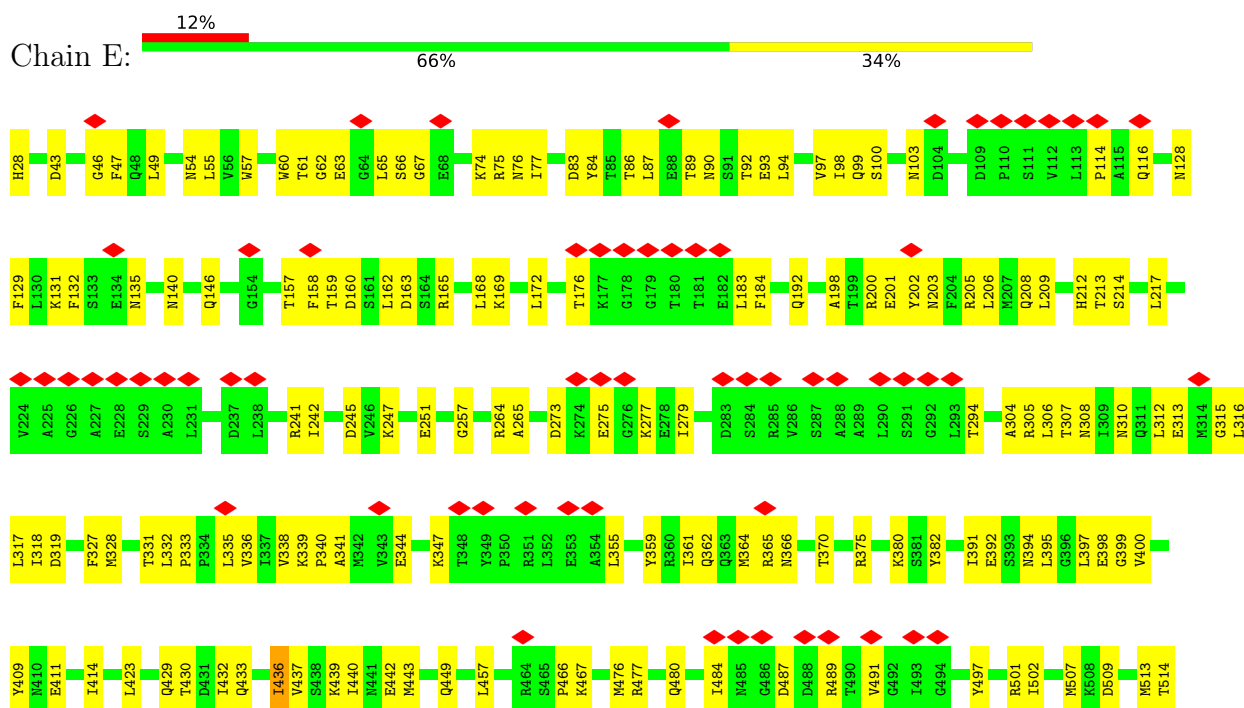
• Molecule 1: Major head protein



• Molecule 1: Major head protein

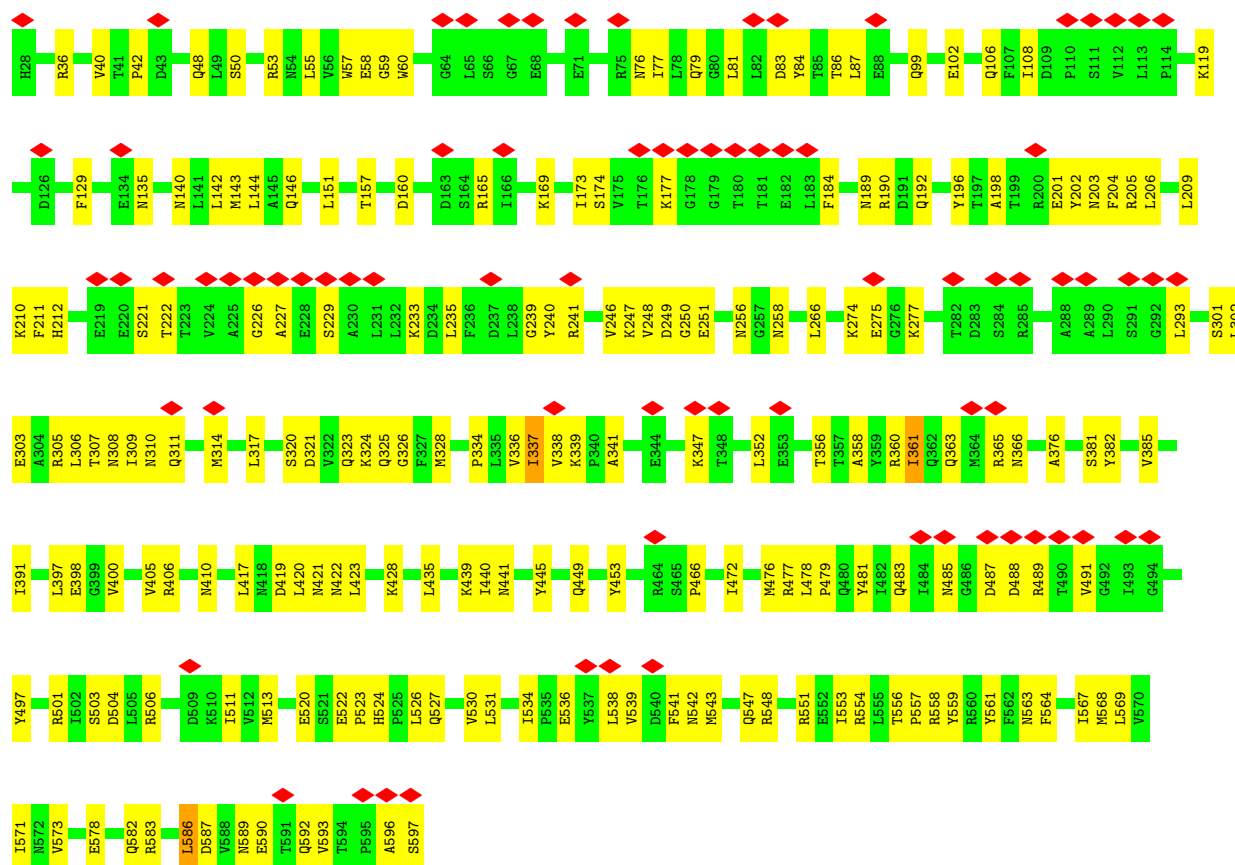


• Molecule 1: Major head protein

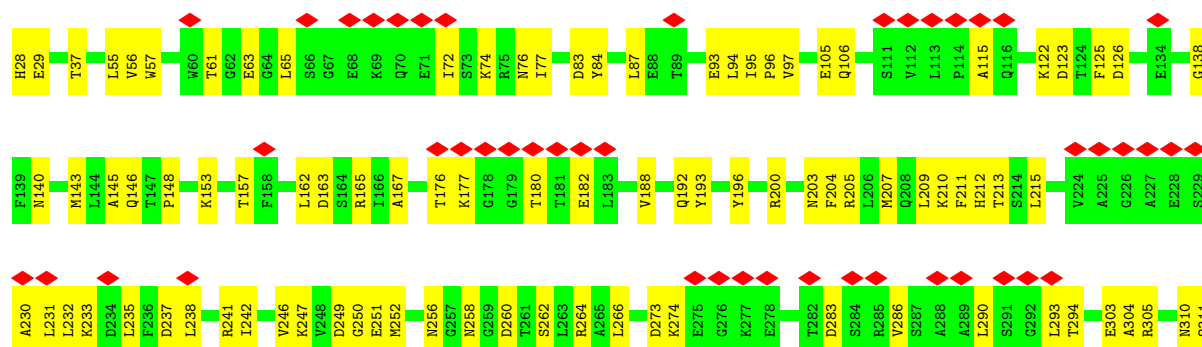


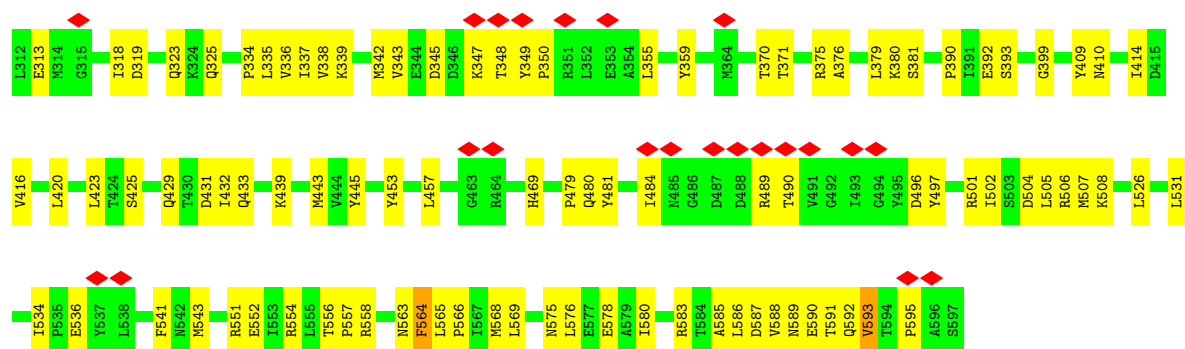


• Molecule 1: Major head protein

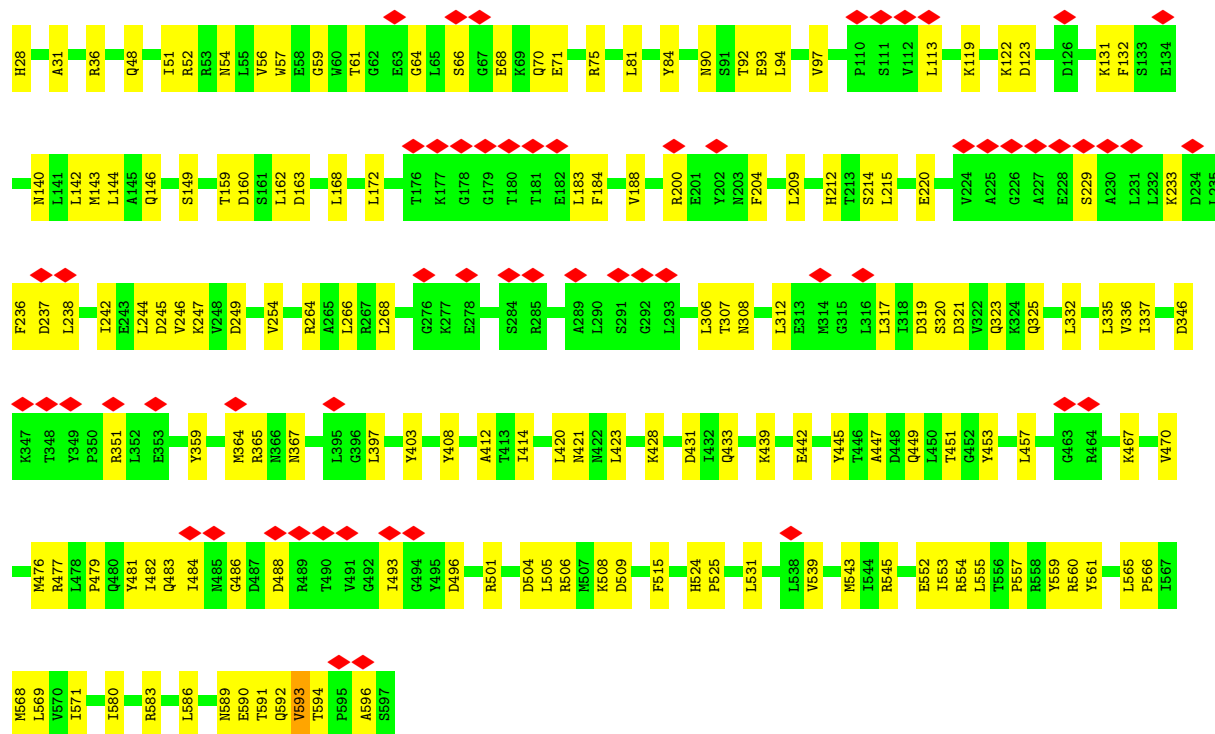


• Molecule 1: Major head protein

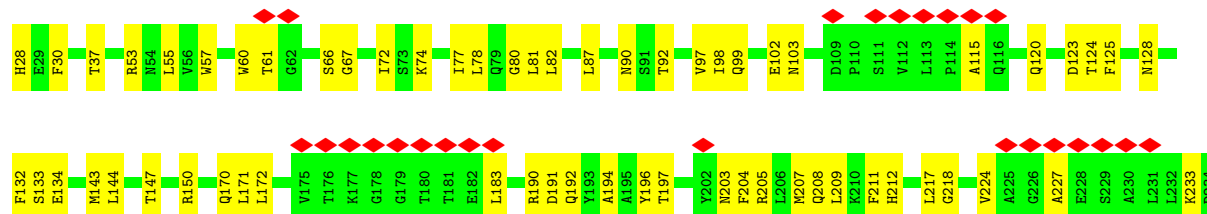


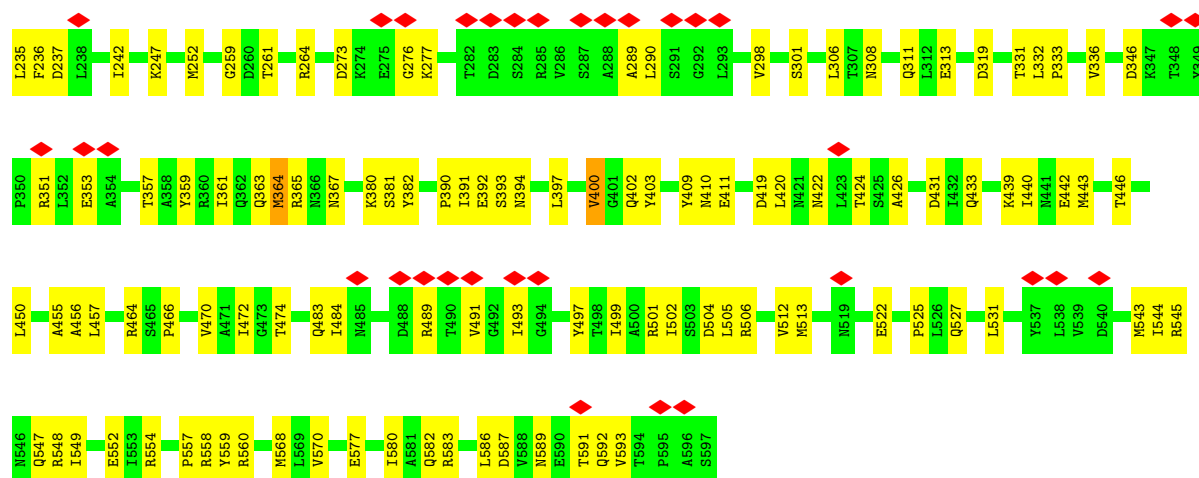


• Molecule 1: Major head protein

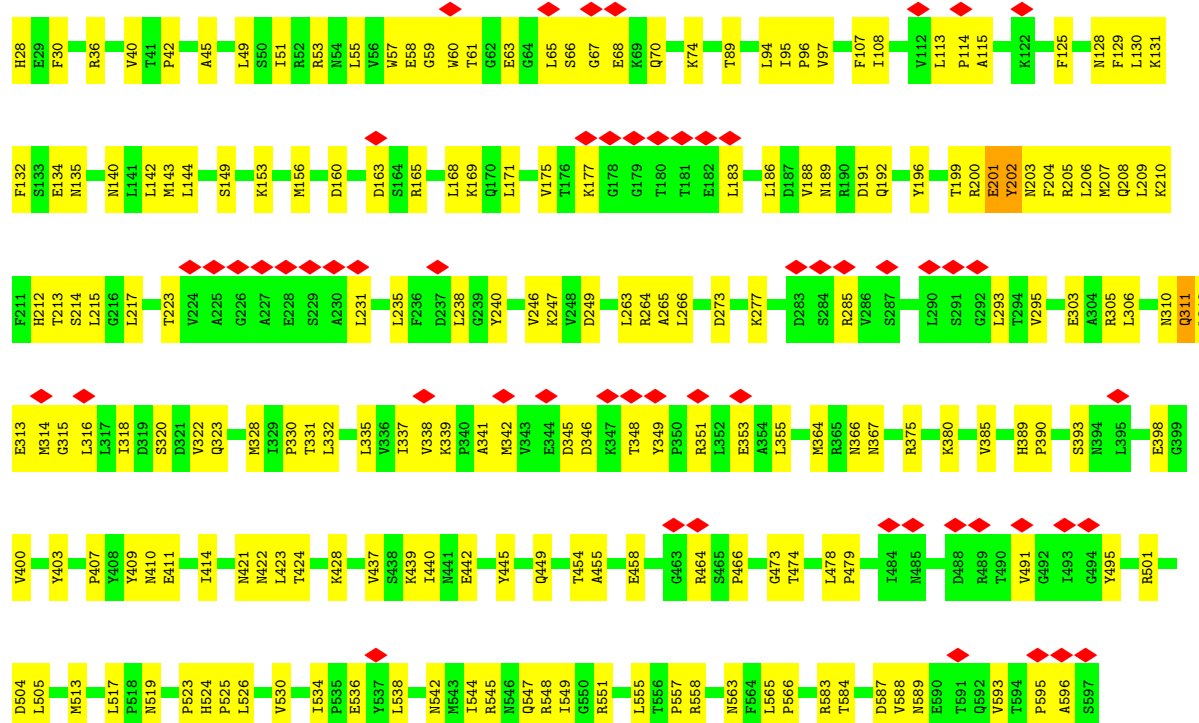


• Molecule 1: Major head protein

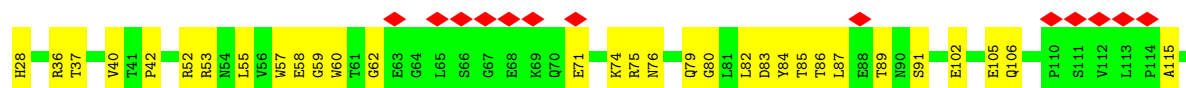


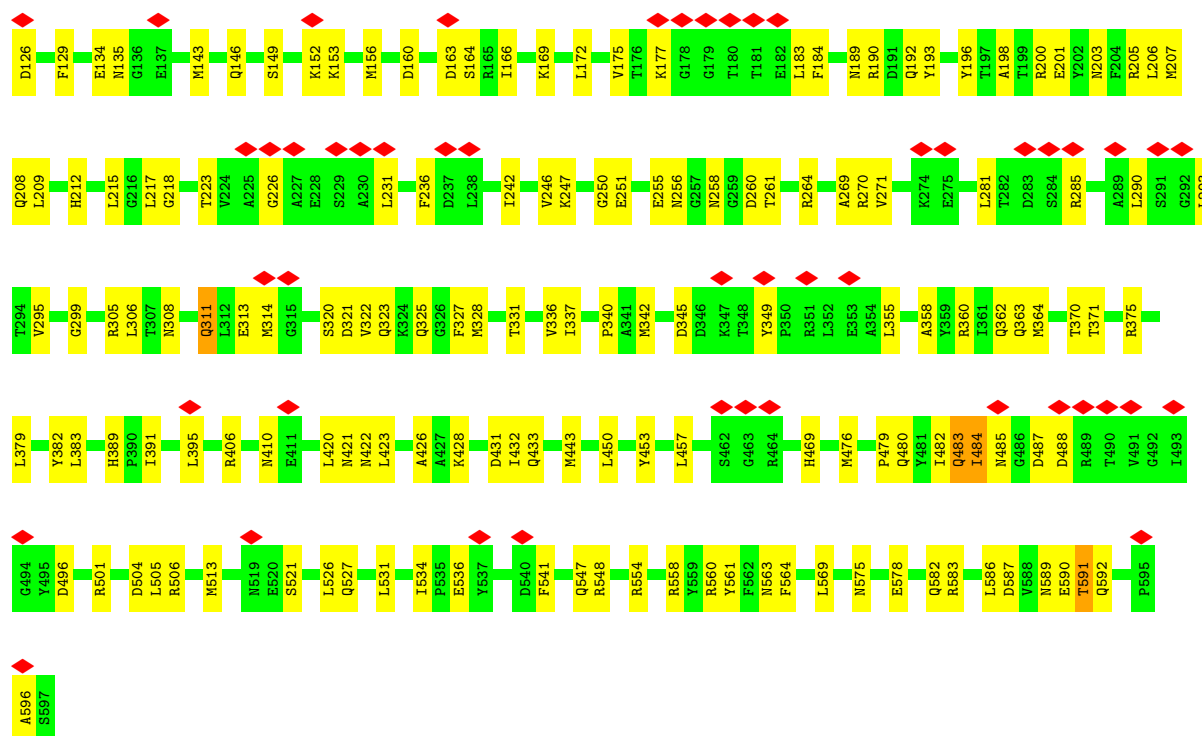


- Molecule 1: Major head protein

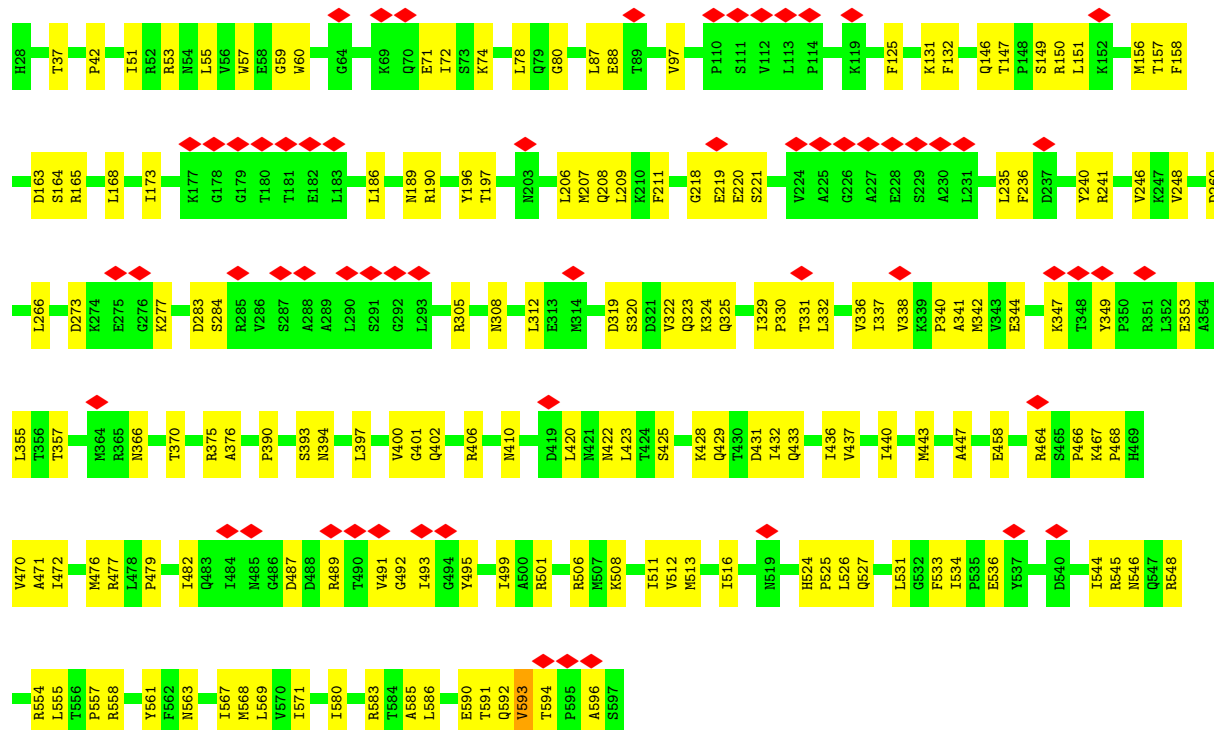


- Molecule 1: Major head protein

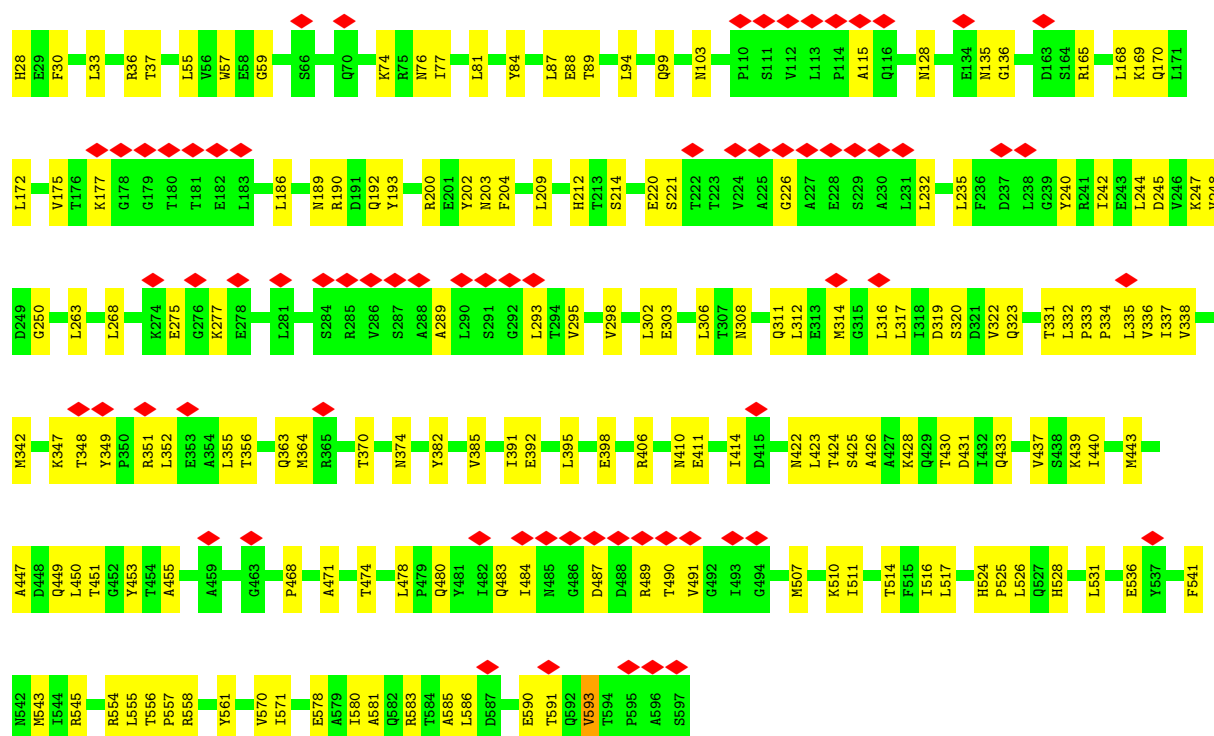
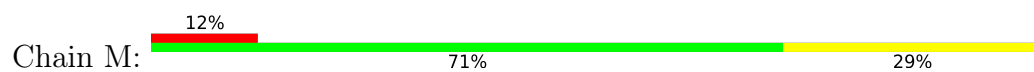




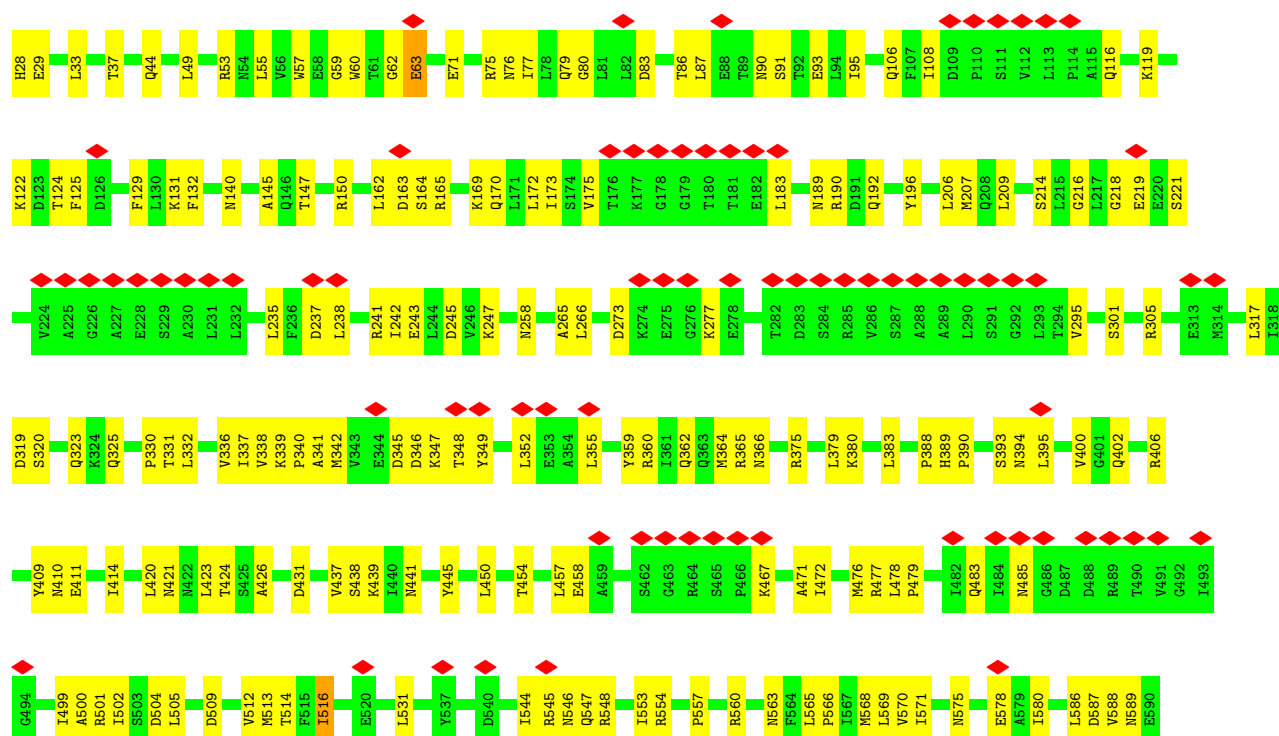
- Molecule 1: Major head protein

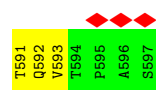


- Molecule 1: Major head protein

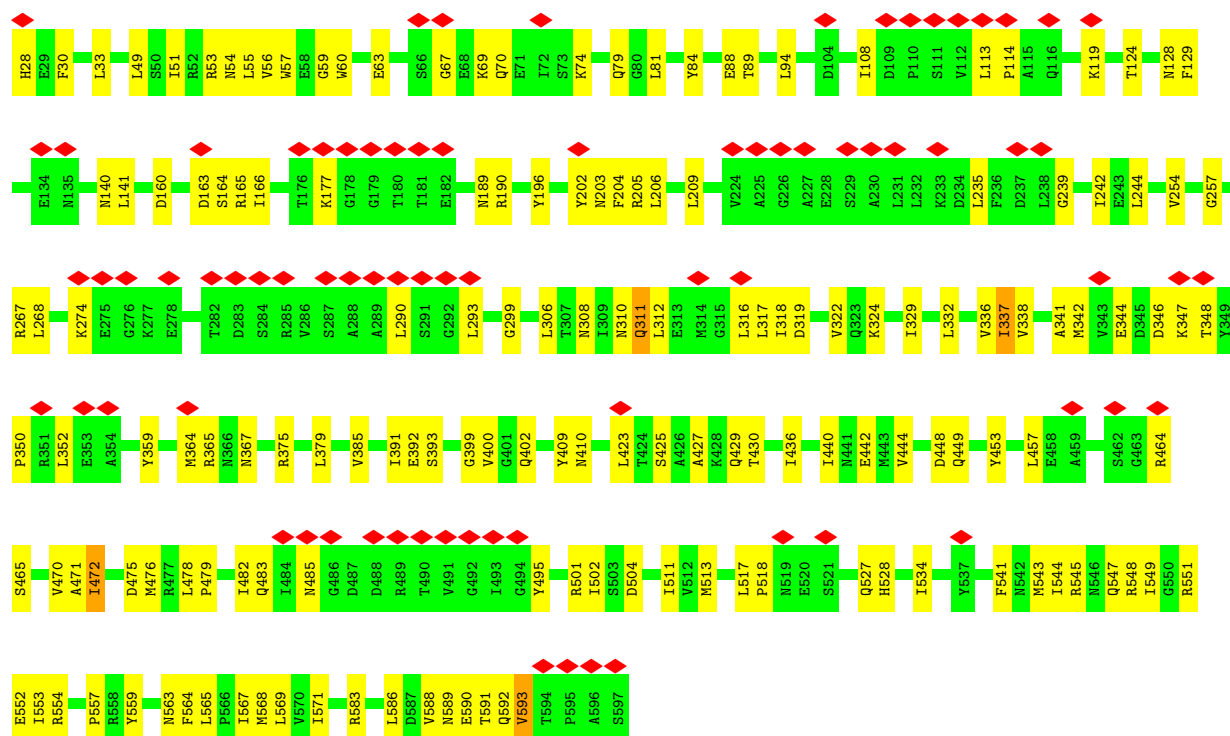


• Molecule 1: Major head protein

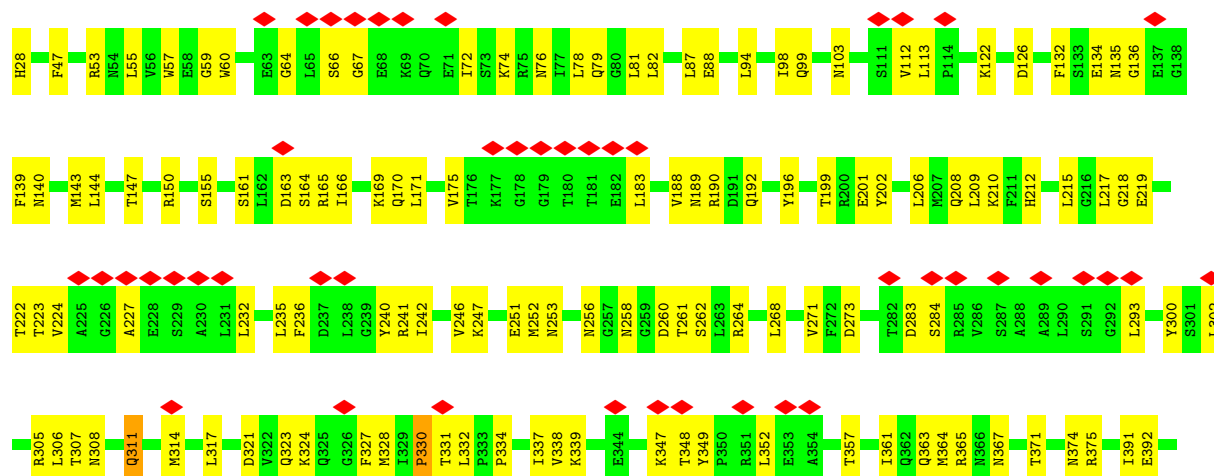


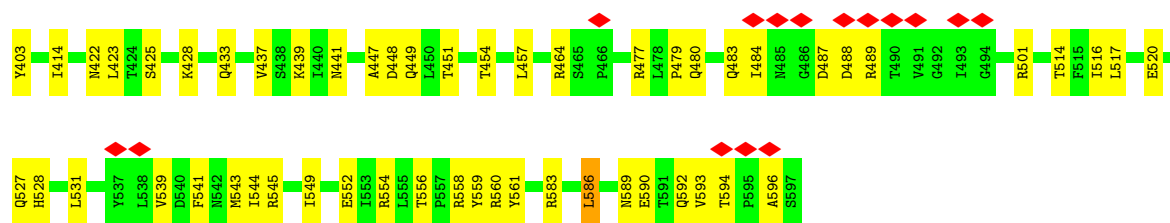


• Molecule 1: Major head protein

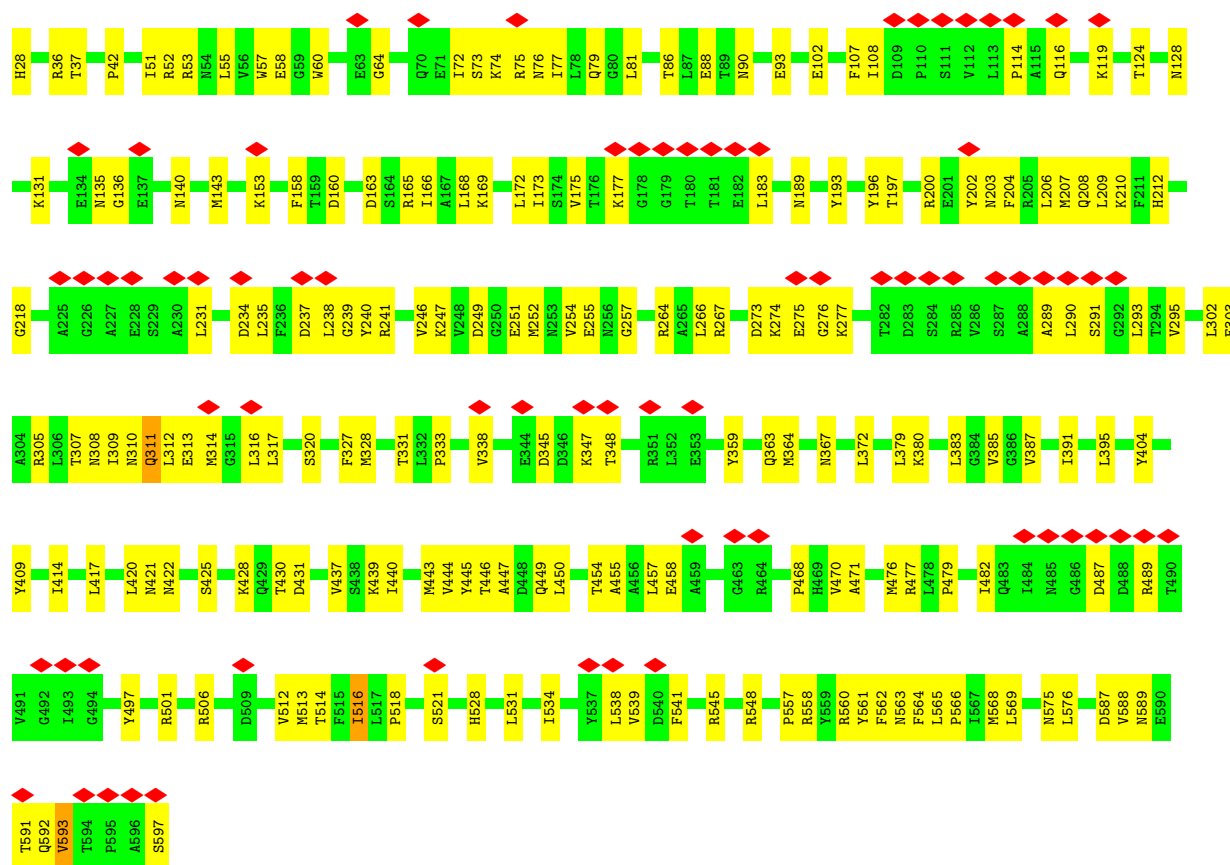


• Molecule 1: Major head protein

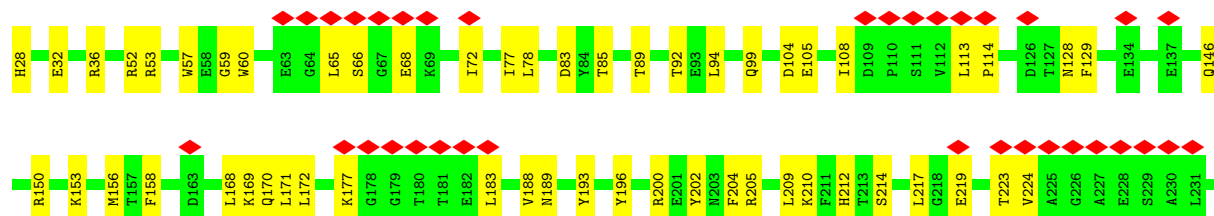


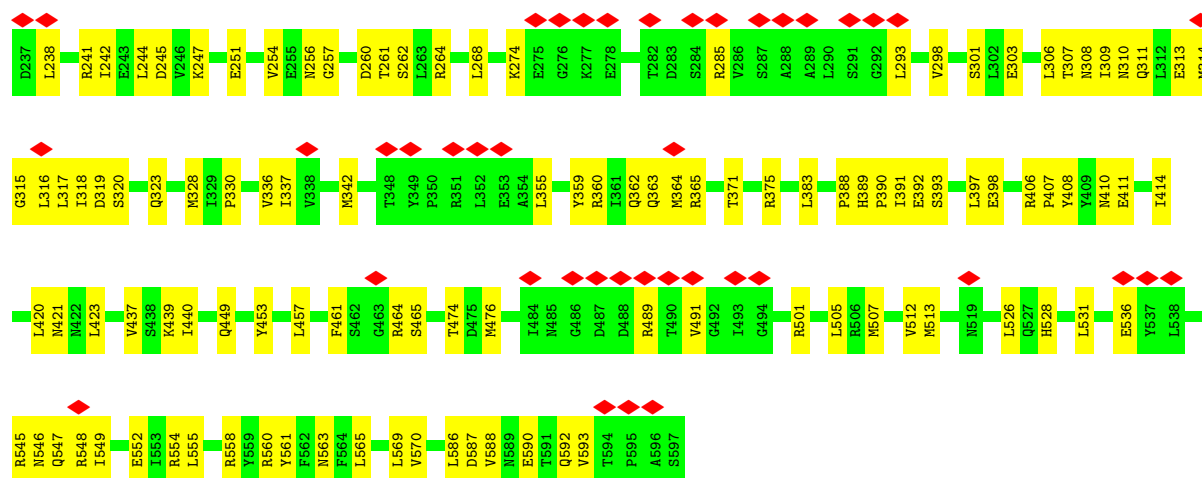


• Molecule 1: Major head protein

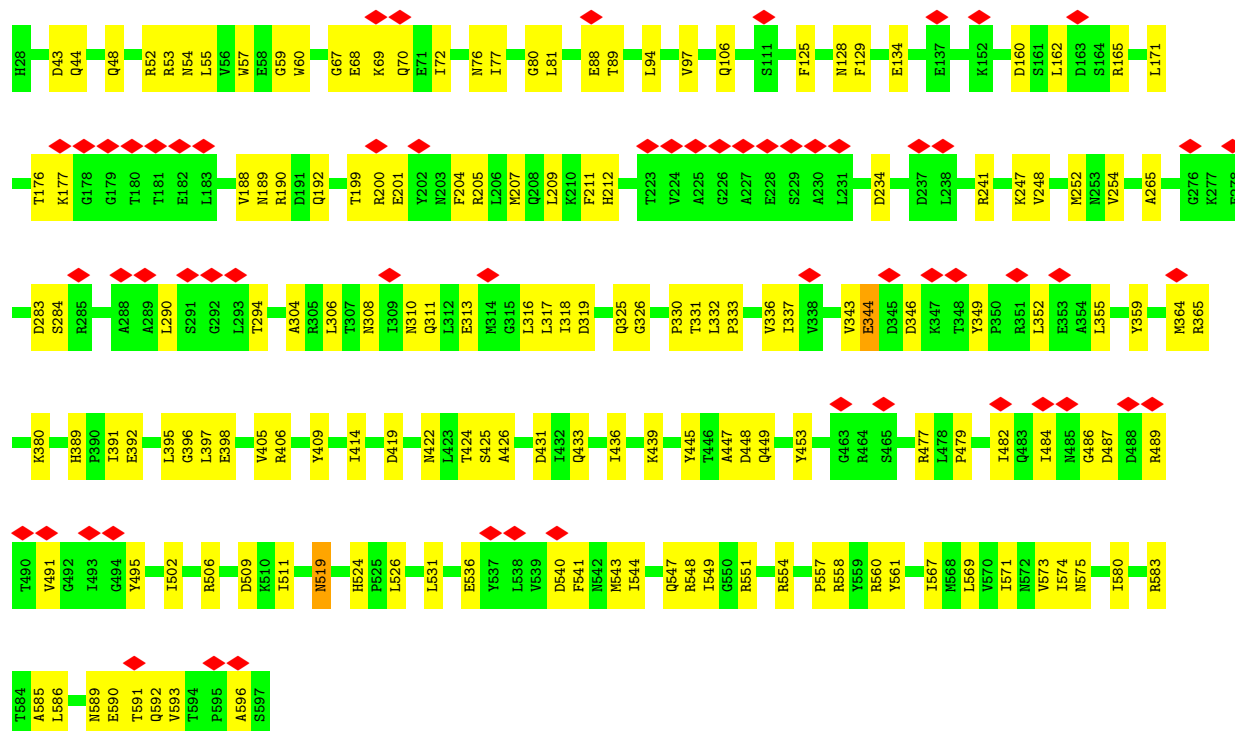
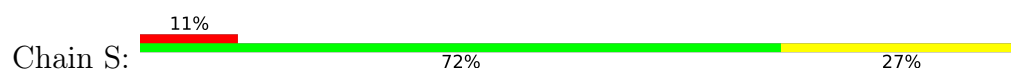


• Molecule 1: Major head protein

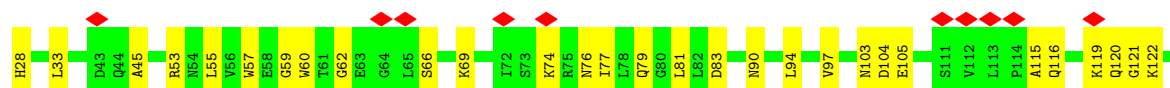


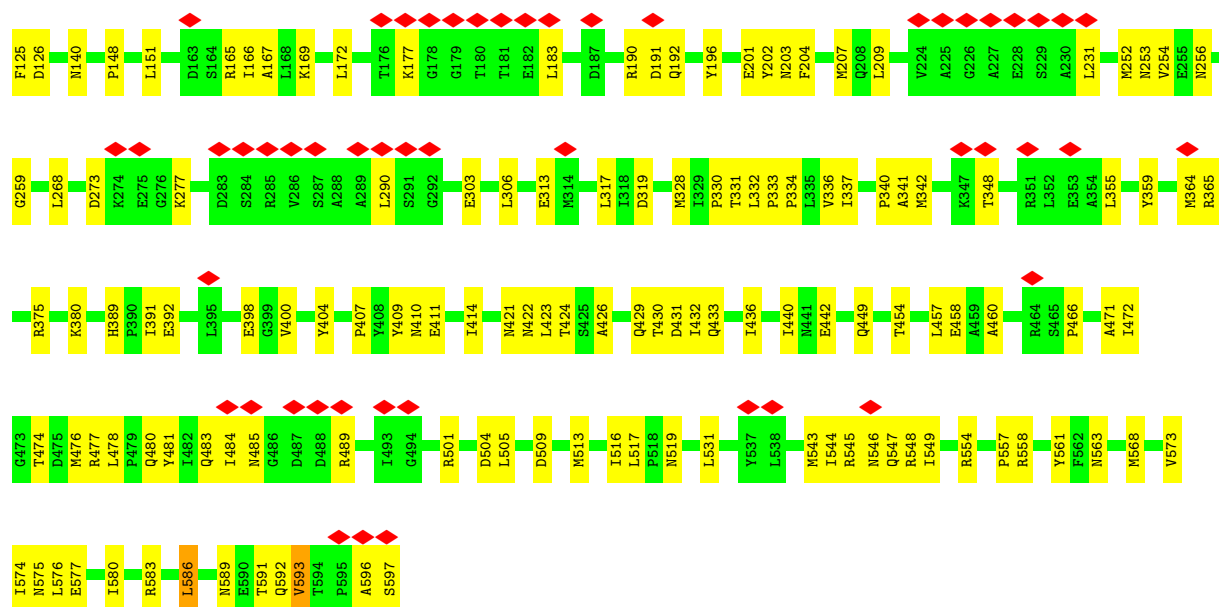


• Molecule 1: Major head protein

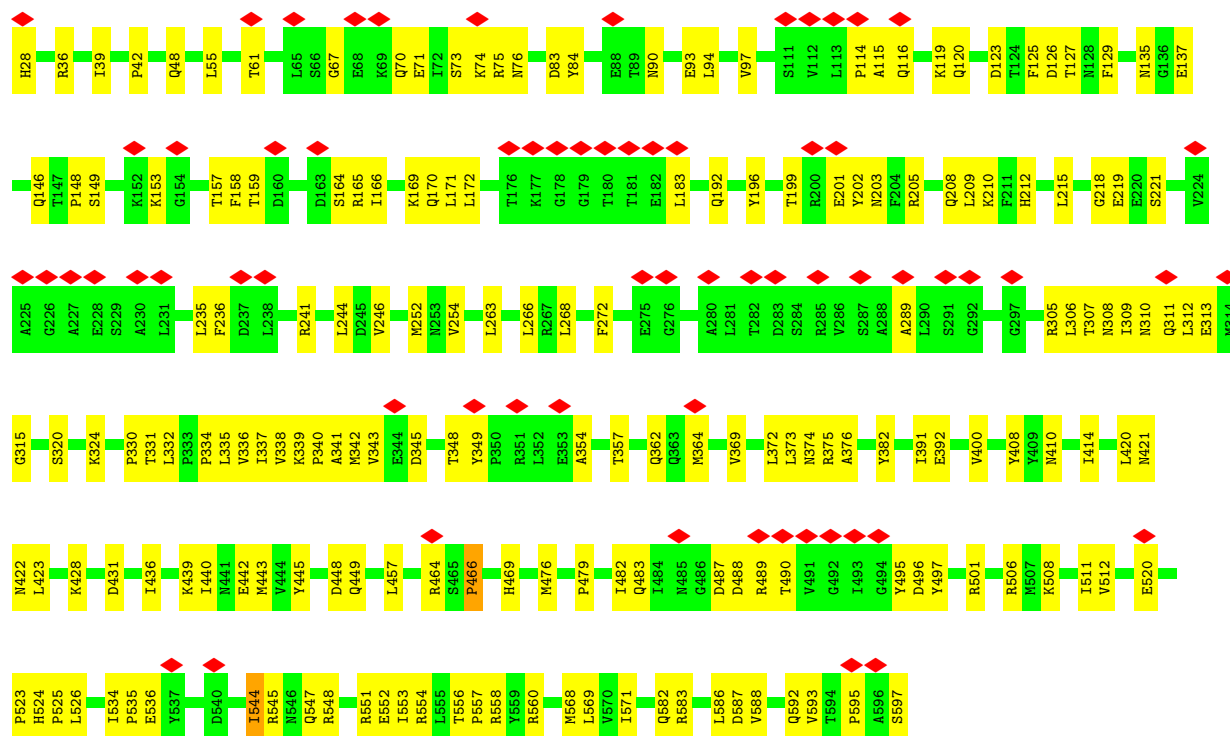


• Molecule 1: Major head protein



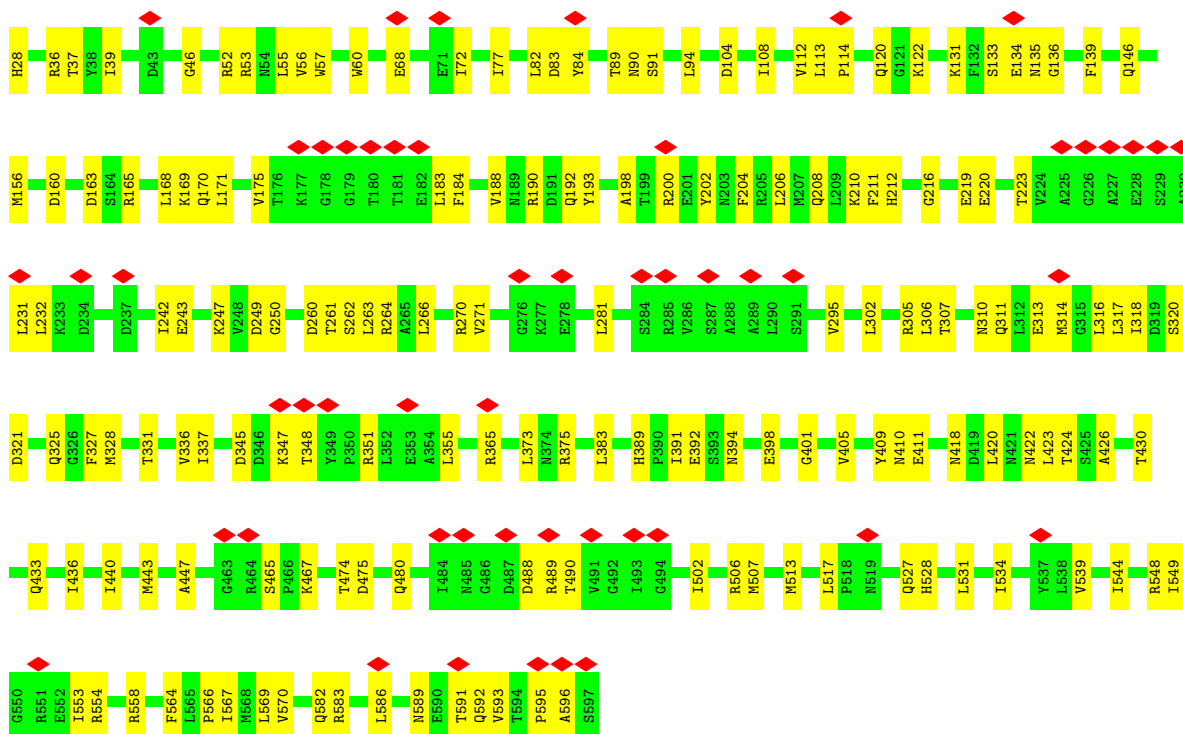


• Molecule 1: Major head protein

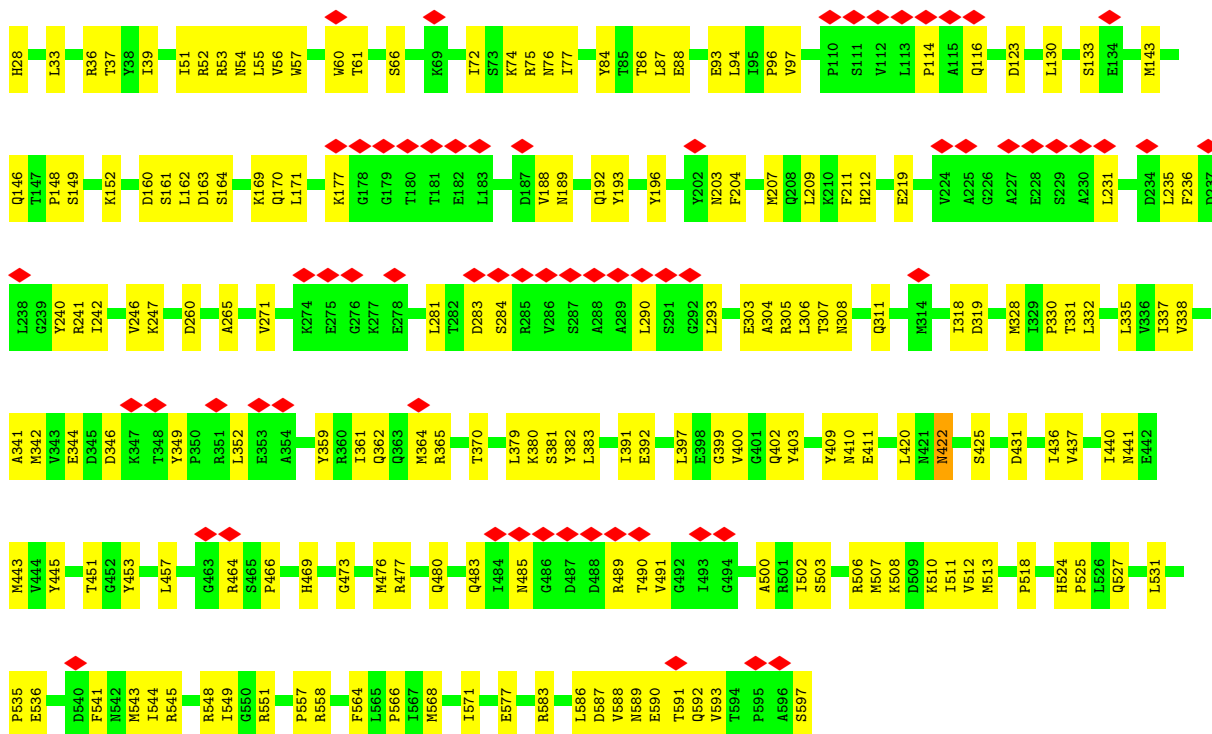


• Molecule 1: Major head protein





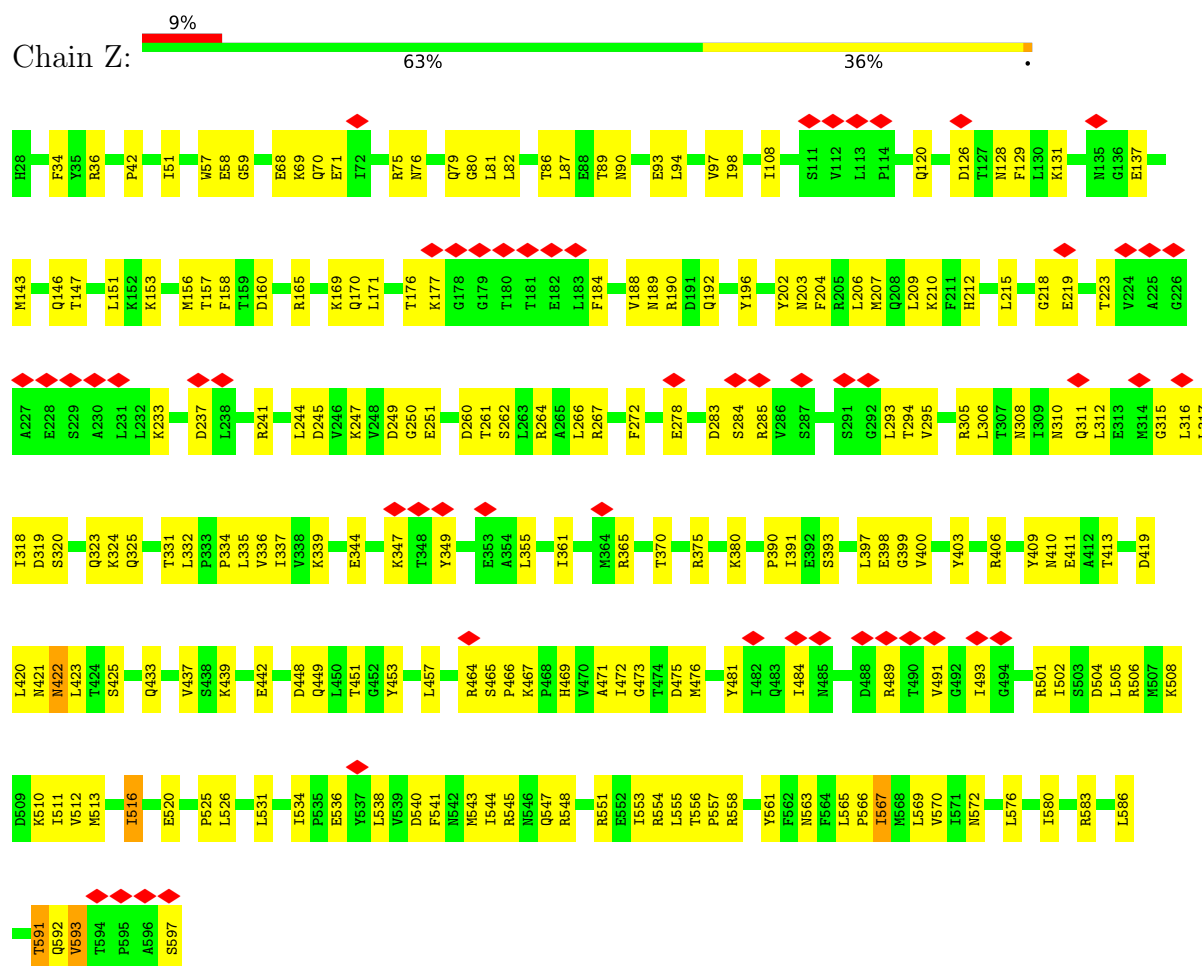
• Molecule 1: Major head protein



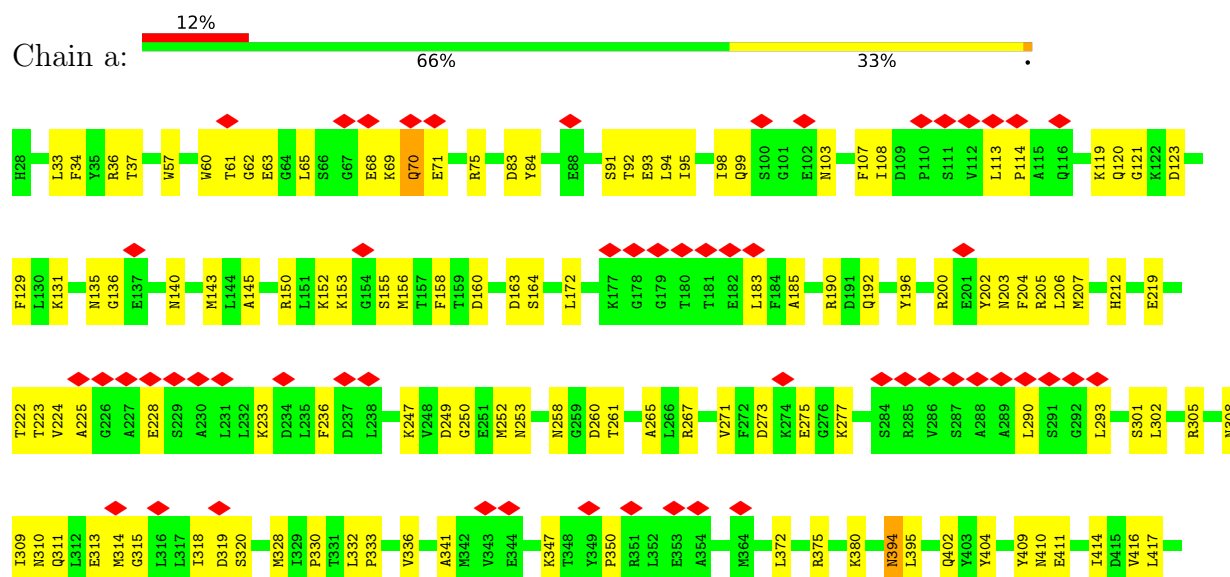
• Molecule 1: Major head protein

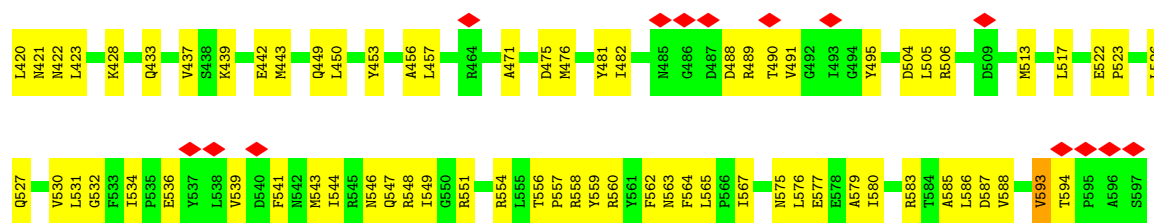


- Molecule 1: Major head protein

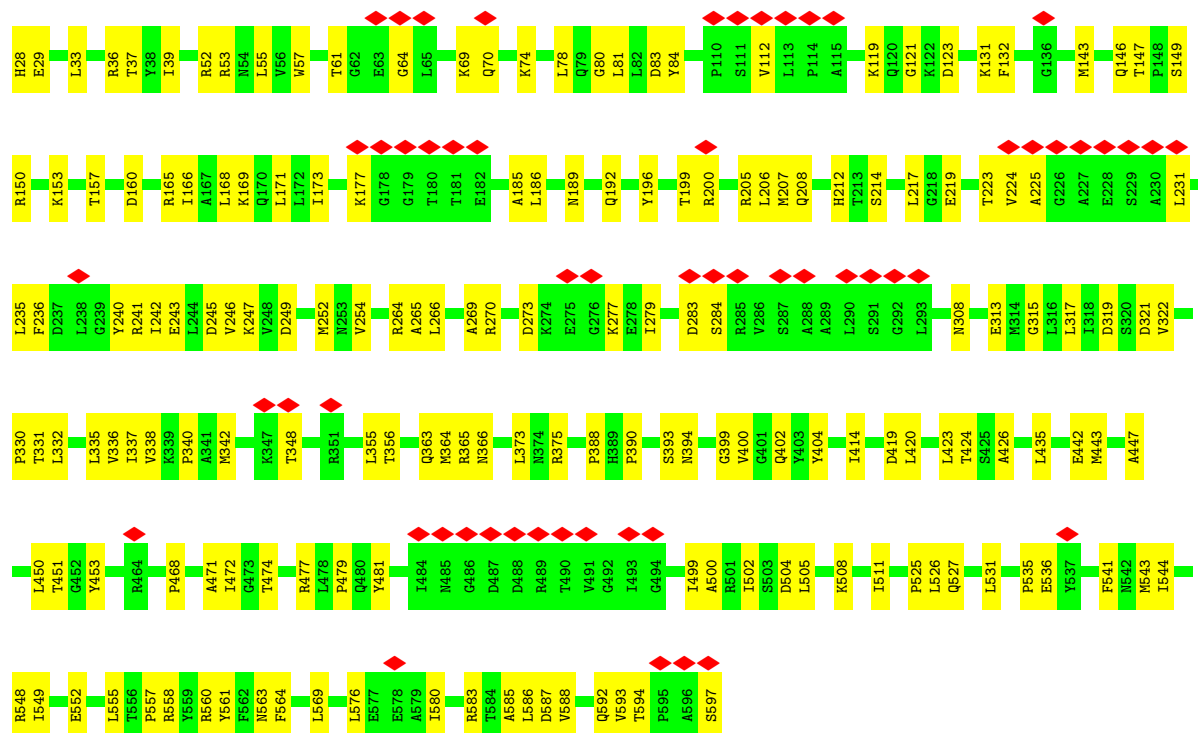


- Molecule 1: Major head protein

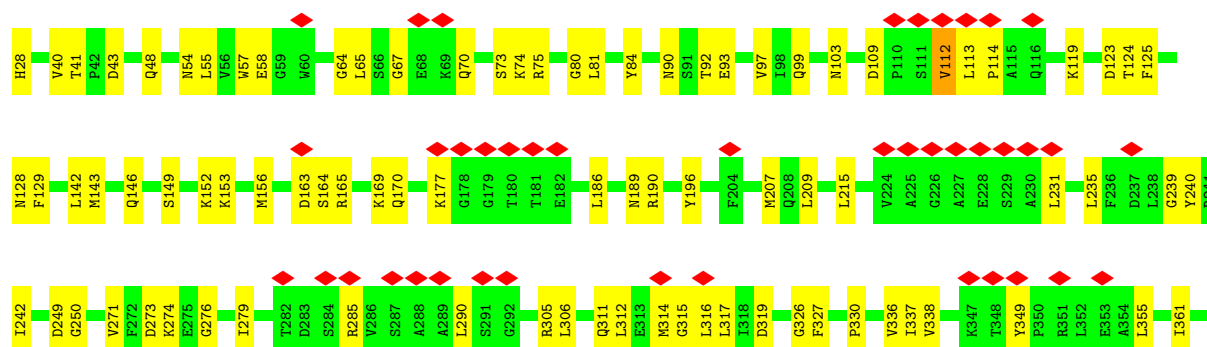


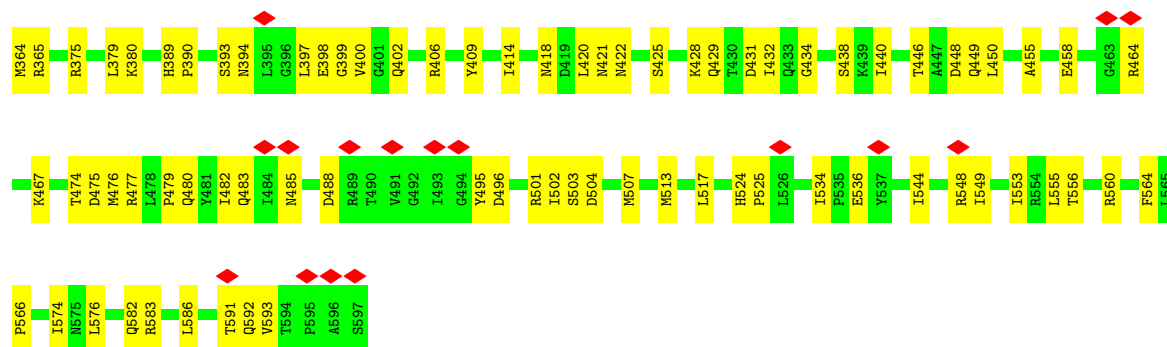


• Molecule 1: Major head protein

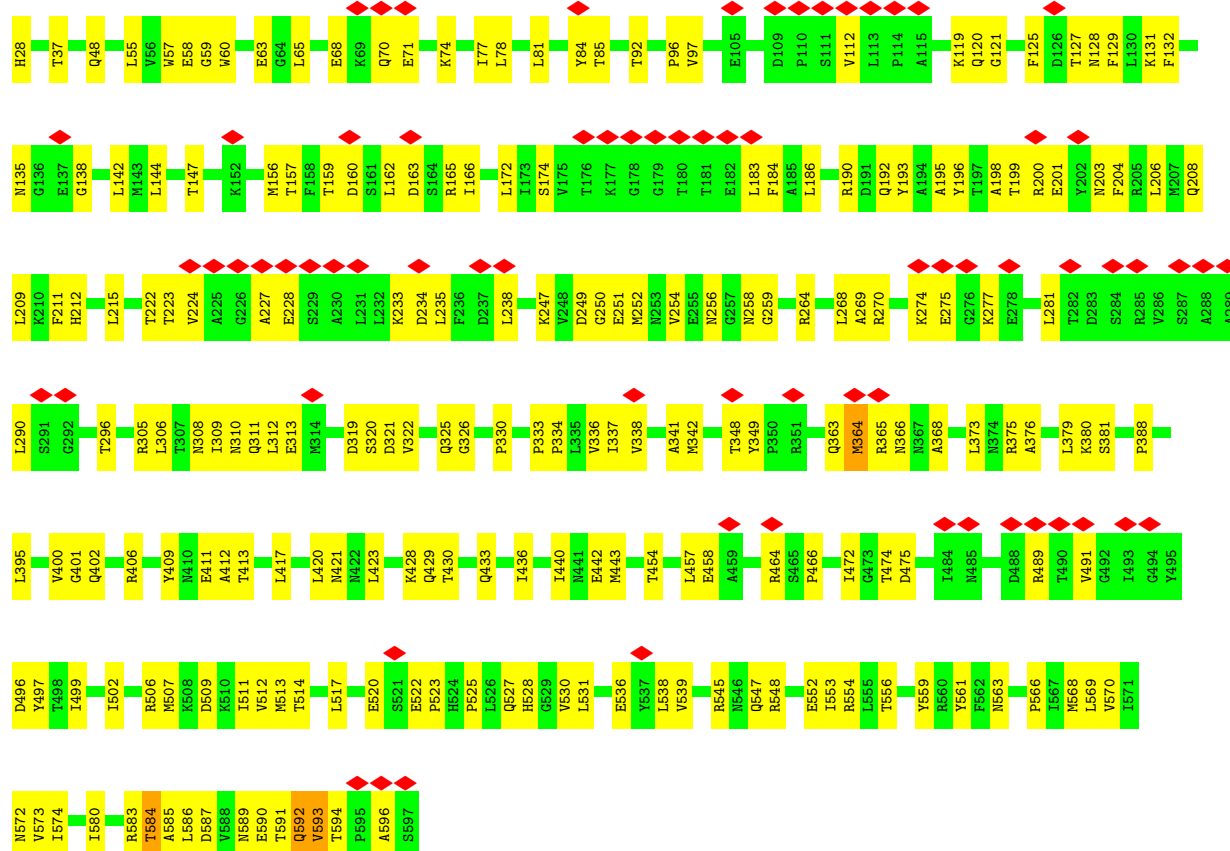


• Molecule 1: Major head protein

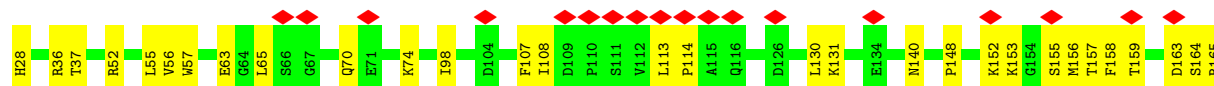


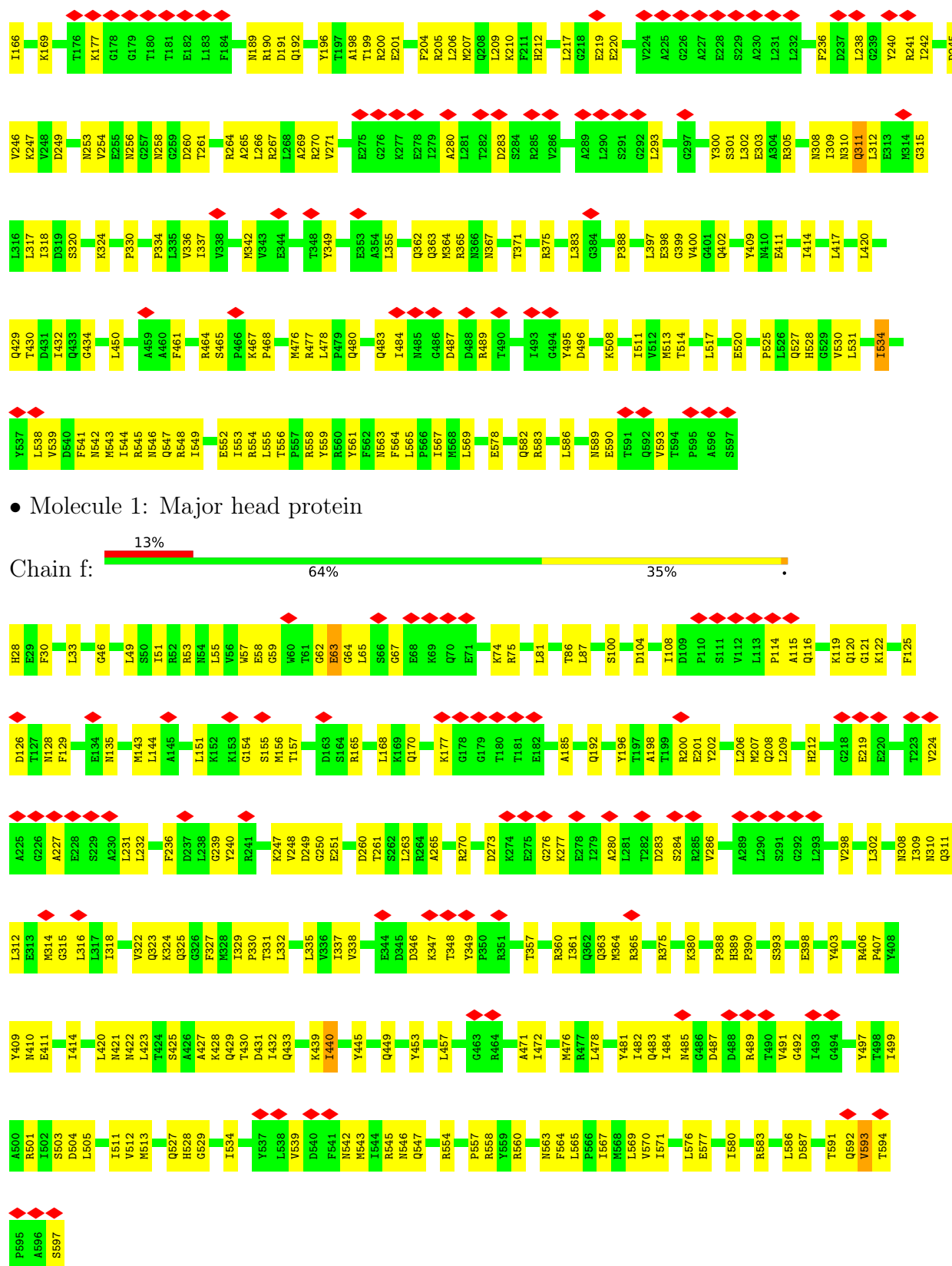


• Molecule 1: Major head protein



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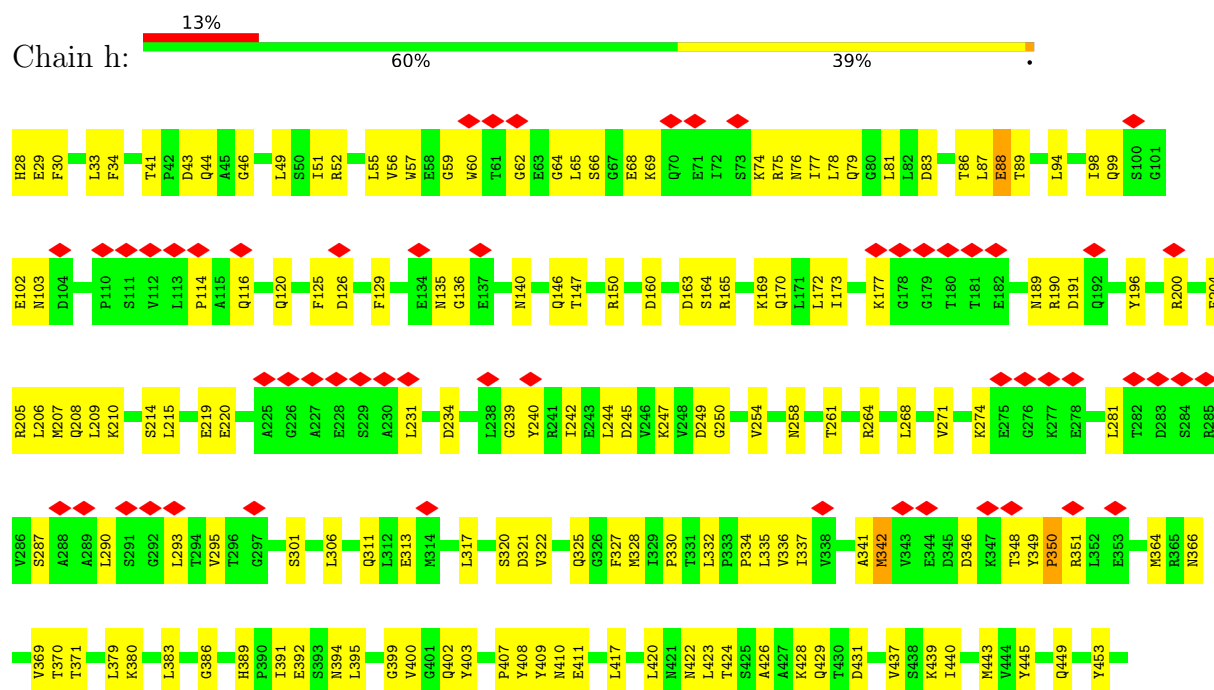


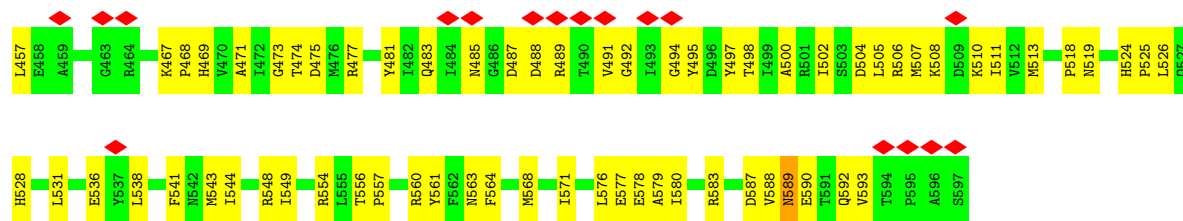


• Molecule 1: Major head protein

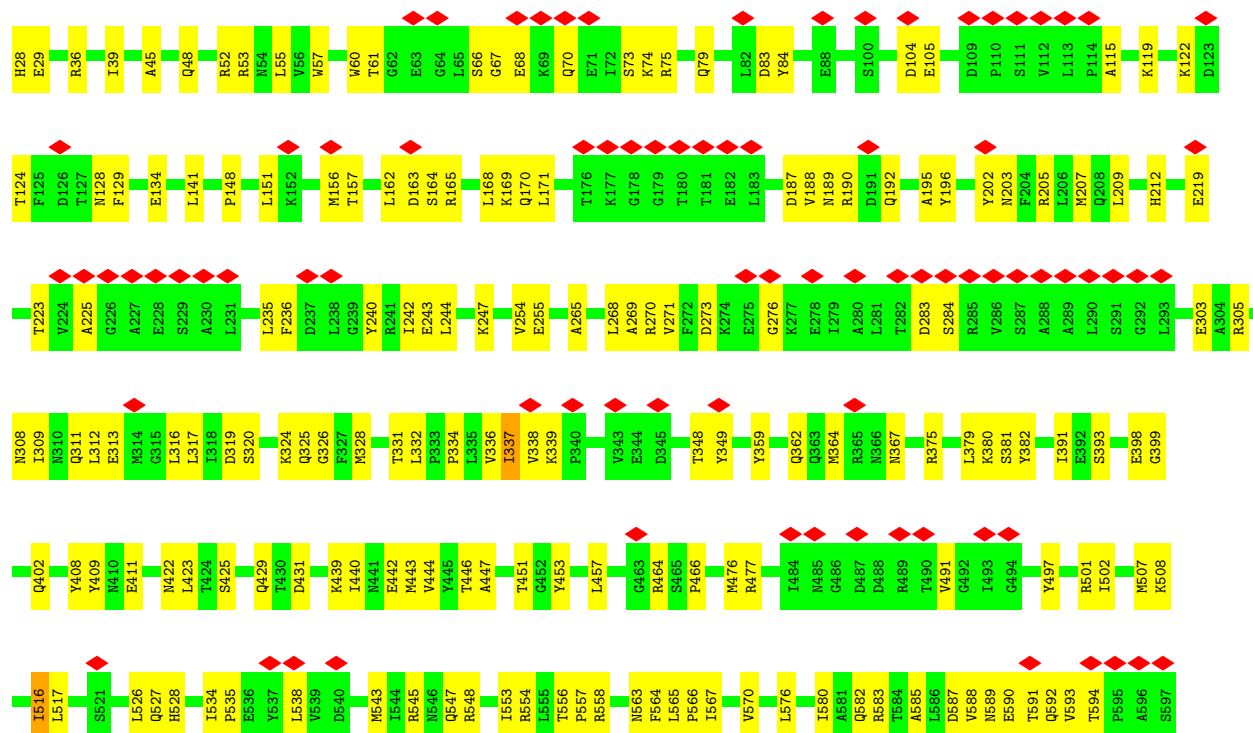


• Molecule 1: Major head protein

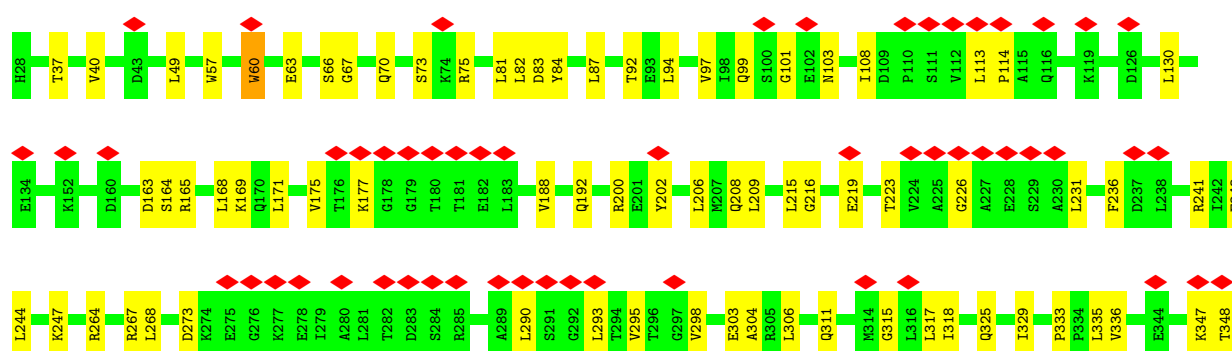


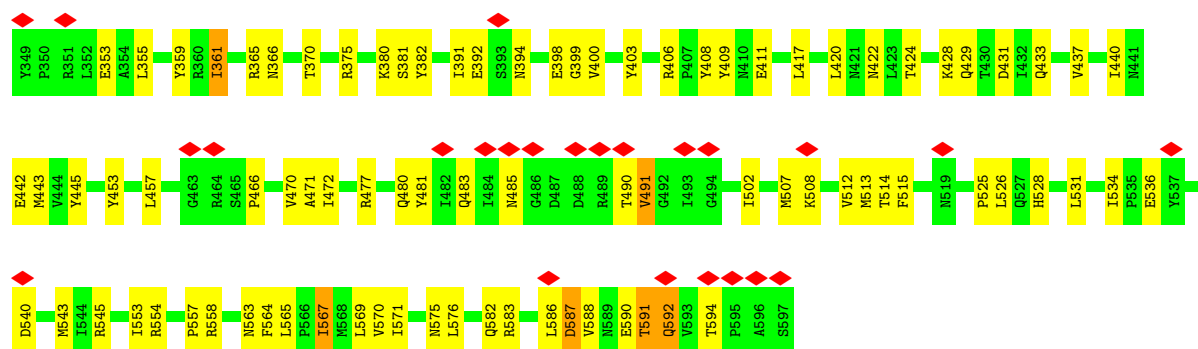


• Molecule 1: Major head protein

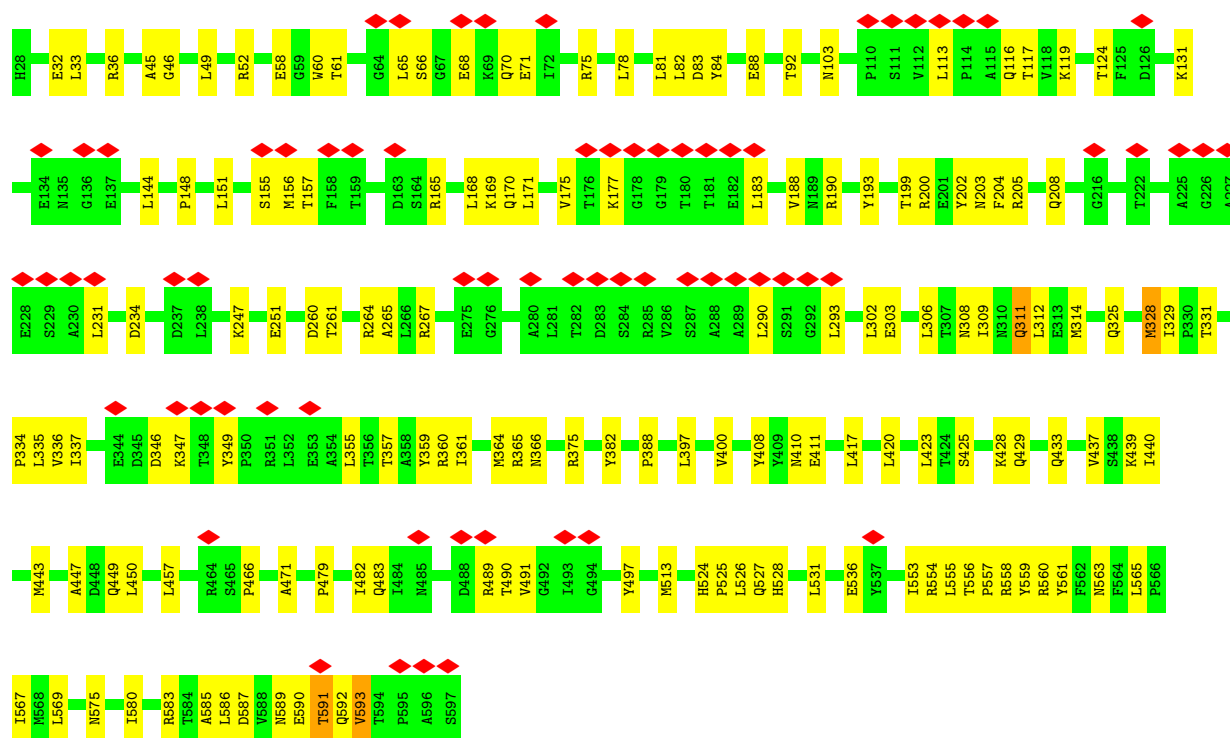


• Molecule 1: Major head protein

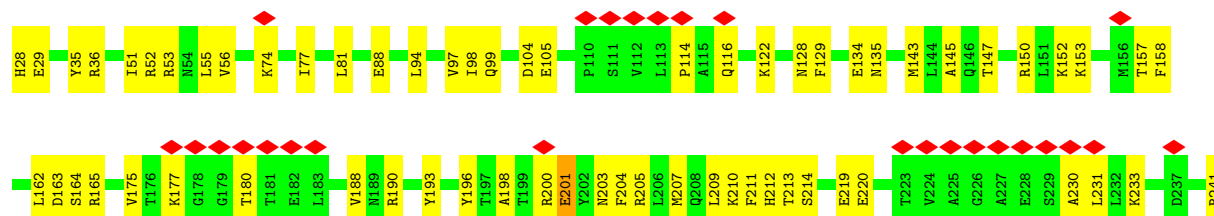


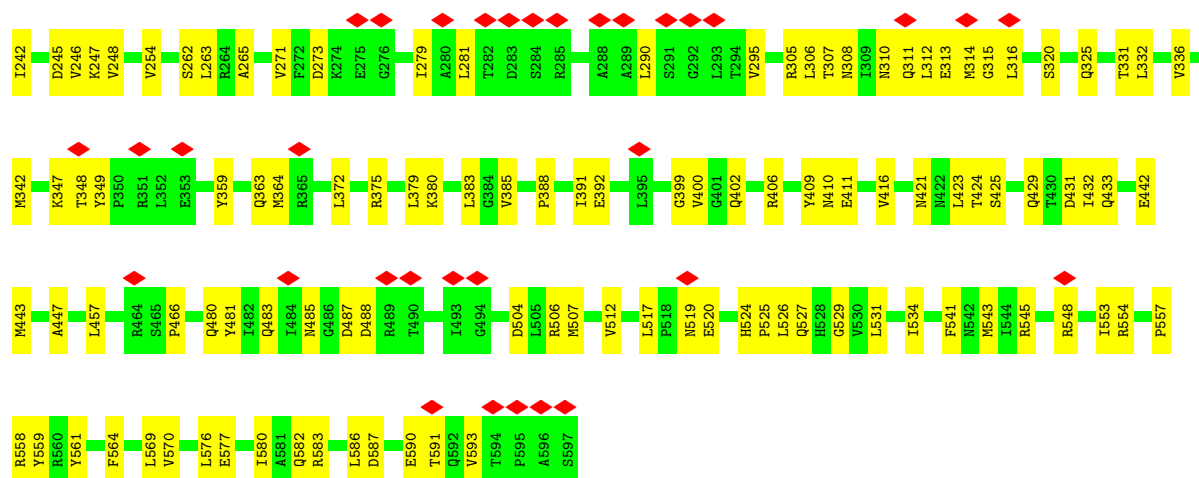


• Molecule 1: Major head protein

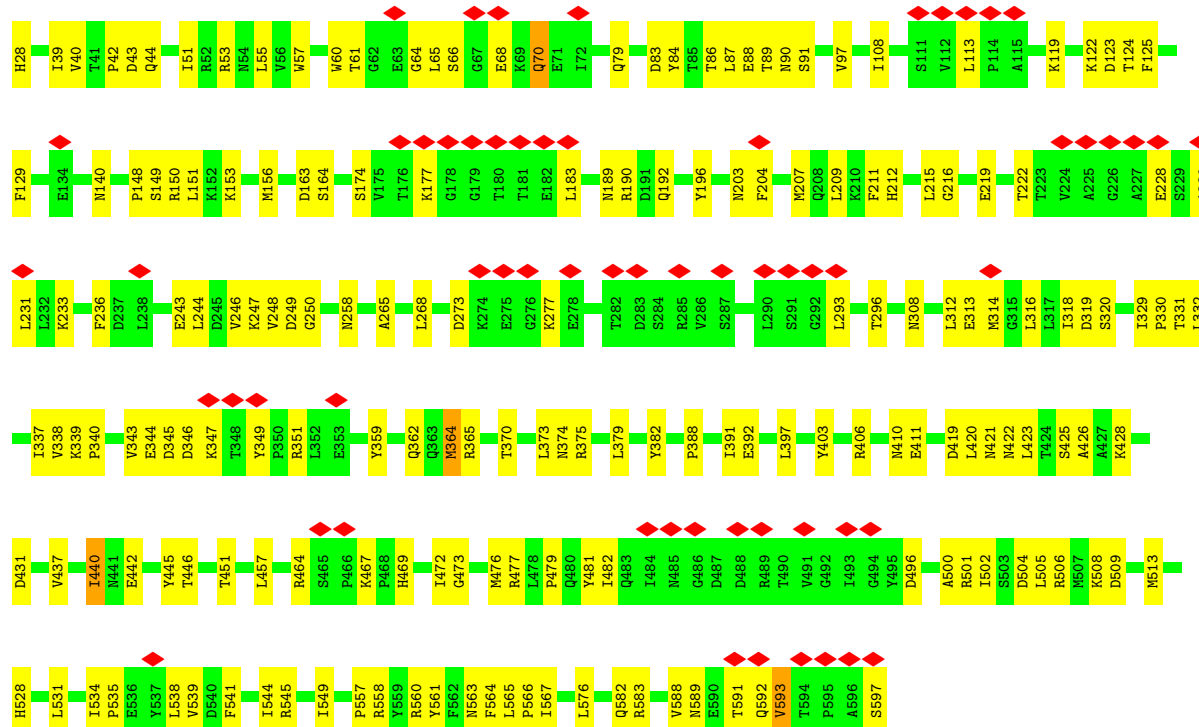


• Molecule 1: Major head protein

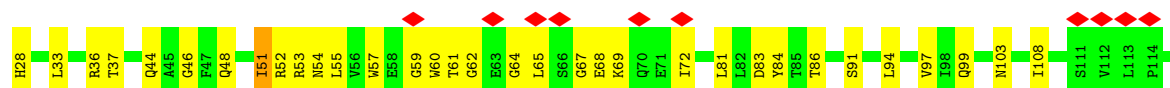


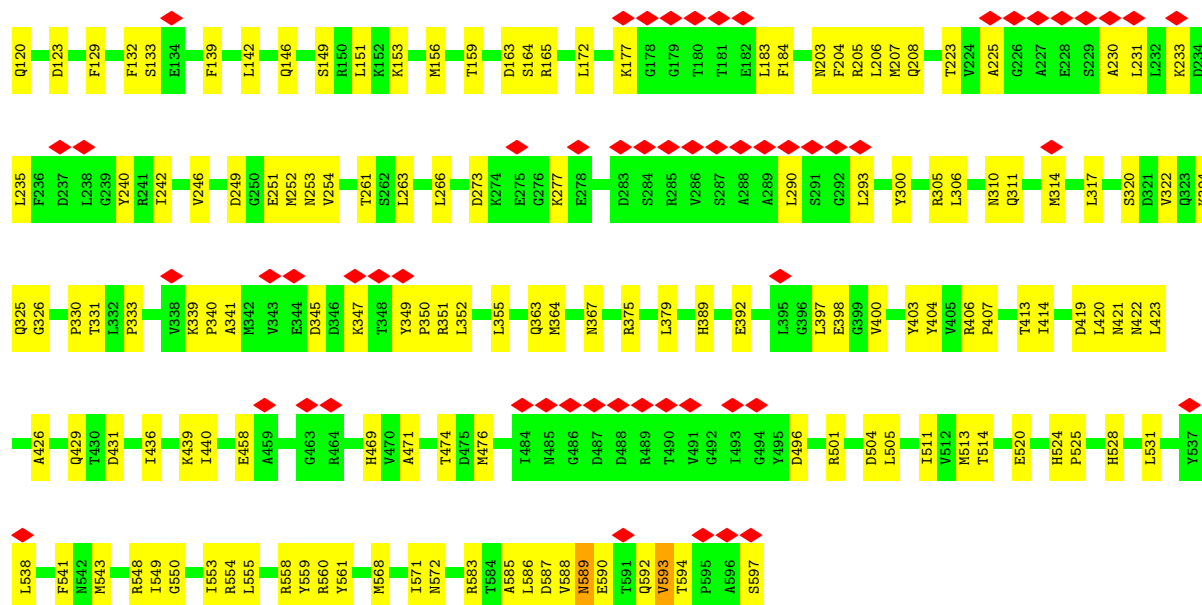


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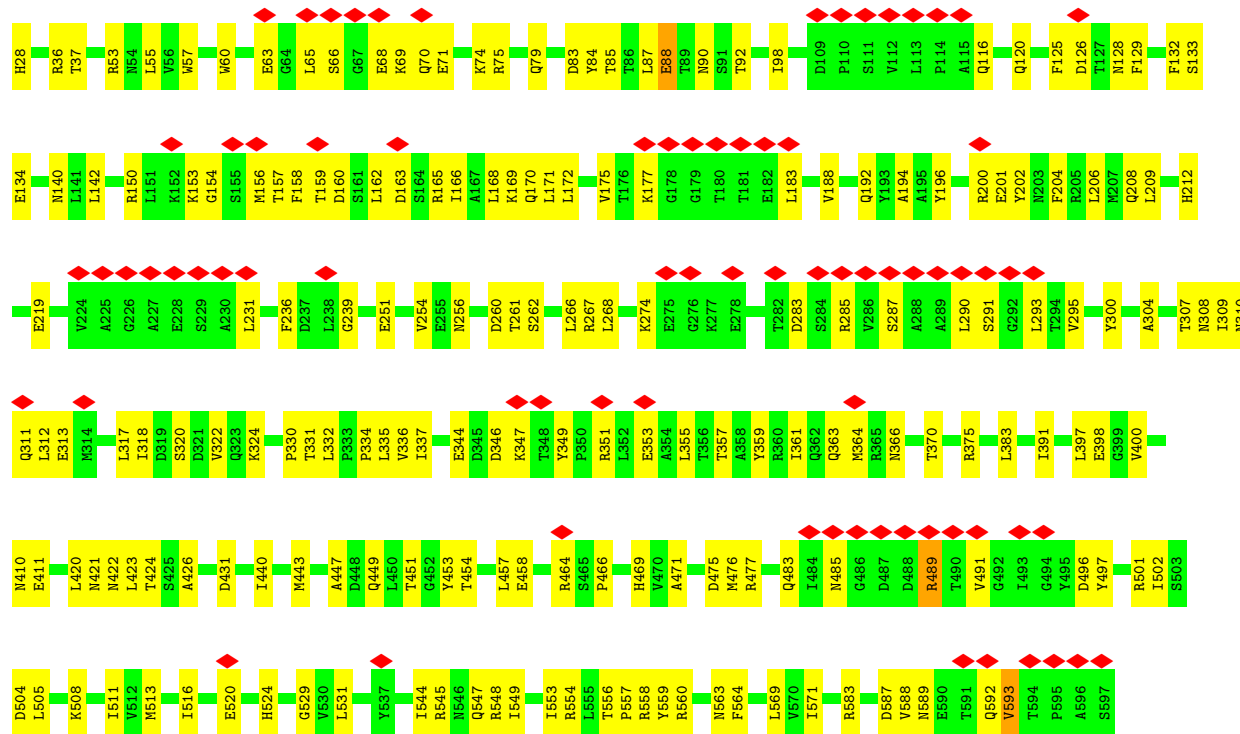


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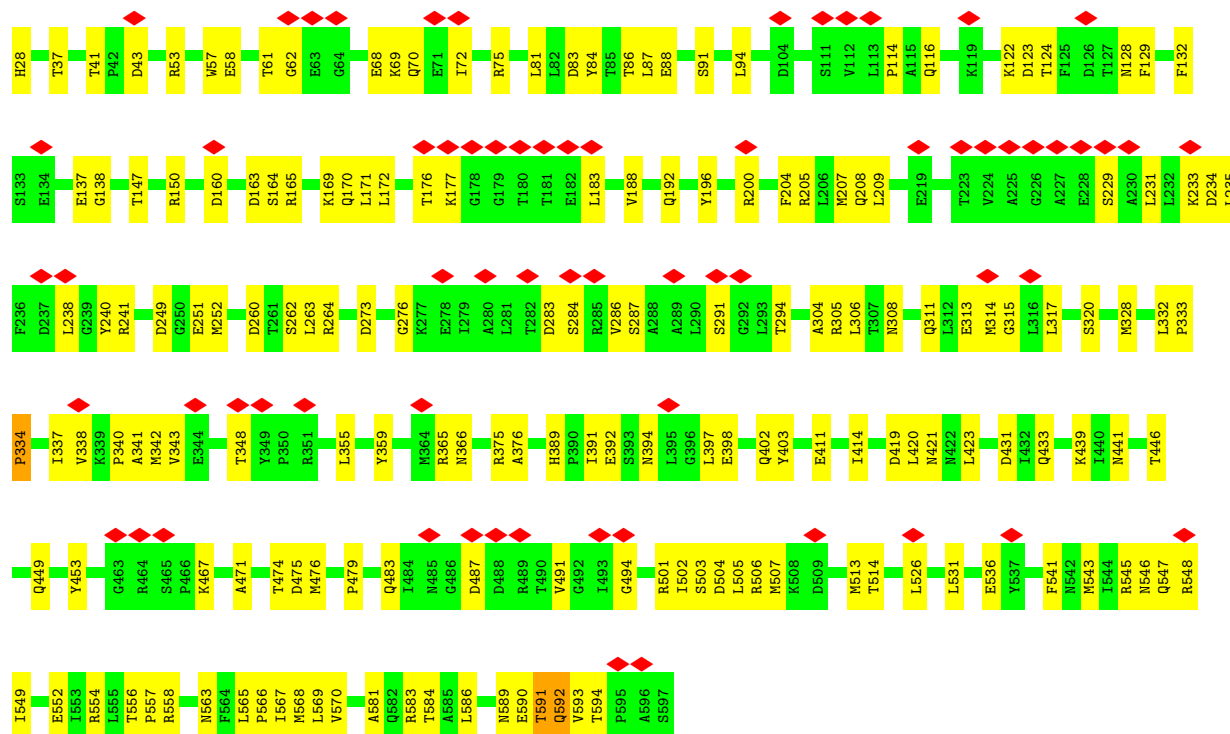


• Molecule 1: Major head protein



• Molecule 1: Major head protein





4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	19193	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	30	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	5000	Depositor
Magnification	64000	Depositor
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.022	Depositor
Minimum map value	-0.008	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.001	Depositor
Recommended contour level	0.006	Depositor
Map size (Å)	1644.0, 1644.0, 1644.0	wwPDB
Map dimensions	800, 800, 800	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	2.055, 2.055, 2.055	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	0.19	0/4559	0.58	5/6184 (0.1%)
1	B	0.19	0/4559	0.49	2/6184 (0.0%)
1	C	0.21	0/4559	0.53	3/6184 (0.0%)
1	D	0.19	0/4559	0.49	2/6184 (0.0%)
1	E	0.19	0/4559	0.52	0/6184
1	F	0.21	1/4559 (0.0%)	0.58	3/6184 (0.0%)
1	G	0.20	0/4559	0.53	4/6184 (0.1%)
1	H	0.19	0/4559	0.50	1/6184 (0.0%)
1	I	0.20	0/4559	0.50	4/6184 (0.1%)
1	J	0.19	0/4559	0.52	2/6184 (0.0%)
1	K	0.19	0/4559	0.51	3/6184 (0.0%)
1	L	0.19	0/4559	0.49	2/6184 (0.0%)
1	M	0.19	0/4559	0.48	2/6184 (0.0%)
1	N	0.20	0/4559	0.52	4/6184 (0.1%)
1	O	0.18	0/4559	0.48	1/6184 (0.0%)
1	P	0.19	0/4559	0.50	1/6184 (0.0%)
1	Q	0.19	0/4559	0.50	1/6184 (0.0%)
1	R	0.18	0/4559	0.48	0/6184
1	S	0.19	0/4559	0.58	4/6184 (0.1%)
1	T	0.20	0/4559	0.49	2/6184 (0.0%)
1	U	0.19	0/4559	0.49	2/6184 (0.0%)
1	V	0.21	0/4559	0.50	0/6184
1	W	0.19	0/4559	0.48	0/6184
1	X	0.19	0/4559	0.51	3/6184 (0.0%)
1	Y	0.20	0/4559	0.51	2/6184 (0.0%)
1	Z	0.20	0/4559	0.53	1/6184 (0.0%)
1	a	0.19	0/4559	0.51	3/6184 (0.0%)
1	b	0.19	0/4559	0.51	4/6184 (0.1%)
1	c	0.19	0/4559	0.50	3/6184 (0.0%)
1	d	0.19	0/4559	0.53	6/6184 (0.1%)
1	e	0.19	0/4559	0.51	0/6184
1	f	0.20	0/4559	0.58	4/6184 (0.1%)
1	g	0.20	0/4559	0.50	1/6184 (0.0%)
1	h	0.20	0/4559	0.52	0/6184

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	i	0.19	0/4559	0.49	1/6184 (0.0%)
1	j	0.18	0/4559	0.52	1/6184 (0.0%)
1	k	0.19	0/4559	0.50	2/6184 (0.0%)
1	l	0.20	0/4559	0.50	0/6184
1	m	0.19	0/4559	0.49	3/6184 (0.0%)
1	n	0.18	0/4559	0.48	1/6184 (0.0%)
1	o	0.19	0/4559	0.50	1/6184 (0.0%)
1	p	0.22	0/4559	0.57	7/6184 (0.1%)
All	All	0.19	1/191478 (0.0%)	0.51	91/259728 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	1
1	B	0	1
1	C	0	1
1	G	0	1
1	K	0	1
1	L	0	2
1	M	0	1
1	N	0	1
1	Q	0	1
1	T	0	1
1	W	0	1
1	X	0	1
1	Y	0	1
1	Z	0	1
1	d	0	2
1	g	0	1
1	h	0	1
1	i	0	1
1	j	0	3
1	k	0	2
1	n	0	1
1	p	0	3
All	All	0	29

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	F	466	PRO	C-N	-5.79	1.25	1.33

All (91) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	593	VAL	CA-C-N	17.77	165.16	121.80
1	F	593	VAL	C-N-CA	17.77	165.16	121.80
1	S	593	VAL	CA-C-N	15.69	150.59	122.35
1	S	593	VAL	C-N-CA	15.69	150.59	122.35
1	A	593	VAL	CA-C-N	15.37	159.30	121.80
1	A	593	VAL	C-N-CA	15.37	159.30	121.80
1	p	334	PRO	CA-N-CD	-10.67	97.06	112.00
1	f	593	VAL	N-CA-C	-9.20	104.17	113.10
1	G	593	VAL	CA-C-N	9.14	144.10	121.80
1	G	593	VAL	C-N-CA	9.14	144.10	121.80
1	S	593	VAL	N-CA-C	-8.89	103.93	112.29
1	c	593	VAL	CA-C-N	8.45	142.41	121.80
1	c	593	VAL	C-N-CA	8.45	142.41	121.80
1	Y	593	VAL	CA-C-N	7.58	140.30	121.80
1	Y	593	VAL	C-N-CA	7.58	140.30	121.80
1	L	593	VAL	CA-C-N	7.24	139.46	121.80
1	L	593	VAL	C-N-CA	7.24	139.46	121.80
1	N	593	VAL	N-CA-C	-7.17	105.61	113.43
1	k	593	VAL	CA-C-N	7.15	139.24	121.80
1	k	593	VAL	C-N-CA	7.15	139.24	121.80
1	g	593	VAL	N-CA-C	-7.11	104.47	113.22
1	p	592	GLN	CA-C-N	-7.08	114.80	122.59
1	p	592	GLN	C-N-CA	-7.08	114.80	122.59
1	b	342	MET	N-CA-C	-7.01	105.92	114.75
1	f	482	ILE	N-CA-C	-6.92	106.75	113.53
1	X	342	MET	N-CA-C	-6.79	106.20	114.75
1	D	491	VAL	N-CA-C	-6.75	107.29	113.71
1	N	516	ILE	CA-C-N	6.75	133.50	121.76
1	N	516	ILE	C-N-CA	6.75	133.50	121.76
1	S	491	VAL	N-CA-C	-6.68	106.73	113.47
1	p	334	PRO	N-CD-CG	-6.67	93.19	103.20
1	K	483	GLN	CA-C-N	6.60	133.86	121.97
1	K	483	GLN	C-N-CA	6.60	133.86	121.97
1	U	466	PRO	CA-C-N	-6.47	110.85	120.68
1	U	466	PRO	C-N-CA	-6.47	110.85	120.68
1	o	593	VAL	N-CA-C	-6.43	106.73	112.90
1	M	593	VAL	N-CA-C	-6.37	104.34	113.07
1	i	70	GLN	N-CA-C	-6.10	107.06	114.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	d	593	VAL	CA-C-N	6.10	136.69	121.80
1	d	593	VAL	C-N-CA	6.10	136.69	121.80
1	m	593	VAL	N-CA-C	-5.93	107.48	113.47
1	P	330	PRO	CA-N-CD	-5.92	103.72	112.00
1	C	364	MET	CA-C-N	-5.83	113.19	122.17
1	C	364	MET	C-N-CA	-5.83	113.19	122.17
1	A	342	MET	N-CA-C	-5.79	107.20	114.56
1	Q	593	VAL	N-CA-C	-5.79	106.10	113.22
1	H	593	VAL	N-CA-C	-5.78	106.16	112.80
1	T	593	VAL	N-CA-C	-5.76	107.19	112.96
1	X	593	VAL	CA-C-N	5.68	131.54	122.56
1	X	593	VAL	C-N-CA	5.68	131.54	122.56
1	B	70	GLN	N-CA-C	-5.68	107.60	114.75
1	j	491	VAL	N-CA-C	-5.66	107.77	113.20
1	I	364	MET	CA-C-N	-5.65	114.08	122.56
1	I	364	MET	C-N-CA	-5.65	114.08	122.56
1	J	201	GLU	CA-C-N	5.64	132.31	121.54
1	J	201	GLU	C-N-CA	5.64	132.31	121.54
1	f	144	LEU	N-CA-C	-5.61	107.43	114.56
1	f	227	ALA	CB-CA-C	-5.53	110.22	116.63
1	K	340	PRO	CA-N-CD	-5.49	104.31	112.00
1	G	564	PHE	CA-C-N	-5.46	113.55	121.20
1	G	564	PHE	C-N-CA	-5.46	113.55	121.20
1	a	593	VAL	CA-C-N	5.45	135.10	121.80
1	a	593	VAL	C-N-CA	5.45	135.10	121.80
1	Z	593	VAL	N-CA-C	-5.43	107.53	112.96
1	I	400	VAL	N-CA-C	-5.42	105.64	113.07
1	O	593	VAL	N-CA-C	-5.39	105.99	113.00
1	T	400	VAL	N-CA-C	-5.38	105.75	113.07
1	c	112	VAL	N-CA-C	-5.37	108.27	113.53
1	p	592	GLN	N-CA-C	5.35	117.71	111.02
1	N	91	SER	N-CA-C	-5.35	107.77	114.56
1	b	348	THR	N-CA-C	-5.32	107.34	113.88
1	a	482	ILE	N-CA-C	-5.30	107.25	111.81
1	F	201	GLU	N-CA-C	-5.27	108.61	114.62
1	n	593	VAL	N-CA-C	-5.26	107.62	112.83
1	p	593	VAL	CA-C-N	5.24	134.58	121.80
1	p	593	VAL	C-N-CA	5.24	134.58	121.80
1	A	592	GLN	CA-C-N	-5.18	118.04	122.96
1	A	592	GLN	C-N-CA	-5.18	118.04	122.96
1	D	593	VAL	N-CA-C	-5.18	105.30	112.50
1	B	482	ILE	N-CA-C	-5.14	107.74	111.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	b	593	VAL	N-CA-C	-5.12	105.38	112.50
1	m	364	MET	CA-C-N	-5.11	114.30	122.17
1	m	364	MET	C-N-CA	-5.11	114.30	122.17
1	b	112	VAL	N-CA-C	-5.11	107.85	112.96
1	d	348	THR	N-CA-C	-5.08	106.77	113.12
1	M	342	MET	N-CA-C	-5.07	106.93	114.64
1	d	585	ALA	N-CA-C	5.07	116.84	110.91
1	I	227	ALA	CB-CA-C	-5.04	109.79	115.79
1	d	364	MET	CA-C-N	-5.03	114.43	122.17
1	d	364	MET	C-N-CA	-5.03	114.43	122.17
1	C	85	THR	N-CA-C	-5.00	106.87	113.17

There are no chirality outliers.

All (29) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	591	THR	Peptide
1	B	69	LYS	Peptide
1	C	363	GLN	Peptide
1	G	585	ALA	Peptide
1	K	591	THR	Peptide
1	L	585	ALA	Peptide
1	L	594	THR	Peptide
1	M	591	THR	Peptide
1	N	591	THR	Peptide
1	Q	591	THR	Peptide
1	T	591	THR	Peptide
1	W	591	THR	Peptide
1	X	585	ALA	Peptide
1	Y	591	THR	Peptide
1	Z	591	THR	Peptide
1	d	584	THR	Peptide
1	d	592	GLN	Peptide
1	g	591	THR	Peptide
1	h	589	ASN	Peptide
1	i	594	THR	Peptide
1	j	591	THR	Peptide
1	j	592	GLN	Peptide
1	j	60	TRP	Peptide
1	k	328	MET	Peptide
1	k	591	THR	Peptide
1	n	589	ASN	Peptide

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Mol	Chain	Res	Type	Group
1	p	341	ALA	Peptide
1	p	591	THR	Peptide
1	p	594	THR	Peptide

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	4483	0	4490	170	0
1	B	4483	0	4491	172	0
1	C	4483	0	4491	183	0
1	D	4483	0	4491	181	0
1	E	4483	0	4491	172	0
1	F	4483	0	4490	180	0
1	G	4483	0	4491	167	0
1	H	4483	0	4491	121	0
1	I	4483	0	4491	145	0
1	J	4483	0	4491	178	0
1	K	4483	0	4491	162	0
1	L	4483	0	4491	143	0
1	M	4483	0	4491	137	0
1	N	4483	0	4491	159	0
1	O	4483	0	4491	146	0
1	P	4483	0	4491	161	0
1	Q	4483	0	4491	171	0
1	R	4483	0	4491	149	0
1	S	4483	0	4490	142	0
1	T	4483	0	4491	145	0
1	U	4483	0	4491	153	0
1	V	4483	0	4491	145	0
1	W	4483	0	4491	163	0
1	X	4483	0	4491	150	0
1	Y	4483	0	4491	163	0
1	Z	4483	0	4491	197	0
1	a	4483	0	4491	179	0
1	b	4483	0	4491	144	0
1	c	4483	0	4491	133	0
1	d	4483	0	4491	199	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	e	4483	0	4491	188	0
1	f	4483	0	4491	189	0
1	g	4483	0	4491	202	0
1	h	4483	0	4491	198	0
1	i	4483	0	4491	174	0
1	j	4483	0	4491	145	0
1	k	4483	0	4491	132	0
1	l	4483	0	4491	153	0
1	m	4483	0	4491	161	0
1	n	4483	0	4491	154	0
1	o	4483	0	4491	186	0
1	p	4483	0	4491	150	0
All	All	188286	0	188619	5692	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 15.

All (5692) 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:D:548:ARG:HH21	1:X:157:THR:HG22	1.27	0.97
1:V:208:GLN:HE22	1:V:210:LYS:HG2	1.29	0.96
1:P:332:LEU:H	1:P:558:ARG:HH21	1.14	0.94
1:k:60:TRP:CD1	1:k:61:THR:H	1.86	0.94
1:B:434:GLY:HA2	1:B:489:ARG:HH12	1.34	0.93
1:X:444:VAL:HG22	1:X:513:MET:HE1	1.49	0.92
1:N:60:TRP:HE1	1:N:63:GLU:HG3	1.36	0.91
1:P:330:PRO:HD3	1:Q:165:ARG:HD3	1.53	0.90
1:Z:543:MET:HE2	1:Z:545:ARG:HD3	1.52	0.90
1:K:42:PRO:HA	1:K:534:ILE:HD11	1.54	0.89
1:P:169:LYS:HD2	1:P:170:GLN:HG3	1.55	0.89
1:o:283:ASP:OD2	1:o:285:ARG:NH1	2.04	0.89
1:Q:308:ASN:HD21	1:Q:312:LEU:H	1.19	0.88
1:H:433:GLN:NE2	1:H:483:GLN:O	2.07	0.88
1:Y:81:LEU:HA	1:c:365:ARG:HH22	1.37	0.86
1:b:28:HIS:N	1:b:364:MET:SD	2.49	0.85
1:G:376:ALA:HA	1:G:568:MET:HE1	1.55	0.85
1:d:376:ALA:HA	1:d:568:MET:HE1	1.56	0.85
1:g:55:LEU:HD12	1:g:74:LYS:HB3	1.58	0.85
1:Z:157:THR:HG22	1:Z:158:PHE:H	1.41	0.85
1:d:464:ARG:HG3	1:d:466:PRO:HD3	1.57	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:m:64:GLY:HA3	1:m:68:GLU:HB2	1.56	0.85
1:N:388:PRO:HG3	1:N:450:LEU:HD11	1.58	0.85
1:A:157:THR:HA	1:T:548:ARG:HD3	1.58	0.84
1:n:223:THR:HG22	1:n:225:ALA:H	1.40	0.84
1:N:472:ILE:HD11	1:N:499:ILE:HG12	1.57	0.84
1:b:153:LYS:HZ1	1:d:545:ARG:HE	1.23	0.84
1:C:83:ASP:OD1	1:C:84:TYR:N	2.11	0.84
1:Z:89:THR:HG21	1:Z:316:LEU:HD21	1.59	0.84
1:G:469:HIS:ND1	1:G:496:ASP:OD1	2.11	0.83
1:U:547:GLN:HG2	1:Z:153:LYS:HE3	1.59	0.83
1:J:28:HIS:N	1:J:364:MET:SD	2.51	0.83
1:J:547:GLN:HE22	1:R:153:LYS:HB3	1.44	0.83
1:a:57:TRP:HH2	1:a:60:TRP:HD1	1.24	0.83
1:E:247:LYS:HE3	1:E:265:ALA:HB3	1.57	0.83
1:T:548:ARG:HE	1:T:549:ILE:H	1.25	0.83
1:L:163:ASP:OD1	1:L:164:SER:N	2.12	0.83
1:G:87:LEU:HD21	1:K:362:GLN:HG2	1.60	0.82
1:k:329:ILE:HD11	1:k:559:TYR:HA	1.61	0.82
1:D:155:SER:O	1:i:548:ARG:NH2	2.13	0.82
1:N:472:ILE:HG22	1:N:513:MET:HE1	1.61	0.82
1:J:247:LYS:HB2	1:J:265:ALA:HB3	1.61	0.82
1:K:28:HIS:N	1:K:364:MET:SD	2.53	0.82
1:c:142:LEU:HD22	1:c:156:MET:HE2	1.62	0.82
1:g:484:ILE:HG22	1:g:486:GLY:H	1.45	0.81
1:M:348:THR:HA	1:N:320:SER:HB3	1.62	0.81
1:e:549:ILE:H	1:o:310:ASN:HD21	1.25	0.81
1:I:502:ILE:HG22	1:I:504:ASP:H	1.45	0.81
1:O:393:SER:H	1:O:402:GLN:HE22	1.25	0.81
1:Z:548:ARG:NH1	1:e:155:SER:O	2.14	0.81
1:h:423:LEU:HD12	1:i:423:LEU:HD21	1.61	0.81
1:W:592:GLN:NE2	1:W:597:SER:OG	2.14	0.81
1:e:337:ILE:HB	1:e:553:ILE:HB	1.63	0.81
1:P:94:LEU:HD11	1:P:306:LEU:HB2	1.63	0.81
1:Y:192:GLN:NE2	1:c:397:LEU:O	2.14	0.81
1:f:580:ILE:HG21	1:g:442:GLU:HG3	1.60	0.81
1:l:230:ALA:HA	1:l:233:LYS:HE2	1.62	0.81
1:f:331:THR:HG23	1:g:305:ARG:HH21	1.44	0.81
1:K:75:ARG:HH22	1:K:86:THR:HG22	1.46	0.80
1:c:273:ASP:HB3	1:c:279:ILE:HD11	1.62	0.80
1:Y:169:LYS:HE3	1:Y:303:GLU:HB2	1.62	0.80
1:E:380:LYS:HE3	1:E:409:TYR:HE2	1.46	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:467:LYS:HZ1	1:H:496:ASP:HB2	1.47	0.80
1:d:55:LEU:HD13	1:d:74:LYS:HD2	1.62	0.80
1:X:528:HIS:HE1	1:X:568:MET:HE1	1.46	0.80
1:j:267:ARG:HE	1:j:268:LEU:H	1.29	0.80
1:h:169:LYS:O	1:h:189:ASN:ND2	2.15	0.80
1:l:433:GLN:NE2	1:l:483:GLN:O	2.15	0.80
1:l:520:GLU:OE2	1:l:527:GLN:NE2	2.15	0.80
1:C:560:ARG:HH21	1:F:190:ARG:HG3	1.47	0.80
1:H:336:VAL:HG23	1:H:554:ARG:HG2	1.64	0.80
1:n:350:PRO:HG3	1:o:320:SER:HB2	1.63	0.80
1:S:365:ARG:HD2	1:S:502:ILE:HD11	1.64	0.79
1:A:362:GLN:HE22	1:B:88:GLU:HG2	1.48	0.79
1:Q:592:GLN:NE2	1:Q:597:SER:OG	2.14	0.79
1:U:169:LYS:HD3	1:U:170:GLN:HG3	1.64	0.79
1:S:365:ARG:NH2	1:T:81:LEU:O	2.15	0.79
1:e:541:PHE:HD2	1:e:543:MET:HE3	1.47	0.79
1:h:439:LYS:HG3	1:h:443:MET:HE2	1.64	0.79
1:D:270:ARG:NH2	1:D:278:GLU:OE1	2.12	0.79
1:F:198:ALA:O	1:k:200:ARG:NH2	2.16	0.79
1:T:203:ASN:OD1	1:T:204:PHE:N	2.16	0.79
1:A:483:GLN:NE2	1:A:485:ASN:OD1	2.16	0.79
1:E:60:TRP:HA	1:E:66:SER:HB3	1.64	0.79
1:T:554:ARG:NH2	1:U:313:GLU:O	2.16	0.79
1:f:472:ILE:HD11	1:f:499:ILE:HG12	1.64	0.79
1:n:28:HIS:N	1:n:364:MET:SD	2.55	0.79
1:B:365:ARG:HH12	1:C:81:LEU:HD12	1.46	0.78
1:e:397:LEU:O	1:f:192:GLN:NE2	2.14	0.78
1:O:203:ASN:OD1	1:O:204:PHE:N	2.15	0.78
1:D:243:GLU:HB3	1:D:270:ARG:HB2	1.65	0.78
1:f:58:GLU:HG3	1:f:59:GLY:H	1.46	0.78
1:M:192:GLN:NE2	1:Q:395:LEU:O	2.17	0.78
1:e:489:ARG:NH1	1:i:425:SER:O	2.14	0.78
1:o:511:ILE:HB	1:o:571:ILE:HB	1.63	0.78
1:E:359:TYR:HE1	1:E:557:PRO:HB3	1.47	0.78
1:O:89:THR:HG21	1:O:316:LEU:HD21	1.65	0.78
1:g:397:LEU:HB2	1:g:402:GLN:HE21	1.49	0.78
1:C:80:GLY:HA2	1:C:86:THR:HG21	1.66	0.78
1:i:156:MET:SD	1:i:157:THR:OG1	2.41	0.78
1:B:147:THR:HG22	1:B:150:ARG:HD2	1.66	0.78
1:U:420:LEU:HD11	1:U:431:ASP:HB3	1.66	0.78
1:e:544:ILE:HD12	1:e:549:ILE:HG13	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:l:519:ASN:OD1	1:l:520:GLU:N	2.17	0.78
1:A:157:THR:OG1	1:A:160:ASP:OD1	2.01	0.78
1:B:71:GLU:OE1	1:K:256:ASN:ND2	2.17	0.78
1:B:159:THR:H	1:O:548:ARG:HH12	1.30	0.78
1:C:331:THR:O	1:F:305:ARG:NH1	2.15	0.78
1:S:241:ARG:NH1	1:W:381:SER:O	2.17	0.78
1:S:585:ALA:O	1:W:583:ARG:NH1	2.17	0.77
1:W:489:ARG:NH1	1:W:490:THR:O	2.17	0.77
1:p:420:LEU:HD23	1:p:584:THR:HG21	1.65	0.77
1:C:395:LEU:O	1:F:192:GLN:NE2	2.18	0.77
1:L:429:GLN:O	1:L:433:GLN:NE2	2.16	0.77
1:o:57:TRP:HA	1:o:75:ARG:HH12	1.47	0.77
1:o:266:LEU:H	1:o:267:ARG:HH21	1.32	0.77
1:A:58:GLU:OE1	1:A:122:LYS:NZ	2.17	0.77
1:N:28:HIS:HB2	1:N:364:MET:HE2	1.67	0.77
1:G:146:GLN:NE2	1:O:63:GLU:OE2	2.17	0.77
1:a:328:MET:HE2	1:d:195:ALA:HB1	1.64	0.77
1:g:330:PRO:HB3	1:j:165:ARG:HE	1.49	0.77
1:Q:42:PRO:HA	1:Q:534:ILE:HD11	1.67	0.77
1:b:147:THR:HG22	1:b:150:ARG:HD2	1.67	0.77
1:g:159:THR:HG21	1:p:340:PRO:HG3	1.66	0.77
1:l:580:ILE:HG21	1:m:442:GLU:HG3	1.66	0.77
1:l:443:MET:HG3	1:l:569:LEU:HD13	1.67	0.77
1:o:476:MET:SD	1:o:501:ARG:NH1	2.58	0.77
1:W:281:LEU:HD22	1:W:290:LEU:HD22	1.66	0.77
1:C:544:ILE:HG12	1:C:549:ILE:HG22	1.67	0.77
1:D:547:GLN:HG2	1:U:545:ARG:HG3	1.67	0.76
1:K:336:VAL:HG22	1:K:554:ARG:HG2	1.66	0.76
1:W:61:THR:H	1:W:66:SER:HA	1.50	0.76
1:e:169:LYS:HE2	1:e:301:SER:HB3	1.65	0.76
1:m:397:LEU:O	1:p:192:GLN:NE2	2.18	0.76
1:Z:90:ASN:O	1:Z:120:GLN:NE2	2.19	0.76
1:A:380:LYS:NZ	1:A:409:TYR:OH	2.18	0.76
1:H:346:ASP:OD1	1:H:351:ARG:NH2	2.19	0.76
1:F:472:ILE:HG13	1:F:513:MET:HE1	1.67	0.76
1:I:61:THR:H	1:I:66:SER:HA	1.49	0.76
1:Q:309:ILE:O	1:S:548:ARG:NH1	2.17	0.76
1:A:394:ASN:O	1:A:402:GLN:NE2	2.19	0.76
1:h:160:ASP:HB3	1:h:306:LEU:HD11	1.68	0.76
1:h:502:ILE:HG13	1:h:504:ASP:H	1.50	0.76
1:A:443:MET:HG3	1:A:571:ILE:HD11	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:548:ARG:NH2	1:a:308:ASN:OD1	2.18	0.76
1:F:548:ARG:HE	1:a:310:ASN:HD21	1.30	0.76
1:K:476:MET:HG3	1:K:501:ARG:HD2	1.67	0.76
1:n:305:ARG:HH22	1:p:332:LEU:HD23	1.48	0.76
1:B:583:ARG:NH1	1:C:421:ASN:OD1	2.19	0.76
1:G:105:GLU:OE2	1:G:106:GLN:NE2	2.18	0.76
1:P:192:GLN:NE2	1:R:397:LEU:O	2.19	0.76
1:D:200:ARG:H	1:f:200:ARG:HH21	1.33	0.76
1:R:168:LEU:O	1:R:189:ASN:ND2	2.19	0.76
1:i:205:ARG:HE	1:i:254:VAL:HG23	1.49	0.76
1:D:339:LYS:HZ1	1:D:343:VAL:H	1.32	0.75
1:J:42:PRO:HA	1:J:534:ILE:HD11	1.68	0.75
1:Q:444:VAL:HG22	1:Q:513:MET:HE1	1.68	0.75
1:h:420:LEU:O	1:j:583:ARG:NH1	2.19	0.75
1:E:536:GLU:OE1	1:E:558:ARG:NH2	2.19	0.75
1:P:554:ARG:HH22	1:Q:313:GLU:H	1.34	0.75
1:Q:266:LEU:C	1:Q:267:ARG:HD2	2.11	0.75
1:J:45:ALA:HB1	1:J:328:MET:HE1	1.69	0.75
1:N:33:LEU:HD13	1:N:500:ALA:HB2	1.68	0.75
1:O:56:VAL:HG12	1:O:318:ILE:HG22	1.67	0.75
1:Q:267:ARG:HH22	1:U:135:ASN:HA	1.51	0.75
1:b:477:ARG:NH2	1:c:446:THR:OG1	2.20	0.75
1:g:157:THR:HG21	1:g:310:ASN:HB3	1.68	0.75
1:D:489:ARG:HE	1:D:493:ILE:HG13	1.51	0.75
1:U:479:PRO:HG2	1:U:501:ARG:HD3	1.69	0.75
1:K:483:GLN:O	1:K:484:ILE:HG12	1.86	0.75
1:e:388:PRO:HG3	1:e:450:LEU:HD12	1.69	0.75
1:n:339:LYS:NZ	1:n:340:PRO:O	2.19	0.75
1:V:592:GLN:NE2	1:W:593:VAL:O	2.20	0.75
1:S:332:LEU:HB3	1:S:557:PRO:HG2	1.69	0.75
1:i:543:MET:HE1	1:i:545:ARG:HD3	1.69	0.75
1:k:388:PRO:HG3	1:k:450:LEU:HD12	1.66	0.75
1:D:157:THR:OG1	1:D:160:ASP:OD2	2.05	0.75
1:S:331:THR:HA	1:S:558:ARG:HG3	1.67	0.75
1:A:585:ALA:HB1	1:A:586:LEU:HD12	1.68	0.74
1:H:397:LEU:O	1:I:192:GLN:NE2	2.19	0.74
1:f:119:LYS:NZ	1:f:121:GLY:O	2.19	0.74
1:h:147:THR:HG22	1:h:150:ARG:HG2	1.69	0.74
1:J:310:ASN:HD22	1:o:548:ARG:HA	1.52	0.74
1:S:359:TYR:HE1	1:S:557:PRO:HB3	1.51	0.74
1:Y:395:LEU:O	1:Z:192:GLN:NE2	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:331:THR:HB	1:f:558:ARG:HH11	1.51	0.74
1:l:163:ASP:OD1	1:l:164:SER:N	2.20	0.74
1:D:223:THR:HG22	1:D:225:ALA:H	1.51	0.74
1:L:420:LEU:HD11	1:L:431:ASP:HB3	1.68	0.74
1:V:156:MET:H	1:Y:63:GLU:HG3	1.52	0.74
1:F:142:LEU:O	1:F:146:GLN:NE2	2.20	0.74
1:C:380:LYS:NZ	1:C:409:TYR:OH	2.19	0.74
1:S:80:GLY:O	1:W:365:ARG:NH2	2.20	0.74
1:g:328:MET:HG3	1:j:165:ARG:HH22	1.51	0.74
1:i:223:THR:HG22	1:i:225:ALA:H	1.52	0.74
1:o:440:ILE:HD12	1:o:513:MET:HE1	1.68	0.74
1:H:560:ARG:HH12	1:I:190:ARG:HD3	1.52	0.74
1:M:308:ASN:HD21	1:M:312:LEU:HG	1.51	0.74
1:Q:251:GLU:HG3	1:U:212:HIS:HE1	1.53	0.74
1:U:548:ARG:NH1	1:Z:160:ASP:OD1	2.20	0.74
1:Z:347:LYS:O	1:a:320:SER:OG	2.05	0.74
1:c:479:PRO:HA	1:c:482:ILE:HG22	1.68	0.74
1:h:321:ASP:OD1	1:h:322:VAL:N	2.21	0.74
1:m:362:GLN:NE2	1:p:88:GLU:OE2	2.20	0.74
1:F:160:ASP:HB3	1:F:306:LEU:HD11	1.70	0.74
1:C:547:GLN:HE21	1:e:545:ARG:HD3	1.51	0.74
1:G:420:LEU:O	1:K:583:ARG:NH1	2.20	0.74
1:X:223:THR:HG22	1:X:225:ALA:H	1.53	0.74
1:d:308:ASN:ND2	1:d:313:GLU:OE1	2.21	0.74
1:C:143:MET:SD	1:J:67:GLY:HA3	2.28	0.74
1:d:198:ALA:O	1:e:200:ARG:NH2	2.21	0.74
1:g:97:VAL:HG13	1:g:99:GLN:HE22	1.52	0.74
1:E:135:ASN:O	1:a:267:ARG:NH1	2.20	0.73
1:R:547:GLN:HG3	1:U:312:LEU:HD13	1.69	0.73
1:d:256:ASN:ND2	1:d:258:ASN:OD1	2.21	0.73
1:O:55:LEU:HD23	1:O:74:LYS:HB2	1.70	0.73
1:Q:200:ARG:HH12	1:U:199:THR:HA	1.52	0.73
1:Y:394:ASN:HB3	1:Y:397:LEU:HD23	1.70	0.73
1:c:483:GLN:NE2	1:c:485:ASN:OD1	2.22	0.73
1:g:36:ARG:NH2	1:g:527:GLN:OE1	2.21	0.73
1:A:241:ARG:HH22	1:E:382:TYR:HA	1.52	0.73
1:a:544:ILE:HD13	1:a:549:ILE:HG13	1.68	0.73
1:e:311:GLN:OE1	1:i:554:ARG:NH1	2.21	0.73
1:k:587:ASP:HB2	1:o:583:ARG:HD2	1.71	0.73
1:A:67:GLY:H	1:P:143:MET:HE1	1.54	0.73
1:K:160:ASP:HB3	1:K:306:LEU:HD11	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:554:ARG:HH12	1:O:311:GLN:HB2	1.53	0.73
1:S:554:ARG:HH12	1:T:313:GLU:HB2	1.53	0.73
1:Y:211:PHE:HB3	1:Y:248:VAL:HB	1.71	0.73
1:k:328:MET:SD	1:l:165:ARG:HB3	2.28	0.73
1:p:476:MET:HE1	1:p:503:SER:HA	1.70	0.73
1:A:423:LEU:HD11	1:E:423:LEU:HD12	1.69	0.73
1:Z:476:MET:HE1	1:Z:501:ARG:HB3	1.70	0.73
1:g:202:TYR:O	1:n:324:LYS:NZ	2.22	0.73
1:j:502:ILE:HD11	1:j:507:MET:HG3	1.70	0.73
1:n:474:THR:HG22	1:n:511:ILE:HG12	1.70	0.73
1:Q:479:PRO:HA	1:Q:482:ILE:HG22	1.68	0.73
1:m:422:ASN:HD21	1:m:428:LYS:HG2	1.53	0.73
1:I:592:GLN:NE2	1:L:593:VAL:O	2.21	0.73
1:T:592:GLN:HG2	1:T:596:ALA:HB3	1.71	0.73
1:V:375:ARG:HH12	1:V:398:GLU:HB3	1.54	0.73
1:Y:563:ASN:OD1	1:Z:190:ARG:NH2	2.20	0.73
1:N:79:GLN:NE2	1:N:83:ASP:OD2	2.21	0.73
1:b:52:ARG:HA	1:b:322:VAL:HG12	1.70	0.73
1:h:544:ILE:HD12	1:h:549:ILE:HG22	1.69	0.73
1:E:339:LYS:NZ	1:E:340:PRO:O	2.22	0.72
1:M:536:GLU:OE2	1:M:558:ARG:NH1	2.22	0.72
1:W:160:ASP:HB3	1:W:306:LEU:HD11	1.70	0.72
1:K:52:ARG:HA	1:K:322:VAL:HG12	1.70	0.72
1:d:200:ARG:HH22	1:d:204:PHE:HA	1.53	0.72
1:e:156:MET:SD	1:e:156:MET:N	2.55	0.72
1:g:75:ARG:NE	1:g:86:THR:OG1	2.21	0.72
1:H:554:ARG:HD2	1:I:311:GLN:HE21	1.53	0.72
1:W:114:PRO:O	1:W:116:GLN:NE2	2.23	0.72
1:Y:420:LEU:H	1:c:583:ARG:HH11	1.34	0.72
1:k:420:LEU:O	1:o:583:ARG:NH1	2.21	0.72
1:A:433:GLN:NE2	1:A:483:GLN:O	2.23	0.72
1:L:331:THR:HA	1:L:558:ARG:HG2	1.69	0.72
1:L:400:VAL:HG13	1:L:525:PRO:HB3	1.72	0.72
1:T:422:ASN:OD1	1:U:421:ASN:ND2	2.23	0.72
1:V:391:ILE:HG22	1:V:392:GLU:HG2	1.70	0.72
1:h:239:GLY:HA2	1:h:274:LYS:HZ2	1.54	0.72
1:I:90:ASN:O	1:I:120:GLN:NE2	2.22	0.72
1:S:589:ASN:HB3	1:W:587:ASP:HA	1.71	0.72
1:X:250:GLY:HA3	1:X:261:THR:HG22	1.70	0.72
1:M:511:ILE:HB	1:M:571:ILE:HB	1.70	0.72
1:j:586:LEU:HG	1:j:587:ASP:H	1.53	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:546:ASN:O	1:B:548:ARG:NH2	2.23	0.72
1:C:433:GLN:NE2	1:C:487:ASP:OD1	2.22	0.72
1:F:60:TRP:NE1	1:f:157:THR:O	2.22	0.72
1:e:241:ARG:NH1	1:i:382:TYR:O	2.21	0.72
1:F:239:GLY:HA3	1:F:274:LYS:NZ	2.05	0.72
1:S:449:GLN:OE1	1:W:508:LYS:NZ	2.20	0.72
1:O:348:THR:HA	1:R:320:SER:HB2	1.72	0.71
1:O:551:ARG:HH21	1:O:553:ILE:HD11	1.54	0.71
1:A:247:LYS:HE3	1:A:264:ARG:HG2	1.72	0.71
1:A:308:ASN:HD22	1:A:311:GLN:HA	1.55	0.71
1:C:344:GLU:OE1	1:C:351:ARG:NH2	2.23	0.71
1:F:212:HIS:NE2	1:k:251:GLU:OE1	2.24	0.71
1:D:336:VAL:HB	1:E:315:GLY:HA3	1.72	0.71
1:P:28:HIS:N	1:P:364:MET:SD	2.63	0.71
1:S:398:GLU:OE1	1:T:190:ARG:NH1	2.22	0.71
1:M:395:LEU:O	1:N:192:GLN:NE2	2.23	0.71
1:b:119:LYS:NZ	1:b:121:GLY:O	2.23	0.71
1:d:28:HIS:N	1:d:364:MET:SD	2.63	0.71
1:p:337:ILE:HG13	1:p:355:LEU:HD21	1.73	0.71
1:H:583:ARG:HD3	1:I:420:LEU:H	1.55	0.71
1:g:160:ASP:HB2	1:g:306:LEU:HD11	1.71	0.71
1:i:339:LYS:HZ1	1:i:553:ILE:H	1.35	0.71
1:n:587:ASP:OD2	1:p:583:ARG:NE	2.24	0.71
1:X:388:PRO:HB2	1:X:406:ARG:HE	1.54	0.71
1:Z:580:ILE:HG21	1:a:442:GLU:HG3	1.71	0.71
1:b:143:MET:SD	1:b:146:GLN:NE2	2.63	0.71
1:h:588:VAL:HG23	1:j:587:ASP:HA	1.72	0.71
1:o:157:THR:OG1	1:o:160:ASP:OD1	2.09	0.71
1:L:524:HIS:HB3	1:L:527:GLN:HE22	1.56	0.71
1:M:308:ASN:ND2	1:M:312:LEU:H	1.89	0.71
1:P:338:VAL:HG22	1:P:552:GLU:HG2	1.72	0.71
1:b:249:ASP:OD2	1:b:264:ARG:NH1	2.23	0.71
1:j:400:VAL:HG13	1:j:525:PRO:HB3	1.72	0.71
1:D:193:TYR:OH	1:D:212:HIS:O	2.07	0.71
1:H:365:ARG:NH1	1:I:81:LEU:HD12	2.06	0.70
1:W:60:TRP:HD1	1:W:66:SER:HB2	1.55	0.70
1:a:534:ILE:HB	1:a:558:ARG:HB2	1.73	0.70
1:g:232:LEU:HD21	1:g:293:LEU:HD21	1.73	0.70
1:g:479:PRO:HB3	1:g:501:ARG:HH21	1.56	0.70
1:h:57:TRP:HA	1:h:75:ARG:HH21	1.56	0.70
1:l:545:ARG:NH1	1:m:153:LYS:HZ3	1.89	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:247:LYS:HE2	1:V:264:ARG:HH21	1.54	0.70
1:m:332:LEU:HB2	1:m:557:PRO:HG2	1.72	0.70
1:p:58:GLU:O	1:p:122:LYS:NZ	2.23	0.70
1:Q:210:LYS:HE3	1:Q:212:HIS:HE1	1.54	0.70
1:l:583:ARG:NH1	1:m:420:LEU:O	2.23	0.70
1:C:529:GLY:HA2	1:C:563:ASN:HA	1.71	0.70
1:N:560:ARG:HH12	1:O:190:ARG:HH21	1.38	0.70
1:V:447:ALA:HB2	1:V:569:LEU:HD21	1.72	0.70
1:W:242:ILE:HG22	1:W:271:VAL:HG22	1.72	0.70
1:h:328:MET:HE2	1:i:195:ALA:HB1	1.71	0.70
1:Y:477:ARG:HA	1:Z:449:GLN:HE22	1.57	0.70
1:b:592:GLN:NE2	1:b:597:SER:O	2.24	0.70
1:h:369:VAL:HG12	1:h:506:ARG:HH21	1.55	0.70
1:Q:443:MET:HG3	1:Q:569:LEU:HD13	1.72	0.70
1:p:114:PRO:O	1:p:116:GLN:NE2	2.25	0.70
1:h:208:GLN:HE22	1:h:210:LYS:HB2	1.56	0.70
1:M:190:ARG:NH2	1:Q:563:ASN:OD1	2.23	0.70
1:P:28:HIS:HB2	1:P:364:MET:HE3	1.72	0.70
1:Q:449:GLN:HG3	1:Q:450:LEU:HD22	1.74	0.70
1:U:400:VAL:HG23	1:U:525:PRO:HB3	1.74	0.70
1:J:212:HIS:ND1	1:J:247:LYS:HG2	2.07	0.70
1:j:99:GLN:H	1:j:103:ASN:HD22	1.38	0.70
1:l:517:LEU:HD22	1:l:526:LEU:HD11	1.72	0.70
1:H:554:ARG:NH2	1:I:313:GLU:O	2.25	0.69
1:K:37:THR:HA	1:K:531:LEU:HB3	1.73	0.69
1:a:414:ILE:HD11	1:a:439:LYS:HG2	1.73	0.69
1:m:339:LYS:NZ	1:m:340:PRO:O	2.22	0.69
1:A:586:LEU:HD23	1:E:586:LEU:HG	1.73	0.69
1:D:258:ASN:HD21	1:e:70:GLN:HA	1.55	0.69
1:H:359:TYR:HE1	1:H:557:PRO:HB3	1.56	0.69
1:N:75:ARG:NH2	1:N:86:THR:O	2.24	0.69
1:Z:94:LEU:HD11	1:Z:306:LEU:HB2	1.74	0.69
1:G:196:TYR:HE1	1:G:209:LEU:HD22	1.56	0.69
1:G:583:ARG:HH21	1:H:420:LEU:H	1.40	0.69
1:M:370:THR:HG22	1:M:374:ASN:HD21	1.57	0.69
1:g:467:LYS:HD2	1:g:468:PRO:HD2	1.72	0.69
1:D:487:ASP:OD1	1:D:488:ASP:N	2.25	0.69
1:Q:308:ASN:HD21	1:Q:312:LEU:N	1.89	0.69
1:b:443:MET:HG3	1:b:569:LEU:HD23	1.74	0.69
1:m:331:THR:OG1	1:m:558:ARG:NE	2.25	0.69
1:n:290:LEU:HA	1:n:293:LEU:HD12	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:547:GLN:C	1:D:548:ARG:HD2	2.18	0.69
1:H:308:ASN:ND2	1:H:312:LEU:H	1.90	0.69
1:V:184:PHE:HE2	1:V:223:THR:HG22	1.57	0.69
1:g:365:ARG:NH2	1:j:81:LEU:O	2.22	0.69
1:A:313:GLU:OE2	1:E:554:ARG:NH1	2.24	0.69
1:T:140:ASN:ND2	1:T:256:ASN:O	2.25	0.69
1:U:331:THR:HA	1:U:558:ARG:HG3	1.74	0.69
1:V:544:ILE:HG12	1:V:549:ILE:HG22	1.73	0.69
1:d:159:THR:HA	1:h:548:ARG:CZ	2.23	0.69
1:L:546:ASN:H	1:o:547:GLN:NE2	1.91	0.69
1:O:324:LYS:O	1:R:193:TYR:OH	2.10	0.69
1:R:375:ARG:HH11	1:R:563:ASN:HB3	1.58	0.69
1:S:160:ASP:HB3	1:S:306:LEU:HD11	1.73	0.69
1:W:441:ASN:HD21	1:W:491:VAL:HA	1.57	0.69
1:b:419:ASP:HA	1:d:583:ARG:HG2	1.75	0.69
1:n:159:THR:OG1	1:n:310:ASN:ND2	2.26	0.69
1:J:60:TRP:NE1	1:J:68:GLU:OE2	2.26	0.69
1:L:218:GLY:HA2	1:L:241:ARG:HD2	1.75	0.69
1:M:59:GLY:HA2	1:M:317:LEU:HD12	1.74	0.69
1:P:183:LEU:O	1:P:223:THR:OG1	2.11	0.69
1:S:592:GLN:NE2	1:T:593:VAL:O	2.17	0.69
1:T:583:ARG:NH1	1:U:420:LEU:O	2.26	0.69
1:b:33:LEU:HD13	1:b:500:ALA:HB2	1.73	0.69
1:e:191:ASP:OD2	1:e:192:GLN:N	2.26	0.69
1:j:37:THR:HA	1:j:531:LEU:HB3	1.73	0.69
1:k:429:GLN:NE2	1:l:488:ASP:OD2	2.21	0.69
1:B:196:TYR:HE1	1:B:209:LEU:HB2	1.56	0.69
1:K:169:LYS:HA	1:K:189:ASN:HB2	1.74	0.69
1:Q:310:ASN:ND2	1:S:549:ILE:O	2.25	0.69
1:b:583:ARG:NH2	1:c:418:ASN:O	2.26	0.69
1:i:359:TYR:HE1	1:i:557:PRO:HB3	1.58	0.69
1:m:211:PHE:HB3	1:m:248:VAL:HB	1.74	0.69
1:n:172:LEU:HD11	1:n:183:LEU:HB3	1.75	0.69
1:A:216:GLY:HA2	1:A:243:GLU:HA	1.73	0.69
1:D:339:LYS:HD2	1:D:340:PRO:HD2	1.75	0.69
1:D:547:GLN:H	1:D:548:ARG:HH11	1.41	0.69
1:M:331:THR:O	1:N:305:ARG:NH1	2.26	0.69
1:O:592:GLN:NE2	1:R:593:VAL:O	2.26	0.69
1:d:37:THR:HG22	1:d:531:LEU:HD23	1.74	0.69
1:f:53:ARG:HH12	1:f:55:LEU:HD21	1.58	0.69
1:k:593:VAL:HG22	1:o:592:GLN:HE21	1.58	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:328:MET:HB3	1:B:165:ARG:HD2	1.76	0.68
1:E:94:LEU:HD11	1:E:306:LEU:HD12	1.74	0.68
1:U:83:ASP:OD1	1:U:84:TYR:N	2.26	0.68
1:a:60:TRP:HE3	1:a:62:GLY:H	1.39	0.68
1:e:334:PRO:HB3	1:e:556:THR:HG22	1.76	0.68
1:p:502:ILE:HD11	1:p:507:MET:HG3	1.74	0.68
1:G:55:LEU:HD21	1:G:74:LYS:HB3	1.74	0.68
1:a:93:GLU:HA	1:a:305:ARG:HG2	1.74	0.68
1:a:481:TYR:HE2	1:a:576:LEU:HD21	1.57	0.68
1:h:443:MET:HE1	1:h:571:ILE:HG21	1.75	0.68
1:D:235:LEU:HG	1:D:242:ILE:HD11	1.73	0.68
1:G:410:ASN:ND2	1:G:443:MET:SD	2.65	0.68
1:L:341:ALA:O	1:L:342:MET:HE2	1.94	0.68
1:Z:284:SER:OG	1:Z:285:ARG:NH1	2.27	0.68
1:b:53:ARG:HE	1:b:55:LEU:HD21	1.57	0.68
1:A:103:ASN:ND2	1:A:143:MET:SD	2.66	0.68
1:J:380:LYS:HE3	1:J:385:VAL:HB	1.76	0.68
1:R:337:ILE:HG13	1:R:355:LEU:HD21	1.76	0.68
1:D:36:ARG:NH2	1:D:517:LEU:O	2.26	0.68
1:E:99:GLN:OE1	1:E:103:ASN:ND2	2.25	0.68
1:J:332:LEU:HB2	1:J:557:PRO:HG2	1.75	0.68
1:N:60:TRP:CD1	1:N:62:GLY:H	2.10	0.68
1:a:99:GLN:H	1:a:103:ASN:HD21	1.40	0.68
1:C:583:ARG:NH1	1:F:420:LEU:O	2.26	0.68
1:i:79:GLN:O	1:i:83:ASP:N	2.27	0.68
1:O:336:VAL:HG12	1:O:554:ARG:HG2	1.75	0.68
1:W:379:LEU:HD22	1:W:383:LEU:HD12	1.75	0.68
1:k:156:MET:HE1	1:k:312:LEU:HB2	1.75	0.68
1:m:230:ALA:O	1:m:233:LYS:NZ	2.25	0.68
1:F:42:PRO:HA	1:F:534:ILE:HD11	1.76	0.68
1:F:376:ALA:HA	1:F:568:MET:HE1	1.76	0.68
1:h:346:ASP:O	1:i:52:ARG:NH2	2.27	0.68
1:A:312:LEU:HB2	1:T:548:ARG:HH12	1.58	0.68
1:A:355:LEU:HG	1:A:555:LEU:HD23	1.76	0.68
1:I:394:ASN:O	1:I:402:GLN:NE2	2.27	0.68
1:N:512:VAL:HG13	1:N:568:MET:HE1	1.75	0.68
1:P:583:ARG:NH2	1:Q:420:LEU:O	2.27	0.68
1:b:185:ALA:HB3	1:b:224:VAL:HG21	1.75	0.68
1:f:249:ASP:OD2	1:f:250:GLY:N	2.27	0.68
1:h:57:TRP:CD1	1:h:59:GLY:H	2.11	0.68
1:l:248:VAL:HG12	1:l:263:LEU:HA	1.76	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:251:GLU:OE2	1:X:212:HIS:NE2	2.24	0.68
1:I:491:VAL:HG21	1:I:497:TYR:HB3	1.76	0.68
1:P:332:LEU:H	1:P:558:ARG:NH2	1.89	0.68
1:Q:251:GLU:OE1	1:U:210:LYS:NZ	2.20	0.68
1:T:28:HIS:N	1:T:364:MET:SD	2.66	0.68
1:i:380:LYS:HE3	1:i:409:TYR:HE2	1.58	0.68
1:m:388:PRO:HB2	1:m:406:ARG:HH21	1.59	0.68
1:A:310:ASN:ND2	1:T:549:ILE:O	2.23	0.67
1:B:157:THR:OG1	1:B:160:ASP:OD1	2.11	0.67
1:E:411:GLU:HG2	1:E:570:VAL:HB	1.76	0.67
1:I:381:SER:O	1:L:241:ARG:NH1	2.27	0.67
1:c:399:GLY:O	1:c:402:GLN:NE2	2.22	0.67
1:e:320:SER:HB2	1:i:348:THR:HA	1.75	0.67
1:f:346:ASP:O	1:g:52:ARG:NH2	2.24	0.67
1:f:423:LEU:HD12	1:g:423:LEU:HD21	1.76	0.67
1:n:583:ARG:NH2	1:o:587:ASP:OD2	2.27	0.67
1:E:92:THR:HG22	1:E:306:LEU:H	1.57	0.67
1:M:308:ASN:HD21	1:M:312:LEU:H	1.40	0.67
1:Y:147:THR:HG22	1:Y:150:ARG:HG2	1.75	0.67
1:b:331:THR:HA	1:b:558:ARG:HG2	1.75	0.67
1:p:235:LEU:HA	1:p:238:LEU:HD12	1.75	0.67
1:p:545:ARG:HH22	1:p:554:ARG:HH22	1.42	0.67
1:Y:428:LYS:HE3	1:Y:580:ILE:HA	1.76	0.67
1:c:119:LYS:NZ	1:c:124:THR:OG1	2.25	0.67
1:d:375:ARG:HD3	1:d:563:ASN:ND2	2.09	0.67
1:e:420:LEU:O	1:i:583:ARG:NH1	2.24	0.67
1:m:582:GLN:NE2	1:m:583:ARG:O	2.26	0.67
1:p:552:GLU:OE1	1:p:554:ARG:NH2	2.27	0.67
1:m:140:ASN:ND2	1:m:258:ASN:OD1	2.28	0.67
1:p:83:ASP:OD1	1:p:84:TYR:N	2.28	0.67
1:T:472:ILE:HG12	1:T:513:MET:HG2	1.76	0.67
1:D:193:TYR:HB3	1:f:202:TYR:HE2	1.58	0.67
1:F:79:GLN:HB3	1:F:86:THR:HG21	1.77	0.67
1:W:283:ASP:OD1	1:W:284:SER:N	2.28	0.67
1:Z:75:ARG:NH1	1:Z:76:ASN:O	2.28	0.67
1:e:163:ASP:HB3	1:e:305:ARG:HB2	1.76	0.67
1:f:545:ARG:NH2	1:p:547:GLN:OE1	2.26	0.67
1:o:359:TYR:HE1	1:o:557:PRO:HB3	1.59	0.67
1:d:200:ARG:NH2	1:d:203:ASN:O	2.27	0.67
1:h:391:ILE:HG22	1:h:392:GLU:HG2	1.77	0.67
1:h:554:ARG:NH2	1:i:313:GLU:O	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:l:55:LEU:HD13	1:l:74:LYS:HB3	1.77	0.67
1:T:596:ALA:HB1	1:U:595:PRO:HD3	1.77	0.67
1:W:53:ARG:NH1	1:W:392:GLU:OE2	2.28	0.67
1:a:203:ASN:HB3	1:a:206:LEU:HD13	1.77	0.67
1:J:422:ASN:HD21	1:J:584:THR:HB	1.60	0.67
1:Z:70:GLN:NE2	1:Z:71:GLU:O	2.27	0.67
1:Z:451:THR:HG21	1:Z:567:ILE:HD12	1.77	0.67
1:j:457:LEU:HD23	1:j:466:PRO:HG2	1.75	0.67
1:k:382:TYR:O	1:l:241:ARG:NH1	2.28	0.67
1:m:346:ASP:OD1	1:m:351:ARG:NH2	2.26	0.67
1:K:363:GLN:O	1:K:561:TYR:OH	2.11	0.67
1:R:359:TYR:HB2	1:R:555:LEU:HD21	1.76	0.67
1:d:57:TRP:CD1	1:d:74:LYS:HZ3	2.12	0.67
1:e:37:THR:HA	1:e:531:LEU:HB3	1.76	0.67
1:k:347:LYS:HB3	1:l:52:ARG:HH12	1.59	0.67
1:m:53:ARG:HH12	1:m:55:LEU:HD21	1.60	0.67
1:B:434:GLY:HA2	1:B:489:ARG:NH1	2.09	0.66
1:C:308:ASN:O	1:C:311:GLN:NE2	2.29	0.66
1:E:55:LEU:HD23	1:E:74:LYS:HB3	1.77	0.66
1:F:541:PHE:HD2	1:F:543:MET:HE3	1.58	0.66
1:I:586:LEU:HD22	1:L:586:LEU:HD11	1.77	0.66
1:J:315:GLY:HA3	1:L:336:VAL:HG12	1.76	0.66
1:K:196:TYR:HB3	1:K:207:MET:HG3	1.76	0.66
1:P:139:PHE:HB2	1:P:144:LEU:HD11	1.77	0.66
1:S:325:GLN:NE2	1:T:192:GLN:O	2.28	0.66
1:T:337:ILE:HD13	1:T:355:LEU:HD12	1.77	0.66
1:U:61:THR:H	1:U:67:GLY:HA2	1.60	0.66
1:a:83:ASP:OD1	1:a:84:TYR:N	2.28	0.66
1:o:308:ASN:O	1:o:311:GLN:NE2	2.28	0.66
1:B:347:LYS:O	1:C:320:SER:OG	2.11	0.66
1:F:511:ILE:HB	1:F:571:ILE:HB	1.75	0.66
1:W:483:GLN:HE22	1:W:485:ASN:HB3	1.59	0.66
1:Z:511:ILE:HG12	1:Z:513:MET:HE3	1.77	0.66
1:d:128:ASN:OD1	1:d:129:PHE:N	2.27	0.66
1:d:212:HIS:HB3	1:d:247:LYS:HD2	1.78	0.66
1:W:511:ILE:HB	1:W:571:ILE:HB	1.77	0.66
1:b:177:LYS:HB3	1:b:231:LEU:HD22	1.76	0.66
1:A:241:ARG:NH1	1:E:382:TYR:O	2.29	0.66
1:C:214:SER:HA	1:C:245:ASP:HA	1.77	0.66
1:J:202:TYR:OH	1:l:212:HIS:N	2.22	0.66
1:b:169:LYS:HA	1:b:189:ASN:HB2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:60:TRP:HD1	1:N:62:GLY:H	1.44	0.66
1:T:45:ALA:HB1	1:T:328:MET:HE1	1.77	0.66
1:U:166:ILE:HD12	1:U:252:MET:HE2	1.77	0.66
1:a:410:ASN:OD1	1:a:411:GLU:N	2.27	0.66
1:b:223:THR:HG23	1:b:225:ALA:H	1.59	0.66
1:f:365:ARG:NH2	1:g:81:LEU:O	2.28	0.66
1:K:205:ARG:HE	1:K:255:GLU:HB2	1.61	0.66
1:L:60:TRP:NE1	1:l:157:THR:O	2.26	0.66
1:N:383:LEU:HD22	1:N:389:HIS:CD2	2.30	0.66
1:O:472:ILE:HD12	1:O:513:MET:HB3	1.77	0.66
1:U:592:GLN:OE1	1:U:597:SER:OG	2.13	0.66
1:Z:233:LYS:NZ	1:Z:237:ASP:OD1	2.28	0.66
1:J:548:ARG:HA	1:R:310:ASN:HD22	1.61	0.66
1:L:394:ASN:O	1:L:402:GLN:NE2	2.28	0.66
1:O:511:ILE:HB	1:O:571:ILE:HB	1.77	0.66
1:W:148:PRO:O	1:W:152:LYS:NZ	2.28	0.66
1:X:359:TYR:HE1	1:X:557:PRO:HB3	1.60	0.66
1:j:483:GLN:NE2	1:j:485:ASN:OD1	2.21	0.66
1:C:365:ARG:NH2	1:F:81:LEU:O	2.28	0.66
1:E:440:ILE:HG13	1:E:513:MET:HE1	1.78	0.66
1:J:153:LYS:HZ1	1:L:545:ARG:HE	1.42	0.66
1:M:424:THR:HG22	1:M:426:ALA:H	1.61	0.66
1:h:163:ASP:OD1	1:h:164:SER:N	2.29	0.66
1:N:247:LYS:HB2	1:N:265:ALA:HB3	1.78	0.66
1:T:59:GLY:HA3	1:T:122:LYS:NZ	2.11	0.66
1:W:512:VAL:HG13	1:W:568:MET:HE1	1.77	0.66
1:Z:397:LEU:O	1:a:192:GLN:NE2	2.28	0.66
1:e:400:VAL:HG13	1:e:525:PRO:HB3	1.78	0.66
1:i:196:TYR:HB3	1:i:207:MET:HB3	1.76	0.66
1:n:440:ILE:HD12	1:n:513:MET:HE1	1.78	0.66
1:C:365:ARG:HH22	1:F:81:LEU:HD12	1.61	0.66
1:N:80:GLY:HA2	1:N:86:THR:HG21	1.78	0.66
1:Y:534:ILE:HB	1:Y:558:ARG:HG3	1.77	0.66
1:a:330:PRO:HD3	1:d:165:ARG:HH11	1.61	0.66
1:c:476:MET:HE1	1:c:503:SER:HA	1.76	0.66
1:j:49:LEU:O	1:j:325:GLN:NE2	2.29	0.66
1:m:79:GLN:HE22	1:m:391:ILE:HB	1.61	0.66
1:B:153:LYS:HE3	1:O:547:GLN:HG3	1.78	0.65
1:Y:363:GLN:O	1:Y:561:TYR:OH	2.14	0.65
1:o:37:THR:HA	1:o:531:LEU:HB3	1.78	0.65
1:p:72:ILE:HD13	1:p:122:LYS:HE3	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:247:LYS:HD2	1:E:264:ARG:HH21	1.60	0.65
1:M:320:SER:OG	1:Q:347:LYS:O	2.14	0.65
1:a:580:ILE:HG21	1:d:442:GLU:HG3	1.76	0.65
1:B:55:LEU:HD11	1:B:74:LYS:HB3	1.79	0.65
1:C:199:THR:OG1	1:C:208:GLN:OE1	2.15	0.65
1:M:524:HIS:HD2	1:M:526:LEU:HB2	1.61	0.65
1:W:392:GLU:HG2	1:W:403:TYR:HD1	1.60	0.65
1:g:135:ASN:O	1:o:267:ARG:NH1	2.29	0.65
1:A:53:ARG:HE	1:A:55:LEU:HD21	1.59	0.65
1:A:334:PRO:HB3	1:A:556:THR:HG22	1.78	0.65
1:E:538:LEU:HD21	1:E:553:ILE:HG23	1.78	0.65
1:F:229:SER:O	1:F:233:LYS:NZ	2.29	0.65
1:G:241:ARG:NH2	1:K:382:TYR:O	2.28	0.65
1:Z:565:LEU:HG	1:Z:567:ILE:HG22	1.77	0.65
1:a:172:LEU:HD21	1:a:183:LEU:HD13	1.78	0.65
1:C:53:ARG:NH2	1:C:321:ASP:OD2	2.29	0.65
1:G:588:VAL:O	1:H:591:THR:N	2.28	0.65
1:J:318:ILE:H	1:L:337:ILE:HD13	1.60	0.65
1:R:390:PRO:O	1:R:393:SER:OG	2.09	0.65
1:X:186:LEU:HD21	1:X:217:LEU:HD21	1.77	0.65
1:E:331:THR:HA	1:E:558:ARG:HG2	1.79	0.65
1:F:592:GLN:NE2	1:F:597:SER:OG	2.30	0.65
1:I:400:VAL:HG13	1:I:525:PRO:HA	1.77	0.65
1:P:94:LEU:HD21	1:P:306:LEU:HD12	1.77	0.65
1:Y:51:ILE:HD11	1:Y:403:TYR:HD1	1.60	0.65
1:a:163:ASP:OD1	1:a:164:SER:N	2.30	0.65
1:c:327:PHE:HE2	1:c:564:PHE:HE1	1.45	0.65
1:j:477:ARG:O	1:j:480:GLN:NE2	2.30	0.65
1:E:131:LYS:NZ	1:E:132:PHE:O	2.29	0.65
1:I:172:LEU:HG	1:I:183:LEU:HD12	1.79	0.65
1:g:474:THR:HG21	1:g:478:LEU:HB2	1.78	0.65
1:C:99:GLN:OE1	1:C:103:ASN:ND2	2.29	0.65
1:V:94:LEU:HD11	1:V:306:LEU:HB2	1.79	0.65
1:c:73:SER:O	1:c:75:ARG:NH1	2.30	0.65
1:l:359:TYR:HE1	1:l:557:PRO:HB3	1.62	0.65
1:m:479:PRO:HA	1:m:482:ILE:HG22	1.79	0.65
1:e:399:GLY:O	1:e:402:GLN:NE2	2.27	0.65
1:l:162:LEU:HB2	1:l:254:VAL:HG23	1.78	0.65
1:n:583:ARG:NH1	1:o:420:LEU:O	2.30	0.65
1:G:57:TRP:NE1	1:G:319:ASP:OD2	2.29	0.65
1:I:235:LEU:HD22	1:I:289:ALA:HB1	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:163:ASP:OD1	1:P:164:SER:N	2.29	0.65
1:S:317:LEU:HD22	1:W:338:VAL:HG12	1.79	0.65
1:Z:592:GLN:HE21	1:Z:597:SER:HB2	1.62	0.65
1:B:177:LYS:HB3	1:B:231:LEU:HD13	1.80	0.64
1:V:57:TRP:HH2	1:V:60:TRP:HB3	1.61	0.64
1:X:247:LYS:HE3	1:X:265:ALA:HB3	1.80	0.64
1:a:57:TRP:NE1	1:a:319:ASP:OD2	2.30	0.64
1:n:208:GLN:HG2	1:n:251:GLU:HG3	1.79	0.64
1:A:332:LEU:HB2	1:A:557:PRO:HG2	1.79	0.64
1:D:410:ASN:ND2	1:D:443:MET:SD	2.71	0.64
1:H:70:GLN:NE2	1:H:71:GLU:O	2.31	0.64
1:I:422:ASN:ND2	1:I:431:ASP:OD2	2.30	0.64
1:J:108:ILE:HA	1:J:131:LYS:HE3	1.79	0.64
1:S:426:ALA:HB1	1:T:489:ARG:HH12	1.61	0.64
1:Z:325:GLN:HE21	1:Z:400:VAL:HG12	1.62	0.64
1:c:400:VAL:HG23	1:c:525:PRO:HB3	1.77	0.64
1:A:81:LEU:HD12	1:E:365:ARG:NH1	2.12	0.64
1:A:81:LEU:HD12	1:E:365:ARG:HH12	1.62	0.64
1:J:238:LEU:HD13	1:J:285:ARG:HH21	1.62	0.64
1:L:467:LYS:NZ	1:L:468:PRO:O	2.30	0.64
1:V:242:ILE:HG22	1:V:271:VAL:HG22	1.78	0.64
1:a:347:LYS:HB3	1:d:320:SER:HB2	1.80	0.64
1:b:131:LYS:NZ	1:b:132:PHE:O	2.30	0.64
1:l:402:GLN:HE22	1:m:192:GLN:HE21	1.44	0.64
1:n:392:GLU:HG2	1:n:403:TYR:HD1	1.63	0.64
1:B:251:GLU:OE1	1:P:264:ARG:NH1	2.22	0.64
1:B:485:ASN:HD21	1:C:493:ILE:HD11	1.62	0.64
1:G:213:THR:HG23	1:K:395:LEU:HB2	1.80	0.64
1:I:331:THR:HA	1:I:558:ARG:HG3	1.78	0.64
1:N:513:MET:HB2	1:N:569:LEU:HB2	1.80	0.64
1:e:310:ASN:O	1:e:311:GLN:HG3	1.98	0.64
1:e:349:TYR:HE1	1:f:318:ILE:HG13	1.61	0.64
1:h:239:GLY:HA2	1:h:274:LYS:NZ	2.12	0.64
1:K:290:LEU:HD13	1:K:293:LEU:HD12	1.79	0.64
1:M:411:GLU:HG2	1:M:570:VAL:HB	1.79	0.64
1:S:81:LEU:HD12	1:W:365:ARG:HH12	1.63	0.64
1:V:163:ASP:HA	1:V:307:THR:HG23	1.78	0.64
1:W:37:THR:HA	1:W:531:LEU:HB3	1.79	0.64
1:o:451:THR:HG23	1:o:453:TYR:H	1.61	0.64
1:J:168:LEU:HD13	1:J:171:LEU:HD21	1.78	0.64
1:J:169:LYS:HA	1:J:189:ASN:HB2	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:177:LYS:HE3	1:Z:293:LEU:HD13	1.78	0.64
1:f:324:LYS:H	1:o:200:ARG:HH22	1.43	0.64
1:f:591:THR:HA	1:g:593:VAL:HG11	1.79	0.64
1:l:196:TYR:HB3	1:l:207:MET:HG3	1.80	0.64
1:J:196:TYR:CE1	1:J:209:LEU:HB2	2.33	0.64
1:M:248:VAL:HG22	1:M:263:LEU:HA	1.78	0.64
1:S:592:GLN:HG2	1:S:596:ALA:HB3	1.78	0.64
1:Y:592:GLN:NE2	1:Z:593:VAL:O	2.31	0.64
1:d:251:GLU:OE2	1:e:210:LYS:NZ	2.31	0.64
1:l:114:PRO:O	1:l:116:GLN:NE2	2.30	0.64
1:A:583:ARG:NH1	1:B:420:LEU:O	2.31	0.64
1:F:157:THR:HG21	1:n:548:ARG:HD3	1.80	0.64
1:I:308:ASN:HD21	1:I:313:GLU:CD	2.06	0.64
1:Q:363:GLN:NE2	1:Q:364:MET:HB2	2.13	0.64
1:Z:336:VAL:HG22	1:a:315:GLY:HA3	1.80	0.64
1:d:373:LEU:HD21	1:d:507:MET:HE1	1.79	0.64
1:e:337:ILE:HD11	1:e:355:LEU:HB2	1.78	0.64
1:g:48:GLN:NE2	1:g:325:GLN:O	2.31	0.64
1:j:97:VAL:O	1:j:103:ASN:ND2	2.31	0.64
1:D:397:LEU:O	1:E:192:GLN:NE2	2.31	0.64
1:X:528:HIS:CE1	1:X:568:MET:HE1	2.32	0.64
1:Z:548:ARG:NE	1:Z:548:ARG:HA	2.12	0.64
1:g:328:MET:HG3	1:j:165:ARG:HH12	1.63	0.64
1:n:400:VAL:HG13	1:n:525:PRO:HB3	1.80	0.64
1:A:57:TRP:NE1	1:A:319:ASP:OD2	2.31	0.64
1:U:61:THR:OG1	1:U:67:GLY:O	2.15	0.64
1:V:37:THR:HA	1:V:531:LEU:HB3	1.79	0.64
1:a:36:ARG:NH2	1:a:517:LEU:O	2.31	0.64
1:f:33:LEU:HD21	1:f:471:ALA:HB1	1.80	0.64
1:k:312:LEU:HA	1:o:545:ARG:HH22	1.63	0.64
1:Q:140:ASN:ND2	1:T:69:LYS:H	1.96	0.63
1:Y:114:PRO:O	1:Y:116:GLN:NE2	2.30	0.63
1:Y:370:THR:O	1:Y:374:ASN:ND2	2.31	0.63
1:c:440:ILE:HG13	1:c:513:MET:HE1	1.80	0.63
1:f:75:ARG:HH22	1:f:316:LEU:HD22	1.63	0.63
1:f:481:TYR:HE2	1:f:576:LEU:HD21	1.63	0.63
1:J:331:THR:HA	1:J:558:ARG:HE	1.63	0.63
1:M:192:GLN:HG2	1:M:193:TYR:HD2	1.63	0.63
1:N:76:ASN:OD1	1:N:77:ILE:N	2.30	0.63
1:S:448:ASP:OD1	1:S:495:TYR:OH	2.16	0.63
1:a:196:TYR:HB3	1:a:207:MET:HG2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:100:SER:HA	1:f:104:ASP:HB3	1.78	0.63
1:O:332:LEU:HB2	1:O:557:PRO:HG2	1.80	0.63
1:V:310:ASN:HD22	1:c:548:ARG:HA	1.63	0.63
1:p:163:ASP:OD1	1:p:164:SER:N	2.31	0.63
1:A:310:ASN:O	1:T:548:ARG:NH2	2.32	0.63
1:B:444:VAL:HG22	1:B:513:MET:HE3	1.81	0.63
1:C:177:LYS:HE2	1:C:293:LEU:HD11	1.81	0.63
1:D:147:THR:HG23	1:D:149:SER:H	1.63	0.63
1:D:420:LEU:O	1:F:583:ARG:NH1	2.31	0.63
1:H:433:GLN:HG3	1:H:481:TYR:O	1.99	0.63
1:O:429:GLN:HG3	1:R:489:ARG:HH21	1.63	0.63
1:b:388:PRO:HG3	1:b:450:LEU:HD12	1.79	0.63
1:g:75:ARG:NH2	1:g:86:THR:O	2.30	0.63
1:g:340:PRO:HG3	1:j:63:GLU:HB2	1.80	0.63
1:h:59:GLY:HA3	1:h:317:LEU:HD12	1.81	0.63
1:N:380:LYS:HE3	1:N:409:TYR:HE2	1.63	0.63
1:N:424:THR:HG22	1:N:426:ALA:H	1.63	0.63
1:N:483:GLN:NE2	1:N:485:ASN:OD1	2.23	0.63
1:S:479:PRO:HA	1:S:482:ILE:HG22	1.79	0.63
1:e:269:ALA:HB1	1:e:270:ARG:CZ	2.29	0.63
1:i:362:GLN:O	1:i:367:ASN:ND2	2.30	0.63
1:A:37:THR:HG22	1:A:531:LEU:HD23	1.79	0.63
1:B:538:LEU:HD11	1:B:553:ILE:HG23	1.80	0.63
1:G:390:PRO:O	1:G:393:SER:OG	2.14	0.63
1:W:53:ARG:HH12	1:W:403:TYR:HB3	1.63	0.63
1:d:310:ASN:HB2	1:h:549:ILE:HG13	1.80	0.63
1:n:33:LEU:HD21	1:n:471:ALA:HB1	1.80	0.63
1:n:420:LEU:O	1:p:583:ARG:NH1	2.31	0.63
1:J:192:GLN:NE2	1:L:397:LEU:O	2.31	0.63
1:X:249:ASP:OD1	1:X:250:GLY:N	2.32	0.63
1:g:464:ARG:HG2	1:g:466:PRO:HD3	1.79	0.63
1:F:476:MET:HG3	1:F:501:ARG:HB2	1.81	0.63
1:G:177:LYS:HB2	1:G:293:LEU:HD23	1.80	0.63
1:P:554:ARG:NH2	1:Q:313:GLU:O	2.31	0.63
1:P:589:ASN:ND2	1:R:587:ASP:OD1	2.27	0.63
1:Y:491:VAL:HG21	1:Y:497:TYR:HB3	1.80	0.63
1:a:33:LEU:HD21	1:a:471:ALA:HB1	1.80	0.63
1:h:89:THR:HG23	1:j:333:PRO:HB2	1.80	0.63
1:k:169:LYS:NZ	1:k:302:LEU:O	2.32	0.63
1:l:242:ILE:HG22	1:l:271:VAL:HG22	1.81	0.63
1:n:37:THR:HA	1:n:531:LEU:HB3	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:81:LEU:O	1:p:365:ARG:NH2	2.31	0.63
1:n:429:GLN:OE1	1:o:489:ARG:NH1	2.29	0.63
1:G:375:ARG:HD3	1:G:563:ASN:HD22	1.64	0.63
1:J:140:ASN:HB2	1:k:66:SER:HA	1.81	0.63
1:K:149:SER:HA	1:K:152:LYS:HE3	1.81	0.63
1:Z:469:HIS:HD2	1:Z:516:ILE:HD11	1.64	0.63
1:e:467:LYS:NZ	1:e:468:PRO:O	2.32	0.63
1:A:513:MET:HB2	1:A:569:LEU:HB2	1.80	0.62
1:B:37:THR:HA	1:B:531:LEU:HB3	1.81	0.62
1:C:308:ASN:ND2	1:C:310:ASN:OD1	2.32	0.62
1:D:310:ASN:ND2	1:i:548:ARG:HA	2.14	0.62
1:D:313:GLU:H	1:F:554:ARG:HH22	1.47	0.62
1:M:37:THR:HA	1:M:531:LEU:HB3	1.81	0.62
1:S:524:HIS:HE1	1:S:526:LEU:HD23	1.62	0.62
1:Y:365:ARG:NH2	1:Z:81:LEU:O	2.32	0.62
1:Z:467:LYS:HE3	1:Z:467:LYS:HA	1.80	0.62
1:I:55:LEU:HD12	1:I:74:LYS:HB3	1.81	0.62
1:T:76:ASN:OD1	1:T:77:ILE:N	2.31	0.62
1:Z:42:PRO:HA	1:Z:534:ILE:HD11	1.79	0.62
1:i:375:ARG:HH21	1:i:379:LEU:HD21	1.63	0.62
1:D:590:GLU:OE1	1:E:594:THR:OG1	2.17	0.62
1:H:61:THR:HG22	1:H:64:GLY:H	1.63	0.62
1:H:321:ASP:OD2	1:H:323:GLN:NE2	2.29	0.62
1:J:587:ASP:OD2	1:L:583:ARG:NE	2.32	0.62
1:Y:370:THR:HG22	1:Y:374:ASN:HD21	1.62	0.62
1:f:433:GLN:NE2	1:f:485:ASN:O	2.32	0.62
1:k:169:LYS:HB3	1:k:303:GLU:HB2	1.81	0.62
1:m:123:ASP:OD2	1:m:149:SER:N	2.30	0.62
1:N:337:ILE:HG22	1:N:553:ILE:HB	1.82	0.62
1:a:275:GLU:HG3	1:a:277:LYS:HD3	1.81	0.62
1:d:310:ASN:OD1	1:h:548:ARG:NH1	2.32	0.62
1:H:140:ASN:ND2	1:H:142:LEU:O	2.32	0.62
1:M:89:THR:HG22	1:Q:333:PRO:HB2	1.81	0.62
1:b:80:GLY:O	1:d:365:ARG:NH2	2.33	0.62
1:b:442:GLU:HG3	1:d:580:ILE:HG21	1.82	0.62
1:d:341:ALA:O	1:d:342:MET:HE2	1.99	0.62
1:f:201:GLU:HG3	1:f:202:TYR:CG	2.35	0.62
1:k:360:ARG:HB3	1:k:364:MET:HE1	1.81	0.62
1:G:163:ASP:HB3	1:G:305:ARG:HE	1.65	0.62
1:M:363:GLN:NE2	1:M:364:MET:HB2	2.15	0.62
1:M:382:TYR:O	1:N:241:ARG:NH1	2.28	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:37:THR:HA	1:N:531:LEU:HB3	1.81	0.62
1:W:123:ASP:OD2	1:W:149:SER:N	2.31	0.62
1:g:517:LEU:HB2	1:g:527:GLN:HG2	1.80	0.62
1:h:502:ILE:HG21	1:h:507:MET:HE2	1.82	0.62
1:E:437:VAL:HG21	1:E:484:ILE:HD13	1.81	0.62
1:E:476:MET:HA	1:E:501:ARG:HD2	1.81	0.62
1:G:192:GLN:HG2	1:K:325:GLN:HE22	1.65	0.62
1:J:339:LYS:HE2	1:J:341:ALA:HB2	1.82	0.62
1:N:332:LEU:HB2	1:N:557:PRO:HG2	1.81	0.62
1:V:113:LEU:HD12	1:V:114:PRO:HD2	1.81	0.62
1:V:135:ASN:C	1:Z:267:ARG:HH21	2.07	0.62
1:b:365:ARG:NH2	1:c:80:GLY:O	2.31	0.62
1:h:33:LEU:HD21	1:h:471:ALA:HB1	1.80	0.62
1:j:177:LYS:HB3	1:j:231:LEU:HD22	1.81	0.62
1:m:370:THR:HG22	1:m:374:ASN:HD21	1.64	0.62
1:n:123:ASP:OD1	1:n:149:SER:N	2.30	0.62
1:A:414:ILE:HD11	1:A:439:LYS:HG2	1.80	0.62
1:D:339:LYS:NZ	1:D:343:VAL:H	1.97	0.62
1:Q:308:ASN:O	1:Q:311:GLN:NE2	2.33	0.62
1:Y:99:GLN:NE2	1:Y:102:GLU:OE2	2.32	0.62
1:e:177:LYS:HB2	1:e:293:LEU:HD23	1.82	0.62
1:g:380:LYS:NZ	1:g:409:TYR:OH	2.32	0.62
1:h:51:ILE:HD13	1:h:403:TYR:HD1	1.64	0.62
1:G:165:ARG:HH21	1:K:560:ARG:HH22	1.46	0.62
1:I:336:VAL:HG22	1:I:554:ARG:HE	1.64	0.62
1:M:28:HIS:HB3	1:M:364:MET:HE2	1.81	0.62
1:S:247:LYS:HD2	1:S:265:ALA:HB3	1.81	0.62
1:U:511:ILE:HB	1:U:571:ILE:HB	1.82	0.62
1:X:185:ALA:HB3	1:X:224:VAL:HG11	1.81	0.62
1:m:545:ARG:NH2	1:p:311:GLN:O	2.32	0.62
1:A:264:ARG:NH2	1:X:249:ASP:O	2.32	0.62
1:D:548:ARG:NH2	1:X:157:THR:HG22	2.09	0.62
1:J:479:PRO:HG2	1:J:501:ARG:HD3	1.82	0.62
1:N:145:ALA:O	1:N:150:ARG:NH2	2.32	0.62
1:O:28:HIS:HA	1:O:364:MET:HE2	1.81	0.62
1:T:94:LEU:HD11	1:T:306:LEU:HB2	1.81	0.62
1:U:90:ASN:O	1:U:120:GLN:NE2	2.32	0.62
1:W:57:TRP:NE1	1:W:319:ASP:OD2	2.32	0.62
1:Y:380:LYS:HD3	1:Y:409:TYR:HE1	1.64	0.62
1:a:57:TRP:CH2	1:a:60:TRP:HD1	2.13	0.62
1:a:347:LYS:HE2	1:d:322:VAL:HG13	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:210:LYS:HE3	1:e:212:HIS:HB3	1.82	0.62
1:e:336:VAL:HG12	1:f:315:GLY:H	1.64	0.62
1:e:590:GLU:HB3	1:f:593:VAL:HB	1.82	0.62
1:g:535:PRO:O	1:g:558:ARG:NH2	2.32	0.62
1:i:168:LEU:HD21	1:i:171:LEU:HD21	1.82	0.62
1:l:281:LEU:HD11	1:l:290:LEU:HD22	1.81	0.62
1:C:490:THR:HB	1:C:497:TYR:HE1	1.65	0.61
1:O:49:LEU:HD22	1:O:400:VAL:HG11	1.82	0.61
1:S:343:VAL:O	1:S:344:GLU:HG3	1.99	0.61
1:b:64:GLY:HA2	1:d:548:ARG:HH22	1.66	0.61
1:b:331:THR:O	1:c:305:ARG:NH1	2.33	0.61
1:g:57:TRP:HB3	1:g:74:LYS:HG3	1.80	0.61
1:g:480:GLN:HG3	1:j:445:TYR:HE1	1.64	0.61
1:A:489:ARG:HD3	1:E:429:GLN:HG2	1.82	0.61
1:G:334:PRO:HB3	1:G:556:THR:HG22	1.82	0.61
1:Q:158:PHE:HE1	1:T:60:TRP:HB3	1.65	0.61
1:Q:534:ILE:HG23	1:Q:558:ARG:HH11	1.65	0.61
1:Z:36:ARG:NH1	1:Z:520:GLU:O	2.33	0.61
1:Z:513:MET:HB2	1:Z:569:LEU:HB2	1.82	0.61
1:d:249:ASP:O	1:e:264:ARG:NH2	2.33	0.61
1:o:53:ARG:HH12	1:o:55:LEU:HD11	1.65	0.61
1:D:308:ASN:ND2	1:D:313:GLU:OE2	2.30	0.61
1:J:186:LEU:HD22	1:J:215:LEU:HD12	1.81	0.61
1:L:370:THR:HG22	1:L:506:ARG:HH12	1.65	0.61
1:N:33:LEU:HD21	1:N:471:ALA:HB1	1.81	0.61
1:P:586:LEU:HB3	1:Q:588:VAL:HG12	1.82	0.61
1:S:391:ILE:HG22	1:S:392:GLU:OE1	2.00	0.61
1:W:36:ARG:HG3	1:W:527:GLN:HE21	1.65	0.61
1:W:391:ILE:HG22	1:W:392:GLU:HG3	1.81	0.61
1:Y:391:ILE:HG13	1:Y:406:ARG:HD2	1.82	0.61
1:a:145:ALA:O	1:a:150:ARG:NH1	2.33	0.61
1:d:413:THR:HG22	1:d:572:ASN:HB2	1.81	0.61
1:g:310:ASN:OD1	1:p:549:ILE:HB	1.99	0.61
1:k:587:ASP:OD1	1:l:591:THR:OG1	2.17	0.61
1:o:87:LEU:O	1:o:88:GLU:HG3	1.99	0.61
1:E:399:GLY:HA3	1:E:564:PHE:HA	1.83	0.61
1:F:169:LYS:O	1:F:189:ASN:ND2	2.33	0.61
1:G:204:PHE:CD1	1:G:205:ARG:HG3	2.35	0.61
1:K:82:LEU:HD22	1:K:406:ARG:HH12	1.65	0.61
1:R:303:GLU:OE1	1:R:303:GLU:N	2.34	0.61
1:V:57:TRP:CH2	1:V:60:TRP:HB3	2.35	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:65:LEU:HB2	1:Y:68:GLU:HA	1.82	0.61
1:d:208:GLN:HB3	1:d:251:GLU:HG3	1.82	0.61
1:e:434:GLY:HA3	1:e:489:ARG:HH11	1.65	0.61
1:j:94:LEU:HD11	1:j:306:LEU:HB2	1.83	0.61
1:n:330:PRO:HG3	1:o:165:ARG:HD3	1.82	0.61
1:B:159:THR:OG1	1:O:548:ARG:NH1	2.34	0.61
1:E:310:ASN:HB2	1:Y:549:ILE:H	1.65	0.61
1:K:285:ARG:H	1:K:285:ARG:HD3	1.65	0.61
1:K:590:GLU:O	1:K:592:GLN:N	2.33	0.61
1:M:410:ASN:OD1	1:M:411:GLU:N	2.33	0.61
1:P:323:GLN:NE2	1:U:203:ASN:OD1	2.33	0.61
1:a:585:ALA:HB3	1:d:587:ASP:HB3	1.83	0.61
1:h:215:LEU:N	1:h:244:LEU:O	2.29	0.61
1:h:370:THR:HG23	1:i:84:TYR:OH	1.98	0.61
1:h:400:VAL:HG13	1:h:525:PRO:HB3	1.81	0.61
1:i:411:GLU:HG3	1:i:570:VAL:HB	1.83	0.61
1:n:165:ARG:NH2	1:p:328:MET:O	2.33	0.61
1:C:383:LEU:HD11	1:C:397:LEU:HD11	1.82	0.61
1:G:588:VAL:HG12	1:K:586:LEU:HB2	1.83	0.61
1:J:322:VAL:O	1:J:323:GLN:NE2	2.34	0.61
1:L:168:LEU:O	1:L:189:ASN:ND2	2.34	0.61
1:L:319:ASP:OD1	1:L:320:SER:N	2.31	0.61
1:L:511:ILE:HB	1:L:571:ILE:HB	1.82	0.61
1:N:235:LEU:HD13	1:N:242:ILE:HD11	1.82	0.61
1:P:66:SER:OG	1:U:146:GLN:NE2	2.33	0.61
1:Z:370:THR:HG22	1:Z:506:ARG:HH12	1.65	0.61
1:b:165:ARG:HG2	1:d:330:PRO:HB3	1.83	0.61
1:m:477:ARG:NH2	1:p:446:THR:OG1	2.25	0.61
1:G:283:ASP:HB3	1:G:286:VAL:HG22	1.82	0.61
1:G:423:LEU:HD12	1:H:423:LEU:HD21	1.83	0.61
1:Q:169:LYS:HA	1:Q:189:ASN:HB2	1.83	0.61
1:h:394:ASN:O	1:h:402:GLN:NE2	2.34	0.61
1:j:382:TYR:HE1	1:j:394:ASN:HD22	1.46	0.61
1:C:422:ASN:ND2	1:C:584:THR:O	2.34	0.61
1:E:355:LEU:HG	1:E:555:LEU:HD11	1.82	0.61
1:F:57:TRP:CZ3	1:F:59:GLY:HA2	2.35	0.61
1:H:36:ARG:NH1	1:H:36:ARG:HA	2.15	0.61
1:S:81:LEU:HA	1:W:365:ARG:HH22	1.64	0.61
1:W:33:LEU:HD12	1:W:500:ALA:HB2	1.81	0.61
1:X:168:LEU:HD11	1:X:300:TYR:HB2	1.83	0.61
1:c:28:HIS:N	1:c:364:MET:SD	2.74	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:433:GLN:OE1	1:f:485:ASN:HB3	2.00	0.61
1:k:60:TRP:CG	1:k:61:THR:H	2.18	0.61
1:p:172:LEU:HD11	1:p:183:LEU:HB3	1.81	0.61
1:p:314:MET:SD	1:p:315:GLY:N	2.74	0.61
1:B:143:MET:HE3	1:R:65:LEU:HA	1.82	0.61
1:C:543:MET:HE1	1:C:552:GLU:HB2	1.83	0.61
1:F:36:ARG:NH2	1:F:520:GLU:O	2.34	0.61
1:L:87:LEU:HG	1:L:88:GLU:H	1.66	0.61
1:N:214:SER:OG	1:N:245:ASP:OD1	2.17	0.61
1:R:548:ARG:HA	1:U:310:ASN:HD21	1.65	0.61
1:a:422:ASN:HD21	1:a:428:LYS:HG3	1.65	0.61
1:c:477:ARG:HH22	1:c:576:LEU:HD23	1.65	0.61
1:k:290:LEU:HA	1:k:293:LEU:HD12	1.83	0.61
1:m:370:THR:O	1:m:374:ASN:ND2	2.34	0.61
1:n:426:ALA:HB2	1:o:431:ASP:HA	1.82	0.61
1:K:215:LEU:HD22	1:K:246:VAL:HB	1.82	0.61
1:O:545:ARG:NH2	1:R:314:MET:HE1	2.15	0.61
1:S:585:ALA:HA	1:T:589:ASN:HB2	1.83	0.61
1:W:441:ASN:HD22	1:W:489:ARG:NH2	1.99	0.61
1:e:315:GLY:HA3	1:i:336:VAL:HB	1.82	0.61
1:k:335:LEU:HG	1:l:316:LEU:HB2	1.82	0.61
1:B:159:THR:H	1:O:548:ARG:NH1	1.98	0.60
1:I:30:PHE:CD1	1:I:502:ILE:HD11	2.36	0.60
1:N:53:ARG:HH21	1:N:55:LEU:HD11	1.65	0.60
1:P:112:VAL:HG13	1:P:113:LEU:HG	1.82	0.60
1:U:448:ASP:OD2	1:U:495:TYR:OH	2.19	0.60
1:a:119:LYS:NZ	1:a:121:GLY:O	2.33	0.60
1:b:84:TYR:O	1:d:366:ASN:ND2	2.33	0.60
1:b:335:LEU:HG	1:c:316:LEU:HB2	1.83	0.60
1:g:157:THR:HA	1:p:548:ARG:HG2	1.83	0.60
1:g:201:GLU:OE2	1:o:212:HIS:NE2	2.34	0.60
1:h:99:GLN:NE2	1:h:102:GLU:OE1	2.34	0.60
1:A:170:GLN:HE21	1:A:185:ALA:HB1	1.65	0.60
1:X:196:TYR:CE2	1:X:209:LEU:HB2	2.36	0.60
1:Z:203:ASN:HB3	1:Z:206:LEU:HD23	1.83	0.60
1:g:48:GLN:HE22	1:g:326:GLY:HA2	1.66	0.60
1:n:375:ARG:HH11	1:n:379:LEU:HD11	1.66	0.60
1:C:548:ARG:NH2	1:f:308:ASN:OD1	2.33	0.60
1:J:153:LYS:HZ2	1:L:545:ARG:HH21	1.48	0.60
1:K:504:ASP:OD1	1:K:505:LEU:N	2.35	0.60
1:L:147:THR:HG22	1:L:149:SER:H	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:170:GLN:HE21	1:M:186:LEU:H	1.49	0.60
1:M:347:LYS:NZ	1:N:320:SER:OG	2.35	0.60
1:P:55:LEU:HD23	1:P:74:LYS:HB3	1.82	0.60
1:X:369:VAL:HG13	1:X:507:MET:HE3	1.84	0.60
1:o:175:VAL:HG22	1:o:295:VAL:HG12	1.83	0.60
1:B:113:LEU:HD11	1:B:183:LEU:HD22	1.81	0.60
1:B:479:PRO:HG2	1:B:501:ARG:NE	2.16	0.60
1:C:547:GLN:HB3	1:f:154:GLY:HA2	1.82	0.60
1:F:169:LYS:HE3	1:F:301:SER:HB2	1.83	0.60
1:G:565:LEU:HD12	1:G:566:PRO:HD2	1.84	0.60
1:a:183:LEU:O	1:a:223:THR:OG1	2.19	0.60
1:a:522:GLU:CD	1:a:523:PRO:HD2	2.26	0.60
1:b:199:THR:O	1:b:208:GLN:NE2	2.34	0.60
1:i:55:LEU:HD13	1:i:74:LYS:HG2	1.82	0.60
1:i:359:TYR:CE1	1:i:557:PRO:HB3	2.37	0.60
1:m:426:ALA:HB2	1:p:431:ASP:HA	1.83	0.60
1:o:83:ASP:OD1	1:o:84:TYR:N	2.33	0.60
1:E:114:PRO:O	1:E:116:GLN:NE2	2.31	0.60
1:N:147:THR:HG23	1:N:150:ARG:HH21	1.65	0.60
1:N:589:ASN:HA	1:O:591:THR:HG22	1.84	0.60
1:S:364:MET:HE1	1:S:365:ARG:HD3	1.82	0.60
1:X:361:ILE:HA	1:X:365:ARG:HG2	1.82	0.60
1:Y:410:ASN:OD1	1:Y:411:GLU:N	2.34	0.60
1:a:57:TRP:HH2	1:a:60:TRP:CD1	2.14	0.60
1:e:489:ARG:NH2	1:i:429:GLN:OE1	2.34	0.60
1:g:592:GLN:HG2	1:g:596:ALA:HB3	1.83	0.60
1:k:428:LYS:NZ	1:k:580:ILE:O	2.33	0.60
1:m:247:LYS:HG2	1:m:265:ALA:HB3	1.82	0.60
1:m:583:ARG:HB2	1:p:421:ASN:HD21	1.67	0.60
1:o:196:TYR:CE2	1:o:209:LEU:HB2	2.37	0.60
1:A:69:LYS:NZ	1:A:71:GLU:O	2.29	0.60
1:A:504:ASP:OD2	1:A:506:ARG:NH2	2.35	0.60
1:R:548:ARG:HG2	1:U:310:ASN:ND2	2.16	0.60
1:S:52:ARG:NH2	1:W:346:ASP:O	2.29	0.60
1:c:389:HIS:O	1:c:406:ARG:NE	2.28	0.60
1:g:381:SER:O	1:j:241:ARG:NH1	2.32	0.60
1:k:52:ARG:NH2	1:o:347:LYS:O	2.34	0.60
1:m:592:GLN:OE1	1:m:597:SER:OG	2.20	0.60
1:B:57:TRP:NE1	1:B:319:ASP:OD2	2.34	0.60
1:D:93:GLU:OE2	1:D:305:ARG:NH2	2.34	0.60
1:F:169:LYS:HB3	1:F:303:GLU:HB2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:142:LEU:HD11	1:J:160:ASP:HB3	1.83	0.60
1:J:165:ARG:HD3	1:L:330:PRO:HG3	1.84	0.60
1:K:184:PHE:HE1	1:K:223:THR:HG22	1.66	0.60
1:N:359:TYR:HE1	1:N:557:PRO:HB3	1.66	0.60
1:N:580:ILE:HG21	1:O:442:GLU:HG3	1.83	0.60
1:T:119:LYS:NZ	1:T:121:GLY:O	2.35	0.60
1:V:53:ARG:HE	1:V:55:LEU:HD21	1.67	0.60
1:W:169:LYS:HG3	1:W:303:GLU:HB2	1.83	0.60
1:W:441:ASN:HD22	1:W:489:ARG:HH22	1.49	0.60
1:Z:400:VAL:HG23	1:Z:525:PRO:HA	1.83	0.60
1:b:365:ARG:HH22	1:c:81:LEU:HA	1.66	0.60
1:c:242:ILE:HG22	1:c:271:VAL:HG22	1.84	0.60
1:p:414:ILE:HD11	1:p:439:LYS:HE3	1.84	0.60
1:C:196:TYR:CE1	1:C:209:LEU:HB2	2.37	0.60
1:I:439:LYS:HZ1	1:I:443:MET:HE3	1.66	0.60
1:W:36:ARG:NH1	1:W:518:PRO:O	2.35	0.60
1:Y:196:TYR:CD1	1:Y:209:LEU:HD13	2.36	0.60
1:f:120:GLN:OE1	1:f:121:GLY:N	2.35	0.60
1:C:200:ARG:NH1	1:K:198:ALA:O	2.34	0.60
1:D:476:MET:HE3	1:D:501:ARG:HD2	1.84	0.60
1:H:365:ARG:HH12	1:I:81:LEU:HD12	1.65	0.60
1:L:131:LYS:NZ	1:L:132:PHE:O	2.35	0.60
1:Q:158:PHE:CE1	1:T:60:TRP:HB3	2.36	0.60
1:Y:61:THR:HG23	1:Y:72:ILE:HD11	1.84	0.60
1:h:78:LEU:HA	1:h:81:LEU:HD23	1.81	0.60
1:k:247:LYS:HB3	1:k:265:ALA:HB3	1.83	0.60
1:l:348:THR:HA	1:m:320:SER:HB2	1.83	0.60
1:B:57:TRP:CE2	1:B:317:LEU:HD11	2.37	0.60
1:B:382:TYR:HD2	1:B:397:LEU:HD12	1.67	0.60
1:D:313:GLU:HB2	1:F:554:ARG:HH12	1.67	0.60
1:E:62:GLY:HA3	1:E:67:GLY:H	1.66	0.60
1:J:310:ASN:OD1	1:J:311:GLN:N	2.35	0.60
1:V:204:PHE:CE1	1:Y:322:VAL:HG22	2.37	0.60
1:W:422:ASN:C	1:W:422:ASN:HD22	2.06	0.60
1:b:83:ASP:OD1	1:b:84:TYR:N	2.33	0.60
1:c:582:GLN:NE2	1:c:583:ARG:O	2.35	0.60
1:A:89:THR:HB	1:E:333:PRO:HB2	1.83	0.59
1:C:433:GLN:HE22	1:C:487:ASP:HA	1.65	0.59
1:E:355:LEU:HD21	1:E:555:LEU:HD21	1.83	0.59
1:X:422:ASN:ND2	1:X:431:ASP:OD2	2.35	0.59
1:c:163:ASP:OD1	1:c:164:SER:N	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:166:ILE:HB	1:o:196:TYR:HD1	1.67	0.59
1:E:341:ALA:HB2	1:E:550:GLY:HA2	1.82	0.59
1:I:196:TYR:CE2	1:I:209:LEU:HB2	2.36	0.59
1:J:464:ARG:HG3	1:J:466:PRO:HD3	1.83	0.59
1:M:172:LEU:HD22	1:M:298:VAL:HB	1.85	0.59
1:O:108:ILE:HD11	1:O:299:GLY:HA3	1.84	0.59
1:e:317:LEU:HA	1:i:337:ILE:HG13	1.83	0.59
1:g:136:GLY:HA3	1:o:267:ARG:CZ	2.32	0.59
1:A:66:SER:HA	1:P:103:ASN:HB3	1.85	0.59
1:D:449:GLN:HA	1:F:477:ARG:CZ	2.32	0.59
1:G:587:ASP:OD2	1:K:583:ARG:NE	2.35	0.59
1:H:168:LEU:HB2	1:H:188:VAL:HG11	1.84	0.59
1:I:390:PRO:O	1:I:393:SER:OG	2.16	0.59
1:M:190:ARG:HH12	1:Q:562:PHE:HA	1.65	0.59
1:W:203:ASN:OD1	1:W:204:PHE:N	2.31	0.59
1:X:379:LEU:HD12	1:X:568:MET:HG2	1.84	0.59
1:Y:540:ASP:OD2	1:Y:551:ARG:NH1	2.35	0.59
1:d:60:TRP:HE1	1:d:63:GLU:HA	1.68	0.59
1:l:134:GLU:CD	1:l:135:ASN:H	2.09	0.59
1:I:363:GLN:HG2	1:I:559:TYR:CE1	2.37	0.59
1:J:328:MET:HE2	1:K:164:SER:HB3	1.84	0.59
1:P:590:GLU:HA	1:R:588:VAL:HG12	1.83	0.59
1:V:383:LEU:HD22	1:V:409:TYR:HB3	1.84	0.59
1:h:200:ARG:NH1	1:h:204:PHE:O	2.35	0.59
1:l:457:LEU:HD22	1:l:466:PRO:HA	1.83	0.59
1:G:273:ASP:OD1	1:G:274:LYS:N	2.30	0.59
1:K:457:LEU:HD23	1:K:526:LEU:HD13	1.84	0.59
1:B:340:PRO:HB3	1:k:309:ILE:HD13	1.83	0.59
1:B:347:LYS:O	1:C:52:ARG:NH2	2.35	0.59
1:C:508:LYS:NZ	1:F:449:GLN:HG2	2.18	0.59
1:C:577:GLU:OE1	1:F:439:LYS:NZ	2.35	0.59
1:E:200:ARG:HB3	1:Z:324:LYS:HE2	1.83	0.59
1:L:546:ASN:H	1:o:547:GLN:HE22	1.50	0.59
1:O:177:LYS:HB2	1:O:293:LEU:HD23	1.83	0.59
1:T:253:ASN:OD1	1:T:254:VAL:N	2.34	0.59
1:X:275:GLU:O	1:X:277:LYS:NZ	2.34	0.59
1:Y:58:GLU:O	1:Y:122:LYS:NZ	2.35	0.59
1:e:242:ILE:HG22	1:e:271:VAL:HG22	1.85	0.59
1:i:339:LYS:HZ2	1:i:553:ILE:HB	1.68	0.59
1:n:414:ILE:HD11	1:n:439:LYS:HG2	1.85	0.59
1:C:239:GLY:HA3	1:C:274:LYS:HE3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:589:ASN:HD21	1:I:593:VAL:HG11	1.67	0.59
1:N:554:ARG:HH22	1:O:311:GLN:HG2	1.68	0.59
1:Q:160:ASP:OD1	1:S:548:ARG:NH2	2.35	0.59
1:Q:177:LYS:HB3	1:Q:231:LEU:HD13	1.84	0.59
1:Q:487:ASP:O	1:Q:489:ARG:NH1	2.36	0.59
1:V:264:ARG:NH1	1:Z:262:SER:OG	2.36	0.59
1:V:583:ARG:NH1	1:W:420:LEU:O	2.27	0.59
1:W:440:ILE:HG23	1:W:513:MET:HE1	1.85	0.59
1:X:203:ASN:OD1	1:X:204:PHE:N	2.35	0.59
1:Y:87:LEU:O	1:Y:88:GLU:HG2	2.02	0.59
1:a:491:VAL:O	1:a:495:TYR:OH	2.19	0.59
1:e:55:LEU:HD23	1:e:74:LYS:HB3	1.84	0.59
1:g:424:THR:HG22	1:g:426:ALA:H	1.66	0.59
1:l:308:ASN:ND2	1:l:312:LEU:H	2.01	0.59
1:l:583:ARG:HB2	1:m:421:ASN:ND2	2.18	0.59
1:A:398:GLU:HG2	1:B:190:ARG:HG2	1.83	0.59
1:B:86:THR:HG22	1:B:87:LEU:HD22	1.85	0.59
1:G:37:THR:HG22	1:G:531:LEU:HD23	1.85	0.59
1:M:235:LEU:HB3	1:M:240:TYR:HB2	1.84	0.59
1:O:429:GLN:HE21	1:O:430:THR:HG23	1.67	0.59
1:P:53:ARG:HH12	1:P:323:GLN:HG3	1.68	0.59
1:S:519:ASN:C	1:S:519:ASN:HD22	2.10	0.59
1:U:548:ARG:HG3	1:Z:157:THR:HG21	1.85	0.59
1:c:58:GLU:HG3	1:c:314:MET:HE1	1.83	0.59
1:m:544:ILE:HG22	1:m:549:ILE:HG13	1.84	0.59
1:F:334:PRO:HB3	1:F:556:THR:HG22	1.83	0.59
1:G:207:MET:O	1:G:252:MET:N	2.34	0.59
1:X:370:THR:OG1	1:X:506:ARG:NH2	2.36	0.59
1:Y:273:ASP:HB3	1:Y:279:ILE:HD11	1.85	0.59
1:b:200:ARG:NH1	1:b:206:LEU:O	2.35	0.59
1:e:544:ILE:HG22	1:e:547:GLN:HA	1.84	0.59
1:f:542:ASN:O	1:f:543:MET:HE2	2.03	0.59
1:p:171:LEU:HD12	1:p:188:VAL:HG11	1.84	0.59
1:G:176:THR:HB	1:G:294:THR:HB	1.85	0.59
1:Z:472:ILE:HD11	1:Z:491:VAL:HG11	1.83	0.59
1:g:172:LEU:HD11	1:g:183:LEU:HD22	1.84	0.59
1:h:334:PRO:HB3	1:h:556:THR:HG22	1.84	0.59
1:p:91:SER:OG	1:p:313:GLU:OE1	2.19	0.59
1:F:513:MET:HB2	1:F:569:LEU:HB2	1.85	0.58
1:N:477:ARG:NH2	1:N:509:ASP:OD1	2.36	0.58
1:Y:469:HIS:CG	1:Y:518:PRO:HG3	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:583:ARG:HH22	1:a:421:ASN:N	2.00	0.58
1:a:63:GLU:N	1:e:156:MET:SD	2.76	0.58
1:h:320:SER:HB2	1:j:348:THR:HA	1.85	0.58
1:j:94:LEU:HB2	1:j:304:ALA:HB3	1.85	0.58
1:o:171:LEU:HG	1:o:188:VAL:HG21	1.85	0.58
1:F:239:GLY:HA3	1:F:274:LYS:HZ1	1.67	0.58
1:G:370:THR:OG1	1:G:506:ARG:NH1	2.36	0.58
1:H:163:ASP:OD1	1:H:307:THR:OG1	2.18	0.58
1:M:169:LYS:HD3	1:M:303:GLU:HG2	1.84	0.58
1:M:437:VAL:HG21	1:M:491:VAL:HA	1.84	0.58
1:Q:60:TRP:NE1	1:Q:64:GLY:O	2.36	0.58
1:S:574:ILE:HD12	1:S:575:ASN:HB2	1.85	0.58
1:V:317:LEU:HD22	1:X:338:VAL:HG12	1.85	0.58
1:a:37:THR:HA	1:a:531:LEU:HG	1.85	0.58
1:b:541:PHE:CE2	1:b:543:MET:HB2	2.38	0.58
1:d:92:THR:H	1:d:305:ARG:NH2	2.01	0.58
1:g:337:ILE:HG13	1:g:355:LEU:HD13	1.86	0.58
1:m:473:GLY:HA2	1:m:500:ALA:HB3	1.83	0.58
1:n:341:ALA:HB2	1:n:550:GLY:HA2	1.84	0.58
1:D:267:ARG:NH2	1:f:135:ASN:O	2.36	0.58
1:E:491:VAL:HG21	1:E:497:TYR:HB3	1.83	0.58
1:G:443:MET:HG3	1:G:569:LEU:HD22	1.85	0.58
1:G:508:LYS:NZ	1:H:449:GLN:HG2	2.18	0.58
1:J:548:ARG:HA	1:R:310:ASN:ND2	2.18	0.58
1:K:196:TYR:CD2	1:K:209:LEU:HB2	2.38	0.58
1:N:359:TYR:CE1	1:N:557:PRO:HB3	2.38	0.58
1:O:189:ASN:OD1	1:O:190:ARG:N	2.36	0.58
1:U:341:ALA:HB2	1:U:551:ARG:HG3	1.84	0.58
1:V:52:ARG:NH1	1:X:347:LYS:O	2.36	0.58
1:b:81:LEU:HD12	1:d:365:ARG:HH12	1.68	0.58
1:c:337:ILE:HG22	1:c:553:ILE:HB	1.83	0.58
1:g:358:ALA:O	1:g:362:GLN:HG2	2.03	0.58
1:h:491:VAL:HG21	1:h:497:TYR:HB3	1.83	0.58
1:A:347:LYS:O	1:B:52:ARG:NH1	2.36	0.58
1:D:528:HIS:NE2	1:D:568:MET:HE1	2.18	0.58
1:D:589:ASN:OD1	1:E:591:THR:OG1	2.20	0.58
1:E:65:LEU:HD23	1:X:256:ASN:HA	1.85	0.58
1:H:414:ILE:HD11	1:H:439:LYS:HG2	1.84	0.58
1:P:260:ASP:OD1	1:P:261:THR:N	2.37	0.58
1:U:219:GLU:HA	1:U:236:PHE:CD1	2.39	0.58
1:X:77:ILE:HD11	1:X:87:LEU:HD12	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:157:THR:OG1	1:b:160:ASP:OD2	2.19	0.58
1:b:474:THR:HG22	1:b:511:ILE:HG12	1.86	0.58
1:c:431:ASP:OD1	1:c:432:ILE:N	2.37	0.58
1:g:37:THR:HG23	1:g:531:LEU:HD11	1.85	0.58
1:h:56:VAL:HG23	1:h:77:ILE:HG12	1.85	0.58
1:l:359:TYR:CE1	1:l:557:PRO:HB3	2.38	0.58
1:n:589:ASN:HB2	1:o:593:VAL:HB	1.84	0.58
1:p:41:THR:HG22	1:p:43:ASP:H	1.67	0.58
1:B:235:LEU:HD11	1:B:290:LEU:HD21	1.85	0.58
1:D:75:ARG:HE	1:D:86:THR:HG23	1.68	0.58
1:L:513:MET:HB2	1:L:569:LEU:HB2	1.86	0.58
1:N:131:LYS:NZ	1:N:132:PHE:O	2.37	0.58
1:O:30:PHE:H	1:O:365:ARG:HH12	1.52	0.58
1:P:331:THR:HA	1:P:558:ARG:HE	1.67	0.58
1:T:389:HIS:HB2	1:T:407:PRO:HG2	1.84	0.58
1:Y:398:GLU:HG3	1:Y:563:ASN:HD21	1.69	0.58
1:c:390:PRO:O	1:c:393:SER:OG	2.17	0.58
1:h:335:LEU:HG	1:i:316:LEU:HD21	1.86	0.58
1:i:36:ARG:NH1	1:i:36:ARG:HB3	2.17	0.58
1:H:172:LEU:HD21	1:H:183:LEU:HD23	1.84	0.58
1:J:587:ASP:HB3	1:K:591:THR:HG21	1.85	0.58
1:K:208:GLN:NE2	1:K:209:LEU:O	2.35	0.58
1:O:128:ASN:OD1	1:O:129:PHE:N	2.37	0.58
1:P:196:TYR:CE1	1:P:209:LEU:HB2	2.39	0.58
1:Q:119:LYS:NZ	1:Q:124:THR:OG1	2.32	0.58
1:Q:196:TYR:HE2	1:Q:209:LEU:HD22	1.68	0.58
1:T:398:GLU:HA	1:U:192:GLN:HE22	1.68	0.58
1:V:175:VAL:HG22	1:V:295:VAL:HG12	1.85	0.58
1:a:560:ARG:HH21	1:d:190:ARG:HH11	1.50	0.58
1:a:588:VAL:O	1:d:591:THR:N	2.23	0.58
1:b:212:HIS:HB3	1:b:247:LYS:HZ2	1.68	0.58
1:m:365:ARG:NH2	1:p:81:LEU:O	2.37	0.58
1:C:86:THR:HG23	1:C:87:LEU:HD23	1.86	0.58
1:K:582:GLN:NE2	1:K:583:ARG:O	2.29	0.58
1:Z:215:LEU:N	1:Z:244:LEU:O	2.32	0.58
1:b:39:ILE:HD11	1:b:535:PRO:HD3	1.85	0.58
1:g:155:SER:OG	1:p:546:ASN:ND2	2.37	0.58
1:h:249:ASP:OD2	1:h:264:ARG:NH1	2.36	0.58
1:i:375:ARG:HH11	1:i:563:ASN:HB3	1.69	0.58
1:p:177:LYS:HB3	1:p:231:LEU:HD22	1.84	0.58
1:A:313:GLU:OE2	1:E:336:VAL:HG11	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:162:LEU:HB3	1:B:166:ILE:HD11	1.84	0.58
1:C:362:GLN:HE22	1:F:87:LEU:HB3	1.66	0.58
1:C:375:ARG:HH11	1:C:563:ASN:ND2	2.01	0.58
1:D:128:ASN:OD1	1:D:129:PHE:N	2.30	0.58
1:N:588:VAL:O	1:O:590:GLU:HA	2.03	0.58
1:T:517:LEU:HD23	1:T:519:ASN:H	1.69	0.58
1:V:351:ARG:HH12	1:W:52:ARG:NH1	2.01	0.58
1:V:440:ILE:HG12	1:V:513:MET:HE1	1.86	0.58
1:X:114:PRO:O	1:X:116:GLN:NE2	2.35	0.58
1:X:449:GLN:NE2	1:X:450:LEU:HG	2.19	0.58
1:Z:398:GLU:HG3	1:a:190:ARG:O	2.03	0.58
1:a:71:GLU:HG2	1:e:256:ASN:HD22	1.69	0.58
1:b:81:LEU:HA	1:d:365:ARG:HH22	1.68	0.58
1:e:219:GLU:HG3	1:e:241:ARG:HE	1.69	0.58
1:g:242:ILE:HG12	1:g:271:VAL:HG22	1.86	0.58
1:G:583:ARG:HH21	1:H:420:LEU:N	2.01	0.58
1:H:589:ASN:ND2	1:I:593:VAL:HG11	2.18	0.58
1:N:504:ASP:OD2	1:N:505:LEU:N	2.37	0.58
1:R:32:GLU:OE2	1:R:36:ARG:NH1	2.37	0.58
1:V:351:ARG:H	1:V:351:ARG:HD2	1.68	0.58
1:W:56:VAL:HG22	1:W:318:ILE:HG12	1.84	0.58
1:e:166:ILE:HG22	1:e:302:LEU:HD11	1.86	0.58
1:m:560:ARG:HH12	1:p:165:ARG:CZ	2.16	0.58
1:C:508:LYS:HZ3	1:F:449:GLN:HG2	1.69	0.58
1:E:176:THR:OG1	1:E:294:THR:OG1	2.22	0.58
1:K:166:ILE:HB	1:K:196:TYR:HD1	1.68	0.58
1:L:336:VAL:HG23	1:L:554:ARG:HG2	1.85	0.58
1:S:484:ILE:HG22	1:S:487:ASP:H	1.69	0.58
1:U:241:ARG:HH12	1:U:272:PHE:HD2	1.51	0.58
1:V:582:GLN:NE2	1:V:583:ARG:O	2.37	0.58
1:W:331:THR:HG23	1:W:558:ARG:HH21	1.68	0.58
1:d:37:THR:HA	1:d:531:LEU:HB3	1.86	0.58
1:f:115:ALA:HB1	1:f:126:ASP:OD1	2.04	0.58
1:C:563:ASN:HD21	1:F:190:ARG:HH12	1.52	0.57
1:F:536:GLU:HG3	1:F:557:PRO:HA	1.85	0.57
1:J:94:LEU:HD21	1:J:306:LEU:HB2	1.85	0.57
1:K:75:ARG:NH2	1:K:86:THR:HG22	2.17	0.57
1:O:55:LEU:HD23	1:O:74:LYS:CB	2.34	0.57
1:Q:114:PRO:O	1:Q:116:GLN:NE2	2.37	0.57
1:R:437:VAL:HG11	1:R:489:ARG:HB3	1.86	0.57
1:T:342:MET:H	1:T:342:MET:HE2	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:75:ARG:CZ	1:Z:79:GLN:HE21	2.17	0.57
1:Z:79:GLN:HG2	1:Z:391:ILE:HG12	1.85	0.57
1:b:64:GLY:C	1:d:548:ARG:HH12	2.11	0.57
1:p:61:THR:N	1:p:70:GLN:O	2.36	0.57
1:A:141:LEU:HD23	1:A:162:LEU:HD21	1.85	0.57
1:B:208:GLN:NE2	1:P:210:LYS:HG3	2.18	0.57
1:C:258:ASN:HD21	1:J:70:GLN:H	1.51	0.57
1:D:260:ASP:OD2	1:D:261:THR:N	2.37	0.57
1:G:414:ILE:HD11	1:G:439:LYS:HG2	1.86	0.57
1:G:508:LYS:HZ3	1:H:449:GLN:HG2	1.69	0.57
1:H:543:MET:HE2	1:H:545:ARG:HB2	1.86	0.57
1:J:249:ASP:OD2	1:J:264:ARG:NE	2.37	0.57
1:M:338:VAL:HG12	1:N:317:LEU:HD12	1.86	0.57
1:M:439:LYS:HG3	1:M:443:MET:HE2	1.86	0.57
1:V:488:ASP:O	1:V:489:ARG:HD2	2.04	0.57
1:a:489:ARG:HD3	1:a:490:THR:O	2.04	0.57
1:b:308:ASN:HD21	1:d:334:PRO:HG2	1.70	0.57
1:c:448:ASP:OD2	1:c:495:TYR:OH	2.22	0.57
1:d:199:THR:OG1	1:d:208:GLN:NE2	2.36	0.57
1:i:337:ILE:O	1:i:339:LYS:NZ	2.32	0.57
1:m:79:GLN:NE2	1:m:391:ILE:HB	2.19	0.57
1:m:362:GLN:HE22	1:p:88:GLU:H	1.52	0.57
1:A:312:LEU:HB2	1:T:548:ARG:NH1	2.19	0.57
1:B:324:LYS:HZ2	1:K:200:ARG:HG3	1.69	0.57
1:P:88:GLU:HA	1:R:362:GLN:HE22	1.69	0.57
1:Z:565:LEU:HD12	1:Z:566:PRO:HD2	1.86	0.57
1:a:70:GLN:H	1:e:258:ASN:ND2	2.02	0.57
1:b:269:ALA:HB1	1:b:270:ARG:NH1	2.19	0.57
1:d:238:LEU:O	1:d:274:LYS:NZ	2.37	0.57
1:d:308:ASN:HB2	1:d:311:GLN:HA	1.86	0.57
1:d:400:VAL:HG23	1:d:525:PRO:HB3	1.86	0.57
1:e:164:SER:HB2	1:i:328:MET:HE2	1.85	0.57
1:k:347:LYS:O	1:l:320:SER:OG	2.20	0.57
1:n:439:LYS:NZ	1:p:581:ALA:HA	2.19	0.57
1:n:594:THR:HG22	1:p:592:GLN:HG2	1.87	0.57
1:A:37:THR:HA	1:A:531:LEU:HB3	1.86	0.57
1:B:159:THR:N	1:O:548:ARG:HH12	2.00	0.57
1:B:388:PRO:HG3	1:B:450:LEU:HD23	1.85	0.57
1:J:330:PRO:C	1:J:558:ARG:HH21	2.11	0.57
1:S:580:ILE:HG21	1:T:442:GLU:HG3	1.86	0.57
1:U:457:LEU:HD23	1:U:526:LEU:HD13	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:157:THR:HG21	1:X:312:LEU:HD11	1.84	0.57
1:X:157:THR:OG1	1:X:160:ASP:OD1	2.22	0.57
1:Y:336:VAL:CG2	1:Y:554:ARG:HG2	2.35	0.57
1:d:84:TYR:CD2	1:d:85:THR:HG23	2.39	0.57
1:i:163:ASP:OD1	1:i:164:SER:N	2.35	0.57
1:l:211:PHE:HB3	1:l:248:VAL:HG23	1.86	0.57
1:m:422:ASN:ND2	1:m:428:LYS:HG2	2.19	0.57
1:E:375:ARG:HE	1:E:563:ASN:HB3	1.70	0.57
1:H:539:VAL:HG21	1:I:311:GLN:HE22	1.69	0.57
1:L:443:MET:HG3	1:L:569:LEU:HD13	1.86	0.57
1:N:587:ASP:HA	1:O:589:ASN:HB2	1.86	0.57
1:P:218:GLY:HA2	1:P:241:ARG:HE	1.69	0.57
1:S:171:LEU:HG	1:S:188:VAL:HG11	1.87	0.57
1:X:451:THR:HG23	1:X:453:TYR:H	1.69	0.57
1:b:481:TYR:HE1	1:b:576:LEU:HD21	1.68	0.57
1:d:208:GLN:HA	1:d:251:GLU:HA	1.85	0.57
1:e:28:HIS:HB3	1:e:364:MET:HE2	1.85	0.57
1:e:199:THR:OG1	1:e:201:GLU:O	2.22	0.57
1:e:589:ASN:HD21	1:h:583:ARG:HH12	1.53	0.57
1:j:592:GLN:OE1	1:j:594:THR:OG1	2.19	0.57
1:G:94:LEU:N	1:G:304:ALA:O	2.37	0.57
1:I:143:MET:HE2	1:I:143:MET:HA	1.85	0.57
1:J:380:LYS:NZ	1:J:411:GLU:OE2	2.36	0.57
1:M:33:LEU:HD21	1:M:471:ALA:HB1	1.86	0.57
1:N:394:ASN:O	1:N:402:GLN:NE2	2.37	0.57
1:P:169:LYS:HA	1:P:189:ASN:HB2	1.86	0.57
1:Q:206:LEU:C	1:Q:207:MET:HE2	2.29	0.57
1:S:524:HIS:CE1	1:S:526:LEU:HD23	2.39	0.57
1:X:440:ILE:O	1:X:444:VAL:HG23	2.05	0.57
1:b:541:PHE:HE2	1:b:543:MET:HB2	1.68	0.57
1:h:28:HIS:HB3	1:h:364:MET:HE2	1.87	0.57
1:i:29:GLU:N	1:i:29:GLU:OE2	2.38	0.57
1:j:525:PRO:HD2	1:j:526:LEU:H	1.68	0.57
1:l:205:ARG:HB3	1:l:254:VAL:HG12	1.86	0.57
1:m:330:PRO:HB3	1:p:165:ARG:HB3	1.86	0.57
1:n:240:TYR:HD1	1:n:273:ASP:HA	1.70	0.57
1:B:366:ASN:O	1:C:84:TYR:OH	2.19	0.57
1:B:479:PRO:HG2	1:B:501:ARG:HE	1.69	0.57
1:E:202:TYR:HB2	1:a:212:HIS:HE2	1.68	0.57
1:G:347:LYS:O	1:H:320:SER:OG	2.21	0.57
1:L:489:ARG:NH2	1:L:495:TYR:O	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:N:106:GLN:OE1	1:N:106:GLN:N	2.36	0.57
1:N:383:LEU:HD22	1:N:389:HIS:HD2	1.69	0.57
1:Q:447:ALA:HB2	1:Q:569:LEU:HD11	1.86	0.57
1:U:545:ARG:NH2	1:U:552:GLU:OE2	2.38	0.57
1:Y:207:MET:HE1	1:Y:254:VAL:HG13	1.86	0.57
1:d:513:MET:HB2	1:d:569:LEU:HB2	1.85	0.57
1:B:160:ASP:OD1	1:B:308:ASN:ND2	2.37	0.57
1:B:359:TYR:HE1	1:B:557:PRO:HB3	1.69	0.57
1:D:99:GLN:NE2	1:e:65:LEU:HG	2.19	0.57
1:E:552:GLU:OE1	1:E:554:ARG:NH2	2.35	0.57
1:F:196:TYR:CE2	1:F:209:LEU:HB2	2.40	0.57
1:L:545:ARG:NH1	1:o:547:GLN:HE22	2.03	0.57
1:M:524:HIS:CD2	1:M:526:LEU:HB2	2.40	0.57
1:N:116:GLN:N	1:N:116:GLN:OE1	2.37	0.57
1:N:375:ARG:HG3	1:N:563:ASN:ND2	2.20	0.57
1:O:583:ARG:NH1	1:R:420:LEU:O	2.38	0.57
1:P:367:ASN:HD22	1:P:559:TYR:HE2	1.52	0.57
1:R:244:LEU:HD23	1:R:268:LEU:HA	1.87	0.57
1:S:422:ASN:HB3	1:S:431:ASP:OD2	2.05	0.57
1:b:336:VAL:HG12	1:c:315:GLY:HA3	1.87	0.57
1:d:275:GLU:HB3	1:d:277:LYS:NZ	2.20	0.57
1:D:206:LEU:C	1:D:207:MET:HE2	2.29	0.57
1:K:375:ARG:HE	1:K:563:ASN:HB3	1.69	0.57
1:W:169:LYS:HA	1:W:189:ASN:HB2	1.87	0.57
1:Y:592:GLN:OE1	1:Y:597:SER:OG	2.23	0.57
1:b:53:ARG:HH21	1:b:55:LEU:HD11	1.70	0.57
1:d:70:GLN:NE2	1:d:321:ASP:OD1	2.37	0.57
1:g:138:GLY:HA2	1:g:260:ASP:HB3	1.87	0.57
1:k:335:LEU:HD22	1:k:355:LEU:HG	1.87	0.57
1:p:391:ILE:HG22	1:p:392:GLU:OE1	2.03	0.57
1:A:168:LEU:HD11	1:A:209:LEU:HD21	1.87	0.57
1:B:443:MET:HE2	1:B:443:MET:HA	1.87	0.57
1:N:219:GLU:HG3	1:N:241:ARG:HE	1.70	0.57
1:O:448:ASP:OD1	1:O:495:TYR:OH	2.21	0.57
1:O:476:MET:H	1:R:449:GLN:HE22	1.52	0.57
1:T:471:ALA:HB2	1:T:516:ILE:HG12	1.87	0.57
1:V:146:GLN:NE2	1:Y:63:GLU:OE1	2.38	0.57
1:W:246:VAL:C	1:W:247:LYS:HD2	2.30	0.57
1:Y:347:LYS:O	1:Z:320:SER:N	2.37	0.57
1:Z:97:VAL:HG21	1:Z:147:THR:HG22	1.87	0.57
1:g:365:ARG:HB3	1:j:84:TYR:HE1	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:476:MET:SD	1:n:501:ARG:NH2	2.78	0.57
1:o:469:HIS:NE2	1:o:496:ASP:OD1	2.38	0.57
1:A:52:ARG:HA	1:A:322:VAL:HG12	1.87	0.56
1:A:433:GLN:NE2	1:A:484:ILE:HA	2.19	0.56
1:B:196:TYR:CE1	1:B:209:LEU:HB2	2.38	0.56
1:C:260:ASP:OD2	1:C:261:THR:N	2.38	0.56
1:D:58:GLU:OE1	1:D:122:LYS:NZ	2.34	0.56
1:F:548:ARG:NH1	1:a:160:ASP:OD1	2.38	0.56
1:K:342:MET:HA	1:K:342:MET:HE3	1.87	0.56
1:M:175:VAL:HG12	1:M:295:VAL:HG22	1.86	0.56
1:V:136:GLY:O	1:Z:267:ARG:NH2	2.38	0.56
1:W:60:TRP:CD1	1:W:66:SER:HB2	2.40	0.56
1:a:203:ASN:OD1	1:a:204:PHE:N	2.38	0.56
1:g:398:GLU:OE1	1:j:192:GLN:NE2	2.38	0.56
1:h:330:PRO:HB3	1:i:165:ARG:HB3	1.86	0.56
1:B:196:TYR:HB3	1:B:207:MET:HB3	1.86	0.56
1:E:565:LEU:HD12	1:E:566:PRO:HD2	1.87	0.56
1:L:458:GLU:HG2	1:L:466:PRO:HG2	1.87	0.56
1:U:414:ILE:HD11	1:U:439:LYS:HG2	1.87	0.56
1:V:156:MET:HA	1:V:156:MET:HE3	1.87	0.56
1:Y:81:LEU:HA	1:c:365:ARG:NH2	2.15	0.56
1:Y:160:ASP:HB3	1:Y:306:LEU:HD11	1.87	0.56
1:e:130:LEU:N	1:e:300:TYR:O	2.37	0.56
1:g:410:ASN:HB3	1:g:569:LEU:HD22	1.87	0.56
1:g:439:LYS:HZ1	1:g:443:MET:HB2	1.70	0.56
1:n:422:ASN:OD1	1:n:423:LEU:N	2.39	0.56
1:A:76:ASN:OD1	1:A:78:LEU:N	2.35	0.56
1:B:585:ALA:HB1	1:B:586:LEU:HD23	1.87	0.56
1:C:158:PHE:HZ	1:J:314:MET:HE3	1.71	0.56
1:I:583:ARG:NE	1:L:420:LEU:O	2.25	0.56
1:M:355:LEU:HD13	1:M:555:LEU:HD11	1.87	0.56
1:M:430:THR:HG21	1:M:487:ASP:HB2	1.86	0.56
1:N:409:TYR:HD1	1:N:568:MET:HB3	1.70	0.56
1:P:480:GLN:HG2	1:Q:445:TYR:CZ	2.40	0.56
1:Q:203:ASN:OD1	1:Q:204:PHE:N	2.39	0.56
1:Q:267:ARG:HH22	1:U:135:ASN:CA	2.17	0.56
1:Q:267:ARG:NH2	1:U:135:ASN:OD1	2.38	0.56
1:S:69:LYS:O	1:S:70:GLN:NE2	2.38	0.56
1:X:92:THR:HG22	1:X:306:LEU:H	1.69	0.56
1:Y:375:ARG:CD	1:Y:563:ASN:HD22	2.18	0.56
1:Y:391:ILE:HG22	1:Y:392:GLU:HG2	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:593:VAL:HG12	1:c:592:GLN:HG3	1.88	0.56
1:a:36:ARG:NE	1:a:527:GLN:OE1	2.38	0.56
1:d:222:THR:OG1	1:d:227:ALA:O	2.23	0.56
1:f:51:ILE:HD13	1:f:403:TYR:HD2	1.70	0.56
1:f:55:LEU:HD13	1:f:74:LYS:HB2	1.88	0.56
1:g:58:GLU:HB3	1:g:122:LYS:HE3	1.88	0.56
1:g:281:LEU:O	1:g:287:SER:OG	2.22	0.56
1:g:442:GLU:OE2	1:g:446:THR:OG1	2.22	0.56
1:h:173:ILE:HD11	1:h:295:VAL:HB	1.86	0.56
1:i:409:TYR:OH	1:i:411:GLU:OE2	2.21	0.56
1:k:591:THR:OG1	1:o:588:VAL:O	2.14	0.56
1:n:469:HIS:ND1	1:n:496:ASP:OD1	2.38	0.56
1:o:268:LEU:HD13	1:o:290:LEU:HD13	1.86	0.56
1:C:56:VAL:HG22	1:C:318:ILE:HD12	1.88	0.56
1:D:200:ARG:H	1:f:200:ARG:NH2	2.01	0.56
1:F:308:ASN:CG	1:F:311:GLN:HA	2.29	0.56
1:G:165:ARG:NH1	1:G:167:ALA:HB2	2.20	0.56
1:G:251:GLU:OE2	1:R:210:LYS:NZ	2.39	0.56
1:G:256:ASN:ND2	1:G:258:ASN:OD1	2.38	0.56
1:K:487:ASP:OD1	1:K:488:ASP:N	2.34	0.56
1:K:592:GLN:HG3	1:K:596:ALA:HB3	1.88	0.56
1:P:363:GLN:O	1:P:561:TYR:OH	2.20	0.56
1:U:93:GLU:OE2	1:U:305:ARG:NH1	2.38	0.56
1:U:422:ASN:HD21	1:U:428:LYS:HA	1.69	0.56
1:a:290:LEU:HA	1:a:293:LEU:HD12	1.87	0.56
1:b:355:LEU:HD13	1:b:555:LEU:HD21	1.87	0.56
1:g:90:ASN:ND2	1:g:120:GLN:OE1	2.39	0.56
1:g:336:VAL:HB	1:j:315:GLY:N	2.21	0.56
1:A:352:LEU:HD11	1:A:553:ILE:HG21	1.87	0.56
1:B:363:GLN:HG3	1:B:559:TYR:CZ	2.41	0.56
1:F:522:GLU:CD	1:F:523:PRO:HD2	2.30	0.56
1:G:379:LEU:HB3	1:G:568:MET:HE2	1.87	0.56
1:J:132:PHE:CE1	1:J:263:LEU:HB2	2.41	0.56
1:T:196:TYR:HB3	1:T:207:MET:HB3	1.87	0.56
1:V:410:ASN:ND2	1:V:443:MET:SD	2.78	0.56
1:a:433:GLN:O	1:a:437:VAL:HG12	2.06	0.56
1:c:544:ILE:HD13	1:c:549:ILE:HG12	1.87	0.56
1:e:548:ARG:HH22	1:o:312:LEU:CD2	2.19	0.56
1:i:169:LYS:HD2	1:i:189:ASN:HD22	1.71	0.56
1:o:206:LEU:HD11	1:o:251:GLU:HB3	1.88	0.56
1:p:283:ASP:HB3	1:p:286:VAL:HG22	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:423:LEU:HB3	1:E:423:LEU:HD21	1.88	0.56
1:K:115:ALA:HB1	1:K:126:ASP:HB3	1.88	0.56
1:K:345:ASP:O	1:K:349:TYR:HB3	2.05	0.56
1:L:422:ASN:OD1	1:L:423:LEU:N	2.38	0.56
1:M:489:ARG:NH1	1:M:490:THR:H	2.03	0.56
1:S:424:THR:HG22	1:S:426:ALA:H	1.69	0.56
1:j:399:GLY:HA3	1:j:564:PHE:HA	1.87	0.56
1:l:175:VAL:HG22	1:l:295:VAL:HG12	1.87	0.56
1:m:212:HIS:ND1	1:m:247:LYS:HE3	2.20	0.56
1:n:590:GLU:O	1:n:592:GLN:N	2.32	0.56
1:o:351:ARG:HG3	1:o:353:GLU:OE1	2.05	0.56
1:C:391:ILE:HG22	1:C:392:GLU:OE1	2.05	0.56
1:H:428:LYS:HZ2	1:H:580:ILE:HD12	1.71	0.56
1:N:218:GLY:N	1:N:221:SER:OG	2.36	0.56
1:O:28:HIS:HB2	1:O:365:ARG:NH2	2.21	0.56
1:R:238:LEU:HD11	1:R:285:ARG:HH21	1.71	0.56
1:a:212:HIS:HB3	1:a:247:LYS:NZ	2.20	0.56
1:b:153:LYS:NZ	1:d:545:ARG:HE	1.98	0.56
1:b:269:ALA:HB1	1:b:270:ARG:HH12	1.71	0.56
1:d:264:ARG:HH12	1:e:249:ASP:HB3	1.71	0.56
1:e:464:ARG:NH2	1:e:465:SER:O	2.33	0.56
1:g:367:ASN:HD22	1:g:559:TYR:HE2	1.54	0.56
1:h:177:LYS:HD3	1:h:231:LEU:HD22	1.87	0.56
1:h:424:THR:HG22	1:h:426:ALA:H	1.70	0.56
1:h:487:ASP:OD1	1:h:488:ASP:N	2.39	0.56
1:i:309:ILE:O	1:i:311:GLN:NE2	2.38	0.56
1:j:513:MET:N	1:j:569:LEU:O	2.24	0.56
1:k:157:THR:OG1	1:k:308:ASN:OD1	2.23	0.56
1:A:330:PRO:HD3	1:B:165:ARG:HH11	1.70	0.56
1:A:369:VAL:HG11	1:A:506:ARG:HH21	1.70	0.56
1:A:443:MET:HA	1:A:443:MET:HE2	1.87	0.56
1:F:325:GLN:HG3	1:F:400:VAL:HG11	1.88	0.56
1:F:491:VAL:HG21	1:F:497:TYR:HB3	1.87	0.56
1:N:513:MET:HA	1:N:513:MET:HE3	1.86	0.56
1:O:57:TRP:CD1	1:O:74:LYS:HD3	2.41	0.56
1:O:79:GLN:HE22	1:O:391:ILE:HB	1.71	0.56
1:W:75:ARG:HD2	1:W:86:THR:HG22	1.86	0.56
1:b:146:GLN:HA	1:b:150:ARG:HD3	1.87	0.56
1:i:53:ARG:HH21	1:i:55:LEU:HD21	1.71	0.56
1:m:451:THR:HG21	1:m:567:ILE:HD11	1.86	0.56
1:n:511:ILE:HB	1:n:571:ILE:HG22	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:219:GLU:HA	1:o:236:PHE:CD2	2.41	0.56
1:p:441:ASN:ND2	1:p:491:VAL:O	2.38	0.56
1:D:588:VAL:O	1:E:591:THR:N	2.37	0.56
1:H:51:ILE:HD13	1:H:403:TYR:HD2	1.70	0.56
1:H:408:TYR:HE2	1:H:447:ALA:HA	1.70	0.56
1:N:394:ASN:OD1	1:N:395:LEU:N	2.39	0.56
1:P:330:PRO:HG2	1:P:560:ARG:HB2	1.88	0.56
1:Q:175:VAL:HG22	1:Q:295:VAL:HG22	1.86	0.56
1:T:544:ILE:HA	1:T:548:ARG:O	2.06	0.56
1:e:480:GLN:OE1	1:e:483:GLN:NE2	2.39	0.56
1:e:513:MET:HB2	1:e:569:LEU:HB2	1.88	0.56
1:e:548:ARG:HG3	1:o:158:PHE:CE2	2.40	0.56
1:f:478:LEU:HD13	1:f:511:ILE:HD11	1.88	0.56
1:f:592:GLN:NE2	1:f:594:THR:O	2.39	0.56
1:i:308:ASN:ND2	1:i:312:LEU:H	2.04	0.56
1:k:337:ILE:HG13	1:k:349:TYR:CZ	2.41	0.56
1:l:28:HIS:HA	1:l:364:MET:HE2	1.87	0.56
1:l:308:ASN:HD21	1:l:313:GLU:CD	2.13	0.56
1:n:347:LYS:HE3	1:o:322:VAL:HG23	1.88	0.56
1:o:457:LEU:HD21	1:o:466:PRO:HG2	1.88	0.56
1:p:160:ASP:HB3	1:p:306:LEU:HD11	1.88	0.56
1:A:190:ARG:NH2	1:E:561:TYR:O	2.39	0.56
1:D:193:TYR:HE2	1:D:212:HIS:H	1.54	0.56
1:D:200:ARG:NH2	1:f:198:ALA:O	2.34	0.56
1:I:391:ILE:HG22	1:I:392:GLU:HG2	1.88	0.56
1:O:239:GLY:HA3	1:O:274:LYS:NZ	2.21	0.56
1:Q:197:THR:OG1	1:Q:208:GLN:NE2	2.38	0.56
1:Q:251:GLU:HG3	1:U:212:HIS:CE1	2.38	0.56
1:T:332:LEU:HB2	1:T:557:PRO:HG2	1.88	0.56
1:V:507:MET:HG3	1:V:507:MET:O	2.05	0.56
1:V:589:ASN:O	1:V:591:THR:HG23	2.06	0.56
1:c:235:LEU:HD21	1:c:290:LEU:HD11	1.88	0.56
1:h:431:ASP:OD2	1:j:424:THR:OG1	2.24	0.56
1:o:169:LYS:HD2	1:o:170:GLN:HB2	1.88	0.56
1:A:169:LYS:HB2	1:A:303:GLU:HB3	1.88	0.55
1:A:264:ARG:HH21	1:X:262:SER:HB2	1.70	0.55
1:E:163:ASP:OD2	1:E:305:ARG:HB2	2.07	0.55
1:F:135:ASN:OD1	1:k:267:ARG:NH1	2.39	0.55
1:G:336:VAL:HG22	1:G:554:ARG:HG2	1.88	0.55
1:R:94:LEU:HD11	1:R:306:LEU:HB2	1.86	0.55
1:U:157:THR:HG21	1:U:312:LEU:HD12	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:196:TYR:CE1	1:U:209:LEU:HB2	2.40	0.55
1:U:479:PRO:HA	1:U:482:ILE:HG22	1.88	0.55
1:d:142:LEU:HD11	1:d:160:ASP:HB2	1.88	0.55
1:f:440:ILE:HG12	1:f:513:MET:HE3	1.88	0.55
1:h:190:ARG:HH21	1:j:375:ARG:HH11	1.53	0.55
1:m:53:ARG:NH1	1:m:55:LEU:HD21	2.20	0.55
1:n:531:LEU:HD13	1:n:561:TYR:CE1	2.41	0.55
1:p:138:GLY:HA2	1:p:260:ASP:OD1	2.06	0.55
1:p:287:SER:O	1:p:291:SER:OG	2.19	0.55
1:S:88:GLU:HG2	1:W:362:GLN:HE22	1.71	0.55
1:V:325:GLN:HE22	1:W:192:GLN:HG3	1.72	0.55
1:W:94:LEU:HD11	1:W:306:LEU:HD13	1.89	0.55
1:Z:365:ARG:NH1	1:Z:365:ARG:HB2	2.21	0.55
1:b:544:ILE:HG12	1:b:549:ILE:HG13	1.88	0.55
1:j:175:VAL:HG22	1:j:295:VAL:HG12	1.88	0.55
1:k:479:PRO:HA	1:k:482:ILE:HG22	1.87	0.55
1:m:583:ARG:NH1	1:p:420:LEU:O	2.34	0.55
1:o:334:PRO:HB3	1:o:556:THR:HG22	1.88	0.55
1:B:592:GLN:HE22	1:C:594:THR:HA	1.70	0.55
1:J:134:GLU:OE1	1:J:134:GLU:N	2.39	0.55
1:J:264:ARG:HD2	1:l:262:SER:OG	2.04	0.55
1:N:554:ARG:NH1	1:O:311:GLN:OE1	2.39	0.55
1:S:316:LEU:HB2	1:W:335:LEU:HG	1.87	0.55
1:T:478:LEU:O	1:T:481:TYR:N	2.36	0.55
1:U:218:GLY:N	1:U:221:SER:OG	2.39	0.55
1:W:161:SER:OG	1:W:307:THR:O	2.23	0.55
1:c:123:ASP:OD2	1:c:149:SER:N	2.39	0.55
1:e:467:LYS:HZ1	1:e:496:ASP:H	1.53	0.55
1:l:325:GLN:HE22	1:m:192:GLN:HG3	1.71	0.55
1:E:409:TYR:OH	1:E:411:GLU:OE2	2.23	0.55
1:F:542:ASN:O	1:F:543:MET:HE2	2.06	0.55
1:I:545:ARG:NH2	1:I:552:GLU:OE2	2.37	0.55
1:L:206:LEU:C	1:L:207:MET:HE2	2.31	0.55
1:N:575:ASN:ND2	1:N:578:GLU:OE1	2.39	0.55
1:R:560:ARG:HG2	1:R:560:ARG:HH11	1.70	0.55
1:U:587:ASP:HB3	1:X:591:THR:HG21	1.88	0.55
1:a:61:THR:O	1:e:155:SER:OG	2.24	0.55
1:g:99:GLN:OE1	1:g:103:ASN:ND2	2.39	0.55
1:g:330:PRO:HB3	1:j:165:ARG:NE	2.20	0.55
1:j:433:GLN:HE22	1:j:485:ASN:H	1.54	0.55
1:n:36:ARG:NH1	1:n:36:ARG:HB2	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:218:GLY:HA2	1:A:241:ARG:NE	2.22	0.55
1:C:102:GLU:OE1	1:J:66:SER:N	2.33	0.55
1:E:391:ILE:HG22	1:E:392:GLU:HG2	1.88	0.55
1:F:202:TYR:HD1	1:k:193:TYR:CE1	2.25	0.55
1:b:61:THR:HB	1:b:69:LYS:HB2	1.89	0.55
1:d:428:LYS:HD2	1:d:580:ILE:HD12	1.89	0.55
1:j:513:MET:HB2	1:j:569:LEU:HB3	1.88	0.55
1:k:103:ASN:HD22	1:k:144:LEU:HD23	1.70	0.55
1:k:336:VAL:HG12	1:l:315:GLY:HA3	1.89	0.55
1:C:549:ILE:HG21	1:e:543:MET:HE1	1.89	0.55
1:E:168:LEU:HD11	1:E:209:LEU:HD21	1.89	0.55
1:G:580:ILE:HG21	1:H:442:GLU:HG2	1.86	0.55
1:K:163:ASP:CG	1:K:305:ARG:H	2.15	0.55
1:L:235:LEU:HD22	1:L:240:TYR:HD2	1.72	0.55
1:S:337:ILE:HG21	1:S:349:TYR:CE1	2.41	0.55
1:S:519:ASN:O	1:S:519:ASN:ND2	2.33	0.55
1:V:347:LYS:HA	1:W:52:ARG:CZ	2.37	0.55
1:e:549:ILE:N	1:o:310:ASN:HD21	2.02	0.55
1:h:417:LEU:HA	1:h:579:ALA:HB2	1.88	0.55
1:i:337:ILE:HG23	1:i:339:LYS:NZ	2.21	0.55
1:m:477:ARG:HH12	1:p:446:THR:HA	1.70	0.55
1:A:53:ARG:HH21	1:A:55:LEU:HD21	1.71	0.55
1:A:331:THR:HG22	1:B:163:ASP:OD2	2.07	0.55
1:C:94:LEU:HD11	1:C:306:LEU:HD13	1.88	0.55
1:C:332:LEU:CA	1:F:305:ARG:HH22	2.18	0.55
1:D:388:PRO:HG3	1:D:450:LEU:HD12	1.88	0.55
1:F:76:ASN:OD1	1:F:77:ILE:N	2.39	0.55
1:G:56:VAL:HG12	1:G:318:ILE:HG13	1.88	0.55
1:G:180:THR:HB	1:G:231:LEU:HD21	1.89	0.55
1:J:208:GLN:HE22	1:l:210:LYS:HG2	1.72	0.55
1:L:545:ARG:HH11	1:o:547:GLN:HE22	1.55	0.55
1:N:59:GLY:O	1:N:122:LYS:NZ	2.40	0.55
1:Y:186:LEU:HD22	1:Y:215:LEU:HD13	1.89	0.55
1:a:543:MET:HE2	1:h:549:ILE:HG21	1.87	0.55
1:f:380:LYS:HD3	1:f:409:TYR:HE2	1.72	0.55
1:g:367:ASN:HA	1:g:370:THR:HG22	1.89	0.55
1:i:576:LEU:O	1:i:580:ILE:HD12	2.07	0.55
1:n:177:LYS:HB3	1:n:231:LEU:HD22	1.88	0.55
1:D:379:LEU:HD12	1:D:568:MET:HG2	1.89	0.55
1:G:575:ASN:HB2	1:G:578:GLU:OE2	2.05	0.55
1:Q:90:ASN:HB2	1:Q:93:GLU:HG2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:345:ASP:OD2	1:V:348:THR:OG1	2.24	0.55
1:Z:464:ARG:HB3	1:Z:464:ARG:NH1	2.22	0.55
1:A:62:GLY:HA3	1:P:155:SER:HB2	1.89	0.55
1:C:355:LEU:HD13	1:C:555:LEU:HG	1.88	0.55
1:O:337:ILE:HD12	1:O:338:VAL:H	1.71	0.55
1:P:328:MET:HB2	1:Q:165:ARG:HD2	1.88	0.55
1:P:545:ARG:HG3	1:S:547:GLN:HG2	1.88	0.55
1:Q:308:ASN:ND2	1:Q:312:LEU:H	1.98	0.55
1:R:545:ARG:O	1:R:548:ARG:HB2	2.07	0.55
1:T:60:TRP:CZ3	1:T:62:GLY:HA2	2.41	0.55
1:V:134:GLU:HG2	1:V:262:SER:HB3	1.89	0.55
1:V:527:GLN:HE21	1:V:528:HIS:H	1.54	0.55
1:Y:89:THR:HB	1:Y:316:LEU:HD11	1.89	0.55
1:g:350:PRO:HG2	1:j:318:ILE:HG22	1.89	0.55
1:j:470:VAL:HG22	1:j:515:PHE:HE2	1.71	0.55
1:p:229:SER:O	1:p:233:LYS:NZ	2.31	0.55
1:B:398:GLU:OE2	1:C:190:ARG:HD2	2.06	0.55
1:E:467:LYS:HA	1:E:467:LYS:HE3	1.89	0.55
1:F:539:VAL:HG13	1:F:541:PHE:HE1	1.72	0.55
1:G:410:ASN:HB3	1:G:569:LEU:HD23	1.89	0.55
1:L:479:PRO:HA	1:L:482:ILE:HG22	1.88	0.55
1:N:586:LEU:HB2	1:O:588:VAL:HG12	1.88	0.55
1:b:423:LEU:HD21	1:b:586:LEU:HD21	1.87	0.55
1:d:96:PRO:O	1:d:127:THR:OG1	2.24	0.55
1:i:28:HIS:HB3	1:i:364:MET:SD	2.47	0.55
1:j:582:GLN:NE2	1:j:583:ARG:O	2.40	0.55
1:k:83:ASP:OD1	1:k:84:TYR:N	2.35	0.55
1:o:162:LEU:HB2	1:o:254:VAL:HA	1.89	0.55
1:E:62:GLY:H	1:E:66:SER:HA	1.72	0.54
1:E:514:THR:OG1	1:E:568:MET:SD	2.65	0.54
1:M:586:LEU:HD11	1:N:586:LEU:HD22	1.89	0.54
1:S:541:PHE:HE2	1:S:543:MET:HB2	1.72	0.54
1:U:408:TYR:OH	1:U:410:ASN:ND2	2.40	0.54
1:V:586:LEU:HD12	1:W:586:LEU:HD11	1.87	0.54
1:W:331:THR:HG23	1:W:558:ARG:NH2	2.22	0.54
1:Z:390:PRO:O	1:Z:393:SER:OG	2.25	0.54
1:d:156:MET:HG2	1:d:159:THR:HB	1.88	0.54
1:e:554:ARG:HH12	1:f:311:GLN:HB2	1.71	0.54
1:e:586:LEU:HD12	1:i:585:ALA:HB1	1.89	0.54
1:f:206:LEU:HD11	1:f:251:GLU:HB3	1.87	0.54
1:o:383:LEU:HD11	1:o:397:LEU:HD11	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:332:LEU:HA	1:F:305:ARG:HH22	1.71	0.54
1:D:204:PHE:HA	1:e:324:LYS:HE2	1.88	0.54
1:F:419:ASP:HB3	1:F:435:LEU:HD21	1.88	0.54
1:G:273:ASP:O	1:G:274:LYS:NZ	2.39	0.54
1:J:342:MET:HE2	1:R:309:ILE:HD11	1.89	0.54
1:L:390:PRO:HG2	1:L:393:SER:HB3	1.89	0.54
1:L:531:LEU:HD13	1:L:561:TYR:CE2	2.42	0.54
1:N:119:LYS:NZ	1:N:124:THR:OG1	2.37	0.54
1:Q:107:PHE:HD2	1:Q:128:ASN:HB3	1.71	0.54
1:Q:143:MET:HE2	1:T:69:LYS:HG2	1.89	0.54
1:S:431:ASP:OD1	1:W:425:SER:HB2	2.08	0.54
1:T:328:MET:HE2	1:U:164:SER:HB3	1.88	0.54
1:V:216:GLY:HA2	1:V:243:GLU:HA	1.88	0.54
1:V:320:SER:OG	1:X:348:THR:O	2.23	0.54
1:V:336:VAL:HG12	1:V:554:ARG:HG2	1.88	0.54
1:W:308:ASN:OD1	1:W:311:GLN:N	2.32	0.54
1:a:562:PHE:HA	1:d:190:ARG:HH22	1.72	0.54
1:d:159:THR:HA	1:h:548:ARG:NH2	2.22	0.54
1:g:422:ASN:OD1	1:g:428:LYS:NZ	2.39	0.54
1:n:273:ASP:OD1	1:n:277:LYS:N	2.34	0.54
1:o:140:ASN:ND2	1:o:256:ASN:O	2.35	0.54
1:o:177:LYS:HB2	1:o:293:LEU:HD12	1.89	0.54
1:p:565:LEU:HD12	1:p:566:PRO:HD2	1.89	0.54
1:D:98:ILE:HG13	1:D:100:SER:H	1.72	0.54
1:F:196:TYR:HE2	1:F:209:LEU:HD22	1.71	0.54
1:G:305:ARG:NH2	1:K:331:THR:HB	2.21	0.54
1:N:410:ASN:HB3	1:N:569:LEU:HD13	1.90	0.54
1:Q:471:ALA:HB2	1:Q:516:ILE:HG12	1.89	0.54
1:T:474:THR:HG21	1:T:478:LEU:HB2	1.89	0.54
1:T:543:MET:HE2	1:T:545:ARG:HH22	1.72	0.54
1:W:94:LEU:HD21	1:W:306:LEU:HD22	1.89	0.54
1:W:163:ASP:OD2	1:W:164:SER:N	2.37	0.54
1:Z:128:ASN:OD1	1:Z:129:PHE:N	2.38	0.54
1:Z:212:HIS:HB2	1:Z:247:LYS:HD2	1.89	0.54
1:Z:308:ASN:O	1:Z:311:GLN:NE2	2.40	0.54
1:Z:504:ASP:OD2	1:Z:505:LEU:N	2.40	0.54
1:c:92:THR:HG22	1:c:306:LEU:H	1.73	0.54
1:g:76:ASN:OD1	1:g:77:ILE:N	2.39	0.54
1:j:63:GLU:HA	1:j:66:SER:HB2	1.89	0.54
1:k:365:ARG:NH2	1:l:81:LEU:O	2.41	0.54
1:n:397:LEU:O	1:o:192:GLN:NE2	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:520:GLU:HG2	1:o:524:HIS:CE1	2.43	0.54
1:p:513:MET:SD	1:p:569:LEU:HB2	2.47	0.54
1:B:219:GLU:HA	1:B:236:PHE:CD1	2.42	0.54
1:E:202:TYR:HB2	1:a:212:HIS:NE2	2.21	0.54
1:E:203:ASN:HB2	1:E:206:LEU:HD23	1.87	0.54
1:E:477:ARG:NH2	1:E:509:ASP:OD1	2.41	0.54
1:J:202:TYR:CE2	1:l:212:HIS:HB2	2.42	0.54
1:O:67:GLY:O	1:O:69:LYS:N	2.39	0.54
1:V:311:GLN:CD	1:V:311:GLN:H	2.16	0.54
1:a:247:LYS:HB2	1:a:265:ALA:HB3	1.90	0.54
1:a:449:GLN:OE1	1:a:450:LEU:HD22	2.08	0.54
1:g:541:PHE:CE2	1:g:543:MET:HB2	2.43	0.54
1:k:440:ILE:HG23	1:k:513:MET:HE1	1.88	0.54
1:n:528:HIS:HE2	1:n:568:MET:HE1	1.72	0.54
1:E:585:ALA:HB1	1:E:586:LEU:HD23	1.90	0.54
1:F:50:SER:HA	1:F:324:LYS:HA	1.90	0.54
1:G:490:THR:HG21	1:G:497:TYR:CZ	2.42	0.54
1:I:80:GLY:HA3	1:I:87:LEU:HD13	1.89	0.54
1:I:147:THR:HG22	1:I:150:ARG:HD3	1.89	0.54
1:M:244:LEU:HD23	1:M:268:LEU:HA	1.87	0.54
1:P:82:LEU:HD23	1:R:505:LEU:HD21	1.88	0.54
1:R:219:GLU:OE1	1:R:274:LYS:NZ	2.34	0.54
1:T:334:PRO:HG2	1:U:313:GLU:HG3	1.89	0.54
1:U:443:MET:HG3	1:U:569:LEU:HD13	1.89	0.54
1:Z:171:LEU:HD12	1:Z:188:VAL:HG11	1.89	0.54
1:f:240:TYR:HD2	1:f:273:ASP:HA	1.71	0.54
1:h:477:ARG:HH12	1:i:446:THR:HG22	1.73	0.54
1:i:442:GLU:OE2	1:i:443:MET:HE2	2.07	0.54
1:n:331:THR:HA	1:n:558:ARG:HG3	1.90	0.54
1:A:196:TYR:CE1	1:A:209:LEU:HB2	2.43	0.54
1:E:312:LEU:HD12	1:E:312:LEU:O	2.08	0.54
1:F:523:PRO:HB3	1:F:530:VAL:HG11	1.89	0.54
1:G:182:GLU:OE2	1:G:230:ALA:N	2.37	0.54
1:J:95:ILE:HD12	1:J:96:PRO:HD2	1.90	0.54
1:P:425:SER:N	1:Q:431:ASP:OD1	2.40	0.54
1:Q:177:LYS:NZ	1:Q:291:SER:O	2.41	0.54
1:R:552:GLU:HB3	1:R:554:ARG:HE	1.73	0.54
1:h:94:LEU:HD21	1:h:306:LEU:HB2	1.89	0.54
1:k:583:ARG:HD2	1:l:421:ASN:ND2	2.23	0.54
1:n:91:SER:HA	1:n:120:GLN:HE21	1.70	0.54
1:F:53:ARG:HH21	1:F:323:GLN:HG3	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:480:GLN:HG3	1:H:445:TYR:CE2	2.43	0.54
1:N:388:PRO:HB2	1:N:406:ARG:HH21	1.73	0.54
1:N:437:VAL:O	1:N:441:ASN:ND2	2.40	0.54
1:P:165:ARG:HB2	1:R:328:MET:SD	2.47	0.54
1:R:150:ARG:HD2	1:R:156:MET:HE1	1.88	0.54
1:X:308:ASN:ND2	1:X:311:GLN:HA	2.22	0.54
1:b:583:ARG:NH1	1:c:420:LEU:O	2.35	0.54
1:e:541:PHE:CD2	1:e:543:MET:HE3	2.37	0.54
1:f:565:LEU:HG	1:f:567:ILE:HG12	1.90	0.54
1:h:587:ASP:HB3	1:i:591:THR:HG21	1.88	0.54
1:k:260:ASP:OD1	1:k:261:THR:N	2.41	0.54
1:o:239:GLY:HA3	1:o:274:LYS:NZ	2.23	0.54
1:C:156:MET:H	1:C:156:MET:HE2	1.72	0.54
1:D:241:ARG:NH1	1:F:382:TYR:O	2.41	0.54
1:J:390:PRO:HG2	1:J:393:SER:HB2	1.89	0.54
1:N:414:ILE:HD11	1:N:439:LYS:HG2	1.89	0.54
1:N:477:ARG:HG3	1:N:478:LEU:HD12	1.90	0.54
1:R:171:LEU:HG	1:R:188:VAL:HG21	1.89	0.54
1:V:204:PHE:HE1	1:Y:322:VAL:HG22	1.72	0.54
1:Y:429:GLN:NE2	1:Y:430:THR:HG23	2.23	0.54
1:Y:583:ARG:HB2	1:Z:421:ASN:ND2	2.22	0.54
1:h:317:LEU:HD23	1:j:336:VAL:HG13	1.90	0.54
1:h:449:GLN:OE1	1:j:508:LYS:NZ	2.35	0.54
1:j:420:LEU:HD11	1:j:431:ASP:HB3	1.90	0.54
1:l:429:GLN:N	1:l:429:GLN:OE1	2.41	0.54
1:A:90:ASN:O	1:A:120:GLN:NE2	2.40	0.54
1:D:203:ASN:OD1	1:D:204:PHE:N	2.40	0.54
1:E:83:ASP:OD1	1:E:84:TYR:N	2.39	0.54
1:F:204:PHE:CE2	1:F:205:ARG:HD3	2.42	0.54
1:H:61:THR:H	1:H:66:SER:HA	1.73	0.54
1:I:522:GLU:O	1:I:527:GLN:NE2	2.41	0.54
1:L:332:LEU:HB2	1:L:557:PRO:HG2	1.90	0.54
1:N:57:TRP:HE1	1:N:319:ASP:CG	2.16	0.54
1:T:583:ARG:NE	1:U:587:ASP:OD2	2.39	0.54
1:U:76:ASN:HB3	1:U:391:ILE:HD11	1.90	0.54
1:V:83:ASP:OD2	1:V:84:TYR:N	2.41	0.54
1:Y:531:LEU:HD13	1:Y:561:TYR:CD2	2.43	0.54
1:f:433:GLN:HG3	1:f:481:TYR:O	2.08	0.54
1:k:443:MET:HE3	1:k:569:LEU:HD12	1.90	0.54
1:l:433:GLN:HG3	1:l:481:TYR:O	2.08	0.54
1:m:189:ASN:O	1:m:190:ARG:HG2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:128:ASN:OD1	1:o:129:PHE:N	2.35	0.54
1:B:164:SER:O	1:B:165:ARG:HB2	2.07	0.54
1:C:372:LEU:HD21	1:C:512:VAL:HG11	1.89	0.54
1:D:28:HIS:CE1	1:D:29:GLU:HG2	2.43	0.54
1:I:382:TYR:HA	1:L:241:ARG:HH12	1.73	0.54
1:J:504:ASP:OD1	1:J:505:LEU:N	2.41	0.54
1:M:57:TRP:NE1	1:M:319:ASP:OD2	2.41	0.54
1:R:172:LEU:HD21	1:R:183:LEU:HD12	1.90	0.54
1:R:549:ILE:HG22	1:U:310:ASN:OD1	2.08	0.54
1:a:453:TYR:HE2	1:a:526:LEU:HD22	1.72	0.54
1:e:467:LYS:HZ3	1:e:495:TYR:HA	1.73	0.54
1:f:476:MET:HE1	1:f:503:SER:HA	1.88	0.54
1:n:60:TRP:HD1	1:n:314:MET:HE1	1.73	0.54
1:n:379:LEU:HD13	1:n:568:MET:HB2	1.90	0.54
1:n:583:ARG:HG3	1:o:421:ASN:HB2	1.90	0.54
1:o:547:GLN:C	1:o:548:ARG:HD2	2.32	0.54
1:A:398:GLU:N	1:A:398:GLU:OE2	2.41	0.53
1:B:513:MET:SD	1:B:569:LEU:HB2	2.48	0.53
1:F:405:VAL:HG11	1:F:567:ILE:HD11	1.90	0.53
1:I:582:GLN:NE2	1:I:583:ARG:O	2.41	0.53
1:J:310:ASN:ND2	1:o:548:ARG:HA	2.23	0.53
1:J:375:ARG:NH1	1:J:563:ASN:HB3	2.22	0.53
1:P:347:LYS:HA	1:Q:52:ARG:HH12	1.73	0.53
1:R:177:LYS:HB2	1:R:293:LEU:HD12	1.89	0.53
1:T:148:PRO:HA	1:T:151:LEU:HD12	1.91	0.53
1:U:169:LYS:NZ	1:U:170:GLN:HE21	2.06	0.53
1:V:202:TYR:HB2	1:V:206:LEU:HD13	1.89	0.53
1:Z:146:GLN:HE22	1:Z:156:MET:HE1	1.73	0.53
1:a:336:VAL:HG23	1:a:554:ARG:HG2	1.89	0.53
1:a:543:MET:HA	1:a:543:MET:HE3	1.91	0.53
1:b:447:ALA:O	1:b:451:THR:OG1	2.19	0.53
1:d:138:GLY:O	1:i:66:SER:OG	2.25	0.53
1:f:504:ASP:OD1	1:f:505:LEU:N	2.41	0.53
1:h:366:ASN:HA	1:i:84:TYR:HE1	1.74	0.53
1:h:422:ASN:ND2	1:h:428:LYS:HA	2.23	0.53
1:j:40:VAL:HB	1:j:534:ILE:HG13	1.88	0.53
1:m:119:LYS:HE2	1:m:119:LYS:HA	1.91	0.53
1:D:350:PRO:HA	1:E:318:ILE:HD11	1.89	0.53
1:F:222:THR:H	1:F:226:GLY:HA2	1.73	0.53
1:G:203:ASN:OD1	1:G:204:PHE:N	2.31	0.53
1:K:531:LEU:HD13	1:K:561:TYR:CE1	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:308:ASN:HB3	1:P:311:GLN:HA	1.88	0.53
1:P:374:ASN:OD1	1:P:375:ARG:N	2.42	0.53
1:Q:380:LYS:HB2	1:Q:409:TYR:HE2	1.73	0.53
1:Q:565:LEU:HD12	1:Q:566:PRO:HD2	1.91	0.53
1:R:342:MET:HE2	1:U:309:ILE:HD11	1.89	0.53
1:S:419:ASP:N	1:W:583:ARG:HH21	2.06	0.53
1:V:423:LEU:HD21	1:X:423:LEU:HD12	1.89	0.53
1:b:366:ASN:HD21	1:c:84:TYR:HB2	1.73	0.53
1:b:424:THR:HG22	1:b:426:ALA:H	1.74	0.53
1:f:114:PRO:O	1:f:116:GLN:NE2	2.40	0.53
1:f:422:ASN:ND2	1:f:428:LYS:HG3	2.22	0.53
1:g:140:ASN:HD22	1:n:69:LYS:HA	1.74	0.53
1:g:328:MET:HG3	1:j:165:ARG:NH2	2.20	0.53
1:j:380:LYS:HD3	1:j:409:TYR:CE2	2.43	0.53
1:n:65:LEU:HD13	1:n:68:GLU:HG2	1.89	0.53
1:C:33:LEU:HD21	1:C:471:ALA:HB1	1.89	0.53
1:E:414:ILE:HD11	1:E:439:LYS:HG2	1.89	0.53
1:H:484:ILE:HB	1:H:486:GLY:H	1.73	0.53
1:L:337:ILE:HG12	1:L:349:TYR:CD1	2.43	0.53
1:M:169:LYS:HA	1:M:189:ASN:HD22	1.72	0.53
1:N:95:ILE:HD11	1:N:125:PHE:HE2	1.72	0.53
1:N:323:GLN:HB3	1:N:325:GLN:HE22	1.72	0.53
1:V:133:SER:O	1:V:262:SER:OG	2.25	0.53
1:V:424:THR:HG22	1:V:426:ALA:H	1.73	0.53
1:f:489:ARG:HB3	1:f:492:GLY:HA2	1.90	0.53
1:h:327:PHE:HE2	1:h:564:PHE:HE2	1.55	0.53
1:i:79:GLN:NE2	1:i:391:ILE:HG12	2.23	0.53
1:k:61:THR:HG21	1:k:68:GLU:H	1.73	0.53
1:I:191:ASP:OD1	1:I:192:GLN:N	2.36	0.53
1:J:57:TRP:CG	1:J:74:LYS:HG2	2.43	0.53
1:J:305:ARG:NH1	1:L:331:THR:O	2.41	0.53
1:J:424:THR:HG22	1:K:422:ASN:HA	1.91	0.53
1:J:583:ARG:HG3	1:K:587:ASP:OD1	2.08	0.53
1:L:57:TRP:CZ3	1:L:59:GLY:HA2	2.44	0.53
1:M:311:GLN:HE21	1:Q:541:PHE:HZ	1.54	0.53
1:N:437:VAL:HG12	1:N:441:ASN:HD21	1.71	0.53
1:T:331:THR:HG23	1:T:558:ARG:HG2	1.91	0.53
1:Y:375:ARG:HD3	1:Y:563:ASN:HD22	1.72	0.53
1:b:57:TRP:HB3	1:b:74:LYS:HB3	1.90	0.53
1:b:340:PRO:HG3	1:c:65:LEU:HD22	1.89	0.53
1:b:375:ARG:HE	1:b:563:ASN:HB3	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:d:310:ASN:HD21	1:h:548:ARG:NH2	2.06	0.53
1:f:420:LEU:HD12	1:f:421:ASN:H	1.73	0.53
1:f:580:ILE:HD13	1:g:442:GLU:HB2	1.91	0.53
1:i:339:LYS:HZ1	1:i:553:ILE:N	2.06	0.53
1:k:113:LEU:HD13	1:k:183:LEU:HD12	1.90	0.53
1:k:589:ASN:ND2	1:o:587:ASP:OD1	2.41	0.53
1:l:586:LEU:HG	1:m:588:VAL:HG23	1.91	0.53
1:m:442:GLU:O	1:m:446:THR:HG23	2.08	0.53
1:o:287:SER:O	1:o:291:SER:N	2.42	0.53
1:F:211:PHE:O	1:F:212:HIS:ND1	2.42	0.53
1:S:76:ASN:OD1	1:S:77:ILE:N	2.41	0.53
1:S:310:ASN:OD1	1:S:311:GLN:N	2.42	0.53
1:V:53:ARG:NH2	1:V:321:ASP:OD2	2.37	0.53
1:V:89:THR:HB	1:V:316:LEU:HD21	1.90	0.53
1:X:66:SER:H	1:Z:143:MET:HE1	1.72	0.53
1:a:172:LEU:HD11	1:a:183:LEU:HB3	1.90	0.53
1:e:548:ARG:HH22	1:o:312:LEU:HD21	1.73	0.53
1:g:219:GLU:HA	1:g:236:PHE:CD1	2.43	0.53
1:m:28:HIS:HB3	1:m:364:MET:HG2	1.89	0.53
1:m:177:LYS:HE3	1:m:293:LEU:HD13	1.89	0.53
1:p:376:ALA:HA	1:p:568:MET:HE1	1.91	0.53
1:E:217:LEU:HD12	1:E:242:ILE:HD11	1.91	0.53
1:I:382:TYR:HD1	1:I:397:LEU:HD23	1.73	0.53
1:L:260:ASP:OD1	1:L:260:ASP:N	2.42	0.53
1:O:94:LEU:HD21	1:O:306:LEU:HB2	1.91	0.53
1:O:527:GLN:OE1	1:O:528:HIS:N	2.42	0.53
1:R:36:ARG:HA	1:R:36:ARG:HH11	1.73	0.53
1:b:587:ASP:HB3	1:c:591:THR:HG21	1.89	0.53
1:e:375:ARG:NH1	1:e:398:GLU:OE1	2.41	0.53
1:m:51:ILE:HD13	1:m:403:TYR:HD2	1.73	0.53
1:m:174:SER:OG	1:m:296:THR:OG1	2.22	0.53
1:n:48:GLN:HG3	1:n:326:GLY:HA2	1.91	0.53
1:n:421:ASN:ND2	1:p:583:ARG:HB2	2.23	0.53
1:B:337:ILE:HG13	1:B:355:LEU:HD12	1.91	0.53
1:C:283:ASP:HB2	1:C:286:VAL:HG22	1.90	0.53
1:C:453:TYR:HE2	1:C:526:LEU:HD22	1.74	0.53
1:G:591:THR:HG21	1:K:587:ASP:HB2	1.90	0.53
1:K:410:ASN:ND2	1:K:443:MET:SD	2.81	0.53
1:L:211:PHE:HB3	1:L:248:VAL:HB	1.90	0.53
1:R:53:ARG:NH1	1:R:323:GLN:OE1	2.41	0.53
1:S:241:ARG:HH12	1:W:382:TYR:HA	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:T:531:LEU:HD13	1:T:561:TYR:CE2	2.43	0.53
1:U:123:ASP:OD2	1:U:149:SER:N	2.41	0.53
1:Y:107:PHE:HD2	1:Y:128:ASN:HB3	1.74	0.53
1:a:91:SER:OG	1:a:313:GLU:OE1	2.25	0.53
1:a:583:ARG:HH21	1:d:420:LEU:H	1.55	0.53
1:d:184:PHE:HA	1:d:224:VAL:HG23	1.91	0.53
1:j:392:GLU:OE1	1:j:403:TYR:HA	2.08	0.53
1:l:177:LYS:HB3	1:l:231:LEU:HD22	1.90	0.53
1:m:339:LYS:HD2	1:m:349:TYR:CG	2.44	0.53
1:D:192:GLN:NE2	1:F:397:LEU:O	2.36	0.53
1:G:376:ALA:C	1:G:380:LYS:HZ2	2.16	0.53
1:I:57:TRP:NE1	1:I:319:ASP:OD1	2.42	0.53
1:P:212:HIS:HD1	1:P:247:LYS:HB3	1.74	0.53
1:Q:275:GLU:O	1:Q:277:LYS:NZ	2.42	0.53
1:Q:383:LEU:HD22	1:Q:409:TYR:HB3	1.91	0.53
1:R:28:HIS:N	1:R:360:ARG:HH12	2.06	0.53
1:R:92:THR:HG22	1:R:306:LEU:H	1.74	0.53
1:S:57:TRP:HE1	1:S:319:ASP:HB3	1.74	0.53
1:S:134:GLU:N	1:S:134:GLU:OE1	2.42	0.53
1:U:330:PRO:HD2	1:U:560:ARG:HG3	1.91	0.53
1:V:586:LEU:O	1:W:588:VAL:HG23	2.09	0.53
1:Z:331:THR:HA	1:Z:558:ARG:HG2	1.90	0.53
1:a:481:TYR:CE2	1:a:576:LEU:HD21	2.43	0.53
1:b:508:LYS:NZ	1:c:449:GLN:OE1	2.41	0.53
1:e:583:ARG:NH2	1:f:420:LEU:O	2.42	0.53
1:i:464:ARG:HG3	1:i:466:PRO:HD3	1.90	0.53
1:j:453:TYR:CZ	1:j:457:LEU:HD11	2.43	0.53
1:k:60:TRP:CD1	1:k:61:THR:N	2.69	0.53
1:m:528:HIS:HA	1:m:565:LEU:HB3	1.90	0.53
1:n:592:GLN:NE2	1:o:593:VAL:O	2.39	0.53
1:D:439:LYS:HZ2	1:D:443:MET:HE3	1.74	0.53
1:J:588:VAL:O	1:K:591:THR:OG1	2.27	0.53
1:L:37:THR:HA	1:L:531:LEU:HB3	1.91	0.53
1:M:578:GLU:HA	1:M:581:ALA:HB3	1.91	0.53
1:O:423:LEU:HD12	1:R:423:LEU:HD21	1.91	0.53
1:P:219:GLU:HA	1:P:236:PHE:CD2	2.44	0.53
1:T:423:LEU:HD12	1:U:423:LEU:HD21	1.90	0.53
1:V:433:GLN:NE2	1:V:490:THR:O	2.29	0.53
1:Y:337:ILE:HG13	1:Z:318:ILE:H	1.74	0.53
1:b:594:THR:HA	1:d:592:GLN:NE2	2.24	0.53
1:h:337:ILE:HG12	1:h:349:TYR:HE1	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:m:425:SER:N	1:p:431:ASP:OD1	2.41	0.53
1:A:81:LEU:HA	1:E:365:ARG:HH12	1.73	0.53
1:B:541:PHE:HE2	1:B:543:MET:SD	2.32	0.53
1:B:554:ARG:NH2	1:C:313:GLU:O	2.38	0.53
1:D:147:THR:HG23	1:D:149:SER:N	2.23	0.53
1:F:239:GLY:HA3	1:F:274:LYS:HZ3	1.73	0.53
1:H:476:MET:SD	1:H:501:ARG:NH1	2.81	0.53
1:H:488:ASP:HB3	1:H:493:ILE:HB	1.90	0.53
1:I:77:ILE:HD11	1:I:87:LEU:HD21	1.91	0.53
1:J:169:LYS:HE3	1:J:303:GLU:HB2	1.90	0.53
1:K:337:ILE:HB	1:K:355:LEU:HD11	1.91	0.53
1:T:348:THR:HA	1:U:320:SER:HB3	1.90	0.53
1:V:52:ARG:HH22	1:X:347:LYS:HE2	1.74	0.53
1:V:310:ASN:ND2	1:c:549:ILE:HG13	2.24	0.53
1:W:247:LYS:HG2	1:W:265:ALA:HB3	1.90	0.53
1:Y:200:ARG:O	1:Y:200:ARG:HD2	2.09	0.53
1:a:593:VAL:O	1:a:594:THR:HG23	2.09	0.53
1:d:156:MET:HE1	1:i:60:TRP:CH2	2.44	0.53
1:g:156:MET:N	1:g:156:MET:SD	2.78	0.53
1:g:212:HIS:HB2	1:o:202:TYR:CZ	2.43	0.53
1:i:399:GLY:HA2	1:i:564:PHE:HD1	1.73	0.53
1:m:329:ILE:O	1:m:558:ARG:NH2	2.42	0.53
1:o:57:TRP:CH2	1:o:60:TRP:HA	2.44	0.53
1:G:431:ASP:HA	1:K:426:ALA:HB2	1.91	0.52
1:J:53:ARG:HH22	1:J:403:TYR:HB3	1.74	0.52
1:N:502:ILE:HD12	1:N:504:ASP:HB3	1.91	0.52
1:P:422:ASN:HD22	1:P:428:LYS:HG3	1.74	0.52
1:P:483:GLN:NE2	1:P:484:ILE:O	2.43	0.52
1:Q:163:ASP:OD1	1:Q:305:ARG:N	2.41	0.52
1:T:273:ASP:OD2	1:T:277:LYS:N	2.43	0.52
1:e:434:GLY:HA2	1:e:489:ARG:HD3	1.91	0.52
1:n:60:TRP:CD1	1:n:314:MET:HE1	2.44	0.52
1:C:247:LYS:HG3	1:C:264:ARG:HB3	1.91	0.52
1:D:469:HIS:ND1	1:D:496:ASP:OD1	2.37	0.52
1:F:173:ILE:HD13	1:F:266:LEU:HD21	1.89	0.52
1:F:541:PHE:CD2	1:F:543:MET:HE3	2.42	0.52
1:H:123:ASP:OD2	1:H:149:SER:OG	2.18	0.52
1:M:335:LEU:HB2	1:M:555:LEU:HB2	1.92	0.52
1:S:433:GLN:HE21	1:S:484:ILE:HG12	1.74	0.52
1:U:369:VAL:HG12	1:U:506:ARG:HD2	1.91	0.52
1:X:536:GLU:OE1	1:X:558:ARG:NH2	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:586:LEU:HD12	1:Z:586:LEU:HD22	1.92	0.52
1:Z:86:THR:HG23	1:Z:87:LEU:HG	1.91	0.52
1:a:107:PHE:O	1:a:131:LYS:HE2	2.08	0.52
1:b:420:LEU:O	1:d:583:ARG:NH1	2.42	0.52
1:f:156:MET:HG2	1:f:156:MET:O	2.08	0.52
1:g:57:TRP:NE1	1:g:319:ASP:OD2	2.37	0.52
1:g:112:VAL:HG12	1:g:183:LEU:HD11	1.91	0.52
1:h:214:SER:HA	1:h:245:ASP:HA	1.91	0.52
1:C:177:LYS:HZ1	1:C:232:LEU:HD23	1.74	0.52
1:E:275:GLU:OE1	1:E:277:LYS:HE2	2.10	0.52
1:E:443:MET:HE2	1:E:443:MET:HA	1.92	0.52
1:E:547:GLN:HB3	1:R:545:ARG:HH22	1.73	0.52
1:L:197:THR:OG1	1:L:208:GLN:NE2	2.43	0.52
1:M:437:VAL:HA	1:M:440:ILE:HG22	1.91	0.52
1:O:79:GLN:NE2	1:O:391:ILE:HB	2.24	0.52
1:T:430:THR:HB	1:T:489:ARG:NH2	2.25	0.52
1:Z:157:THR:HG22	1:Z:158:PHE:N	2.19	0.52
1:g:588:VAL:HG22	1:j:590:GLU:HA	1.89	0.52
1:h:99:GLN:H	1:h:103:ASN:HD21	1.58	0.52
1:h:281:LEU:O	1:h:287:SER:OG	2.28	0.52
1:h:313:GLU:O	1:j:554:ARG:NH2	2.28	0.52
1:i:325:GLN:NE2	1:i:326:GLY:O	2.40	0.52
1:k:32:GLU:OE1	1:k:36:ARG:NH1	2.43	0.52
1:k:489:ARG:HH22	1:o:426:ALA:C	2.16	0.52
1:m:331:THR:HA	1:m:558:ARG:HG2	1.91	0.52
1:n:594:THR:HG23	1:p:590:GLU:HG3	1.91	0.52
1:p:234:ASP:OD1	1:p:235:LEU:N	2.41	0.52
1:L:470:VAL:HG21	1:L:491:VAL:HG21	1.92	0.52
1:M:332:LEU:HB2	1:M:557:PRO:HG2	1.91	0.52
1:O:329:ILE:HD13	1:O:534:ILE:HG13	1.91	0.52
1:P:215:LEU:HD12	1:P:246:VAL:HG21	1.92	0.52
1:Q:37:THR:HA	1:Q:531:LEU:HB3	1.91	0.52
1:a:380:LYS:HE2	1:a:409:TYR:HE2	1.73	0.52
1:d:514:THR:HG21	1:d:528:HIS:ND1	2.25	0.52
1:f:410:ASN:OD1	1:f:411:GLU:N	2.42	0.52
1:C:159:THR:HG22	1:L:340:PRO:HD3	1.92	0.52
1:D:593:VAL:HG22	1:F:592:GLN:HG2	1.92	0.52
1:E:429:GLN:HA	1:E:432:ILE:HG22	1.92	0.52
1:E:437:VAL:HA	1:E:440:ILE:HG22	1.91	0.52
1:I:28:HIS:N	1:I:364:MET:HE3	2.25	0.52
1:I:464:ARG:O	1:I:466:PRO:HD3	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:317:LEU:HD22	1:Q:338:VAL:HG12	1.91	0.52
1:M:422:ASN:OD1	1:M:423:LEU:N	2.42	0.52
1:N:545:ARG:NH1	1:N:548:ARG:HB2	2.24	0.52
1:N:592:GLN:H	1:O:593:VAL:HG11	1.75	0.52
1:Q:303:GLU:OE2	1:Q:305:ARG:NH1	2.38	0.52
1:R:108:ILE:HD13	1:R:129:PHE:HB2	1.90	0.52
1:T:53:ARG:CZ	1:T:55:LEU:HD21	2.40	0.52
1:V:249:ASP:O	1:Z:264:ARG:NH1	2.38	0.52
1:e:429:GLN:O	1:e:432:ILE:HG13	2.10	0.52
1:f:46:GLY:HA3	1:f:327:PHE:O	2.09	0.52
1:h:250:GLY:HA2	1:h:261:THR:HA	1.92	0.52
1:i:171:LEU:HG	1:i:188:VAL:HG21	1.92	0.52
1:k:165:ARG:HG2	1:o:330:PRO:HB3	1.92	0.52
1:k:590:GLU:O	1:k:592:GLN:N	2.35	0.52
1:m:207:MET:HA	1:m:207:MET:HE3	1.90	0.52
1:A:241:ARG:HH12	1:E:382:TYR:C	2.18	0.52
1:B:592:GLN:NE2	1:C:594:THR:HA	2.24	0.52
1:G:63:GLU:OE1	1:G:63:GLU:N	2.42	0.52
1:H:59:GLY:HA2	1:H:317:LEU:HD12	1.90	0.52
1:I:273:ASP:OD1	1:I:276:GLY:N	2.40	0.52
1:I:577:GLU:HA	1:I:580:ILE:HG22	1.92	0.52
1:K:371:THR:HG21	1:K:561:TYR:HB2	1.90	0.52
1:N:454:THR:HA	1:N:457:LEU:HD12	1.92	0.52
1:O:541:PHE:CE2	1:O:543:MET:HB2	2.45	0.52
1:V:165:ARG:NH1	1:X:560:ARG:HH12	2.07	0.52
1:V:168:LEU:HA	1:V:302:LEU:HD23	1.92	0.52
1:W:589:ASN:OD1	1:W:590:GLU:N	2.42	0.52
1:Z:337:ILE:HG22	1:Z:553:ILE:HB	1.92	0.52
1:e:190:ARG:NH2	1:i:563:ASN:OD1	2.43	0.52
1:e:429:GLN:HG2	1:e:430:THR:N	2.23	0.52
1:f:332:LEU:HB2	1:f:557:PRO:HG2	1.91	0.52
1:i:163:ASP:HB2	1:i:305:ARG:HB3	1.91	0.52
1:i:375:ARG:NH1	1:i:563:ASN:HB3	2.24	0.52
1:l:203:ASN:OD1	1:l:204:PHE:N	2.42	0.52
1:n:305:ARG:HH21	1:p:333:PRO:HD3	1.73	0.52
1:p:147:THR:HG23	1:p:150:ARG:H	1.73	0.52
1:p:196:TYR:HE1	1:p:209:LEU:HD22	1.75	0.52
1:B:367:ASN:HB3	1:B:561:TYR:HE2	1.74	0.52
1:C:490:THR:HB	1:C:497:TYR:CE1	2.44	0.52
1:G:595:PRO:HD3	1:K:596:ALA:HB1	1.92	0.52
1:H:479:PRO:O	1:H:482:ILE:HG22	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:331:THR:O	1:P:332:LEU:HD23	2.10	0.52
1:Q:57:TRP:CE2	1:Q:74:LYS:HE3	2.44	0.52
1:Q:212:HIS:HB3	1:Q:247:LYS:HG2	1.90	0.52
1:T:97:VAL:HG22	1:T:125:PHE:CE2	2.44	0.52
1:U:382:TYR:C	1:X:241:ARG:HH22	2.17	0.52
1:X:51:ILE:HD13	1:X:403:TYR:HD2	1.75	0.52
1:Z:57:TRP:NE1	1:Z:319:ASP:OD2	2.42	0.52
1:Z:169:LYS:HG2	1:Z:170:GLN:HG3	1.92	0.52
1:Z:481:TYR:HE1	1:Z:576:LEU:HD21	1.74	0.52
1:e:548:ARG:CZ	1:o:156:MET:HA	2.39	0.52
1:g:28:HIS:HA	1:g:364:MET:SD	2.50	0.52
1:g:73:SER:C	1:g:74:LYS:HD3	2.35	0.52
1:g:75:ARG:HE	1:g:86:THR:HG1	1.57	0.52
1:i:196:TYR:CE1	1:i:209:LEU:HB2	2.44	0.52
1:i:337:ILE:HD13	1:i:349:TYR:HE1	1.75	0.52
1:k:423:LEU:HB3	1:l:423:LEU:HD21	1.92	0.52
1:n:367:ASN:OD1	1:n:559:TYR:OH	2.28	0.52
1:M:55:LEU:HD12	1:M:74:LYS:HB3	1.92	0.52
1:N:140:ASN:OD1	1:N:258:ASN:ND2	2.43	0.52
1:P:242:ILE:HG22	1:P:271:VAL:HG22	1.90	0.52
1:W:196:TYR:HB3	1:W:207:MET:HG3	1.91	0.52
1:X:199:THR:HG22	1:X:201:GLU:H	1.75	0.52
1:Z:82:LEU:HD21	1:Z:406:ARG:HH11	1.75	0.52
1:e:590:GLU:O	1:f:593:VAL:HG21	2.10	0.52
1:h:79:GLN:NE2	1:h:83:ASP:OD2	2.42	0.52
1:n:420:LEU:N	1:p:583:ARG:HD3	2.24	0.52
1:o:196:TYR:HE2	1:o:209:LEU:HB2	1.74	0.52
1:p:57:TRP:HA	1:p:75:ARG:HH21	1.75	0.52
1:C:234:ASP:OD1	1:C:234:ASP:N	2.42	0.52
1:D:170:GLN:H	1:D:301:SER:HB3	1.75	0.52
1:G:311:GLN:HE22	1:K:541:PHE:HZ	1.57	0.52
1:H:200:ARG:NH2	1:H:204:PHE:O	2.43	0.52
1:M:370:THR:O	1:M:374:ASN:ND2	2.43	0.52
1:N:588:VAL:N	1:O:589:ASN:O	2.43	0.52
1:P:217:LEU:HD12	1:P:242:ILE:HD11	1.91	0.52
1:S:586:LEU:HD11	1:T:586:LEU:HD22	1.92	0.52
1:T:169:LYS:HE3	1:T:303:GLU:HB2	1.92	0.52
1:U:39:ILE:HD11	1:U:535:PRO:HD3	1.90	0.52
1:i:57:TRP:HH2	1:i:60:TRP:HB2	1.74	0.52
1:j:536:GLU:OE2	1:j:558:ARG:HB2	2.10	0.52
1:k:366:ASN:ND2	1:l:88:GLU:OE1	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:554:ARG:NH2	1:o:313:GLU:OE2	2.42	0.52
1:o:162:LEU:HD12	1:o:304:ALA:HB1	1.91	0.52
1:A:506:ARG:NH1	1:B:84:TYR:HD1	2.08	0.52
1:B:546:ASN:HB3	1:B:548:ARG:HH21	1.74	0.52
1:D:541:PHE:CE2	1:D:543:MET:HB2	2.45	0.52
1:F:487:ASP:OD1	1:F:488:ASP:N	2.42	0.52
1:F:504:ASP:OD1	1:F:506:ARG:NH1	2.42	0.52
1:F:582:GLN:NE2	1:F:583:ARG:O	2.39	0.52
1:G:242:ILE:HD11	1:G:290:LEU:HD21	1.92	0.52
1:J:186:LEU:HD21	1:J:217:LEU:HD23	1.91	0.52
1:J:203:ASN:HB3	1:J:206:LEU:HD23	1.91	0.52
1:J:312:LEU:HD12	1:J:312:LEU:O	2.10	0.52
1:J:331:THR:HA	1:J:558:ARG:NE	2.25	0.52
1:K:331:THR:OG1	1:K:558:ARG:NH1	2.43	0.52
1:O:517:LEU:HD12	1:O:518:PRO:HD2	1.91	0.52
1:P:232:LEU:HD12	1:P:235:LEU:HD12	1.92	0.52
1:Q:252:MET:HA	1:Q:252:MET:HE2	1.91	0.52
1:Q:531:LEU:HD13	1:Q:561:TYR:CE1	2.45	0.52
1:S:484:ILE:HG21	1:S:487:ASP:HB3	1.92	0.52
1:W:577:GLU:OE1	1:W:577:GLU:N	2.36	0.52
1:Y:421:ASN:ND2	1:c:583:ARG:HB2	2.25	0.52
1:Y:583:ARG:HH21	1:Z:419:ASP:N	2.08	0.52
1:d:250:GLY:HA2	1:e:264:ARG:HH22	1.75	0.52
1:f:63:GLU:CD	1:o:142:LEU:HB3	2.35	0.52
1:g:504:ASP:OD2	1:g:507:MET:N	2.42	0.52
1:n:363:GLN:NE2	1:n:364:MET:HB2	2.24	0.52
1:o:36:ARG:NH1	1:o:37:THR:OG1	2.43	0.52
1:p:449:GLN:O	1:p:449:GLN:NE2	2.43	0.52
1:A:308:ASN:HB2	1:A:311:GLN:HA	1.92	0.51
1:D:165:ARG:HD2	1:F:328:MET:SD	2.50	0.51
1:H:412:ALA:HB3	1:H:571:ILE:HG22	1.92	0.51
1:J:53:ARG:NH2	1:J:403:TYR:HB3	2.25	0.51
1:L:55:LEU:HD13	1:L:74:LYS:HB3	1.92	0.51
1:L:410:ASN:ND2	1:L:443:MET:SD	2.82	0.51
1:O:267:ARG:HG2	1:O:268:LEU:N	2.25	0.51
1:O:528:HIS:HA	1:O:565:LEU:HD13	1.92	0.51
1:W:524:HIS:ND1	1:W:525:PRO:HD2	2.25	0.51
1:Z:339:LYS:HD3	1:Z:349:TYR:CG	2.45	0.51
1:Z:422:ASN:HD22	1:Z:422:ASN:C	2.16	0.51
1:b:394:ASN:HB2	1:b:402:GLN:HE22	1.75	0.51
1:e:429:GLN:NE2	1:f:487:ASP:OD1	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:j:440:ILE:HD11	1:j:513:MET:SD	2.50	0.51
1:l:214:SER:HA	1:l:245:ASP:HA	1.91	0.51
1:m:66:SER:O	1:m:68:GLU:HG3	2.10	0.51
1:n:439:LYS:HZ3	1:p:581:ALA:HA	1.75	0.51
1:B:229:SER:O	1:B:233:LYS:NZ	2.39	0.51
1:G:580:ILE:HD13	1:H:442:GLU:HB2	1.92	0.51
1:J:240:TYR:OH	1:J:285:ARG:NH1	2.41	0.51
1:M:580:ILE:HD11	1:N:438:SER:HB3	1.92	0.51
1:S:81:LEU:O	1:W:365:ARG:NH1	2.44	0.51
1:T:375:ARG:NH2	1:T:563:ASN:HB2	2.25	0.51
1:W:177:LYS:HB3	1:W:231:LEU:HD22	1.92	0.51
1:W:211:PHE:O	1:W:212:HIS:ND1	2.42	0.51
1:d:160:ASP:OD1	1:d:306:LEU:HD11	2.10	0.51
1:e:383:LEU:HD11	1:e:397:LEU:HD21	1.92	0.51
1:g:223:THR:HG22	1:g:225:ALA:H	1.75	0.51
1:h:190:ARG:HH21	1:j:375:ARG:NH1	2.08	0.51
1:p:200:ARG:HB3	1:p:204:PHE:HA	1.92	0.51
1:A:422:ASN:OD1	1:A:423:LEU:N	2.43	0.51
1:C:439:LYS:NZ	1:C:443:MET:HE3	2.25	0.51
1:G:232:LEU:HD12	1:G:235:LEU:HD22	1.91	0.51
1:G:264:ARG:NH2	1:R:262:SER:OG	2.40	0.51
1:H:237:ASP:OD1	1:H:238:LEU:N	2.44	0.51
1:L:219:GLU:HA	1:L:236:PHE:CD1	2.45	0.51
1:N:348:THR:HG23	1:N:349:TYR:HD1	1.76	0.51
1:R:308:ASN:ND2	1:R:310:ASN:OD1	2.43	0.51
1:T:336:VAL:HG23	1:T:554:ARG:HG2	1.93	0.51
1:T:440:ILE:HG23	1:T:513:MET:SD	2.50	0.51
1:V:327:PHE:HE2	1:V:564:PHE:HE1	1.57	0.51
1:b:548:ARG:HA	1:b:548:ARG:HE	1.76	0.51
1:c:190:ARG:HH11	1:c:190:ARG:HG3	1.75	0.51
1:d:523:PRO:HG3	1:d:530:VAL:HG11	1.91	0.51
1:f:207:MET:HE2	1:f:207:MET:HA	1.91	0.51
1:h:210:LYS:HE2	1:h:264:ARG:HH22	1.75	0.51
1:h:366:ASN:HA	1:i:84:TYR:CE1	2.45	0.51
1:k:593:VAL:HG22	1:o:592:GLN:NE2	2.22	0.51
1:B:79:GLN:HG2	1:B:391:ILE:HD11	1.93	0.51
1:D:548:ARG:HD2	1:D:548:ARG:N	2.25	0.51
1:E:517:LEU:HD22	1:E:520:GLU:H	1.75	0.51
1:I:332:LEU:HB2	1:I:557:PRO:HG2	1.92	0.51
1:I:439:LYS:NZ	1:I:443:MET:HE3	2.25	0.51
1:J:143:MET:HE2	1:k:65:LEU:HA	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:365:ARG:NH2	1:Q:81:LEU:HD12	2.26	0.51
1:S:359:TYR:CE1	1:S:557:PRO:HB3	2.39	0.51
1:Z:75:ARG:HH22	1:Z:80:GLY:N	2.08	0.51
1:b:241:ARG:NH2	1:d:381:SER:O	2.26	0.51
1:g:189:ASN:OD1	1:g:190:ARG:N	2.43	0.51
1:h:52:ARG:HH22	1:j:347:LYS:HD2	1.74	0.51
1:j:83:ASP:OD1	1:j:84:TYR:N	2.44	0.51
1:l:399:GLY:HA3	1:l:564:PHE:HA	1.91	0.51
1:m:88:GLU:OE2	1:m:90:ASN:ND2	2.33	0.51
1:m:196:TYR:CE1	1:m:209:LEU:HB2	2.45	0.51
1:m:565:LEU:HD12	1:m:566:PRO:HD2	1.91	0.51
1:A:467:LYS:HE2	1:A:467:LYS:HA	1.93	0.51
1:B:590:GLU:OE1	1:C:594:THR:OG1	2.27	0.51
1:C:539:VAL:HB	1:C:554:ARG:HB2	1.92	0.51
1:G:237:ASP:OD1	1:G:238:LEU:N	2.44	0.51
1:G:246:VAL:HG12	1:G:266:LEU:HD13	1.93	0.51
1:H:233:LYS:HA	1:H:236:PHE:HB2	1.92	0.51
1:I:457:LEU:HD21	1:I:466:PRO:HD2	1.91	0.51
1:M:76:ASN:OD1	1:M:77:ILE:N	2.43	0.51
1:O:235:LEU:HD11	1:O:290:LEU:HD21	1.92	0.51
1:V:337:ILE:HG13	1:V:355:LEU:HD21	1.92	0.51
1:Y:380:LYS:HE3	1:Y:385:VAL:HB	1.90	0.51
1:b:199:THR:N	1:b:208:GLN:OE1	2.42	0.51
1:b:214:SER:HB3	1:b:243:GLU:OE2	2.11	0.51
1:b:400:VAL:HG23	1:b:525:PRO:HB3	1.91	0.51
1:c:375:ARG:HH21	1:c:566:PRO:HA	1.76	0.51
1:c:464:ARG:HH12	1:c:517:LEU:HD11	1.74	0.51
1:d:203:ASN:HB2	1:d:206:LEU:HB2	1.93	0.51
1:e:583:ARG:HH21	1:f:420:LEU:N	2.07	0.51
1:f:390:PRO:O	1:f:393:SER:OG	2.26	0.51
1:f:420:LEU:HD11	1:f:431:ASP:HB3	1.91	0.51
1:i:334:PRO:HB3	1:i:556:THR:HG22	1.92	0.51
1:l:97:VAL:HG12	1:l:145:ALA:HA	1.91	0.51
1:p:471:ALA:O	1:p:513:MET:HA	2.11	0.51
1:D:586:LEU:HD22	1:E:588:VAL:HG13	1.93	0.51
1:I:197:THR:O	1:I:208:GLN:HG2	2.10	0.51
1:L:218:GLY:O	1:L:221:SER:OG	2.28	0.51
1:L:472:ILE:HG12	1:L:513:MET:HE1	1.92	0.51
1:N:420:LEU:HD11	1:N:431:ASP:HB3	1.93	0.51
1:O:337:ILE:HG22	1:O:553:ILE:HB	1.93	0.51
1:R:53:ARG:NH1	1:R:53:ARG:HB2	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:204:PHE:HD1	1:R:205:ARG:HE	1.58	0.51
1:R:217:LEU:HD12	1:R:242:ILE:HD11	1.92	0.51
1:W:212:HIS:ND1	1:W:247:LYS:HE3	2.25	0.51
1:W:219:GLU:HA	1:W:236:PHE:CD2	2.46	0.51
1:X:68:GLU:HA	1:Z:143:MET:HE3	1.92	0.51
1:X:337:ILE:HG22	1:X:553:ILE:HB	1.93	0.51
1:b:33:LEU:HD21	1:b:471:ALA:HB1	1.92	0.51
1:j:219:GLU:HA	1:j:236:PHE:CD1	2.45	0.51
1:j:470:VAL:HG22	1:j:515:PHE:CE2	2.46	0.51
1:k:60:TRP:CG	1:k:61:THR:N	2.77	0.51
1:o:443:MET:SD	1:o:571:ILE:HD11	2.51	0.51
1:C:159:THR:OG1	1:C:310:ASN:ND2	2.43	0.51
1:D:508:LYS:HD3	1:D:509:ASP:N	2.26	0.51
1:E:158:PHE:HB3	1:Y:548:ARG:NE	2.25	0.51
1:E:213:THR:HG22	1:E:214:SER:H	1.76	0.51
1:E:476:MET:SD	1:E:501:ARG:NE	2.75	0.51
1:F:524:HIS:HE1	1:F:526:LEU:HD23	1.76	0.51
1:G:375:ARG:CD	1:G:563:ASN:HD22	2.24	0.51
1:R:360:ARG:NH1	1:R:364:MET:HG3	2.26	0.51
1:S:162:LEU:HB2	1:S:254:VAL:HG23	1.91	0.51
1:S:192:GLN:NE2	1:W:397:LEU:O	2.44	0.51
1:U:129:PHE:HD1	1:U:172:LEU:HD22	1.76	0.51
1:W:341:ALA:O	1:W:342:MET:HE2	2.10	0.51
1:Z:512:VAL:O	1:Z:513:MET:HE2	2.11	0.51
1:Z:536:GLU:CD	1:Z:558:ARG:HE	2.19	0.51
1:f:513:MET:N	1:f:569:LEU:O	2.37	0.51
1:g:246:VAL:HA	1:g:266:LEU:HD23	1.93	0.51
1:A:445:TYR:CE1	1:E:480:GLN:HG2	2.45	0.51
1:A:476:MET:HA	1:A:501:ARG:HD3	1.92	0.51
1:B:481:TYR:HE1	1:C:489:ARG:HH12	1.59	0.51
1:C:504:ASP:OD2	1:C:506:ARG:HG2	2.11	0.51
1:C:507:MET:HG3	1:C:507:MET:O	2.10	0.51
1:G:246:VAL:O	1:G:247:LYS:HE2	2.11	0.51
1:L:489:ARG:NH2	1:L:492:GLY:O	2.44	0.51
1:L:489:ARG:HH22	1:L:495:TYR:H	1.57	0.51
1:M:480:GLN:NE2	1:N:445:TYR:CZ	2.78	0.51
1:O:427:ALA:HA	1:O:429:GLN:HE22	1.76	0.51
1:O:586:LEU:HD22	1:R:586:LEU:HD11	1.93	0.51
1:R:548:ARG:HA	1:U:312:LEU:HD11	1.93	0.51
1:S:106:GLN:OE1	1:S:106:GLN:N	2.44	0.51
1:S:128:ASN:OD1	1:S:129:PHE:N	2.42	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:332:LEU:HD12	1:S:333:PRO:HD2	1.92	0.51
1:T:167:ALA:O	1:T:303:GLU:N	2.35	0.51
1:T:580:ILE:HG21	1:U:442:GLU:HG3	1.93	0.51
1:X:413:THR:HG22	1:X:572:ASN:HB2	1.93	0.51
1:X:590:GLU:HG3	1:X:592:GLN:H	1.75	0.51
1:a:523:PRO:HB3	1:a:530:VAL:HG11	1.92	0.51
1:d:252:MET:SD	1:d:259:GLY:HA3	2.51	0.51
1:e:190:ARG:HB3	1:i:398:GLU:CD	2.36	0.51
1:f:283:ASP:OD1	1:f:284:SER:N	2.43	0.51
1:h:554:ARG:HH22	1:i:313:GLU:H	1.58	0.51
1:l:416:VAL:HG11	1:l:576:LEU:HA	1.93	0.51
1:o:375:ARG:NH2	1:o:564:PHE:O	2.44	0.51
1:C:563:ASN:ND2	1:F:190:ARG:HH12	2.08	0.51
1:D:379:LEU:HD22	1:D:383:LEU:HD12	1.93	0.51
1:F:356:THR:O	1:F:360:ARG:HG2	2.11	0.51
1:H:119:LYS:HE2	1:H:119:LYS:HA	1.93	0.51
1:J:414:ILE:HD11	1:J:439:LYS:HG2	1.92	0.51
1:K:57:TRP:CZ3	1:K:59:GLY:HA2	2.45	0.51
1:O:53:ARG:NE	1:O:55:LEU:HD11	2.26	0.51
1:O:385:VAL:HG23	1:O:410:ASN:HA	1.93	0.51
1:Q:172:LEU:HD21	1:Q:183:LEU:HD22	1.92	0.51
1:Q:196:TYR:CD2	1:Q:209:LEU:HB2	2.46	0.51
1:T:592:GLN:HG3	1:U:593:VAL:HG12	1.93	0.51
1:W:332:LEU:HD13	1:W:558:ARG:HA	1.93	0.51
1:b:365:ARG:HH12	1:c:81:LEU:HA	1.76	0.51
1:f:143:MET:HE1	1:f:151:LEU:HD21	1.92	0.51
1:j:60:TRP:CD1	1:j:67:GLY:HA2	2.45	0.51
1:j:408:TYR:HB3	1:j:567:ILE:HD13	1.91	0.51
1:l:273:ASP:HB3	1:l:279:ILE:HD11	1.93	0.51
1:n:588:VAL:HG23	1:p:586:LEU:O	2.11	0.51
1:A:337:ILE:HG12	1:A:355:LEU:HD22	1.93	0.51
1:B:112:VAL:HG12	1:B:113:LEU:HD12	1.93	0.51
1:B:371:THR:HG21	1:B:561:TYR:HB2	1.92	0.51
1:C:162:LEU:HB2	1:C:254:VAL:HG23	1.93	0.51
1:D:140:ASN:ND2	1:D:143:MET:HG2	2.26	0.51
1:D:355:LEU:HD12	1:D:555:LEU:HD13	1.92	0.51
1:D:586:LEU:HB3	1:E:588:VAL:HA	1.93	0.51
1:F:256:ASN:ND2	1:F:258:ASN:OD1	2.44	0.51
1:G:310:ASN:HB2	1:N:548:ARG:HB3	1.93	0.51
1:I:133:SER:OG	1:I:261:THR:O	2.27	0.51
1:I:489:ARG:HD3	1:I:493:ILE:H	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:240:TYR:HD1	1:P:273:ASP:HA	1.76	0.51
1:P:484:ILE:HD12	1:P:489:ARG:H	1.76	0.51
1:T:59:GLY:HA3	1:T:122:LYS:HZ1	1.74	0.51
1:U:36:ARG:NH1	1:U:520:GLU:O	2.44	0.51
1:V:249:ASP:OD1	1:V:250:GLY:N	2.44	0.51
1:a:587:ASP:HA	1:d:589:ASN:HB3	1.92	0.51
1:c:337:ILE:HG12	1:c:349:TYR:CD1	2.46	0.51
1:c:337:ILE:HG12	1:c:349:TYR:CE1	2.46	0.51
1:g:147:THR:OG1	1:g:150:ARG:HD2	2.11	0.51
1:h:34:PHE:HD1	1:h:528:HIS:CD2	2.29	0.51
1:i:205:ARG:HD3	1:i:255:GLU:HB2	1.92	0.51
1:i:476:MET:SD	1:i:501:ARG:HB3	2.51	0.51
1:j:422:ASN:OD1	1:j:428:LYS:NZ	2.44	0.51
1:k:169:LYS:HG3	1:k:170:GLN:OE1	2.11	0.51
1:k:593:VAL:O	1:k:593:VAL:HG13	2.11	0.51
1:p:196:TYR:CE1	1:p:209:LEU:HB2	2.46	0.51
1:p:342:MET:SD	1:p:343:VAL:HG23	2.51	0.51
1:A:201:GLU:O	1:A:202:TYR:HB2	2.11	0.50
1:A:267:ARG:NH2	1:X:136:GLY:O	2.44	0.50
1:B:589:ASN:OD1	1:C:593:VAL:HG11	2.11	0.50
1:C:565:LEU:HD12	1:C:566:PRO:HD2	1.93	0.50
1:D:445:TYR:HE2	1:D:489:ARG:HH12	1.57	0.50
1:F:422:ASN:HD22	1:F:428:LYS:NZ	2.08	0.50
1:H:249:ASP:OD2	1:H:264:ARG:NH2	2.40	0.50
1:J:398:GLU:HA	1:K:192:GLN:HG2	1.92	0.50
1:L:536:GLU:CD	1:L:558:ARG:HE	2.19	0.50
1:M:235:LEU:HD22	1:M:242:ILE:HD11	1.92	0.50
1:O:393:SER:O	1:O:402:GLN:NE2	2.44	0.50
1:P:199:THR:HG21	1:P:206:LEU:HD22	1.92	0.50
1:R:391:ILE:HG22	1:R:392:GLU:OE1	2.11	0.50
1:V:480:GLN:HG3	1:W:445:TYR:CE1	2.46	0.50
1:W:400:VAL:HG13	1:W:525:PRO:HB3	1.91	0.50
1:Y:247:LYS:HG3	1:Y:265:ALA:HB3	1.92	0.50
1:b:363:GLN:NE2	1:b:364:MET:HB2	2.26	0.50
1:c:467:LYS:HZ1	1:c:496:ASP:H	1.59	0.50
1:e:311:GLN:HE22	1:i:543:MET:HE2	1.76	0.50
1:f:108:ILE:HD13	1:f:298:VAL:HG12	1.94	0.50
1:C:52:ARG:HG2	1:C:322:VAL:HG22	1.93	0.50
1:C:548:ARG:HE	1:f:310:ASN:ND2	2.09	0.50
1:F:203:ASN:O	1:o:324:LYS:NZ	2.45	0.50
1:F:592:GLN:HE22	1:F:596:ALA:HB3	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:379:LEU:HD23	1:G:568:MET:HE2	1.93	0.50
1:H:214:SER:HA	1:H:245:ASP:HA	1.93	0.50
1:I:203:ASN:OD1	1:I:204:PHE:N	2.31	0.50
1:K:200:ARG:HG2	1:K:201:GLU:H	1.75	0.50
1:P:161:SER:O	1:P:307:THR:N	2.44	0.50
1:Q:273:ASP:OD1	1:Q:276:GLY:N	2.41	0.50
1:R:552:GLU:HG2	1:R:554:ARG:HH21	1.76	0.50
1:S:583:ARG:HG2	1:T:421:ASN:OD1	2.12	0.50
1:V:198:ALA:HB1	1:V:200:ARG:NH1	2.26	0.50
1:V:331:THR:HG22	1:V:558:ARG:HG2	1.93	0.50
1:X:61:THR:HG22	1:Z:158:PHE:HD1	1.76	0.50
1:X:256:ASN:OD1	1:X:257:GLY:N	2.45	0.50
1:X:567:ILE:O	1:X:568:MET:HE2	2.11	0.50
1:b:81:LEU:HD12	1:d:365:ARG:NH1	2.25	0.50
1:e:434:GLY:CA	1:e:489:ARG:HD3	2.41	0.50
1:n:83:ASP:OD1	1:n:86:THR:HG23	2.11	0.50
1:C:63:GLU:O	1:k:155:SER:HA	2.10	0.50
1:I:211:PHE:O	1:I:212:HIS:ND1	2.44	0.50
1:K:536:GLU:CD	1:K:558:ARG:HE	2.18	0.50
1:R:83:ASP:OD1	1:R:85:THR:OG1	2.29	0.50
1:Z:413:THR:HG22	1:Z:572:ASN:HB2	1.92	0.50
1:d:174:SER:OG	1:d:296:THR:O	2.24	0.50
1:f:185:ALA:HB3	1:f:224:VAL:HG21	1.92	0.50
1:f:273:ASP:OD1	1:f:276:GLY:N	2.44	0.50
1:f:357:THR:O	1:f:361:ILE:HG12	2.12	0.50
1:j:512:VAL:C	1:j:513:MET:HE2	2.36	0.50
1:l:545:ARG:HH12	1:m:153:LYS:HZ3	1.56	0.50
1:m:246:VAL:HG12	1:m:248:VAL:HG23	1.93	0.50
1:m:338:VAL:HG12	1:p:317:LEU:HD11	1.92	0.50
1:C:476:MET:HB3	1:F:449:GLN:OE1	2.11	0.50
1:D:489:ARG:HD3	1:D:492:GLY:HA2	1.93	0.50
1:G:143:MET:HG2	1:O:63:GLU:HB3	1.94	0.50
1:G:338:VAL:HG22	1:G:552:GLU:OE2	2.11	0.50
1:J:196:TYR:HB3	1:J:207:MET:HB3	1.93	0.50
1:J:273:ASP:OD2	1:J:277:LYS:NZ	2.29	0.50
1:J:442:GLU:HG3	1:L:580:ILE:HD11	1.94	0.50
1:O:308:ASN:CG	1:O:311:GLN:H	2.18	0.50
1:P:347:LYS:HG3	1:Q:52:ARG:HH22	1.76	0.50
1:P:514:THR:HG23	1:P:516:ILE:HD11	1.94	0.50
1:T:404:TYR:HE2	1:T:460:ALA:HB2	1.77	0.50
1:Y:58:GLU:OE1	1:Y:75:ARG:NH1	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:57:TRP:HZ3	1:Z:59:GLY:C	2.19	0.50
1:Z:249:ASP:OD1	1:Z:250:GLY:N	2.44	0.50
1:Z:433:GLN:CD	1:Z:484:ILE:HG12	2.36	0.50
1:a:422:ASN:ND2	1:a:428:LYS:HG3	2.26	0.50
1:d:92:THR:OG1	1:d:305:ARG:NH2	2.45	0.50
1:g:36:ARG:HB3	1:g:36:ARG:CZ	2.40	0.50
1:g:398:GLU:HA	1:j:192:GLN:HE22	1.76	0.50
1:h:589:ASN:HD21	1:i:593:VAL:HB	1.75	0.50
1:j:99:GLN:HG2	1:j:101:GLY:H	1.77	0.50
1:j:417:LEU:HD23	1:j:575:ASN:HB3	1.94	0.50
1:n:57:TRP:CZ3	1:n:61:THR:HG23	2.46	0.50
1:o:201:GLU:HG3	1:o:202:TYR:CD2	2.47	0.50
1:B:583:ARG:NH2	1:C:587:ASP:OD2	2.44	0.50
1:D:479:PRO:HA	1:D:482:ILE:HG12	1.94	0.50
1:D:587:ASP:OD2	1:F:583:ARG:NE	2.45	0.50
1:E:335:LEU:HD11	1:E:362:GLN:HG2	1.92	0.50
1:J:65:LEU:C	1:J:67:GLY:H	2.18	0.50
1:J:208:GLN:NE2	1:l:210:LYS:HG2	2.26	0.50
1:M:36:ARG:O	1:M:531:LEU:N	2.42	0.50
1:M:391:ILE:HG22	1:M:392:GLU:OE1	2.11	0.50
1:O:347:LYS:HG3	1:R:52:ARG:HH22	1.76	0.50
1:T:196:TYR:CD2	1:T:209:LEU:HD13	2.47	0.50
1:W:55:LEU:HD23	1:W:74:LYS:HB3	1.93	0.50
1:X:160:ASP:HB3	1:X:306:LEU:HD11	1.94	0.50
1:a:34:PHE:HD2	1:a:372:LEU:HD11	1.77	0.50
1:e:461:PHE:HD1	1:e:464:ARG:HG2	1.77	0.50
1:e:546:ASN:O	1:e:547:GLN:HG2	2.12	0.50
1:h:220:GLU:OE2	1:j:381:SER:HA	2.12	0.50
1:l:504:ASP:OD2	1:l:506:ARG:NH2	2.43	0.50
1:l:524:HIS:CG	1:l:525:PRO:HD2	2.46	0.50
1:n:163:ASP:OD1	1:n:164:SER:N	2.44	0.50
1:n:330:PRO:HG3	1:o:165:ARG:HH11	1.76	0.50
1:B:149:SER:HA	1:B:152:LYS:HE2	1.92	0.50
1:E:484:ILE:HD12	1:E:487:ASP:HB2	1.94	0.50
1:F:441:ASN:HB3	1:F:445:TYR:HE1	1.75	0.50
1:F:478:LEU:HD21	1:F:573:VAL:HG21	1.93	0.50
1:F:536:GLU:OE2	1:F:558:ARG:NH1	2.43	0.50
1:J:536:GLU:HB2	1:J:558:ARG:HG2	1.94	0.50
1:O:119:LYS:NZ	1:O:124:THR:OG1	2.45	0.50
1:P:414:ILE:HD11	1:P:439:LYS:HG2	1.94	0.50
1:T:429:GLN:HA	1:T:432:ILE:HG22	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:129:PHE:HE2	1:X:170:GLN:HB2	1.75	0.50
1:a:108:ILE:HD13	1:a:129:PHE:HB2	1.94	0.50
1:c:103:ASN:HD21	1:c:143:MET:HE2	1.76	0.50
1:d:112:VAL:HG12	1:d:183:LEU:HD21	1.93	0.50
1:e:336:VAL:HG11	1:f:314:MET:HE3	1.93	0.50
1:h:191:ASP:HA	1:j:398:GLU:OE1	2.12	0.50
1:h:337:ILE:HG12	1:h:349:TYR:CE1	2.47	0.50
1:h:580:ILE:HG21	1:i:442:GLU:HG3	1.94	0.50
1:i:212:HIS:O	1:i:212:HIS:ND1	2.44	0.50
1:k:375:ARG:HE	1:k:563:ASN:HB3	1.76	0.50
1:o:471:ALA:HB2	1:o:516:ILE:HG12	1.92	0.50
1:B:81:LEU:HB2	1:B:82:LEU:HD12	1.93	0.50
1:D:94:LEU:HD21	1:D:306:LEU:HB2	1.92	0.50
1:D:212:HIS:O	1:D:212:HIS:CG	2.64	0.50
1:F:235:LEU:O	1:F:240:TYR:N	2.27	0.50
1:G:583:ARG:NE	1:H:420:LEU:O	2.43	0.50
1:L:512:VAL:O	1:L:513:MET:HE2	2.12	0.50
1:Q:310:ASN:HB3	1:S:549:ILE:HB	1.93	0.50
1:R:169:LYS:HA	1:R:189:ASN:HD21	1.76	0.50
1:R:548:ARG:HG2	1:U:310:ASN:HD21	1.77	0.50
1:S:396:GLY:HA2	1:T:191:ASP:HB3	1.94	0.50
1:V:351:ARG:HH12	1:W:52:ARG:HH12	1.58	0.50
1:X:55:LEU:HD13	1:X:74:LYS:HB3	1.93	0.50
1:d:590:GLU:O	1:d:592:GLN:N	2.42	0.50
1:f:425:SER:H	1:f:583:ARG:HH22	1.60	0.50
1:h:366:ASN:O	1:i:84:TYR:OH	2.29	0.50
1:i:169:LYS:HD3	1:i:303:GLU:HB2	1.93	0.50
1:j:443:MET:HE3	1:j:443:MET:HA	1.94	0.50
1:m:89:THR:HB	1:m:316:LEU:HD11	1.92	0.50
1:m:330:PRO:HD2	1:m:560:ARG:HG3	1.93	0.50
1:C:93:GLU:OE2	1:C:305:ARG:NE	2.45	0.50
1:C:208:GLN:HA	1:C:251:GLU:HA	1.94	0.50
1:G:507:MET:HG3	1:G:507:MET:O	2.11	0.50
1:J:318:ILE:HD12	1:L:355:LEU:HD12	1.92	0.50
1:N:57:TRP:CZ3	1:N:59:GLY:HA2	2.47	0.50
1:N:365:ARG:HH12	1:O:81:LEU:HD12	1.77	0.50
1:P:337:ILE:HG13	1:Q:316:LEU:O	2.11	0.50
1:T:424:THR:HG22	1:T:426:ALA:H	1.76	0.50
1:U:215:LEU:HD12	1:U:246:VAL:HG11	1.92	0.50
1:X:290:LEU:HA	1:X:293:LEU:HD12	1.94	0.50
1:Y:137:GLU:O	1:Y:137:GLU:HG2	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:583:ARG:N	1:Z:419:ASP:OD2	2.45	0.50
1:Z:184:PHE:CE1	1:Z:223:THR:HG22	2.47	0.50
1:c:57:TRP:NE1	1:c:319:ASP:OD1	2.45	0.50
1:c:64:GLY:H	1:c:67:GLY:HA2	1.77	0.50
1:d:538:LEU:HD23	1:d:538:LEU:H	1.77	0.50
1:f:170:GLN:NE2	1:f:185:ALA:HB1	2.27	0.50
1:g:219:GLU:HG2	1:g:236:PHE:HD1	1.76	0.50
1:k:36:ARG:HB2	1:k:527:GLN:HE22	1.76	0.50
1:m:246:VAL:C	1:m:247:LYS:HD2	2.37	0.50
1:m:469:HIS:ND1	1:m:496:ASP:HB2	2.27	0.50
1:C:177:LYS:HZ2	1:C:231:LEU:C	2.17	0.50
1:F:310:ASN:OD1	1:n:548:ARG:NH1	2.45	0.50
1:G:210:LYS:HG3	1:G:212:HIS:HD2	1.77	0.50
1:G:381:SER:HA	1:H:220:GLU:OE2	2.12	0.50
1:J:410:ASN:OD1	1:J:411:GLU:N	2.44	0.50
1:L:273:ASP:OD1	1:L:277:LYS:N	2.32	0.50
1:M:36:ARG:HH12	1:M:37:THR:HG22	1.76	0.50
1:N:380:LYS:HE3	1:N:409:TYR:CE2	2.45	0.50
1:S:165:ARG:HD3	1:W:328:MET:HG3	1.94	0.50
1:V:171:LEU:HD11	1:V:211:PHE:HE2	1.76	0.50
1:V:313:GLU:O	1:X:554:ARG:NH1	2.36	0.50
1:Z:592:GLN:OE1	1:a:593:VAL:HG22	2.11	0.50
1:f:440:ILE:HD11	1:f:513:MET:HG3	1.93	0.50
1:g:202:TYR:CG	1:g:203:ASN:N	2.79	0.50
1:j:169:LYS:HE2	1:j:303:GLU:HB3	1.94	0.50
1:j:171:LEU:HD23	1:j:188:VAL:HG21	1.93	0.50
1:n:52:ARG:NH1	1:n:404:TYR:OH	2.45	0.50
1:E:335:LEU:HB2	1:E:555:LEU:HD12	1.94	0.49
1:G:65:LEU:HD23	1:K:548:ARG:HD2	1.93	0.49
1:G:193:TYR:HB3	1:G:211:PHE:HA	1.94	0.49
1:J:375:ARG:HH11	1:J:563:ASN:HB3	1.77	0.49
1:K:58:GLU:O	1:K:314:MET:HE1	2.12	0.49
1:P:253:ASN:HB3	1:P:258:ASN:OD1	2.12	0.49
1:V:200:ARG:NE	1:V:204:PHE:O	2.32	0.49
1:V:593:VAL:HG23	1:X:590:GLU:HB3	1.94	0.49
1:Y:421:ASN:HD21	1:c:583:ARG:HB2	1.77	0.49
1:a:308:ASN:HB3	1:a:311:GLN:HA	1.94	0.49
1:b:585:ALA:HB1	1:b:586:LEU:HG	1.92	0.49
1:d:433:GLN:HA	1:d:436:ILE:HG22	1.94	0.49
1:e:542:ASN:O	1:e:543:MET:HE2	2.11	0.49
1:h:590:GLU:O	1:h:592:GLN:N	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:389:HIS:O	1:n:406:ARG:HD2	2.12	0.49
1:A:87:LEU:HD11	1:E:361:ILE:HG22	1.94	0.49
1:B:351:ARG:N	1:B:351:ARG:HD2	2.28	0.49
1:C:326:GLY:C	1:C:327:PHE:HD2	2.20	0.49
1:D:200:ARG:N	1:f:200:ARG:HH21	2.07	0.49
1:D:362:GLN:OE1	1:E:87:LEU:HB3	2.12	0.49
1:E:327:PHE:O	1:E:328:MET:HE2	2.12	0.49
1:F:177:LYS:HD3	1:F:293:LEU:HD13	1.94	0.49
1:I:252:MET:HA	1:I:252:MET:HE2	1.95	0.49
1:J:153:LYS:NZ	1:L:545:ARG:HE	2.09	0.49
1:L:406:ARG:HH11	1:L:406:ARG:HG3	1.77	0.49
1:M:235:LEU:HD11	1:M:289:ALA:HB1	1.94	0.49
1:M:314:MET:HE1	1:Q:545:ARG:HH22	1.77	0.49
1:M:517:LEU:HD11	1:M:526:LEU:HB3	1.94	0.49
1:R:311:GLN:HB3	1:R:313:GLU:OE1	2.12	0.49
1:T:169:LYS:NZ	1:T:303:GLU:HA	2.27	0.49
1:T:548:ARG:NE	1:T:549:ILE:H	2.03	0.49
1:Y:52:ARG:HA	1:Y:322:VAL:HG12	1.94	0.49
1:Y:275:GLU:HB3	1:Y:277:LYS:HZ1	1.77	0.49
1:Y:388:PRO:HB2	1:Y:406:ARG:NH2	2.27	0.49
1:Z:336:VAL:HG12	1:Z:554:ARG:HA	1.94	0.49
1:f:322:VAL:HG22	1:o:204:PHE:CD2	2.47	0.49
1:h:422:ASN:HD21	1:h:428:LYS:HA	1.76	0.49
1:j:200:ARG:H	1:j:200:ARG:HD3	1.76	0.49
1:m:42:PRO:HA	1:m:534:ILE:HD11	1.94	0.49
1:B:260:ASP:OD2	1:B:261:THR:N	2.45	0.49
1:C:547:GLN:O	1:C:548:ARG:HD2	2.12	0.49
1:C:560:ARG:HH11	1:C:560:ARG:HG3	1.77	0.49
1:D:246:VAL:HG12	1:D:266:LEU:HG	1.93	0.49
1:E:46:GLY:HA3	1:E:327:PHE:O	2.13	0.49
1:E:214:SER:HA	1:E:245:ASP:HA	1.94	0.49
1:F:453:TYR:HE1	1:F:526:LEU:HD12	1.76	0.49
1:K:363:GLN:OE1	1:K:364:MET:HG2	2.12	0.49
1:R:389:HIS:O	1:R:406:ARG:HG3	2.13	0.49
1:S:583:ARG:HG2	1:T:421:ASN:HD21	1.78	0.49
1:T:79:GLN:NE2	1:T:83:ASP:OD2	2.45	0.49
1:U:172:LEU:HD11	1:U:183:LEU:HD12	1.93	0.49
1:W:133:SER:OG	1:W:260:ASP:OD2	2.30	0.49
1:X:398:GLU:HB3	1:X:563:ASN:O	2.12	0.49
1:Y:268:LEU:HD21	1:Y:293:LEU:HD23	1.94	0.49
1:Y:389:HIS:O	1:Y:406:ARG:NE	2.40	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:334:PRO:HB3	1:Z:556:THR:HG22	1.94	0.49
1:g:331:THR:HA	1:g:558:ARG:HG3	1.94	0.49
1:k:347:LYS:HB3	1:l:52:ARG:HH22	1.76	0.49
1:l:385:VAL:HG23	1:l:410:ASN:HA	1.94	0.49
1:C:538:LEU:HD23	1:C:555:LEU:HD11	1.93	0.49
1:D:249:ASP:OD1	1:D:250:GLY:N	2.44	0.49
1:E:57:TRP:HE1	1:E:319:ASP:CG	2.21	0.49
1:E:306:LEU:HD23	1:E:308:ASN:HB2	1.94	0.49
1:F:531:LEU:HD13	1:F:561:TYR:CE2	2.47	0.49
1:G:339:LYS:NZ	1:G:551:ARG:HH21	2.10	0.49
1:I:382:TYR:HA	1:L:241:ARG:NH1	2.28	0.49
1:N:345:ASP:OD2	1:N:345:ASP:N	2.45	0.49
1:V:534:ILE:HB	1:V:558:ARG:HB2	1.95	0.49
1:X:388:PRO:HB2	1:X:406:ARG:NE	2.22	0.49
1:Z:58:GLU:O	1:Z:58:GLU:HG2	2.11	0.49
1:e:210:LYS:HG3	1:e:212:HIS:ND1	2.28	0.49
1:e:583:ARG:HH21	1:f:420:LEU:H	1.60	0.49
1:f:196:TYR:CE1	1:f:209:LEU:HB2	2.48	0.49
1:f:546:ASN:HB2	1:g:153:LYS:NZ	2.27	0.49
1:g:400:VAL:HG23	1:g:525:PRO:HB3	1.94	0.49
1:g:577:GLU:HA	1:g:580:ILE:HG22	1.93	0.49
1:h:473:GLY:HA2	1:h:500:ALA:HB3	1.94	0.49
1:m:83:ASP:OD1	1:m:84:TYR:N	2.46	0.49
1:o:168:LEU:HB2	1:o:194:ALA:HB1	1.93	0.49
1:H:90:ASN:ND2	1:H:93:GLU:OE1	2.45	0.49
1:I:512:VAL:HG23	1:I:570:VAL:HG22	1.93	0.49
1:J:153:LYS:NZ	1:L:545:ARG:HH21	2.09	0.49
1:J:474:THR:HG21	1:J:478:LEU:HB2	1.94	0.49
1:K:80:GLY:HA2	1:K:86:THR:HG21	1.94	0.49
1:M:322:VAL:O	1:M:323:GLN:NE2	2.42	0.49
1:O:483:GLN:HE22	1:O:485:ASN:HD21	1.59	0.49
1:Q:246:VAL:HG12	1:Q:266:LEU:HD13	1.93	0.49
1:Q:290:LEU:HA	1:Q:293:LEU:HD13	1.95	0.49
1:Q:367:ASN:HB3	1:Q:561:TYR:HE2	1.78	0.49
1:S:318:ILE:HD11	1:W:335:LEU:HD21	1.94	0.49
1:T:166:ILE:HB	1:T:196:TYR:HD1	1.77	0.49
1:T:577:GLU:HA	1:T:580:ILE:HG22	1.93	0.49
1:Y:389:HIS:O	1:Y:407:PRO:HD2	2.12	0.49
1:f:348:THR:HA	1:g:320:SER:HB2	1.93	0.49
1:h:351:ARG:N	1:h:351:ARG:HD2	2.28	0.49
1:j:411:GLU:OE1	1:j:570:VAL:HB	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:201:GLU:HA	1:U:324:LYS:HE3	1.94	0.49
1:A:545:ARG:HH22	1:A:552:GLU:CD	2.20	0.49
1:G:247:LYS:HB2	1:G:264:ARG:HB2	1.94	0.49
1:G:318:ILE:HB	1:K:337:ILE:HD13	1.94	0.49
1:G:583:ARG:NH2	1:H:420:LEU:H	2.08	0.49
1:H:531:LEU:HD13	1:H:561:TYR:CE2	2.48	0.49
1:I:424:THR:HG22	1:I:426:ALA:H	1.77	0.49
1:P:268:LEU:HD21	1:P:293:LEU:HD23	1.95	0.49
1:R:104:ASP:OD1	1:R:105:GLU:N	2.46	0.49
1:S:67:GLY:O	1:S:70:GLN:NE2	2.46	0.49
1:U:75:ARG:CZ	1:U:75:ARG:HA	2.42	0.49
1:X:235:LEU:HD12	1:X:240:TYR:HB2	1.94	0.49
1:Z:425:SER:H	1:a:421:ASN:HB2	1.76	0.49
1:c:40:VAL:HB	1:c:534:ILE:HG12	1.95	0.49
1:f:491:VAL:HG21	1:f:497:TYR:HB3	1.94	0.49
1:g:264:ARG:NH2	1:o:251:GLU:OE2	2.45	0.49
1:h:395:LEU:HA	1:h:402:GLN:HE22	1.76	0.49
1:i:57:TRP:NE1	1:i:317:LEU:HD23	2.28	0.49
1:m:60:TRP:NE1	1:m:64:GLY:H	2.10	0.49
1:D:155:SER:HA	1:e:63:GLU:OE2	2.12	0.49
1:E:172:LEU:HD11	1:E:183:LEU:HB3	1.94	0.49
1:H:57:TRP:NE1	1:H:319:ASP:OD2	2.42	0.49
1:I:365:ARG:NH2	1:L:80:GLY:O	2.46	0.49
1:L:60:TRP:HE1	1:l:157:THR:C	2.18	0.49
1:L:308:ASN:HD21	1:L:312:LEU:HG	1.77	0.49
1:X:409:TYR:HD1	1:X:568:MET:HB2	1.78	0.49
1:Z:536:GLU:HG3	1:Z:557:PRO:HA	1.95	0.49
1:Z:545:ARG:NH2	1:a:314:MET:SD	2.77	0.49
1:Z:583:ARG:HH12	1:a:420:LEU:C	2.21	0.49
1:b:583:ARG:HG3	1:c:421:ASN:OD1	2.13	0.49
1:c:153:LYS:HD3	1:c:312:LEU:HD22	1.94	0.49
1:c:249:ASP:OD1	1:c:250:GLY:N	2.46	0.49
1:i:283:ASP:OD1	1:i:284:SER:N	2.45	0.49
1:k:337:ILE:HG12	1:k:355:LEU:HD12	1.94	0.49
1:l:548:ARG:HE	1:m:65:LEU:HA	1.77	0.49
1:m:249:ASP:OD1	1:m:250:GLY:N	2.46	0.49
1:o:53:ARG:NH2	1:o:55:LEU:HD21	2.28	0.49
1:o:202:TYR:HB2	1:o:206:LEU:HD23	1.93	0.49
1:A:32:GLU:OE2	1:A:36:ARG:NE	2.45	0.49
1:A:170:GLN:NE2	1:A:185:ALA:HB1	2.27	0.49
1:B:470:VAL:HG13	1:B:513:MET:HE2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:365:ARG:HH12	1:F:366:ASN:HA	1.77	0.49
1:G:97:VAL:HG22	1:G:125:PHE:CD2	2.48	0.49
1:G:123:ASP:HB3	1:G:148:PRO:HD2	1.94	0.49
1:G:305:ARG:CZ	1:K:331:THR:HB	2.43	0.49
1:I:212:HIS:HE1	1:I:247:LYS:HE2	1.77	0.49
1:I:560:ARG:NH2	1:L:190:ARG:HH11	2.11	0.49
1:L:146:GLN:HB3	1:L:151:LEU:HD21	1.95	0.49
1:L:531:LEU:HD13	1:L:561:TYR:HE2	1.78	0.49
1:M:165:ARG:HA	1:Q:328:MET:HE1	1.95	0.49
1:M:536:GLU:HG3	1:M:557:PRO:HA	1.95	0.49
1:N:206:LEU:C	1:N:207:MET:HE2	2.37	0.49
1:P:334:PRO:HB3	1:P:556:THR:HG22	1.94	0.49
1:P:437:VAL:HG12	1:P:441:ASN:HD21	1.77	0.49
1:Q:75:ARG:HG3	1:Q:86:THR:HG23	1.95	0.49
1:R:313:GLU:OE1	1:R:313:GLU:N	2.45	0.49
1:T:592:GLN:OE1	1:T:597:SER:HB2	2.13	0.49
1:V:243:GLU:OE1	1:V:243:GLU:N	2.45	0.49
1:Y:505:LEU:HD23	1:Z:82:LEU:HG	1.93	0.49
1:Z:339:LYS:HE3	1:Z:551:ARG:HD3	1.94	0.49
1:b:277:LYS:HE2	1:b:277:LYS:HA	1.93	0.49
1:d:48:GLN:HG3	1:d:326:GLY:HA2	1.94	0.49
1:d:388:PRO:HB2	1:d:406:ARG:HH12	1.77	0.49
1:e:247:LYS:HE3	1:e:264:ARG:HD3	1.95	0.49
1:g:201:GLU:CD	1:o:212:HIS:HE2	2.21	0.49
1:g:269:ALA:C	1:g:270:ARG:HD2	2.38	0.49
1:g:453:TYR:HE1	1:g:526:LEU:HD22	1.77	0.49
1:h:328:MET:HE1	1:i:196:TYR:O	2.12	0.49
1:h:589:ASN:HB2	1:i:591:THR:OG1	2.13	0.49
1:l:548:ARG:HH21	1:m:65:LEU:HA	1.78	0.49
1:m:476:MET:HG3	1:m:501:ARG:NH2	2.28	0.49
1:n:311:GLN:HE22	1:p:554:ARG:CZ	2.25	0.49
1:A:580:ILE:HD13	1:B:442:GLU:HB2	1.94	0.49
1:C:55:LEU:HD13	1:C:74:LYS:HB3	1.94	0.49
1:C:362:GLN:NE2	1:F:87:LEU:HB3	2.26	0.49
1:D:382:TYR:HD2	1:D:397:LEU:HD22	1.78	0.49
1:H:215:LEU:N	1:H:244:LEU:O	2.44	0.49
1:H:508:LYS:HZ3	1:I:450:LEU:HD13	1.77	0.49
1:I:472:ILE:HB	1:I:499:ILE:HD13	1.95	0.49
1:J:320:SER:OG	1:L:347:LYS:O	2.22	0.49
1:L:196:TYR:CZ	1:L:209:LEU:HD22	2.48	0.49
1:M:443:MET:HE1	1:M:571:ILE:HG12	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:112:VAL:O	1:P:113:LEU:HD23	2.12	0.49
1:P:165:ARG:HB2	1:R:328:MET:CE	2.43	0.49
1:P:433:GLN:NE2	1:P:489:ARG:O	2.41	0.49
1:P:479:PRO:HG2	1:P:501:ARG:HE	1.77	0.49
1:P:593:VAL:HB	1:R:592:GLN:HE21	1.78	0.49
1:Q:239:GLY:HA3	1:Q:274:LYS:NZ	2.28	0.49
1:R:536:GLU:HG3	1:R:558:ARG:NE	2.28	0.49
1:S:53:ARG:HD3	1:S:55:LEU:HD11	1.95	0.49
1:V:169:LYS:HG2	1:V:170:GLN:HG3	1.95	0.49
1:W:443:MET:HA	1:W:443:MET:HE2	1.94	0.49
1:Y:431:ASP:OD1	1:c:425:SER:HB2	2.12	0.49
1:Y:477:ARG:NH2	1:Z:442:GLU:OE1	2.46	0.49
1:Z:547:GLN:HG3	1:Z:548:ARG:HH22	1.77	0.49
1:b:273:ASP:OD1	1:b:277:LYS:N	2.46	0.49
1:d:474:THR:HB	1:d:511:ILE:HG22	1.94	0.49
1:f:208:GLN:NE2	1:f:209:LEU:O	2.46	0.49
1:g:491:VAL:HG21	1:g:497:TYR:HB3	1.93	0.49
1:i:331:THR:OG1	1:i:558:ARG:NH1	2.46	0.49
1:m:410:ASN:OD1	1:m:411:GLU:N	2.45	0.49
1:n:235:LEU:HD21	1:n:242:ILE:HD11	1.94	0.49
1:B:29:GLU:H	1:B:29:GLU:CD	2.20	0.49
1:C:340:PRO:HB3	1:f:309:ILE:HG21	1.95	0.49
1:C:428:LYS:HZ1	1:C:579:ALA:C	2.20	0.49
1:J:355:LEU:HD13	1:J:555:LEU:HD11	1.94	0.49
1:K:242:ILE:HD12	1:K:271:VAL:HG22	1.95	0.49
1:K:269:ALA:HB1	1:K:270:ARG:HE	1.78	0.49
1:L:308:ASN:ND2	1:L:312:LEU:H	2.11	0.49
1:M:169:LYS:HD3	1:M:303:GLU:CG	2.42	0.49
1:M:352:LEU:HD22	1:M:355:LEU:HD21	1.94	0.49
1:O:338:VAL:HG22	1:O:552:GLU:HG2	1.95	0.49
1:P:457:LEU:HB3	1:P:464:ARG:HH12	1.77	0.49
1:S:60:TRP:HB2	1:S:68:GLU:HB2	1.94	0.49
1:V:418:ASN:O	1:X:583:ARG:NE	2.44	0.49
1:Y:469:HIS:CD2	1:Y:496:ASP:HB2	2.48	0.49
1:Y:580:ILE:HG22	1:Z:439:LYS:HZ3	1.77	0.49
1:a:488:ASP:N	1:a:488:ASP:OD1	2.45	0.49
1:b:192:GLN:OE1	1:d:325:GLN:NE2	2.46	0.49
1:c:152:LYS:HE2	1:c:152:LYS:HA	1.94	0.49
1:f:122:LYS:HA	1:f:122:LYS:HE3	1.94	0.49
1:f:545:ARG:HH21	1:g:153:LYS:HE3	1.78	0.49
1:n:94:LEU:HD21	1:n:306:LEU:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:375:ARG:NH1	1:n:379:LEU:HD11	2.27	0.49
1:p:433:GLN:HE22	1:p:487:ASP:HA	1.78	0.49
1:A:359:TYR:HE2	1:A:557:PRO:HB3	1.77	0.48
1:B:185:ALA:HB3	1:B:224:VAL:HG21	1.95	0.48
1:C:401:GLY:HA2	1:C:525:PRO:HB3	1.95	0.48
1:D:451:THR:HG23	1:D:453:TYR:H	1.78	0.48
1:E:306:LEU:CD2	1:E:308:ASN:HB2	2.43	0.48
1:G:342:MET:SD	1:G:343:VAL:HG23	2.53	0.48
1:I:92:THR:HG22	1:I:306:LEU:H	1.78	0.48
1:L:42:PRO:HA	1:L:534:ILE:HD11	1.95	0.48
1:O:375:ARG:NH1	1:O:379:LEU:HD21	2.28	0.48
1:P:60:TRP:HE3	1:U:158:PHE:HD1	1.61	0.48
1:R:371:THR:HG21	1:R:561:TYR:HB2	1.93	0.48
1:S:397:LEU:HD23	1:S:397:LEU:H	1.79	0.48
1:T:28:HIS:CD2	1:T:365:ARG:HE	2.30	0.48
1:T:414:ILE:HD12	1:T:436:ILE:HD12	1.96	0.48
1:V:160:ASP:HB2	1:V:306:LEU:HD21	1.94	0.48
1:W:436:ILE:O	1:W:440:ILE:HG12	2.13	0.48
1:X:491:VAL:HG21	1:X:497:TYR:HB3	1.93	0.48
1:Y:589:ASN:OD1	1:Z:591:THR:OG1	2.31	0.48
1:a:219:GLU:HG3	1:a:236:PHE:HB3	1.95	0.48
1:a:375:ARG:HH22	1:a:563:ASN:HB2	1.78	0.48
1:d:388:PRO:HB2	1:d:406:ARG:NH1	2.28	0.48
1:f:337:ILE:HG12	1:f:349:TYR:CD1	2.47	0.48
1:f:375:ARG:NH2	1:f:563:ASN:HB2	2.28	0.48
1:g:330:PRO:HG3	1:g:560:ARG:HD3	1.95	0.48
1:g:429:GLN:O	1:g:433:GLN:HG3	2.13	0.48
1:g:504:ASP:HA	1:j:84:TYR:CE2	2.48	0.48
1:h:453:TYR:HE1	1:h:468:PRO:HB3	1.78	0.48
1:i:68:GLU:OE1	1:i:73:SER:N	2.29	0.48
1:i:148:PRO:HA	1:i:151:LEU:HD12	1.95	0.48
1:i:516:ILE:HG12	1:i:517:LEU:N	2.28	0.48
1:l:188:VAL:O	1:l:188:VAL:HG12	2.12	0.48
1:l:580:ILE:HD13	1:m:442:GLU:HB2	1.94	0.48
1:m:177:LYS:HB3	1:m:231:LEU:HD22	1.94	0.48
1:n:333:PRO:HG3	1:o:92:THR:HB	1.95	0.48
1:p:375:ARG:CZ	1:p:563:ASN:HB3	2.42	0.48
1:A:213:THR:HG23	1:E:395:LEU:HB2	1.95	0.48
1:B:184:PHE:HZ	1:B:229:SER:HB3	1.77	0.48
1:B:351:ARG:HD2	1:B:351:ARG:H	1.77	0.48
1:B:480:GLN:HG3	1:C:445:TYR:CE1	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:108:ILE:HG22	1:C:131:LYS:HB3	1.95	0.48
1:C:408:TYR:HE1	1:C:447:ALA:HA	1.77	0.48
1:C:473:GLY:HA2	1:C:500:ALA:HB3	1.95	0.48
1:D:338:VAL:HB	1:E:317:LEU:HD13	1.95	0.48
1:G:481:TYR:OH	1:H:442:GLU:OE2	2.17	0.48
1:J:200:ARG:NH2	1:I:198:ALA:O	2.46	0.48
1:M:115:ALA:HA	1:M:128:ASN:HD22	1.78	0.48
1:M:406:ARG:NH2	1:M:450:LEU:O	2.46	0.48
1:P:76:ASN:HD21	1:P:391:ILE:HG13	1.77	0.48
1:P:99:GLN:OE1	1:P:99:GLN:N	2.46	0.48
1:Q:534:ILE:HG23	1:Q:558:ARG:NH1	2.26	0.48
1:S:380:LYS:HE2	1:S:409:TYR:HE2	1.78	0.48
1:U:48:GLN:OE1	1:U:48:GLN:N	2.45	0.48
1:U:114:PRO:O	1:U:116:GLN:NE2	2.46	0.48
1:U:548:ARG:HD3	1:Z:312:LEU:HD11	1.95	0.48
1:X:196:TYR:CD2	1:X:209:LEU:HB2	2.47	0.48
1:Y:210:LYS:HG2	1:Y:212:HIS:CD2	2.48	0.48
1:Z:196:TYR:CE1	1:Z:209:LEU:HB2	2.48	0.48
1:Z:510:LYS:HE2	1:Z:570:VAL:HG21	1.95	0.48
1:c:97:VAL:HG23	1:c:99:GLN:HE22	1.77	0.48
1:d:319:ASP:N	1:d:319:ASP:OD2	2.46	0.48
1:d:337:ILE:HD12	1:d:349:TYR:HE1	1.78	0.48
1:d:502:ILE:HG21	1:d:507:MET:HG3	1.94	0.48
1:f:177:LYS:HB3	1:f:231:LEU:HD22	1.93	0.48
1:f:260:ASP:OD2	1:f:261:THR:N	2.46	0.48
1:f:422:ASN:HD22	1:f:428:LYS:HG3	1.77	0.48
1:i:439:LYS:NZ	1:i:443:MET:HE3	2.28	0.48
1:l:583:ARG:NH2	1:p:589:ASN:HD21	2.12	0.48
1:m:343:VAL:HG12	1:m:344:GLU:N	2.28	0.48
1:n:153:LYS:NZ	1:p:545:ARG:HD2	2.28	0.48
1:n:593:VAL:O	1:p:592:GLN:NE2	2.46	0.48
1:A:94:LEU:HD21	1:A:306:LEU:HB2	1.95	0.48
1:E:375:ARG:NE	1:E:563:ASN:HB3	2.28	0.48
1:F:48:GLN:HG3	1:F:326:GLY:HA2	1.94	0.48
1:J:345:ASP:OD1	1:J:346:ASP:N	2.42	0.48
1:Q:476:MET:HG2	1:Q:501:ARG:HD2	1.94	0.48
1:R:440:ILE:HG13	1:R:513:MET:HE1	1.95	0.48
1:T:481:TYR:HE1	1:T:576:LEU:HD11	1.78	0.48
1:W:422:ASN:C	1:W:422:ASN:ND2	2.70	0.48
1:Y:588:VAL:HG23	1:c:586:LEU:HG	1.95	0.48
1:Z:57:TRP:O	1:Z:317:LEU:HB2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Z:260:ASP:OD1	1:Z:261:THR:N	2.47	0.48
1:a:422:ASN:HB3	1:d:421:ASN:HD21	1.78	0.48
1:g:128:ASN:OD1	1:g:129:PHE:N	2.44	0.48
1:h:475:ASP:HA	1:h:502:ILE:HG22	1.95	0.48
1:h:481:TYR:HE2	1:h:576:LEU:HD21	1.77	0.48
1:h:489:ARG:HD3	1:h:492:GLY:HA2	1.94	0.48
1:E:201:GLU:O	1:a:212:HIS:NE2	2.42	0.48
1:F:202:TYR:HB3	1:F:206:LEU:HD23	1.94	0.48
1:F:391:ILE:HG13	1:F:406:ARG:HG2	1.95	0.48
1:I:123:ASP:OD1	1:I:124:THR:N	2.46	0.48
1:N:587:ASP:N	1:N:587:ASP:OD1	2.46	0.48
1:P:527:GLN:OE1	1:P:528:HIS:N	2.46	0.48
1:Q:202:TYR:CG	1:Q:203:ASN:N	2.79	0.48
1:U:309:ILE:HD12	1:U:311:GLN:HE21	1.78	0.48
1:Y:349:TYR:OH	1:Y:352:LEU:HD23	2.12	0.48
1:Z:580:ILE:HD13	1:a:442:GLU:HB2	1.94	0.48
1:a:548:ARG:NE	1:d:65:LEU:O	2.46	0.48
1:b:205:ARG:HB3	1:b:254:VAL:HG12	1.95	0.48
1:e:593:VAL:HG11	1:i:590:GLU:N	2.28	0.48
1:h:422:ASN:ND2	1:h:428:LYS:HD2	2.28	0.48
1:m:79:GLN:O	1:m:83:ASP:N	2.43	0.48
1:m:583:ARG:HB2	1:p:421:ASN:ND2	2.28	0.48
1:n:61:THR:HG21	1:n:72:ILE:HB	1.96	0.48
1:A:30:PHE:HE1	1:A:473:GLY:HA3	1.78	0.48
1:E:502:ILE:HD11	1:E:507:MET:HG3	1.96	0.48
1:G:409:TYR:CE1	1:G:568:MET:HE3	2.49	0.48
1:H:48:GLN:NE2	1:H:325:GLN:O	2.46	0.48
1:K:40:VAL:O	1:K:534:ILE:HG13	2.13	0.48
1:L:246:VAL:HG22	1:L:266:LEU:HD13	1.96	0.48
1:N:75:ARG:HH22	1:N:86:THR:C	2.18	0.48
1:N:331:THR:C	1:N:332:LEU:HD12	2.38	0.48
1:N:365:ARG:HH22	1:O:81:LEU:HD12	1.79	0.48
1:O:163:ASP:OD1	1:O:164:SER:N	2.46	0.48
1:O:239:GLY:HA3	1:O:274:LYS:HZ2	1.78	0.48
1:P:166:ILE:O	1:P:196:TYR:HD2	1.96	0.48
1:Q:140:ASN:HD22	1:T:69:LYS:H	1.60	0.48
1:Q:477:ARG:HH22	1:Q:576:LEU:HD22	1.78	0.48
1:R:307:THR:HG23	1:R:307:THR:O	2.14	0.48
1:S:89:THR:HG21	1:S:316:LEU:HD21	1.96	0.48
1:U:476:MET:HA	1:U:501:ARG:HD2	1.94	0.48
1:U:508:LYS:NZ	1:X:449:GLN:OE1	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:451:THR:HG23	1:W:453:TYR:H	1.79	0.48
1:X:457:LEU:HD21	1:X:466:PRO:HB2	1.96	0.48
1:X:592:GLN:HE21	1:X:596:ALA:HB3	1.79	0.48
1:Z:433:GLN:NE2	1:Z:437:VAL:HG21	2.28	0.48
1:Z:457:LEU:HD22	1:Z:466:PRO:HB3	1.96	0.48
1:d:200:ARG:HH22	1:d:204:PHE:CA	2.22	0.48
1:h:336:VAL:HG12	1:i:316:LEU:H	1.78	0.48
1:i:337:ILE:HG23	1:i:339:LYS:HZ3	1.78	0.48
1:p:123:ASP:OD1	1:p:124:THR:N	2.45	0.48
1:p:249:ASP:OD2	1:p:264:ARG:NE	2.46	0.48
1:p:543:MET:SD	1:p:545:ARG:HG3	2.54	0.48
1:D:235:LEU:HD22	1:D:289:ALA:HB1	1.95	0.48
1:E:60:TRP:HB2	1:X:158:PHE:HB3	1.95	0.48
1:F:83:ASP:OD1	1:F:84:TYR:N	2.47	0.48
1:G:534:ILE:HB	1:G:558:ARG:HG3	1.96	0.48
1:G:586:LEU:HD11	1:K:586:LEU:HD12	1.95	0.48
1:I:247:LYS:HD2	1:I:264:ARG:HB3	1.96	0.48
1:I:504:ASP:OD2	1:I:505:LEU:N	2.47	0.48
1:J:55:LEU:HD23	1:J:74:LYS:HB2	1.96	0.48
1:J:595:PRO:HG2	1:L:596:ALA:HB1	1.94	0.48
1:N:476:MET:HB2	1:O:449:GLN:OE1	2.14	0.48
1:P:332:LEU:O	1:P:558:ARG:NH2	2.47	0.48
1:P:348:THR:HA	1:Q:320:SER:OG	2.14	0.48
1:Q:234:ASP:OD1	1:Q:235:LEU:N	2.46	0.48
1:T:177:LYS:HE2	1:T:231:LEU:HD22	1.95	0.48
1:U:376:ALA:HB2	1:U:568:MET:HE1	1.96	0.48
1:Y:347:LYS:HA	1:Z:320:SER:HB2	1.94	0.48
1:Y:449:GLN:HG3	1:Y:450:LEU:HD22	1.96	0.48
1:Z:336:VAL:HA	1:Z:553:ILE:O	2.13	0.48
1:a:252:MET:SD	1:a:253:ASN:N	2.87	0.48
1:a:260:ASP:OD1	1:a:261:THR:N	2.47	0.48
1:a:506:ARG:HH21	1:d:84:TYR:HD2	1.62	0.48
1:e:159:THR:HB	1:e:309:ILE:HG22	1.95	0.48
1:e:349:TYR:CE1	1:f:318:ILE:HG13	2.43	0.48
1:g:204:PHE:HE1	1:n:322:VAL:H	1.60	0.48
1:i:491:VAL:HG11	1:i:497:TYR:HB3	1.96	0.48
1:n:99:GLN:NE2	1:n:146:GLN:HB2	2.28	0.48
1:o:359:TYR:CE1	1:o:557:PRO:HB3	2.46	0.48
1:B:582:GLN:OE1	1:B:583:ARG:N	2.46	0.48
1:E:54:ASN:C	1:E:55:LEU:HD12	2.39	0.48
1:K:203:ASN:HB2	1:K:206:LEU:HD13	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:479:PRO:HG2	1:K:501:ARG:HD3	1.95	0.48
1:N:75:ARG:HH12	1:N:86:THR:HA	1.78	0.48
1:N:336:VAL:HG12	1:N:554:ARG:HA	1.95	0.48
1:O:312:LEU:O	1:O:312:LEU:HD12	2.14	0.48
1:Q:267:ARG:HH12	1:U:135:ASN:C	2.21	0.48
1:Q:414:ILE:HD11	1:Q:439:LYS:HG2	1.95	0.48
1:R:57:TRP:HE1	1:R:319:ASP:HB2	1.78	0.48
1:R:408:TYR:OH	1:R:410:ASN:ND2	2.32	0.48
1:V:243:GLU:OE2	1:V:270:ARG:HB2	2.14	0.48
1:W:453:TYR:CZ	1:W:457:LEU:HD21	2.48	0.48
1:X:409:TYR:CD1	1:X:568:MET:HB2	2.48	0.48
1:Y:478:LEU:HD21	1:Y:573:VAL:HG11	1.95	0.48
1:Z:218:GLY:HA2	1:Z:241:ARG:HH11	1.78	0.48
1:a:301:SER:O	1:a:302:LEU:HD23	2.14	0.48
1:a:560:ARG:HH21	1:d:190:ARG:NH1	2.09	0.48
1:b:61:THR:HG1	1:b:70:GLN:H	1.55	0.48
1:d:412:ALA:HB3	1:d:443:MET:HE1	1.95	0.48
1:f:57:TRP:HA	1:f:75:ARG:NH1	2.28	0.48
1:h:410:ASN:OD1	1:h:411:GLU:N	2.46	0.48
1:h:563:ASN:OD1	1:i:190:ARG:NH2	2.47	0.48
1:j:540:ASP:OD1	1:j:553:ILE:HG12	2.12	0.48
1:k:583:ARG:HD2	1:l:421:ASN:HD21	1.79	0.48
1:l:212:HIS:ND1	1:l:247:LYS:HG3	2.28	0.48
1:B:545:ARG:O	1:B:548:ARG:HB2	2.14	0.48
1:C:258:ASN:ND2	1:J:70:GLN:H	2.12	0.48
1:E:76:ASN:OD1	1:E:77:ILE:N	2.47	0.48
1:E:212:HIS:CE1	1:E:247:LYS:HB3	2.48	0.48
1:G:339:LYS:HD2	1:G:345:ASP:HB2	1.96	0.48
1:G:589:ASN:HB2	1:H:593:VAL:HB	1.95	0.48
1:I:333:PRO:HD3	1:L:305:ARG:HE	1.78	0.48
1:I:543:MET:SD	1:I:545:ARG:HG3	2.53	0.48
1:K:172:LEU:HD21	1:K:183:LEU:HD12	1.94	0.48
1:K:250:GLY:HA2	1:K:261:THR:HA	1.95	0.48
1:Q:417:LEU:HD22	1:Q:575:ASN:HD21	1.78	0.48
1:Q:514:THR:HG21	1:Q:528:HIS:ND1	2.27	0.48
1:S:165:ARG:HB3	1:W:330:PRO:HB3	1.94	0.48
1:T:59:GLY:HA3	1:T:122:LYS:HZ3	1.77	0.48
1:T:336:VAL:HG12	1:U:315:GLY:HA3	1.95	0.48
1:U:423:LEU:HD12	1:X:423:LEU:HD21	1.95	0.48
1:U:490:THR:HG21	1:U:497:TYR:CZ	2.49	0.48
1:V:591:THR:O	1:V:593:VAL:HG13	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Y:314:MET:HE2	1:Y:314:MET:HA	1.96	0.48
1:a:135:ASN:OD1	1:a:136:GLY:N	2.46	0.48
1:a:332:LEU:HB2	1:a:557:PRO:HG2	1.96	0.48
1:b:447:ALA:HB2	1:b:569:LEU:HD21	1.96	0.48
1:c:196:TYR:HB3	1:c:207:MET:HB3	1.95	0.48
1:e:363:GLN:O	1:e:561:TYR:OH	2.28	0.48
1:g:410:ASN:OD1	1:g:411:GLU:N	2.47	0.48
1:h:389:HIS:HB2	1:h:407:PRO:HG2	1.96	0.48
1:j:168:LEU:HD13	1:j:171:LEU:HD21	1.96	0.48
1:k:175:VAL:HG13	1:k:231:LEU:HD12	1.95	0.48
1:l:306:LEU:HD22	1:l:308:ASN:HB3	1.94	0.48
1:l:308:ASN:ND2	1:l:311:GLN:HA	2.28	0.48
1:l:380:LYS:HE2	1:l:409:TYR:OH	2.13	0.48
1:l:391:ILE:HG22	1:l:392:GLU:HG3	1.95	0.48
1:n:203:ASN:OD1	1:n:204:PHE:N	2.47	0.48
1:o:159:THR:O	1:o:159:THR:HG22	2.14	0.48
1:B:336:VAL:HG11	1:C:314:MET:O	2.14	0.48
1:B:523:PRO:HG3	1:B:530:VAL:HG11	1.95	0.48
1:D:53:ARG:HG2	1:D:53:ARG:HH11	1.78	0.48
1:I:37:THR:HG22	1:I:531:LEU:HD23	1.95	0.48
1:I:440:ILE:HG23	1:I:513:MET:HE1	1.95	0.48
1:K:420:LEU:HD12	1:K:421:ASN:H	1.78	0.48
1:O:57:TRP:NE1	1:O:319:ASP:OD2	2.46	0.48
1:S:591:THR:HG21	1:W:587:ASP:HB2	1.96	0.48
1:U:61:THR:OG1	1:U:61:THR:O	2.31	0.48
1:U:374:ASN:OD1	1:U:375:ARG:N	2.47	0.48
1:V:595:PRO:HG3	1:X:596:ALA:HB1	1.95	0.48
1:W:380:LYS:HE3	1:W:409:TYR:HE2	1.78	0.48
1:d:135:ASN:OD1	1:e:265:ALA:HA	2.13	0.48
1:d:186:LEU:HG	1:d:215:LEU:HD13	1.96	0.48
1:d:234:ASP:OD1	1:d:235:LEU:N	2.47	0.48
1:d:380:LYS:HG2	1:d:409:TYR:CE2	2.49	0.48
1:g:235:LEU:HD12	1:g:289:ALA:HB3	1.96	0.48
1:m:472:ILE:HD13	1:m:513:MET:HG2	1.96	0.48
1:B:336:VAL:HA	1:B:553:ILE:O	2.13	0.48
1:B:544:ILE:HB	1:L:544:ILE:HD13	1.96	0.48
1:C:233:LYS:HA	1:C:236:PHE:HB2	1.95	0.48
1:D:202:TYR:CE1	1:f:212:HIS:CE1	3.02	0.48
1:D:408:TYR:CE2	1:D:447:ALA:HA	2.49	0.48
1:D:476:MET:HE3	1:D:476:MET:HA	1.95	0.48
1:F:513:MET:HE2	1:F:513:MET:HA	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:209:LEU:HB3	1:M:250:GLY:HA3	1.96	0.48
1:M:337:ILE:HG21	1:M:349:TYR:CD1	2.49	0.48
1:N:44:GLN:OE1	1:N:44:GLN:N	2.47	0.48
1:Q:58:GLU:O	1:Q:317:LEU:HD23	2.14	0.48
1:R:363:GLN:O	1:R:561:TYR:OH	2.28	0.48
1:S:54:ASN:C	1:S:55:LEU:HD12	2.38	0.48
1:T:341:ALA:HB1	1:T:342:MET:HE3	1.96	0.48
1:U:334:PRO:HB3	1:U:556:THR:HG22	1.95	0.48
1:V:310:ASN:HD22	1:c:548:ARG:CA	2.26	0.48
1:W:192:GLN:OE1	1:W:192:GLN:N	2.44	0.48
1:Z:196:TYR:CD1	1:Z:209:LEU:HB2	2.49	0.48
1:a:185:ALA:HB3	1:a:224:VAL:HG11	1.96	0.48
1:a:475:ASP:OD1	1:a:476:MET:N	2.38	0.48
1:f:513:MET:HB2	1:f:569:LEU:HB2	1.95	0.48
1:g:163:ASP:HB2	1:g:305:ARG:HB2	1.95	0.48
1:g:511:ILE:CG2	1:g:571:ILE:HB	2.44	0.48
1:k:408:TYR:HB3	1:k:567:ILE:HD12	1.96	0.48
1:n:230:ALA:HA	1:n:233:LYS:HB2	1.96	0.48
1:B:475:ASP:HB3	1:B:507:MET:O	2.14	0.47
1:C:252:MET:SD	1:C:259:GLY:HA3	2.54	0.47
1:C:382:TYR:O	1:F:241:ARG:NH1	2.47	0.47
1:E:273:ASP:CG	1:E:279:ILE:HD11	2.38	0.47
1:F:108:ILE:HD13	1:F:129:PHE:HB2	1.96	0.47
1:F:206:LEU:HD11	1:F:251:GLU:HB2	1.96	0.47
1:F:538:LEU:HD23	1:F:538:LEU:H	1.79	0.47
1:G:188:VAL:HG12	1:G:215:LEU:HD21	1.96	0.47
1:H:31:ALA:HB3	1:H:364:MET:SD	2.54	0.47
1:J:183:LEU:O	1:J:223:THR:OG1	2.31	0.47
1:K:76:ASN:HD21	1:K:391:ILE:HG21	1.78	0.47
1:L:173:ILE:HD13	1:L:186:LEU:HD11	1.96	0.47
1:M:57:TRP:HB3	1:M:74:LYS:HG3	1.96	0.47
1:O:33:LEU:HD21	1:O:471:ALA:HB1	1.96	0.47
1:P:531:LEU:HD13	1:P:561:TYR:CD1	2.48	0.47
1:R:219:GLU:OE2	1:R:241:ARG:NH2	2.38	0.47
1:R:315:GLY:O	1:R:316:LEU:HD23	2.14	0.47
1:T:104:ASP:OD1	1:T:105:GLU:N	2.46	0.47
1:V:190:ARG:NH1	1:X:560:ARG:HH21	2.12	0.47
1:Y:369:VAL:HG23	1:Y:506:ARG:NH1	2.29	0.47
1:d:97:VAL:HG11	1:d:147:THR:HG22	1.95	0.47
1:d:309:ILE:HD11	1:h:342:MET:SD	2.54	0.47
1:e:57:TRP:NE1	1:e:317:LEU:HD22	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:28:HIS:NE2	1:f:30:PHE:HB3	2.29	0.47
1:f:248:VAL:HG22	1:f:263:LEU:HD23	1.96	0.47
1:g:158:PHE:CZ	1:n:60:TRP:HB3	2.49	0.47
1:A:508:LYS:HE2	1:A:508:LYS:HA	1.95	0.47
1:B:312:LEU:HD22	1:O:547:GLN:HB3	1.96	0.47
1:B:489:ARG:H	1:B:489:ARG:HD3	1.79	0.47
1:D:116:GLN:OE1	1:D:116:GLN:N	2.47	0.47
1:D:582:GLN:HG2	1:D:583:ARG:O	2.14	0.47
1:E:375:ARG:HH12	1:E:397:LEU:HD12	1.79	0.47
1:F:140:ASN:HD22	1:o:69:LYS:H	1.62	0.47
1:G:207:MET:N	1:G:252:MET:O	2.41	0.47
1:H:332:LEU:HB2	1:H:557:PRO:HG2	1.97	0.47
1:H:337:ILE:N	1:H:553:ILE:O	2.42	0.47
1:N:57:TRP:O	1:N:317:LEU:N	2.48	0.47
1:O:367:ASN:HD22	1:O:559:TYR:HE2	1.61	0.47
1:U:464:ARG:HB2	1:U:466:PRO:HG3	1.96	0.47
1:V:383:LEU:HG	1:V:389:HIS:CE1	2.49	0.47
1:W:536:GLU:OE1	1:W:536:GLU:HA	2.14	0.47
1:X:524:HIS:HB3	1:X:527:GLN:HG2	1.96	0.47
1:a:140:ASN:HD21	1:a:258:ASN:ND2	2.11	0.47
1:d:131:LYS:NZ	1:d:132:PHE:HB2	2.29	0.47
1:e:547:GLN:HG3	1:e:548:ARG:HH21	1.79	0.47
1:g:157:THR:CG2	1:g:310:ASN:HB3	2.42	0.47
1:h:467:LYS:NZ	1:h:494:GLY:O	2.38	0.47
1:j:273:ASP:OD1	1:j:273:ASP:N	2.48	0.47
1:j:366:ASN:O	1:j:370:THR:HG23	2.14	0.47
1:n:153:LYS:HZ3	1:p:545:ARG:HD2	1.79	0.47
1:o:337:ILE:HD11	1:o:553:ILE:HD13	1.95	0.47
1:o:545:ARG:HH21	1:o:554:ARG:NH2	2.11	0.47
1:B:147:THR:HG23	1:B:150:ARG:H	1.80	0.47
1:B:163:ASP:OD1	1:B:164:SER:N	2.47	0.47
1:D:347:LYS:HD3	1:D:351:ARG:HH11	1.78	0.47
1:E:28:HIS:N	1:E:364:MET:HE3	2.28	0.47
1:E:159:THR:HG21	1:Y:340:PRO:HG3	1.95	0.47
1:G:83:ASP:OD1	1:G:84:TYR:N	2.41	0.47
1:J:134:GLU:HG2	1:J:135:ASN:N	2.29	0.47
1:L:437:VAL:HA	1:L:440:ILE:HG22	1.96	0.47
1:L:447:ALA:HB2	1:L:569:LEU:HD11	1.96	0.47
1:N:80:GLY:CA	1:N:86:THR:HG21	2.44	0.47
1:P:53:ARG:HE	1:P:55:LEU:HD11	1.79	0.47
1:P:479:PRO:HG2	1:P:501:ARG:NE	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:283:ASP:OD1	1:S:284:SER:N	2.47	0.47
1:S:349:TYR:OH	1:S:355:LEU:HD23	2.14	0.47
1:Y:365:ARG:HH21	1:Z:81:LEU:HB3	1.79	0.47
1:Z:146:GLN:NE2	1:Z:156:MET:HE1	2.29	0.47
1:Z:425:SER:N	1:a:421:ASN:HD22	2.12	0.47
1:b:332:LEU:HB2	1:b:557:PRO:O	2.14	0.47
1:f:347:LYS:HA	1:g:52:ARG:NH1	2.29	0.47
1:m:57:TRP:HH2	1:m:60:TRP:HE3	1.62	0.47
1:n:524:HIS:CG	1:n:525:PRO:HD2	2.49	0.47
1:p:543:MET:HE1	1:p:545:ARG:NH1	2.30	0.47
1:A:97:VAL:HG11	1:A:146:GLN:O	2.14	0.47
1:A:159:THR:HG21	1:T:340:PRO:HG3	1.96	0.47
1:C:534:ILE:HD11	1:C:558:ARG:HB2	1.96	0.47
1:G:337:ILE:HD11	1:G:355:LEU:HB2	1.95	0.47
1:I:61:THR:HB	1:I:67:GLY:H	1.78	0.47
1:O:28:HIS:CA	1:O:364:MET:HE2	2.45	0.47
1:O:94:LEU:HB3	1:O:141:LEU:HD21	1.96	0.47
1:O:483:GLN:NE2	1:O:485:ASN:HD21	2.12	0.47
1:T:33:LEU:HD21	1:T:471:ALA:HB1	1.96	0.47
1:U:74:LYS:O	1:U:75:ARG:NH1	2.48	0.47
1:U:583:ARG:HG3	1:X:587:ASP:OD2	2.14	0.47
1:V:247:LYS:NZ	1:Z:251:GLU:OE2	2.47	0.47
1:W:57:TRP:HH2	1:W:60:TRP:CD2	2.33	0.47
1:X:594:THR:O	1:X:596:ALA:N	2.45	0.47
1:Y:332:LEU:HB2	1:Y:557:PRO:HG2	1.96	0.47
1:Z:137:GLU:CD	1:Z:137:GLU:H	2.22	0.47
1:g:362:GLN:OE1	1:j:87:LEU:HB3	2.14	0.47
1:k:45:ALA:O	1:k:328:MET:HG2	2.14	0.47
1:o:504:ASP:OD1	1:o:505:LEU:N	2.48	0.47
1:B:310:ASN:OD1	1:B:311:GLN:N	2.47	0.47
1:B:424:THR:HG22	1:B:426:ALA:H	1.79	0.47
1:D:457:LEU:HD22	1:D:526:LEU:HD13	1.96	0.47
1:E:55:LEU:HD23	1:E:74:LYS:HD2	1.95	0.47
1:E:198:ALA:O	1:a:200:ARG:NH2	2.48	0.47
1:G:196:TYR:CE1	1:G:209:LEU:HD22	2.43	0.47
1:H:470:VAL:HG22	1:H:515:PHE:HE1	1.79	0.47
1:I:560:ARG:CD	1:L:165:ARG:HH12	2.27	0.47
1:O:51:ILE:O	1:O:322:VAL:HG23	2.14	0.47
1:O:310:ASN:C	1:O:311:GLN:HG3	2.40	0.47
1:Q:235:LEU:HB2	1:Q:289:ALA:HB1	1.97	0.47
1:T:57:TRP:CD1	1:T:74:LYS:HZ3	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:U:548:ARG:NH2	1:Z:310:ASN:OD1	2.48	0.47
1:V:347:LYS:O	1:W:52:ARG:NH2	2.46	0.47
1:W:541:PHE:CE2	1:W:543:MET:HB2	2.50	0.47
1:X:512:VAL:HG22	1:X:570:VAL:HG22	1.96	0.47
1:Y:508:LYS:HA	1:Y:508:LYS:HD2	1.75	0.47
1:g:483:GLN:NE2	1:g:485:ASN:OD1	2.40	0.47
1:i:242:ILE:HD13	1:i:271:VAL:HG22	1.95	0.47
1:j:543:MET:HE2	1:j:545:ARG:HE	1.79	0.47
1:k:334:PRO:HB3	1:k:556:THR:HG22	1.96	0.47
1:n:59:GLY:O	1:n:317:LEU:HD12	2.14	0.47
1:p:334:PRO:HD3	1:p:556:THR:HG23	1.97	0.47
1:A:180:THR:HB	1:A:231:LEU:HD21	1.97	0.47
1:A:317:LEU:HG	1:E:338:VAL:HB	1.97	0.47
1:A:476:MET:HB3	1:B:449:GLN:OE1	2.15	0.47
1:E:516:ILE:O	1:E:518:PRO:HD3	2.14	0.47
1:F:422:ASN:OD1	1:F:423:LEU:N	2.48	0.47
1:H:212:HIS:HB3	1:H:247:LYS:NZ	2.29	0.47
1:I:37:THR:HA	1:I:531:LEU:HB3	1.95	0.47
1:J:97:VAL:HG23	1:J:125:PHE:CD2	2.49	0.47
1:J:177:LYS:HD3	1:J:293:LEU:HD22	1.97	0.47
1:J:199:THR:HG21	1:J:208:GLN:NE2	2.29	0.47
1:K:433:GLN:NE2	1:K:485:ASN:O	2.47	0.47
1:M:425:SER:OG	1:N:421:ASN:HB2	2.15	0.47
1:N:346:ASP:HB2	1:N:347:LYS:NZ	2.28	0.47
1:P:324:LYS:O	1:Q:193:TYR:OH	2.33	0.47
1:T:341:ALA:HB1	1:T:342:MET:CE	2.44	0.47
1:U:332:LEU:HB2	1:U:557:PRO:HG2	1.97	0.47
1:U:428:LYS:NZ	1:U:582:GLN:O	2.47	0.47
1:Y:108:ILE:HD13	1:Y:129:PHE:HB2	1.96	0.47
1:Y:457:LEU:HD23	1:Y:466:PRO:HA	1.96	0.47
1:Y:581:ALA:HA	1:Z:439:LYS:HZ2	1.78	0.47
1:a:417:LEU:HD11	1:a:575:ASN:ND2	2.28	0.47
1:d:536:GLU:HG2	1:d:556:THR:O	2.14	0.47
1:g:367:ASN:OD1	1:g:368:ALA:N	2.47	0.47
1:h:590:GLU:C	1:h:592:GLN:H	2.23	0.47
1:i:39:ILE:HD11	1:i:535:PRO:HD3	1.95	0.47
1:n:97:VAL:O	1:n:103:ASN:ND2	2.46	0.47
1:o:172:LEU:HD11	1:o:183:LEU:HB3	1.95	0.47
1:p:169:LYS:HG3	1:p:170:GLN:HG3	1.97	0.47
1:A:123:ASP:OD2	1:A:149:SER:N	2.38	0.47
1:A:433:GLN:HG3	1:A:481:TYR:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:140:ASN:HD22	1:D:143:MET:HG2	1.79	0.47
1:E:65:LEU:CD1	1:X:158:PHE:HA	2.45	0.47
1:E:75:ARG:HD2	1:E:86:THR:HB	1.96	0.47
1:F:339:LYS:HZ1	1:F:551:ARG:HD3	1.80	0.47
1:H:367:ASN:HD22	1:H:559:TYR:HE1	1.63	0.47
1:I:544:ILE:HD13	1:I:549:ILE:HG12	1.97	0.47
1:J:445:TYR:HE1	1:J:495:TYR:HE2	1.63	0.47
1:K:129:PHE:HB3	1:K:299:GLY:HA3	1.97	0.47
1:K:184:PHE:HE2	1:K:217:LEU:HD13	1.78	0.47
1:M:590:GLU:HA	1:Q:588:VAL:O	2.14	0.47
1:N:438:SER:HA	1:N:441:ASN:HD22	1.80	0.47
1:O:544:ILE:HG12	1:O:549:ILE:HG22	1.97	0.47
1:P:57:TRP:HZ3	1:P:72:ILE:HD11	1.79	0.47
1:P:59:GLY:HA3	1:P:317:LEU:HD13	1.96	0.47
1:P:433:GLN:NE2	1:P:437:VAL:HG21	2.30	0.47
1:Q:76:ASN:OD1	1:Q:77:ILE:N	2.47	0.47
1:Q:173:ILE:HG22	1:Q:266:LEU:HD21	1.97	0.47
1:Q:196:TYR:CE2	1:Q:209:LEU:HB2	2.50	0.47
1:R:546:ASN:O	1:R:547:GLN:HG2	2.14	0.47
1:T:430:THR:HB	1:T:489:ARG:HH21	1.80	0.47
1:V:108:ILE:HG22	1:V:131:LYS:HG2	1.96	0.47
1:V:122:LYS:HE2	1:V:122:LYS:HA	1.95	0.47
1:X:214:SER:HA	1:X:245:ASP:HA	1.97	0.47
1:X:235:LEU:O	1:X:240:TYR:N	2.40	0.47
1:X:337:ILE:HG12	1:X:349:TYR:HD1	1.80	0.47
1:Z:266:LEU:HD21	1:Z:295:VAL:HG12	1.97	0.47
1:a:57:TRP:HA	1:a:75:ARG:NH1	2.29	0.47
1:a:70:GLN:H	1:e:258:ASN:HD22	1.62	0.47
1:e:260:ASP:OD1	1:e:261:THR:N	2.46	0.47
1:f:273:ASP:OD1	1:f:277:LYS:N	2.46	0.47
1:f:325:GLN:NE2	1:g:192:GLN:HG3	2.30	0.47
1:g:477:ARG:HB3	1:g:477:ARG:NH1	2.30	0.47
1:h:313:GLU:N	1:h:313:GLU:OE2	2.47	0.47
1:h:351:ARG:HD2	1:h:351:ARG:H	1.79	0.47
1:i:244:LEU:HD21	1:i:268:LEU:HD13	1.97	0.47
1:j:353:GLU:N	1:j:353:GLU:OE2	2.47	0.47
1:k:314:MET:HA	1:k:314:MET:HE2	1.96	0.47
1:k:331:THR:HG22	1:l:163:ASP:OD2	2.15	0.47
1:k:449:GLN:HE21	1:o:477:ARG:HB2	1.80	0.47
1:k:457:LEU:HD21	1:k:466:PRO:HD2	1.97	0.47
1:m:119:LYS:HE3	1:m:124:THR:HG23	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:m:244:LEU:HD21	1:m:268:LEU:HD23	1.97	0.47
1:n:420:LEU:HD11	1:n:431:ASP:HB3	1.96	0.47
1:p:359:TYR:CE1	1:p:557:PRO:HB3	2.49	0.47
1:F:337:ILE:HD12	1:F:338:VAL:H	1.80	0.47
1:G:375:ARG:HB3	1:G:375:ARG:CZ	2.44	0.47
1:G:433:GLN:NE2	1:G:484:ILE:HG22	2.29	0.47
1:G:541:PHE:CE2	1:G:543:MET:HB2	2.49	0.47
1:J:449:GLN:HG3	1:L:477:ARG:HB2	1.97	0.47
1:K:36:ARG:HH12	1:K:521:SER:HA	1.80	0.47
1:K:453:TYR:CZ	1:K:457:LEU:HD21	2.50	0.47
1:L:471:ALA:HB2	1:L:516:ILE:HD13	1.96	0.47
1:O:429:GLN:CD	1:O:429:GLN:H	2.23	0.47
1:P:332:LEU:N	1:P:558:ARG:HH21	1.97	0.47
1:R:464:ARG:CZ	1:R:465:SER:H	2.28	0.47
1:V:250:GLY:HA3	1:V:261:THR:HA	1.96	0.47
1:a:60:TRP:CZ3	1:e:158:PHE:HA	2.50	0.47
1:b:504:ASP:OD1	1:b:505:LEU:N	2.48	0.47
1:e:217:LEU:HD12	1:e:242:ILE:HD11	1.97	0.47
1:e:365:ARG:NH1	1:f:81:LEU:O	2.45	0.47
1:f:324:LYS:HG2	1:o:200:ARG:NH2	2.30	0.47
1:i:408:TYR:O	1:i:567:ILE:HA	2.15	0.47
1:j:113:LEU:HD12	1:j:114:PRO:HD2	1.96	0.47
1:j:177:LYS:HD2	1:j:293:LEU:HD21	1.96	0.47
1:m:57:TRP:HE1	1:m:319:ASP:HB3	1.80	0.47
1:m:91:SER:O	1:m:150:ARG:NH2	2.48	0.47
1:p:453:TYR:HE1	1:p:526:LEU:HD12	1.79	0.47
1:A:173:ILE:HG22	1:A:297:GLY:HA2	1.97	0.47
1:E:169:LYS:O	1:E:169:LYS:HD3	2.14	0.47
1:G:506:ARG:HH21	1:H:84:TYR:HD2	1.63	0.47
1:G:590:GLU:O	1:G:592:GLN:N	2.39	0.47
1:K:175:VAL:HG22	1:K:295:VAL:HG22	1.95	0.47
1:K:360:ARG:NH2	1:K:364:MET:HE3	2.30	0.47
1:M:428:LYS:HG2	1:M:580:ILE:HD12	1.97	0.47
1:P:357:THR:O	1:P:361:ILE:HG12	2.14	0.47
1:P:447:ALA:O	1:P:451:THR:OG1	2.31	0.47
1:Q:28:HIS:O	1:Q:364:MET:HE2	2.15	0.47
1:Q:440:ILE:O	1:Q:444:VAL:HG23	2.15	0.47
1:U:55:LEU:HD12	1:U:74:LYS:HB3	1.96	0.47
1:W:380:LYS:HE3	1:W:409:TYR:CE2	2.50	0.47
1:X:57:TRP:CH2	1:X:60:TRP:HA	2.50	0.47
1:X:417:LEU:HA	1:X:579:ALA:HB2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:470:VAL:HG13	1:X:513:MET:HE3	1.97	0.47
1:d:172:LEU:HD11	1:d:183:LEU:HB3	1.97	0.47
1:d:336:VAL:HG13	1:d:554:ARG:HD3	1.96	0.47
1:e:36:ARG:NH2	1:e:520:GLU:OE2	2.48	0.47
1:e:547:GLN:HG3	1:e:548:ARG:NH2	2.30	0.47
1:j:481:TYR:CE2	1:j:576:LEU:HD21	2.50	0.47
1:C:331:THR:C	1:C:332:LEU:HD12	2.40	0.47
1:E:98:ILE:HG22	1:E:100:SER:H	1.80	0.47
1:H:122:LYS:HG3	1:H:122:LYS:O	2.15	0.47
1:I:204:PHE:HB2	1:I:205:ARG:CZ	2.45	0.47
1:I:548:ARG:HG3	1:I:310:ASN:ND2	2.30	0.47
1:L:433:GLN:HA	1:L:436:ILE:HG22	1.96	0.47
1:M:77:ILE:HD11	1:M:87:LEU:HD11	1.96	0.47
1:M:189:ASN:OD1	1:M:190:ARG:N	2.48	0.47
1:N:339:LYS:NZ	1:N:340:PRO:HD2	2.30	0.47
1:P:163:ASP:HB2	1:P:305:ARG:HG3	1.96	0.47
1:S:330:PRO:HB3	1:T:165:ARG:HD3	1.97	0.47
1:Y:420:LEU:N	1:c:583:ARG:HD3	2.29	0.47
1:Z:336:VAL:HG11	1:Z:554:ARG:CZ	2.45	0.47
1:d:131:LYS:HZ3	1:d:132:PHE:HB2	1.80	0.47
1:d:417:LEU:HD11	1:d:584:THR:HG21	1.96	0.47
1:d:429:GLN:HG2	1:d:430:THR:N	2.30	0.47
1:f:425:SER:N	1:g:431:ASP:OD1	2.47	0.47
1:g:380:LYS:HG3	1:g:409:TYR:HE2	1.78	0.47
1:g:443:MET:HG2	1:g:569:LEU:HD13	1.97	0.47
1:h:169:LYS:HB3	1:h:301:SER:OG	2.15	0.47
1:k:117:THR:HB	1:k:119:LYS:NZ	2.30	0.47
1:k:589:ASN:HB2	1:l:593:VAL:HG21	1.97	0.47
1:m:28:HIS:N	1:m:364:MET:HE3	2.30	0.47
1:m:362:GLN:HE22	1:p:88:GLU:N	2.13	0.47
1:m:481:TYR:HE1	1:m:576:LEU:HD21	1.79	0.47
1:n:60:TRP:HE1	1:p:338:VAL:HG11	1.80	0.47
1:n:253:ASN:OD1	1:n:254:VAL:N	2.47	0.47
1:n:339:LYS:HE3	1:n:339:LYS:HB3	1.74	0.47
1:p:176:THR:HB	1:p:294:THR:HB	1.97	0.47
1:A:425:SER:OG	1:B:421:ASN:OD1	2.32	0.46
1:A:449:GLN:OE1	1:A:449:GLN:HA	2.15	0.46
1:B:70:GLN:HG3	1:K:258:ASN:ND2	2.30	0.46
1:B:355:LEU:HD21	1:B:555:LEU:CD1	2.45	0.46
1:B:480:GLN:HG3	1:C:445:TYR:HE1	1.80	0.46
1:C:169:LYS:HG3	1:C:170:GLN:OE1	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:332:LEU:HG	1:E:333:PRO:HD2	1.97	0.46
1:G:587:ASP:HA	1:H:589:ASN:HB3	1.97	0.46
1:H:590:GLU:O	1:H:592:GLN:N	2.42	0.46
1:J:246:VAL:HG22	1:J:266:LEU:HG	1.97	0.46
1:L:406:ARG:O	1:L:567:ILE:HD11	2.14	0.46
1:L:487:ASP:N	1:L:487:ASP:OD2	2.45	0.46
1:O:84:TYR:O	1:O:88:GLU:HG2	2.15	0.46
1:O:453:TYR:CZ	1:O:457:LEU:HD21	2.50	0.46
1:P:135:ASN:OD1	1:P:136:GLY:N	2.48	0.46
1:Q:454:THR:O	1:Q:458:GLU:OE1	2.33	0.46
1:S:177:LYS:HZ1	1:S:290:LEU:HA	1.80	0.46
1:T:454:THR:O	1:T:458:GLU:OE1	2.33	0.46
1:U:94:LEU:HD11	1:U:306:LEU:HB2	1.97	0.46
1:W:54:ASN:C	1:W:55:LEU:HD12	2.39	0.46
1:W:60:TRP:CD1	1:W:72:ILE:HD13	2.50	0.46
1:W:196:TYR:HE1	1:W:209:LEU:HD22	1.79	0.46
1:Y:399:GLY:HA3	1:Y:564:PHE:HA	1.96	0.46
1:b:313:GLU:O	1:d:554:ARG:NH2	2.49	0.46
1:c:128:ASN:OD1	1:c:129:PHE:N	2.40	0.46
1:d:268:LEU:HD13	1:d:290:LEU:HD13	1.97	0.46
1:d:454:THR:O	1:d:458:GLU:OE1	2.33	0.46
1:e:539:VAL:HG22	1:e:541:PHE:CD1	2.50	0.46
1:f:388:PRO:HB2	1:f:406:ARG:HD3	1.97	0.46
1:g:329:ILE:C	1:j:165:ARG:HH21	2.23	0.46
1:g:429:GLN:O	1:g:432:ILE:HG12	2.15	0.46
1:h:169:LYS:HA	1:h:189:ASN:OD1	2.15	0.46
1:h:190:ARG:HH22	1:j:563:ASN:N	2.13	0.46
1:m:192:GLN:OE1	1:m:192:GLN:N	2.49	0.46
1:o:120:GLN:HB3	1:o:125:PHE:HE1	1.81	0.46
1:o:177:LYS:HB3	1:o:231:LEU:HD13	1.97	0.46
1:o:505:LEU:O	1:o:508:LYS:NZ	2.33	0.46
1:p:545:ARG:NH2	1:p:554:ARG:HH22	2.09	0.46
1:A:162:LEU:HB3	1:A:166:ILE:HD11	1.96	0.46
1:A:544:ILE:HG13	1:A:549:ILE:HG12	1.97	0.46
1:A:593:VAL:HG13	1:A:593:VAL:O	2.15	0.46
1:D:583:ARG:HD2	1:E:587:ASP:HB2	1.97	0.46
1:F:337:ILE:HG22	1:F:553:ILE:HB	1.96	0.46
1:G:176:THR:O	1:G:294:THR:N	2.43	0.46
1:G:536:GLU:HG2	1:G:556:THR:O	2.16	0.46
1:J:455:ALA:HA	1:J:458:GLU:CD	2.40	0.46
1:J:523:PRO:HG3	1:J:530:VAL:HG11	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:71:GLU:OE2	1:R:256:ASN:ND2	2.48	0.46
1:N:338:VAL:HG11	1:O:60:TRP:CH2	2.50	0.46
1:N:362:GLN:HG3	1:O:88:GLU:OE1	2.15	0.46
1:O:444:VAL:HG22	1:O:513:MET:HE3	1.97	0.46
1:Q:51:ILE:HD11	1:Q:404:TYR:CE1	2.50	0.46
1:Q:430:THR:HG23	1:Q:489:ARG:HH12	1.81	0.46
1:S:212:HIS:ND1	1:S:247:LYS:HG2	2.29	0.46
1:X:504:ASP:OD2	1:X:505:LEU:N	2.48	0.46
1:X:541:PHE:HB3	1:X:543:MET:HE2	1.96	0.46
1:Z:547:GLN:HG3	1:Z:548:ARG:NH2	2.30	0.46
1:e:219:GLU:HA	1:e:236:PHE:CD1	2.50	0.46
1:g:330:PRO:CB	1:j:165:ARG:HE	2.24	0.46
1:g:356:THR:O	1:g:360:ARG:HG3	2.14	0.46
1:i:375:ARG:HH22	1:i:566:PRO:HA	1.79	0.46
1:k:117:THR:HB	1:k:119:LYS:HZ3	1.80	0.46
1:n:351:ARG:N	1:n:351:ARG:HD2	2.30	0.46
1:n:528:HIS:NE2	1:n:568:MET:HE1	2.30	0.46
1:A:311:GLN:C	1:T:548:ARG:HH22	2.24	0.46
1:A:490:THR:HG23	1:A:492:GLY:H	1.80	0.46
1:A:507:MET:HE3	1:A:507:MET:HB3	1.83	0.46
1:B:140:ASN:ND2	1:R:66:SER:HB2	2.30	0.46
1:B:544:ILE:HD12	1:B:548:ARG:O	2.14	0.46
1:C:476:MET:SD	1:C:501:ARG:NH2	2.88	0.46
1:D:358:ALA:O	1:D:362:GLN:HG2	2.15	0.46
1:G:305:ARG:NH1	1:K:331:THR:HB	2.30	0.46
1:I:359:TYR:CE2	1:I:557:PRO:HB3	2.50	0.46
1:J:149:SER:O	1:J:153:LYS:HG2	2.15	0.46
1:K:469:HIS:CD2	1:K:496:ASP:HB2	2.51	0.46
1:O:464:ARG:NH1	1:O:465:SER:O	2.48	0.46
1:Q:177:LYS:HD2	1:Q:231:LEU:HD22	1.96	0.46
1:Q:309:ILE:C	1:Q:311:GLN:H	2.24	0.46
1:S:489:ARG:HH21	1:W:485:ASN:ND2	2.13	0.46
1:W:399:GLY:HA2	1:W:564:PHE:HD1	1.80	0.46
1:X:375:ARG:HD2	1:X:563:ASN:OD1	2.16	0.46
1:Z:422:ASN:C	1:Z:422:ASN:ND2	2.72	0.46
1:Z:548:ARG:NE	1:e:157:THR:HA	2.29	0.46
1:a:61:THR:OG1	1:a:65:LEU:HD21	2.15	0.46
1:c:336:VAL:HA	1:c:553:ILE:O	2.15	0.46
1:d:77:ILE:HG23	1:d:78:LEU:HD22	1.97	0.46
1:d:256:ASN:HD21	1:i:67:GLY:HA2	1.80	0.46
1:d:375:ARG:HE	1:d:379:LEU:HD21	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:64:GLY:H	1:f:67:GLY:HA2	1.80	0.46
1:g:367:ASN:CG	1:g:561:TYR:HE2	2.24	0.46
1:h:336:VAL:HG23	1:h:554:ARG:HD3	1.97	0.46
1:k:33:LEU:HD21	1:k:471:ALA:HB1	1.97	0.46
1:m:347:LYS:HA	1:p:320:SER:OG	2.15	0.46
1:o:28:HIS:N	1:o:364:MET:HE3	2.29	0.46
1:o:79:GLN:HB2	1:o:391:ILE:HD12	1.97	0.46
1:C:347:LYS:HA	1:F:320:SER:OG	2.15	0.46
1:D:196:TYR:HE2	1:D:209:LEU:HD22	1.80	0.46
1:E:430:THR:O	1:E:433:GLN:HG3	2.15	0.46
1:I:99:GLN:H	1:I:103:ASN:HD21	1.63	0.46
1:J:337:ILE:HG13	1:J:355:LEU:HD21	1.96	0.46
1:K:143:MET:SD	1:K:146:GLN:NE2	2.89	0.46
1:M:583:ARG:HE	1:N:587:ASP:CG	2.22	0.46
1:N:411:GLU:HA	1:N:570:VAL:O	2.15	0.46
1:N:467:LYS:HE2	1:N:467:LYS:HA	1.96	0.46
1:P:593:VAL:HG21	1:R:590:GLU:O	2.15	0.46
1:Q:266:LEU:N	1:Q:267:ARG:HD2	2.30	0.46
1:R:214:SER:HA	1:R:245:ASP:HA	1.97	0.46
1:S:445:TYR:CE2	1:W:480:GLN:HG3	2.51	0.46
1:V:208:GLN:HE22	1:V:210:LYS:CG	2.15	0.46
1:W:399:GLY:HA3	1:W:564:PHE:HA	1.98	0.46
1:X:169:LYS:HB2	1:X:301:SER:HB2	1.98	0.46
1:a:273:ASP:OD1	1:a:277:LYS:N	2.46	0.46
1:a:309:ILE:HG13	1:a:310:ASN:N	2.29	0.46
1:b:317:LEU:HD12	1:b:317:LEU:H	1.80	0.46
1:c:475:ASP:N	1:c:475:ASP:OD1	2.48	0.46
1:e:375:ARG:HD3	1:e:563:ASN:ND2	2.30	0.46
1:g:199:THR:HB	1:g:208:GLN:HG2	1.97	0.46
1:i:55:LEU:N	1:i:319:ASP:O	2.43	0.46
1:n:57:TRP:HZ3	1:n:61:THR:HG23	1.80	0.46
1:n:84:TYR:CD1	1:p:506:ARG:HD2	2.51	0.46
1:o:116:GLN:NE2	1:o:128:ASN:HA	2.30	0.46
1:o:331:THR:C	1:o:332:LEU:HD12	2.41	0.46
1:p:137:GLU:H	1:p:137:GLU:CD	2.22	0.46
1:A:547:GLN:HG3	1:K:153:LYS:HE2	1.97	0.46
1:B:370:THR:HG23	1:C:84:TYR:OH	2.15	0.46
1:D:172:LEU:HD11	1:D:183:LEU:HB3	1.97	0.46
1:J:134:GLU:HG2	1:J:135:ASN:H	1.79	0.46
1:K:60:TRP:CZ3	1:K:62:GLY:HA2	2.50	0.46
1:K:223:THR:OG1	1:K:226:GLY:O	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:212:HIS:CE1	1:M:247:LYS:HG3	2.51	0.46
1:M:385:VAL:HG23	1:M:410:ASN:HA	1.97	0.46
1:O:545:ARG:HD2	1:R:153:LYS:NZ	2.30	0.46
1:Q:379:LEU:HD12	1:Q:568:MET:HE3	1.98	0.46
1:V:405:VAL:HG11	1:V:567:ILE:HD11	1.97	0.46
1:W:473:GLY:N	1:W:512:VAL:O	2.32	0.46
1:W:476:MET:HE1	1:W:503:SER:HA	1.98	0.46
1:X:364:MET:C	1:X:365:ARG:HD2	2.40	0.46
1:Y:215:LEU:HD12	1:Y:246:VAL:HG21	1.97	0.46
1:Z:146:GLN:HB3	1:Z:151:LEU:HD21	1.96	0.46
1:a:155:SER:OG	1:a:156:MET:N	2.49	0.46
1:a:394:ASN:O	1:a:402:GLN:NE2	2.44	0.46
1:b:536:GLU:OE1	1:b:558:ARG:NH1	2.47	0.46
1:c:449:GLN:OE1	1:c:450:LEU:HD22	2.16	0.46
1:d:60:TRP:HB2	1:d:71:GLU:HG3	1.98	0.46
1:e:159:THR:HG21	1:e:310:ASN:HB3	1.98	0.46
1:e:467:LYS:HZ1	1:e:496:ASP:N	2.13	0.46
1:g:159:THR:O	1:g:159:THR:HG22	2.14	0.46
1:g:480:GLN:HG3	1:j:445:TYR:CE1	2.49	0.46
1:g:538:LEU:HD23	1:g:538:LEU:H	1.81	0.46
1:h:511:ILE:HD12	1:h:571:ILE:HD11	1.98	0.46
1:i:247:LYS:HB2	1:i:265:ALA:HB3	1.96	0.46
1:i:336:VAL:HG22	1:i:554:ARG:HE	1.80	0.46
1:m:331:THR:O	1:p:305:ARG:HD3	2.16	0.46
1:p:132:PHE:CD2	1:p:263:LEU:HB2	2.50	0.46
1:C:209:LEU:N	1:C:250:GLY:O	2.34	0.46
1:D:478:LEU:HD21	1:D:511:ILE:HD11	1.98	0.46
1:H:552:GLU:OE2	1:H:554:ARG:NH2	2.48	0.46
1:I:583:ARG:NH2	1:L:420:LEU:H	2.14	0.46
1:I:587:ASP:N	1:I:587:ASP:OD1	2.49	0.46
1:I:589:ASN:HA	1:L:591:THR:OG1	2.16	0.46
1:J:169:LYS:HE3	1:J:303:GLU:HA	1.97	0.46
1:J:175:VAL:HG22	1:J:295:VAL:HG12	1.97	0.46
1:J:204:PHE:O	1:J:205:ARG:HD2	2.16	0.46
1:K:79:GLN:HB2	1:K:391:ILE:HD12	1.98	0.46
1:K:308:ASN:HB2	1:K:311:GLN:HA	1.98	0.46
1:K:420:LEU:HD12	1:K:421:ASN:N	2.31	0.46
1:N:53:ARG:NH2	1:N:55:LEU:HD11	2.31	0.46
1:R:256:ASN:OD1	1:R:257:GLY:N	2.49	0.46
1:S:477:ARG:HB2	1:T:449:GLN:CD	2.40	0.46
1:T:90:ASN:HB3	1:T:120:GLN:HE22	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:344:GLU:OE1	1:W:344:GLU:N	2.49	0.46
1:W:361:ILE:HG13	1:W:362:GLN:N	2.30	0.46
1:W:551:ARG:HB3	1:W:551:ARG:NH1	2.30	0.46
1:X:75:ARG:HD3	1:X:86:THR:HG23	1.98	0.46
1:a:308:ASN:O	1:a:311:GLN:NE2	2.49	0.46
1:a:534:ILE:HG21	1:a:558:ARG:HD2	1.96	0.46
1:b:453:TYR:HE2	1:b:468:PRO:HB3	1.81	0.46
1:f:587:ASP:HA	1:g:589:ASN:HB3	1.97	0.46
1:g:587:ASP:HB3	1:j:591:THR:HG21	1.98	0.46
1:h:60:TRP:HB2	1:h:62:GLY:O	2.15	0.46
1:k:84:TYR:OH	1:o:370:THR:OG1	2.21	0.46
1:n:541:PHE:CE2	1:n:543:MET:HB3	2.51	0.46
1:n:541:PHE:HE2	1:n:543:MET:HB3	1.81	0.46
1:B:185:ALA:H	1:B:224:VAL:HG21	1.81	0.46
1:C:480:GLN:HG2	1:C:484:ILE:HD11	1.98	0.46
1:E:97:VAL:HG11	1:E:146:GLN:O	2.16	0.46
1:I:204:PHE:HB2	1:I:205:ARG:NH2	2.30	0.46
1:I:357:THR:O	1:I:361:ILE:HG12	2.16	0.46
1:J:345:ASP:H	1:J:349:TYR:HB3	1.81	0.46
1:K:322:VAL:HG22	1:R:204:PHE:HD2	1.80	0.46
1:L:555:LEU:HD12	1:L:557:PRO:HD3	1.97	0.46
1:S:53:ARG:HH11	1:S:55:LEU:HD21	1.80	0.46
1:T:196:TYR:HE2	1:T:209:LEU:HB2	1.81	0.46
1:W:510:LYS:HE2	1:W:510:LYS:HB3	1.80	0.46
1:X:115:ALA:HB1	1:X:126:ASP:HB3	1.96	0.46
1:Z:538:LEU:HB3	1:Z:555:LEU:HD13	1.97	0.46
1:a:212:HIS:HB3	1:a:247:LYS:HZ3	1.79	0.46
1:c:380:LYS:HE2	1:c:409:TYR:HE2	1.80	0.46
1:d:514:THR:OG1	1:d:568:MET:HG3	2.16	0.46
1:h:440:ILE:HD11	1:h:513:MET:SD	2.56	0.46
1:i:134:GLU:OE1	1:i:134:GLU:N	2.44	0.46
1:m:113:LEU:HD13	1:m:183:LEU:HD12	1.98	0.46
1:n:413:THR:HG22	1:n:572:ASN:HB2	1.98	0.46
1:C:40:VAL:HB	1:C:534:ILE:HG22	1.98	0.46
1:C:422:ASN:HB3	1:F:421:ASN:ND2	2.31	0.46
1:D:64:GLY:HA3	1:D:68:GLU:HA	1.97	0.46
1:D:449:GLN:HG3	1:D:450:LEU:HD22	1.98	0.46
1:G:204:PHE:CD2	1:O:322:VAL:HG12	2.51	0.46
1:G:313:GLU:O	1:K:554:ARG:NH2	2.49	0.46
1:G:445:TYR:OH	1:K:480:GLN:HG2	2.16	0.46
1:J:156:MET:HA	1:J:156:MET:HE2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:60:TRP:CD1	1:l:157:THR:HG1	2.34	0.46
1:N:196:TYR:CD2	1:N:209:LEU:HB2	2.51	0.46
1:N:339:LYS:HZ2	1:N:340:PRO:HD2	1.81	0.46
1:P:321:ASP:OD2	1:P:321:ASP:N	2.47	0.46
1:Q:212:HIS:HA	1:Q:246:VAL:O	2.15	0.46
1:Q:538:LEU:HD12	1:Q:539:VAL:N	2.31	0.46
1:R:507:MET:HE1	1:R:512:VAL:HG23	1.98	0.46
1:U:487:ASP:OD1	1:U:488:ASP:N	2.49	0.46
1:V:91:SER:HA	1:V:120:GLN:HE21	1.81	0.46
1:W:171:LEU:HG	1:W:188:VAL:HG21	1.98	0.46
1:W:235:LEU:HB3	1:W:240:TYR:HB2	1.96	0.46
1:Y:490:THR:HG22	1:Y:491:VAL:HG13	1.97	0.46
1:Y:538:LEU:HD23	1:Y:538:LEU:H	1.81	0.46
1:Y:593:VAL:O	1:c:592:GLN:HG3	2.16	0.46
1:Z:544:ILE:HA	1:Z:548:ARG:O	2.16	0.46
1:a:341:ALA:HB2	1:a:551:ARG:H	1.80	0.46
1:b:246:VAL:HG22	1:b:266:LEU:HD13	1.97	0.46
1:b:330:PRO:HG3	1:c:165:ARG:HD3	1.96	0.46
1:c:337:ILE:HD12	1:c:338:VAL:H	1.80	0.46
1:d:475:ASP:N	1:d:475:ASP:OD1	2.49	0.46
1:e:245:ASP:OD2	1:e:267:ARG:NH1	2.49	0.46
1:e:527:GLN:NE2	1:e:530:VAL:HG13	2.30	0.46
1:f:429:GLN:HA	1:f:432:ILE:HG22	1.98	0.46
1:j:99:GLN:H	1:j:103:ASN:ND2	2.10	0.46
1:l:577:GLU:HA	1:l:580:ILE:HG22	1.97	0.46
1:D:314:MET:HE3	1:a:158:PHE:HZ	1.81	0.46
1:F:169:LYS:HG2	1:F:302:LEU:C	2.41	0.46
1:F:173:ILE:HD12	1:F:174:SER:H	1.81	0.46
1:H:447:ALA:O	1:H:451:THR:HG22	2.16	0.46
1:H:477:ARG:NH2	1:H:509:ASP:OD1	2.49	0.46
1:J:421:ASN:HB2	1:L:425:SER:HB2	1.96	0.46
1:L:283:ASP:OD1	1:L:284:SER:N	2.48	0.46
1:L:344:GLU:OE1	1:L:344:GLU:N	2.49	0.46
1:O:337:ILE:HD13	1:R:318:ILE:H	1.81	0.46
1:P:308:ASN:HB3	1:P:311:GLN:H	1.80	0.46
1:P:437:VAL:O	1:P:441:ASN:ND2	2.48	0.46
1:P:544:ILE:HD13	1:P:549:ILE:HD13	1.98	0.46
1:R:169:LYS:HB3	1:R:301:SER:OG	2.16	0.46
1:U:482:ILE:HG23	1:U:483:GLN:OE1	2.16	0.46
1:W:337:ILE:HD13	1:W:349:TYR:CZ	2.50	0.46
1:Y:489:ARG:NH1	1:c:429:GLN:HG2	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:190:ARG:HB3	1:i:398:GLU:OE2	2.16	0.46
1:e:206:LEU:HD23	1:e:253:ASN:HB2	1.98	0.46
1:e:336:VAL:CG1	1:f:315:GLY:H	2.28	0.46
1:i:141:LEU:HD23	1:i:162:LEU:HD11	1.98	0.46
1:i:332:LEU:HB2	1:i:557:PRO:HG2	1.98	0.46
1:l:388:PRO:HB2	1:l:406:ARG:NH1	2.31	0.46
1:m:423:LEU:HD12	1:p:423:LEU:HD11	1.98	0.46
1:o:483:GLN:NE2	1:o:485:ASN:OD1	2.47	0.46
1:C:212:HIS:HD1	1:C:247:LYS:HD3	1.81	0.46
1:C:363:GLN:HA	1:C:559:TYR:CZ	2.51	0.46
1:D:554:ARG:NH1	1:E:313:GLU:O	2.48	0.46
1:H:113:LEU:HD12	1:H:183:LEU:HD22	1.98	0.46
1:I:191:ASP:HB3	1:I:194:ALA:HB2	1.97	0.46
1:I:218:GLY:O	1:I:236:PHE:HE1	1.99	0.46
1:J:423:LEU:HD12	1:K:423:LEU:HD21	1.97	0.46
1:K:196:TYR:HD2	1:K:209:LEU:HB2	1.79	0.46
1:K:479:PRO:HA	1:K:482:ILE:HG22	1.97	0.46
1:M:483:GLN:NE2	1:M:484:ILE:O	2.48	0.46
1:O:513:MET:SD	1:O:569:LEU:HB2	2.56	0.46
1:Q:455:ALA:HA	1:Q:458:GLU:CD	2.41	0.46
1:S:425:SER:N	1:T:431:ASP:OD1	2.49	0.46
1:Z:34:PHE:CE1	1:Z:471:ALA:HB1	2.50	0.46
1:b:587:ASP:OD2	1:d:583:ARG:NE	2.49	0.46
1:f:329:ILE:HD12	1:f:560:ARG:HB3	1.98	0.46
1:h:386:GLY:N	1:h:409:TYR:O	2.33	0.46
1:l:433:GLN:NE2	1:l:487:ASP:OD2	2.48	0.46
1:n:84:TYR:HA	1:p:366:ASN:ND2	2.31	0.46
1:n:398:GLU:CD	1:n:398:GLU:H	2.24	0.46
1:o:331:THR:HA	1:o:558:ARG:HG3	1.97	0.46
1:p:536:GLU:HG2	1:p:556:THR:O	2.16	0.46
1:G:165:ARG:HH21	1:K:560:ARG:NH2	2.12	0.45
1:G:200:ARG:NH2	1:R:200:ARG:HG2	2.31	0.45
1:H:81:LEU:HD12	1:H:81:LEU:H	1.81	0.45
1:M:474:THR:HB	1:M:511:ILE:HG12	1.98	0.45
1:M:510:LYS:HB2	1:M:510:LYS:HE3	1.73	0.45
1:N:170:GLN:N	1:N:301:SER:OG	2.48	0.45
1:Q:327:PHE:HE2	1:Q:564:PHE:HE1	1.63	0.45
1:V:313:GLU:C	1:V:314:MET:HE2	2.41	0.45
1:W:196:TYR:CD1	1:W:209:LEU:HB2	2.51	0.45
1:W:196:TYR:CE1	1:W:209:LEU:HD22	2.51	0.45
1:Y:544:ILE:HA	1:Y:548:ARG:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:a:593:VAL:O	1:a:593:VAL:HG13	2.15	0.45
1:d:275:GLU:HB3	1:d:277:LYS:HZ3	1.81	0.45
1:e:204:PHE:O	1:e:205:ARG:HD2	2.16	0.45
1:e:489:ARG:HH21	1:i:429:GLN:CD	2.23	0.45
1:g:441:ASN:HD21	1:g:489:ARG:HG2	1.82	0.45
1:h:332:LEU:HB2	1:h:557:PRO:HG2	1.98	0.45
1:i:170:GLN:HE22	1:i:187:ASP:HA	1.80	0.45
1:l:375:ARG:HA	1:l:375:ARG:HD2	1.74	0.45
1:m:457:LEU:HD21	1:m:464:ARG:HH22	1.81	0.45
1:n:206:LEU:C	1:n:207:MET:HE2	2.41	0.45
1:n:504:ASP:OD1	1:n:505:LEU:N	2.50	0.45
1:o:163:ASP:HA	1:o:307:THR:HG23	1.98	0.45
1:p:332:LEU:HB2	1:p:557:PRO:HG2	1.98	0.45
1:B:442:GLU:OE2	1:B:446:THR:OG1	2.35	0.45
1:B:469:HIS:HD1	1:B:496:ASP:CG	2.24	0.45
1:D:28:HIS:CG	1:D:29:GLU:H	2.34	0.45
1:G:76:ASN:OD1	1:G:77:ILE:N	2.49	0.45
1:G:210:LYS:HD2	1:R:251:GLU:OE1	2.16	0.45
1:H:565:LEU:HD12	1:H:566:PRO:HD2	1.97	0.45
1:J:345:ASP:HB3	1:J:348:THR:H	1.81	0.45
1:N:592:GLN:N	1:O:593:VAL:HG11	2.31	0.45
1:P:87:LEU:O	1:R:362:GLN:NE2	2.49	0.45
1:R:89:THR:HB	1:R:316:LEU:HD21	1.98	0.45
1:R:453:TYR:CZ	1:R:457:LEU:HD21	2.51	0.45
1:S:405:VAL:HG11	1:S:567:ILE:HD11	1.99	0.45
1:V:90:ASN:OD1	1:V:90:ASN:O	2.34	0.45
1:W:28:HIS:N	1:W:364:MET:HE2	2.32	0.45
1:Y:581:ALA:HA	1:Z:439:LYS:NZ	2.32	0.45
1:Z:365:ARG:HG3	1:Z:502:ILE:HD11	1.98	0.45
1:Z:457:LEU:HD21	1:Z:464:ARG:HH22	1.81	0.45
1:b:283:ASP:OD1	1:b:284:SER:N	2.50	0.45
1:c:177:LYS:HB3	1:c:231:LEU:HD22	1.99	0.45
1:e:342:MET:HE3	1:e:342:MET:HB3	1.89	0.45
1:e:409:TYR:OH	1:e:411:GLU:OE2	2.31	0.45
1:e:544:ILE:CG2	1:e:547:GLN:HA	2.47	0.45
1:h:190:ARG:HH22	1:j:563:ASN:H	1.64	0.45
1:i:429:GLN:CD	1:i:429:GLN:H	2.24	0.45
1:i:502:ILE:HG21	1:i:507:MET:HE3	1.98	0.45
1:i:547:GLN:O	1:i:548:ARG:HD3	2.16	0.45
1:i:565:LEU:HD12	1:i:566:PRO:HD2	1.97	0.45
1:j:215:LEU:HD11	1:j:244:LEU:HD12	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:132:PHE:CE1	1:n:300:TYR:HD1	2.34	0.45
1:o:344:GLU:OE1	1:o:344:GLU:N	2.48	0.45
1:p:283:ASP:OD2	1:p:284:SER:N	2.49	0.45
1:A:320:SER:HB3	1:E:347:LYS:HB3	1.98	0.45
1:B:359:TYR:CE1	1:B:557:PRO:HB3	2.51	0.45
1:E:90:ASN:HB2	1:E:93:GLU:HG2	1.98	0.45
1:F:339:LYS:NZ	1:F:551:ARG:HD3	2.31	0.45
1:G:230:ALA:HA	1:G:233:LYS:HZ2	1.81	0.45
1:G:416:VAL:HG11	1:G:576:LEU:HA	1.98	0.45
1:H:242:ILE:HD11	1:H:268:LEU:HD23	1.97	0.45
1:H:433:GLN:HG2	1:H:484:ILE:HG23	1.98	0.45
1:J:96:PRO:HB2	1:J:107:PHE:CZ	2.51	0.45
1:J:177:LYS:HB3	1:J:231:LEU:HD22	1.98	0.45
1:J:440:ILE:HG23	1:J:513:MET:HE1	1.98	0.45
1:K:484:ILE:HG13	1:K:485:ASN:OD1	2.16	0.45
1:N:129:PHE:HD2	1:N:172:LEU:HD22	1.81	0.45
1:S:541:PHE:CE2	1:S:543:MET:HB2	2.50	0.45
1:X:286:VAL:HG12	1:X:290:LEU:HD12	1.98	0.45
1:X:546:ASN:O	1:X:547:GLN:HG2	2.16	0.45
1:b:315:GLY:HA3	1:d:336:VAL:HB	1.99	0.45
1:d:60:TRP:CG	1:d:68:GLU:HB2	2.51	0.45
1:e:56:VAL:HG22	1:e:318:ILE:HG13	1.97	0.45
1:h:242:ILE:HD13	1:h:268:LEU:HD11	1.99	0.45
1:h:469:HIS:NE2	1:h:498:THR:HG23	2.32	0.45
1:i:528:HIS:HA	1:i:565:LEU:HB3	1.97	0.45
1:A:210:LYS:HE3	1:A:212:HIS:NE2	2.31	0.45
1:B:341:ALA:HB2	1:B:551:ARG:HG3	1.98	0.45
1:C:35:TYR:HD1	1:C:529:GLY:HA3	1.81	0.45
1:C:57:TRP:CE2	1:C:74:LYS:HE2	2.51	0.45
1:C:583:ARG:NE	1:F:587:ASP:OD2	2.38	0.45
1:H:94:LEU:HD21	1:H:306:LEU:HD12	1.98	0.45
1:H:508:LYS:HZ3	1:I:450:LEU:CD1	2.29	0.45
1:I:99:GLN:HG3	1:I:102:GLU:HB2	1.97	0.45
1:K:322:VAL:HG22	1:R:204:PHE:CD2	2.51	0.45
1:L:590:GLU:CD	1:L:592:GLN:H	2.24	0.45
1:N:77:ILE:HD11	1:N:87:LEU:HD11	1.97	0.45
1:O:425:SER:HG	1:R:421:ASN:H	1.62	0.45
1:P:175:VAL:HG13	1:P:293:LEU:HD11	1.98	0.45
1:V:68:GLU:HB2	1:V:72:ILE:HD13	1.99	0.45
1:V:184:PHE:CE2	1:V:223:THR:HG22	2.44	0.45
1:W:370:THR:HG22	1:W:506:ARG:HH12	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:433:GLN:HG2	1:X:481:TYR:O	2.16	0.45
1:Y:445:TYR:CE2	1:c:480:GLN:HG3	2.50	0.45
1:Z:131:LYS:HB2	1:Z:131:LYS:HE3	1.74	0.45
1:Z:219:GLU:H	1:Z:241:ARG:NH1	2.14	0.45
1:c:467:LYS:HZ1	1:c:496:ASP:N	2.13	0.45
1:d:539:VAL:HB	1:d:554:ARG:HB2	1.99	0.45
1:g:75:ARG:HH12	1:g:77:ILE:HA	1.81	0.45
1:h:219:GLU:OE2	1:h:240:TYR:N	2.50	0.45
1:h:467:LYS:HG2	1:h:468:PRO:HD2	1.98	0.45
1:j:443:MET:HG3	1:j:571:ILE:HD11	1.98	0.45
1:k:247:LYS:HD3	1:k:264:ARG:HH21	1.81	0.45
1:l:94:LEU:HD21	1:l:306:LEU:HD12	1.98	0.45
1:p:58:GLU:HB2	1:p:72:ILE:HD11	1.99	0.45
1:A:531:LEU:HD13	1:A:561:TYR:CE1	2.52	0.45
1:B:59:GLY:O	1:B:122:LYS:NZ	2.49	0.45
1:B:336:VAL:HG12	1:C:316:LEU:H	1.81	0.45
1:C:382:TYR:HD2	1:F:241:ARG:NH2	2.14	0.45
1:D:586:LEU:HB3	1:E:588:VAL:HG13	1.98	0.45
1:G:157:THR:HB	1:O:60:TRP:NE1	2.32	0.45
1:I:98:ILE:HA	1:I:103:ASN:HD21	1.82	0.45
1:I:144:LEU:HD23	1:I:144:LEU:HA	1.82	0.45
1:L:60:TRP:CZ2	1:l:158:PHE:HA	2.51	0.45
1:L:336:VAL:CG2	1:L:554:ARG:HG2	2.46	0.45
1:L:470:VAL:HG11	1:L:491:VAL:HG11	1.98	0.45
1:M:314:MET:HE1	1:Q:545:ARG:HH12	1.80	0.45
1:M:332:LEU:HD23	1:N:305:ARG:HH12	1.81	0.45
1:P:592:GLN:NE2	1:P:596:ALA:HB3	2.31	0.45
1:S:449:GLN:HE21	1:W:477:ARG:HB2	1.81	0.45
1:T:574:ILE:HD12	1:T:575:ASN:OD1	2.17	0.45
1:V:436:ILE:O	1:V:440:ILE:HG13	2.16	0.45
1:X:203:ASN:HB3	1:X:206:LEU:HD23	1.97	0.45
1:Y:560:ARG:HH12	1:Z:165:ARG:NH2	2.14	0.45
1:a:250:GLY:HA2	1:a:261:THR:HA	1.99	0.45
1:a:504:ASP:OD1	1:a:505:LEU:N	2.49	0.45
1:b:340:PRO:HG2	1:c:65:LEU:HD13	1.98	0.45
1:c:109:ASP:O	1:c:112:VAL:HG12	2.16	0.45
1:d:269:ALA:C	1:d:270:ARG:HD3	2.42	0.45
1:e:165:ARG:NE	1:i:328:MET:O	2.49	0.45
1:f:330:PRO:HB3	1:g:165:ARG:HB3	1.98	0.45
1:f:592:GLN:CD	1:f:597:SER:HB2	2.41	0.45
1:g:536:GLU:HG3	1:g:556:THR:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:i:104:ASP:OD1	1:i:105:GLU:N	2.50	0.45
1:i:269:ALA:HB1	1:i:270:ARG:HD3	1.98	0.45
1:k:168:LEU:HD23	1:k:171:LEU:HD21	1.98	0.45
1:l:583:ARG:HG2	1:m:419:ASP:HA	1.99	0.45
1:m:60:TRP:CD1	1:m:64:GLY:H	2.34	0.45
1:n:139:PHE:HE1	1:n:252:MET:HE1	1.81	0.45
1:o:134:GLU:N	1:o:134:GLU:OE2	2.49	0.45
1:B:336:VAL:HG12	1:C:316:LEU:N	2.31	0.45
1:E:543:MET:HE3	1:E:545:ARG:HD3	1.98	0.45
1:G:200:ARG:HH21	1:R:200:ARG:HG2	1.81	0.45
1:G:339:LYS:HZ3	1:G:551:ARG:HH21	1.62	0.45
1:H:168:LEU:HD11	1:H:209:LEU:HD21	1.98	0.45
1:I:410:ASN:OD1	1:I:411:GLU:N	2.50	0.45
1:J:191:ASP:CG	1:J:192:GLN:H	2.24	0.45
1:K:190:ARG:HD3	1:K:190:ARG:HA	1.74	0.45
1:L:489:ARG:NH2	1:L:495:TYR:H	2.14	0.45
1:M:28:HIS:CE1	1:M:30:PHE:HB2	2.51	0.45
1:M:541:PHE:CE2	1:M:543:MET:HB2	2.51	0.45
1:P:79:GLN:HB2	1:P:391:ILE:HD11	1.98	0.45
1:P:541:PHE:CE2	1:P:543:MET:HB2	2.51	0.45
1:Q:108:ILE:HA	1:Q:131:LYS:HE2	1.99	0.45
1:R:99:GLN:OE1	1:R:146:GLN:NE2	2.49	0.45
1:U:335:LEU:HG	1:X:316:LEU:HB2	1.98	0.45
1:X:191:ASP:C	1:X:193:TYR:H	2.24	0.45
1:Y:172:LEU:HD21	1:Y:183:LEU:HD23	1.99	0.45
1:Y:177:LYS:HE2	1:Y:231:LEU:HD22	1.98	0.45
1:Y:390:PRO:O	1:Y:393:SER:OG	2.32	0.45
1:Z:176:THR:OG1	1:Z:294:THR:OG1	2.34	0.45
1:Z:380:LYS:HD3	1:Z:409:TYR:HE2	1.82	0.45
1:Z:534:ILE:HG23	1:Z:536:GLU:OE2	2.17	0.45
1:a:416:VAL:O	1:a:579:ALA:HB2	2.15	0.45
1:a:539:VAL:HG22	1:a:541:PHE:CD1	2.52	0.45
1:b:390:PRO:O	1:b:393:SER:OG	2.31	0.45
1:e:169:LYS:HE2	1:e:301:SER:CB	2.42	0.45
1:f:529:GLY:HA2	1:f:563:ASN:HA	1.99	0.45
1:g:163:ASP:OD1	1:g:164:SER:N	2.49	0.45
1:g:516:ILE:HG12	1:g:517:LEU:N	2.30	0.45
1:h:538:LEU:H	1:h:538:LEU:HD23	1.81	0.45
1:k:92:THR:OG1	1:k:306:LEU:O	2.27	0.45
1:k:337:ILE:HB	1:k:553:ILE:HB	1.99	0.45
1:k:410:ASN:OD1	1:k:411:GLU:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:l:372:LEU:HD21	1:l:512:VAL:HG11	1.99	0.45
1:m:338:VAL:HG12	1:p:317:LEU:CD1	2.46	0.45
1:n:398:GLU:HA	1:o:192:GLN:HG3	1.99	0.45
1:A:363:GLN:OE1	1:A:364:MET:HB2	2.17	0.45
1:A:560:ARG:HG3	1:A:561:TYR:N	2.32	0.45
1:B:369:VAL:HB	1:C:84:TYR:OH	2.16	0.45
1:C:196:TYR:HE1	1:C:209:LEU:HD22	1.80	0.45
1:D:313:GLU:OE1	1:F:554:ARG:NH1	2.50	0.45
1:F:40:VAL:O	1:F:534:ILE:HG13	2.17	0.45
1:F:173:ILE:HG22	1:F:184:PHE:HB2	1.98	0.45
1:H:524:HIS:CG	1:H:525:PRO:HD2	2.51	0.45
1:J:108:ILE:HG12	1:J:128:ASN:HB3	1.99	0.45
1:J:113:LEU:HD12	1:J:114:PRO:HD2	1.99	0.45
1:K:87:LEU:O	1:K:89:THR:HG23	2.17	0.45
1:K:177:LYS:HB3	1:K:231:LEU:HD22	1.99	0.45
1:L:544:ILE:HG13	1:L:548:ARG:O	2.17	0.45
1:M:232:LEU:HD13	1:M:242:ILE:HD13	1.98	0.45
1:N:544:ILE:O	1:N:544:ILE:HG23	2.16	0.45
1:P:199:THR:HB	1:P:208:GLN:HG2	1.99	0.45
1:U:42:PRO:HA	1:U:534:ILE:HD11	1.98	0.45
1:V:139:PHE:HE2	1:V:260:ASP:HA	1.81	0.45
1:V:365:ARG:HG3	1:V:502:ILE:HD11	1.98	0.45
1:W:55:LEU:HD23	1:W:74:LYS:HD2	1.99	0.45
1:W:177:LYS:HD2	1:W:293:LEU:HD11	1.97	0.45
1:Y:172:LEU:HB3	1:Y:298:VAL:HB	1.99	0.45
1:Y:433:GLN:HE22	1:Y:484:ILE:HG22	1.82	0.45
1:Z:189:ASN:OD1	1:Z:190:ARG:N	2.48	0.45
1:b:84:TYR:HB2	1:d:506:ARG:NH2	2.32	0.45
1:e:131:LYS:C	1:e:131:LYS:HD2	2.42	0.45
1:e:363:GLN:HG2	1:e:559:TYR:CZ	2.52	0.45
1:f:232:LEU:HB2	1:f:236:PHE:CE2	2.52	0.45
1:h:474:THR:HB	1:h:511:ILE:HG12	1.98	0.45
1:i:243:GLU:N	1:i:270:ARG:O	2.44	0.45
1:j:472:ILE:HG23	1:j:513:MET:HE1	1.99	0.45
1:k:234:ASP:OD1	1:k:234:ASP:N	2.50	0.45
1:l:180:THR:HB	1:l:231:LEU:HD21	1.98	0.45
1:m:582:GLN:HA	1:p:419:ASP:OD1	2.17	0.45
1:n:246:VAL:HG23	1:n:266:LEU:HD12	1.98	0.45
1:p:375:ARG:HH12	1:p:398:GLU:HB3	1.82	0.45
1:A:533:PHE:HE2	1:A:535:PRO:HG3	1.81	0.45
1:B:210:LYS:HZ1	1:P:251:GLU:CD	2.25	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:363:GLN:HG3	1:F:559:TYR:CZ	2.52	0.45
1:I:217:LEU:HD12	1:I:242:ILE:HD11	1.97	0.45
1:I:470:VAL:O	1:I:497:TYR:HA	2.17	0.45
1:J:238:LEU:HD13	1:J:285:ARG:NH2	2.29	0.45
1:K:62:GLY:HA3	1:R:156:MET:C	2.41	0.45
1:K:575:ASN:OD1	1:K:578:GLU:HB3	2.16	0.45
1:P:517:LEU:HD13	1:P:520:GLU:OE1	2.17	0.45
1:R:60:TRP:HB3	1:R:72:ILE:HG12	1.99	0.45
1:V:156:MET:N	1:Y:63:GLU:HG3	2.24	0.45
1:X:201:GLU:HG2	1:X:202:TYR:N	2.32	0.45
1:Y:275:GLU:HB3	1:Y:277:LYS:NZ	2.32	0.45
1:Y:312:LEU:HD23	1:Y:312:LEU:H	1.81	0.45
1:Y:344:GLU:OE1	1:Y:344:GLU:N	2.50	0.45
1:b:235:LEU:HD23	1:b:242:ILE:HD11	1.99	0.45
1:c:240:TYR:OH	1:c:285:ARG:NH2	2.50	0.45
1:d:162:LEU:HB2	1:d:254:VAL:HA	1.98	0.45
1:f:527:GLN:O	1:f:564:PHE:HB2	2.17	0.45
1:g:476:MET:HE1	1:g:501:ARG:HD3	1.99	0.45
1:h:531:LEU:HD13	1:h:561:TYR:CD1	2.52	0.45
1:h:541:PHE:CE2	1:h:543:MET:HE2	2.52	0.45
1:j:73:SER:O	1:j:75:ARG:NH1	2.48	0.45
1:n:592:GLN:HB3	1:n:597:SER:HB2	1.98	0.45
1:o:483:GLN:HE22	1:o:485:ASN:CG	2.24	0.45
1:p:558:ARG:HG3	1:p:558:ARG:O	2.16	0.45
1:B:449:GLN:HG3	1:B:450:LEU:HD12	1.97	0.45
1:C:201:GLU:OE1	1:K:193:TYR:HE2	1.99	0.45
1:C:212:HIS:ND1	1:C:247:LYS:HD3	2.31	0.45
1:C:560:ARG:HG3	1:C:560:ARG:NH1	2.31	0.45
1:F:221:SER:HA	1:F:227:ALA:N	2.32	0.45
1:F:476:MET:HG3	1:F:501:ARG:HD3	1.98	0.45
1:J:57:TRP:CZ3	1:J:59:GLY:HA2	2.52	0.45
1:J:201:GLU:O	1:J:202:TYR:CG	2.70	0.45
1:J:400:VAL:HG23	1:J:525:PRO:HA	1.99	0.45
1:K:149:SER:HA	1:K:152:LYS:CE	2.47	0.45
1:K:215:LEU:HD23	1:K:215:LEU:H	1.82	0.45
1:M:99:GLN:HG2	1:M:103:ASN:HD21	1.82	0.45
1:N:360:ARG:O	1:N:364:MET:HB3	2.17	0.45
1:O:409:TYR:HD2	1:O:568:MET:HB3	1.80	0.45
1:P:314:MET:O	1:R:336:VAL:HB	2.17	0.45
1:R:474:THR:O	1:R:501:ARG:HA	2.17	0.45
1:S:189:ASN:OD1	1:S:190:ARG:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:395:LEU:HD23	1:S:395:LEU:HA	1.77	0.45
1:T:268:LEU:HD11	1:T:290:LEU:HD13	1.98	0.45
1:U:545:ARG:CZ	1:U:545:ARG:HB3	2.47	0.45
1:X:59:GLY:HA2	1:X:314:MET:HB3	1.99	0.45
1:X:467:LYS:HG2	1:X:468:PRO:HD2	1.99	0.45
1:Z:93:GLU:HA	1:Z:305:ARG:HA	1.98	0.45
1:Z:337:ILE:HD13	1:a:318:ILE:H	1.82	0.45
1:Z:489:ARG:HG3	1:Z:493:ILE:N	2.32	0.45
1:a:249:ASP:OD1	1:a:250:GLY:N	2.50	0.45
1:a:422:ASN:O	1:d:421:ASN:ND2	2.49	0.45
1:c:536:GLU:HG2	1:c:556:THR:C	2.41	0.45
1:d:512:VAL:O	1:d:513:MET:HE2	2.17	0.45
1:e:308:ASN:HD22	1:e:312:LEU:H	1.64	0.45
1:f:270:ARG:HH11	1:f:270:ARG:HG3	1.82	0.45
1:f:325:GLN:HA	1:f:325:GLN:OE1	2.17	0.45
1:h:330:PRO:HD3	1:i:165:ARG:HD3	1.98	0.45
1:h:560:ARG:HH12	1:i:165:ARG:HH22	1.65	0.45
1:j:202:TYR:CD2	1:j:206:LEU:HD22	2.52	0.45
1:l:122:LYS:HB2	1:l:122:LYS:HE2	1.61	0.45
1:l:331:THR:HG22	1:l:558:ARG:HG2	1.98	0.45
1:m:57:TRP:HE1	1:m:319:ASP:CB	2.30	0.45
1:p:376:ALA:HA	1:p:568:MET:CE	2.45	0.45
1:B:474:THR:HB	1:B:511:ILE:HD13	1.98	0.45
1:D:327:PHE:O	1:D:328:MET:HE2	2.17	0.45
1:D:554:ARG:HH12	1:E:313:GLU:H	1.65	0.45
1:H:367:ASN:HB3	1:H:561:TYR:HE1	1.81	0.45
1:J:163:ASP:CG	1:J:305:ARG:H	2.26	0.45
1:J:544:ILE:CD1	1:J:549:ILE:HG13	2.47	0.45
1:J:548:ARG:HG3	1:R:310:ASN:ND2	2.32	0.45
1:L:196:TYR:CE2	1:L:209:LEU:HB2	2.53	0.45
1:P:583:ARG:NH2	1:Q:421:ASN:HA	2.32	0.45
1:Q:385:VAL:O	1:Q:387:VAL:HG23	2.17	0.45
1:T:457:LEU:HD21	1:T:466:PRO:HD2	1.99	0.45
1:U:330:PRO:HB3	1:X:165:ARG:CB	2.47	0.45
1:Z:583:ARG:HH22	1:a:420:LEU:C	2.25	0.45
1:a:204:PHE:O	1:a:205:ARG:HD2	2.17	0.45
1:e:362:GLN:OE1	1:f:87:LEU:HB3	2.17	0.45
1:e:517:LEU:HD12	1:e:527:GLN:HB3	1.99	0.45
1:e:538:LEU:HD13	1:e:555:LEU:HD13	1.99	0.45
1:A:547:GLN:CG	1:K:153:LYS:HE2	2.48	0.44
1:B:65:LEU:HD13	1:K:102:GLU:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:307:THR:O	1:C:307:THR:HG23	2.17	0.44
1:E:61:THR:H	1:E:66:SER:HA	1.82	0.44
1:E:201:GLU:HB3	1:a:212:HIS:HE1	1.82	0.44
1:F:233:LYS:HA	1:F:233:LYS:HE3	1.99	0.44
1:F:420:LEU:HD21	1:F:428:LYS:NZ	2.32	0.44
1:H:184:PHE:HZ	1:H:229:SER:HB3	1.81	0.44
1:I:115:ALA:HA	1:I:128:ASN:OD1	2.17	0.44
1:M:431:ASP:OD1	1:Q:425:SER:HB2	2.16	0.44
1:O:196:TYR:CE1	1:O:209:LEU:HD22	2.52	0.44
1:P:134:GLU:HG2	1:P:262:SER:OG	2.17	0.44
1:P:361:ILE:HD12	1:P:365:ARG:NH2	2.32	0.44
1:P:556:THR:HB	1:P:558:ARG:HH12	1.82	0.44
1:Q:135:ASN:OD1	1:Q:136:GLY:N	2.50	0.44
1:R:547:GLN:NE2	1:U:153:LYS:HG3	2.32	0.44
1:S:209:LEU:HD11	1:S:211:PHE:HB2	1.99	0.44
1:T:409:TYR:CD1	1:T:568:MET:HB3	2.52	0.44
1:T:433:GLN:HG2	1:T:481:TYR:O	2.17	0.44
1:V:46:GLY:HA3	1:V:328:MET:HA	1.99	0.44
1:V:351:ARG:HD2	1:V:351:ARG:N	2.31	0.44
1:V:394:ASN:HD21	1:W:241:ARG:HH12	1.65	0.44
1:Y:177:LYS:HB3	1:Y:231:LEU:HD22	1.99	0.44
1:Y:580:ILE:HG22	1:Z:439:LYS:NZ	2.33	0.44
1:Z:547:GLN:OE1	1:i:545:ARG:NH1	2.50	0.44
1:c:97:VAL:HG12	1:c:125:PHE:CD1	2.51	0.44
1:d:184:PHE:HD1	1:d:223:THR:HA	1.81	0.44
1:e:55:LEU:O	1:e:318:ILE:HA	2.17	0.44
1:e:196:TYR:CE1	1:e:209:LEU:HB2	2.52	0.44
1:e:238:LEU:HD22	1:e:240:TYR:CE2	2.52	0.44
1:f:429:GLN:HG3	1:g:489:ARG:HH12	1.82	0.44
1:g:155:SER:HB2	1:n:64:GLY:H	1.82	0.44
1:g:157:THR:HG23	1:g:312:LEU:HD11	1.97	0.44
1:g:420:LEU:O	1:g:421:ASN:ND2	2.48	0.44
1:g:504:ASP:HA	1:j:84:TYR:HE2	1.83	0.44
1:h:422:ASN:ND2	1:h:431:ASP:OD1	2.50	0.44
1:i:393:SER:O	1:i:402:GLN:NE2	2.50	0.44
1:j:514:THR:HG21	1:j:528:HIS:CE1	2.52	0.44
1:k:524:HIS:HE1	1:k:526:LEU:HD12	1.82	0.44
1:l:52:ARG:HD3	1:l:53:ARG:H	1.82	0.44
1:l:480:GLN:HG3	1:m:445:TYR:CE2	2.52	0.44
1:m:203:ASN:CG	1:m:204:PHE:H	2.25	0.44
1:n:392:GLU:HG2	1:n:403:TYR:HA	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:547:GLN:O	1:o:548:ARG:HD2	2.17	0.44
1:C:160:ASP:HB3	1:C:306:LEU:HD11	1.98	0.44
1:D:52:ARG:HH22	1:F:347:LYS:C	2.25	0.44
1:D:145:ALA:O	1:D:150:ARG:NH2	2.37	0.44
1:E:184:PHE:CE2	1:E:217:LEU:HD13	2.53	0.44
1:G:28:HIS:CG	1:G:29:GLU:H	2.35	0.44
1:G:94:LEU:H	1:G:305:ARG:HA	1.82	0.44
1:I:78:LEU:HD21	1:I:456:ALA:HB2	2.00	0.44
1:I:547:GLN:NE2	1:I:153:LYS:HB3	2.32	0.44
1:K:247:LYS:HG2	1:K:264:ARG:HD2	2.00	0.44
1:K:513:MET:N	1:K:569:LEU:O	2.39	0.44
1:N:175:VAL:HG22	1:N:295:VAL:HG12	1.99	0.44
1:N:478:LEU:N	1:N:479:PRO:HD2	2.32	0.44
1:O:436:ILE:O	1:O:440:ILE:HG12	2.16	0.44
1:Q:218:GLY:HA2	1:Q:241:ARG:HG3	1.99	0.44
1:Q:240:TYR:CD1	1:Q:273:ASP:HA	2.52	0.44
1:R:59:GLY:H	1:R:317:LEU:HD12	1.82	0.44
1:R:113:LEU:HD12	1:R:114:PRO:HD2	1.98	0.44
1:R:375:ARG:NH1	1:R:563:ASN:HB3	2.29	0.44
1:R:548:ARG:HH21	1:U:159:THR:HG21	1.81	0.44
1:S:554:ARG:NH2	1:T:313:GLU:O	2.48	0.44
1:T:359:TYR:CE1	1:T:557:PRO:HB3	2.53	0.44
1:U:369:VAL:CG1	1:U:506:ARG:HD2	2.48	0.44
1:W:440:ILE:HD12	1:W:513:MET:HE1	1.99	0.44
1:X:87:LEU:HD23	1:X:87:LEU:O	2.18	0.44
1:a:330:PRO:HD2	1:a:560:ARG:HG3	1.99	0.44
1:b:355:LEU:HD13	1:b:555:LEU:HD11	1.98	0.44
1:b:365:ARG:HH22	1:c:81:LEU:CA	2.29	0.44
1:d:156:MET:HE1	1:i:60:TRP:CZ3	2.52	0.44
1:d:196:TYR:CD1	1:d:209:LEU:HD13	2.52	0.44
1:f:324:LYS:H	1:o:200:ARG:NH2	2.13	0.44
1:h:341:ALA:O	1:h:342:MET:HB2	2.16	0.44
1:i:590:GLU:OE2	1:i:592:GLN:N	2.50	0.44
1:l:411:GLU:HG2	1:l:570:VAL:HB	1.99	0.44
1:m:86:THR:HG23	1:m:87:LEU:CD2	2.48	0.44
1:o:55:LEU:HD13	1:o:74:LYS:HB3	1.99	0.44
1:p:37:THR:HA	1:p:531:LEU:HB3	1.99	0.44
1:p:474:THR:O	1:p:501:ARG:HA	2.17	0.44
1:E:65:LEU:HD13	1:X:156:MET:HE1	1.99	0.44
1:E:480:GLN:OE1	1:E:480:GLN:N	2.48	0.44
1:G:591:THR:OG1	1:K:589:ASN:HA	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:524:HIS:ND1	1:H:525:PRO:HD2	2.32	0.44
1:N:219:GLU:HG3	1:N:241:ARG:NE	2.32	0.44
1:P:224:VAL:O	1:P:224:VAL:HG13	2.16	0.44
1:Q:79:GLN:OE1	1:Q:391:ILE:HB	2.16	0.44
1:Q:210:LYS:HA	1:Q:249:ASP:OD1	2.17	0.44
1:R:383:LEU:HD11	1:R:407:PRO:HB2	1.99	0.44
1:S:97:VAL:HG22	1:S:125:PHE:CD2	2.53	0.44
1:S:540:ASP:OD2	1:S:551:ARG:NH2	2.45	0.44
1:V:474:THR:OG1	1:V:475:ASP:N	2.50	0.44
1:W:437:VAL:HG13	1:W:491:VAL:HB	1.99	0.44
1:b:338:VAL:HG12	1:b:552:GLU:HG2	1.98	0.44
1:f:62:GLY:O	1:f:63:GLU:HB2	2.17	0.44
1:f:198:ALA:HA	1:f:207:MET:HE1	1.98	0.44
1:f:322:VAL:O	1:f:323:GLN:NE2	2.50	0.44
1:g:308:ASN:ND2	1:g:313:GLU:OE1	2.51	0.44
1:g:382:TYR:HD1	1:g:397:LEU:HD23	1.81	0.44
1:o:98:ILE:HD12	1:o:126:ASP:HB3	1.99	0.44
1:o:422:ASN:ND2	1:o:431:ASP:OD2	2.50	0.44
1:p:68:GLU:O	1:p:69:LYS:HB2	2.18	0.44
1:p:394:ASN:HB3	1:p:397:LEU:HG	2.00	0.44
1:A:286:VAL:O	1:A:290:LEU:N	2.46	0.44
1:A:363:GLN:HE22	1:A:531:LEU:HD21	1.82	0.44
1:A:376:ALA:HB2	1:A:568:MET:HE1	1.99	0.44
1:B:189:ASN:OD1	1:B:190:ARG:N	2.51	0.44
1:B:485:ASN:ND2	1:C:493:ILE:HD11	2.32	0.44
1:C:338:VAL:HG12	1:F:317:LEU:HD13	2.00	0.44
1:C:560:ARG:NE	1:F:165:ARG:HH12	2.16	0.44
1:D:230:ALA:HA	1:D:233:LYS:HE2	2.00	0.44
1:E:201:GLU:HB3	1:a:212:HIS:CE1	2.52	0.44
1:F:211:PHE:HB3	1:F:248:VAL:HB	2.00	0.44
1:G:337:ILE:HD13	1:G:349:TYR:CE1	2.52	0.44
1:J:210:LYS:HG3	1:J:212:HIS:HD2	1.82	0.44
1:K:422:ASN:HD21	1:K:428:LYS:HE2	1.82	0.44
1:L:375:ARG:NH1	1:L:563:ASN:HB3	2.32	0.44
1:M:335:LEU:O	1:M:555:LEU:N	2.45	0.44
1:M:447:ALA:O	1:M:451:THR:HG22	2.18	0.44
1:O:344:GLU:H	1:O:344:GLU:CD	2.26	0.44
1:V:410:ASN:OD1	1:V:411:GLU:N	2.51	0.44
1:V:548:ARG:HD2	1:V:549:ILE:H	1.81	0.44
1:W:365:ARG:HG3	1:W:502:ILE:HD11	2.00	0.44
1:W:469:HIS:CD2	1:W:518:PRO:HG2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:337:ILE:HD12	1:X:338:VAL:H	1.83	0.44
1:Y:57:TRP:NE1	1:Y:319:ASP:OD1	2.44	0.44
1:Y:583:ARG:NH2	1:Z:420:LEU:H	2.16	0.44
1:a:36:ARG:HB2	1:a:36:ARG:CZ	2.46	0.44
1:b:36:ARG:HD3	1:b:37:THR:N	2.32	0.44
1:b:207:MET:HB2	1:b:252:MET:HB3	1.99	0.44
1:e:417:LEU:HD22	1:e:578:GLU:HG3	1.98	0.44
1:g:56:VAL:HG12	1:g:75:ARG:NH1	2.32	0.44
1:g:60:TRP:CZ3	1:g:317:LEU:HD11	2.52	0.44
1:h:30:PHE:CE1	1:h:507:MET:HE1	2.52	0.44
1:h:129:PHE:HD2	1:h:172:LEU:HB2	1.83	0.44
1:j:359:TYR:HE1	1:j:557:PRO:HB3	1.83	0.44
1:l:36:ARG:NH1	1:l:520:GLU:O	2.48	0.44
1:l:379:LEU:HD11	1:l:383:LEU:HD12	2.00	0.44
1:m:476:MET:HG3	1:m:501:ARG:HH21	1.82	0.44
1:B:89:THR:HG21	1:B:316:LEU:HD11	1.99	0.44
1:E:212:HIS:ND1	1:E:247:LYS:HB3	2.31	0.44
1:F:536:GLU:CD	1:F:558:ARG:HG3	2.42	0.44
1:G:399:GLY:HA2	1:G:564:PHE:HA	1.99	0.44
1:J:97:VAL:HG12	1:J:144:LEU:O	2.18	0.44
1:K:379:LEU:HD23	1:K:379:LEU:HA	1.82	0.44
1:N:216:GLY:HA2	1:N:243:GLU:HA	2.00	0.44
1:O:586:LEU:HD22	1:R:586:LEU:CD1	2.47	0.44
1:P:147:THR:OG1	1:P:150:ARG:HG2	2.18	0.44
1:Q:72:ILE:HG13	1:Q:73:SER:H	1.83	0.44
1:Q:331:THR:HG23	1:Q:558:ARG:HG2	1.99	0.44
1:Q:548:ARG:HA	1:Q:548:ARG:HD2	1.77	0.44
1:R:172:LEU:HD22	1:R:298:VAL:HB	2.00	0.44
1:S:589:ASN:O	1:S:591:THR:HG23	2.17	0.44
1:T:474:THR:O	1:T:501:ARG:HA	2.17	0.44
1:X:205:ARG:HD3	1:X:254:VAL:HG23	1.98	0.44
1:Y:308:ASN:HD22	1:Y:313:GLU:HG2	1.82	0.44
1:Y:545:ARG:HH22	1:Z:312:LEU:HD23	1.81	0.44
1:a:91:SER:HA	1:a:120:GLN:NE2	2.32	0.44
1:b:580:ILE:HD11	1:c:438:SER:OG	2.17	0.44
1:d:184:PHE:HE2	1:d:186:LEU:HD13	1.83	0.44
1:d:457:LEU:HD21	1:d:466:PRO:HG2	2.00	0.44
1:f:512:VAL:HG22	1:f:570:VAL:HG22	1.98	0.44
1:g:478:LEU:HB3	1:g:482:ILE:HG12	1.98	0.44
1:h:52:ARG:NH1	1:j:347:LYS:O	2.50	0.44
1:h:65:LEU:O	1:h:69:LYS:N	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:399:GLY:O	1:h:402:GLN:HG2	2.18	0.44
1:j:92:THR:HG22	1:j:306:LEU:H	1.83	0.44
1:k:119:LYS:HD2	1:k:124:THR:HG22	2.00	0.44
1:k:157:THR:HG23	1:k:308:ASN:HD21	1.82	0.44
1:k:397:LEU:HD23	1:k:397:LEU:HA	1.78	0.44
1:m:43:ASP:OD1	1:m:44:GLN:N	2.51	0.44
1:B:330:PRO:HD2	1:B:560:ARG:HB2	1.98	0.44
1:D:52:ARG:NH1	1:F:347:LYS:O	2.48	0.44
1:D:345:ASP:O	1:D:348:THR:OG1	2.30	0.44
1:D:589:ASN:HD21	1:E:593:VAL:HG11	1.83	0.44
1:G:138:GLY:HA2	1:G:260:ASP:OD1	2.18	0.44
1:I:61:THR:O	1:I:67:GLY:N	2.47	0.44
1:M:543:MET:SD	1:M:545:ARG:HG2	2.58	0.44
1:N:75:ARG:NH1	1:N:86:THR:HA	2.32	0.44
1:P:171:LEU:HD12	1:P:188:VAL:HG21	1.99	0.44
1:Q:163:ASP:HA	1:Q:307:THR:OG1	2.18	0.44
1:R:437:VAL:HA	1:R:440:ILE:HG22	1.99	0.44
1:W:420:LEU:HD22	1:W:431:ASP:OD2	2.17	0.44
1:X:169:LYS:HA	1:X:189:ASN:OD1	2.18	0.44
1:X:243:GLU:HB3	1:X:270:ARG:O	2.17	0.44
1:a:271:VAL:HG21	1:a:290:LEU:HD11	1.99	0.44
1:b:240:TYR:HE1	1:b:279:ILE:HD12	1.82	0.44
1:b:531:LEU:HD13	1:b:561:TYR:CD1	2.52	0.44
1:b:583:ARG:NH1	1:c:420:LEU:H	2.16	0.44
1:d:193:TYR:O	1:d:211:PHE:HD1	2.00	0.44
1:f:212:HIS:CB	1:f:247:LYS:HD2	2.48	0.44
1:h:577:GLU:HG3	1:h:578:GLU:OE1	2.18	0.44
1:i:119:LYS:NZ	1:i:124:THR:OG1	2.37	0.44
1:j:590:GLU:OE2	1:j:590:GLU:N	2.44	0.44
1:k:359:TYR:HE2	1:k:557:PRO:HB3	1.83	0.44
1:l:400:VAL:HG13	1:l:525:PRO:HB3	2.00	0.44
1:l:402:GLN:HE22	1:m:192:GLN:NE2	2.14	0.44
1:o:454:THR:O	1:o:457:LEU:HB3	2.18	0.44
1:o:502:ILE:HG13	1:o:504:ASP:H	1.82	0.44
1:p:249:ASP:HB2	1:p:262:SER:HB2	2.00	0.44
1:p:337:ILE:CG1	1:p:355:LEU:HD21	2.45	0.44
1:p:397:LEU:HB2	1:p:402:GLN:NE2	2.33	0.44
1:B:94:LEU:HD21	1:B:306:LEU:HB2	2.00	0.44
1:C:55:LEU:HB2	1:C:75:ARG:O	2.17	0.44
1:D:429:GLN:OE1	1:D:429:GLN:N	2.50	0.44
1:E:128:ASN:OD1	1:E:129:PHE:N	2.49	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:433:GLN:HA	1:E:436:ILE:HG22	1.99	0.44
1:F:249:ASP:OD1	1:F:250:GLY:N	2.50	0.44
1:G:371:THR:O	1:G:375:ARG:HG2	2.18	0.44
1:H:160:ASP:HB3	1:H:306:LEU:HD11	1.99	0.44
1:I:171:LEU:HD12	1:I:172:LEU:H	1.82	0.44
1:L:476:MET:HG3	1:L:501:ARG:HD3	2.00	0.44
1:L:489:ARG:HH21	1:L:493:ILE:HA	1.83	0.44
1:M:585:ALA:CB	1:M:586:LEU:HD12	2.48	0.44
1:N:108:ILE:HD13	1:N:129:PHE:HB2	2.00	0.44
1:N:147:THR:HG1	1:N:150:ARG:HE	1.65	0.44
1:N:454:THR:O	1:N:458:GLU:OE1	2.36	0.44
1:O:59:GLY:HA2	1:O:317:LEU:HD13	1.99	0.44
1:O:478:LEU:O	1:O:482:ILE:HG12	2.18	0.44
1:T:342:MET:HE2	1:T:342:MET:N	2.33	0.44
1:V:193:TYR:HD1	1:Z:202:TYR:CZ	2.36	0.44
1:W:143:MET:O	1:W:146:GLN:NE2	2.51	0.44
1:a:91:SER:HA	1:a:120:GLN:HE21	1.82	0.44
1:b:527:GLN:O	1:b:564:PHE:HB2	2.18	0.44
1:d:436:ILE:O	1:d:440:ILE:HG12	2.17	0.44
1:f:433:GLN:NE2	1:f:483:GLN:O	2.37	0.44
1:g:440:ILE:HG23	1:g:513:MET:SD	2.58	0.44
1:h:140:ASN:HA	1:h:258:ASN:HA	1.98	0.44
1:i:243:GLU:HB2	1:i:270:ARG:HB2	2.00	0.44
1:k:408:TYR:CE2	1:k:447:ALA:HA	2.52	0.44
1:k:560:ARG:NH2	1:l:190:ARG:HD3	2.33	0.44
1:l:213:THR:O	1:l:246:VAL:N	2.40	0.44
1:m:391:ILE:HG22	1:m:392:GLU:CD	2.43	0.44
1:n:108:ILE:HD13	1:n:129:PHE:HB2	2.00	0.44
1:n:553:ILE:C	1:n:554:ARG:HD2	2.42	0.44
1:o:239:GLY:HA3	1:o:274:LYS:HZ2	1.82	0.44
1:B:149:SER:HA	1:B:152:LYS:CE	2.47	0.44
1:D:64:GLY:O	1:a:143:MET:HE2	2.18	0.44
1:F:341:ALA:HB2	1:F:551:ARG:HG3	2.00	0.44
1:G:203:ASN:CG	1:G:204:PHE:H	2.23	0.44
1:G:350:PRO:HG2	1:H:54:ASN:ND2	2.33	0.44
1:J:49:LEU:HG	1:J:51:ILE:HD11	2.00	0.44
1:J:115:ALA:HA	1:J:128:ASN:OD1	2.18	0.44
1:J:538:LEU:HD23	1:J:538:LEU:H	1.81	0.44
1:N:338:VAL:HG11	1:O:60:TRP:HH2	1.83	0.44
1:P:331:THR:HA	1:P:558:ARG:NE	2.31	0.44
1:Q:36:ARG:HE	1:Q:521:SER:HA	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:314:MET:HE2	1:R:314:MET:HA	2.00	0.44
1:S:60:TRP:HZ3	1:S:72:ILE:H	1.66	0.44
1:S:344:GLU:HB2	1:S:346:ASP:OD1	2.18	0.44
1:T:409:TYR:HD1	1:T:568:MET:HB3	1.83	0.44
1:U:115:ALA:HB1	1:U:126:ASP:CG	2.42	0.44
1:V:28:HIS:CD2	1:V:365:ARG:HH12	2.35	0.44
1:V:401:GLY:HA3	1:V:566:PRO:HD3	1.99	0.44
1:W:75:ARG:NH2	1:W:86:THR:O	2.50	0.44
1:Z:210:LYS:HE2	1:Z:210:LYS:HB2	1.88	0.44
1:a:457:LEU:HD23	1:a:526:LEU:HD13	2.00	0.44
1:a:546:ASN:C	1:a:547:GLN:HG2	2.43	0.44
1:c:502:ILE:HD11	1:c:507:MET:HB3	2.00	0.44
1:d:547:GLN:C	1:d:548:ARG:HD3	2.43	0.44
1:e:539:VAL:HG13	1:e:541:PHE:HE1	1.82	0.44
1:f:440:ILE:HD13	1:f:571:ILE:HD11	1.99	0.44
1:g:472:ILE:HD13	1:g:513:MET:HG2	2.00	0.44
1:h:429:GLN:OE1	1:h:429:GLN:N	2.51	0.44
1:i:477:ARG:HH11	1:i:508:LYS:NZ	2.15	0.44
1:j:512:VAL:O	1:j:513:MET:HE2	2.17	0.44
1:l:336:VAL:HA	1:l:553:ILE:O	2.18	0.44
1:m:273:ASP:OD2	1:m:277:LYS:HG2	2.17	0.44
1:o:476:MET:O	1:o:476:MET:HG3	2.17	0.44
1:A:337:ILE:HG21	1:A:349:TYR:CE2	2.52	0.44
1:A:536:GLU:HG3	1:A:558:ARG:NH1	2.33	0.44
1:A:578:GLU:OE1	1:A:578:GLU:HA	2.18	0.44
1:C:175:VAL:HG22	1:C:295:VAL:HG12	1.99	0.44
1:D:375:ARG:HH11	1:D:375:ARG:HG3	1.83	0.44
1:E:203:ASN:OD1	1:Z:323:GLN:NE2	2.49	0.44
1:F:106:GLN:OE1	1:F:144:LEU:HD21	2.17	0.44
1:F:275:GLU:HG3	1:F:277:LYS:H	1.83	0.44
1:F:336:VAL:HB	1:F:554:ARG:HD3	1.99	0.44
1:F:439:LYS:HA	1:F:439:LYS:HD2	1.77	0.44
1:G:162:LEU:HD11	1:G:252:MET:HE2	2.00	0.44
1:I:132:PHE:HB3	1:I:134:GLU:OE2	2.18	0.44
1:J:36:ARG:HE	1:J:36:ARG:HB2	1.50	0.44
1:K:83:ASP:OD2	1:K:85:THR:HG22	2.17	0.44
1:K:134:GLU:HG2	1:K:135:ASN:N	2.33	0.44
1:K:527:GLN:O	1:K:564:PHE:HB2	2.18	0.44
1:O:567:ILE:O	1:O:568:MET:HE2	2.18	0.44
1:P:190:ARG:NH2	1:R:398:GLU:OE1	2.51	0.44
1:P:449:GLN:OE1	1:P:449:GLN:HA	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:477:ARG:HH12	1:Q:446:THR:HG22	1.82	0.44
1:S:336:VAL:HG21	1:S:554:ARG:NH1	2.33	0.44
1:U:169:LYS:HZ3	1:U:170:GLN:HE21	1.66	0.44
1:U:307:THR:HG23	1:U:307:THR:O	2.18	0.44
1:V:430:THR:HB	1:V:489:ARG:NE	2.33	0.44
1:Y:420:LEU:HG	1:Y:431:ASP:OD2	2.17	0.44
1:Y:447:ALA:O	1:Y:451:THR:HG22	2.18	0.44
1:Z:531:LEU:HD13	1:Z:561:TYR:CE1	2.53	0.44
1:a:333:PRO:HG3	1:d:305:ARG:CZ	2.47	0.44
1:b:399:GLY:HA3	1:b:564:PHE:HA	2.00	0.44
1:c:380:LYS:CE	1:c:409:TYR:HE2	2.31	0.44
1:f:528:HIS:HA	1:f:565:LEU:HB3	2.00	0.44
1:f:546:ASN:HB2	1:g:153:LYS:HZ3	1.83	0.44
1:f:586:LEU:HB3	1:g:588:VAL:HG12	1.99	0.44
1:h:65:LEU:HB3	1:h:68:GLU:HA	1.98	0.44
1:j:108:ILE:HG21	1:j:298:VAL:HG22	1.99	0.44
1:k:536:GLU:HG2	1:k:556:THR:O	2.18	0.44
1:m:583:ARG:HD3	1:p:420:LEU:N	2.33	0.44
1:n:62:GLY:HA3	1:n:67:GLY:O	2.17	0.44
1:n:355:LEU:HG	1:n:555:LEU:HD12	2.00	0.44
1:p:541:PHE:CE2	1:p:543:MET:HB2	2.53	0.44
1:D:108:ILE:HG12	1:D:109:ASP:N	2.33	0.43
1:D:476:MET:HB2	1:E:449:GLN:OE1	2.18	0.43
1:G:323:GLN:HB3	1:G:325:GLN:HE22	1.82	0.43
1:J:335:LEU:HD23	1:J:335:LEU:HA	1.86	0.43
1:J:454:THR:O	1:J:458:GLU:OE1	2.36	0.43
1:K:331:THR:OG1	1:K:558:ARG:HG2	2.17	0.43
1:M:200:ARG:HA	1:M:200:ARG:HD2	1.83	0.43
1:N:514:THR:HG23	1:N:516:ILE:HD11	2.00	0.43
1:O:113:LEU:HD12	1:O:114:PRO:HD2	2.00	0.43
1:P:337:ILE:HG22	1:P:339:LYS:HE3	2.00	0.43
1:S:204:PHE:O	1:S:205:ARG:HD2	2.18	0.43
1:U:330:PRO:HB3	1:X:165:ARG:HB2	2.00	0.43
1:U:336:VAL:HA	1:U:553:ILE:O	2.17	0.43
1:U:436:ILE:O	1:U:440:ILE:HG12	2.18	0.43
1:V:112:VAL:HG12	1:V:183:LEU:HD11	1.99	0.43
1:X:357:THR:O	1:X:361:ILE:HG12	2.18	0.43
1:Y:207:MET:HE3	1:Y:207:MET:HB2	1.63	0.43
1:Z:423:LEU:HD12	1:a:423:LEU:HD11	2.00	0.43
1:d:97:VAL:HG12	1:d:125:PHE:CD2	2.52	0.43
1:e:511:ILE:HG22	1:e:513:MET:SD	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:201:GLU:HG3	1:f:202:TYR:CD2	2.53	0.43
1:f:283:ASP:HB3	1:f:286:VAL:HG22	1.98	0.43
1:f:476:MET:HG3	1:f:501:ARG:NH2	2.33	0.43
1:h:55:LEU:HD13	1:h:74:LYS:HG3	1.99	0.43
1:i:582:GLN:HG2	1:i:583:ARG:H	1.82	0.43
1:j:442:GLU:HA	1:j:445:TYR:HD2	1.83	0.43
1:m:481:TYR:CE1	1:m:576:LEU:HD21	2.51	0.43
1:n:223:THR:HG22	1:n:225:ALA:N	2.21	0.43
1:o:336:VAL:HA	1:o:553:ILE:O	2.17	0.43
1:o:447:ALA:O	1:o:451:THR:HG22	2.18	0.43
1:B:32:GLU:OE1	1:B:32:GLU:HA	2.18	0.43
1:B:175:VAL:HG22	1:B:295:VAL:HG12	1.99	0.43
1:B:337:ILE:HB	1:B:553:ILE:HB	2.01	0.43
1:C:219:GLU:HA	1:C:236:PHE:CE1	2.53	0.43
1:C:560:ARG:HD3	1:C:562:PHE:CZ	2.52	0.43
1:D:335:LEU:HG	1:D:337:ILE:HD11	2.01	0.43
1:D:508:LYS:HD3	1:D:509:ASP:H	1.83	0.43
1:F:58:GLU:OE2	1:F:314:MET:HG3	2.18	0.43
1:F:385:VAL:HG13	1:F:410:ASN:HA	2.00	0.43
1:J:169:LYS:HE3	1:J:303:GLU:CA	2.48	0.43
1:J:263:LEU:HD11	1:J:266:LEU:CD1	2.48	0.43
1:K:590:GLU:C	1:K:592:GLN:H	2.25	0.43
1:N:29:GLU:O	1:N:33:LEU:HB2	2.17	0.43
1:R:531:LEU:HD13	1:R:561:TYR:CE1	2.53	0.43
1:U:263:LEU:HD21	1:U:266:LEU:HD13	2.00	0.43
1:V:325:GLN:OE1	1:V:325:GLN:HA	2.17	0.43
1:W:76:ASN:OD1	1:W:77:ILE:N	2.50	0.43
1:X:36:ARG:HH21	1:X:527:GLN:NE2	2.16	0.43
1:X:51:ILE:HD11	1:X:404:TYR:HE1	1.83	0.43
1:Y:169:LYS:HA	1:Y:189:ASN:HB2	1.99	0.43
1:Y:372:LEU:HD21	1:Y:512:VAL:HG21	2.01	0.43
1:a:347:LYS:O	1:a:350:PRO:HD3	2.18	0.43
1:a:554:ARG:NH1	1:d:313:GLU:OE2	2.50	0.43
1:f:375:ARG:HH22	1:f:398:GLU:CB	2.31	0.43
1:h:81:LEU:HD12	1:j:365:ARG:NH2	2.33	0.43
1:h:483:GLN:NE2	1:h:485:ASN:OD1	2.49	0.43
1:h:504:ASP:OD1	1:h:505:LEU:N	2.51	0.43
1:h:508:LYS:O	1:h:510:LYS:HG2	2.18	0.43
1:h:589:ASN:ND2	1:i:593:VAL:HB	2.33	0.43
1:i:375:ARG:NH2	1:i:566:PRO:HA	2.33	0.43
1:l:35:TYR:HD1	1:l:529:GLY:HA3	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:l:534:ILE:HD12	1:l:558:ARG:HE	1.82	0.43
1:l:590:GLU:N	1:m:593:VAL:HG21	2.32	0.43
1:m:508:LYS:HG3	1:m:509:ASP:OD2	2.17	0.43
1:m:588:VAL:O	1:p:591:THR:OG1	2.30	0.43
1:o:375:ARG:HD3	1:o:563:ASN:HD22	1.83	0.43
1:o:544:ILE:HD11	1:o:549:ILE:HD13	2.01	0.43
1:p:94:LEU:HB2	1:p:304:ALA:HB3	1.98	0.43
1:C:414:ILE:HD11	1:C:439:LYS:HD3	2.00	0.43
1:H:36:ARG:HA	1:H:36:ARG:HH11	1.83	0.43
1:I:548:ARG:HG3	1:l:310:ASN:HD21	1.83	0.43
1:J:517:LEU:HD11	1:J:526:LEU:HB2	2.00	0.43
1:L:51:ILE:O	1:L:322:VAL:HG23	2.18	0.43
1:L:53:ARG:HH21	1:L:323:GLN:HE21	1.67	0.43
1:M:169:LYS:O	1:M:189:ASN:HB2	2.18	0.43
1:M:177:LYS:HB2	1:M:293:LEU:HD12	2.00	0.43
1:M:453:TYR:CE2	1:M:468:PRO:HB3	2.54	0.43
1:S:57:TRP:CE3	1:S:59:GLY:HA3	2.53	0.43
1:W:170:GLN:OE1	1:W:170:GLN:HA	2.18	0.43
1:b:55:LEU:HD13	1:b:74:LYS:HB2	2.00	0.43
1:b:81:LEU:O	1:d:365:ARG:NH1	2.50	0.43
1:c:55:LEU:HD23	1:c:74:LYS:HB3	2.00	0.43
1:c:458:GLU:HA	1:c:458:GLU:OE2	2.17	0.43
1:f:577:GLU:HA	1:f:580:ILE:HG22	2.00	0.43
1:h:531:LEU:HD13	1:h:561:TYR:CE1	2.53	0.43
1:i:122:LYS:HA	1:i:122:LYS:HD3	1.91	0.43
1:k:585:ALA:HB3	1:l:587:ASP:O	2.19	0.43
1:m:437:VAL:HA	1:m:440:ILE:HG22	2.00	0.43
1:n:531:LEU:HD12	1:n:560:ARG:O	2.17	0.43
1:o:260:ASP:OD1	1:o:261:THR:N	2.51	0.43
1:o:424:THR:HG22	1:o:426:ALA:H	1.83	0.43
1:A:33:LEU:HD23	1:A:500:ALA:HB2	2.01	0.43
1:A:68:GLU:HB2	1:P:143:MET:HE3	2.00	0.43
1:A:87:LEU:HD12	1:A:87:LEU:O	2.17	0.43
1:B:215:LEU:HD23	1:B:215:LEU:H	1.83	0.43
1:D:470:VAL:HG22	1:D:515:PHE:CE1	2.53	0.43
1:D:560:ARG:CZ	1:E:165:ARG:HH12	2.31	0.43
1:F:119:LYS:HE3	1:F:119:LYS:HB2	1.83	0.43
1:G:392:GLU:HG3	1:G:392:GLU:O	2.18	0.43
1:G:425:SER:N	1:H:431:ASP:OD1	2.50	0.43
1:H:583:ARG:HB2	1:I:419:ASP:HA	2.00	0.43
1:I:57:TRP:CZ3	1:I:72:ILE:HD11	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:449:GLN:HE22	1:L:508:LYS:NZ	2.16	0.43
1:K:62:GLY:HA3	1:R:156:MET:O	2.18	0.43
1:L:60:TRP:HB2	1:L:71:GLU:CD	2.43	0.43
1:M:275:GLU:HB3	1:M:277:LYS:NZ	2.34	0.43
1:M:338:VAL:HG12	1:N:317:LEU:CD1	2.46	0.43
1:N:476:MET:HE1	1:N:501:ARG:HD3	1.99	0.43
1:P:163:ASP:HA	1:P:307:THR:OG1	2.18	0.43
1:S:94:LEU:HD21	1:S:306:LEU:HB2	2.00	0.43
1:T:380:LYS:HD2	1:T:380:LYS:HA	1.74	0.43
1:U:309:ILE:O	1:U:311:GLN:HG2	2.18	0.43
1:Z:531:LEU:HD13	1:Z:561:TYR:CD1	2.53	0.43
1:a:69:LYS:O	1:a:70:GLN:HB2	2.18	0.43
1:a:113:LEU:HD12	1:a:114:PRO:HD2	2.00	0.43
1:a:422:ASN:ND2	1:a:428:LYS:HE3	2.33	0.43
1:b:173:ILE:HG13	1:b:266:LEU:HD21	2.00	0.43
1:b:355:LEU:HD12	1:b:356:THR:N	2.34	0.43
1:d:97:VAL:HG22	1:d:144:LEU:O	2.18	0.43
1:d:517:LEU:HB2	1:d:527:GLN:OE1	2.18	0.43
1:g:30:PHE:HE1	1:g:473:GLY:HA2	1.84	0.43
1:g:328:MET:HG3	1:j:165:ARG:NH1	2.29	0.43
1:g:433:GLN:NE2	1:g:481:TYR:HA	2.33	0.43
1:h:206:LEU:C	1:h:207:MET:HE2	2.43	0.43
1:h:399:GLY:HA2	1:h:564:PHE:HA	2.01	0.43
1:i:273:ASP:OD1	1:i:276:GLY:N	2.51	0.43
1:j:514:THR:HG21	1:j:528:HIS:ND1	2.34	0.43
1:k:75:ARG:HD3	1:k:75:ARG:N	2.33	0.43
1:l:98:ILE:HG12	1:l:99:GLN:N	2.34	0.43
1:l:152:LYS:HE3	1:l:152:LYS:HB2	1.81	0.43
1:m:219:GLU:OE2	1:m:236:PHE:HB3	2.19	0.43
1:m:313:GLU:O	1:m:314:MET:HE2	2.18	0.43
1:m:365:ARG:NH2	1:p:81:LEU:HD12	2.33	0.43
1:n:132:PHE:CD2	1:n:263:LEU:HB2	2.53	0.43
1:n:505:LEU:HD23	1:n:505:LEU:H	1.83	0.43
1:o:66:SER:O	1:o:70:GLN:NE2	2.49	0.43
1:o:98:ILE:HD11	1:o:128:ASN:HB2	2.00	0.43
1:D:53:ARG:NH1	1:D:392:GLU:OE1	2.51	0.43
1:G:536:GLU:OE2	1:G:558:ARG:NH2	2.50	0.43
1:H:142:LEU:C	1:H:144:LEU:H	2.26	0.43
1:I:474:THR:O	1:I:501:ARG:HA	2.18	0.43
1:K:321:ASP:HA	1:R:204:PHE:HE2	1.84	0.43
1:K:479:PRO:O	1:K:482:ILE:HG22	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:331:THR:O	1:M:332:LEU:HD23	2.17	0.43
1:M:398:GLU:OE2	1:N:190:ARG:HB2	2.18	0.43
1:O:347:LYS:HA	1:R:52:ARG:HH12	1.83	0.43
1:O:409:TYR:CD2	1:O:568:MET:HB3	2.53	0.43
1:Q:93:GLU:OE2	1:Q:305:ARG:NE	2.52	0.43
1:R:212:HIS:ND1	1:R:247:LYS:HA	2.34	0.43
1:S:484:ILE:HG22	1:S:486:GLY:H	1.83	0.43
1:T:483:GLN:NE2	1:T:485:ASN:OD1	2.46	0.43
1:T:484:ILE:HG12	1:T:489:ARG:HB2	2.00	0.43
1:X:490:THR:HG21	1:X:497:TYR:CZ	2.54	0.43
1:Y:406:ARG:HB2	1:Y:451:THR:HA	2.00	0.43
1:c:58:GLU:OE2	1:c:316:LEU:HA	2.19	0.43
1:f:453:TYR:CZ	1:f:457:LEU:HD21	2.53	0.43
1:i:538:LEU:HD12	1:i:554:ARG:O	2.19	0.43
1:j:202:TYR:HD2	1:j:206:LEU:HD22	1.83	0.43
1:l:56:VAL:HG21	1:l:77:ILE:HD13	2.00	0.43
1:m:216:GLY:HA2	1:m:243:GLU:HA	2.00	0.43
1:o:133:SER:HB2	1:o:260:ASP:OD1	2.18	0.43
1:p:433:GLN:NE2	1:p:487:ASP:HA	2.34	0.43
1:A:264:ARG:HE	1:X:262:SER:HB2	1.84	0.43
1:A:527:GLN:O	1:A:564:PHE:HB2	2.18	0.43
1:A:577:GLU:HA	1:A:580:ILE:HG22	2.00	0.43
1:B:382:TYR:CD2	1:B:397:LEU:HD12	2.51	0.43
1:C:205:ARG:HB3	1:C:254:VAL:HG12	1.99	0.43
1:C:215:LEU:N	1:C:244:LEU:O	2.45	0.43
1:F:310:ASN:ND2	1:n:549:ILE:H	2.16	0.43
1:F:524:HIS:HB3	1:F:527:GLN:HG2	2.00	0.43
1:H:453:TYR:CZ	1:H:457:LEU:HD21	2.53	0.43
1:I:57:TRP:HZ3	1:I:72:ILE:HD11	1.82	0.43
1:I:197:THR:C	1:I:207:MET:HE1	2.44	0.43
1:J:30:PHE:HE2	1:J:473:GLY:HA3	1.82	0.43
1:J:153:LYS:HE2	1:J:312:LEU:HD13	2.01	0.43
1:J:524:HIS:CE1	1:J:526:LEU:HG	2.54	0.43
1:M:84:TYR:CE1	1:Q:506:ARG:HD2	2.54	0.43
1:M:170:GLN:HE22	1:M:172:LEU:HA	1.83	0.43
1:Q:359:TYR:HE2	1:Q:557:PRO:HB3	1.83	0.43
1:R:311:GLN:HB3	1:R:313:GLU:CD	2.43	0.43
1:S:43:ASP:OD1	1:S:44:GLN:N	2.50	0.43
1:T:55:LEU:HB2	1:T:319:ASP:O	2.18	0.43
1:U:244:LEU:HD23	1:U:268:LEU:HA	1.99	0.43
1:U:337:ILE:HG21	1:U:349:TYR:CD1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:W:39:ILE:HD11	1:W:535:PRO:HD3	1.99	0.43
1:Z:591:THR:O	1:Z:593:VAL:N	2.51	0.43
1:a:586:LEU:HD13	1:d:586:LEU:HD21	2.01	0.43
1:b:219:GLU:HA	1:b:236:PHE:CG	2.53	0.43
1:c:361:ILE:HG23	1:c:365:ARG:HH21	1.83	0.43
1:d:166:ILE:O	1:d:196:TYR:HB2	2.19	0.43
1:d:313:GLU:OE2	1:d:313:GLU:N	2.52	0.43
1:d:363:GLN:HG3	1:d:559:TYR:CD1	2.54	0.43
1:d:491:VAL:HG21	1:d:497:TYR:HB3	2.00	0.43
1:g:332:LEU:HD12	1:g:559:TYR:CE1	2.53	0.43
1:h:196:TYR:CE2	1:h:209:LEU:HD22	2.53	0.43
1:h:366:ASN:OD1	1:i:84:TYR:OH	2.27	0.43
1:i:75:ARG:CZ	1:i:79:GLN:HG3	2.49	0.43
1:j:49:LEU:HB2	1:j:325:GLN:HE21	1.84	0.43
1:j:57:TRP:HA	1:j:75:ARG:NH2	2.33	0.43
1:j:329:ILE:HG21	1:j:534:ILE:HD13	1.99	0.43
1:j:565:LEU:HG	1:j:567:ILE:HG22	2.01	0.43
1:m:345:ASP:O	1:m:349:TYR:HB3	2.19	0.43
1:n:44:GLN:HG3	1:n:46:GLY:H	1.84	0.43
1:n:53:ARG:HE	1:n:392:GLU:CD	2.26	0.43
1:n:560:ARG:NH2	1:o:165:ARG:HH22	2.17	0.43
1:A:166:ILE:HD12	1:A:252:MET:HE2	2.01	0.43
1:A:264:ARG:NH2	1:X:262:SER:HB2	2.34	0.43
1:A:311:GLN:O	1:T:548:ARG:NH2	2.39	0.43
1:A:312:LEU:O	1:A:312:LEU:HG	2.18	0.43
1:A:420:LEU:O	1:E:583:ARG:HD3	2.18	0.43
1:C:333:PRO:HD3	1:F:305:ARG:NH2	2.33	0.43
1:D:169:LYS:HA	1:D:189:ASN:OD1	2.18	0.43
1:E:49:LEU:HD11	1:E:400:VAL:HG11	2.01	0.43
1:E:212:HIS:N	1:a:202:TYR:OH	2.46	0.43
1:H:28:HIS:HB3	1:H:364:MET:HG2	2.01	0.43
1:H:568:MET:C	1:H:569:LEU:HD22	2.43	0.43
1:I:170:GLN:N	1:I:301:SER:OG	2.50	0.43
1:J:202:TYR:HE1	1:l:193:TYR:CG	2.35	0.43
1:J:565:LEU:HD12	1:J:566:PRO:HD2	2.00	0.43
1:K:156:MET:N	1:K:156:MET:SD	2.92	0.43
1:M:214:SER:HA	1:M:245:ASP:HA	2.00	0.43
1:M:336:VAL:HB	1:M:554:ARG:HE	1.83	0.43
1:N:352:LEU:O	1:N:355:LEU:HG	2.19	0.43
1:Q:140:ASN:HA	1:Q:257:GLY:O	2.19	0.43
1:S:234:ASP:OD1	1:S:234:ASP:N	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:V:168:LEU:HB2	1:V:188:VAL:HG21	2.01	0.43
1:W:162:LEU:HD12	1:W:304:ALA:HB1	2.00	0.43
1:W:464:ARG:HH21	1:W:466:PRO:HB3	1.83	0.43
1:Y:75:ARG:HD3	1:Y:86:THR:HG22	2.01	0.43
1:Y:167:ALA:HB3	1:Y:303:GLU:HB3	2.01	0.43
1:Y:207:MET:HE1	1:Y:254:VAL:CG1	2.49	0.43
1:Z:375:ARG:NH1	1:Z:398:GLU:HB3	2.34	0.43
1:Z:473:GLY:O	1:Z:511:ILE:HA	2.19	0.43
1:Z:592:GLN:NE2	1:Z:597:SER:HB2	2.31	0.43
1:a:93:GLU:O	1:a:150:ARG:NH2	2.42	0.43
1:b:245:ASP:OD1	1:b:245:ASP:N	2.47	0.43
1:c:330:PRO:HD2	1:c:560:ARG:HB2	2.01	0.43
1:d:594:THR:O	1:d:596:ALA:N	2.52	0.43
1:e:169:LYS:HA	1:e:189:ASN:OD1	2.19	0.43
1:e:563:ASN:OD1	1:e:564:PHE:N	2.52	0.43
1:f:322:VAL:HG22	1:o:204:PHE:CE2	2.53	0.43
1:f:427:ALA:O	1:f:430:THR:OG1	2.36	0.43
1:g:264:ARG:HD2	1:o:262:SER:HB2	2.00	0.43
1:k:560:ARG:HH21	1:l:190:ARG:HD3	1.84	0.43
1:l:342:MET:HE3	1:l:342:MET:HB3	1.91	0.43
1:m:39:ILE:HD11	1:m:535:PRO:HD3	1.99	0.43
1:m:531:LEU:HD13	1:m:561:TYR:CE1	2.54	0.43
1:m:589:ASN:O	1:m:591:THR:HG23	2.18	0.43
1:o:57:TRP:HA	1:o:75:ARG:NH1	2.25	0.43
1:o:157:THR:HG21	1:o:309:ILE:O	2.18	0.43
1:p:94:LEU:HD11	1:p:306:LEU:HB2	1.99	0.43
1:p:504:ASP:OD1	1:p:505:LEU:N	2.51	0.43
1:A:190:ARG:O	1:E:398:GLU:HG2	2.18	0.43
1:A:533:PHE:CE2	1:A:535:PRO:HG3	2.54	0.43
1:B:230:ALA:HA	1:B:233:LYS:NZ	2.33	0.43
1:F:358:ALA:HA	1:F:361:ILE:HG22	2.01	0.43
1:G:72:ILE:HG21	1:G:122:LYS:NZ	2.34	0.43
1:G:489:ARG:NH2	1:K:484:ILE:HD11	2.33	0.43
1:G:504:ASP:OD1	1:G:505:LEU:N	2.52	0.43
1:H:467:LYS:HD2	1:H:467:LYS:C	2.43	0.43
1:I:346:ASP:HB2	1:I:351:ARG:HH21	1.82	0.43
1:I:446:THR:O	1:I:450:LEU:HD23	2.18	0.43
1:J:40:VAL:O	1:J:534:ILE:HG13	2.19	0.43
1:J:213:THR:OG1	1:J:214:SER:N	2.52	0.43
1:J:311:GLN:NE2	1:J:313:GLU:OE1	2.51	0.43
1:M:203:ASN:OD1	1:M:204:PHE:N	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:440:ILE:HG13	1:M:571:ILE:HD11	2.00	0.43
1:O:375:ARG:O	1:O:379:LEU:HD23	2.19	0.43
1:O:475:ASP:OD1	1:O:475:ASP:N	2.50	0.43
1:P:347:LYS:HA	1:Q:52:ARG:NH1	2.34	0.43
1:P:545:ARG:HH11	1:Q:153:LYS:HZ1	1.67	0.43
1:T:489:ARG:HD3	1:T:489:ARG:HA	1.73	0.43
1:U:119:LYS:HD2	1:U:119:LYS:O	2.19	0.43
1:X:53:ARG:HB3	1:X:53:ARG:CZ	2.49	0.43
1:Z:453:TYR:CE1	1:Z:526:LEU:HD12	2.54	0.43
1:a:565:LEU:HD23	1:a:567:ILE:H	1.84	0.43
1:b:247:LYS:HB2	1:b:265:ALA:HB3	2.01	0.43
1:c:129:PHE:HE2	1:c:170:GLN:HB2	1.81	0.43
1:d:363:GLN:HG3	1:d:559:TYR:CE1	2.53	0.43
1:d:489:ARG:H	1:d:489:ARG:HD3	1.83	0.43
1:e:153:LYS:HD3	1:i:545:ARG:HH22	1.84	0.43
1:e:514:THR:OG1	1:e:567:ILE:O	2.34	0.43
1:f:53:ARG:NH1	1:f:55:LEU:HD21	2.30	0.43
1:f:196:TYR:CD1	1:f:209:LEU:HB2	2.53	0.43
1:f:365:ARG:NH1	1:g:81:LEU:HD22	2.34	0.43
1:h:583:ARG:CZ	1:i:587:ASP:HB2	2.49	0.43
1:i:57:TRP:NE1	1:i:319:ASP:OD2	2.44	0.43
1:i:440:ILE:O	1:i:444:VAL:HG23	2.19	0.43
1:i:447:ALA:O	1:i:451:THR:HG22	2.18	0.43
1:i:453:TYR:HE1	1:i:526:LEU:HD12	1.83	0.43
1:k:78:LEU:HA	1:k:81:LEU:HD23	1.99	0.43
1:k:425:SER:HB2	1:l:431:ASP:OD1	2.18	0.43
1:m:373:LEU:CD1	1:m:506:ARG:HD2	2.49	0.43
1:n:458:GLU:OE1	1:n:458:GLU:HA	2.18	0.43
1:A:235:LEU:HD12	1:A:240:TYR:HD2	1.84	0.43
1:B:337:ILE:CG1	1:B:355:LEU:HD12	2.49	0.43
1:B:363:GLN:HG3	1:B:559:TYR:CE2	2.54	0.43
1:B:511:ILE:HB	1:B:571:ILE:HG23	2.00	0.43
1:D:449:GLN:HB2	1:F:477:ARG:HD3	2.01	0.43
1:D:504:ASP:OD1	1:D:505:LEU:N	2.51	0.43
1:D:514:THR:HG21	1:D:528:HIS:ND1	2.33	0.43
1:D:593:VAL:HG12	1:F:590:GLU:HB3	2.01	0.43
1:E:366:ASN:O	1:E:370:THR:HG23	2.19	0.43
1:F:212:HIS:HA	1:F:246:VAL:O	2.18	0.43
1:F:309:ILE:N	1:n:548:ARG:HH22	2.17	0.43
1:G:204:PHE:HD2	1:O:322:VAL:HG12	1.83	0.43
1:G:335:LEU:HD22	1:G:355:LEU:HG	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:61:THR:HB	1:J:63:GLU:OE2	2.19	0.43
1:K:431:ASP:OD2	1:K:432:ILE:N	2.52	0.43
1:K:433:GLN:HE21	1:K:482:ILE:C	2.27	0.43
1:L:366:ASN:O	1:L:370:THR:HG23	2.19	0.43
1:M:88:GLU:O	1:M:316:LEU:HD11	2.19	0.43
1:M:423:LEU:HG	1:N:423:LEU:HD21	1.99	0.43
1:O:202:TYR:H	1:O:206:LEU:HD22	1.84	0.43
1:P:57:TRP:CZ3	1:P:72:ILE:HD11	2.53	0.43
1:P:283:ASP:OD1	1:P:284:SER:N	2.52	0.43
1:Q:75:ARG:HD2	1:Q:76:ASN:N	2.34	0.43
1:R:528:HIS:HA	1:R:565:LEU:HD23	2.01	0.43
1:U:354:ALA:HA	1:U:357:THR:HG22	2.01	0.43
1:V:539:VAL:HG12	1:V:554:ARG:HB2	2.00	0.43
1:W:203:ASN:CG	1:W:204:PHE:H	2.24	0.43
1:W:548:ARG:HA	1:W:548:ARG:HD2	1.78	0.43
1:X:585:ALA:HB1	1:X:586:LEU:HD23	2.00	0.43
1:Y:177:LYS:HB2	1:Y:293:LEU:HD12	2.00	0.43
1:Y:593:VAL:O	1:Y:594:THR:HG23	2.18	0.43
1:Z:472:ILE:HD13	1:Z:513:MET:HE1	2.01	0.43
1:a:539:VAL:HG13	1:a:541:PHE:HE1	1.84	0.43
1:b:123:ASP:OD2	1:b:149:SER:N	2.49	0.43
1:d:264:ARG:NH1	1:e:249:ASP:HB3	2.32	0.43
1:g:58:GLU:HB3	1:g:122:LYS:CE	2.49	0.43
1:h:437:VAL:O	1:h:440:ILE:HG22	2.19	0.43
1:j:375:ARG:NH1	1:j:563:ASN:HB2	2.34	0.43
1:l:480:GLN:HG3	1:m:445:TYR:HE2	1.83	0.43
1:p:475:ASP:OD1	1:p:475:ASP:N	2.42	0.43
1:C:212:HIS:CE1	1:C:247:LYS:HD3	2.54	0.43
1:D:188:VAL:HA	1:D:191:ASP:OD2	2.19	0.43
1:D:514:THR:HG21	1:D:528:HIS:CE1	2.54	0.43
1:G:347:LYS:HA	1:H:52:ARG:NH1	2.33	0.43
1:H:97:VAL:HG21	1:H:146:GLN:O	2.19	0.43
1:H:335:LEU:O	1:H:555:LEU:N	2.50	0.43
1:J:215:LEU:HD23	1:J:215:LEU:H	1.84	0.43
1:J:345:ASP:O	1:J:349:TYR:HB3	2.17	0.43
1:K:55:LEU:HD13	1:K:74:LYS:HB3	2.00	0.43
1:K:251:GLU:HB3	1:K:260:ASP:OD1	2.19	0.43
1:N:173:ILE:HD11	1:N:266:LEU:HD21	2.01	0.43
1:N:379:LEU:HD23	1:N:379:LEU:HA	1.68	0.43
1:O:30:PHE:N	1:O:365:ARG:HH12	2.16	0.43
1:O:119:LYS:HE2	1:O:119:LYS:HA	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:341:ALA:HB2	1:O:551:ARG:H	1.84	0.43
1:Q:238:LEU:O	1:Q:274:LYS:NZ	2.52	0.43
1:R:388:PRO:HB2	1:R:406:ARG:HD3	2.00	0.43
1:T:166:ILE:HA	1:T:303:GLU:O	2.19	0.43
1:T:209:LEU:HD12	1:T:209:LEU:HA	1.88	0.43
1:U:306:LEU:CD2	1:U:308:ASN:HB2	2.48	0.43
1:U:345:ASP:HB3	1:U:348:THR:HB	2.01	0.43
1:U:554:ARG:NH1	1:X:313:GLU:O	2.45	0.43
1:X:94:LEU:HD11	1:X:306:LEU:HD13	2.01	0.43
1:Y:336:VAL:HG23	1:Y:554:ARG:HG2	2.01	0.43
1:Z:75:ARG:NH2	1:Z:86:THR:HG21	2.33	0.43
1:Z:245:ASP:OD1	1:Z:267:ARG:HB2	2.19	0.43
1:Z:332:LEU:HB2	1:Z:557:PRO:O	2.19	0.43
1:a:536:GLU:HG2	1:a:556:THR:O	2.18	0.43
1:b:224:VAL:O	1:b:224:VAL:HG12	2.18	0.43
1:d:120:GLN:HB3	1:d:125:PHE:HE1	1.84	0.43
1:d:157:THR:HG22	1:i:61:THR:HA	2.00	0.43
1:e:337:ILE:O	1:e:553:ILE:N	2.39	0.43
1:e:450:LEU:HD21	1:i:508:LYS:HE2	2.00	0.43
1:f:212:HIS:HB2	1:f:247:LYS:HD2	2.01	0.43
1:f:337:ILE:HG12	1:f:349:TYR:CE1	2.54	0.43
1:f:389:HIS:O	1:f:406:ARG:HG3	2.18	0.43
1:h:489:ARG:NH1	1:j:429:GLN:OE1	2.52	0.43
1:i:557:PRO:O	1:i:558:ARG:HD3	2.18	0.43
1:k:355:LEU:HD21	1:k:555:LEU:HB2	2.01	0.43
1:l:433:GLN:OE1	1:l:485:ASN:HB2	2.19	0.43
1:m:108:ILE:HD13	1:m:129:PHE:HB2	2.01	0.43
1:m:122:LYS:HG3	1:m:122:LYS:O	2.19	0.43
1:m:319:ASP:OD1	1:m:320:SER:N	2.50	0.43
1:n:94:LEU:HD21	1:n:306:LEU:HD12	2.01	0.43
1:n:133:SER:OG	1:n:261:THR:O	2.32	0.43
1:n:585:ALA:N	1:o:589:ASN:OD1	2.40	0.43
1:o:375:ARG:HE	1:o:563:ASN:HB3	1.83	0.43
1:p:235:LEU:HG	1:p:240:TYR:HB2	2.00	0.43
1:A:260:ASP:OD1	1:A:261:THR:N	2.52	0.42
1:B:434:GLY:HA2	1:B:489:ARG:HH22	1.82	0.42
1:B:472:ILE:HG12	1:B:513:MET:HB3	2.01	0.42
1:C:140:ASN:ND2	1:C:258:ASN:OD1	2.52	0.42
1:D:57:TRP:CG	1:D:74:LYS:HD3	2.54	0.42
1:D:193:TYR:CD1	1:f:202:TYR:CE2	3.07	0.42
1:I:380:LYS:HE3	1:I:409:TYR:HE2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:I:483:GLN:OE1	1:I:483:GLN:N	2.52	0.42
1:K:331:THR:HG23	1:K:558:ARG:HG3	2.01	0.42
1:M:524:HIS:CG	1:M:525:PRO:HD2	2.54	0.42
1:O:429:GLN:HG3	1:R:489:ARG:NH2	2.31	0.42
1:R:560:ARG:HG2	1:R:560:ARG:NH1	2.33	0.42
1:T:97:VAL:O	1:T:103:ASN:ND2	2.47	0.42
1:T:201:GLU:O	1:T:202:TYR:HB2	2.19	0.42
1:U:372:LEU:HD21	1:U:512:VAL:HG11	2.00	0.42
1:W:402:GLN:HB3	1:W:566:PRO:HG3	2.00	0.42
1:X:63:GLU:CD	1:X:66:SER:HA	2.43	0.42
1:X:194:ALA:HB2	1:X:211:PHE:CE1	2.54	0.42
1:Y:58:GLU:N	1:Y:58:GLU:OE2	2.51	0.42
1:Y:235:LEU:HD12	1:Y:235:LEU:H	1.83	0.42
1:Y:314:MET:HE1	1:c:548:ARG:NH2	2.34	0.42
1:Z:196:TYR:HE1	1:Z:209:LEU:HD22	1.83	0.42
1:c:113:LEU:HD12	1:c:114:PRO:HD2	2.01	0.42
1:c:474:THR:O	1:c:501:ARG:HA	2.19	0.42
1:c:502:ILE:HD13	1:c:504:ASP:HB3	1.99	0.42
1:e:108:ILE:HG22	1:e:131:LYS:HB2	2.01	0.42
1:e:113:LEU:HD12	1:e:114:PRO:HD2	2.01	0.42
1:e:169:LYS:HB3	1:e:303:GLU:HB2	2.00	0.42
1:f:247:LYS:HB2	1:f:265:ALA:N	2.32	0.42
1:g:94:LEU:HD11	1:g:306:LEU:HB2	2.01	0.42
1:h:163:ASP:OD1	1:h:165:ARG:N	2.36	0.42
1:h:325:GLN:NE2	1:i:192:GLN:HE21	2.17	0.42
1:i:219:GLU:HA	1:i:236:PHE:CD1	2.54	0.42
1:k:49:LEU:HD12	1:k:400:VAL:HG11	2.01	0.42
1:k:148:PRO:HA	1:k:151:LEU:HD13	2.00	0.42
1:k:331:THR:HA	1:k:558:ARG:CB	2.49	0.42
1:k:347:LYS:HB3	1:l:52:ARG:NH1	2.29	0.42
1:l:424:THR:HA	1:m:421:ASN:O	2.19	0.42
1:n:320:SER:HB2	1:p:348:THR:HA	2.01	0.42
1:n:339:LYS:HD2	1:n:345:ASP:OD1	2.18	0.42
1:p:207:MET:O	1:p:252:MET:N	2.37	0.42
1:A:83:ASP:OD1	1:A:84:TYR:N	2.45	0.42
1:A:419:ASP:HA	1:E:583:ARG:HG3	2.01	0.42
1:A:508:LYS:NZ	1:B:449:GLN:HE21	2.16	0.42
1:B:467:LYS:HZ1	1:B:494:GLY:C	2.27	0.42
1:C:355:LEU:HD12	1:C:356:THR:N	2.34	0.42
1:D:184:PHE:HB3	1:D:186:LEU:HD21	2.01	0.42
1:E:47:PHE:CZ	1:E:327:PHE:HD2	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:53:ARG:HG2	1:F:321:ASP:O	2.19	0.42
1:J:153:LYS:HZ1	1:L:545:ARG:NE	2.11	0.42
1:J:351:ARG:HB3	1:J:353:GLU:OE1	2.18	0.42
1:L:324:LYS:HD3	1:l:200:ARG:HH21	1.85	0.42
1:L:546:ASN:O	1:L:548:ARG:NH1	2.44	0.42
1:M:220:GLU:N	1:M:220:GLU:OE2	2.51	0.42
1:M:430:THR:O	1:M:433:GLN:HG3	2.19	0.42
1:M:478:LEU:HA	1:M:478:LEU:HD23	1.79	0.42
1:O:160:ASP:HB3	1:O:306:LEU:HD11	2.01	0.42
1:O:470:VAL:HG13	1:O:513:MET:HE2	2.00	0.42
1:P:539:VAL:HG13	1:P:554:ARG:HB2	2.00	0.42
1:Q:210:LYS:CE	1:Q:212:HIS:HE1	2.29	0.42
1:S:311:GLN:HB3	1:S:313:GLU:OE1	2.19	0.42
1:S:414:ILE:HD12	1:S:436:ILE:HD12	2.02	0.42
1:V:411:GLU:HA	1:V:570:VAL:O	2.19	0.42
1:Y:433:GLN:NE2	1:Y:484:ILE:HG22	2.35	0.42
1:a:98:ILE:HG12	1:a:107:PHE:CD2	2.54	0.42
1:a:108:ILE:HA	1:a:131:LYS:HZ3	1.84	0.42
1:a:506:ARG:CZ	1:d:84:TYR:HB2	2.48	0.42
1:b:420:LEU:N	1:d:583:ARG:HD3	2.33	0.42
1:e:478:LEU:HD13	1:e:511:ILE:HD11	2.01	0.42
1:f:280:ALA:O	1:f:286:VAL:HG21	2.18	0.42
1:f:347:LYS:HA	1:g:52:ARG:CZ	2.49	0.42
1:g:380:LYS:NZ	1:g:411:GLU:HG2	2.34	0.42
1:i:129:PHE:HE2	1:i:170:GLN:HB2	1.84	0.42
1:j:336:VAL:HB	1:j:554:ARG:HH11	1.83	0.42
1:n:538:LEU:HD11	1:n:553:ILE:HG23	2.01	0.42
1:o:132:PHE:HA	1:o:300:TYR:HE2	1.84	0.42
1:p:308:ASN:ND2	1:p:313:GLU:HG2	2.34	0.42
1:p:483:GLN:O	1:p:483:GLN:HG2	2.19	0.42
1:B:309:ILE:HG13	1:B:310:ASN:N	2.34	0.42
1:C:561:TYR:O	1:F:190:ARG:NH2	2.41	0.42
1:C:583:ARG:HH21	1:F:587:ASP:CG	2.27	0.42
1:C:587:ASP:HA	1:F:589:ASN:HB3	2.01	0.42
1:D:219:GLU:HA	1:D:236:PHE:CE1	2.54	0.42
1:D:337:ILE:HA	1:E:316:LEU:O	2.18	0.42
1:D:451:THR:HG23	1:D:453:TYR:N	2.34	0.42
1:D:580:ILE:HD12	1:E:442:GLU:HG3	2.01	0.42
1:E:63:GLU:O	1:X:156:MET:HG2	2.19	0.42
1:E:308:ASN:ND2	1:E:310:ASN:OD1	2.51	0.42
1:F:55:LEU:HB3	1:F:57:TRP:HD1	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:99:GLN:NE2	1:F:102:GLU:OE2	2.50	0.42
1:K:60:TRP:CZ2	1:R:158:PHE:HA	2.54	0.42
1:K:105:GLU:HG3	1:K:106:GLN:NE2	2.33	0.42
1:M:135:ASN:OD1	1:M:136:GLY:N	2.52	0.42
1:N:57:TRP:HZ3	1:N:60:TRP:HE3	1.66	0.42
1:N:390:PRO:O	1:N:393:SER:OG	2.28	0.42
1:Q:363:GLN:HE21	1:Q:364:MET:HB2	1.81	0.42
1:R:205:ARG:HD3	1:R:254:VAL:HG23	2.01	0.42
1:R:330:PRO:O	1:R:558:ARG:HB2	2.18	0.42
1:R:547:GLN:HE22	1:U:153:LYS:HG3	1.83	0.42
1:T:398:GLU:HA	1:U:192:GLN:NE2	2.33	0.42
1:W:341:ALA:HB2	1:W:551:ARG:HG3	2.00	0.42
1:W:536:GLU:OE2	1:W:557:PRO:HA	2.19	0.42
1:W:544:ILE:HD13	1:W:549:ILE:HG12	2.00	0.42
1:X:36:ARG:HH21	1:X:527:GLN:HE22	1.67	0.42
1:X:308:ASN:ND2	1:X:313:GLU:OE1	2.49	0.42
1:Y:147:THR:OG1	1:Y:148:PRO:HD2	2.20	0.42
1:Y:204:PHE:O	1:Y:205:ARG:HD2	2.19	0.42
1:Z:157:THR:CG2	1:Z:158:PHE:H	2.22	0.42
1:Z:272:PHE:HE1	1:Z:278:GLU:OE2	2.01	0.42
1:Z:410:ASN:OD1	1:Z:411:GLU:N	2.52	0.42
1:b:560:ARG:HH21	1:c:190:ARG:HG2	1.84	0.42
1:b:560:ARG:NE	1:c:165:ARG:HH12	2.17	0.42
1:c:239:GLY:HA3	1:c:274:LYS:HE3	2.01	0.42
1:d:192:GLN:HB3	1:d:193:TYR:CE1	2.54	0.42
1:e:169:LYS:HD3	1:e:302:LEU:C	2.44	0.42
1:g:219:GLU:HA	1:g:236:PHE:CE1	2.54	0.42
1:g:270:ARG:HA	1:g:281:LEU:HD11	2.00	0.42
1:h:348:THR:O	1:i:320:SER:N	2.52	0.42
1:h:380:LYS:NZ	1:h:411:GLU:HG3	2.34	0.42
1:j:60:TRP:HB2	1:j:70:GLN:O	2.18	0.42
1:k:116:GLN:OE1	1:k:116:GLN:N	2.52	0.42
1:k:417:LEU:HD22	1:k:575:ASN:HD21	1.85	0.42
1:o:505:LEU:HD23	1:o:505:LEU:H	1.84	0.42
1:p:62:GLY:HA3	1:p:68:GLU:O	2.20	0.42
1:p:128:ASN:OD1	1:p:129:PHE:N	2.53	0.42
1:A:157:THR:HG22	1:A:310:ASN:OD1	2.20	0.42
1:A:449:GLN:HE22	1:E:476:MET:H	1.67	0.42
1:B:367:ASN:O	1:B:371:THR:HG23	2.19	0.42
1:B:375:ARG:HA	1:B:378:THR:HG22	2.01	0.42
1:B:508:LYS:O	1:B:510:LYS:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:367:ASN:HB3	1:C:561:TYR:HE2	1.84	0.42
1:C:439:LYS:HZ1	1:C:443:MET:HE3	1.84	0.42
1:D:212:HIS:HB2	1:D:247:LYS:NZ	2.34	0.42
1:D:337:ILE:HD13	1:D:355:LEU:CD1	2.50	0.42
1:D:439:LYS:HG3	1:D:571:ILE:HD13	2.01	0.42
1:D:594:THR:HA	1:D:595:PRO:HD3	1.94	0.42
1:F:235:LEU:HB3	1:F:240:TYR:HB2	1.99	0.42
1:F:478:LEU:O	1:F:481:TYR:N	2.51	0.42
1:J:210:LYS:HE3	1:J:212:HIS:CD2	2.54	0.42
1:K:53:ARG:HH22	1:K:323:GLN:HG2	1.84	0.42
1:L:472:ILE:HB	1:L:499:ILE:HA	2.01	0.42
1:M:334:PRO:HB3	1:M:556:THR:HG22	2.01	0.42
1:N:341:ALA:C	1:N:342:MET:HE2	2.44	0.42
1:O:502:ILE:HG13	1:O:504:ASP:H	1.84	0.42
1:P:47:PHE:O	1:P:327:PHE:HB2	2.20	0.42
1:Q:266:LEU:H	1:Q:267:ARG:HD2	1.83	0.42
1:S:252:MET:HA	1:S:252:MET:HE3	2.00	0.42
1:X:57:TRP:HE1	1:X:319:ASP:CG	2.27	0.42
1:Y:543:MET:HG2	1:Y:545:ARG:HE	1.84	0.42
1:Z:283:ASP:HB3	1:Z:285:ARG:NH2	2.34	0.42
1:a:34:PHE:CD2	1:a:372:LEU:HD11	2.54	0.42
1:a:98:ILE:HA	1:a:107:PHE:HE2	1.83	0.42
1:a:422:ASN:HD22	1:a:428:LYS:HE3	1.84	0.42
1:b:29:GLU:OE1	1:b:29:GLU:HA	2.19	0.42
1:c:379:LEU:HD23	1:c:379:LEU:HA	1.85	0.42
1:d:547:GLN:O	1:d:548:ARG:HD3	2.18	0.42
1:e:367:ASN:O	1:e:371:THR:HG23	2.18	0.42
1:g:211:PHE:HB3	1:g:248:VAL:HG13	2.01	0.42
1:g:395:LEU:HD13	1:g:402:GLN:OE1	2.19	0.42
1:h:114:PRO:O	1:h:116:GLN:NE2	2.46	0.42
1:h:379:LEU:HD12	1:h:568:MET:SD	2.59	0.42
1:m:61:THR:HB	1:m:70:GLN:HB2	2.01	0.42
1:n:423:LEU:HD21	1:o:423:LEU:HD22	2.02	0.42
1:n:476:MET:HB2	1:o:449:GLN:OE1	2.19	0.42
1:o:410:ASN:OD1	1:o:411:GLU:N	2.53	0.42
1:o:443:MET:SD	1:o:569:LEU:HD12	2.59	0.42
1:D:210:LYS:HE2	1:D:210:LYS:HB2	1.83	0.42
1:H:504:ASP:OD2	1:H:506:ARG:NH2	2.52	0.42
1:H:594:THR:O	1:H:596:ALA:N	2.53	0.42
1:I:568:MET:HE2	1:I:568:MET:HB2	1.82	0.42
1:J:428:LYS:HE2	1:J:428:LYS:HB2	1.81	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:327:PHE:HE1	1:K:564:PHE:HE1	1.67	0.42
1:O:359:TYR:HE2	1:O:557:PRO:HB3	1.84	0.42
1:O:479:PRO:HB2	1:O:501:ARG:HH12	1.84	0.42
1:P:422:ASN:ND2	1:P:428:LYS:HG3	2.33	0.42
1:P:593:VAL:O	1:P:594:THR:HG23	2.18	0.42
1:Q:168:LEU:HD23	1:Q:302:LEU:HD23	2.01	0.42
1:Q:249:ASP:OD2	1:Q:264:ARG:NH2	2.51	0.42
1:S:53:ARG:HD3	1:S:55:LEU:CD1	2.50	0.42
1:S:589:ASN:O	1:W:588:VAL:N	2.50	0.42
1:V:263:LEU:HD21	1:V:266:LEU:HB2	2.01	0.42
1:Y:53:ARG:CZ	1:Y:55:LEU:HD21	2.50	0.42
1:Z:87:LEU:O	1:Z:89:THR:HG23	2.19	0.42
1:Z:335:LEU:HD23	1:Z:355:LEU:HD12	2.02	0.42
1:a:410:ASN:ND2	1:a:443:MET:HE1	2.35	0.42
1:c:196:TYR:CD2	1:c:209:LEU:HG	2.54	0.42
1:f:58:GLU:HG3	1:f:59:GLY:N	2.23	0.42
1:f:360:ARG:O	1:f:364:MET:CB	2.68	0.42
1:f:472:ILE:HG22	1:f:513:MET:HE1	2.02	0.42
1:g:201:GLU:OE2	1:g:202:TYR:HB2	2.18	0.42
1:h:43:ASP:OD1	1:h:44:GLN:HG3	2.19	0.42
1:l:128:ASN:OD1	1:l:129:PHE:N	2.53	0.42
1:l:506:ARG:HD3	1:m:84:TYR:CE1	2.54	0.42
1:m:563:ASN:C	1:m:564:PHE:HD2	2.28	0.42
1:n:249:ASP:N	1:n:249:ASP:OD1	2.48	0.42
1:o:317:LEU:HD12	1:o:318:ILE:N	2.34	0.42
1:o:454:THR:O	1:o:458:GLU:OE1	2.38	0.42
1:p:375:ARG:NH1	1:p:398:GLU:HB3	2.34	0.42
1:A:106:GLN:OE1	1:A:106:GLN:N	2.52	0.42
1:A:342:MET:HE3	1:A:343:VAL:HG23	2.02	0.42
1:B:365:ARG:O	1:B:369:VAL:HG23	2.19	0.42
1:B:406:ARG:O	1:B:567:ILE:HD11	2.19	0.42
1:C:258:ASN:HD21	1:J:70:GLN:N	2.17	0.42
1:C:546:ASN:HB3	1:f:155:SER:HB3	2.01	0.42
1:D:363:GLN:HG3	1:D:559:TYR:CE2	2.54	0.42
1:E:208:GLN:HE22	1:E:251:GLU:HG3	1.84	0.42
1:F:477:ARG:N	1:F:479:PRO:HD2	2.34	0.42
1:H:408:TYR:CE2	1:H:447:ALA:HA	2.52	0.42
1:I:483:GLN:O	1:I:483:GLN:HG2	2.20	0.42
1:J:542:ASN:HB2	1:J:551:ARG:NH1	2.33	0.42
1:L:97:VAL:HG22	1:L:125:PHE:CE2	2.54	0.42
1:L:401:GLY:HA2	1:L:525:PRO:HB2	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:M:235:LEU:H	1:M:235:LEU:HD12	1.84	0.42
1:N:388:PRO:HD3	1:N:450:LEU:HD21	2.01	0.42
1:P:76:ASN:ND2	1:P:392:GLU:OE1	2.53	0.42
1:Q:422:ASN:HD21	1:Q:428:LYS:HZ2	1.67	0.42
1:R:196:TYR:CD1	1:R:209:LEU:HB2	2.54	0.42
1:R:489:ARG:HD3	1:R:489:ARG:HA	1.79	0.42
1:S:330:PRO:HD2	1:S:560:ARG:HG2	2.00	0.42
1:S:531:LEU:HD13	1:S:561:TYR:CE1	2.55	0.42
1:T:203:ASN:CG	1:T:204:PHE:H	2.25	0.42
1:V:373:LEU:HD23	1:V:373:LEU:HA	1.86	0.42
1:a:92:THR:HG22	1:a:305:ARG:HB3	2.01	0.42
1:a:423:LEU:HB3	1:d:423:LEU:HD11	2.01	0.42
1:b:168:LEU:HD23	1:b:171:LEU:HD21	2.00	0.42
1:b:217:LEU:HD23	1:b:217:LEU:HA	1.85	0.42
1:c:326:GLY:C	1:c:327:PHE:HD1	2.28	0.42
1:d:496:ASP:OD2	1:d:496:ASP:N	2.46	0.42
1:e:565:LEU:O	1:e:567:ILE:N	2.47	0.42
1:f:365:ARG:HH12	1:g:81:LEU:HD22	1.85	0.42
1:f:389:HIS:O	1:f:407:PRO:HD2	2.19	0.42
1:f:539:VAL:HG12	1:f:554:ARG:HB2	2.01	0.42
1:g:505:LEU:HD22	1:j:82:LEU:O	2.19	0.42
1:h:87:LEU:O	1:h:88:GLU:HB3	2.19	0.42
1:h:120:GLN:HB2	1:h:125:PHE:HE1	1.84	0.42
1:h:234:ASP:N	1:h:234:ASP:OD1	2.53	0.42
1:h:240:TYR:HB3	1:h:271:VAL:CG1	2.50	0.42
1:h:383:LEU:HD21	1:h:408:TYR:N	2.34	0.42
1:j:208:GLN:NE2	1:j:209:LEU:O	2.53	0.42
1:k:528:HIS:HA	1:k:565:LEU:HB3	2.01	0.42
1:l:363:GLN:HG3	1:l:559:TYR:CZ	2.54	0.42
1:l:447:ALA:HB2	1:l:569:LEU:HD11	2.02	0.42
1:l:582:GLN:NE2	1:l:583:ARG:O	2.50	0.42
1:n:53:ARG:NH2	1:n:55:LEU:HD21	2.35	0.42
1:n:62:GLY:C	1:n:67:GLY:HA2	2.44	0.42
1:o:464:ARG:NH1	1:o:466:PRO:HB3	2.35	0.42
1:o:475:ASP:HA	1:o:502:ILE:HG22	2.00	0.42
1:A:256:ASN:O	1:A:256:ASN:ND2	2.49	0.42
1:B:83:ASP:OD2	1:B:85:THR:OG1	2.27	0.42
1:D:531:LEU:HD13	1:D:561:TYR:CD1	2.55	0.42
1:D:531:LEU:HD13	1:D:561:TYR:CE1	2.55	0.42
1:E:140:ASN:HA	1:E:257:GLY:O	2.18	0.42
1:F:527:GLN:O	1:F:564:PHE:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:61:THR:OG1	1:G:72:ILE:HG13	2.20	0.42
1:G:146:GLN:OE1	1:G:146:GLN:HA	2.20	0.42
1:G:453:TYR:CZ	1:G:457:LEU:HD21	2.55	0.42
1:G:479:PRO:HG2	1:G:501:ARG:HD3	2.00	0.42
1:H:162:LEU:HD12	1:H:254:VAL:HA	2.01	0.42
1:H:365:ARG:NH2	1:I:81:LEU:O	2.41	0.42
1:H:505:LEU:HD13	1:H:508:LYS:HD3	2.01	0.42
1:J:380:LYS:HD3	1:J:409:TYR:CE2	2.55	0.42
1:K:91:SER:OG	1:K:313:GLU:OE1	2.32	0.42
1:K:389:HIS:O	1:K:406:ARG:HD2	2.20	0.42
1:L:235:LEU:HB3	1:L:240:TYR:HB2	2.02	0.42
1:M:169:LYS:HA	1:M:189:ASN:HB2	2.02	0.42
1:M:423:LEU:HD11	1:N:423:LEU:HD11	2.02	0.42
1:N:546:ASN:HB3	1:N:547:GLN:H	1.62	0.42
1:O:205:ARG:HD2	1:O:254:VAL:HG23	2.02	0.42
1:P:212:HIS:HD1	1:P:247:LYS:CB	2.33	0.42
1:P:589:ASN:HB2	1:Q:593:VAL:HG21	2.00	0.42
1:Q:172:LEU:HD11	1:Q:183:LEU:HB3	2.00	0.42
1:S:207:MET:HE1	1:S:254:VAL:HB	2.02	0.42
1:T:333:PRO:HA	1:T:334:PRO:HD3	1.91	0.42
1:U:588:VAL:O	1:X:591:THR:OG1	2.32	0.42
1:W:87:LEU:O	1:W:88:GLU:HG3	2.20	0.42
1:W:308:ASN:O	1:W:311:GLN:HG2	2.18	0.42
1:Y:150:ARG:HH11	1:Y:150:ARG:HG3	1.83	0.42
1:Y:592:GLN:CD	1:Z:593:VAL:HG22	2.45	0.42
1:Z:51:ILE:HG21	1:Z:403:TYR:HD2	1.85	0.42
1:a:68:GLU:O	1:e:140:ASN:ND2	2.53	0.42
1:a:531:LEU:O	1:a:531:LEU:HD12	2.19	0.42
1:b:373:LEU:HD23	1:b:373:LEU:HA	1.86	0.42
1:b:588:VAL:O	1:c:591:THR:OG1	2.34	0.42
1:c:169:LYS:HG2	1:c:170:GLN:OE1	2.19	0.42
1:d:472:ILE:HB	1:d:499:ILE:HA	2.02	0.42
1:e:528:HIS:O	1:e:564:PHE:N	2.48	0.42
1:e:593:VAL:HG21	1:i:589:ASN:OD1	2.20	0.42
1:f:75:ARG:HG3	1:f:86:THR:HG23	2.01	0.42
1:g:380:LYS:HG3	1:g:409:TYR:CE2	2.55	0.42
1:h:81:LEU:HD13	1:j:361:ILE:HD12	2.01	0.42
1:h:169:LYS:HD3	1:h:170:GLN:HG3	2.00	0.42
1:h:518:PRO:HD2	1:h:519:ASN:H	1.84	0.42
1:j:216:GLY:HA2	1:j:243:GLU:HA	2.00	0.42
1:k:433:GLN:O	1:k:437:VAL:HG12	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:k:482:ILE:HG23	1:k:483:GLN:HG3	2.02	0.42
1:m:148:PRO:HA	1:m:151:LEU:HD23	2.01	0.42
1:m:215:LEU:HD12	1:m:215:LEU:HA	1.87	0.42
1:o:68:GLU:O	1:o:71:GLU:HG2	2.20	0.42
1:o:346:ASP:OD1	1:o:346:ASP:N	2.45	0.42
1:o:529:GLY:HA2	1:o:564:PHE:HD2	1.85	0.42
1:A:196:TYR:CD2	1:A:209:LEU:HD13	2.54	0.42
1:B:104:ASP:OD1	1:B:105:GLU:N	2.52	0.42
1:B:341:ALA:CB	1:B:551:ARG:HG3	2.50	0.42
1:B:398:GLU:OE2	1:C:190:ARG:HA	2.20	0.42
1:D:196:TYR:CE2	1:D:209:LEU:HB2	2.55	0.42
1:D:250:GLY:HA2	1:D:261:THR:HA	2.00	0.42
1:F:143:MET:HA	1:o:66:SER:HB2	2.00	0.42
1:F:476:MET:HE1	1:F:503:SER:HA	2.01	0.42
1:G:115:ALA:HB1	1:G:126:ASP:CG	2.45	0.42
1:I:457:LEU:CD2	1:I:466:PRO:HD2	2.50	0.42
1:J:89:THR:HB	1:J:316:LEU:HD21	2.00	0.42
1:K:52:ARG:HE	1:K:320:SER:HB3	1.85	0.42
1:K:290:LEU:HA	1:K:293:LEU:HD12	2.01	0.42
1:K:453:TYR:CE2	1:K:457:LEU:HD11	2.55	0.42
1:L:467:LYS:NZ	1:L:495:TYR:HA	2.35	0.42
1:N:366:ASN:ND2	1:O:88:GLU:OE2	2.52	0.42
1:O:242:ILE:HG22	1:O:244:LEU:HD12	2.02	0.42
1:P:222:THR:OG1	1:P:227:ALA:O	2.32	0.42
1:Q:169:LYS:HE2	1:Q:303:GLU:HB2	2.01	0.42
1:S:583:ARG:HH21	1:S:586:LEU:HG	1.84	0.42
1:T:115:ALA:HB1	1:T:126:ASP:HB3	2.01	0.42
1:T:410:ASN:OD1	1:T:411:GLU:N	2.52	0.42
1:U:582:GLN:HG3	1:U:583:ARG:O	2.20	0.42
1:X:339:LYS:HE3	1:X:345:ASP:HB2	2.01	0.42
1:X:399:GLY:HA2	1:X:564:PHE:HA	2.02	0.42
1:Z:398:GLU:OE1	1:Z:563:ASN:HB2	2.19	0.42
1:Z:541:PHE:CE2	1:Z:543:MET:HB2	2.54	0.42
1:c:507:MET:HG3	1:c:507:MET:O	2.20	0.42
1:d:269:ALA:HB1	1:d:270:ARG:HE	1.85	0.42
1:d:337:ILE:HB	1:d:553:ILE:HB	2.02	0.42
1:e:484:ILE:HG21	1:e:487:ASP:O	2.19	0.42
1:e:508:LYS:HD2	1:e:508:LYS:HA	1.87	0.42
1:g:215:LEU:HD23	1:g:215:LEU:H	1.84	0.42
1:g:439:LYS:O	1:g:439:LYS:NZ	2.50	0.42
1:h:89:THR:CG2	1:j:333:PRO:HB2	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:h:170:GLN:N	1:h:301:SER:OG	2.46	0.42
1:j:359:TYR:CE1	1:j:557:PRO:HB3	2.55	0.42
1:j:422:ASN:ND2	1:j:431:ASP:OD2	2.52	0.42
1:j:437:VAL:HA	1:j:440:ILE:HG22	2.01	0.42
1:j:471:ALA:O	1:j:513:MET:HA	2.20	0.42
1:k:336:VAL:HG23	1:k:554:ARG:HG2	2.02	0.42
1:l:122:LYS:NZ	1:l:314:MET:SD	2.93	0.42
1:l:247:LYS:HB2	1:l:265:ALA:HB3	2.01	0.42
1:m:222:THR:HG22	1:m:228:GLU:HG2	2.02	0.42
1:m:359:TYR:HE1	1:m:557:PRO:HB3	1.84	0.42
1:m:504:ASP:OD1	1:m:505:LEU:N	2.53	0.42
1:m:538:LEU:HD23	1:m:538:LEU:H	1.85	0.42
1:A:165:ARG:NH1	1:E:560:ARG:HG2	2.34	0.42
1:B:230:ALA:HA	1:B:233:LYS:HZ3	1.85	0.42
1:C:439:LYS:HA	1:C:439:LYS:HD2	1.90	0.42
1:D:72:ILE:H	1:D:72:ILE:HD12	1.84	0.42
1:D:258:ASN:ND2	1:e:70:GLN:HA	2.31	0.42
1:D:588:VAL:HG23	1:F:586:LEU:HB3	2.01	0.42
1:F:352:LEU:HD23	1:F:352:LEU:HA	1.90	0.42
1:F:522:GLU:OE1	1:F:523:PRO:HD2	2.20	0.42
1:I:464:ARG:HH11	1:I:466:PRO:HG3	1.85	0.42
1:J:96:PRO:HG3	1:J:130:LEU:HD11	2.02	0.42
1:J:557:PRO:O	1:J:558:ARG:HD2	2.19	0.42
1:M:333:PRO:HA	1:M:334:PRO:HD3	1.82	0.42
1:N:565:LEU:HD12	1:N:566:PRO:HD2	2.02	0.42
1:O:140:ASN:HA	1:O:257:GLY:O	2.20	0.42
1:O:350:PRO:O	1:O:352:LEU:N	2.53	0.42
1:P:308:ASN:HB3	1:P:311:GLN:CA	2.50	0.42
1:Q:102:GLU:HG3	1:T:66:SER:HA	2.02	0.42
1:S:308:ASN:N	1:S:311:GLN:OE1	2.52	0.42
1:S:391:ILE:HG13	1:S:406:ARG:HG3	2.02	0.42
1:T:504:ASP:OD1	1:T:505:LEU:N	2.53	0.42
1:U:73:SER:O	1:U:74:LYS:HE2	2.19	0.42
1:U:469:HIS:HD2	1:U:496:ASP:O	2.02	0.42
1:V:318:ILE:HB	1:X:337:ILE:HD13	2.01	0.42
1:W:349:TYR:OH	1:W:352:LEU:HA	2.19	0.42
1:X:146:GLN:HB3	1:X:151:LEU:HD21	2.02	0.42
1:Y:246:VAL:HG12	1:Y:248:VAL:HG23	2.01	0.42
1:Z:344:GLU:H	1:Z:344:GLU:CD	2.27	0.42
1:Z:464:ARG:HG2	1:Z:465:SER:N	2.33	0.42
1:a:380:LYS:HE2	1:a:409:TYR:CE2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:414:ILE:HD11	1:b:435:LEU:HD11	2.01	0.42
1:c:380:LYS:HE3	1:c:409:TYR:OH	2.19	0.42
1:d:247:LYS:HE2	1:d:264:ARG:HH21	1.85	0.42
1:d:269:ALA:O	1:d:270:ARG:HD3	2.19	0.42
1:d:380:LYS:NZ	1:d:411:GLU:OE1	2.53	0.42
1:e:280:ALA:HB3	1:e:283:ASP:OD1	2.19	0.42
1:f:332:LEU:HD23	1:f:332:LEU:HA	1.75	0.42
1:g:484:ILE:HG22	1:g:486:GLY:N	2.25	0.42
1:g:543:MET:SD	1:g:545:ARG:HB2	2.60	0.42
1:i:48:GLN:OE1	1:i:48:GLN:N	2.53	0.42
1:i:196:TYR:CD1	1:i:209:LEU:HB2	2.55	0.42
1:j:130:LEU:H	1:j:130:LEU:HD12	1.84	0.42
1:j:335:LEU:HB3	1:j:355:LEU:HD11	2.02	0.42
1:k:347:LYS:CB	1:l:52:ARG:HH12	2.28	0.42
1:k:437:VAL:HG23	1:k:491:VAL:HG22	2.01	0.42
1:l:332:LEU:HB2	1:l:557:PRO:HG2	2.02	0.42
1:l:349:TYR:HE2	1:m:318:ILE:O	2.02	0.42
1:n:419:ASP:C	1:p:583:ARG:HD3	2.44	0.42
1:o:336:VAL:HG23	1:o:554:ARG:HG2	2.01	0.42
1:o:357:THR:O	1:o:361:ILE:HG13	2.20	0.42
1:A:66:SER:H	1:P:143:MET:HE1	1.84	0.42
1:C:56:VAL:HB	1:C:75:ARG:HE	1.84	0.42
1:C:323:GLN:OE1	1:k:203:ASN:ND2	2.51	0.42
1:D:274:LYS:HG3	1:D:275:GLU:OE1	2.19	0.42
1:D:308:ASN:CG	1:D:311:GLN:HA	2.45	0.42
1:D:489:ARG:NE	1:D:493:ILE:HG13	2.29	0.42
1:E:62:GLY:H	1:E:66:SER:CA	2.33	0.42
1:F:534:ILE:HG23	1:F:536:GLU:OE2	2.20	0.42
1:G:348:THR:O	1:H:320:SER:N	2.53	0.42
1:I:53:ARG:HD3	1:I:403:TYR:HB3	2.02	0.42
1:I:548:ARG:HA	1:l:310:ASN:ND2	2.35	0.42
1:J:464:ARG:HH22	1:J:519:ASN:ND2	2.17	0.42
1:L:157:THR:HG22	1:L:158:PHE:N	2.34	0.42
1:L:353:GLU:O	1:L:357:THR:HG23	2.20	0.42
1:N:169:LYS:HD3	1:N:189:ASN:HD21	1.84	0.42
1:N:172:LEU:HD11	1:N:183:LEU:HB3	2.01	0.42
1:O:166:ILE:HG13	1:O:196:TYR:CD1	2.54	0.42
1:P:132:PHE:CZ	1:P:300:TYR:HB3	2.55	0.42
1:P:487:ASP:CG	1:P:488:ASP:H	2.28	0.42
1:Q:372:LEU:HD21	1:Q:512:VAL:HG21	2.01	0.42
1:Q:437:VAL:HA	1:Q:440:ILE:HG22	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:Q:516:ILE:HD12	1:Q:518:PRO:HD3	2.02	0.42
1:R:414:ILE:HD11	1:R:439:LYS:HG2	2.02	0.42
1:S:48:GLN:HG3	1:S:326:GLY:HA2	2.01	0.42
1:S:506:ARG:HH11	1:S:506:ARG:HG3	1.85	0.42
1:T:172:LEU:HD11	1:T:183:LEU:HB3	2.02	0.42
1:W:96:PRO:HG2	1:W:130:LEU:HD11	2.01	0.42
1:Y:477:ARG:CA	1:Z:449:GLN:HE22	2.28	0.42
1:Z:108:ILE:HD13	1:Z:129:PHE:HB2	2.01	0.42
1:a:233:LYS:HB2	1:a:233:LYS:HE2	1.88	0.42
1:b:474:THR:OG1	1:b:479:PRO:HG3	2.20	0.42
1:d:401:GLY:HA3	1:d:566:PRO:HD3	2.01	0.42
1:e:52:ARG:O	1:e:52:ARG:HD2	2.20	0.42
1:e:98:ILE:HG13	1:e:107:PHE:CE2	2.55	0.42
1:f:115:ALA:HA	1:f:128:ASN:HD21	1.83	0.42
1:f:168:LEU:HA	1:f:302:LEU:HD23	2.02	0.42
1:g:56:VAL:HG21	1:g:316:LEU:HD23	2.01	0.42
1:h:76:ASN:OD1	1:h:77:ILE:N	2.52	0.42
1:h:524:HIS:CG	1:h:525:PRO:HD2	2.54	0.42
1:i:453:TYR:CE2	1:i:457:LEU:HD11	2.54	0.42
1:j:267:ARG:HE	1:j:268:LEU:N	2.06	0.42
1:l:200:ARG:O	1:l:201:GLU:HB3	2.20	0.42
1:n:325:GLN:HE22	1:o:192:GLN:CD	2.27	0.42
1:o:57:TRP:CD2	1:o:74:LYS:HE2	2.55	0.42
1:o:451:THR:HG23	1:o:453:TYR:N	2.33	0.42
1:p:28:HIS:HE1	1:p:502:ILE:HG22	1.85	0.42
1:A:243:GLU:OE2	1:A:270:ARG:HB2	2.20	0.41
1:C:97:VAL:HG22	1:C:125:PHE:CE2	2.55	0.41
1:C:199:THR:HG22	1:C:201:GLU:H	1.84	0.41
1:C:532:GLY:N	1:C:560:ARG:O	2.53	0.41
1:D:389:HIS:HE1	1:E:241:ARG:HD3	1.85	0.41
1:D:593:VAL:HG11	1:F:590:GLU:O	2.19	0.41
1:G:140:ASN:OD1	1:G:258:ASN:ND2	2.53	0.41
1:G:193:TYR:CE1	1:G:212:HIS:HB2	2.54	0.41
1:G:347:LYS:HA	1:H:52:ARG:HH12	1.85	0.41
1:I:81:LEU:HD21	1:I:455:ALA:HB1	2.01	0.41
1:I:235:LEU:HD21	1:I:290:LEU:HD23	2.00	0.41
1:J:366:ASN:ND2	1:K:84:TYR:HA	2.35	0.41
1:L:479:PRO:HG2	1:L:501:ARG:HE	1.85	0.41
1:M:168:LEU:HD23	1:M:302:LEU:HD23	2.00	0.41
1:M:331:THR:HA	1:M:558:ARG:HG2	2.01	0.41
1:N:169:LYS:HB3	1:N:301:SER:OG	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:375:ARG:HE	1:O:563:ASN:HB2	1.85	0.41
1:P:64:GLY:H	1:P:67:GLY:H	1.67	0.41
1:P:314:MET:HA	1:P:314:MET:HE2	2.02	0.41
1:P:349:TYR:OH	1:P:352:LEU:HD23	2.19	0.41
1:P:501:ARG:NH1	1:P:501:ARG:HB2	2.35	0.41
1:Q:210:LYS:NZ	1:U:208:GLN:HE21	2.18	0.41
1:Q:267:ARG:HD2	1:Q:267:ARG:N	2.35	0.41
1:S:94:LEU:N	1:S:304:ALA:O	2.46	0.41
1:S:511:ILE:CG1	1:S:571:ILE:HB	2.49	0.41
1:T:330:PRO:HB3	1:U:165:ARG:HB3	2.01	0.41
1:T:391:ILE:HG22	1:T:392:GLU:OE2	2.20	0.41
1:W:51:ILE:HG21	1:W:400:VAL:HG21	2.02	0.41
1:W:359:TYR:OH	1:W:536:GLU:OE2	2.22	0.41
1:X:490:THR:HG21	1:X:497:TYR:CE2	2.55	0.41
1:Z:206:LEU:O	1:Z:207:MET:HE2	2.19	0.41
1:Z:337:ILE:HG21	1:Z:349:TYR:CE1	2.55	0.41
1:a:527:GLN:O	1:a:564:PHE:HB2	2.20	0.41
1:a:541:PHE:HZ	1:d:311:GLN:HE21	1.68	0.41
1:c:48:GLN:OE1	1:c:48:GLN:N	2.53	0.41
1:c:90:ASN:HB3	1:c:93:GLU:OE1	2.20	0.41
1:e:55:LEU:HD23	1:e:74:LYS:CB	2.50	0.41
1:e:330:PRO:HG3	1:f:165:ARG:HD3	2.02	0.41
1:e:590:GLU:HA	1:i:588:VAL:HG13	2.02	0.41
1:f:247:LYS:HB2	1:f:265:ALA:H	1.85	0.41
1:g:362:GLN:NE2	1:j:87:LEU:O	2.50	0.41
1:g:496:ASP:OD2	1:g:496:ASP:N	2.52	0.41
1:h:290:LEU:HA	1:h:293:LEU:HD13	2.01	0.41
1:h:593:VAL:O	1:h:593:VAL:HG13	2.20	0.41
1:i:557:PRO:C	1:i:558:ARG:HD3	2.45	0.41
1:k:58:GLU:OE1	1:k:58:GLU:N	2.50	0.41
1:k:66:SER:O	1:k:70:GLN:N	2.51	0.41
1:k:84:TYR:CD2	1:o:366:ASN:ND2	2.87	0.41
1:k:357:THR:O	1:k:361:ILE:HG12	2.20	0.41
1:l:104:ASP:OD1	1:l:105:GLU:N	2.53	0.41
1:l:209:LEU:HD11	1:l:211:PHE:HB2	2.02	0.41
1:l:347:LYS:HA	1:l:347:LYS:HD2	1.75	0.41
1:m:379:LEU:HD23	1:m:379:LEU:HA	1.82	0.41
1:m:565:LEU:HD11	1:m:567:ILE:HD12	2.01	0.41
1:n:83:ASP:CG	1:n:84:TYR:N	2.78	0.41
1:n:172:LEU:HD12	1:n:184:PHE:O	2.20	0.41
1:n:426:ALA:N	1:o:431:ASP:OD1	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:346:ASP:HA	1:o:349:TYR:O	2.20	0.41
1:A:134:GLU:HB3	1:X:264:ARG:O	2.20	0.41
1:A:331:THR:O	1:B:305:ARG:NH1	2.52	0.41
1:B:202:TYR:HE2	1:P:212:HIS:HD2	1.66	0.41
1:B:246:VAL:HG22	1:B:248:VAL:HG23	2.01	0.41
1:B:440:ILE:HD12	1:B:440:ILE:HA	1.92	0.41
1:D:148:PRO:HA	1:D:151:LEU:HB2	2.01	0.41
1:D:216:GLY:HA3	1:D:243:GLU:OE2	2.20	0.41
1:D:472:ILE:HB	1:D:499:ILE:HD13	2.02	0.41
1:D:547:GLN:CB	1:X:153:LYS:HZ1	2.32	0.41
1:F:440:ILE:HD12	1:F:440:ILE:HA	1.89	0.41
1:H:142:LEU:O	1:H:143:MET:HB3	2.20	0.41
1:I:183:LEU:HD11	1:I:298:VAL:HG21	2.03	0.41
1:I:442:GLU:OE1	1:I:443:MET:HE2	2.19	0.41
1:I:592:GLN:NE2	1:L:593:VAL:HG12	2.35	0.41
1:J:265:ALA:O	1:J:266:LEU:HD12	2.19	0.41
1:K:379:LEU:HD22	1:K:383:LEU:HD12	2.02	0.41
1:L:329:ILE:HA	1:L:330:PRO:HD3	1.88	0.41
1:M:471:ALA:HB2	1:M:516:ILE:HD13	2.01	0.41
1:N:330:PRO:HB3	1:O:165:ARG:HB3	2.02	0.41
1:O:346:ASP:OD1	1:O:347:LYS:HD3	2.20	0.41
1:O:391:ILE:HG22	1:O:392:GLU:N	2.35	0.41
1:R:170:GLN:HA	1:R:188:VAL:HG22	2.02	0.41
1:U:235:LEU:HD21	1:U:289:ALA:HB1	2.02	0.41
1:U:342:MET:SD	1:U:343:VAL:HG13	2.60	0.41
1:V:163:ASP:N	1:V:305:ARG:O	2.51	0.41
1:Y:94:LEU:HD22	1:Y:141:LEU:HG	2.02	0.41
1:Y:527:GLN:O	1:Y:564:PHE:HB2	2.20	0.41
1:a:119:LYS:HD2	1:a:123:ASP:O	2.20	0.41
1:d:368:ALA:HB2	1:d:561:TYR:CZ	2.54	0.41
1:d:509:ASP:HB3	1:d:573:VAL:O	2.21	0.41
1:d:568:MET:HE2	1:d:568:MET:HB3	1.78	0.41
1:g:433:GLN:OE1	1:g:484:ILE:HA	2.20	0.41
1:g:479:PRO:HB3	1:g:501:ARG:NH2	2.29	0.41
1:h:541:PHE:HE2	1:h:543:MET:HB2	1.84	0.41
1:j:163:ASP:CG	1:j:164:SER:N	2.78	0.41
1:k:84:TYR:HH	1:o:370:THR:HG1	1.51	0.41
1:k:491:VAL:HB	1:k:497:TYR:CE1	2.55	0.41
1:l:246:VAL:C	1:l:247:LYS:HD2	2.45	0.41
1:m:308:ASN:ND2	1:m:312:LEU:H	2.18	0.41
1:m:375:ARG:HH22	1:m:397:LEU:HD11	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:514:THR:HG21	1:n:528:HIS:ND1	2.35	0.41
1:p:53:ARG:HD3	1:p:403:TYR:CD1	2.55	0.41
1:p:204:PHE:O	1:p:205:ARG:HD2	2.20	0.41
1:A:90:ASN:CG	1:A:120:GLN:HE22	2.28	0.41
1:A:93:GLU:HA	1:A:305:ARG:HA	2.02	0.41
1:B:170:GLN:H	1:B:301:SER:HG	1.68	0.41
1:D:337:ILE:HG23	1:E:318:ILE:HG12	2.02	0.41
1:F:524:HIS:CE1	1:F:526:LEU:HD23	2.55	0.41
1:G:429:GLN:O	1:G:432:ILE:HG12	2.20	0.41
1:I:53:ARG:NH1	1:I:55:LEU:HD21	2.34	0.41
1:J:108:ILE:HG23	1:J:129:PHE:O	2.19	0.41
1:M:169:LYS:HA	1:M:189:ASN:ND2	2.35	0.41
1:M:474:THR:C	1:M:507:MET:HE1	2.46	0.41
1:N:162:LEU:HD23	1:N:163:ASP:O	2.21	0.41
1:N:164:SER:OG	1:N:165:ARG:N	2.53	0.41
1:O:399:GLY:HA2	1:O:564:PHE:HA	2.02	0.41
1:Q:254:VAL:HG23	1:Q:255:GLU:OE1	2.20	0.41
1:S:422:ASN:O	1:S:586:LEU:HD21	2.21	0.41
1:T:480:GLN:NE2	1:U:445:TYR:CZ	2.83	0.41
1:V:36:ARG:NH2	1:V:517:LEU:O	2.53	0.41
1:X:540:ASP:HB2	1:X:553:ILE:HG12	2.01	0.41
1:Y:219:GLU:HG2	1:Y:236:PHE:HB3	2.02	0.41
1:Y:223:THR:OG1	1:Y:226:GLY:O	2.36	0.41
1:Y:420:LEU:H	1:c:583:ARG:HD3	1.85	0.41
1:a:94:LEU:HD12	1:a:145:ALA:HB3	2.02	0.41
1:a:506:ARG:NH2	1:d:84:TYR:HB2	2.35	0.41
1:a:583:ARG:NH2	1:d:420:LEU:H	2.17	0.41
1:d:311:GLN:C	1:d:312:LEU:HD12	2.45	0.41
1:d:338:VAL:HB	1:d:552:GLU:HG2	2.02	0.41
1:e:198:ALA:HB2	1:e:207:MET:HE1	2.01	0.41
1:e:269:ALA:O	1:e:270:ARG:HD3	2.19	0.41
1:f:547:GLN:HG2	1:f:547:GLN:O	2.20	0.41
1:g:97:VAL:CG1	1:g:99:GLN:HE22	2.25	0.41
1:g:478:LEU:N	1:g:479:PRO:HD2	2.36	0.41
1:h:28:HIS:CG	1:h:29:GLU:H	2.38	0.41
1:h:457:LEU:HD23	1:h:457:LEU:HA	1.91	0.41
1:j:391:ILE:HG22	1:j:392:GLU:HG2	2.01	0.41
1:n:51:ILE:HD12	1:n:400:VAL:HG22	2.02	0.41
1:n:349:TYR:OH	1:n:352:LEU:HD13	2.20	0.41
1:o:116:GLN:CD	1:o:116:GLN:H	2.27	0.41
1:o:150:ARG:HA	1:o:153:LYS:HD3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:332:LEU:HD22	1:o:559:TYR:CE1	2.55	0.41
1:A:250:GLY:HA3	1:A:261:THR:HG22	2.02	0.41
1:A:449:GLN:OE1	1:E:476:MET:HB2	2.20	0.41
1:C:56:VAL:O	1:C:75:ARG:HG2	2.21	0.41
1:C:440:ILE:HG23	1:C:513:MET:HE1	2.02	0.41
1:E:307:THR:HG23	1:E:307:THR:O	2.21	0.41
1:G:249:ASP:OD1	1:G:250:GLY:N	2.54	0.41
1:I:589:ASN:HB3	1:I:591:THR:HG23	2.02	0.41
1:J:59:GLY:HA3	1:J:314:MET:HE2	2.01	0.41
1:J:196:TYR:HE1	1:J:209:LEU:HB2	1.82	0.41
1:L:220:GLU:H	1:L:220:GLU:CD	2.28	0.41
1:N:90:ASN:HB2	1:N:93:GLU:HG2	2.03	0.41
1:R:411:GLU:HA	1:R:570:VAL:O	2.21	0.41
1:R:461:PHE:HE1	1:R:526:LEU:HD12	1.84	0.41
1:S:544:ILE:HD11	1:S:547:GLN:HA	2.03	0.41
1:U:28:HIS:HA	1:U:364:MET:HE2	2.02	0.41
1:U:201:GLU:HG3	1:U:202:TYR:CD2	2.56	0.41
1:U:392:GLU:HG2	1:U:392:GLU:O	2.19	0.41
1:U:592:GLN:NE2	1:X:593:VAL:O	2.54	0.41
1:V:465:SER:HB3	1:V:467:LYS:NZ	2.36	0.41
1:W:171:LEU:HD12	1:W:188:VAL:HG11	2.02	0.41
1:Y:57:TRP:CD1	1:Y:74:LYS:HG2	2.56	0.41
1:Z:398:GLU:HG2	1:Z:399:GLY:N	2.36	0.41
1:Z:464:ARG:HG2	1:Z:465:SER:H	1.84	0.41
1:b:186:LEU:HD21	1:b:217:LEU:HD21	2.02	0.41
1:d:163:ASP:HB2	1:d:305:ARG:O	2.19	0.41
1:e:36:ARG:HH22	1:e:527:GLN:HG2	1.84	0.41
1:e:531:LEU:HD13	1:e:561:TYR:CD2	2.56	0.41
1:e:544:ILE:HA	1:e:548:ARG:O	2.20	0.41
1:e:578:GLU:O	1:e:582:GLN:N	2.51	0.41
1:f:545:ARG:HH21	1:g:153:LYS:CE	2.34	0.41
1:g:56:VAL:HG23	1:g:317:LEU:O	2.21	0.41
1:g:531:LEU:HD12	1:g:531:LEU:O	2.19	0.41
1:h:46:GLY:HA3	1:h:328:MET:HA	2.02	0.41
1:h:98:ILE:HG12	1:h:126:ASP:O	2.20	0.41
1:h:247:LYS:HZ1	1:h:264:ARG:HH21	1.66	0.41
1:i:115:ALA:HA	1:i:128:ASN:OD1	2.20	0.41
1:i:235:LEU:HG	1:i:240:TYR:HB2	2.02	0.41
1:j:223:THR:HG22	1:j:226:GLY:O	2.21	0.41
1:k:131:LYS:HE3	1:k:131:LYS:HB3	1.86	0.41
1:k:204:PHE:CE2	1:k:205:ARG:HD3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:n:146:GLN:HB3	1:n:151:LEU:HD21	2.02	0.41
1:A:560:ARG:HH12	1:B:165:ARG:HH22	1.69	0.41
1:B:471:ALA:O	1:B:513:MET:HA	2.20	0.41
1:C:166:ILE:HG22	1:C:302:LEU:HD11	2.02	0.41
1:C:365:ARG:HH12	1:F:81:LEU:HD12	1.86	0.41
1:E:531:LEU:HD22	1:E:561:TYR:CE1	2.55	0.41
1:F:146:GLN:HB3	1:F:151:LEU:HD22	2.03	0.41
1:G:359:TYR:CE1	1:G:557:PRO:HB3	2.56	0.41
1:I:61:THR:N	1:I:66:SER:HA	2.26	0.41
1:I:504:ASP:OD1	1:I:506:ARG:NH2	2.52	0.41
1:J:338:VAL:HG21	1:J:545:ARG:HH22	1.85	0.41
1:K:60:TRP:CH2	1:R:158:PHE:HA	2.56	0.41
1:N:237:ASP:OD1	1:N:238:LEU:N	2.53	0.41
1:N:273:ASP:OD1	1:N:277:LYS:N	2.41	0.41
1:O:54:ASN:C	1:O:55:LEU:HD12	2.45	0.41
1:O:342:MET:HE2	1:O:342:MET:HB3	1.95	0.41
1:O:543:MET:HE1	1:O:545:ARG:CZ	2.50	0.41
1:P:98:ILE:HG12	1:P:126:ASP:O	2.20	0.41
1:P:140:ASN:ND2	1:P:256:ASN:O	2.39	0.41
1:S:352:LEU:O	1:S:355:LEU:HG	2.21	0.41
1:S:536:GLU:HB2	1:S:558:ARG:HE	1.85	0.41
1:T:328:MET:O	1:U:165:ARG:NE	2.41	0.41
1:U:373:LEU:HD12	1:U:506:ARG:HD3	2.03	0.41
1:V:310:ASN:OD1	1:V:311:GLN:N	2.53	0.41
1:V:420:LEU:O	1:X:583:ARG:NH1	2.53	0.41
1:V:506:ARG:HD3	1:W:84:TYR:CE1	2.56	0.41
1:X:464:ARG:NH1	1:X:464:ARG:HB2	2.36	0.41
1:Y:337:ILE:HG12	1:Y:338:VAL:N	2.35	0.41
1:Z:448:ASP:OD1	1:Z:453:TYR:HB3	2.21	0.41
1:b:338:VAL:HG22	1:c:317:LEU:HD11	2.02	0.41
1:b:477:ARG:HH11	1:b:576:LEU:HD23	1.86	0.41
1:c:41:THR:O	1:c:43:ASP:N	2.49	0.41
1:c:142:LEU:HD23	1:c:142:LEU:HA	1.87	0.41
1:c:422:ASN:HD22	1:c:428:LYS:HG2	1.86	0.41
1:c:434:GLY:HA2	1:c:488:ASP:OD2	2.20	0.41
1:e:220:GLU:OE1	1:i:381:SER:HA	2.21	0.41
1:e:534:ILE:HG13	1:e:558:ARG:NH1	2.36	0.41
1:g:216:GLY:HA2	1:g:243:GLU:HA	2.03	0.41
1:h:146:GLN:HA	1:h:150:ARG:HG3	2.02	0.41
1:h:560:ARG:HH12	1:i:165:ARG:NH2	2.19	0.41
1:j:247:LYS:NZ	1:j:264:ARG:HG2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:k:82:LEU:O	1:o:505:LEU:HD22	2.21	0.41
1:l:147:THR:OG1	1:l:150:ARG:HG3	2.19	0.41
1:l:541:PHE:CE2	1:l:543:MET:HB2	2.56	0.41
1:m:382:TYR:O	1:p:241:ARG:NH1	2.53	0.41
1:m:457:LEU:HD21	1:m:464:ARG:NH2	2.36	0.41
1:o:83:ASP:OD1	1:o:85:THR:N	2.44	0.41
1:o:317:LEU:HD12	1:o:318:ILE:H	1.86	0.41
1:p:513:MET:SD	1:p:513:MET:N	2.94	0.41
1:A:505:LEU:HD21	1:B:82:LEU:HD23	2.01	0.41
1:A:593:VAL:HG11	1:E:589:ASN:OD1	2.20	0.41
1:B:322:VAL:O	1:B:323:GLN:NE2	2.50	0.41
1:D:339:LYS:HZ1	1:D:343:VAL:N	2.09	0.41
1:D:439:LYS:NZ	1:D:443:MET:HE3	2.36	0.41
1:D:539:VAL:HG22	1:D:554:ARG:HB2	2.01	0.41
1:E:531:LEU:HD13	1:E:561:TYR:CD1	2.56	0.41
1:G:347:LYS:HD2	1:H:52:ARG:HH22	1.84	0.41
1:I:336:VAL:HG22	1:I:554:ARG:NE	2.34	0.41
1:J:367:ASN:C	1:J:367:ASN:HD22	2.28	0.41
1:K:406:ARG:NH2	1:K:450:LEU:O	2.53	0.41
1:S:433:GLN:HA	1:S:436:ILE:HG22	2.02	0.41
1:T:252:MET:SD	1:T:259:GLY:HA3	2.60	0.41
1:V:212:HIS:CE1	1:Z:202:TYR:CZ	3.08	0.41
1:V:336:VAL:CG1	1:V:554:ARG:HG2	2.50	0.41
1:W:87:LEU:HB3	1:W:88:GLU:H	1.71	0.41
1:W:87:LEU:C	1:W:88:GLU:HG3	2.45	0.41
1:W:193:TYR:O	1:W:211:PHE:HD2	2.04	0.41
1:X:163:ASP:HA	1:X:307:THR:HG23	2.02	0.41
1:Y:526:LEU:HA	1:Y:565:LEU:HD21	2.03	0.41
1:a:222:THR:HG22	1:a:228:GLU:HG2	2.03	0.41
1:d:58:GLU:CD	1:d:59:GLY:H	2.29	0.41
1:d:258:ASN:HD21	1:i:66:SER:C	2.29	0.41
1:f:108:ILE:HD12	1:f:129:PHE:HB2	2.02	0.41
1:g:158:PHE:CE2	1:n:60:TRP:HB3	2.55	0.41
1:g:351:ARG:HA	1:g:351:ARG:CZ	2.50	0.41
1:h:57:TRP:HE3	1:h:75:ARG:NE	2.18	0.41
1:h:79:GLN:OE1	1:h:86:THR:HG21	2.20	0.41
1:h:349:TYR:HA	1:h:350:PRO:HD3	1.89	0.41
1:h:445:TYR:CE2	1:h:495:TYR:HE2	2.39	0.41
1:i:422:ASN:HB3	1:i:431:ASP:OD2	2.20	0.41
1:i:516:ILE:HG12	1:i:517:LEU:H	1.85	0.41
1:k:177:LYS:HB2	1:k:293:LEU:HD23	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:k:308:ASN:CG	1:k:311:GLN:H	2.29	0.41
1:m:502:ILE:HG13	1:m:504:ASP:H	1.85	0.41
1:n:156:MET:HG3	1:n:156:MET:O	2.21	0.41
1:n:389:HIS:O	1:n:407:PRO:HD2	2.21	0.41
1:o:330:PRO:HD2	1:o:560:ARG:HG3	2.03	0.41
1:A:475:ASP:OD1	1:A:478:LEU:HD23	2.20	0.41
1:B:101:GLY:H	1:B:104:ASP:CG	2.28	0.41
1:B:390:PRO:O	1:B:393:SER:OG	2.24	0.41
1:B:415:ASP:OD2	1:B:418:ASN:ND2	2.41	0.41
1:B:437:VAL:HA	1:B:440:ILE:HG22	2.03	0.41
1:B:535:PRO:O	1:B:558:ARG:NH2	2.49	0.41
1:C:167:ALA:O	1:C:302:LEU:HD12	2.21	0.41
1:C:428:LYS:HZ2	1:C:580:ILE:HD13	1.86	0.41
1:D:464:ARG:NH1	1:D:466:PRO:HG3	2.36	0.41
1:F:169:LYS:HA	1:F:189:ASN:OD1	2.21	0.41
1:F:547:GLN:O	1:F:548:ARG:HD2	2.21	0.41
1:G:310:ASN:C	1:G:311:GLN:HG2	2.46	0.41
1:G:589:ASN:OD1	1:G:589:ASN:O	2.38	0.41
1:H:246:VAL:HG23	1:H:266:LEU:HD21	2.03	0.41
1:H:560:ARG:NH1	1:I:190:ARG:HD3	2.27	0.41
1:J:339:LYS:NZ	1:J:349:TYR:HD1	2.19	0.41
1:L:57:TRP:HH2	1:L:60:TRP:CE3	2.39	0.41
1:L:150:ARG:HD3	1:L:156:MET:HE1	2.02	0.41
1:L:440:ILE:HD12	1:L:440:ILE:HA	1.89	0.41
1:P:392:GLU:OE2	1:P:403:TYR:HA	2.20	0.41
1:Q:239:GLY:HA3	1:Q:274:LYS:HZ2	1.84	0.41
1:R:437:VAL:HG23	1:R:491:VAL:HA	2.01	0.41
1:U:126:ASP:OD1	1:U:127:THR:N	2.54	0.41
1:U:544:ILE:O	1:U:544:ILE:HG23	2.21	0.41
1:V:336:VAL:HG12	1:V:554:ARG:HA	2.02	0.41
1:W:410:ASN:OD1	1:W:411:GLU:N	2.54	0.41
1:Y:371:THR:HG21	1:Y:561:TYR:HB2	2.03	0.41
1:Z:203:ASN:OD1	1:Z:204:PHE:N	2.50	0.41
1:a:93:GLU:HG2	1:a:95:ILE:HG12	2.02	0.41
1:b:153:LYS:HA	1:b:153:LYS:HD2	1.74	0.41
1:b:365:ARG:HG3	1:b:502:ILE:HD11	2.02	0.41
1:c:273:ASP:OD1	1:c:276:GLY:N	2.53	0.41
1:d:200:ARG:NH2	1:i:324:LYS:HZ1	2.19	0.41
1:e:219:GLU:HA	1:e:236:PHE:CG	2.56	0.41
1:f:311:GLN:C	1:f:312:LEU:HD12	2.46	0.41
1:f:329:ILE:HG21	1:f:534:ILE:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:414:ILE:HD11	1:f:439:LYS:HG2	2.03	0.41
1:g:177:LYS:HB3	1:g:231:LEU:HD22	2.03	0.41
1:i:534:ILE:HB	1:i:558:ARG:HB2	2.03	0.41
1:l:163:ASP:HA	1:l:307:THR:OG1	2.21	0.41
1:m:57:TRP:CH2	1:m:60:TRP:HE3	2.37	0.41
1:m:97:VAL:HG23	1:m:125:PHE:HB2	2.03	0.41
1:p:86:THR:HG23	1:p:87:LEU:HG	2.02	0.41
1:B:60:TRP:HA	1:B:72:ILE:HD11	2.02	0.41
1:B:474:THR:O	1:B:502:ILE:HG22	2.20	0.41
1:C:527:GLN:O	1:C:564:PHE:HB2	2.21	0.41
1:D:235:LEU:CD2	1:D:289:ALA:HB1	2.51	0.41
1:D:448:ASP:HA	1:D:451:THR:HG22	2.02	0.41
1:E:89:THR:HG21	1:E:316:LEU:HD11	2.01	0.41
1:E:157:THR:OG1	1:E:160:ASP:OD1	2.39	0.41
1:F:483:GLN:NE2	1:F:485:ASN:HD21	2.19	0.41
1:H:56:VAL:O	1:H:75:ARG:HG2	2.20	0.41
1:J:202:TYR:CE1	1:l:193:TYR:CG	3.08	0.41
1:K:218:GLY:O	1:K:236:PHE:HE2	2.03	0.41
1:M:94:LEU:HD11	1:M:306:LEU:HB2	2.02	0.41
1:O:57:TRP:HH2	1:O:60:TRP:HB3	1.86	0.41
1:O:440:ILE:O	1:O:444:VAL:HG23	2.20	0.41
1:P:252:MET:HA	1:P:252:MET:HE3	2.01	0.41
1:Q:210:LYS:HG3	1:Q:210:LYS:O	2.21	0.41
1:Q:313:GLU:C	1:Q:314:MET:HE2	2.46	0.41
1:R:65:LEU:HB2	1:R:68:GLU:HA	2.03	0.41
1:U:338:VAL:HG22	1:U:552:GLU:HG2	2.03	0.41
1:V:171:LEU:HD11	1:V:211:PHE:CE2	2.55	0.41
1:V:336:VAL:HA	1:V:553:ILE:O	2.21	0.41
1:Y:94:LEU:HG	1:Y:145:ALA:HB3	2.02	0.41
1:Y:97:VAL:HG23	1:Y:125:PHE:CD2	2.56	0.41
1:Y:213:THR:OG1	1:Y:214:SER:N	2.52	0.41
1:Z:476:MET:HE2	1:Z:476:MET:N	2.36	0.41
1:a:577:GLU:HA	1:a:580:ILE:HG22	2.03	0.41
1:b:81:LEU:CA	1:d:365:ARG:HH22	2.31	0.41
1:b:338:VAL:HG22	1:c:317:LEU:CD1	2.51	0.41
1:b:394:ASN:H	1:b:402:GLN:NE2	2.18	0.41
1:c:57:TRP:CZ3	1:c:70:GLN:HB2	2.55	0.41
1:d:119:LYS:HE3	1:d:121:GLY:O	2.20	0.41
1:d:228:GLU:OE1	1:d:233:LYS:NZ	2.54	0.41
1:d:472:ILE:HA	1:d:513:MET:HE1	2.03	0.41
1:d:593:VAL:HG13	1:d:593:VAL:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:414:ILE:HD12	1:e:414:ILE:HA	1.94	0.41
1:e:467:LYS:HE3	1:e:496:ASP:CG	2.46	0.41
1:e:514:THR:HG21	1:e:528:HIS:CE1	2.56	0.41
1:e:531:LEU:HD13	1:e:561:TYR:CE2	2.56	0.41
1:f:219:GLU:HB2	1:f:239:GLY:HA2	2.02	0.41
1:g:207:MET:N	1:g:252:MET:O	2.48	0.41
1:g:414:ILE:HD12	1:g:414:ILE:HA	1.94	0.41
1:g:539:VAL:HG22	1:g:541:PHE:HD1	1.86	0.41
1:h:52:ARG:NH2	1:j:347:LYS:HD2	2.36	0.41
1:j:453:TYR:CE1	1:j:457:LEU:HD11	2.56	0.41
1:k:171:LEU:HD12	1:k:188:VAL:HG11	2.03	0.41
1:m:359:TYR:CE1	1:m:557:PRO:HB3	2.56	0.41
1:m:588:VAL:CG1	1:p:590:GLU:HA	2.51	0.41
1:o:400:VAL:H	1:o:564:PHE:HD1	1.68	0.41
1:A:113:LEU:HG	1:A:116:GLN:HE22	1.84	0.41
1:A:128:ASN:OD1	1:A:129:PHE:N	2.53	0.41
1:A:359:TYR:CE2	1:A:557:PRO:HB3	2.55	0.41
1:A:388:PRO:HG3	1:A:450:LEU:HD12	2.03	0.41
1:A:419:ASP:OD1	1:E:582:GLN:HA	2.21	0.41
1:A:506:ARG:NH1	1:B:84:TYR:HB3	2.36	0.41
1:B:55:LEU:HD23	1:B:56:VAL:N	2.36	0.41
1:B:172:LEU:HD23	1:B:298:VAL:HB	2.01	0.41
1:B:544:ILE:HG21	1:o:544:ILE:HB	2.03	0.41
1:C:97:VAL:HG21	1:C:147:THR:HG22	2.02	0.41
1:C:177:LYS:NZ	1:C:231:LEU:O	2.35	0.41
1:C:390:PRO:HD2	1:C:393:SER:HB3	2.03	0.41
1:D:78:LEU:HD12	1:D:78:LEU:HA	1.88	0.41
1:E:205:ARG:HA	1:E:205:ARG:HD2	1.81	0.41
1:F:212:HIS:ND1	1:F:247:LYS:HA	2.35	0.41
1:F:307:THR:O	1:F:307:THR:HG23	2.20	0.41
1:F:478:LEU:HD23	1:F:511:ILE:HD11	2.03	0.41
1:G:262:SER:CB	1:R:264:ARG:HD2	2.51	0.41
1:G:305:ARG:HH22	1:K:331:THR:HB	1.85	0.41
1:I:60:TRP:HA	1:I:66:SER:HB3	2.03	0.41
1:I:82:LEU:HG	1:I:82:LEU:O	2.21	0.41
1:I:97:VAL:HG22	1:I:125:PHE:CE1	2.56	0.41
1:I:252:MET:HE2	1:I:259:GLY:HA3	2.01	0.41
1:I:433:GLN:HG3	1:I:484:ILE:HG12	2.01	0.41
1:J:389:HIS:O	1:J:407:PRO:HD2	2.21	0.41
1:K:420:LEU:HD11	1:K:431:ASP:OD2	2.20	0.41
1:K:443:MET:HE2	1:K:443:MET:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:L:524:HIS:CE1	1:L:526:LEU:HD23	2.55	0.41
1:M:81:LEU:HD21	1:M:455:ALA:HB1	2.02	0.41
1:M:351:ARG:HD2	1:M:351:ARG:HA	1.91	0.41
1:M:355:LEU:HD12	1:M:356:THR:N	2.35	0.41
1:M:414:ILE:HD11	1:M:439:LYS:HG2	2.02	0.41
1:O:57:TRP:HE1	1:O:319:ASP:CG	2.28	0.41
1:Q:237:ASP:OD1	1:Q:238:LEU:N	2.54	0.41
1:Q:308:ASN:ND2	1:Q:311:GLN:HA	2.36	0.41
1:Q:345:ASP:OD2	1:Q:348:THR:HG22	2.21	0.41
1:R:28:HIS:CG	1:R:365:ARG:HH12	2.39	0.41
1:R:128:ASN:OD1	1:R:129:PHE:N	2.42	0.41
1:S:200:ARG:NH1	1:S:207:MET:SD	2.73	0.41
1:S:439:LYS:HD2	1:S:439:LYS:HA	1.97	0.41
1:S:447:ALA:HB2	1:S:569:LEU:HD11	2.02	0.41
1:S:453:TYR:HE1	1:S:526:LEU:HD12	1.85	0.41
1:S:590:GLU:O	1:S:592:GLN:N	2.43	0.41
1:T:116:GLN:OE1	1:T:116:GLN:N	2.53	0.41
1:T:476:MET:HB2	1:U:449:GLN:OE1	2.21	0.41
1:T:545:ARG:O	1:T:547:GLN:N	2.54	0.41
1:U:362:GLN:HB2	1:X:87:LEU:HD22	2.03	0.41
1:U:536:GLU:OE1	1:U:558:ARG:NH2	2.54	0.41
1:V:82:LEU:HD23	1:V:82:LEU:HA	1.94	0.41
1:V:219:GLU:HG3	1:V:220:GLU:OE2	2.21	0.41
1:V:231:LEU:O	1:V:232:LEU:HD23	2.21	0.41
1:V:422:ASN:OD1	1:V:423:LEU:N	2.53	0.41
1:V:506:ARG:HD3	1:W:84:TYR:CD1	2.56	0.41
1:W:93:GLU:OE2	1:W:305:ARG:NH1	2.54	0.41
1:W:507:MET:HE2	1:W:507:MET:HB2	1.83	0.41
1:X:66:SER:OG	1:Z:143:MET:HE2	2.21	0.41
1:X:377:ASP:O	1:X:380:LYS:HB3	2.21	0.41
1:Y:336:VAL:HG12	1:Z:315:GLY:HA3	2.03	0.41
1:Y:336:VAL:HG21	1:Y:554:ARG:HG2	2.02	0.41
1:Z:68:GLU:HB3	1:Z:69:LYS:H	1.75	0.41
1:Z:75:ARG:CZ	1:Z:79:GLN:NE2	2.84	0.41
1:Z:98:ILE:HG21	1:Z:126:ASP:HB2	2.03	0.41
1:a:223:THR:HG23	1:a:225:ALA:H	1.86	0.41
1:a:330:PRO:HB3	1:d:165:ARG:HD3	2.03	0.41
1:a:404:TYR:OH	1:a:456:ALA:O	2.37	0.41
1:a:532:GLY:O	1:a:559:TYR:HA	2.20	0.41
1:b:78:LEU:HD12	1:b:78:LEU:O	2.21	0.41
1:b:166:ILE:O	1:b:196:TYR:HD2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:508:LYS:HA	1:b:508:LYS:HD2	1.72	0.41
1:c:524:HIS:CG	1:c:525:PRO:HD2	2.56	0.41
1:d:411:GLU:HG3	1:d:570:VAL:HG13	2.03	0.41
1:f:49:LEU:O	1:f:324:LYS:HA	2.20	0.41
1:f:108:ILE:HG13	1:f:129:PHE:O	2.21	0.41
1:f:120:GLN:HB3	1:f:125:PHE:HE1	1.86	0.41
1:g:328:MET:CG	1:j:165:ARG:HH12	2.31	0.41
1:h:57:TRP:CD1	1:h:74:LYS:HD3	2.55	0.41
1:h:383:LEU:HD11	1:h:407:PRO:HB2	2.03	0.41
1:h:536:GLU:OE1	1:h:536:GLU:N	2.54	0.41
1:i:79:GLN:HE22	1:i:391:ILE:H	1.68	0.41
1:i:338:VAL:C	1:i:339:LYS:HD3	2.46	0.41
1:i:527:GLN:O	1:i:564:PHE:HB2	2.21	0.41
1:j:57:TRP:CH2	1:j:317:LEU:HD23	2.56	0.41
1:j:290:LEU:C	1:j:293:LEU:HD23	2.46	0.41
1:j:490:THR:HG22	1:j:491:VAL:HG13	2.02	0.41
1:k:346:ASP:O	1:k:347:LYS:HD3	2.21	0.41
1:k:531:LEU:HD13	1:k:561:TYR:CD1	2.56	0.41
1:k:580:ILE:HD13	1:l:442:GLU:HB2	2.03	0.41
1:l:531:LEU:HD13	1:l:561:TYR:CE1	2.56	0.41
1:m:467:LYS:HE3	1:m:496:ASP:CG	2.46	0.41
1:p:196:TYR:CD1	1:p:209:LEU:HB2	2.56	0.41
1:p:273:ASP:OD1	1:p:276:GLY:N	2.51	0.41
1:A:28:HIS:CE1	1:A:502:ILE:HD13	2.56	0.41
1:B:69:LYS:HD2	1:B:70:GLN:N	2.36	0.41
1:C:238:LEU:HD11	1:C:285:ARG:HH21	1.85	0.41
1:C:328:MET:HE1	1:F:165:ARG:HB2	2.03	0.41
1:C:470:VAL:O	1:C:497:TYR:HA	2.21	0.41
1:C:554:ARG:HH21	1:F:311:GLN:HB3	1.87	0.41
1:D:310:ASN:HD21	1:i:548:ARG:HA	1.83	0.41
1:D:433:GLN:NE2	1:D:437:VAL:HG21	2.36	0.41
1:G:153:LYS:HB3	1:N:547:GLN:HE22	1.86	0.41
1:G:165:ARG:HA	1:K:328:MET:HE1	2.03	0.41
1:G:457:LEU:HD22	1:G:526:LEU:HD13	2.03	0.41
1:G:502:ILE:HD12	1:G:502:ILE:HA	1.90	0.41
1:H:131:LYS:HG2	1:H:132:PHE:N	2.35	0.41
1:H:336:VAL:O	1:H:337:ILE:HD13	2.21	0.41
1:I:196:TYR:HB3	1:I:207:MET:HE2	2.03	0.41
1:I:367:ASN:C	1:I:367:ASN:HD22	2.26	0.41
1:I:380:LYS:HE3	1:I:409:TYR:CE2	2.56	0.41
1:J:65:LEU:O	1:J:66:SER:HB3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:J:332:LEU:CB	1:J:557:PRO:HG2	2.47	0.41
1:L:324:LYS:HA	1:L:324:LYS:HE3	2.02	0.41
1:L:428:LYS:O	1:L:432:ILE:HG12	2.21	0.41
1:P:28:HIS:HD2	1:P:365:ARG:HD3	1.84	0.41
1:P:367:ASN:O	1:P:371:THR:HG23	2.20	0.41
1:P:517:LEU:HD12	1:P:517:LEU:O	2.21	0.41
1:Q:457:LEU:HD12	1:Q:468:PRO:HG3	2.02	0.41
1:T:330:PRO:HG3	1:U:165:ARG:HD2	2.03	0.41
1:T:477:ARG:HB3	1:T:477:ARG:CZ	2.50	0.41
1:T:509:ASP:OD2	1:T:573:VAL:HB	2.21	0.41
1:U:339:LYS:NZ	1:U:340:PRO:O	2.54	0.41
1:U:483:GLN:OE1	1:U:483:GLN:N	2.53	0.41
1:V:156:MET:H	1:Y:63:GLU:CG	2.27	0.41
1:X:201:GLU:HG2	1:X:202:TYR:HB2	2.02	0.41
1:X:520:GLU:CD	1:X:522:GLU:H	2.29	0.41
1:Y:273:ASP:OD1	1:Y:276:GLY:N	2.45	0.41
1:Z:93:GLU:HB3	1:Z:305:ARG:HG2	2.02	0.41
1:a:475:ASP:CG	1:a:476:MET:H	2.27	0.41
1:b:404:TYR:CD2	1:b:526:LEU:HD11	2.55	0.41
1:c:57:TRP:HE1	1:c:319:ASP:CG	2.28	0.41
1:c:81:LEU:HD13	1:c:455:ALA:HB1	2.02	0.41
1:c:143:MET:O	1:c:146:GLN:HG2	2.21	0.41
1:d:81:LEU:HD12	1:d:81:LEU:HA	1.90	0.41
1:d:85:THR:O	1:d:85:THR:OG1	2.38	0.41
1:f:64:GLY:H	1:f:67:GLY:H	1.69	0.41
1:f:337:ILE:HD12	1:f:338:VAL:H	1.86	0.41
1:f:481:TYR:CE2	1:f:576:LEU:HD21	2.50	0.41
1:g:477:ARG:HH12	1:g:481:TYR:HE2	1.68	0.41
1:h:196:TYR:HB3	1:h:207:MET:HB3	2.03	0.41
1:h:420:LEU:N	1:j:583:ARG:HD3	2.35	0.41
1:h:580:ILE:HD13	1:i:442:GLU:HB2	2.01	0.41
1:k:325:GLN:N	1:k:325:GLN:OE1	2.54	0.41
1:l:29:GLU:OE1	1:l:29:GLU:N	2.32	0.41
1:l:51:ILE:HD12	1:l:51:ILE:HA	1.94	0.41
1:l:517:LEU:HD12	1:l:517:LEU:HA	1.81	0.41
1:m:163:ASP:CG	1:m:164:SER:H	2.29	0.41
1:A:218:GLY:HA2	1:A:241:ARG:CZ	2.51	0.40
1:A:474:THR:HB	1:A:511:ILE:HG22	2.02	0.40
1:B:414:ILE:HD12	1:B:436:ILE:HD12	2.03	0.40
1:C:46:GLY:HA3	1:C:328:MET:HA	2.03	0.40
1:C:61:THR:HG22	1:C:62:GLY:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:146:GLN:CD	1:e:65:LEU:HD13	2.47	0.40
1:D:264:ARG:NH1	1:f:251:GLU:OE1	2.54	0.40
1:D:337:ILE:CG2	1:E:318:ILE:HG12	2.51	0.40
1:D:391:ILE:H	1:D:391:ILE:HD12	1.85	0.40
1:D:400:VAL:HG22	1:D:564:PHE:CD1	2.56	0.40
1:F:210:LYS:HE3	1:F:212:HIS:HE2	1.85	0.40
1:F:212:HIS:N	1:k:202:TYR:OH	2.53	0.40
1:G:28:HIS:CG	1:G:29:GLU:N	2.89	0.40
1:G:303:GLU:HG3	1:G:303:GLU:O	2.21	0.40
1:G:414:ILE:HD11	1:G:439:LYS:HE3	2.03	0.40
1:H:92:THR:HG22	1:H:306:LEU:H	1.86	0.40
1:H:590:GLU:C	1:H:592:GLN:H	2.29	0.40
1:I:273:ASP:OD1	1:I:277:LYS:N	2.55	0.40
1:I:353:GLU:O	1:I:357:THR:OG1	2.31	0.40
1:J:355:LEU:HD13	1:J:555:LEU:CD1	2.52	0.40
1:K:212:HIS:NE2	1:K:247:LYS:HD2	2.36	0.40
1:K:370:THR:HG23	1:K:506:ARG:HH22	1.86	0.40
1:K:547:GLN:C	1:K:548:ARG:HD3	2.46	0.40
1:M:308:ASN:ND2	1:M:312:LEU:HG	2.29	0.40
1:N:49:LEU:HD21	1:N:400:VAL:HG21	2.03	0.40
1:N:86:THR:HG23	1:N:87:LEU:N	2.36	0.40
1:N:235:LEU:HA	1:N:235:LEU:HD23	1.85	0.40
1:N:454:THR:O	1:N:457:LEU:HB2	2.21	0.40
1:P:308:ASN:HB2	1:P:311:GLN:CD	2.46	0.40
1:Q:158:PHE:CE2	1:T:317:LEU:HD21	2.55	0.40
1:Q:470:VAL:O	1:Q:497:TYR:HA	2.20	0.40
1:R:260:ASP:OD1	1:R:261:THR:N	2.54	0.40
1:U:171:LEU:HD23	1:U:171:LEU:HA	1.88	0.40
1:V:165:ARG:CZ	1:X:560:ARG:HH12	2.34	0.40
1:W:97:VAL:HG11	1:W:146:GLN:O	2.21	0.40
1:W:143:MET:HB2	1:W:143:MET:HE2	1.81	0.40
1:Z:475:ASP:N	1:Z:475:ASP:OD1	2.46	0.40
1:a:152:LYS:HG3	1:a:153:LYS:HG3	2.02	0.40
1:c:186:LEU:HG	1:c:215:LEU:HD13	2.03	0.40
1:c:306:LEU:HD12	1:c:306:LEU:HA	1.95	0.40
1:d:281:LEU:HD12	1:d:281:LEU:O	2.21	0.40
1:e:148:PRO:C	1:e:152:LYS:HZ2	2.27	0.40
1:e:196:TYR:HB3	1:e:207:MET:HB3	2.03	0.40
1:e:476:MET:HB2	1:f:449:GLN:HG3	2.03	0.40
1:e:477:ARG:HB2	1:f:449:GLN:OE1	2.21	0.40
1:e:545:ARG:NH1	1:e:552:GLU:OE1	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:548:ARG:HH12	1:o:312:LEU:HD13	1.86	0.40
1:h:49:LEU:HG	1:h:325:GLN:HB2	2.03	0.40
1:h:64:GLY:O	1:h:66:SER:N	2.54	0.40
1:h:205:ARG:HB3	1:h:254:VAL:HG22	2.03	0.40
1:h:371:THR:HG21	1:h:561:TYR:HB2	2.02	0.40
1:h:491:VAL:HG23	1:h:495:TYR:CB	2.51	0.40
1:i:308:ASN:ND2	1:i:313:GLU:OE2	2.32	0.40
1:k:331:THR:O	1:l:305:ARG:NH1	2.54	0.40
1:k:524:HIS:HA	1:k:525:PRO:HD3	1.94	0.40
1:l:391:ILE:HG22	1:l:392:GLU:CG	2.51	0.40
1:l:425:SER:N	1:m:431:ASP:OD1	2.54	0.40
1:l:577:GLU:OE1	1:l:577:GLU:N	2.45	0.40
1:n:54:ASN:C	1:n:55:LEU:HD22	2.45	0.40
1:o:491:VAL:HG22	1:o:497:TYR:CD1	2.57	0.40
1:p:411:GLU:OE1	1:p:570:VAL:HB	2.21	0.40
1:p:467:LYS:HB3	1:p:494:GLY:O	2.21	0.40
1:A:53:ARG:NE	1:A:55:LEU:HD21	2.33	0.40
1:B:203:ASN:CG	1:B:204:PHE:H	2.29	0.40
1:B:357:THR:O	1:B:361:ILE:HG12	2.20	0.40
1:D:39:ILE:HD11	1:D:535:PRO:HD3	2.03	0.40
1:D:208:GLN:OE1	1:D:208:GLN:N	2.54	0.40
1:E:457:LEU:HD22	1:E:466:PRO:HA	2.03	0.40
1:F:326:GLY:N	1:f:201:GLU:OE1	2.54	0.40
1:F:398:GLU:OE2	1:F:563:ASN:HB2	2.21	0.40
1:F:417:LEU:HD22	1:F:578:GLU:OE1	2.21	0.40
1:G:583:ARG:HG3	1:H:421:ASN:OD1	2.21	0.40
1:I:233:LYS:HE3	1:I:237:ASP:OD1	2.21	0.40
1:J:437:VAL:HG22	1:J:491:VAL:HG13	2.03	0.40
1:M:514:THR:HG21	1:M:528:HIS:CE1	2.55	0.40
1:Q:166:ILE:HB	1:Q:196:TYR:CD1	2.56	0.40
1:S:509:ASP:HB3	1:S:573:VAL:O	2.22	0.40
1:S:583:ARG:HG2	1:T:421:ASN:ND2	2.37	0.40
1:T:196:TYR:CE2	1:T:209:LEU:HD22	2.56	0.40
1:V:104:ASP:OD2	1:V:104:ASP:C	2.63	0.40
1:W:543:MET:SD	1:W:545:ARG:HB2	2.61	0.40
1:X:379:LEU:HA	1:X:379:LEU:HD23	1.80	0.40
1:a:395:LEU:O	1:d:192:GLN:HG2	2.20	0.40
1:b:472:ILE:HB	1:b:499:ILE:HD13	2.02	0.40
1:c:169:LYS:HA	1:c:189:ASN:OD1	2.21	0.40
1:c:355:LEU:HD21	1:c:555:LEU:HD13	2.03	0.40
1:c:398:GLU:OE1	1:c:398:GLU:N	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:e:205:ARG:HH21	1:e:254:VAL:HG21	1.85	0.40
1:e:308:ASN:ND2	1:e:312:LEU:H	2.18	0.40
1:e:480:GLN:HG2	1:f:445:TYR:CE1	2.55	0.40
1:f:554:ARG:NH2	1:g:311:GLN:HB3	2.36	0.40
1:f:592:GLN:OE1	1:f:597:SER:HB2	2.21	0.40
1:g:475:ASP:OD1	1:g:475:ASP:N	2.54	0.40
1:h:60:TRP:HB2	1:h:64:GLY:O	2.20	0.40
1:i:45:ALA:HB1	1:i:328:MET:HE3	2.04	0.40
1:i:202:TYR:O	1:i:203:ASN:HB2	2.20	0.40
1:i:399:GLY:HA3	1:i:564:PHE:HA	2.03	0.40
1:j:82:LEU:CD2	1:j:406:ARG:HH21	2.33	0.40
1:j:512:VAL:HG22	1:j:570:VAL:HG22	2.03	0.40
1:l:143:MET:O	1:l:143:MET:SD	2.79	0.40
1:n:421:ASN:OD1	1:p:583:ARG:HD2	2.21	0.40
1:o:335:LEU:HG	1:o:355:LEU:HD11	2.03	0.40
1:A:245:ASP:OD1	1:A:267:ARG:HB2	2.21	0.40
1:C:331:THR:OG1	1:C:558:ARG:HG2	2.21	0.40
1:D:241:ARG:NH2	1:F:381:SER:O	2.54	0.40
1:D:484:ILE:HG13	1:E:489:ARG:HH21	1.86	0.40
1:E:94:LEU:HA	1:E:94:LEU:HD23	1.82	0.40
1:E:344:GLU:N	1:E:344:GLU:OE1	2.54	0.40
1:I:560:ARG:NE	1:L:165:ARG:HH12	2.19	0.40
1:L:337:ILE:HD12	1:L:338:VAL:H	1.86	0.40
1:M:593:VAL:HG23	1:Q:589:ASN:OD1	2.22	0.40
1:O:479:PRO:HA	1:O:482:ILE:HB	2.03	0.40
1:P:166:ILE:HG22	1:P:302:LEU:HD11	2.02	0.40
1:P:201:GLU:HG2	1:P:202:TYR:N	2.37	0.40
1:P:423:LEU:HD21	1:R:423:LEU:HD12	2.03	0.40
1:P:448:ASP:OD1	1:P:454:THR:OG1	2.35	0.40
1:S:211:PHE:HB3	1:S:248:VAL:HB	2.04	0.40
1:S:484:ILE:HG21	1:S:484:ILE:HD13	1.81	0.40
1:T:196:TYR:CE2	1:T:209:LEU:HB2	2.56	0.40
1:U:123:ASP:CG	1:U:148:PRO:HB2	2.46	0.40
1:U:523:PRO:O	1:U:524:HIS:ND1	2.54	0.40
1:V:39:ILE:HD12	1:V:39:ILE:HA	1.94	0.40
1:V:56:VAL:HB	1:V:77:ILE:HD13	2.03	0.40
1:V:261:THR:HA	1:Z:264:ARG:HH22	1.85	0.40
1:X:353:GLU:O	1:X:357:THR:HG23	2.21	0.40
1:Y:412:ALA:HB3	1:Y:443:MET:HE1	2.03	0.40
1:Z:481:TYR:CE1	1:Z:576:LEU:HD21	2.54	0.40
1:a:513:MET:HE3	1:a:513:MET:HB2	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:b:64:GLY:HA2	1:d:548:ARG:NH2	2.34	0.40
1:c:54:ASN:C	1:c:55:LEU:HD12	2.46	0.40
1:d:395:LEU:HD23	1:d:402:GLN:HE22	1.86	0.40
1:d:590:GLU:C	1:d:592:GLN:H	2.29	0.40
1:e:52:ARG:HD2	1:e:52:ARG:C	2.46	0.40
1:f:65:LEU:HD21	1:o:154:GLY:HA2	2.03	0.40
1:f:335:LEU:HD11	1:g:316:LEU:HD22	2.03	0.40
1:f:348:THR:HG23	1:g:320:SER:H	1.85	0.40
1:f:487:ASP:C	1:f:489:ARG:H	2.30	0.40
1:g:210:LYS:HD2	1:o:208:GLN:NE2	2.37	0.40
1:g:527:GLN:O	1:g:564:PHE:HB2	2.22	0.40
1:h:457:LEU:HD23	1:h:526:LEU:HD13	2.03	0.40
1:i:205:ARG:CD	1:i:255:GLU:HB2	2.52	0.40
1:i:411:GLU:HA	1:i:570:VAL:O	2.21	0.40
1:k:46:GLY:HA3	1:k:328:MET:HA	2.02	0.40
1:l:554:ARG:NH1	1:m:313:GLU:O	2.54	0.40
1:n:142:LEU:HD23	1:n:142:LEU:HA	1.95	0.40
1:n:204:PHE:O	1:n:205:ARG:HD2	2.22	0.40
1:o:90:ASN:O	1:o:120:GLN:NE2	2.51	0.40
1:o:491:VAL:HG21	1:o:497:TYR:HB3	2.02	0.40
1:p:359:TYR:HE1	1:p:557:PRO:HB3	1.87	0.40
1:A:341:ALA:HB2	1:A:551:ARG:H	1.86	0.40
1:C:543:MET:HG3	1:n:549:ILE:HD11	2.02	0.40
1:C:563:ASN:OD1	1:C:563:ASN:N	2.55	0.40
1:D:400:VAL:HG22	1:D:564:PHE:HD1	1.86	0.40
1:E:65:LEU:O	1:E:66:SER:OG	2.30	0.40
1:G:93:GLU:O	1:G:95:ILE:HG12	2.22	0.40
1:G:593:VAL:O	1:G:593:VAL:HG13	2.21	0.40
1:I:224:VAL:O	1:I:224:VAL:HG13	2.21	0.40
1:J:58:GLU:HA	1:J:316:LEU:HD13	2.04	0.40
1:J:235:LEU:HD23	1:J:235:LEU:HA	1.92	0.40
1:J:589:ASN:HA	1:K:591:THR:OG1	2.22	0.40
1:J:593:VAL:O	1:J:593:VAL:HG13	2.20	0.40
1:K:281:LEU:HD23	1:K:281:LEU:H	1.87	0.40
1:K:358:ALA:O	1:K:362:GLN:HG3	2.22	0.40
1:L:78:LEU:HD23	1:L:78:LEU:HA	1.93	0.40
1:L:196:TYR:HB3	1:L:207:MET:HB3	2.04	0.40
1:M:221:SER:HB3	1:M:226:GLY:HA2	2.04	0.40
1:M:531:LEU:HD13	1:M:561:TYR:CE1	2.56	0.40
1:N:71:GLU:N	1:N:71:GLU:OE1	2.55	0.40
1:N:346:ASP:HB2	1:N:347:LYS:HZ1	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:P:122:LYS:HA	1:P:122:LYS:HD3	1.88	0.40
1:P:371:THR:HA	1:P:374:ASN:ND2	2.36	0.40
1:P:583:ARG:HG2	1:Q:587:ASP:HB2	2.03	0.40
1:R:196:TYR:CE1	1:R:209:LEU:HB2	2.56	0.40
1:S:477:ARG:HB2	1:T:449:GLN:NE2	2.36	0.40
1:S:560:ARG:HD2	1:S:560:ARG:HA	1.94	0.40
1:U:97:VAL:HG22	1:U:125:PHE:CE2	2.56	0.40
1:U:205:ARG:HB3	1:U:254:VAL:HG22	2.03	0.40
1:W:196:TYR:CE1	1:W:209:LEU:HB2	2.57	0.40
1:Y:232:LEU:HD13	1:Y:235:LEU:HD13	2.03	0.40
1:Y:469:HIS:CE1	1:Y:518:PRO:HG3	2.57	0.40
1:Y:511:ILE:HB	1:Y:571:ILE:HG22	2.03	0.40
1:Z:508:LYS:HE3	1:a:449:GLN:OE1	2.22	0.40
1:Z:540:ASP:OD1	1:Z:541:PHE:N	2.54	0.40
1:a:541:PHE:CE2	1:a:543:MET:HG2	2.57	0.40
1:b:57:TRP:NE1	1:b:319:ASP:OD2	2.54	0.40
1:b:321:ASP:OD1	1:b:321:ASP:N	2.52	0.40
1:c:414:ILE:HD12	1:c:414:ILE:HA	1.98	0.40
1:d:333:PRO:HA	1:d:334:PRO:HD3	1.88	0.40
1:d:520:GLU:OE2	1:d:522:GLU:N	2.54	0.40
1:e:246:VAL:HG13	1:e:266:LEU:HD21	2.02	0.40
1:e:548:ARG:NH2	1:o:156:MET:HA	2.37	0.40
1:f:363:GLN:NE2	1:f:364:MET:HB2	2.36	0.40
1:g:28:HIS:HE1	1:g:360:ARG:HH21	1.69	0.40
1:g:37:THR:HA	1:g:531:LEU:HG	2.03	0.40
1:g:365:ARG:NH2	1:j:84:TYR:OH	2.43	0.40
1:g:505:LEU:H	1:g:505:LEU:HD23	1.85	0.40
1:i:399:GLY:HA2	1:i:564:PHE:CD1	2.56	0.40
1:k:190:ARG:HB3	1:o:398:GLU:OE2	2.21	0.40
1:k:199:THR:HG22	1:k:208:GLN:OE1	2.21	0.40
1:k:439:LYS:NZ	1:k:443:MET:SD	2.94	0.40
1:l:507:MET:HG2	1:l:507:MET:O	2.21	0.40
1:m:40:VAL:O	1:m:534:ILE:HG13	2.20	0.40
1:m:219:GLU:HG2	1:m:236:PHE:HB3	2.03	0.40
1:m:337:ILE:HD12	1:m:337:ILE:HA	1.85	0.40
1:m:422:ASN:HB3	1:m:431:ASP:CG	2.47	0.40
1:n:436:ILE:O	1:n:440:ILE:HG12	2.21	0.40
1:o:63:GLU:OE1	1:o:65:LEU:HA	2.21	0.40
1:p:398:GLU:HG3	1:p:563:ASN:O	2.22	0.40
1:p:514:THR:OG1	1:p:567:ILE:O	2.34	0.40
1:A:256:ASN:HD22	1:A:256:ASN:C	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:474:THR:OG1	1:A:475:ASP:N	2.54	0.40
1:B:365:ARG:NH2	1:C:81:LEU:O	2.54	0.40
1:C:128:ASN:OD1	1:C:129:PHE:N	2.49	0.40
1:C:187:ASP:OD1	1:C:187:ASP:N	2.55	0.40
1:E:93:GLU:HA	1:E:93:GLU:OE2	2.22	0.40
1:E:162:LEU:HD12	1:E:304:ALA:HB1	2.02	0.40
1:G:96:PRO:HA	1:G:145:ALA:HB2	2.03	0.40
1:I:361:ILE:HD12	1:I:365:ARG:HH12	1.87	0.40
1:I:420:LEU:HD11	1:I:431:ASP:HB3	2.03	0.40
1:J:186:LEU:O	1:J:188:VAL:HG23	2.21	0.40
1:K:480:GLN:OE1	1:K:480:GLN:N	2.52	0.40
1:L:376:ALA:HB2	1:L:568:MET:HE1	2.03	0.40
1:L:464:ARG:HH22	1:L:467:LYS:H	1.70	0.40
1:L:531:LEU:HG	1:L:533:PHE:HB2	2.03	0.40
1:M:165:ARG:CZ	1:Q:560:ARG:HH12	2.35	0.40
1:N:410:ASN:OD1	1:N:411:GLU:N	2.55	0.40
1:P:78:LEU:HA	1:P:81:LEU:HD23	2.04	0.40
1:P:140:ASN:O	1:P:144:LEU:HG	2.22	0.40
1:P:449:GLN:HE22	1:R:476:MET:H	1.70	0.40
1:Q:53:ARG:HD3	1:Q:55:LEU:HD21	2.03	0.40
1:Q:327:PHE:HE2	1:Q:564:PHE:CE1	2.39	0.40
1:R:77:ILE:HG23	1:R:78:LEU:HD22	2.03	0.40
1:R:223:THR:HG22	1:R:224:VAL:N	2.36	0.40
1:R:513:MET:HB3	1:R:569:LEU:HB2	2.02	0.40
1:S:176:THR:HB	1:S:294:THR:HG1	1.87	0.40
1:S:199:THR:HG22	1:S:201:GLU:HG2	2.03	0.40
1:S:389:HIS:O	1:S:406:ARG:HG2	2.22	0.40
1:U:70:GLN:HB3	1:U:71:GLU:H	1.65	0.40
1:V:163:ASP:HA	1:V:307:THR:CG2	2.50	0.40
1:V:192:GLN:CG	1:X:398:GLU:HA	2.51	0.40
1:V:210:LYS:HA	1:V:210:LYS:HD2	1.88	0.40
1:V:281:LEU:O	1:V:281:LEU:HD12	2.22	0.40
1:V:375:ARG:NH1	1:V:398:GLU:HB3	2.30	0.40
1:W:93:GLU:OE2	1:W:305:ARG:HG2	2.21	0.40
1:W:207:MET:HE2	1:W:207:MET:HB2	1.86	0.40
1:W:332:LEU:HB2	1:W:557:PRO:O	2.22	0.40
1:X:399:GLY:O	1:X:402:GLN:HG2	2.21	0.40
1:Z:512:VAL:C	1:Z:513:MET:HE2	2.47	0.40
1:c:163:ASP:HB2	1:c:305:ARG:HB2	2.04	0.40
1:d:200:ARG:O	1:d:201:GLU:HG2	2.21	0.40
1:d:572:ASN:HB3	1:d:574:ILE:HD11	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:f:64:GLY:H	1:f:67:GLY:N	2.20	0.40
1:g:196:TYR:CD2	1:g:209:LEU:HB2	2.57	0.40
1:h:41:THR:O	1:h:43:ASP:N	2.48	0.40
1:h:135:ASN:OD1	1:h:136:GLY:N	2.55	0.40
1:i:240:TYR:HD1	1:i:273:ASP:HA	1.86	0.40
1:l:219:GLU:HG3	1:l:220:GLU:OE2	2.21	0.40
1:m:539:VAL:HG22	1:m:541:PHE:HD1	1.87	0.40
1:o:162:LEU:HB3	1:o:166:ILE:HD11	2.03	0.40
1:o:363:GLN:HG2	1:o:559:TYR:CZ	2.57	0.40
1:o:504:ASP:OD1	1:o:505:LEU:HD23	2.21	0.40
1:p:208:GLN:HA	1:p:251:GLU:HA	2.04	0.40
1:p:334:PRO:HD3	1:p:556:THR:HA	2.02	0.40
1:p:479:PRO:HG2	1:p:501:ARG:HD3	2.03	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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	568/570 (100%)	531 (94%)	34 (6%)	3 (0%)	24	61
1	B	568/570 (100%)	531 (94%)	36 (6%)	1 (0%)	43	76
1	C	568/570 (100%)	526 (93%)	40 (7%)	2 (0%)	30	65
1	D	568/570 (100%)	530 (93%)	38 (7%)	0	100	100
1	E	568/570 (100%)	529 (93%)	37 (6%)	2 (0%)	30	65
1	F	568/570 (100%)	526 (93%)	40 (7%)	2 (0%)	30	65
1	G	568/570 (100%)	534 (94%)	34 (6%)	0	100	100
1	H	568/570 (100%)	533 (94%)	32 (6%)	3 (0%)	24	61
1	I	568/570 (100%)	525 (92%)	43 (8%)	0	100	100
1	J	568/570 (100%)	525 (92%)	40 (7%)	3 (0%)	24	61

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	K	568/570 (100%)	530 (93%)	36 (6%)	2 (0%)	30	65
1	L	568/570 (100%)	539 (95%)	28 (5%)	1 (0%)	43	76
1	M	568/570 (100%)	532 (94%)	35 (6%)	1 (0%)	43	76
1	N	568/570 (100%)	526 (93%)	41 (7%)	1 (0%)	43	76
1	O	568/570 (100%)	528 (93%)	38 (7%)	2 (0%)	30	65
1	P	568/570 (100%)	530 (93%)	36 (6%)	2 (0%)	30	65
1	Q	568/570 (100%)	537 (94%)	29 (5%)	2 (0%)	30	65
1	R	568/570 (100%)	539 (95%)	28 (5%)	1 (0%)	43	76
1	S	568/570 (100%)	533 (94%)	34 (6%)	1 (0%)	43	76
1	T	568/570 (100%)	532 (94%)	34 (6%)	2 (0%)	30	65
1	U	568/570 (100%)	518 (91%)	47 (8%)	3 (0%)	24	61
1	V	568/570 (100%)	539 (95%)	28 (5%)	1 (0%)	43	76
1	W	568/570 (100%)	530 (93%)	38 (7%)	0	100	100
1	X	568/570 (100%)	532 (94%)	35 (6%)	1 (0%)	43	76
1	Y	568/570 (100%)	529 (93%)	38 (7%)	1 (0%)	43	76
1	Z	568/570 (100%)	528 (93%)	40 (7%)	0	100	100
1	a	568/570 (100%)	528 (93%)	38 (7%)	2 (0%)	30	65
1	b	568/570 (100%)	537 (94%)	31 (6%)	0	100	100
1	c	568/570 (100%)	531 (94%)	35 (6%)	2 (0%)	30	65
1	d	568/570 (100%)	533 (94%)	35 (6%)	0	100	100
1	e	568/570 (100%)	524 (92%)	43 (8%)	1 (0%)	43	76
1	f	568/570 (100%)	524 (92%)	42 (7%)	2 (0%)	30	65
1	g	568/570 (100%)	529 (93%)	39 (7%)	0	100	100
1	h	568/570 (100%)	527 (93%)	37 (6%)	4 (1%)	18	55
1	i	568/570 (100%)	533 (94%)	35 (6%)	0	100	100
1	j	568/570 (100%)	521 (92%)	44 (8%)	3 (0%)	24	61
1	k	568/570 (100%)	527 (93%)	36 (6%)	5 (1%)	14	49
1	l	568/570 (100%)	523 (92%)	44 (8%)	1 (0%)	43	76
1	m	568/570 (100%)	533 (94%)	33 (6%)	2 (0%)	30	65
1	n	568/570 (100%)	535 (94%)	31 (6%)	2 (0%)	30	65
1	o	568/570 (100%)	525 (92%)	41 (7%)	2 (0%)	30	65

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	p	568/570 (100%)	520 (92%)	48 (8%)	0	100	100
All	All	23856/23940 (100%)	22242 (93%)	1551 (6%)	63 (0%)	37	70

All (63) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	165	ARG
1	E	43	ASP
1	H	159	THR
1	J	202	TYR
1	J	596	ALA
1	K	311	GLN
1	K	484	ILE
1	R	202	TYR
1	V	596	ALA
1	h	88	GLU
1	h	342	MET
1	j	311	GLN
1	j	587	ASP
1	j	588	VAL
1	l	201	GLU
1	A	202	TYR
1	A	311	GLN
1	L	72	ILE
1	O	311	GLN
1	e	311	GLN
1	f	63	GLU
1	E	394	ASN
1	J	311	GLN
1	T	546	ASN
1	c	394	ASN
1	Q	88	GLU
1	Q	311	GLN
1	S	344	GLU
1	U	586	LEU
1	Y	489	ARG
1	h	311	GLN
1	k	490	THR
1	m	156	MET
1	o	88	GLU
1	C	202	TYR
1	C	227	ALA

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Mol	Chain	Res	Type
1	F	489	ARG
1	H	68	GLU
1	H	586	LEU
1	P	311	GLN
1	P	586	LEU
1	T	586	LEU
1	a	70	GLN
1	c	311	GLN
1	k	88	GLU
1	k	311	GLN
1	k	586	LEU
1	m	70	GLN
1	n	520	GLU
1	n	586	LEU
1	F	586	LEU
1	M	202	TYR
1	N	63	GLU
1	O	70	GLN
1	U	137	GLU
1	U	489	ARG
1	X	311	GLN
1	a	394	ASN
1	k	71	GLU
1	o	489	ARG
1	A	595	PRO
1	f	484	ILE
1	h	350	PRO

5.3.2 Protein sidechains ⓘ

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

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	492/492 (100%)	492 (100%)	0	100	100
1	B	492/492 (100%)	490 (100%)	2 (0%)	84	83
1	C	492/492 (100%)	490 (100%)	2 (0%)	84	83

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	D	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	E	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	F	492/492 (100%)	490 (100%)	2 (0%)	84	83
1	G	492/492 (100%)	492 (100%)	0	100	100
1	H	492/492 (100%)	492 (100%)	0	100	100
1	I	492/492 (100%)	492 (100%)	0	100	100
1	J	492/492 (100%)	492 (100%)	0	100	100
1	K	492/492 (100%)	492 (100%)	0	100	100
1	L	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	M	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	N	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	O	492/492 (100%)	490 (100%)	2 (0%)	84	83
1	P	492/492 (100%)	492 (100%)	0	100	100
1	Q	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	R	492/492 (100%)	492 (100%)	0	100	100
1	S	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	T	492/492 (100%)	492 (100%)	0	100	100
1	U	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	V	492/492 (100%)	492 (100%)	0	100	100
1	W	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	X	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	Y	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	Z	492/492 (100%)	488 (99%)	4 (1%)	73	77
1	a	492/492 (100%)	492 (100%)	0	100	100
1	b	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	c	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	d	492/492 (100%)	492 (100%)	0	100	100
1	e	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	f	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	g	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	h	492/492 (100%)	492 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	i	492/492 (100%)	490 (100%)	2 (0%)	84	83
1	j	492/492 (100%)	490 (100%)	2 (0%)	84	83
1	k	492/492 (100%)	492 (100%)	0	100	100
1	l	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	m	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	n	492/492 (100%)	491 (100%)	1 (0%)	87	87
1	o	492/492 (100%)	492 (100%)	0	100	100
1	p	492/492 (100%)	491 (100%)	1 (0%)	87	87
All	All	20664/20664 (100%)	20628 (100%)	36 (0%)	85	87

All (36) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	325	GLN
1	B	571	ILE
1	C	480	GLN
1	C	534	ILE
1	D	502	ILE
1	E	436	ILE
1	F	337	ILE
1	F	361	ILE
1	L	325	GLN
1	M	449	GLN
1	N	571	ILE
1	O	337	ILE
1	O	472	ILE
1	Q	516	ILE
1	S	519	ASN
1	U	544	ILE
1	W	422	ASN
1	X	337	ILE
1	Y	337	ILE
1	Z	361	ILE
1	Z	422	ASN
1	Z	516	ILE
1	Z	567	ILE
1	b	337	ILE
1	c	574	ILE
1	e	534	ILE

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Mol	Chain	Res	Type
1	f	440	ILE
1	g	516	ILE
1	i	337	ILE
1	i	516	ILE
1	j	361	ILE
1	j	567	ILE
1	l	432	ILE
1	m	440	ILE
1	n	51	ILE
1	p	389	HIS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (282) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	120	GLN
1	A	170	GLN
1	A	212	HIS
1	A	362	GLN
1	A	410	ASN
1	A	421	ASN
1	A	433	GLN
1	A	480	GLN
1	A	524	HIS
1	B	54	ASN
1	B	70	GLN
1	B	311	GLN
1	B	325	GLN
1	B	367	ASN
1	B	410	ASN
1	B	433	GLN
1	B	449	GLN
1	B	485	ASN
1	B	592	GLN
1	C	140	ASN
1	C	192	GLN
1	C	258	ASN
1	C	308	ASN
1	C	310	ASN
1	C	362	GLN
1	C	410	ASN
1	C	418	ASN
1	C	422	ASN

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Mol	Chain	Res	Type
1	C	480	GLN
1	C	528	HIS
1	C	547	GLN
1	D	99	GLN
1	D	146	GLN
1	D	170	GLN
1	D	258	ASN
1	D	367	ASN
1	D	389	HIS
1	D	394	ASN
1	D	563	ASN
1	D	572	ASN
1	E	170	GLN
1	E	212	HIS
1	E	308	ASN
1	E	363	GLN
1	E	366	ASN
1	E	367	ASN
1	F	140	ASN
1	F	170	GLN
1	F	308	ASN
1	F	402	GLN
1	F	483	GLN
1	F	519	ASN
1	F	592	GLN
1	G	90	ASN
1	G	99	GLN
1	G	120	GLN
1	G	170	GLN
1	G	208	GLN
1	G	256	ASN
1	G	258	ASN
1	G	402	GLN
1	H	70	GLN
1	H	120	GLN
1	H	362	GLN
1	H	367	ASN
1	H	418	ASN
1	H	480	GLN
1	H	582	GLN
1	I	103	ASN
1	I	170	GLN

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Mol	Chain	Res	Type
1	I	311	GLN
1	I	389	HIS
1	I	485	ASN
1	J	79	GLN
1	J	99	GLN
1	J	208	GLN
1	J	366	ASN
1	J	402	GLN
1	J	524	HIS
1	J	527	GLN
1	J	546	ASN
1	J	547	GLN
1	K	140	ASN
1	K	325	GLN
1	K	433	GLN
1	K	449	GLN
1	L	99	GLN
1	L	116	GLN
1	L	189	ASN
1	L	311	GLN
1	L	323	GLN
1	L	362	GLN
1	L	363	GLN
1	L	367	ASN
1	L	433	GLN
1	M	79	GLN
1	M	99	GLN
1	M	170	GLN
1	M	308	ASN
1	M	374	ASN
1	M	480	GLN
1	M	483	GLN
1	M	485	ASN
1	M	519	ASN
1	M	524	HIS
1	N	90	ASN
1	N	120	GLN
1	N	325	GLN
1	N	441	ASN
1	N	547	GLN
1	N	575	ASN
1	O	90	ASN

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Mol	Chain	Res	Type
1	O	116	GLN
1	O	170	GLN
1	O	402	GLN
1	O	422	ASN
1	O	429	GLN
1	O	483	GLN
1	O	485	ASN
1	O	519	ASN
1	O	582	GLN
1	P	170	GLN
1	P	256	ASN
1	P	362	GLN
1	Q	208	GLN
1	Q	212	HIS
1	Q	258	ASN
1	Q	308	ASN
1	Q	311	GLN
1	Q	363	GLN
1	Q	422	ASN
1	Q	542	ASN
1	Q	575	ASN
1	Q	592	GLN
1	R	189	ASN
1	R	325	GLN
1	R	592	GLN
1	S	54	ASN
1	S	70	GLN
1	S	422	ASN
1	S	563	ASN
1	T	44	GLN
1	T	120	GLN
1	T	189	ASN
1	T	449	GLN
1	T	480	GLN
1	T	582	GLN
1	U	146	GLN
1	U	170	GLN
1	U	208	GLN
1	U	433	GLN
1	U	527	GLN
1	V	70	GLN
1	V	146	GLN

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Mol	Chain	Res	Type
1	V	208	GLN
1	V	310	ASN
1	V	311	GLN
1	V	367	ASN
1	V	389	HIS
1	V	394	ASN
1	V	480	GLN
1	V	483	GLN
1	V	592	GLN
1	W	106	GLN
1	W	441	ASN
1	W	483	GLN
1	W	547	GLN
1	W	572	ASN
1	W	592	GLN
1	X	410	ASN
1	X	418	ASN
1	X	480	GLN
1	X	527	GLN
1	X	528	HIS
1	Y	374	ASN
1	Z	79	GLN
1	Z	99	GLN
1	Z	120	GLN
1	Z	140	ASN
1	Z	146	GLN
1	Z	528	HIS
1	Z	592	GLN
1	a	103	ASN
1	a	120	GLN
1	a	146	GLN
1	a	258	ASN
1	a	310	ASN
1	a	421	ASN
1	a	422	ASN
1	a	441	ASN
1	a	524	HIS
1	a	546	ASN
1	b	140	ASN
1	b	253	ASN
1	b	363	GLN
1	b	367	ASN

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Mol	Chain	Res	Type
1	b	402	GLN
1	c	99	GLN
1	c	192	GLN
1	c	323	GLN
1	c	394	ASN
1	c	483	GLN
1	c	485	ASN
1	c	528	HIS
1	d	170	GLN
1	d	212	HIS
1	d	256	ASN
1	d	258	ASN
1	d	362	GLN
1	d	402	GLN
1	d	524	HIS
1	d	546	ASN
1	d	563	ASN
1	d	572	ASN
1	e	28	HIS
1	e	76	ASN
1	e	106	GLN
1	e	170	GLN
1	e	323	GLN
1	e	524	HIS
1	e	528	HIS
1	f	44	GLN
1	f	128	ASN
1	f	253	ASN
1	f	310	ASN
1	f	528	HIS
1	g	28	HIS
1	g	48	GLN
1	g	90	ASN
1	g	120	GLN
1	h	99	GLN
1	h	208	GLN
1	h	402	GLN
1	h	422	ASN
1	h	546	ASN
1	i	140	ASN
1	i	192	GLN
1	i	449	GLN

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Mol	Chain	Res	Type
1	i	524	HIS
1	j	44	GLN
1	j	70	GLN
1	j	103	ASN
1	j	140	ASN
1	j	192	GLN
1	j	366	ASN
1	j	433	GLN
1	k	54	ASN
1	k	203	ASN
1	k	212	HIS
1	k	308	ASN
1	k	367	ASN
1	k	374	ASN
1	k	449	GLN
1	l	192	GLN
1	l	308	ASN
1	l	325	GLN
1	l	367	ASN
1	l	402	GLN
1	l	421	ASN
1	l	483	GLN
1	m	140	ASN
1	m	258	ASN
1	m	310	ASN
1	m	363	GLN
1	m	374	ASN
1	m	422	ASN
1	n	70	GLN
1	n	99	GLN
1	n	120	GLN
1	n	311	GLN
1	n	323	GLN
1	n	325	GLN
1	n	418	ASN
1	n	480	GLN
1	o	54	ASN
1	o	483	GLN
1	o	485	ASN
1	o	547	GLN
1	o	563	ASN
1	p	421	ASN

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Mol	Chain	Res	Type
1	p	449	GLN
1	p	528	HIS

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

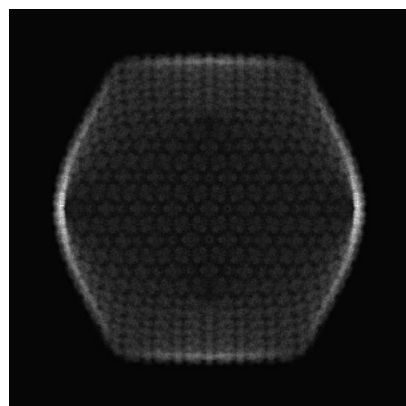
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-13862. These allow visual inspection of the internal detail of the map and identification of artifacts.

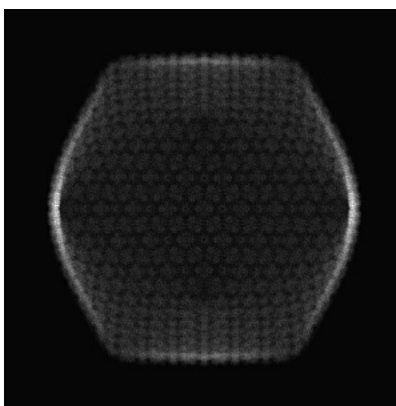
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

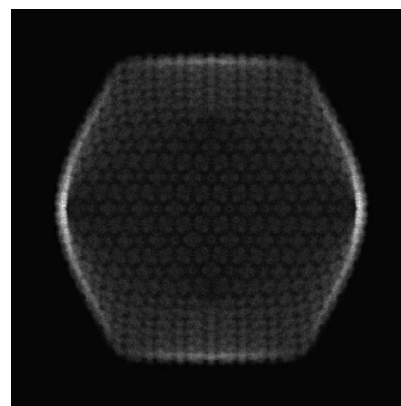
6.1.1 Primary map



X

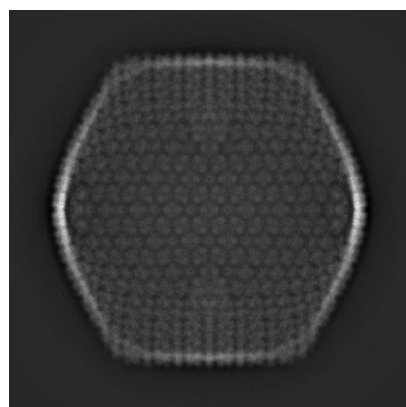


Y

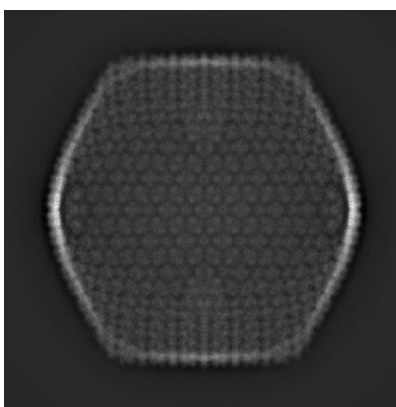


Z

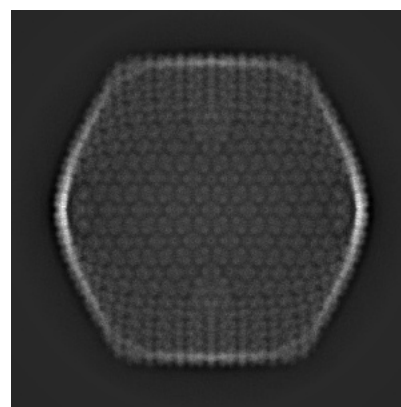
6.1.2 Raw map



X



Y

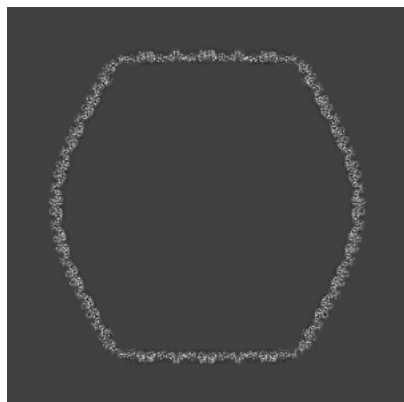


Z

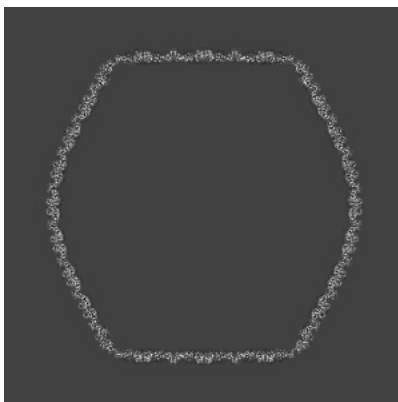
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

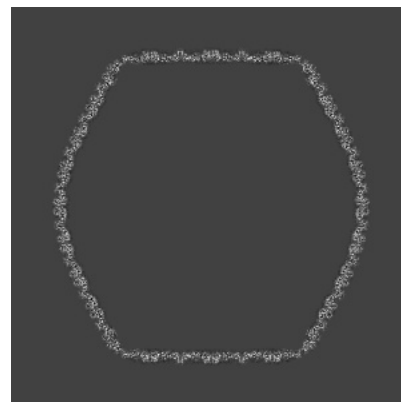
6.2.1 Primary map



X Index: 400

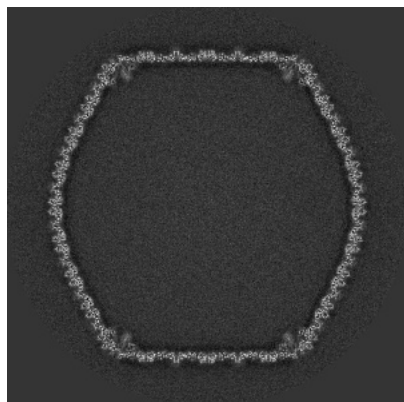


Y Index: 400

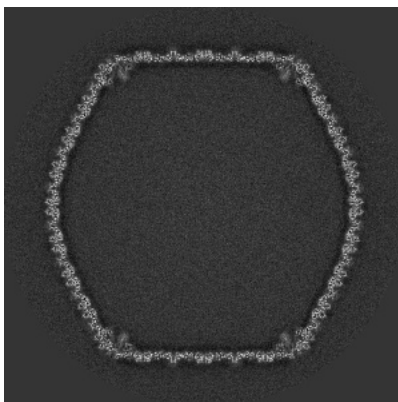


Z Index: 400

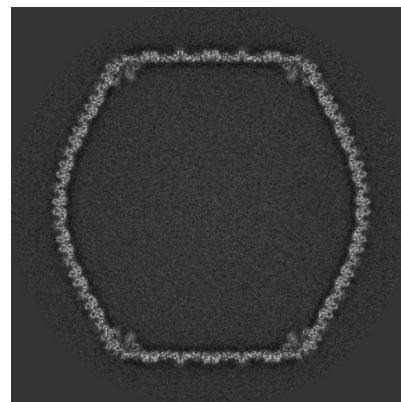
6.2.2 Raw map



X Index: 400



Y Index: 400

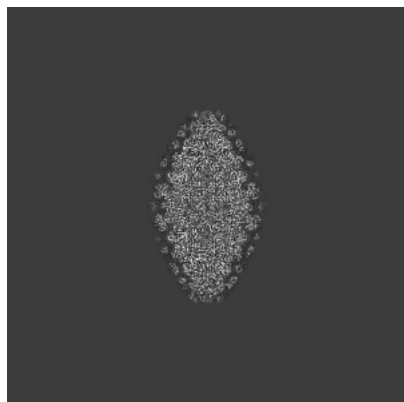


Z Index: 400

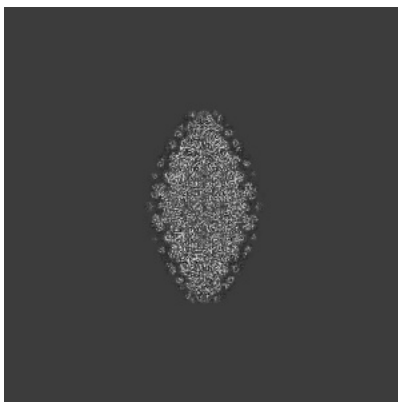
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

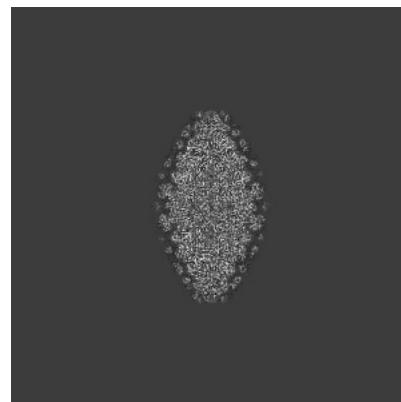
6.3.1 Primary map



X Index: 693

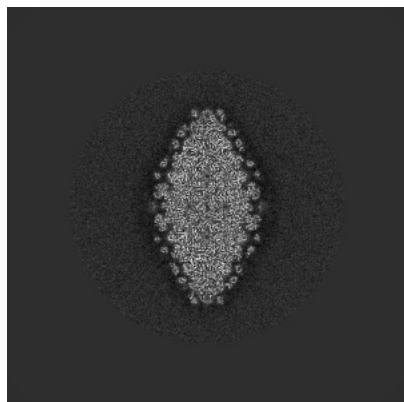


Y Index: 693

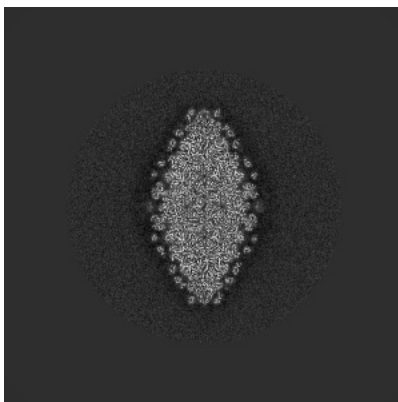


Z Index: 693

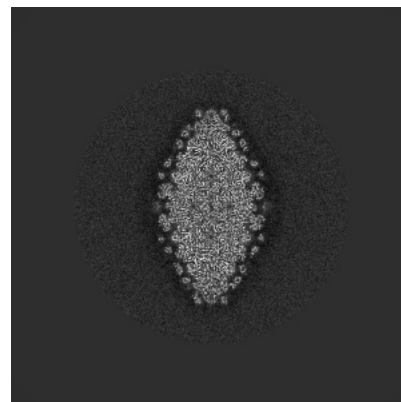
6.3.2 Raw map



X Index: 693



Y Index: 107

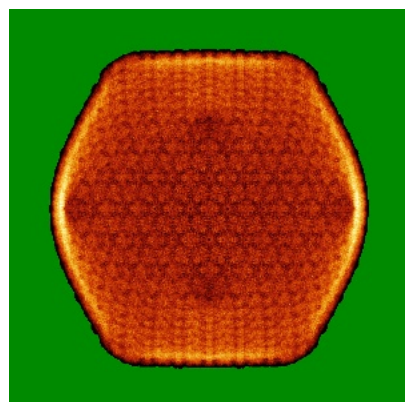


Z Index: 693

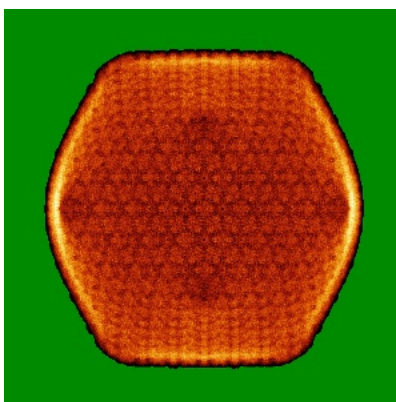
The images above show the largest variance slices of the map in three orthogonal directions.

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

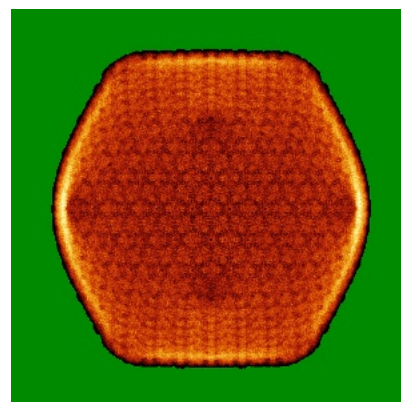
6.4.1 Primary map



X

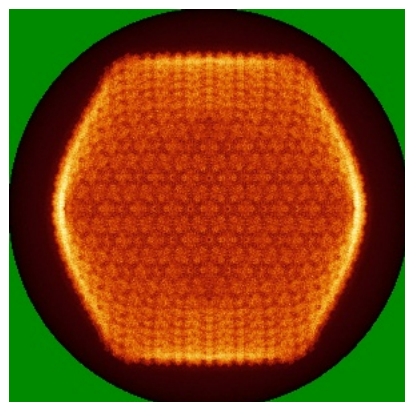


Y

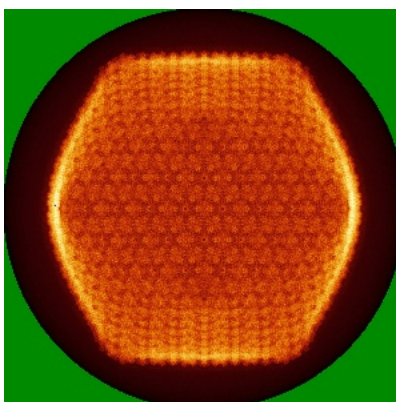


Z

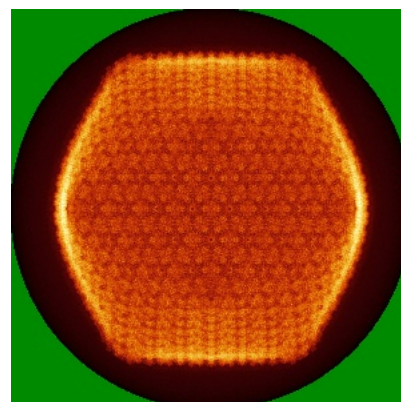
6.4.2 Raw map



X



Y

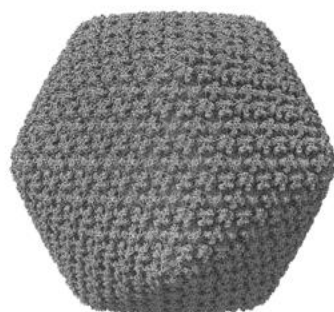


Z

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



X



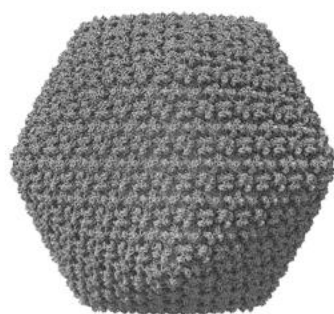
Y



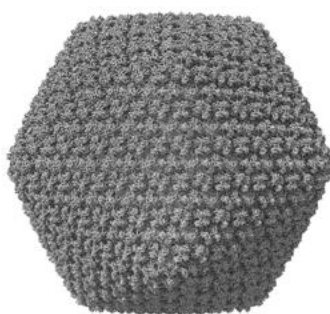
Z

The images above show the 3D surface view of the map at the recommended contour level 0.006. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

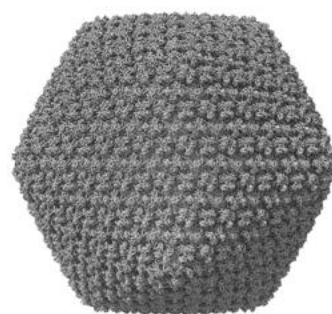
6.5.2 Raw map



X



Y



Z

These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

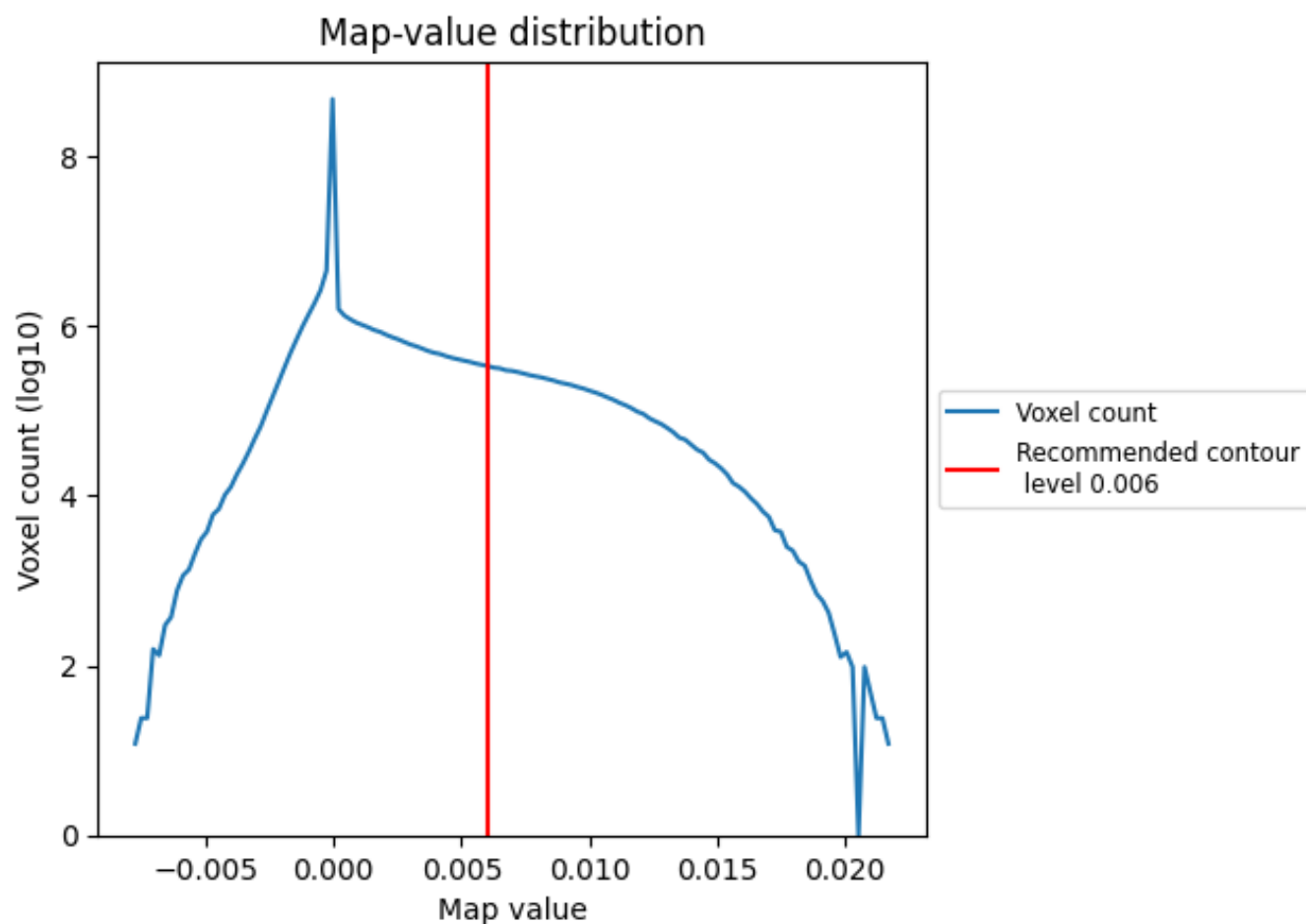
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

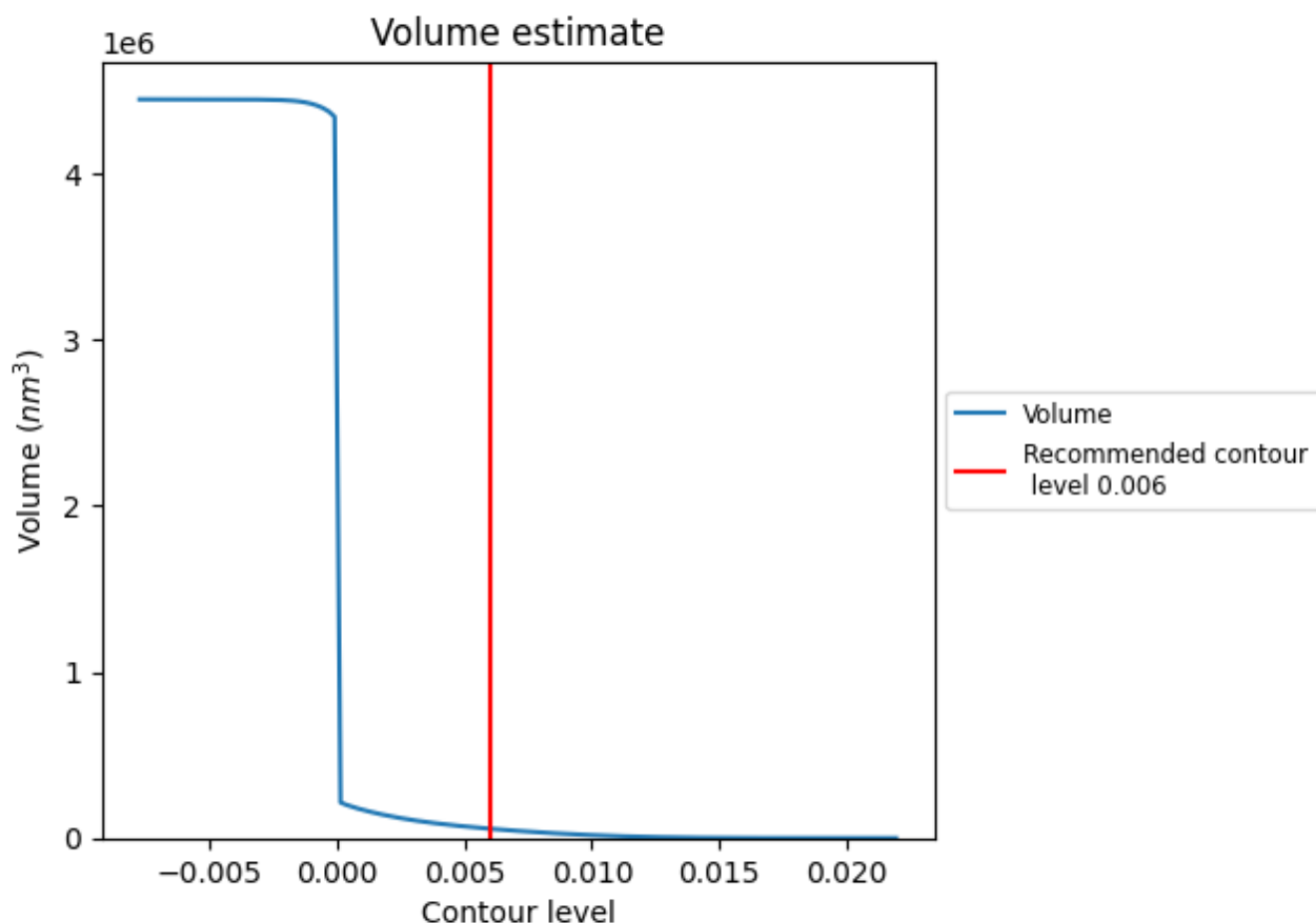
This section contains the results of statistical analysis of the map.

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.

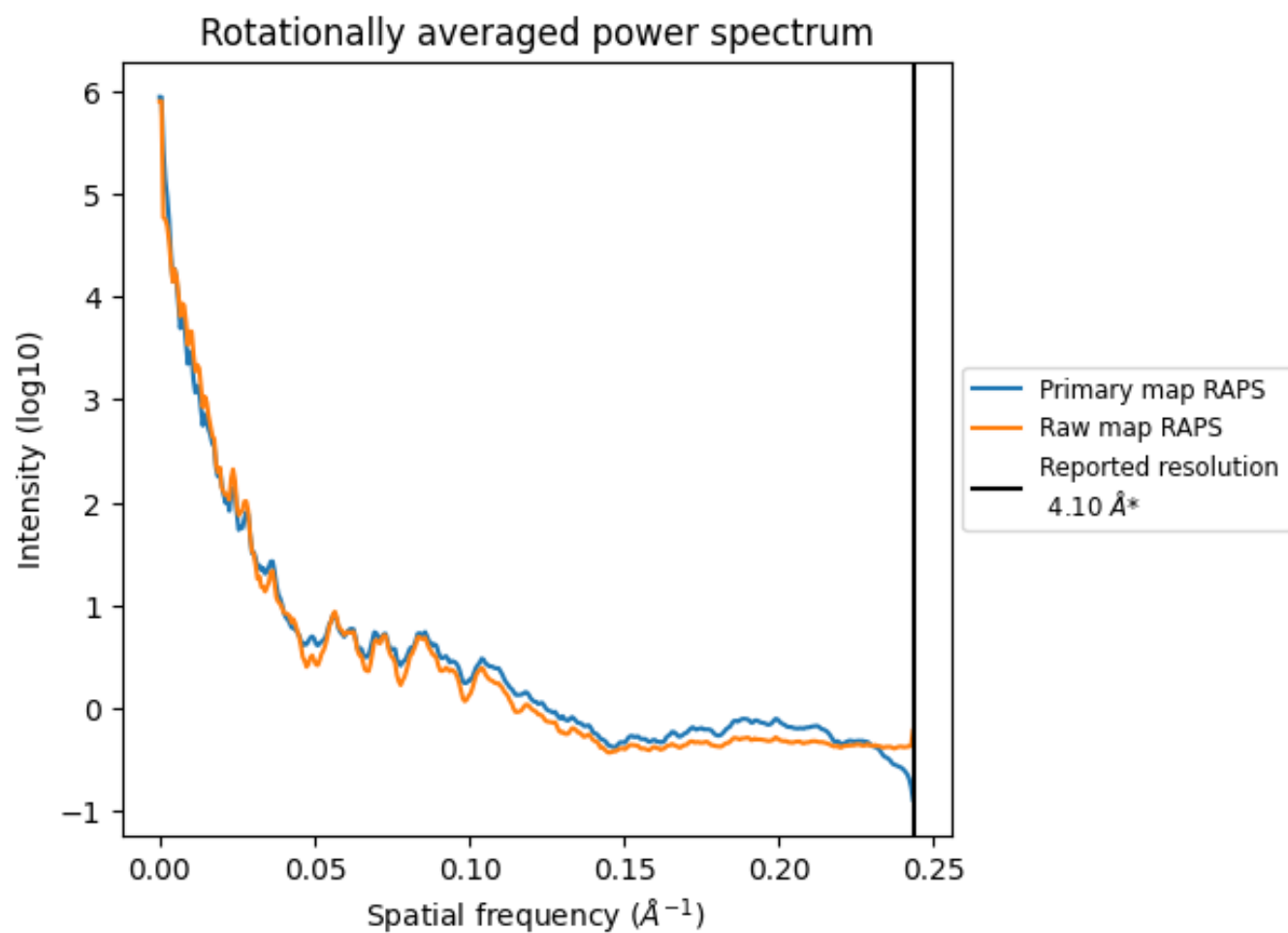
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 56255 nm³; this corresponds to an approximate mass of 50817 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 ⓘ

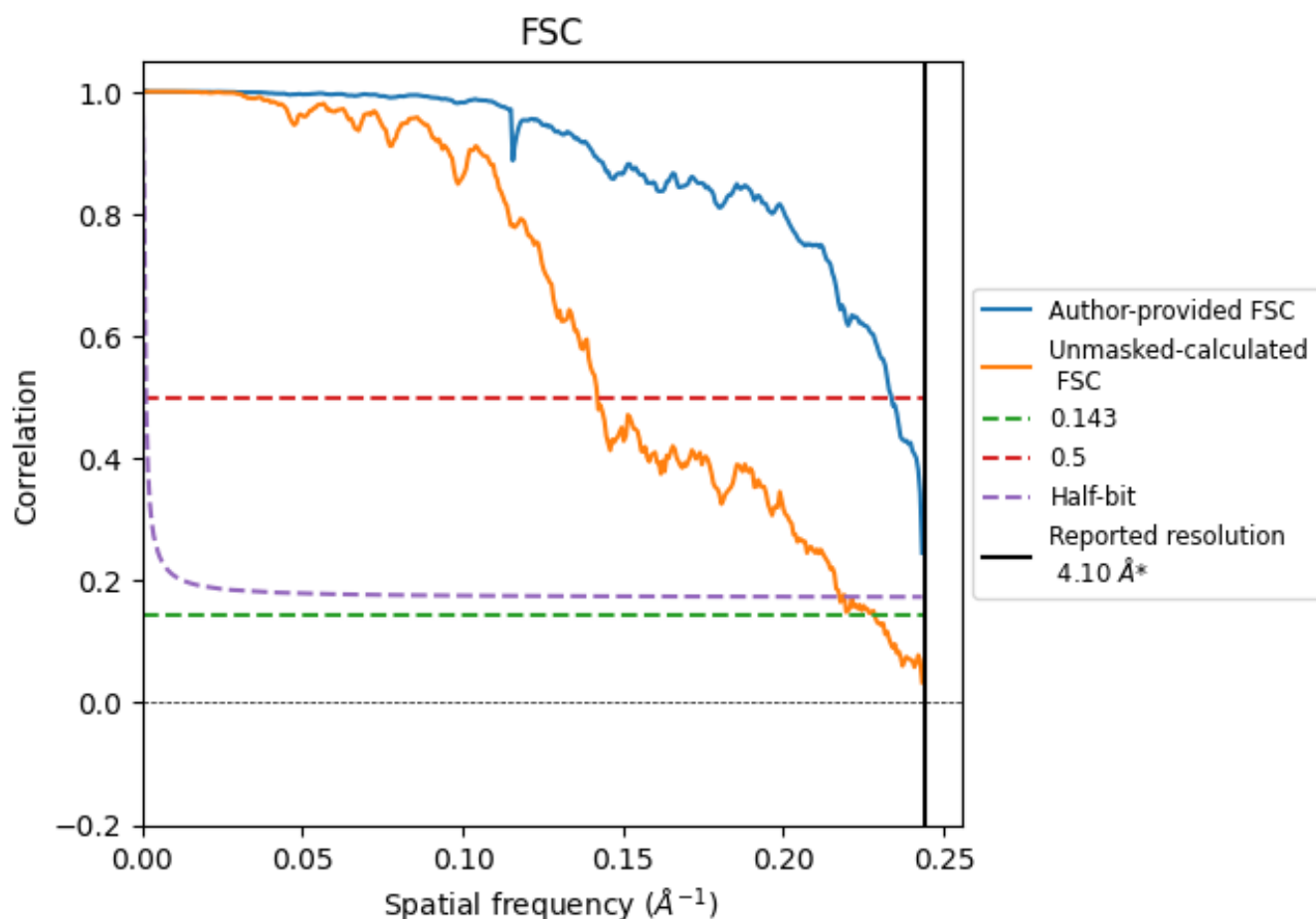


*Reported resolution corresponds to spatial frequency of 0.244 Å⁻¹

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 0.244 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

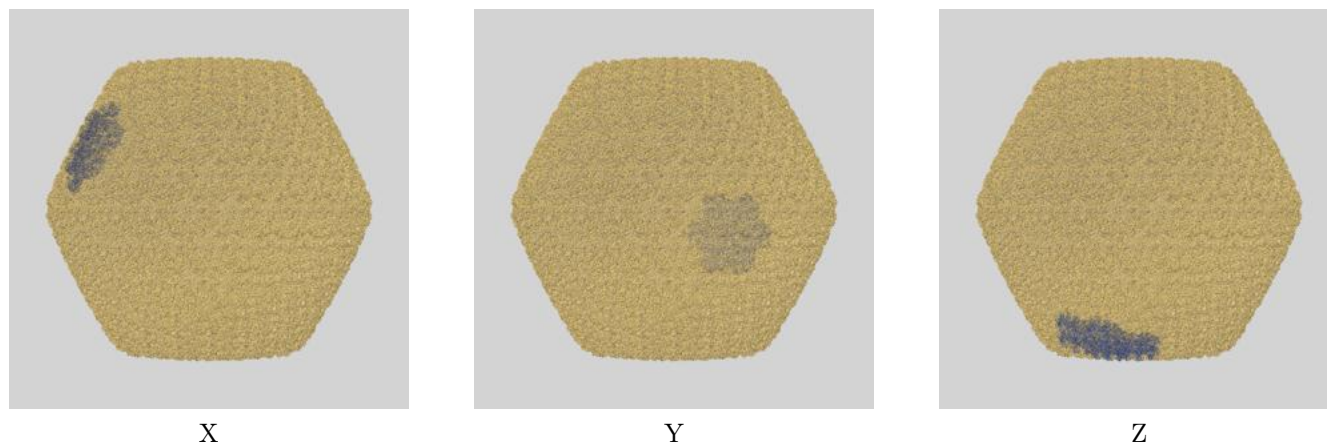
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.10	-	-
Author-provided FSC curve	-	4.28	-
Unmasked-calculated*	4.38	7.04	4.60

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

9 Map-model fit [i](#)

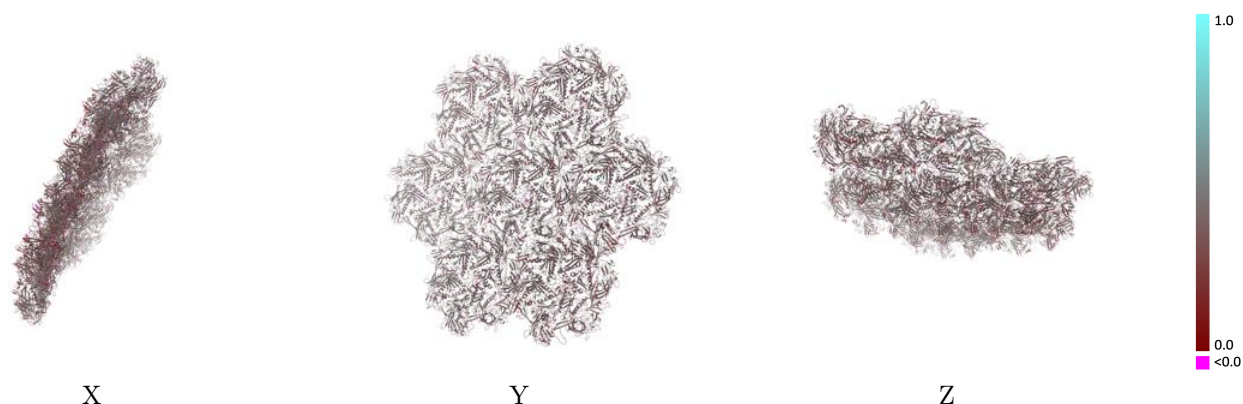
This section contains information regarding the fit between EMDB map EMD-13862 and PDB model 8BFL. Per-residue inclusion information can be found in section [3](#) on page [8](#).

9.1 Map-model overlay [i](#)



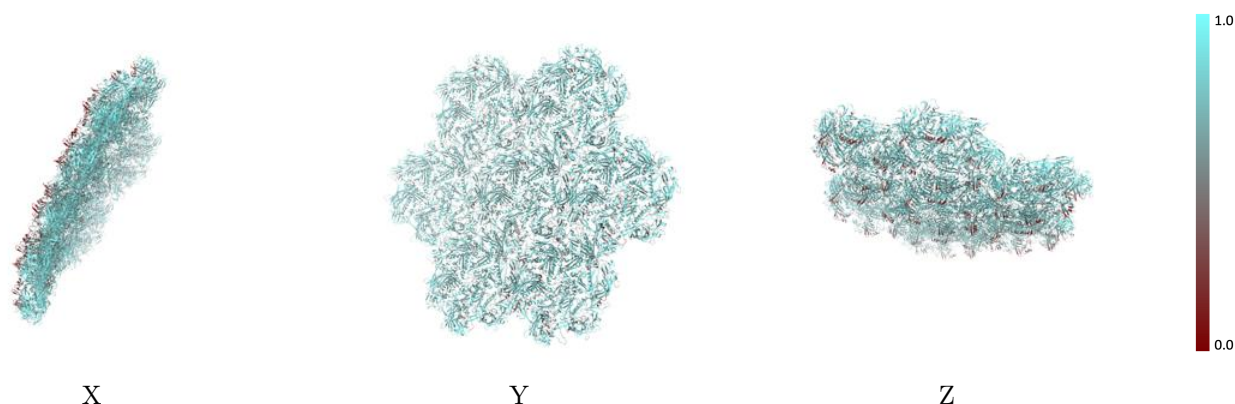
The images above show the 3D surface view of the map at the recommended contour level 0.006 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



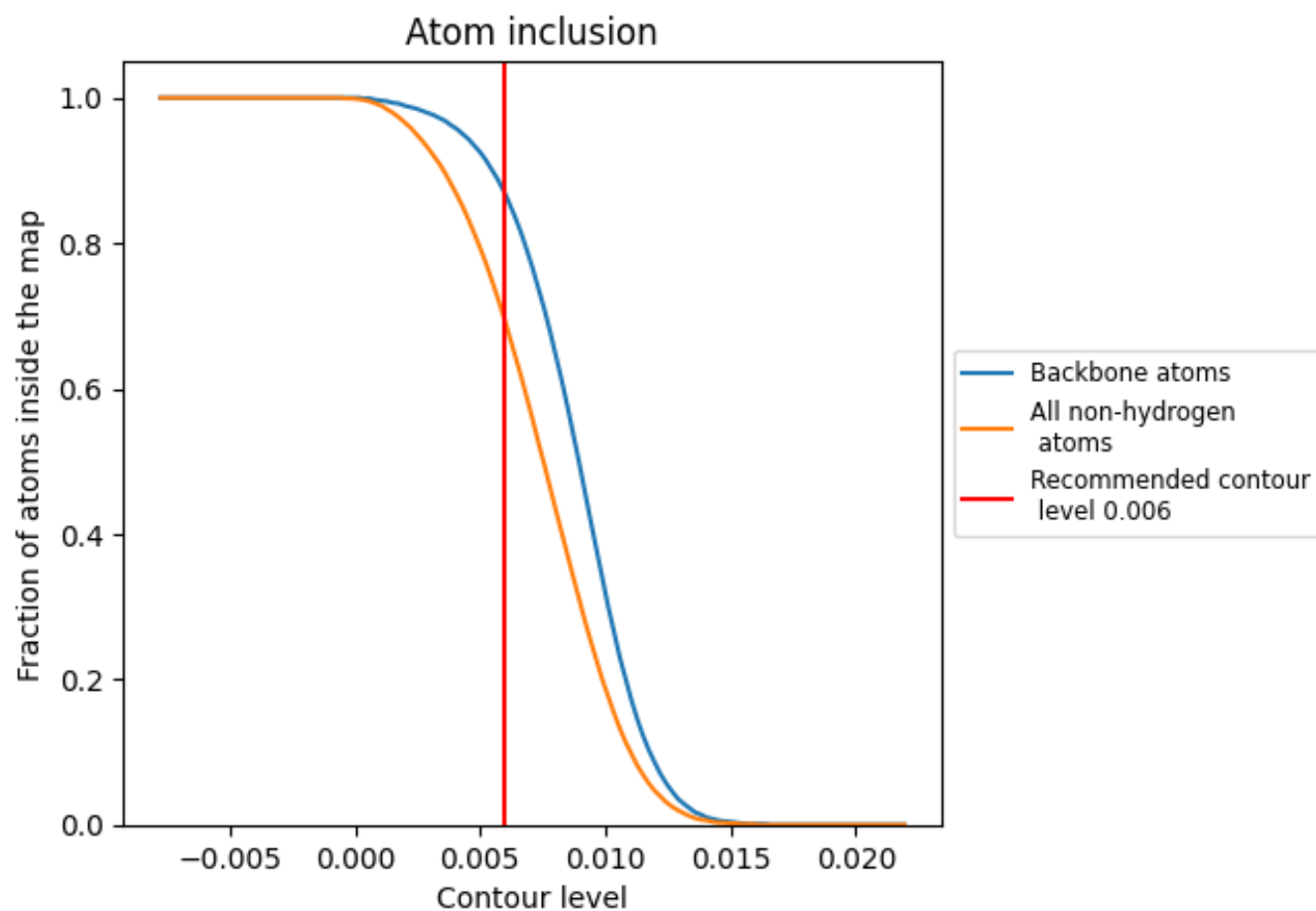
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.006).

9.4 Atom inclusion [i](#)



At the recommended contour level, 87% of all backbone atoms, 69% 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 (0.006) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.6930	 0.3590
A	 0.6730	 0.3500
B	 0.6890	 0.3620
C	 0.6950	 0.3580
D	 0.6750	 0.3450
E	 0.6820	 0.3540
F	 0.6770	 0.3480
G	 0.6890	 0.3620
H	 0.7010	 0.3690
I	 0.7080	 0.3770
J	 0.6900	 0.3640
K	 0.6880	 0.3600
L	 0.7090	 0.3720
M	 0.6860	 0.3580
N	 0.6760	 0.3530
O	 0.6790	 0.3570
P	 0.6970	 0.3640
Q	 0.6710	 0.3510
R	 0.6710	 0.3570
S	 0.7020	 0.3680
T	 0.6980	 0.3680
U	 0.6930	 0.3640
V	 0.7090	 0.3740
W	 0.7070	 0.3740
X	 0.6920	 0.3580
Y	 0.7130	 0.3710
Z	 0.7070	 0.3570
a	 0.6970	 0.3560
b	 0.7120	 0.3720
c	 0.7140	 0.3670
d	 0.6990	 0.3510
e	 0.6890	 0.3500
f	 0.6650	 0.3330
g	 0.6820	 0.3460
h	 0.6870	 0.3450



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Chain	Atom inclusion	Q-score
i	 0.6780	 0.3420
j	 0.6780	 0.3370
k	 0.6960	 0.3600
l	 0.7150	 0.3680
m	 0.7120	 0.3700
n	 0.6880	 0.3520
o	 0.6910	 0.3550
p	 0.7060	 0.3580