Full wwPDB EM Validation Report ⓘ

Nov 9, 2026 – 07:16 PM JST

PDB ID	:	25CE / pdb_000025ce
EMDB ID	:	EMD-80009
Title	:	RB43 intact state baseplate subunit
Authors	:	Zhang, Y.; Ayala, R.; Moiseenko, A.V.
Deposited on	:	2026-03-28
Resolution	:	3.51 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:

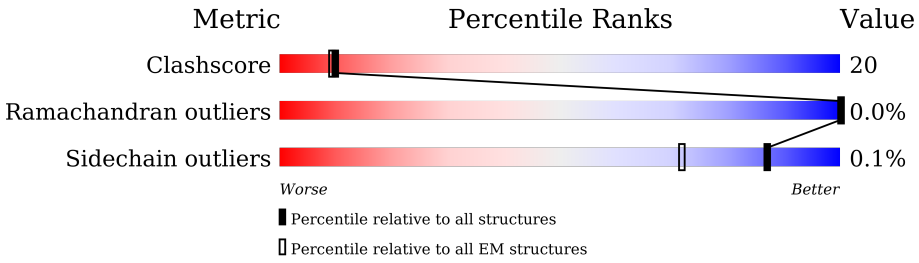
EMDB validation analysis	:	0.0.1.dev133
MolProbity	:	4-5-2 with Phenix2.2
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.51

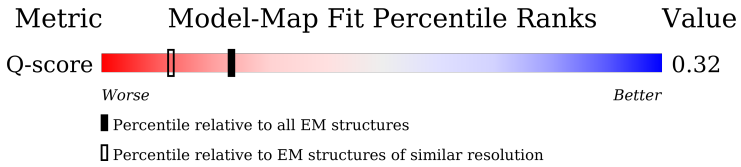
1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.51 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	13085 (3.01 - 4.01)

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

Mol	Chain	Length	Quality of chain
1	B	361	53% 7% 39%
1	D	361	44% 11% 44%
2	C	589	85% 9% 6%
3	E	287	9% 78% 12% 9%

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Mol	Chain	Length	Quality of chain
3	F	287	7% 79% 12% 9%
4	G	220	15% 47% 46% 7%
4	H	220	17% 43% 50% 7%
4	U	220	23% 52% 41% 7%
4	b	220	20% 47% 45% 7%
4	c	220	15% 46% 46% 7%
4	d	220	17% 45% 48% 7%
5	I	605	16% 47% 53%
5	J	605	13% 51% 48%
5	K	605	15% 45% 54%
5	e	605	20% 49% 50%
5	f	605	13% 47% 51%
5	g	605	13% 48% 51%
6	L	463	11% 43% 52%
6	M	463	14% 44% 52%
6	N	463	10% 44% 52%
6	h	463	11% 45% 51%
6	i	463	11% 44% 52%
6	j	463	10% 49% 48%
7	O	130	5% 82% 12% 6%
7	k	130	86% 8% 6%
8	P	617	86% 13%
8	Q	617	78% 21%
8	W	617	85% 14%
8	X	617	79% 20%

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Mol	Chain	Length	Quality of chain
9	R	1027	6% 74% 26%
9	Y	1027	5% 63% 36%
10	S	330	5% 59% 39%
10	T	330	71% 26%
10	Z	330	61% 38%
10	a	330	70% 27%
11	V	184	83% 17%
11	l	184	82% 18%
12	A	367	79% 14% 7%

2 Entry composition (i)

There are 12 unique types of molecules in this entry. The entry contains 122384 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 Gp48 baseplate.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	B	221	Total	C	N	O	S	0	0
			1747	1112	291	339	5		
1	D	201	Total	C	N	O	S	0	0
			1605	1026	266	308	5		

- Molecule 2 is a protein called Pre-baseplate central spike protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	C	556	Total	C	N	O	S	0	0
			4309	2693	752	848	16		

- Molecule 3 is a protein called Gp54 baseplate-tail tube initiator.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	E	260	Total	C	N	O	S	0	0
			2043	1305	335	393	10		
3	F	260	Total	C	N	O	S	0	0
			2043	1305	335	393	10		

- Molecule 4 is a protein called Gp11 bp wedge subunit tail pin.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	G	204	Total	C	N	O	S	0	0
			1592	1008	260	318	6		
4	H	204	Total	C	N	O	S	0	0
			1592	1008	260	318	6		
4	U	204	Total	C	N	O	S	0	0
			1592	1008	260	318	6		
4	b	204	Total	C	N	O	S	0	0
			1592	1008	260	318	6		
4	c	204	Total	C	N	O	S	0	0
			1592	1008	260	318	6		

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Mol	Chain	Residues	Atoms					AltConf	Trace
4	d	204	Total 1592	C 1008	N 260	O 318	S 6	0	0

- Molecule 5 is a protein called Baseplate wedge protein gp10.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	I	605	Total 4718	C 2973	N 799	O 934	S 12	0	0
5	J	597	Total 4662	C 2939	N 791	O 921	S 11	0	0
5	K	601	Total 4670	C 2939	N 794	O 926	S 11	0	0
5	e	605	Total 4718	C 2973	N 799	O 934	S 12	0	0
5	f	597	Total 4662	C 2939	N 791	O 921	S 11	0	0
5	g	601	Total 4670	C 2939	N 794	O 926	S 11	0	0

- Molecule 6 is a protein called Gp12 short tail fibers.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	L	445	Total 3319	C 2073	N 576	O 656	S 14	0	0
6	M	445	Total 3319	C 2073	N 576	O 656	S 14	0	0
6	N	445	Total 3319	C 2073	N 576	O 656	S 14	0	0
6	h	445	Total 3319	C 2073	N 576	O 656	S 14	0	0
6	i	445	Total 3319	C 2073	N 576	O 656	S 14	0	0
6	j	445	Total 3319	C 2073	N 576	O 656	S 14	0	0

- Molecule 7 is a protein called Gp25 baseplate wedge subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	O	122	Total 958	C 604	N 155	O 197	S 2	0	0
7	k	122	Total 958	C 604	N 155	O 197	S 2	0	0

- Molecule 8 is a protein called Baseplate wedge protein gp6.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	P	617	Total	C	N	O	S	0	0
			4455	2739	781	925	10		
8	Q	613	Total	C	N	O	S	0	0
			4582	2837	783	949	13		
8	W	617	Total	C	N	O	S	0	0
			4455	2739	781	925	10		
8	X	613	Total	C	N	O	S	0	0
			4582	2837	783	949	13		

- Molecule 9 is a protein called Baseplate wedge protein gp7.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	R	1027	Total	C	N	O	S	0	0
			8383	5370	1390	1602	21		
9	Y	1027	Total	C	N	O	S	0	0
			8383	5370	1390	1602	21		

- Molecule 10 is a protein called Gp8 baseplate wedge subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	S	326	Total	C	N	O	S	0	0
			2646	1685	440	503	18		
10	T	320	Total	C	N	O	S	0	0
			2595	1652	430	495	18		
10	Z	326	Total	C	N	O	S	0	0
			2646	1685	440	503	18		
10	a	320	Total	C	N	O	S	0	0
			2595	1652	430	495	18		

- Molecule 11 is a protein called Gp53 baseplate wedge subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	V	184	Total	C	N	O	S	0	0
			1532	975	255	296	6		
11	l	184	Total	C	N	O	S	0	0
			1532	975	255	296	6		

- Molecule 12 is a protein called Gp27 baseplate hub subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	A	343	Total	C	N	O	S	0	0
			2769	1766	449	540	14		

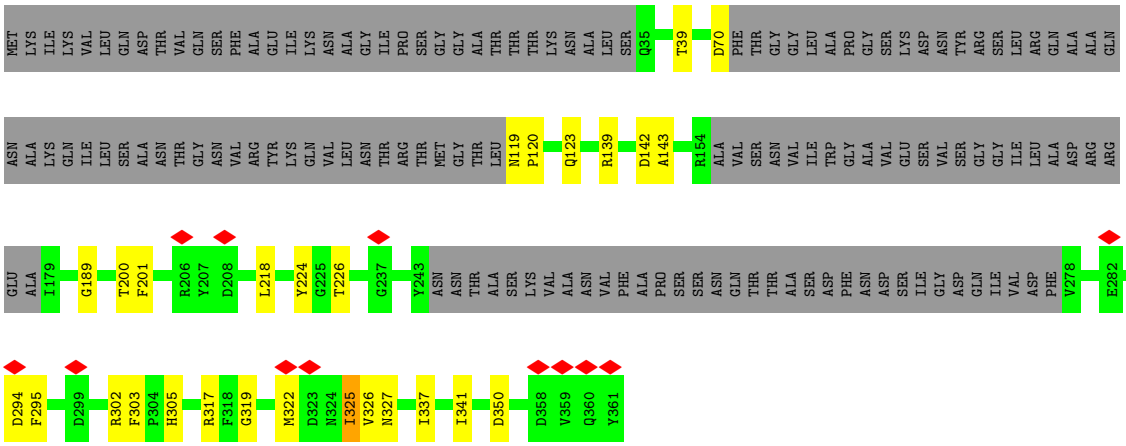
3 Residue-property plots (i)

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

- Molecule 1: Gp48 baseplate

Chain B:

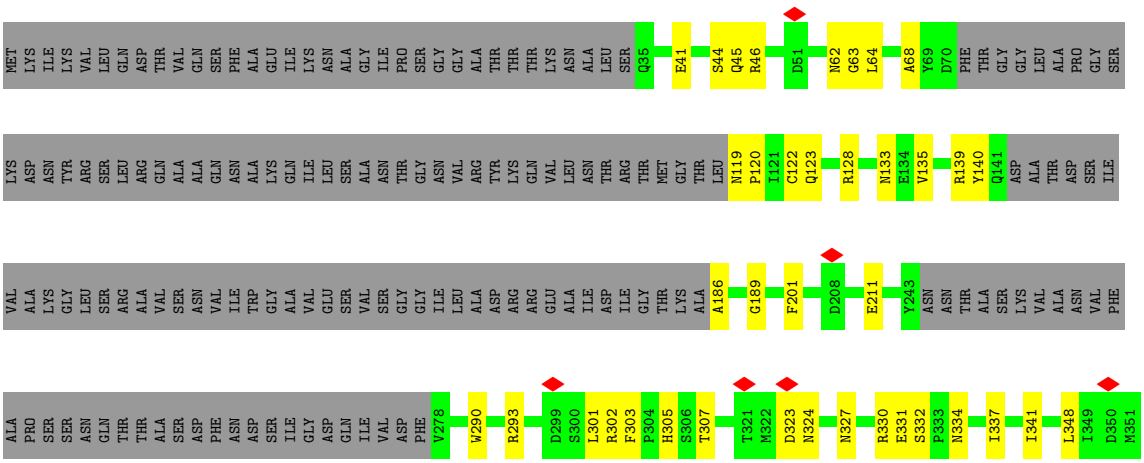


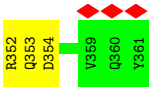


- Molecule 1: Gp48 baseplate

Chain D:

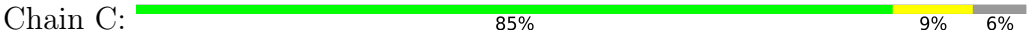


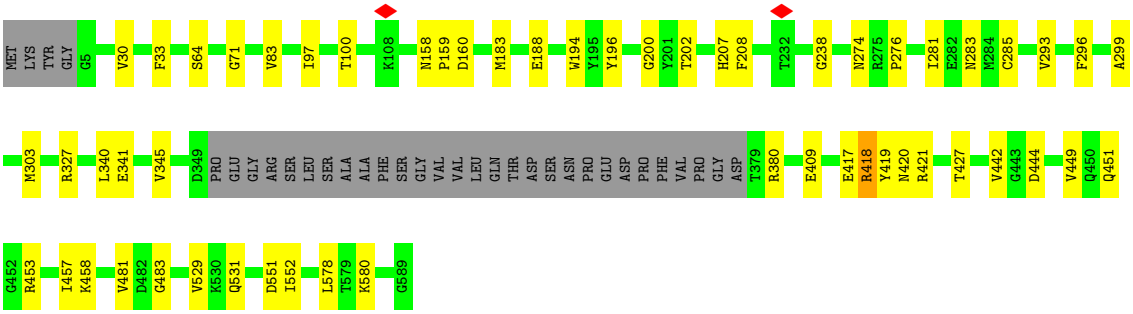




• Molecule 2: Pre-baseplate central spike protein

Chain C:

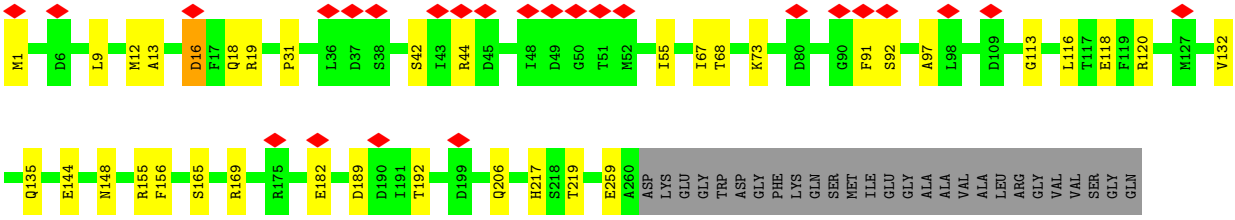




• Molecule 3: Gp54 baseplate-tail tube initiator

Chain E:

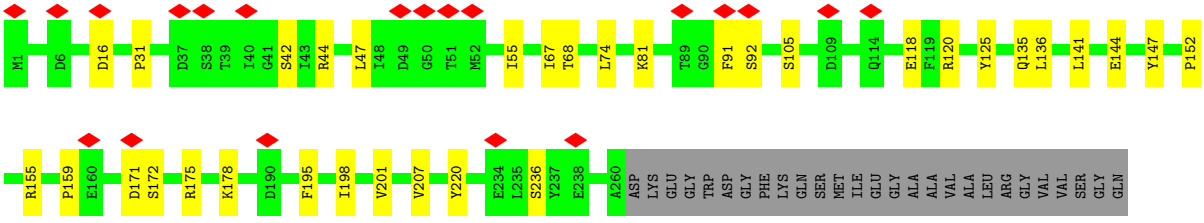




• Molecule 3: Gp54 baseplate-tail tube initiator

Chain F:

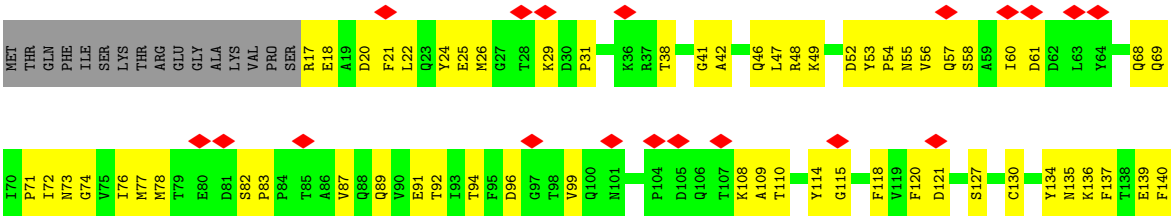


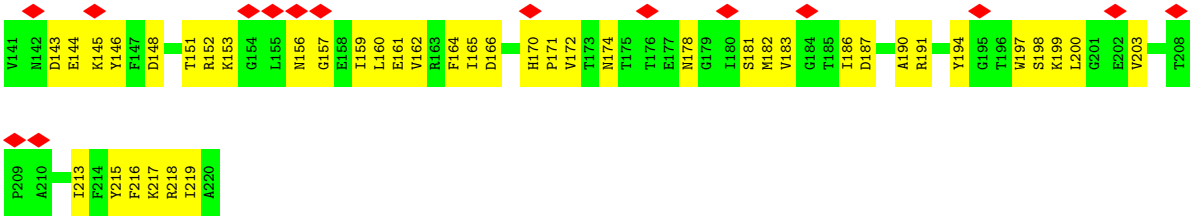


• Molecule 4: Gp11 bp wedge subunit tail pin

Chain G:



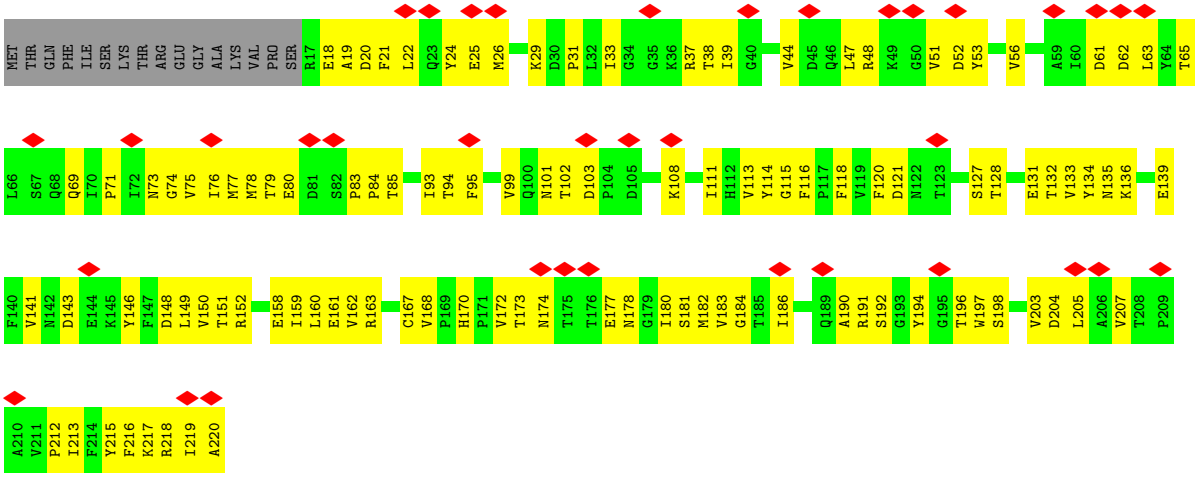




• Molecule 4: Gp11 bp wedge subunit tail pin

Chain H:

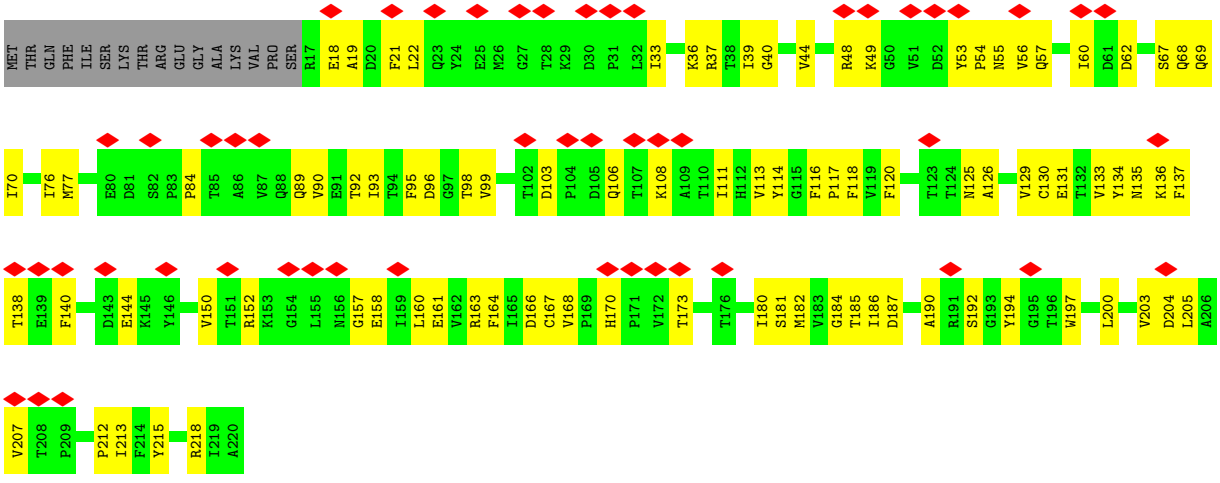




• Molecule 4: Gp11 bp wedge subunit tail pin

Chain U:

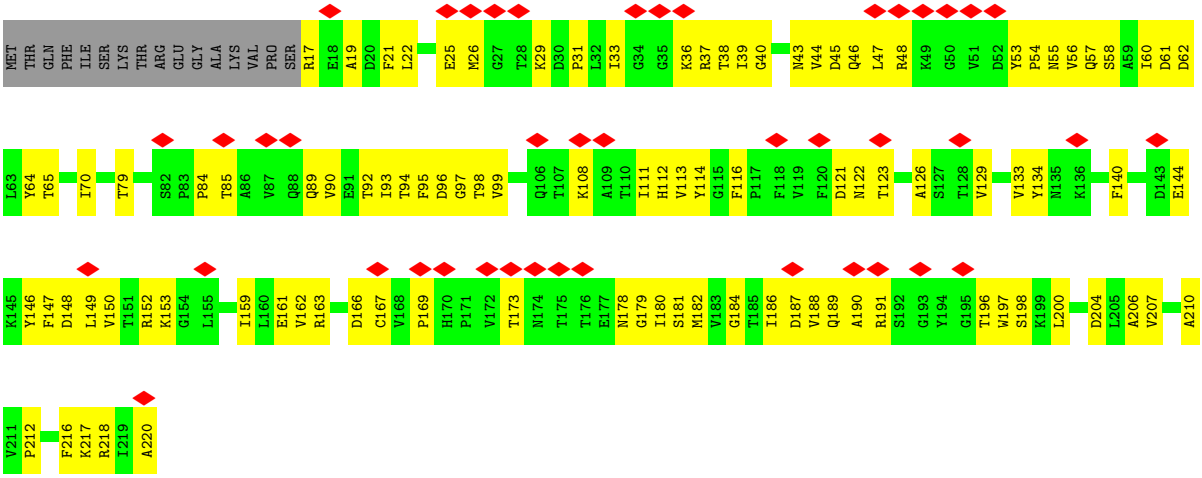




• Molecule 4: Gp11 bp wedge subunit tail pin

Chain b:

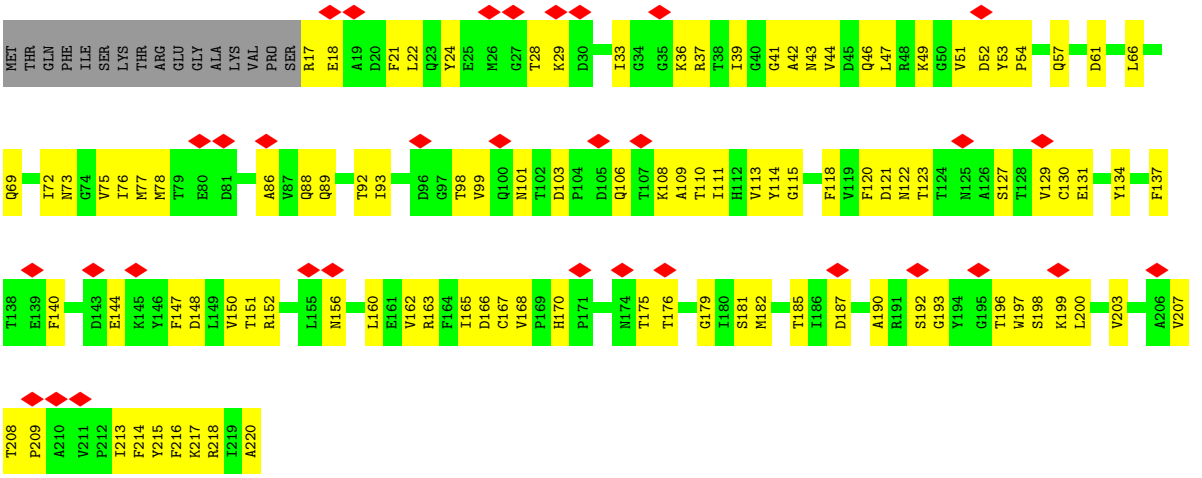




• Molecule 4: Gp11 bp wedge subunit tail pin

Chain c:

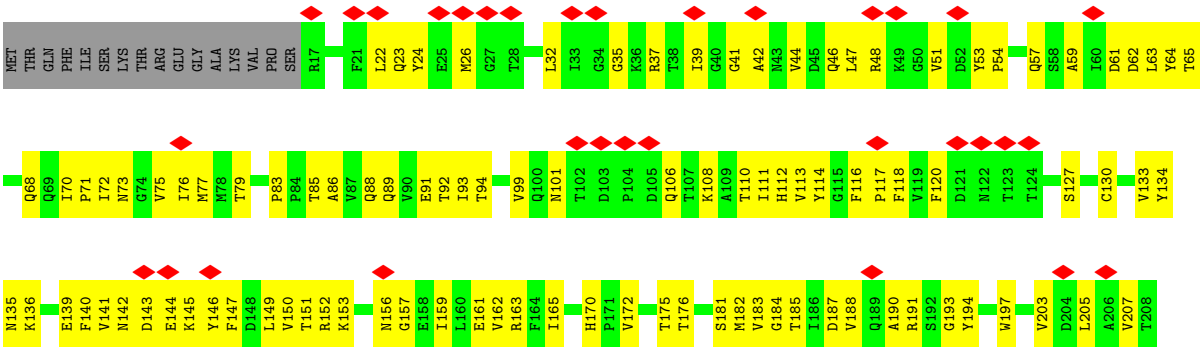


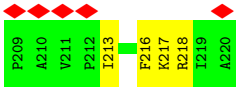


• Molecule 4: Gp11 bp wedge subunit tail pin

Chain d:



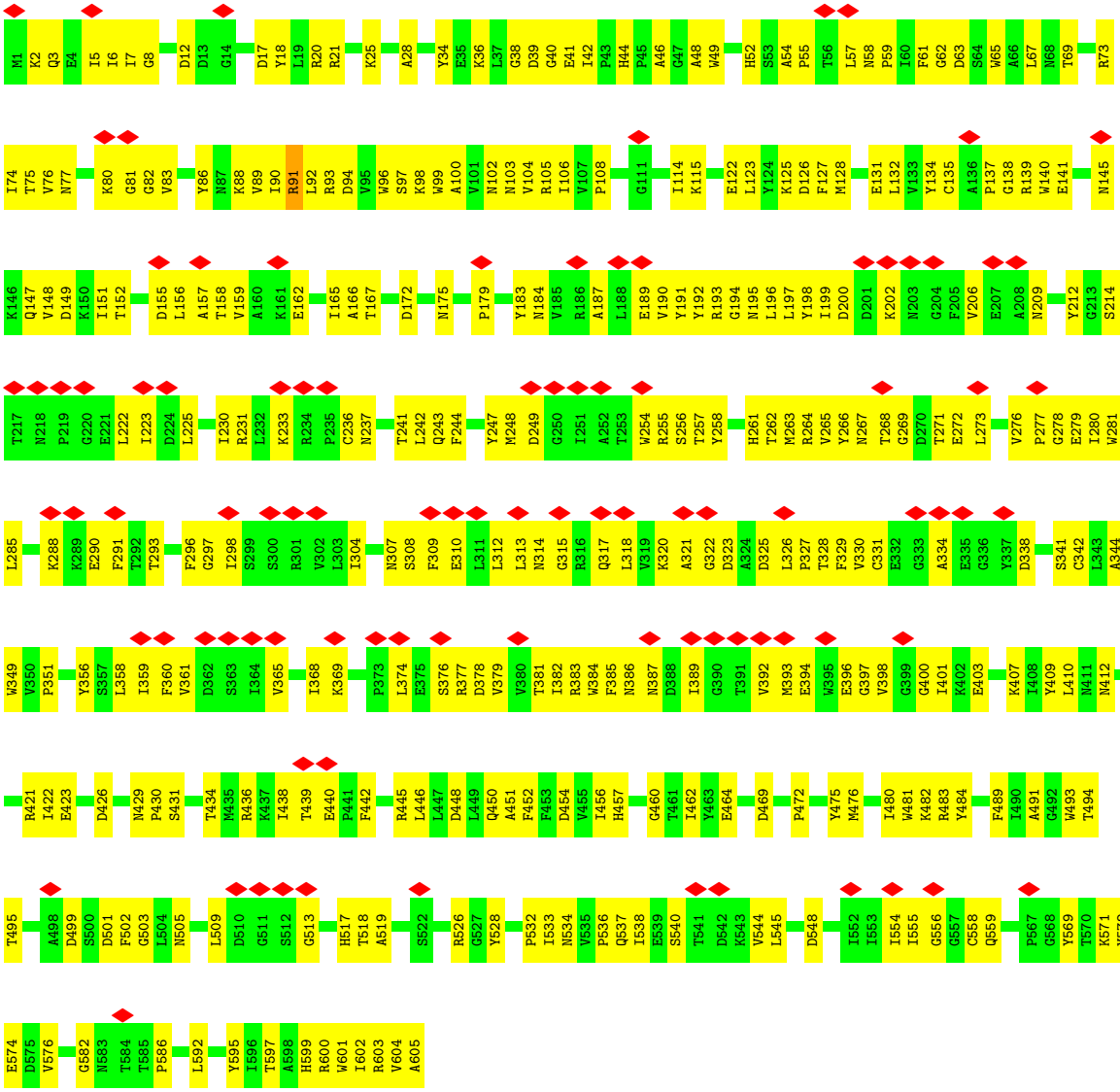




• Molecule 5: Baseplate wedge protein gp10

Chain I:

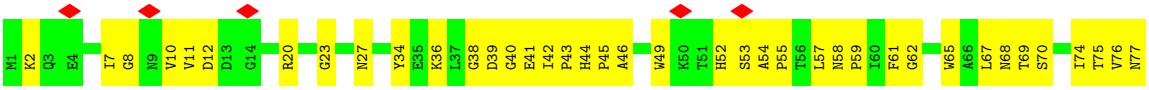


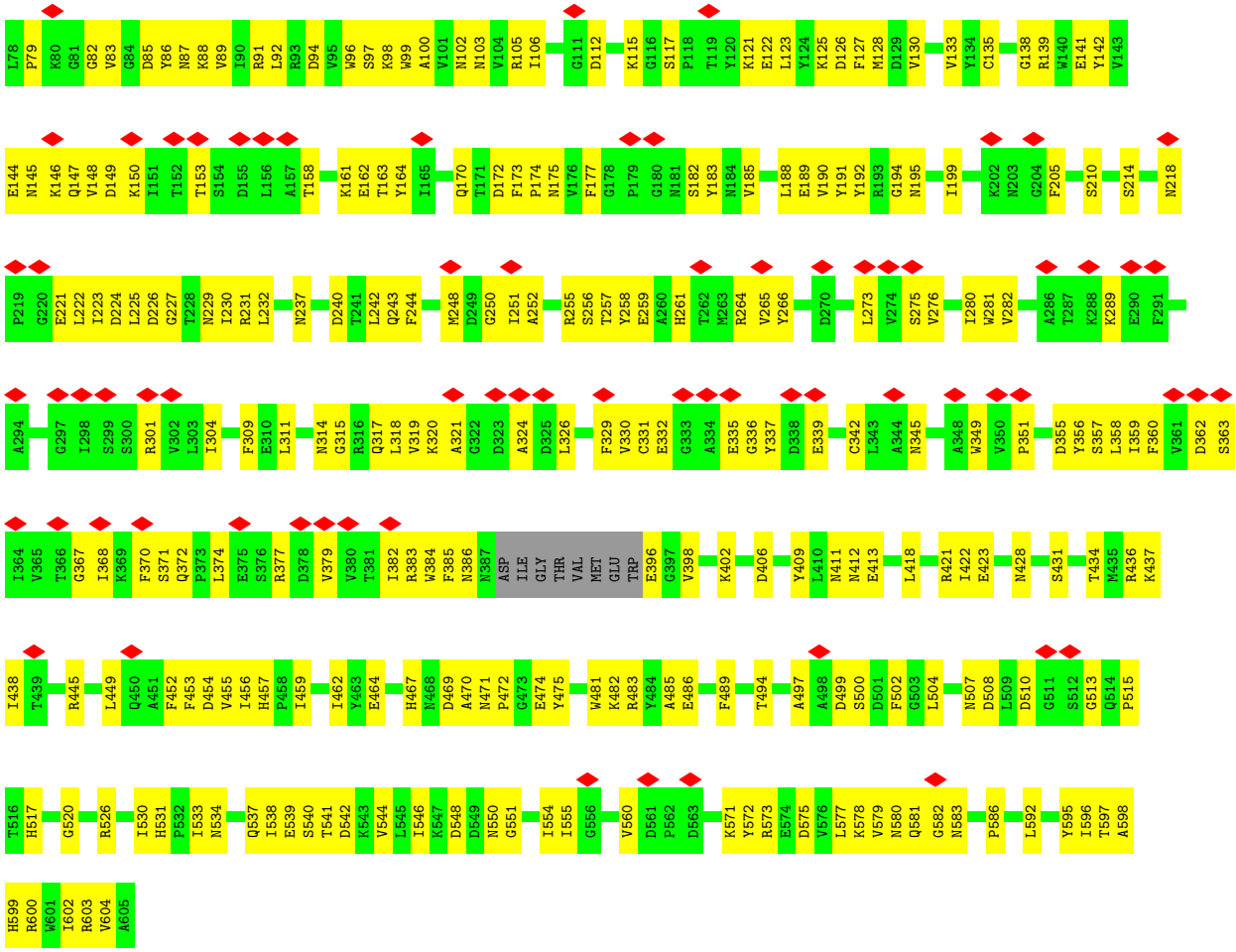


• Molecule 5: Baseplate wedge protein gp10

Chain J:



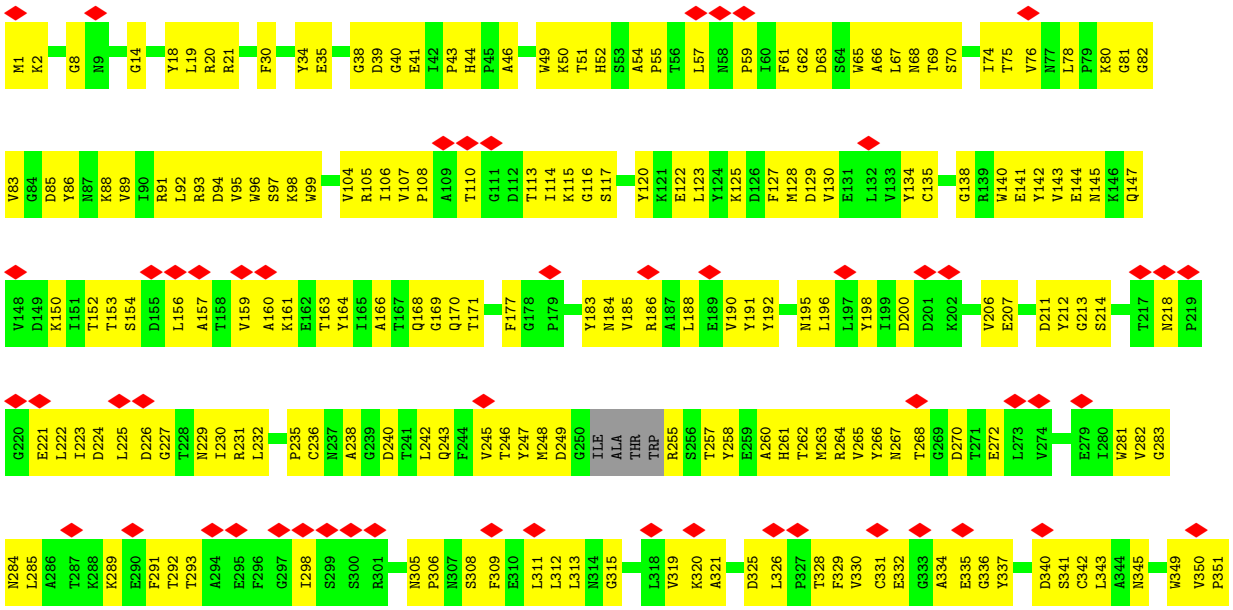


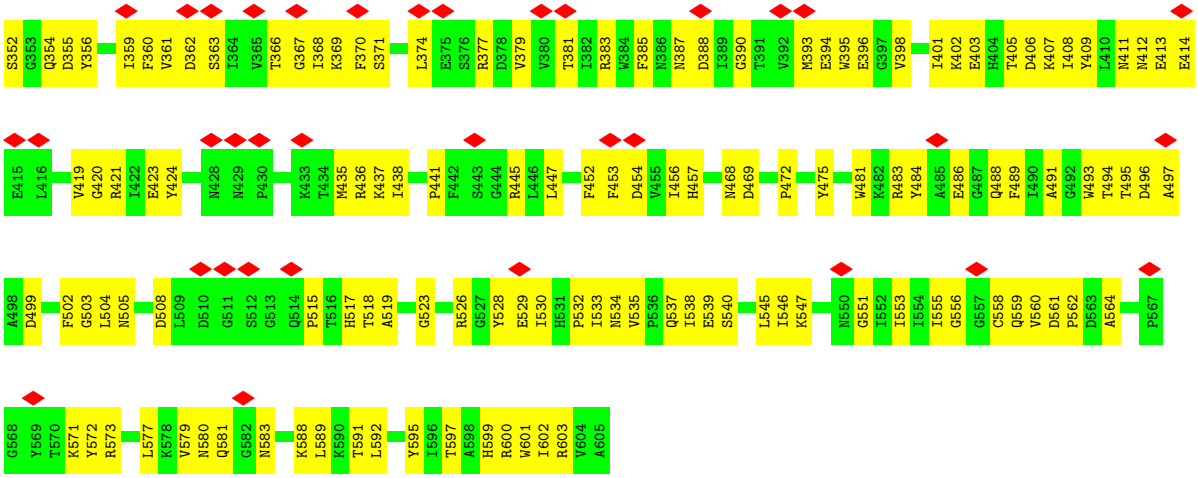


• Molecule 5: Baseplate wedge protein gp10

Chain K:



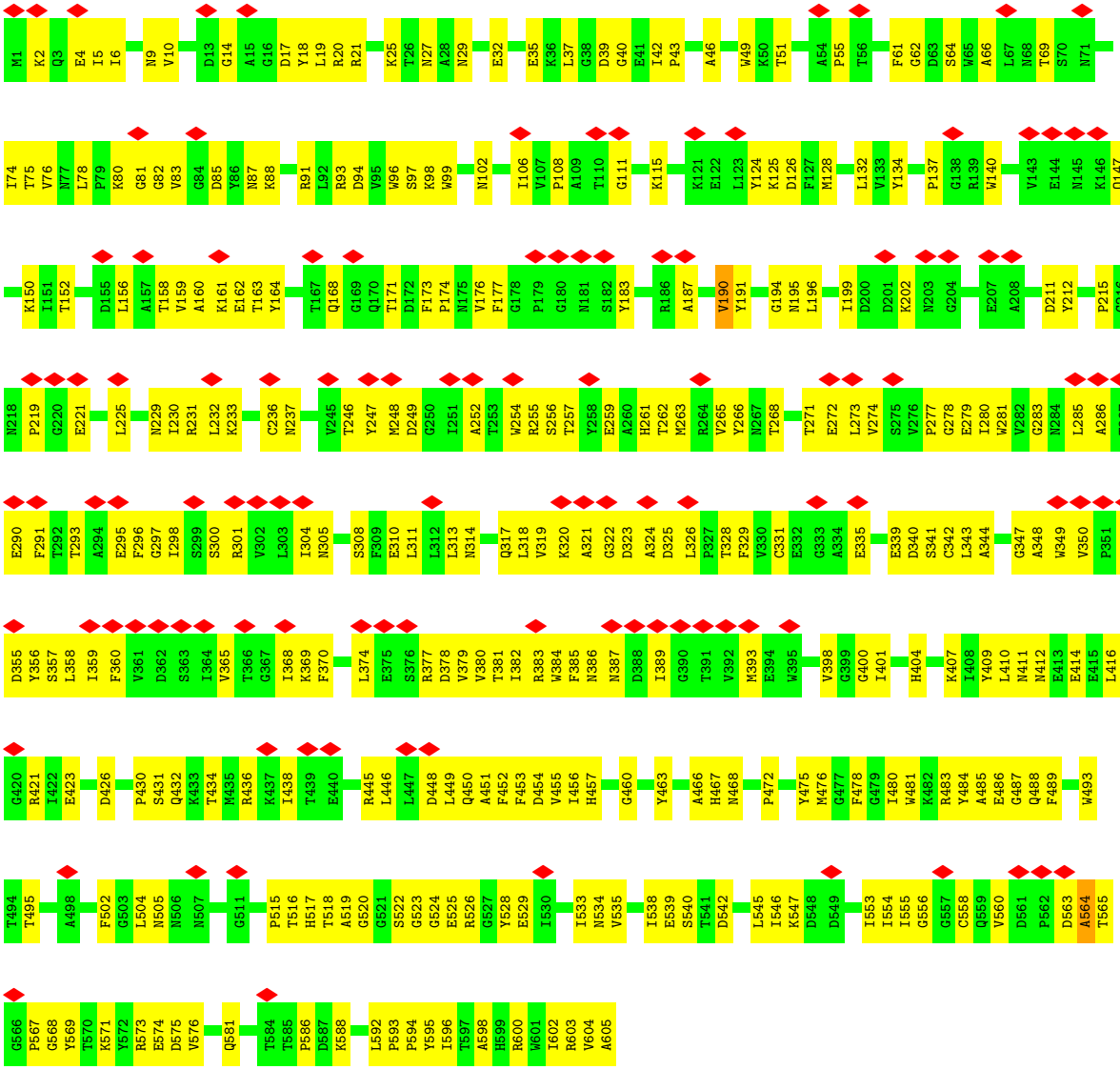




• Molecule 5: Baseplate wedge protein gp10

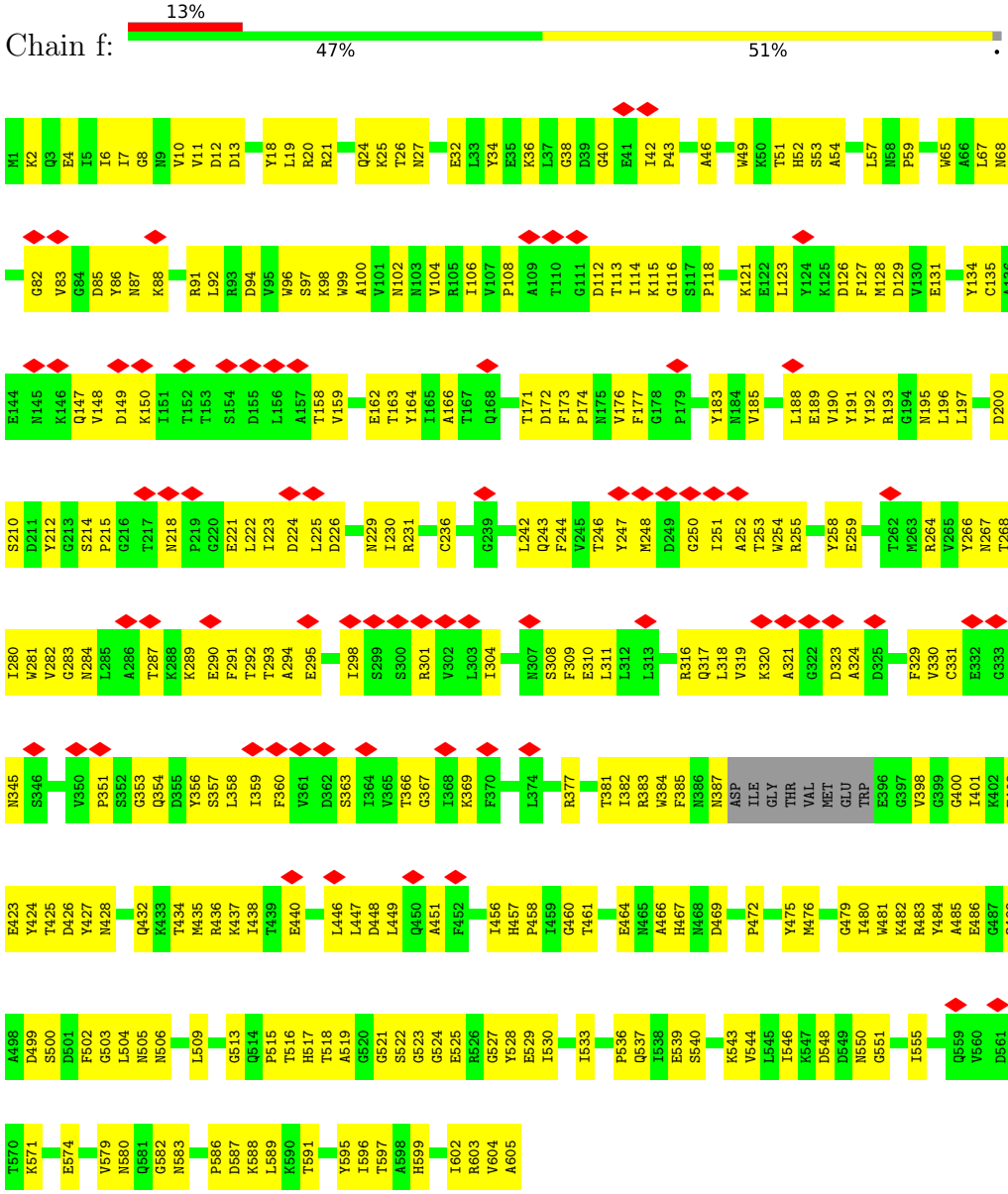
Chain e:





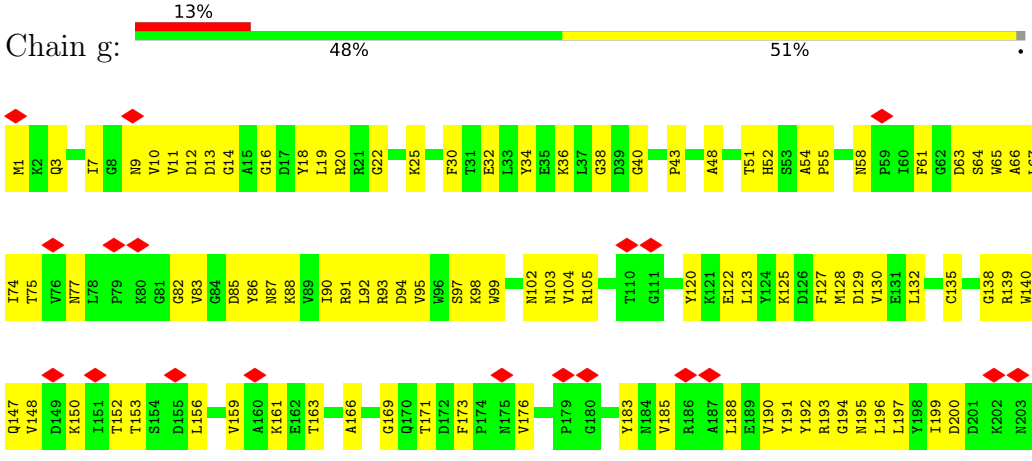
• Molecule 5: Baseplate wedge protein gp10

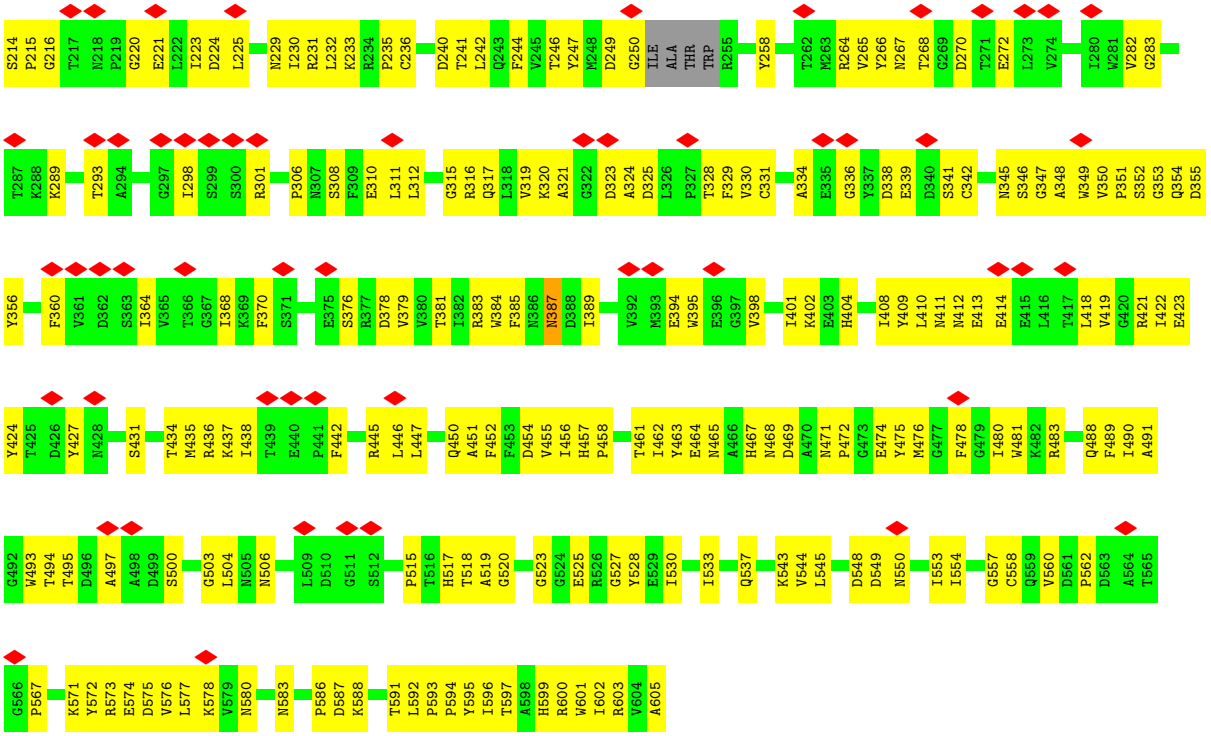
Chain f:



• Molecule 5: Baseplate wedge protein gp10

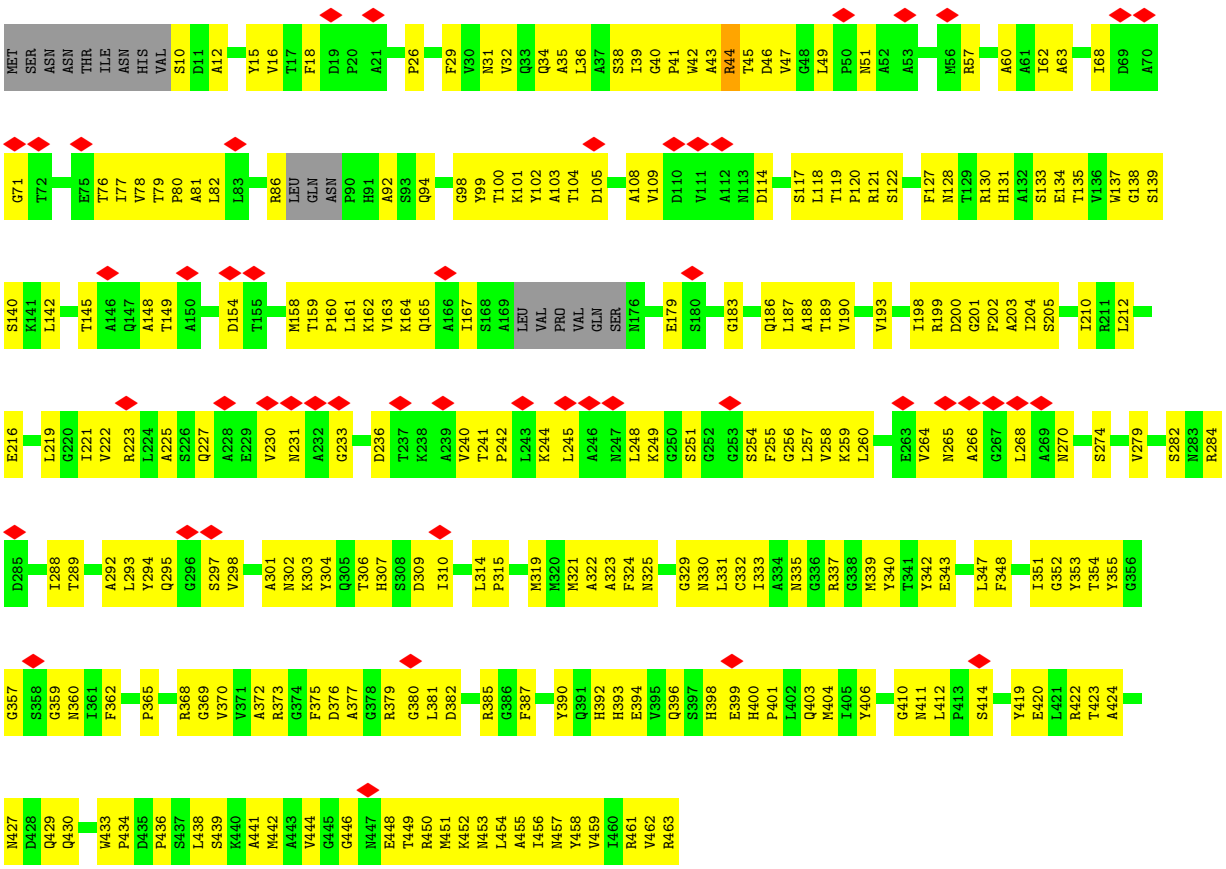
Chain g:





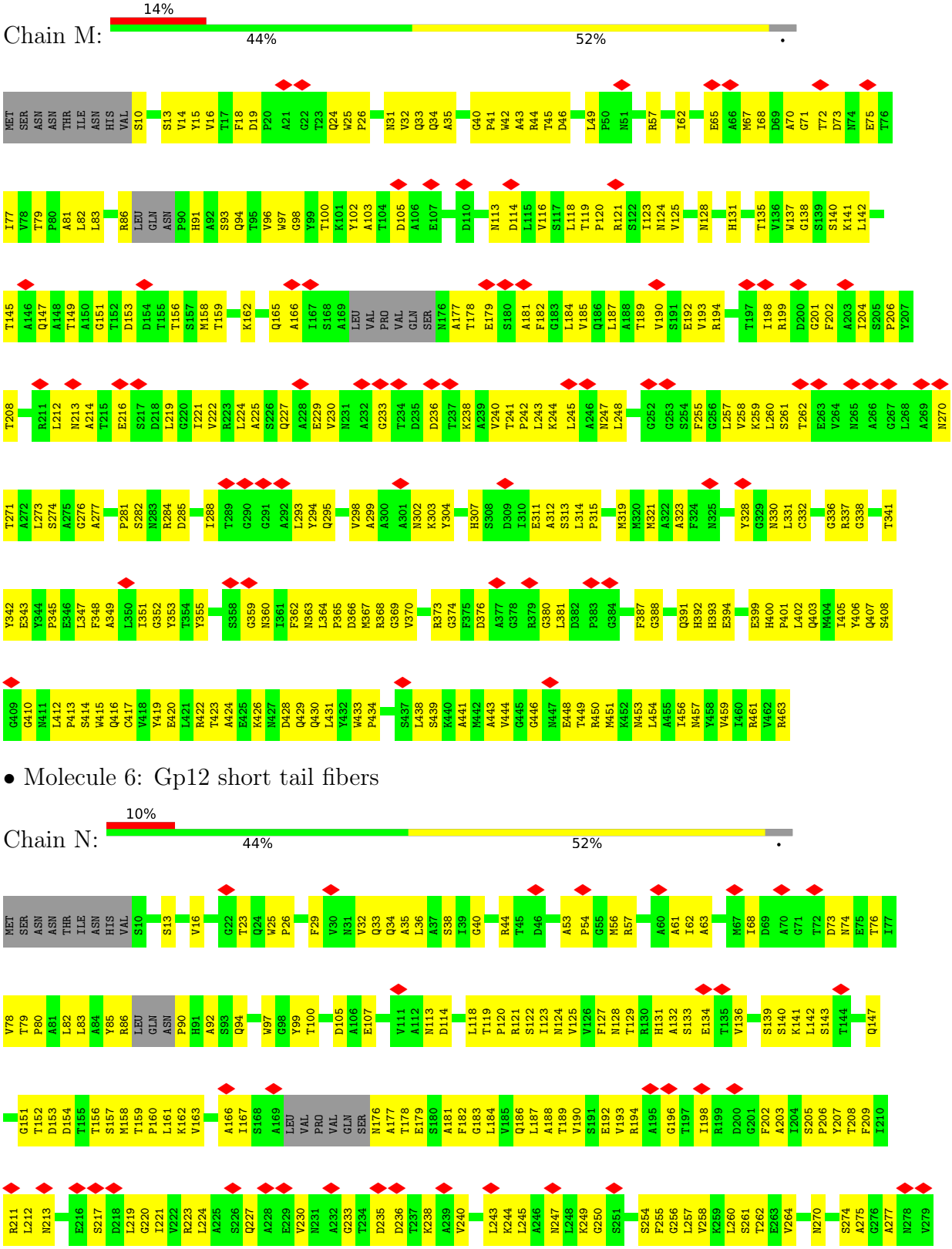
• Molecule 6: Gp12 short tail fibers





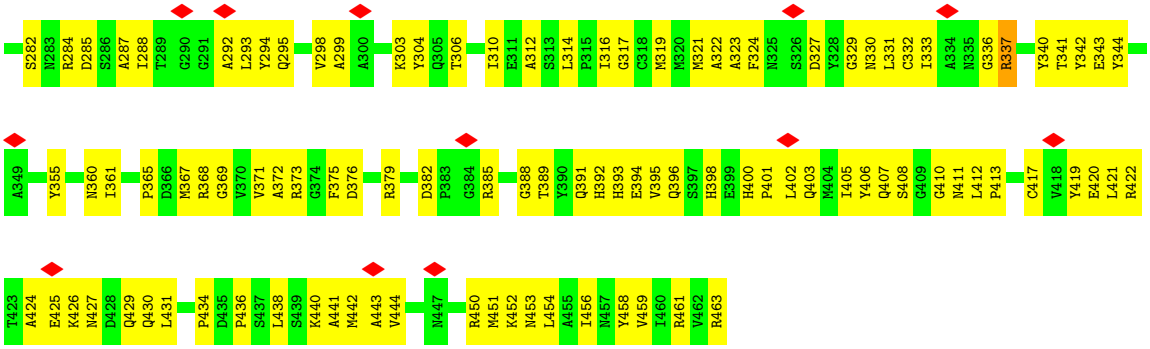
• Molecule 6: Gp12 short tail fibers

Chain M:



• Molecule 6: Gp12 short tail fibers

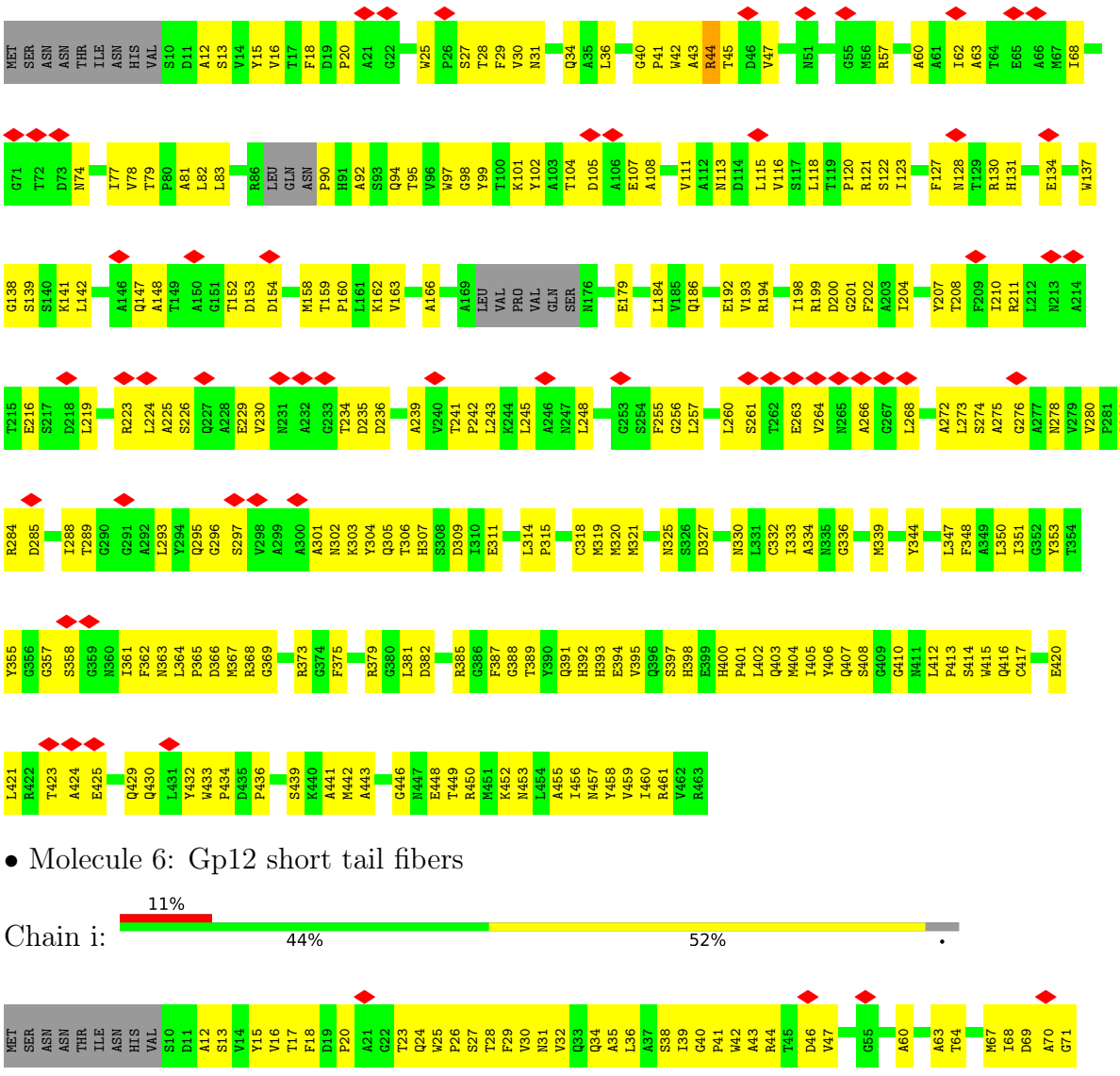
Chain N:



• Molecule 6: Gp12 short tail fibers

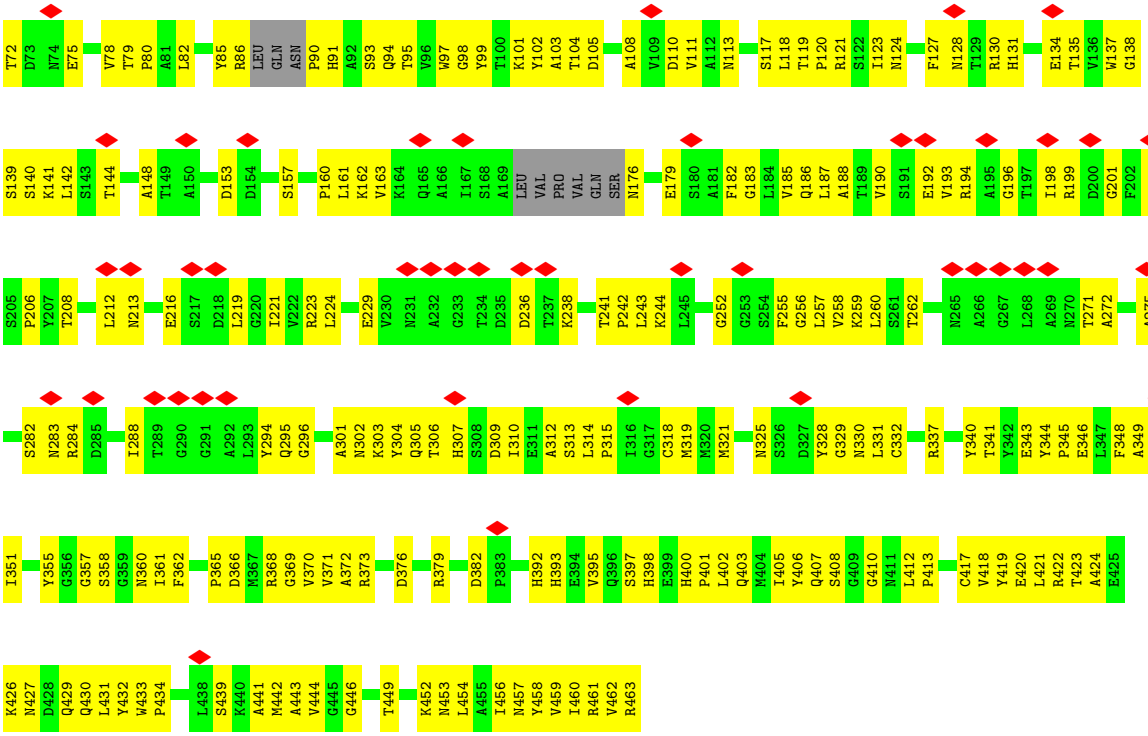
Chain h:





• Molecule 6: Gp12 short tail fibers

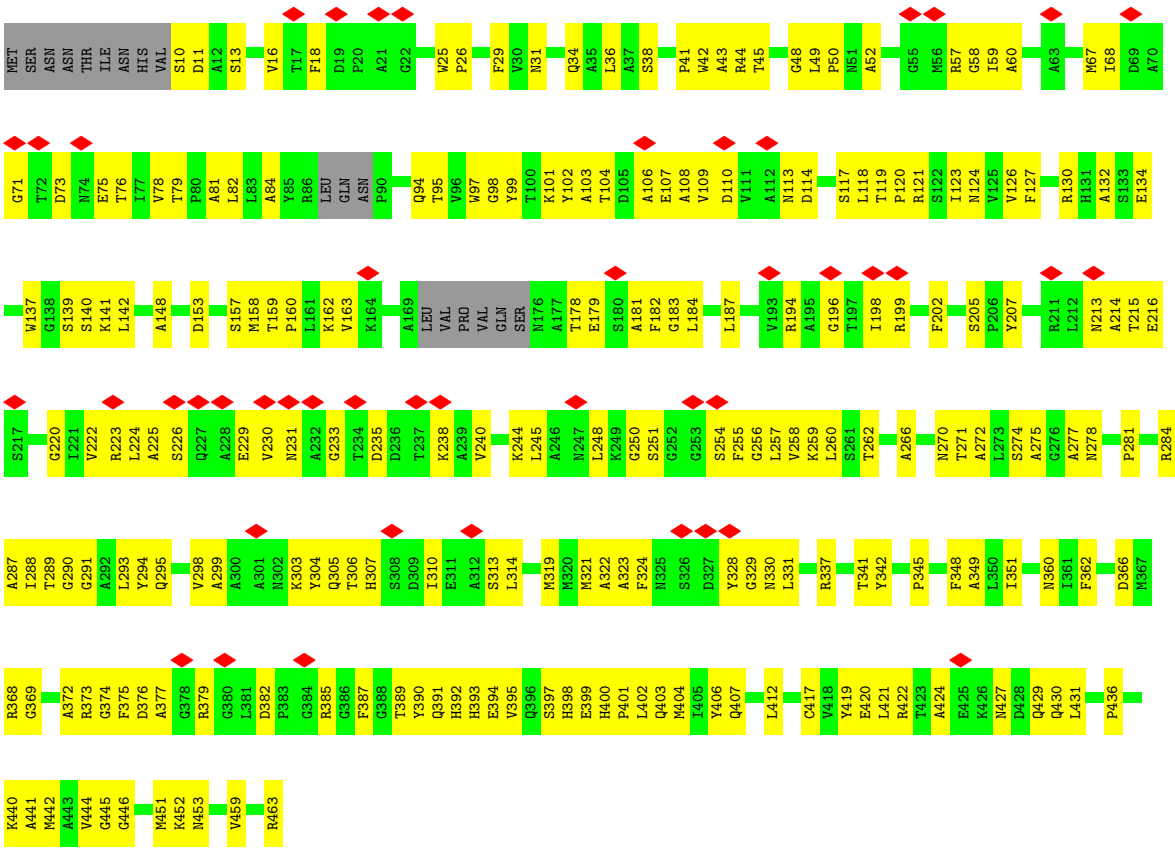
Chain i:



• Molecule 6: Gp12 short tail fibers

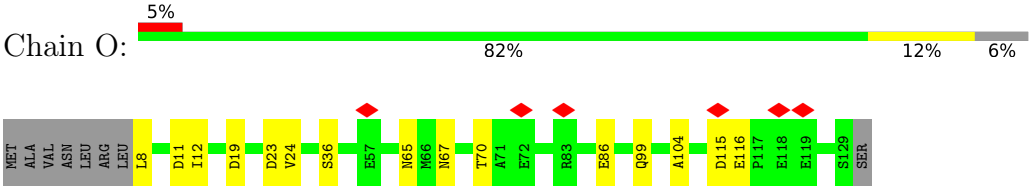
Chain j:





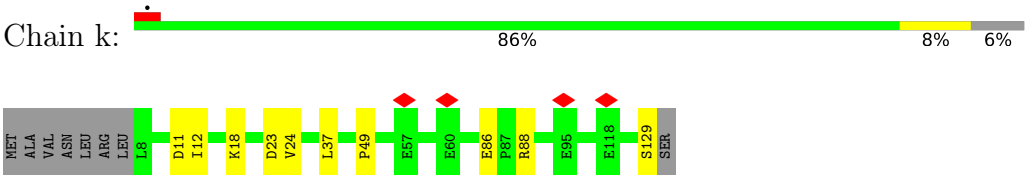
• Molecule 7: Gp25 baseplate wedge subunit

Chain O:



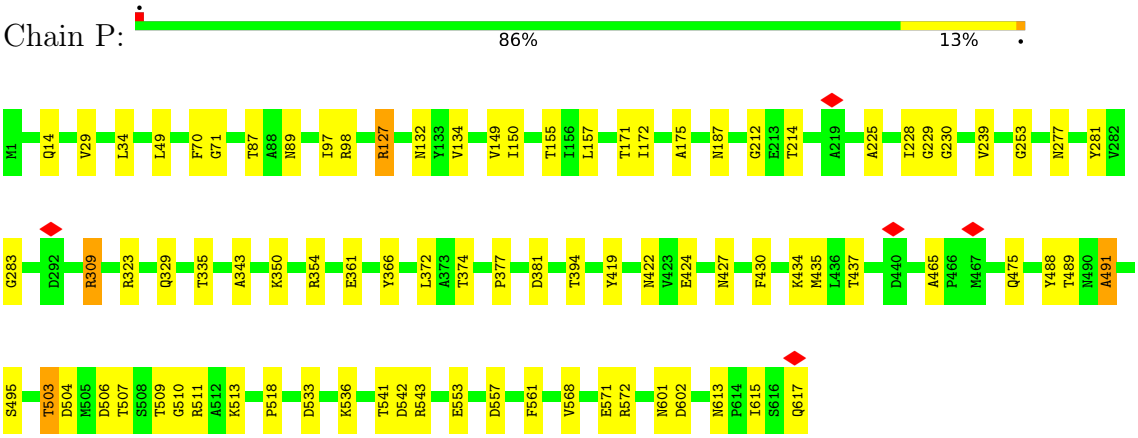
• Molecule 7: Gp25 baseplate wedge subunit

Chain k:



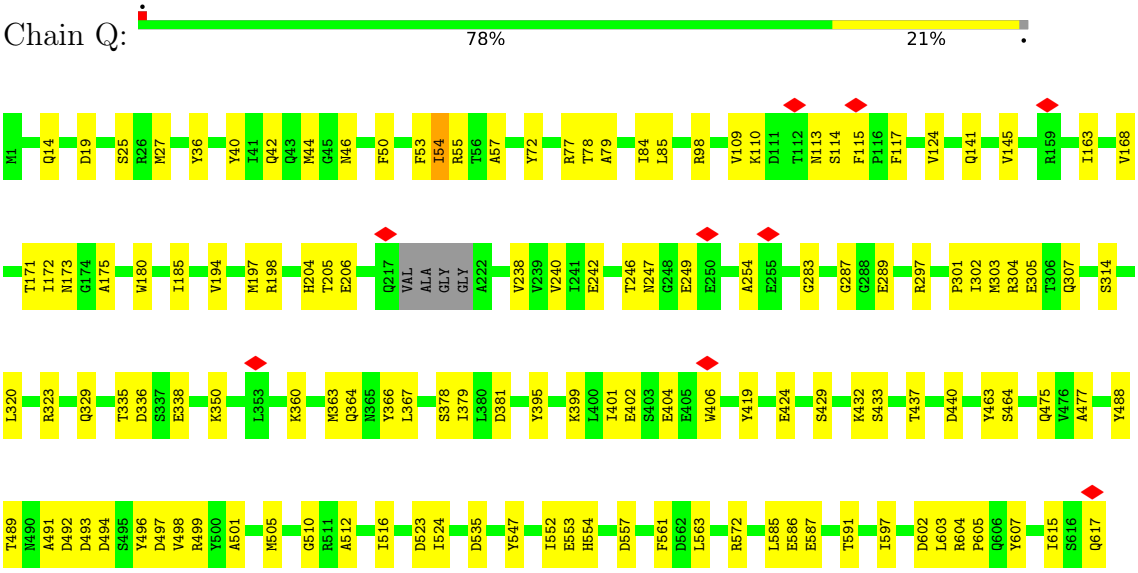
• Molecule 8: Baseplate wedge protein gp6

Chain P:



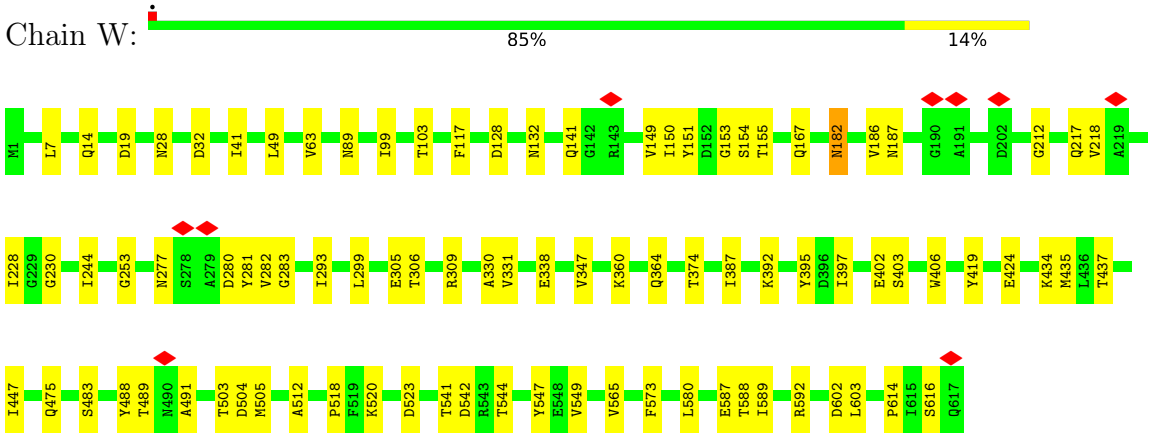
• Molecule 8: Baseplate wedge protein gp6

Chain Q:



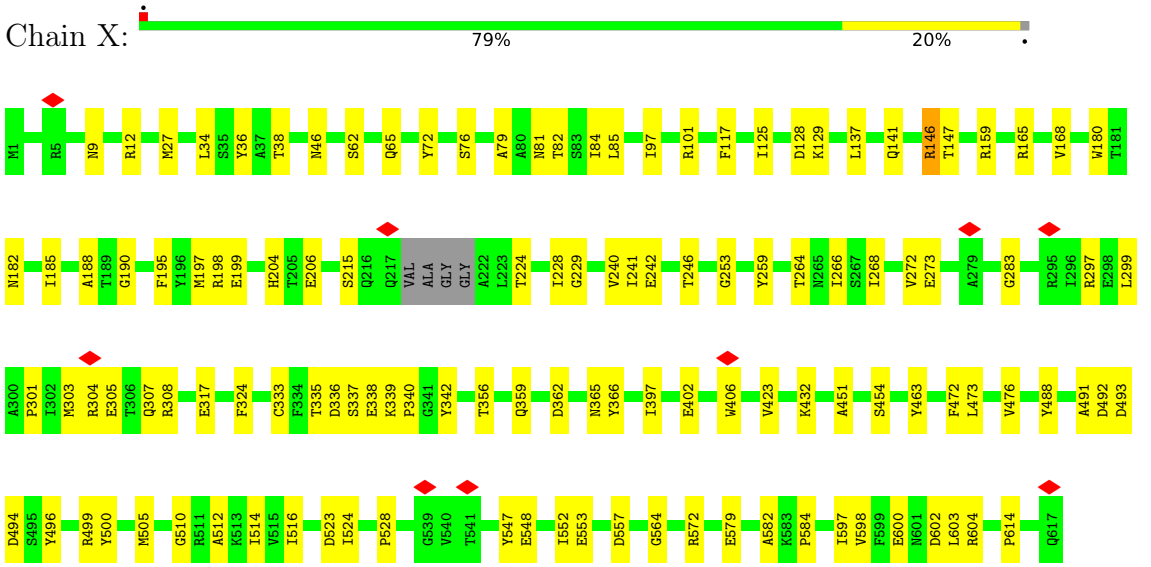
• Molecule 8: Baseplate wedge protein gp6

Chain W:



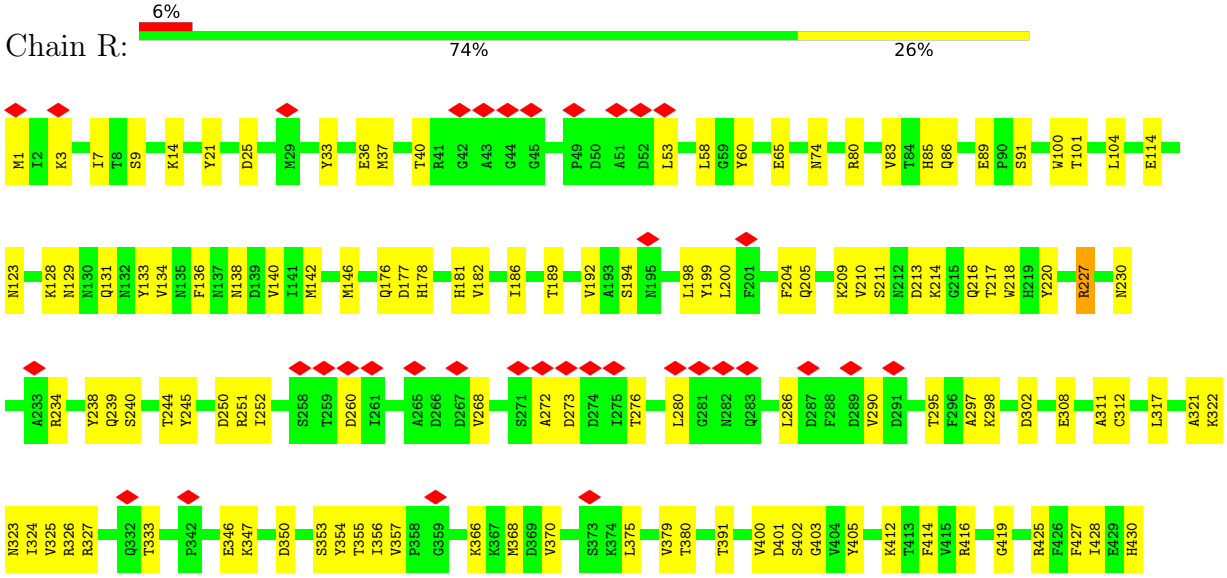
• Molecule 8: Baseplate wedge protein gp6

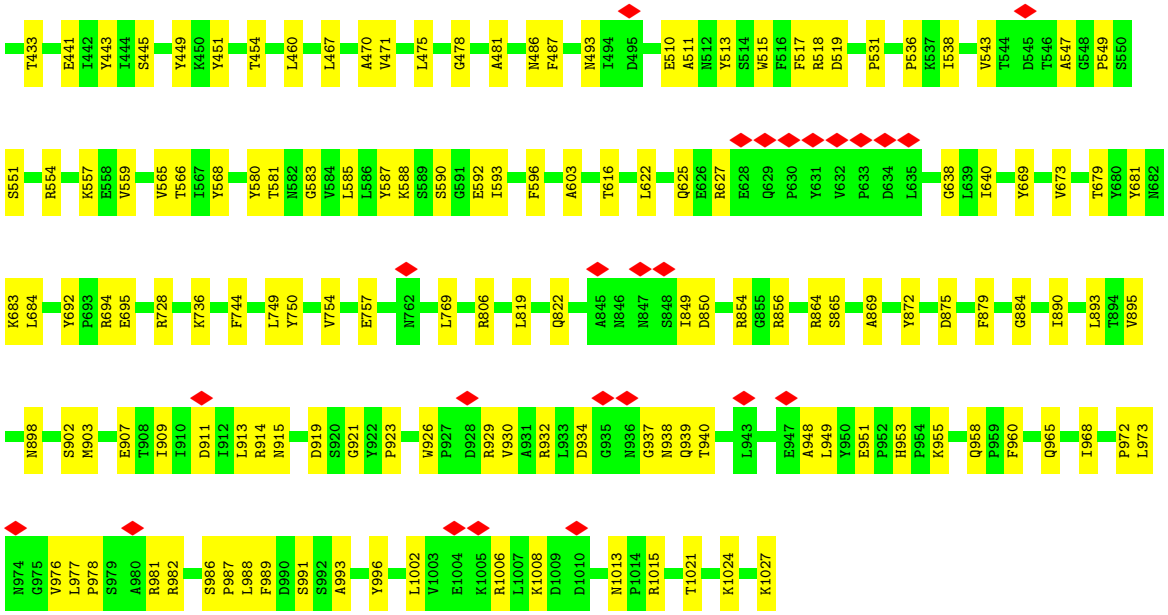
Chain X:



• Molecule 9: Baseplate wedge protein gp7

Chain R:

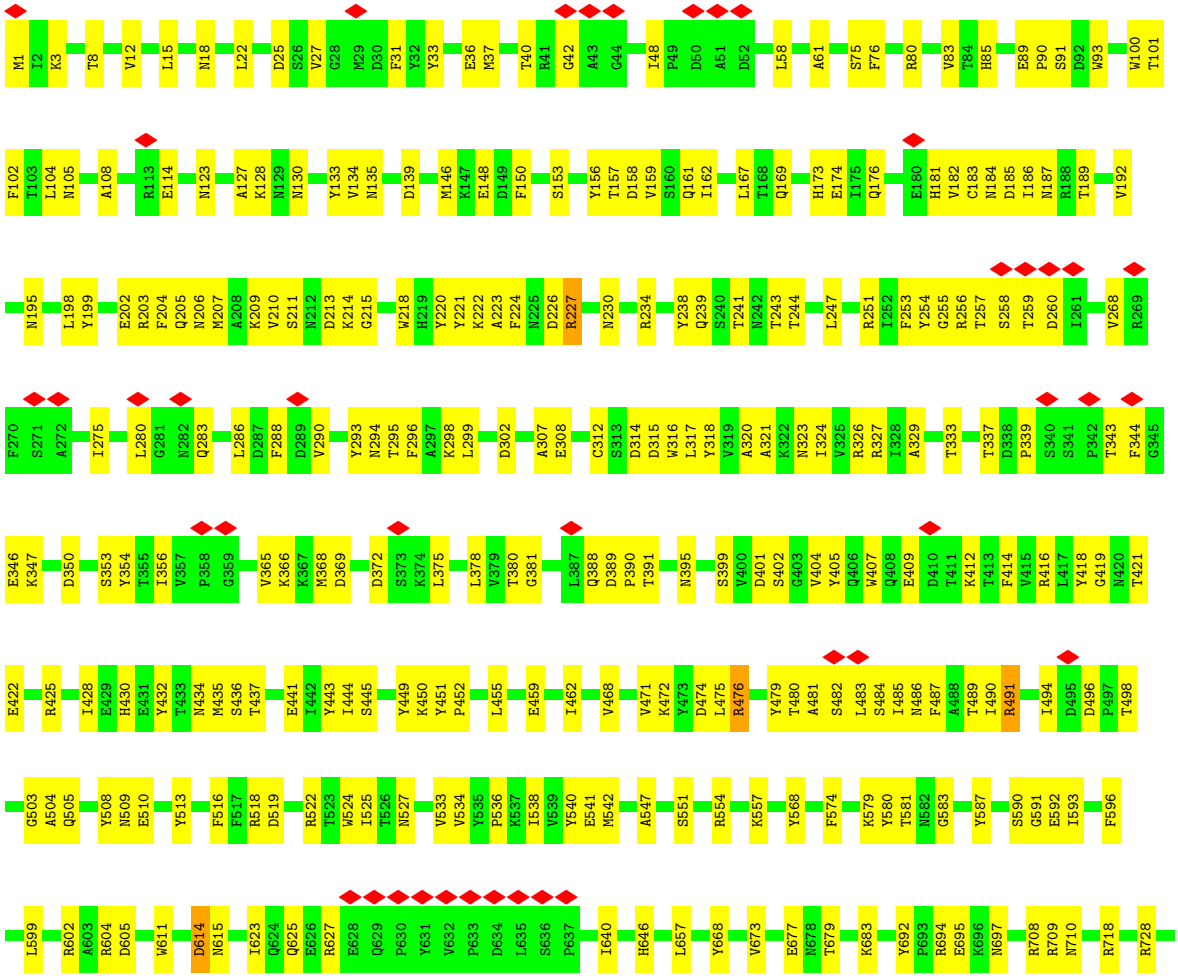


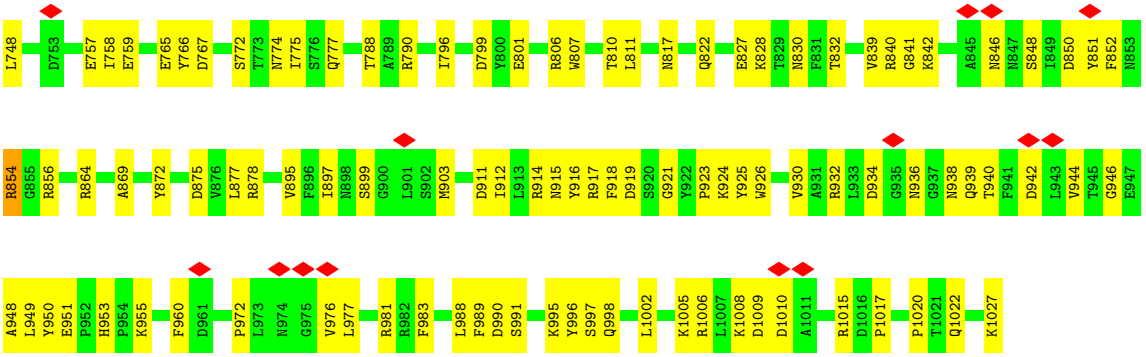


• Molecule 9: Baseplate wedge protein gp7

Chain Y:



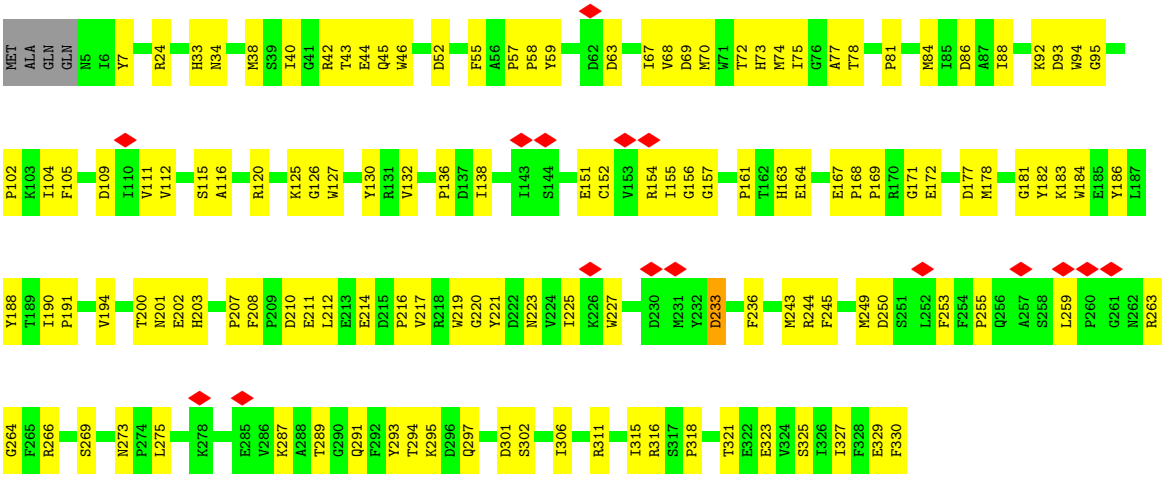




• Molecule 10: Gp8 baseplate wedge subunit

Chain S:

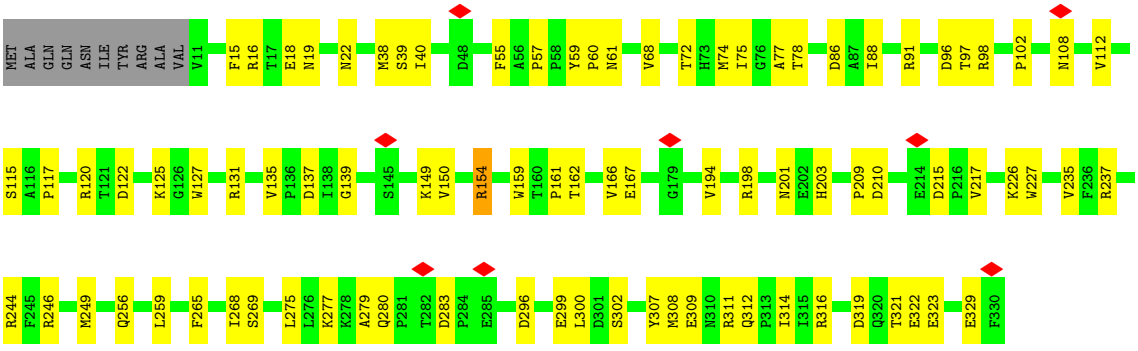




• Molecule 10: Gp8 baseplate wedge subunit

Chain T:

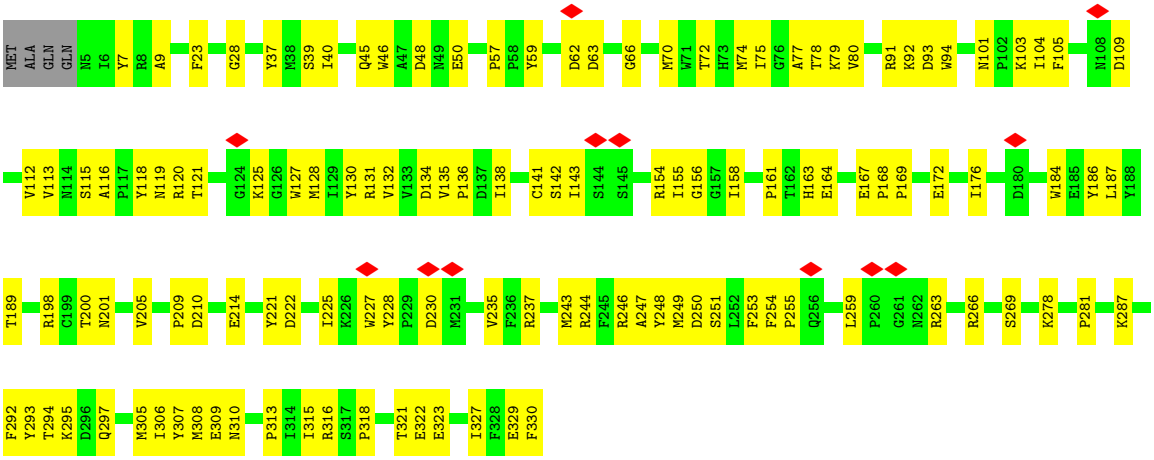




• Molecule 10: Gp8 baseplate wedge subunit

Chain Z:

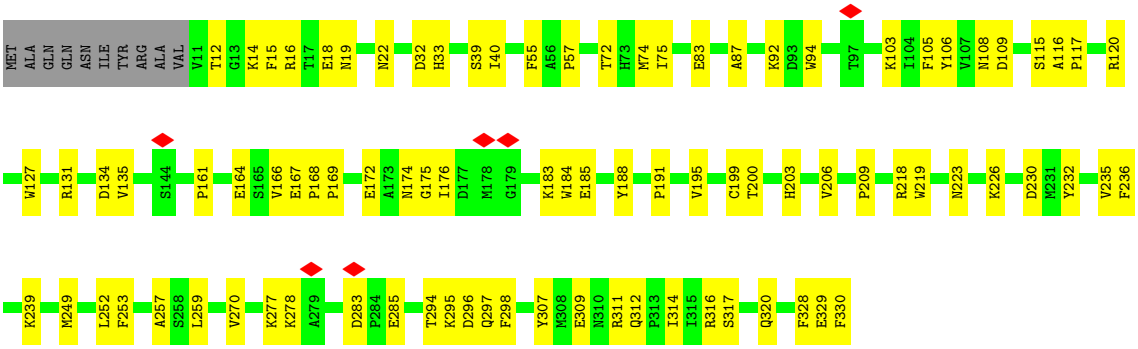




• Molecule 10: Gp8 baseplate wedge subunit

Chain a:

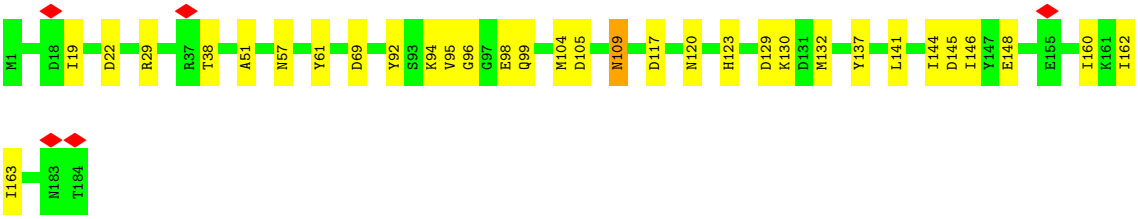




• Molecule 11: Gp53 baseplate wedge subunit

Chain V:

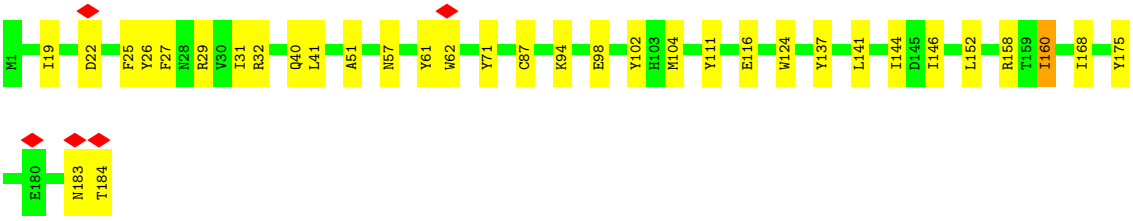




• Molecule 11: Gp53 baseplate wedge subunit

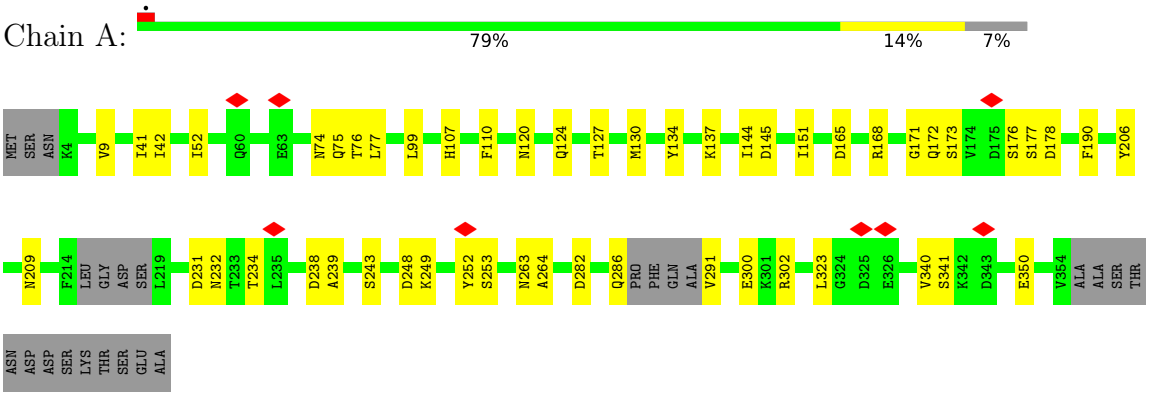
Chain l:





• Molecule 12: Gp27 baseplate hub subunit

Chain A:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	12504	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	40	Depositor
Minimum defocus (nm)	-700	Depositor
Maximum defocus (nm)	-2800	Depositor
Magnification	Not provided	
Image detector	FEI FALCON III (4k x 4k)	Depositor
Maximum map value	5.103	Depositor
Minimum map value	-3.405	Depositor
Average map value	-0.002	Depositor
Map value standard deviation	0.233	Depositor
Recommended contour level	0.902	Depositor
Map size (Å)	784.0, 784.0, 784.0	wwPDB
Map dimensions	490, 490, 490	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.6, 1.6, 1.6	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	B	0.61	0/1782	0.64	0/2417
1	D	0.63	0/1640	0.65	0/2227
2	C	0.53	0/4392	0.56	0/5963
3	E	0.57	0/2087	0.66	0/2828
3	F	0.53	0/2087	0.60	0/2828
4	G	0.26	0/1625	0.54	0/2214
4	H	0.25	0/1625	0.54	0/2214
4	U	0.23	0/1625	0.57	0/2214
4	b	0.23	0/1625	0.56	0/2214
4	c	0.24	0/1625	0.55	0/2214
4	d	0.23	0/1625	0.53	0/2214
5	I	0.25	0/4828	0.58	0/6572
5	J	0.25	0/4771	0.54	0/6493
5	K	0.27	0/4777	0.58	0/6500
5	e	0.25	0/4828	0.57	0/6572
5	f	0.26	0/4771	0.55	0/6493
5	g	0.27	0/4777	0.60	0/6500
6	L	0.25	0/3385	0.55	0/4610
6	M	0.24	0/3385	0.55	0/4610
6	N	0.23	0/3385	0.54	0/4610
6	h	0.25	0/3385	0.56	0/4610
6	i	0.25	0/3385	0.53	0/4610
6	j	0.23	0/3385	0.55	0/4610
7	O	0.57	0/974	0.70	0/1326
7	k	0.57	0/974	0.66	0/1326
8	P	0.48	0/4513	0.62	0/6158
8	Q	0.47	0/4651	0.64	0/6334
8	W	0.47	0/4513	0.62	0/6158
8	X	0.48	0/4651	0.63	0/6334
9	R	0.36	0/8603	0.56	0/11695
9	Y	0.35	0/8603	0.55	0/11695
10	S	0.34	1/2724 (0.0%)	0.59	0/3709
10	T	0.34	0/2672	0.52	0/3638
10	Z	0.30	0/2724	0.56	0/3709

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
10	a	0.35	0/2672	0.52	0/3638
11	V	0.60	0/1574	0.68	0/2140
11	l	0.59	0/1574	0.68	0/2140
12	A	0.60	0/2821	0.67	0/3822
All	All	0.38	1/125043 (0.0%)	0.58	0/170159

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
2	C	0	2
5	I	0	1
5	e	0	1
6	L	0	1
6	N	0	1
6	h	0	1
6	j	0	1
8	P	0	3
8	X	0	1
9	R	0	1
9	Y	0	4
10	T	0	1
All	All	0	18

All (1) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	S	233	ASP	CA-C	-7.36	1.43	1.52

There are no bond angle outliers.

There are no chirality outliers.

All (18) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	C	418	ARG	Sidechain
2	C	453	ARG	Sidechain
5	I	91	ARG	Sidechain
6	L	44	ARG	Sidechain
6	N	337	ARG	Sidechain

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Mol	Chain	Res	Type	Group
8	P	127	ARG	Sidechain
8	P	309	ARG	Sidechain
8	P	491	ALA	Peptide
9	R	227	ARG	Sidechain
10	T	154	ARG	Sidechain
8	X	146	ARG	Sidechain
9	Y	227	ARG	Sidechain
9	Y	476	ARG	Sidechain
9	Y	491	ARG	Sidechain
9	Y	854	ARG	Sidechain
5	e	91	ARG	Sidechain
6	h	44	ARG	Sidechain
6	j	337	ARG	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B	1747	0	1710	23	0
1	D	1605	0	1561	28	0
2	C	4309	0	4192	35	0
3	E	2043	0	2008	32	0
3	F	2043	0	2008	29	0
4	G	1592	0	1548	100	0
4	H	1592	0	1548	110	0
4	U	1592	0	1548	98	0
4	b	1592	0	1548	91	0
4	c	1592	0	1548	105	0
4	d	1592	0	1548	115	0
5	I	4718	0	4530	328	0
5	J	4662	0	4476	304	0
5	K	4670	0	4464	347	0
5	e	4718	0	4530	321	0
5	f	4662	0	4476	308	0
5	g	4670	0	4464	348	0
6	L	3319	0	3228	313	0
6	M	3319	0	3228	314	0
6	N	3319	0	3228	312	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
6	h	3319	0	3228	312	0
6	i	3319	0	3228	318	0
6	j	3319	0	3228	289	0
7	O	958	0	945	10	0
7	k	958	0	945	8	0
8	P	4455	0	4133	60	0
8	Q	4582	0	4318	101	0
8	W	4455	0	4133	64	0
8	X	4582	0	4318	86	0
9	R	8383	0	8093	220	0
9	Y	8383	0	8093	334	0
10	S	2646	0	2521	119	0
10	T	2595	0	2468	67	0
10	Z	2646	0	2521	111	0
10	a	2595	0	2468	60	0
11	V	1532	0	1433	24	0
11	l	1532	0	1433	24	0
12	A	2769	0	2733	36	0
All	All	122384	0	117630	4680	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 20.

All (4680) 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)
5:f:252:ALA:HB3	5:g:249:ASP:HB2	1.43	1.00
5:I:597:THR:HG21	5:J:502:PHE:HA	1.48	0.96
6:N:176:ASN:N	4:b:198:SER:HG	1.62	0.95
5:K:188:LEU:HD21	5:K:230:ILE:HD11	1.50	0.93
5:g:454:ASP:OD1	5:g:603:ARG:NH2	2.01	0.92
6:i:406:TYR:HH	6:i:423:THR:HG1	1.18	0.91
5:J:428:ASN:HA	5:J:482:LYS:HE3	1.51	0.91
4:G:109:ALA:HB1	4:G:178:ASN:HB3	1.53	0.90
6:M:314:LEU:O	6:M:461:ARG:NH1	2.04	0.89
5:f:467:HIS:HD1	5:g:424:TYR:HH	0.92	0.89
6:h:407:GLN:NE2	6:h:420:GLU:OE1	2.06	0.88
6:j:225:ALA:O	6:j:244:LYS:NZ	2.06	0.88
6:h:412:LEU:HB2	6:i:429:GLN:HB2	1.54	0.88
6:h:216:GLU:HG2	6:i:224:LEU:HB2	1.53	0.88
8:Q:488:TYR:HA	8:Q:491:ALA:HB3	1.56	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:252:ALA:HB2	5:g:247:TYR:HB2	1.54	0.88
4:c:77:MET:HG3	4:d:77:MET:HE1	1.52	0.88
5:I:457:HIS:O	5:I:603:ARG:NH1	2.06	0.87
4:d:127:SER:HB2	4:d:156:ASN:HB3	1.55	0.87
6:i:41:PRO:HA	6:i:44:ARG:HD3	1.57	0.86
6:L:406:TYR:HH	6:L:423:THR:HG1	1.13	0.86
8:Q:437:THR:HG22	8:W:437:THR:HG22	1.58	0.86
5:K:454:ASP:HA	5:K:603:ARG:HH12	1.39	0.86
6:M:338:GLY:HA2	6:M:363:ASN:HA	1.59	0.85
4:b:70:ILE:O	4:b:218:ARG:NH1	2.09	0.85
5:f:172:ASP:HB3	5:f:231:ARG:HE	1.40	0.85
5:K:104:VAL:HB	5:K:123:LEU:HB2	1.57	0.85
5:I:326:LEU:HG	5:I:361:VAL:HG12	1.59	0.84
5:K:335:GLU:O	5:K:345:ASN:ND2	2.10	0.84
5:I:152:THR:HG22	5:K:154:SER:HB3	1.59	0.84
9:R:325:VAL:HB	9:R:354:TYR:HB2	1.58	0.84
5:I:5:ILE:HD12	5:J:27:ASN:HD21	1.41	0.84
5:K:218:ASN:O	5:K:231:ARG:NH1	2.11	0.84
10:S:301:ASP:OD2	9:Y:486:ASN:ND2	2.09	0.84
6:i:379:ARG:NH1	6:j:366:ASP:O	2.11	0.84
6:M:410:GLY:HA3	6:N:430:GLN:HB3	1.60	0.84
6:h:436:PRO:HB3	6:j:401:PRO:HB3	1.57	0.84
5:J:580:ASN:ND2	5:K:535:VAL:O	2.11	0.84
5:I:104:VAL:HB	5:I:123:LEU:HB2	1.60	0.83
6:L:130:ARG:NH2	6:M:128:ASN:OD1	2.10	0.83
5:I:304:ILE:HG21	5:I:365:VAL:HB	1.58	0.83
4:U:89:GLN:HB2	4:U:190:ALA:HB2	1.60	0.83
9:Y:203:ARG:NH1	9:Y:230:ASN:OD1	2.11	0.83
6:L:400:HIS:HB2	6:M:441:ALA:HB3	1.58	0.83
6:L:193:VAL:HA	6:M:206:PRO:HB3	1.60	0.83
6:i:79:THR:H	6:i:82:LEU:HD12	1.42	0.82
6:N:250:GLY:O	6:N:270:ASN:ND2	2.11	0.82
6:i:412:LEU:HB2	6:j:429:GLN:HB2	1.61	0.82
9:Y:104:LEU:O	9:Y:625:GLN:NE2	2.12	0.82
6:h:357:GLY:HA3	6:h:362:PHE:HA	1.62	0.82
6:N:194:ARG:NH2	6:N:213:ASN:O	2.12	0.81
4:G:115:GLY:HA3	4:U:48:ARG:HA	1.61	0.81
4:H:71:PRO:HG3	4:U:84:PRO:HB3	1.60	0.81
5:J:256:SER:O	5:J:386:ASN:ND2	2.11	0.81
9:Y:402:SER:O	9:Y:416:ARG:NH2	2.13	0.81
6:L:36:LEU:O	6:N:25:TRP:NE1	2.10	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Y:307:ALA:HA	9:Y:321:ALA:HB2	1.62	0.81
6:L:135:THR:HA	6:M:141:LYS:HE3	1.61	0.81
5:K:454:ASP:OD1	5:K:603:ARG:NH2	2.14	0.81
6:L:368:ARG:HB2	6:N:379:ARG:HD2	1.63	0.81
5:I:272:GLU:HG3	5:I:278:GLY:HA3	1.63	0.81
3:E:44:ARG:NH2	1:D:331:GLU:OE2	2.13	0.81
6:M:216:GLU:OE2	6:N:244:LYS:NZ	2.14	0.81
5:f:173:PHE:N	5:f:230:ILE:O	2.11	0.81
9:Y:372:ASP:HB2	9:Y:494:ILE:HD11	1.61	0.80
5:J:252:ALA:HB3	5:K:249:ASP:HB2	1.63	0.80
11:l:27:PHE:HD2	11:l:31:ILE:HD11	1.46	0.80
5:f:162:GLU:HB2	5:f:244:PHE:HB2	1.63	0.80
9:Y:108:ALA:HB2	9:Y:623:ILE:HD11	1.61	0.80
6:j:385:ARG:NH2	6:j:389:THR:O	2.15	0.80
8:X:579:GLU:OE2	8:X:604:ARG:NH1	2.14	0.80
5:K:488:GLN:O	5:K:600:ARG:NH1	2.15	0.80
6:h:260:LEU:HB3	6:h:274:SER:HB3	1.64	0.80
4:G:57:GLN:NE2	4:G:61:ASP:OD2	2.15	0.79
6:h:42:TRP:HE1	6:i:43:ALA:HA	1.47	0.79
3:E:12:MET:HE3	3:F:171:ASP:HB2	1.63	0.79
9:R:368:MET:HB3	9:R:375:LEU:HD11	1.62	0.79
4:d:139:GLU:O	4:d:143:ASP:N	2.14	0.79
5:f:335:GLU:O	5:f:345:ASN:ND2	2.16	0.79
6:i:313:SER:OG	6:j:330:ASN:ND2	2.15	0.79
6:M:295:GLN:OE1	6:M:304:TYR:OH	1.98	0.79
5:e:255:ARG:HB3	5:e:393:MET:HB2	1.64	0.79
6:L:429:GLN:HB2	6:N:412:LEU:HB2	1.64	0.79
8:X:198:ARG:NH1	8:X:206:GLU:OE1	2.15	0.79
5:K:129:ASP:H	5:K:147:GLN:HA	1.46	0.79
6:M:13:SER:HB2	6:M:32:VAL:HB	1.65	0.79
6:h:325:ASN:OD1	6:h:457:ASN:ND2	2.15	0.79
6:i:16:VAL:HG13	6:j:13:SER:HB2	1.65	0.79
4:c:75:VAL:HG21	4:d:213:ILE:HD12	1.65	0.78
5:e:321:ALA:H	5:e:358:LEU:HD13	1.48	0.78
6:h:295:GLN:H	6:h:302:ASN:HB3	1.46	0.78
6:L:188:ALA:N	6:L:203:ALA:O	2.12	0.78
5:e:457:HIS:O	5:e:603:ARG:NH1	2.16	0.78
5:I:328:THR:HG22	5:I:359:ILE:HG13	1.65	0.78
6:M:313:SER:OG	6:N:330:ASN:ND2	2.16	0.78
6:N:385:ARG:NH2	6:N:389:THR:O	2.15	0.78
8:Q:54:ILE:HG22	8:Q:55:ARG:H	1.49	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:M:177:ALA:O	6:M:201:GLY:N	2.16	0.78
4:d:152:ARG:NE	4:d:157:GLY:O	2.17	0.78
4:G:110:THR:O	4:G:178:ASN:ND2	2.15	0.78
10:Z:28:GLY:O	10:Z:287:LYS:NZ	2.16	0.78
10:a:108:ASN:OD1	10:a:131:ARG:NH1	2.16	0.78
6:i:134:GLU:OE2	6:j:162:LYS:NZ	2.17	0.78
5:f:129:ASP:H	5:f:147:GLN:HA	1.49	0.78
5:J:191:TYR:HB2	5:J:243:GLN:HB2	1.66	0.78
6:L:314:LEU:O	6:L:461:ARG:NH1	2.16	0.78
8:X:9:ASN:OD1	8:X:12:ARG:NH1	2.16	0.78
6:i:314:LEU:O	6:i:461:ARG:NH1	2.16	0.78
9:R:850:ASP:OD2	9:R:854:ARG:NH2	2.17	0.77
10:Z:45:GLN:NE2	10:Z:48:ASP:OD1	2.18	0.77
4:b:48:ARG:HH12	4:c:170:HIS:HB3	1.47	0.77
5:g:422:ILE:HG22	5:g:437:LYS:HD3	1.66	0.77
5:K:166:ALA:HB2	5:K:242:LEU:HD23	1.65	0.77
5:e:526:ARG:NH1	5:f:499:ASP:OD1	2.18	0.77
5:f:276:VAL:N	5:f:280:ILE:O	2.12	0.77
6:h:413:PRO:HA	6:i:427:ASN:HA	1.67	0.77
6:L:100:THR:HB	6:M:100:THR:HG21	1.67	0.77
5:g:580:ASN:OD1	5:g:583:ASN:ND2	2.16	0.77
8:X:168:VAL:HG11	8:X:197:MET:HE1	1.67	0.77
6:L:430:GLN:NE2	6:N:408:SER:O	2.18	0.77
4:d:94:THR:HG23	4:d:159:ILE:HG12	1.67	0.77
6:L:120:PRO:HB2	6:N:113:ASN:HB3	1.67	0.77
9:R:960:PHE:O	9:R:982:ARG:NH1	2.18	0.77
6:M:262:THR:HG23	5:e:344:ALA:HB1	1.66	0.76
4:d:46:GLN:HB3	4:d:51:VAL:HB	1.66	0.76
5:I:269:GLY:HA3	5:I:282:VAL:HA	1.67	0.76
6:L:314:LEU:HD22	6:N:314:LEU:HB2	1.68	0.76
6:h:368:ARG:O	6:j:379:ARG:NH1	2.17	0.76
9:Y:182:VAL:HG12	9:Y:209:LYS:HB2	1.67	0.76
5:f:329:PHE:HA	5:f:351:PRO:HA	1.68	0.76
10:Z:93:ASP:OD2	9:Y:1015:ARG:NH2	2.17	0.76
4:H:205:LEU:HD12	4:H:213:ILE:HG13	1.68	0.76
5:J:422:ILE:HA	5:J:437:LYS:HA	1.67	0.76
5:K:69:THR:HG21	5:K:104:VAL:HG22	1.67	0.76
5:K:457:HIS:O	5:K:603:ARG:NH1	2.18	0.76
10:T:39:SER:HB2	10:T:74:MET:HG3	1.67	0.76
5:e:55:PRO:O	5:e:75:THR:N	2.17	0.76
5:e:261:HIS:NE2	5:e:296:PHE:O	2.19	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:M:158:MET:HE2	6:N:163:VAL:HG21	1.67	0.76
8:X:488:TYR:HA	8:X:491:ALA:HB3	1.66	0.76
5:f:482:LYS:HD2	5:f:604:VAL:HG11	1.68	0.76
5:J:579:VAL:N	5:K:538:ILE:O	2.19	0.76
8:Q:198:ARG:NH1	8:Q:206:GLU:OE1	2.19	0.76
8:X:488:TYR:HB3	8:X:572:ARG:HB3	1.67	0.76
9:Y:491:ARG:NH2	9:Y:504:ALA:O	2.18	0.76
5:K:213:GLY:O	5:K:231:ARG:N	2.16	0.75
8:P:155:THR:O	11:V:29:ARG:NH2	2.19	0.75
9:R:186:ILE:O	9:R:234:ARG:NH2	2.19	0.75
4:U:70:ILE:O	4:U:218:ARG:NH1	2.18	0.75
4:d:93:ILE:HA	4:d:184:GLY:HA2	1.67	0.75
5:e:423:GLU:O	5:e:436:ARG:N	2.15	0.75
6:h:453:ASN:ND2	6:j:391:GLN:OE1	2.17	0.75
5:J:449:LEU:O	5:J:453:PHE:N	2.15	0.75
9:R:1015:ARG:NH2	10:S:93:ASP:OD2	2.19	0.75
10:a:55:PHE:O	10:a:312:GLN:NE2	2.17	0.75
3:E:144:GLU:OE1	3:E:155:ARG:NH1	2.20	0.75
10:S:233:ASP:O	10:S:236:PHE:N	2.19	0.75
5:I:532:PRO:O	5:K:580:ASN:ND2	2.18	0.75
5:K:214:SER:HA	5:K:230:ILE:HA	1.68	0.75
6:h:446:GLY:N	6:j:395:VAL:O	2.19	0.75
4:H:73:ASN:HA	4:H:217:LYS:HE3	1.67	0.75
6:N:407:GLN:HB2	6:N:420:GLU:HB2	1.67	0.75
6:i:153:ASP:HB3	6:j:160:PRO:HG2	1.67	0.75
6:L:200:ASP:HA	6:M:187:LEU:HD11	1.68	0.75
6:L:433:TRP:NE1	6:N:403:GLN:OE1	2.20	0.75
10:Z:263:ARG:O	10:Z:266:ARG:NH1	2.20	0.74
6:i:370:VAL:HB	6:j:453:ASN:HA	1.69	0.74
6:i:68:ILE:HG22	6:i:86:ARG:HD3	1.67	0.74
3:E:259:GLU:OE2	3:F:178:LYS:NZ	2.17	0.74
6:L:382:ASP:OD2	6:L:385:ARG:NH1	2.17	0.74
4:c:47:LEU:HB3	4:d:114:TYR:HB3	1.69	0.74
6:h:289:THR:OG1	6:i:282:SER:O	2.04	0.74
6:i:185:VAL:HG12	6:i:201:GLY:HA2	1.69	0.74
5:I:279:GLU:HG2	5:I:280:ILE:O	1.88	0.74
10:S:249:MET:O	10:S:316:ARG:NH2	2.21	0.74
5:e:449:LEU:HD21	5:f:412:ASN:HA	1.70	0.74
5:f:183:TYR:HB2	5:f:246:THR:HG21	1.69	0.74
6:h:219:LEU:HB3	6:i:221:ILE:HD12	1.68	0.74
6:j:407:GLN:NE2	6:j:420:GLU:OE1	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:A:302:ARG:NH1	12:A:350:GLU:OE2	2.19	0.74
6:L:377:ALA:HB3	6:M:368:ARG:HD2	1.68	0.74
10:Z:266:ARG:HG3	10:Z:313:PRO:HB3	1.69	0.74
5:I:392:VAL:HG12	5:I:393:MET:HG2	1.70	0.74
6:L:186:GLN:NE2	6:N:179:GLU:O	2.17	0.74
6:L:216:GLU:HG2	6:M:224:LEU:HB2	1.70	0.74
6:h:130:ARG:NE	6:h:137:TRP:O	2.16	0.74
4:G:148:ASP:HB2	4:U:36:LYS:HE3	1.68	0.74
5:I:321:ALA:H	5:I:358:LEU:HD13	1.52	0.74
4:G:73:ASN:ND2	4:H:79:THR:OG1	2.15	0.73
6:M:412:LEU:HB2	6:N:429:GLN:HB2	1.69	0.73
4:c:99:VAL:O	4:c:123:THR:N	2.21	0.73
5:J:541:THR:OG1	5:K:581:GLN:NE2	2.22	0.73
6:M:194:ARG:NH2	6:M:213:ASN:O	2.21	0.73
8:Q:338:GLU:OE1	9:R:856:ARG:NH1	2.22	0.73
10:T:154:ARG:HE	9:Y:476:ARG:HG2	1.53	0.73
4:d:94:THR:N	4:d:183:VAL:O	2.15	0.73
5:f:428:ASN:HA	5:f:482:LYS:HE3	1.70	0.73
5:f:464:GLU:HG3	5:f:599:HIS:O	1.88	0.73
3:F:144:GLU:OE1	3:F:155:ARG:NH1	2.22	0.73
6:M:219:LEU:HB3	6:N:221:ILE:HD12	1.68	0.73
8:Q:168:VAL:HG11	8:Q:197:MET:HE1	1.70	0.73
4:H:44:VAL:HA	4:H:47:LEU:HD12	1.69	0.73
4:H:48:ARG:NH2	4:U:173:THR:OG1	2.22	0.73
5:J:329:PHE:HA	5:J:351:PRO:HA	1.71	0.73
10:a:135:VAL:HB	10:a:161:PRO:HG3	1.71	0.73
5:K:556:GLY:O	5:K:559:GLN:NE2	2.19	0.73
8:Q:440:ASP:OD2	8:W:434:LYS:NZ	2.21	0.73
5:I:261:HIS:N	5:I:382:ILE:O	2.21	0.73
5:e:596:ILE:HD12	5:f:485:ALA:HA	1.70	0.73
6:h:264:VAL:O	6:i:284:ARG:NH2	2.20	0.73
6:j:376:ASP:HB2	6:j:382:ASP:HB3	1.68	0.73
5:K:67:LEU:N	5:K:93:ARG:O	2.18	0.73
5:I:193:ARG:NH2	6:L:10:SER:O	2.21	0.72
5:J:577:LEU:O	5:K:540:SER:N	2.22	0.72
6:h:36:LEU:O	6:j:25:TRP:NE1	2.22	0.72
6:j:50:PRO:O	6:j:59:ILE:N	2.19	0.72
6:L:323:ALA:O	6:N:355:TYR:OH	2.07	0.72
4:G:77:MET:HG3	4:H:77:MET:HE1	1.70	0.72
5:J:526:ARG:HA	5:J:592:LEU:HD21	1.70	0.72
5:K:331:CYS:N	5:K:350:VAL:O	2.18	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:M:25:TRP:NE1	6:N:36:LEU:O	2.22	0.72
5:g:558:CYS:SG	9:Y:227:ARG:NH2	2.60	0.72
10:Z:57:PRO:HB2	10:Z:310:ASN:HB3	1.71	0.72
5:e:535:VAL:O	5:g:580:ASN:ND2	2.22	0.72
5:g:293:THR:HG23	5:g:298:ILE:HB	1.71	0.72
6:i:138:GLY:O	6:j:140:SER:N	2.12	0.72
5:J:2:LYS:NZ	5:K:40:GLY:O	2.20	0.72
6:M:138:GLY:O	6:N:140:SER:N	2.22	0.72
5:e:432:GLN:HG2	5:e:518:THR:HG21	1.69	0.72
5:f:504:LEU:HB3	5:f:515:PRO:HB2	1.69	0.72
6:L:190:VAL:HG13	6:L:212:LEU:HD23	1.72	0.72
6:L:225:ALA:O	6:L:244:LYS:NZ	2.22	0.72
4:H:196:THR:HB	4:H:220:ALA:HB3	1.70	0.72
5:K:331:CYS:HB2	5:K:351:PRO:HD2	1.72	0.72
6:N:260:LEU:HB3	6:N:274:SER:HB3	1.72	0.72
6:i:304:TYR:OH	6:j:293:LEU:N	2.23	0.72
6:h:385:ARG:HH22	6:i:454:LEU:HA	1.54	0.72
6:i:194:ARG:NH2	6:i:213:ASN:O	2.23	0.72
5:I:65:TRP:HB2	5:I:92:LEU:HD23	1.69	0.72
6:h:441:ALA:HB3	6:j:400:HIS:HB2	1.72	0.72
5:I:206:VAL:HG12	5:I:209:ASN:H	1.54	0.71
6:M:407:GLN:HG3	6:N:429:GLN:HE22	1.54	0.71
10:Z:249:MET:O	10:Z:316:ARG:NH2	2.23	0.71
4:c:198:SER:N	4:c:217:LYS:O	2.17	0.71
5:K:359:ILE:HG13	5:K:369:LYS:HE3	1.72	0.71
4:b:29:LYS:NZ	4:c:61:ASP:OD1	2.23	0.71
5:f:193:ARG:NH1	6:j:11:ASP:OD2	2.23	0.71
6:h:330:ASN:OD1	6:j:313:SER:OG	2.07	0.71
6:L:401:PRO:HG2	6:N:442:MET:HB2	1.70	0.71
4:d:76:ILE:HG22	4:d:216:PHE:HB2	1.73	0.71
5:e:286:ALA:HB2	5:e:374:LEU:H	1.56	0.71
5:f:87:ASN:OD1	5:g:51:THR:OG1	2.08	0.71
5:g:128:MET:HA	5:g:147:GLN:HA	1.72	0.71
8:Q:475:GLN:HB3	8:Q:585:LEU:HD12	1.71	0.71
9:R:1015:ARG:NH1	10:S:201:ASN:O	2.23	0.71
10:a:329:GLU:O	9:Y:899:SER:OG	2.09	0.71
5:f:166:ALA:HB1	5:f:236:CYS:HB3	1.72	0.71
6:j:67:MET:O	6:j:71:GLY:N	2.18	0.71
4:H:198:SER:HB2	4:H:219:ILE:HD13	1.72	0.71
5:J:301:ARG:NH1	5:K:186:ARG:O	2.23	0.71
5:K:145:ASN:ND2	5:K:152:THR:O	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:R:405:TYR:HB3	9:R:414:PHE:HB3	1.72	0.71
5:g:200:ASP:HB3	5:g:206:VAL:HB	1.72	0.71
5:I:397:GLY:O	5:I:401:ILE:N	2.21	0.71
6:L:163:VAL:HG21	6:N:158:MET:HE2	1.72	0.71
6:N:261:SER:O	6:N:274:SER:N	2.23	0.71
6:N:327:ASP:OD2	6:N:337:ARG:NH2	2.22	0.71
5:g:463:TYR:OH	5:g:465:ASN:ND2	2.23	0.71
9:R:268:VAL:HG13	9:R:272:ALA:HB3	1.72	0.71
9:R:1013:ASN:ND2	10:S:202:GLU:OE2	2.23	0.71
5:f:38:GLY:HA3	5:f:43:PRO:HA	1.71	0.71
4:b:140:PHE:O	4:b:144:GLU:N	2.24	0.71
5:e:78:LEU:HD21	5:e:132:LEU:HD13	1.73	0.71
5:g:214:SER:HB3	5:g:225:LEU:HA	1.73	0.71
5:g:527:GLY:O	5:g:588:LYS:NZ	2.19	0.71
5:J:8:GLY:O	5:K:20:ARG:NH2	2.23	0.71
5:J:324:ALA:N	5:J:358:LEU:O	2.24	0.71
5:J:471:ASN:ND2	5:J:481:TRP:O	2.24	0.71
5:J:596:ILE:O	5:K:491:ALA:N	2.23	0.71
5:K:70:SER:HB3	5:K:98:LYS:HG3	1.70	0.71
6:M:406:TYR:OH	6:M:423:THR:OG1	2.09	0.71
5:J:507:ASN:ND2	5:J:520:GLY:O	2.24	0.71
6:M:179:GLU:O	6:N:186:GLN:NE2	2.24	0.71
9:R:211:SER:OG	9:R:213:ASP:OD1	2.08	0.71
4:d:153:LYS:HB2	4:d:159:ILE:HB	1.72	0.71
6:i:103:ALA:N	6:i:117:SER:O	2.15	0.71
6:j:132:ALA:N	6:j:139:SER:O	2.23	0.71
3:E:206:GLN:HE22	3:F:105:SER:HB2	1.55	0.70
4:G:89:GLN:HB2	4:G:190:ALA:HB2	1.73	0.70
5:J:276:VAL:N	5:J:280:ILE:O	2.13	0.70
5:K:395:TRP:HA	5:K:402:LYS:HD2	1.72	0.70
6:L:256:GLY:HA2	6:M:257:LEU:HD22	1.73	0.70
4:b:150:VAL:HG22	4:b:162:VAL:HG12	1.72	0.70
6:j:341:THR:N	6:j:360:ASN:O	2.23	0.70
8:Q:499:ARG:NH2	8:Q:535:ASP:O	2.21	0.70
5:e:423:GLU:HB2	5:e:436:ARG:HB2	1.72	0.70
6:i:194:ARG:HG3	6:i:212:LEU:HD22	1.72	0.70
5:I:193:ARG:N	5:I:241:THR:O	2.24	0.70
6:L:306:THR:HA	6:N:304:TYR:HA	1.73	0.70
5:g:176:VAL:HG11	5:g:230:ILE:HD12	1.73	0.70
6:h:334:ALA:N	6:h:458:TYR:O	2.23	0.70
6:h:406:TYR:O	6:i:430:GLN:N	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:R:14:LYS:NZ	9:R:622:LEU:O	2.22	0.70
6:i:94:GLN:HA	6:j:102:TYR:HB2	1.74	0.70
6:j:103:ALA:N	6:j:117:SER:O	2.19	0.70
9:Y:298:LYS:NZ	9:Y:346:GLU:OE2	2.22	0.70
4:G:198:SER:O	4:G:217:LYS:N	2.17	0.70
5:J:321:ALA:HB3	5:J:357:SER:HA	1.73	0.70
6:h:25:TRP:NE1	6:i:36:LEU:O	2.21	0.70
6:j:102:TYR:HD1	6:j:117:SER:HG	1.38	0.70
5:K:285:LEU:HB3	5:K:374:LEU:HB2	1.72	0.70
6:L:227:GLN:NE2	6:L:231:ASN:OD1	2.25	0.70
6:M:230:VAL:HG21	6:M:244:LYS:HB3	1.74	0.70
9:R:401:ASP:O	9:R:405:TYR:OH	2.08	0.70
10:S:33:HIS:O	10:S:287:LYS:NZ	2.23	0.70
10:S:34:ASN:OD1	10:S:273:ASN:ND2	2.25	0.69
5:g:185:VAL:HG13	5:g:225:LEU:HB2	1.74	0.69
5:I:55:PRO:O	5:I:75:THR:N	2.23	0.69
5:I:255:ARG:HD3	5:I:393:MET:HB2	1.74	0.69
5:I:280:ILE:HD12	5:I:374:LEU:HD13	1.74	0.69
5:e:96:TRP:O	5:e:98:LYS:NZ	2.22	0.69
9:Y:157:THR:OG1	9:Y:161:GLN:NE2	2.24	0.69
4:H:47:LEU:HB3	4:U:114:TYR:O	1.93	0.69
6:M:319:MET:HE1	6:M:367:MET:HG3	1.71	0.69
6:M:407:GLN:HG3	6:N:429:GLN:NE2	2.06	0.69
9:R:176:GLN:HB3	9:R:214:LYS:HB3	1.73	0.69
5:g:483:ARG:HH22	5:g:599:HIS:HB3	1.56	0.69
6:h:105:ASP:OD1	6:h:121:ARG:NH1	2.25	0.69
4:G:92:THR:OG1	4:G:187:ASP:OD2	2.03	0.69
9:R:441:GLU:OE2	9:R:493:ASN:ND2	2.23	0.69
4:U:137:PHE:HB3	4:U:150:VAL:HG21	1.75	0.69
6:h:391:GLN:OE1	6:i:453:ASN:ND2	2.21	0.69
5:I:6:ILE:N	5:I:17:ASP:OD2	2.17	0.69
5:J:70:SER:HB3	5:J:98:LYS:HG3	1.74	0.69
6:N:119:THR:N	6:N:122:SER:OG	2.25	0.69
6:N:125:VAL:O	6:N:129:THR:OG1	2.10	0.69
10:Z:306:ILE:HB	10:a:15:PHE:HB2	1.73	0.69
6:i:118:LEU:HD13	6:i:123:ILE:HD13	1.73	0.69
6:N:132:ALA:N	6:N:139:SER:O	2.22	0.69
10:S:289:THR:O	10:S:293:TYR:OH	2.09	0.69
6:L:385:ARG:NH2	6:M:453:ASN:OD1	2.25	0.69
6:M:353:TYR:OH	6:M:359:GLY:O	2.08	0.69
5:g:212:TYR:HB3	5:g:232:LEU:HD23	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Y:75:SER:H	9:Y:101:THR:HG1	1.39	0.69
5:I:91:ARG:HH12	5:J:46:ALA:HA	1.56	0.69
6:L:10:SER:HB3	6:L:15:TYR:CG	2.28	0.69
6:N:124:ASN:OD1	6:N:128:ASN:ND2	2.26	0.69
8:P:354:ARG:NE	8:P:381:ASP:OD2	2.22	0.69
9:R:104:LEU:O	9:R:625:GLN:NE2	2.15	0.69
9:R:134:VAL:HG22	9:R:588:LYS:HD2	1.75	0.69
10:T:154:ARG:HA	9:Y:475:LEU:HB2	1.74	0.69
5:f:506:ASN:ND2	5:f:522:SER:O	2.24	0.69
5:g:306:PRO:O	5:g:320:LYS:NZ	2.26	0.69
12:A:238:ASP:O	12:A:263:ASN:ND2	2.24	0.69
5:K:198:TYR:O	5:K:211:ASP:N	2.26	0.69
4:d:205:LEU:HD12	4:d:213:ILE:HG13	1.74	0.69
5:f:480:ILE:HB	5:f:605:ALA:HB3	1.73	0.69
5:g:312:LEU:HD11	5:g:383:ARG:HD3	1.75	0.69
9:Y:692:TYR:HB3	9:Y:695:GLU:HG2	1.75	0.69
5:I:526:ARG:NH1	5:J:499:ASP:OD1	2.26	0.69
10:Z:115:SER:N	10:Z:119:ASN:OD1	2.26	0.69
5:e:468:ASN:HB2	5:f:422:ILE:HD13	1.73	0.69
6:j:250:GLY:O	6:j:270:ASN:ND2	2.20	0.69
9:Y:123:ASN:HB3	9:Y:128:LYS:HE3	1.72	0.69
5:I:317:GLN:HB2	5:J:315:GLY:HA3	1.75	0.68
10:S:130:TYR:OH	10:S:171:GLY:O	2.11	0.68
6:i:439:SER:HG	6:j:419:TYR:HH	1.37	0.68
4:H:83:PRO:HB3	4:H:197:TRP:HB2	1.75	0.68
5:I:91:ARG:NH1	5:J:46:ALA:HA	2.08	0.68
5:I:262:THR:HG22	5:I:381:THR:HG23	1.73	0.68
5:J:87:ASN:HB3	5:K:49:TRP:HB2	1.76	0.68
4:U:126:ALA:HA	4:U:129:VAL:HB	1.74	0.68
5:g:82:GLY:N	5:g:85:ASP:OD2	2.25	0.68
5:J:454:ASP:OD1	5:J:603:ARG:NH1	2.26	0.68
6:L:376:ASP:OD1	6:L:381:LEU:N	2.26	0.68
5:g:457:HIS:O	5:g:603:ARG:NH1	2.26	0.68
6:h:385:ARG:NH2	6:i:453:ASN:O	2.26	0.68
6:h:432:TYR:HB2	6:j:406:TYR:HB2	1.74	0.68
6:i:310:ILE:O	6:i:314:LEU:N	2.26	0.68
5:K:94:ASP:HB2	5:K:99:TRP:CE2	2.28	0.68
5:K:170:GLN:HB3	5:K:236:CYS:HB2	1.76	0.68
9:R:1:MET:HB2	9:R:89:GLU:HG3	1.76	0.68
4:G:73:ASN:HA	4:G:217:LYS:HE3	1.76	0.68
5:I:137:PRO:HD2	5:K:447:LEU:HD11	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Z:210:ASP:O	10:Z:214:GLU:N	2.26	0.68
6:h:429:GLN:HB2	6:j:412:LEU:HB2	1.76	0.68
6:L:41:PRO:HB2	6:L:47:VAL:HG11	1.76	0.68
6:N:147:GLN:NE2	6:N:153:ASP:OD1	2.27	0.68
10:Z:91:ARG:NH1	10:Z:200:THR:O	2.24	0.68
4:c:77:MET:HB3	4:c:213:ILE:HG21	1.76	0.68
5:e:539:GLU:HG2	5:g:578:LYS:HA	1.75	0.68
5:e:546:ILE:HB	5:g:573:ARG:HB3	1.76	0.68
5:f:252:ALA:HB2	5:g:247:TYR:CB	2.23	0.68
6:L:264:VAL:HG21	6:M:281:PRO:HB3	1.76	0.68
5:e:17:ASP:OD2	5:e:25:LYS:NZ	2.26	0.68
5:e:183:TYR:HB2	5:e:246:THR:HG21	1.75	0.68
6:h:432:TYR:O	6:j:404:MET:N	2.17	0.68
9:Y:710:ASN:O	9:Y:718:ARG:NH1	2.27	0.68
5:I:63:ASP:HA	5:J:45:PRO:HG2	1.76	0.68
6:L:295:GLN:H	6:L:302:ASN:HB3	1.57	0.68
10:Z:45:GLN:OE1	10:Z:263:ARG:NH2	2.24	0.68
5:e:569:TYR:HB3	5:f:555:ILE:H	1.59	0.68
4:G:91:GLU:OE1	4:G:114:TYR:OH	2.07	0.68
4:c:176:THR:HA	4:c:181:SER:HA	1.76	0.68
5:f:479:GLY:HA3	5:f:603:ARG:HD2	1.75	0.68
6:h:118:LEU:O	6:j:118:LEU:N	2.21	0.68
9:R:692:TYR:HB3	9:R:695:GLU:HG2	1.75	0.67
10:S:316:ARG:HH21	10:S:321:THR:HA	1.59	0.67
4:b:79:THR:HG21	4:d:217:LYS:HD2	1.74	0.67
5:K:18:TYR:OH	5:K:21:ARG:NH1	2.28	0.67
6:M:93:SER:OG	6:M:96:VAL:N	2.27	0.67
6:M:370:VAL:HB	6:N:453:ASN:HA	1.75	0.67
5:e:221:GLU:O	5:e:231:ARG:NH1	2.23	0.67
1:D:293:ARG:HG2	1:D:307:THR:HG23	1.76	0.67
6:M:366:ASP:OD2	6:M:368:ARG:NH2	2.22	0.67
6:N:176:ASN:N	4:b:198:SER:OG	2.27	0.67
5:e:265:VAL:HG13	5:e:280:ILE:HG13	1.75	0.67
6:h:273:LEU:HG	6:i:275:ALA:HA	1.76	0.67
4:H:37:ARG:HH21	4:U:166:ASP:HB3	1.59	0.67
9:R:74:ASN:OD1	9:R:100:TRP:NE1	2.27	0.67
6:j:345:PRO:HA	6:j:348:PHE:HB3	1.76	0.67
9:R:930:VAL:HG13	9:R:953:HIS:HA	1.76	0.67
5:f:100:ALA:N	5:f:126:ASP:OD1	2.28	0.67
9:Y:777:GLN:HG2	9:Y:796:ILE:HD11	1.76	0.67
10:T:227:TRP:O	9:Y:527:ASN:ND2	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:218:ASN:O	5:f:231:ARG:NH1	2.28	0.67
4:G:127:SER:OG	4:G:156:ASN:O	2.11	0.67
4:H:61:ASP:O	4:H:65:THR:HG23	1.95	0.67
5:I:184:ASN:ND2	5:I:249:ASP:OD1	2.25	0.67
6:N:68:ILE:HG13	6:N:82:LEU:HD22	1.76	0.67
5:e:308:SER:HB2	5:e:385:PHE:HD1	1.59	0.67
5:f:324:ALA:N	5:f:358:LEU:O	2.28	0.67
6:h:101:LYS:HE3	6:j:95:THR:HA	1.77	0.67
6:h:385:ARG:NH2	6:i:454:LEU:HA	2.10	0.67
9:Y:186:ILE:O	9:Y:234:ARG:NH2	2.28	0.67
5:I:412:ASN:ND2	5:I:446:LEU:O	2.20	0.67
6:M:420:GLU:HB3	6:N:424:ALA:HA	1.76	0.67
4:G:48:ARG:NH2	4:H:173:THR:OG1	2.27	0.67
5:e:18:TYR:HB3	9:Y:991:SER:HB3	1.77	0.67
5:g:94:ASP:HB3	5:g:128:MET:H	1.58	0.67
9:Y:308:GLU:HG2	9:Y:390:PRO:HG3	1.76	0.67
4:H:18:GLU:HB2	4:H:21:PHE:HB2	1.77	0.67
5:I:261:HIS:CE1	5:I:296:PHE:HB3	2.30	0.67
5:I:536:PRO:HA	5:K:583:ASN:O	1.94	0.67
6:L:42:TRP:HB2	6:L:49:LEU:HD23	1.76	0.67
4:G:171:PRO:HB2	4:U:48:ARG:HH22	1.59	0.66
5:I:3:GLN:HE22	5:I:28:ALA:HB3	1.60	0.66
8:P:87:THR:HG22	8:P:134:VAL:HG22	1.75	0.66
8:X:228:ILE:HD11	9:Y:748:LEU:HB2	1.77	0.66
9:Y:801:GLU:OE1	9:Y:806:ARG:NH2	2.28	0.66
5:I:20:ARG:NH2	5:K:8:GLY:O	2.28	0.66
9:R:640:ILE:HD11	11:V:94:LYS:HG3	1.75	0.66
3:E:18:GLN:NE2	3:E:19:ARG:O	2.27	0.66
4:H:94:THR:HA	4:H:159:ILE:HG12	1.77	0.66
6:L:368:ARG:O	6:N:379:ARG:NH1	2.25	0.66
8:W:155:THR:O	11:l:29:ARG:NH2	2.28	0.66
5:e:320:LYS:NZ	5:e:322:GLY:O	2.28	0.66
5:f:505:ASN:N	5:f:516:THR:O	2.18	0.66
5:g:331:CYS:N	5:g:350:VAL:O	2.26	0.66
6:h:94:GLN:HB3	6:i:104:THR:HG22	1.76	0.66
6:h:194:ARG:NH2	6:h:211:ARG:O	2.17	0.66
6:i:262:THR:O	6:i:278:ASN:ND2	2.28	0.66
6:j:18:PHE:H	6:j:31:ASN:HA	1.59	0.66
7:k:23:ASP:OD1	7:k:24:VAL:N	2.28	0.66
5:I:8:GLY:O	5:J:20:ARG:NH1	2.25	0.66
5:I:421:ARG:NH1	5:I:442:PHE:HB2	2.11	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:J:128:MET:HA	5:J:147:GLN:HA	1.77	0.66
6:L:446:GLY:N	6:N:395:VAL:O	2.16	0.66
9:R:750:TYR:OH	9:R:875:ASP:OD2	2.14	0.66
10:Z:263:ARG:HB3	10:Z:266:ARG:HH22	1.61	0.66
6:h:369:GLY:N	6:j:374:GLY:O	2.25	0.66
6:i:18:PHE:N	6:i:30:VAL:O	2.27	0.66
6:h:393:HIS:ND1	6:i:452:LYS:HE3	2.10	0.66
9:Y:36:GLU:OE1	9:Y:80:ARG:NE	2.27	0.66
5:I:157:ALA:HB3	5:J:251:ILE:HD13	1.76	0.66
5:I:423:GLU:O	5:I:436:ARG:N	2.18	0.66
5:J:52:HIS:HD2	5:J:74:ILE:HD13	1.60	0.66
5:J:58:ASN:OD1	5:J:77:ASN:ND2	2.29	0.66
6:L:330:ASN:ND2	6:N:312:ALA:O	2.29	0.66
6:h:288:ILE:N	6:j:294:TYR:O	2.24	0.66
4:H:69:GLN:O	4:U:194:TYR:OH	2.08	0.66
4:U:103:ASP:HB3	4:U:106:GLN:HG2	1.77	0.66
6:h:301:ALA:HA	6:i:307:HIS:HB3	1.78	0.66
5:I:20:ARG:HB2	9:R:991:SER:N	2.10	0.66
5:J:162:GLU:HB2	5:J:244:PHE:HB2	1.76	0.66
6:L:293:LEU:HD23	6:M:293:LEU:HD22	1.76	0.66
6:L:372:ALA:HB1	6:M:456:ILE:HD11	1.77	0.66
6:N:314:LEU:O	6:N:461:ARG:NH1	2.29	0.66
9:Y:241:THR:OG1	9:Y:314:ASP:OD2	2.12	0.66
5:I:293:THR:O	5:I:297:GLY:N	2.28	0.66
6:L:453:ASN:O	6:N:391:GLN:N	2.28	0.66
9:R:209:LYS:HG2	9:R:218:TRP:HB3	1.77	0.66
5:g:268:THR:HA	5:g:282:VAL:HG12	1.78	0.66
5:I:215:PRO:HG3	5:I:231:ARG:HG3	1.77	0.66
9:R:692:TYR:CE2	9:R:694:ARG:HB2	2.31	0.66
4:U:203:VAL:O	4:U:213:ILE:N	2.24	0.66
5:e:534:ASN:ND2	5:g:587:ASP:O	2.29	0.66
5:g:171:THR:O	5:g:232:LEU:N	2.26	0.66
6:h:261:SER:HB3	6:h:273:LEU:HD23	1.78	0.66
5:I:58:ASN:OD1	5:I:77:ASN:ND2	2.25	0.65
5:f:309:PHE:HA	5:f:384:TRP:HB3	1.79	0.65
5:g:500:SER:HA	5:g:504:LEU:HB2	1.77	0.65
6:h:307:HIS:NE2	6:h:311:GLU:OE2	2.29	0.65
6:i:294:TYR:HB2	6:j:287:ALA:HB2	1.78	0.65
6:i:303:LYS:O	6:j:307:HIS:N	2.29	0.65
9:Y:257:THR:OG1	9:Y:259:THR:OG1	2.14	0.65
9:Y:327:ARG:NH1	9:Y:409:GLU:OE1	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:412:LEU:HB2	6:M:429:GLN:HB2	1.77	0.65
4:d:111:ILE:O	4:d:118:PHE:N	2.22	0.65
5:e:407:LYS:O	5:g:445:ARG:NH1	2.28	0.65
6:h:184:LEU:HB2	6:j:182:PHE:HB3	1.77	0.65
6:h:280:VAL:HA	6:i:282:SER:HB3	1.78	0.65
6:i:410:GLY:HA3	6:j:430:GLN:HB3	1.78	0.65
4:G:24:TYR:HB3	4:G:54:PRO:HB2	1.78	0.65
5:J:172:ASP:HA	5:J:231:ARG:HA	1.78	0.65
6:N:153:ASP:OD2	6:N:156:THR:OG1	2.12	0.65
9:R:251:ARG:HD3	9:R:295:THR:HG23	1.76	0.65
5:f:497:ALA:HA	5:f:517:HIS:CD2	2.31	0.65
1:B:294:ASP:OD1	1:B:295:PHE:N	2.30	0.65
4:H:203:VAL:O	4:H:213:ILE:N	2.23	0.65
5:I:264:ARG:NH1	5:K:354:GLN:OE1	2.30	0.65
9:Y:930:VAL:O	9:Y:951:GLU:N	2.25	0.65
4:H:177:GLU:HG2	4:H:178:ASN:HD22	1.62	0.65
5:J:471:ASN:HD21	5:J:481:TRP:C	2.03	0.65
8:Q:488:TYR:HE2	8:Q:493:ASP:H	1.44	0.65
5:e:271:THR:HG22	5:e:272:GLU:HG2	1.77	0.65
5:f:596:ILE:O	5:g:491:ALA:N	2.29	0.65
5:g:497:ALA:HA	5:g:517:HIS:CG	2.32	0.65
6:h:186:GLN:NE2	6:j:179:GLU:O	2.29	0.65
6:i:24:GLN:HB2	6:j:41:PRO:HD3	1.77	0.65
9:Y:432:TYR:O	9:Y:445:SER:OG	2.12	0.65
5:I:39:ASP:OD1	5:I:42:ILE:N	2.24	0.65
5:K:19:LEU:HD11	9:R:987:PRO:HG2	1.79	0.65
5:K:145:ASN:HB3	5:K:153:THR:HG22	1.78	0.65
6:M:68:ILE:HG13	6:M:82:LEU:HB3	1.79	0.65
6:N:207:TYR:O	6:N:211:ARG:NH1	2.26	0.65
8:W:374:THR:HA	8:X:335:THR:HG21	1.79	0.65
4:d:92:THR:OG1	4:d:185:THR:OG1	2.10	0.65
5:e:525:GLU:HB2	5:e:528:TYR:CZ	2.32	0.65
9:Y:930:VAL:HG13	9:Y:953:HIS:HA	1.79	0.65
5:K:166:ALA:HB3	5:K:240:ASP:HB2	1.79	0.65
5:f:57:LEU:HB3	5:f:76:VAL:HG22	1.79	0.65
5:g:129:ASP:H	5:g:147:GLN:HA	1.62	0.65
6:h:387:PHE:HE1	6:i:456:ILE:HA	1.61	0.65
5:I:34:TYR:HB3	5:I:40:GLY:HA2	1.79	0.65
5:J:86:TYR:HB3	5:K:95:VAL:HG11	1.79	0.65
5:g:264:ARG:HG2	5:g:266:TYR:HE1	1.62	0.65
9:Y:444:ILE:HD11	9:Y:490:ILE:HD12	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:J:436:ARG:HH21	5:J:438:ILE:HA	1.62	0.65
9:R:101:THR:O	9:R:627:ARG:NH2	2.30	0.65
9:R:402:SER:O	9:R:416:ARG:NH2	2.27	0.65
4:b:108:LYS:NZ	4:b:121:ASP:OD1	2.21	0.65
10:S:92:LYS:O	10:S:112:VAL:N	2.23	0.64
5:e:164:TYR:OH	5:e:176:VAL:O	2.14	0.64
5:J:172:ASP:HB3	5:J:231:ARG:HE	1.62	0.64
5:K:52:HIS:N	5:K:66:ALA:O	2.29	0.64
5:K:562:PRO:HA	9:R:227:ARG:NH1	2.12	0.64
6:L:292:ALA:N	6:M:285:ASP:OD1	2.22	0.64
10:S:169:PRO:HG3	10:S:184:TRP:CD2	2.32	0.64
4:b:90:VAL:HG22	4:b:163:ARG:HG3	1.79	0.64
5:g:20:ARG:HB2	9:Y:919:ASP:HA	1.77	0.64
9:Y:211:SER:OG	9:Y:213:ASP:OD1	2.14	0.64
6:L:42:TRP:HE1	6:M:43:ALA:HA	1.63	0.64
8:Q:79:ALA:HA	8:Q:246:THR:HG21	1.79	0.64
5:f:143:VAL:HG13	5:g:150:LYS:HG3	1.79	0.64
5:f:320:LYS:HE3	5:f:358:LEU:HD21	1.78	0.64
5:g:289:LYS:O	5:g:370:PHE:HB2	1.97	0.64
6:h:81:ALA:N	6:j:73:ASP:O	2.23	0.64
5:I:309:PHE:HB3	5:I:320:LYS:HD3	1.79	0.64
5:I:505:ASN:ND2	5:I:519:ALA:O	2.30	0.64
6:L:279:VAL:HA	6:M:281:PRO:HA	1.78	0.64
6:M:307:HIS:NE2	6:M:311:GLU:OE2	2.31	0.64
5:e:268:THR:HA	5:e:283:GLY:H	1.63	0.64
5:e:325:ASP:HA	5:e:369:LYS:HE3	1.78	0.64
6:h:62:ILE:HA	6:h:77:ILE:HB	1.78	0.64
6:h:375:PHE:N	6:i:456:ILE:O	2.30	0.64
6:h:433:TRP:NE1	6:j:403:GLN:HE21	1.95	0.64
5:J:324:ALA:HB3	5:J:359:ILE:HA	1.80	0.64
6:L:303:LYS:NZ	6:L:309:ASP:OD2	2.30	0.64
6:L:353:TYR:OH	6:L:359:GLY:O	2.12	0.64
10:T:280:GLN:N	10:T:283:ASP:OD2	2.26	0.64
5:f:460:GLY:HA2	5:f:602:ILE:HD11	1.80	0.64
6:h:369:GLY:C	6:j:373:ARG:HE	2.05	0.64
5:K:493:TRP:CG	5:K:519:ALA:HB2	2.32	0.64
5:g:216:GLY:N	5:g:221:GLU:O	2.26	0.64
6:h:193:VAL:HG21	6:h:208:THR:HG21	1.79	0.64
6:h:400:HIS:HB2	6:i:441:ALA:HB3	1.78	0.64
9:Y:226:ASP:OD2	9:Y:251:ARG:NE	2.30	0.64
5:I:62:GLY:HA2	5:J:46:ALA:HB3	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:W:306:THR:OG1	8:W:309:ARG:O	2.15	0.64
4:d:101:ASN:ND2	4:d:108:LYS:O	2.31	0.64
2:C:481:VAL:HG12	2:C:483:GLY:H	1.63	0.64
5:g:145:ASN:HB3	5:g:153:THR:HA	1.79	0.64
6:h:198:ILE:HD11	6:i:206:PRO:HG2	1.80	0.64
3:F:135:GLN:NE2	3:F:136:LEU:O	2.30	0.64
9:R:308:GLU:OE2	9:R:322:LYS:N	2.30	0.64
4:d:89:GLN:HG3	4:d:188:VAL:O	1.97	0.64
6:h:57:ARG:NH2	6:i:75:GLU:OE1	2.30	0.64
6:j:329:GLY:O	6:j:463:ARG:NH2	2.30	0.64
9:Y:389:ASP:O	9:Y:395:ASN:ND2	2.27	0.64
5:K:78:LEU:HB2	5:K:108:PRO:HA	1.80	0.64
5:K:82:GLY:H	5:K:85:ASP:HB2	1.62	0.64
5:K:341:SER:O	5:K:345:ASN:ND2	2.31	0.64
10:Z:40:ILE:HB	10:Z:75:ILE:HB	1.80	0.64
5:g:192:TYR:HB3	5:g:197:LEU:HD21	1.80	0.64
6:h:442:MET:N	6:i:401:PRO:O	2.23	0.64
5:J:174:PRO:HA	5:J:229:ASN:HB3	1.79	0.63
5:J:412:ASN:N	5:K:408:ILE:O	2.29	0.63
4:U:150:VAL:HG13	4:U:160:LEU:HD11	1.79	0.63
5:e:571:LYS:HB3	5:f:551:GLY:N	2.13	0.63
5:g:55:PRO:O	5:g:75:THR:N	2.24	0.63
6:L:231:ASN:HA	6:L:248:LEU:HD13	1.80	0.63
10:Z:316:ARG:HH21	10:Z:321:THR:HA	1.63	0.63
5:f:70:SER:HB3	5:f:98:LYS:HG3	1.79	0.63
6:i:130:ARG:HD3	6:j:127:PHE:CG	2.32	0.63
9:Y:416:ARG:NH2	9:Y:419:GLY:O	2.31	0.63
9:Y:692:TYR:CE2	9:Y:694:ARG:HB2	2.33	0.63
5:J:94:ASP:HB2	5:J:99:TRP:CD2	2.34	0.63
5:J:185:VAL:HG13	5:J:225:LEU:HD12	1.80	0.63
5:J:412:ASN:HB2	5:K:409:TYR:C	2.23	0.63
6:L:186:GLN:N	6:L:201:GLY:O	2.24	0.63
6:M:31:ASN:OD1	6:M:34:GLN:N	2.28	0.63
6:N:208:THR:O	6:N:212:LEU:HG	1.99	0.63
5:e:97:SER:HB2	5:e:126:ASP:HB3	1.80	0.63
5:f:421:ARG:NH1	5:f:440:GLU:O	2.31	0.63
5:g:67:LEU:HD11	5:g:92:LEU:HD22	1.79	0.63
9:Y:244:THR:O	9:Y:255:GLY:N	2.31	0.63
9:Y:972:PRO:HB3	9:Y:977:LEU:HD23	1.81	0.63
10:T:57:PRO:HG2	10:T:311:ARG:HA	1.81	0.63
4:c:46:GLN:HB3	4:c:51:VAL:HB	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:e:563:ASP:O	5:e:565:THR:N	2.30	0.63
5:f:162:GLU:N	5:f:244:PHE:O	2.25	0.63
5:g:73:ARG:CZ	5:g:103:ASN:HB2	2.27	0.63
6:h:257:LEU:HB3	6:j:255:PHE:HB3	1.79	0.63
6:h:358:SER:N	6:h:361:ILE:O	2.31	0.63
9:Y:932:ARG:HB2	9:Y:951:GLU:HG3	1.80	0.63
1:B:325:ILE:HD13	1:B:326:VAL:N	2.12	0.63
5:I:338:ASP:O	5:I:342:CYS:N	2.25	0.63
6:L:187:LEU:HB3	6:L:205:SER:HB3	1.80	0.63
6:L:319:MET:HB2	6:M:321:MET:HB2	1.79	0.63
6:M:193:VAL:HA	6:N:206:PRO:HB3	1.79	0.63
8:W:549:VAL:HG23	8:W:565:VAL:HB	1.81	0.63
5:e:446:LEU:HD22	5:e:451:ALA:HB1	1.80	0.63
6:i:17:THR:OG1	6:j:13:SER:OG	2.15	0.63
5:J:597:THR:HG21	5:K:502:PHE:HA	1.81	0.63
6:L:94:GLN:HA	6:M:102:TYR:HB2	1.79	0.63
6:M:182:PHE:HB3	6:N:184:LEU:HB3	1.80	0.63
8:P:29:VAL:HG13	8:Q:14:GLN:HG3	1.81	0.63
4:b:89:GLN:HE21	4:b:186:ILE:HD12	1.64	0.63
5:g:145:ASN:ND2	5:g:152:THR:O	2.32	0.63
5:g:147:GLN:HB2	5:g:150:LYS:O	1.98	0.63
5:I:97:SER:HA	5:I:127:PHE:H	1.63	0.63
4:U:93:ILE:N	4:U:160:LEU:O	2.23	0.63
4:b:207:VAL:HG23	4:d:203:VAL:HG22	1.81	0.63
5:e:87:ASN:OD1	5:f:51:THR:OG1	2.16	0.63
5:e:540:SER:HB3	5:f:579:VAL:HG22	1.80	0.63
5:g:86:TYR:OH	5:g:138:GLY:N	2.27	0.63
6:h:306:THR:HA	6:j:304:TYR:HA	1.80	0.63
6:h:406:TYR:OH	6:h:423:THR:OG1	2.17	0.63
6:j:345:PRO:O	6:j:349:ALA:N	2.31	0.63
5:I:314:ASN:HB2	5:I:378:ASP:HA	1.79	0.63
5:J:486:GLU:OE1	5:K:495:THR:N	2.32	0.63
5:J:526:ARG:NH1	5:K:499:ASP:OD2	2.30	0.63
4:b:31:PRO:HA	4:b:38:THR:HA	1.81	0.63
4:G:140:PHE:O	4:G:144:GLU:N	2.32	0.62
5:J:221:GLU:O	5:J:231:ARG:NH1	2.29	0.62
6:L:321:MET:HB2	6:N:319:MET:HB2	1.81	0.62
6:M:118:LEU:HD13	6:M:123:ILE:HD13	1.80	0.62
9:R:1027:LYS:HB2	10:S:59:TYR:HD1	1.64	0.62
4:H:85:THR:O	4:H:191:ARG:NH2	2.21	0.62
5:I:356:TYR:CZ	5:I:358:LEU:HD11	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:J:398:VAL:HG12	5:J:402:LYS:HE3	1.80	0.62
5:J:598:ALA:N	5:K:491:ALA:O	2.33	0.62
10:S:177:ASP:HB2	10:S:183:LYS:HE3	1.81	0.62
8:W:212:GLY:O	8:W:230:GLY:N	2.27	0.62
6:h:433:TRP:HE1	6:j:403:GLN:HE21	1.47	0.62
5:J:467:HIS:ND1	5:K:424:TYR:OH	2.27	0.62
5:J:469:ASP:OD1	5:J:483:ARG:NH2	2.32	0.62
5:K:305:ASN:HD21	5:K:388:ASP:HB2	1.63	0.62
6:L:119:THR:HB	6:N:114:ASP:HA	1.80	0.62
8:P:149:VAL:HG22	8:P:150:ILE:H	1.62	0.62
9:R:419:GLY:O	9:R:425:ARG:NH1	2.30	0.62
10:S:216:PRO:O	10:S:220:GLY:N	2.32	0.62
5:e:191:TYR:OH	5:f:191:TYR:OH	2.16	0.62
5:e:291:PHE:N	5:e:368:ILE:O	2.32	0.62
6:h:226:SER:N	6:h:229:GLU:OE1	2.25	0.62
9:Y:366:LYS:HB3	9:Y:378:LEU:HD23	1.81	0.62
9:Y:912:ILE:HD12	9:Y:1005:LYS:HB3	1.82	0.62
8:Q:523:ASP:OD1	8:Q:524:ILE:N	2.31	0.62
10:S:34:ASN:HA	10:S:273:ASN:HD21	1.63	0.62
4:d:149:LEU:O	4:d:162:VAL:HA	2.00	0.62
5:J:87:ASN:ND2	5:K:51:THR:OG1	2.32	0.62
5:J:112:ASP:HA	5:J:138:GLY:O	1.99	0.62
6:L:149:THR:HG22	6:L:165:GLN:HB3	1.81	0.62
6:L:393:HIS:CD2	6:L:449:THR:H	2.18	0.62
6:L:128:ASN:O	6:L:131:HIS:NE2	2.32	0.62
6:L:403:GLN:OE1	6:M:433:TRP:NE1	2.31	0.62
6:L:424:ALA:HA	6:N:420:GLU:OE1	1.99	0.62
4:b:26:MET:HG3	4:b:54:PRO:HB3	1.82	0.62
5:e:416:LEU:HD12	5:e:446:LEU:HD21	1.80	0.62
6:h:31:ASN:OD1	6:h:34:GLN:N	2.30	0.62
6:i:223:ARG:HB2	6:i:238:LYS:HG2	1.82	0.62
6:i:397:SER:N	6:j:446:GLY:O	2.28	0.62
9:Y:407:TRP:HE1	9:Y:409:GLU:HG2	1.64	0.62
9:Y:932:ARG:H	9:Y:950:TYR:HA	1.65	0.62
5:I:184:ASN:ND2	5:I:247:TYR:O	2.28	0.62
6:L:307:HIS:N	6:N:303:LYS:O	2.32	0.62
6:M:178:THR:OG1	6:M:181:ALA:N	2.33	0.62
10:T:307:TYR:OH	10:T:309:GLU:OE1	2.17	0.62
10:Z:115:SER:OG	10:Z:119:ASN:ND2	2.21	0.62
9:Y:934:ASP:OD1	9:Y:938:ASN:N	2.29	0.62
5:K:356:TYR:HA	5:K:369:LYS:O	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:410:GLY:HA3	6:M:430:GLN:HB3	1.82	0.62
6:M:225:ALA:O	6:M:244:LYS:NZ	2.24	0.62
5:f:529:GLU:HB3	5:f:586:PRO:HG2	1.82	0.62
3:E:42:SER:O	3:E:44:ARG:N	2.33	0.62
4:G:172:VAL:HB	4:G:186:ILE:HD11	1.81	0.62
6:M:403:GLN:HE21	6:N:431:LEU:HD22	1.64	0.62
8:Q:77:ARG:NH1	8:Q:289:GLU:OE1	2.25	0.62
10:S:94:TRP:CH2	10:S:168:PRO:HD3	2.34	0.62
5:g:145:ASN:HB3	5:g:153:THR:HG22	1.81	0.62
6:h:102:TYR:HE1	6:j:117:SER:HB3	1.62	0.62
9:Y:286:LEU:HD12	9:Y:290:VAL:HG21	1.80	0.62
9:Y:854:ARG:HH11	9:Y:854:ARG:HG3	1.65	0.62
5:J:264:ARG:NH2	5:J:377:ARG:O	2.33	0.62
5:K:420:GLY:HA2	5:K:437:LYS:HE3	1.81	0.62
6:M:153:ASP:HB3	6:N:160:PRO:HG2	1.82	0.62
4:c:92:THR:OG1	4:c:187:ASP:OD2	2.17	0.62
5:e:55:PRO:HA	5:e:74:ILE:HA	1.82	0.62
5:e:454:ASP:OD1	5:e:603:ARG:NH2	2.32	0.62
5:g:22:GLY:HA2	5:g:25:LYS:HD2	1.82	0.62
5:g:328:THR:HG22	5:g:329:PHE:CD2	2.35	0.62
6:i:405:ILE:HG21	6:i:417:CYS:SG	2.40	0.62
6:j:245:LEU:HD21	6:j:257:LEU:HD21	1.82	0.62
2:C:427:THR:HG22	2:C:442:VAL:H	1.65	0.61
6:L:332:CYS:SG	6:L:337:ARG:NH2	2.73	0.61
4:b:37:ARG:HE	4:c:166:ASP:HB3	1.64	0.61
6:h:79:THR:H	6:h:82:LEU:HD12	1.64	0.61
4:H:71:PRO:HA	4:H:218:ARG:HH11	1.65	0.61
5:I:410:LEU:HB2	5:K:412:ASN:HB3	1.81	0.61
6:L:44:ARG:HH21	6:L:46:ASP:CG	2.09	0.61
5:e:21:ARG:NH2	9:Y:938:ASN:OD1	2.28	0.61
5:g:73:ARG:HA	5:g:102:ASN:HB3	1.83	0.61
5:g:461:THR:O	5:g:603:ARG:N	2.19	0.61
6:h:387:PHE:CE1	6:i:456:ILE:HA	2.35	0.61
6:j:366:ASP:OD2	6:j:368:ARG:NH2	2.33	0.61
6:L:105:ASP:OD1	6:L:121:ARG:NH1	2.31	0.61
6:M:294:TYR:HB2	6:N:287:ALA:HB2	1.81	0.61
4:U:131:GLU:O	4:U:135:ASN:N	2.22	0.61
5:f:268:THR:OG1	5:f:284:ASN:N	2.34	0.61
9:Y:524:TRP:CD1	9:Y:525:ILE:H	2.17	0.61
4:G:137:PHE:HD2	4:G:162:VAL:HG11	1.65	0.61
6:M:94:GLN:NE2	6:M:114:ASP:OD2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:e:410:LEU:HB2	5:g:412:ASN:HB3	1.83	0.61
9:Y:169:GLN:OE1	9:Y:540:TYR:OH	2.18	0.61
9:Y:583:GLY:HA2	9:Y:599:LEU:HG	1.80	0.61
5:I:167:THR:O	5:I:236:CYS:HB2	2.01	0.61
5:I:194:GLY:HA2	5:I:243:GLN:NE2	2.15	0.61
6:M:405:ILE:HG21	6:M:417:CYS:SG	2.40	0.61
9:R:133:TYR:O	9:R:588:LYS:NZ	2.32	0.61
8:W:397:ILE:HD12	8:W:616:SER:HB3	1.82	0.61
9:Y:455:LEU:O	9:Y:472:LYS:N	2.30	0.61
5:I:308:SER:HB2	5:I:385:PHE:HD1	1.66	0.61
5:K:214:SER:HB3	5:K:225:LEU:HA	1.81	0.61
6:M:97:TRP:C	6:N:99:TYR:HB3	2.24	0.61
8:Q:499:ARG:HH12	8:Q:501:ALA:HB2	1.66	0.61
10:Z:278:LYS:HE2	10:Z:281:PRO:HA	1.81	0.61
4:d:101:ASN:ND2	4:d:106:GLN:HB2	2.16	0.61
6:i:453:ASN:ND2	6:j:451:MET:HE1	2.15	0.61
5:K:63:ASP:HB3	5:K:65:TRP:CD1	2.35	0.61
9:R:1024:LYS:HG2	9:R:1027:LYS:HG2	1.82	0.61
4:c:140:PHE:O	4:c:144:GLU:N	2.32	0.61
6:h:248:LEU:O	6:h:257:LEU:N	2.27	0.61
6:h:420:GLU:HB3	6:i:424:ALA:HA	1.83	0.61
5:K:183:TYR:CE1	5:K:188:LEU:HD22	2.36	0.61
6:L:441:ALA:HB3	6:N:400:HIS:HB2	1.82	0.61
6:M:332:CYS:HB3	6:M:337:ARG:NH2	2.15	0.61
8:X:397:ILE:HD11	8:X:614:PRO:HB2	1.81	0.61
4:b:21:PHE:O	4:b:53:TYR:OH	2.19	0.61
4:d:89:GLN:HB2	4:d:190:ALA:HB2	1.82	0.61
6:h:130:ARG:NH2	6:i:128:ASN:OD1	2.26	0.61
12:A:151:ILE:HG22	12:A:171:GLY:HA2	1.82	0.61
3:E:9:LEU:HA	3:E:13:ALA:HB3	1.83	0.61
10:S:217:VAL:HA	10:S:223:ASN:HD21	1.65	0.61
10:S:225:ILE:C	10:S:227:TRP:H	2.09	0.61
10:a:278:LYS:HB3	10:a:283:ASP:HB2	1.82	0.61
5:e:504:LEU:HB3	5:e:515:PRO:HB2	1.80	0.61
5:e:528:TYR:OH	5:g:592:LEU:O	2.14	0.61
5:g:14:GLY:HA2	9:Y:988:LEU:HD22	1.83	0.61
5:g:48:ALA:O	5:g:64:SER:OG	2.16	0.61
6:h:392:HIS:ND1	6:h:393:HIS:O	2.34	0.61
9:Y:167:LEU:HD21	9:Y:579:LYS:HB2	1.82	0.61
9:Y:176:GLN:HB3	9:Y:214:LYS:HB3	1.83	0.61
9:Y:368:MET:HB3	9:Y:375:LEU:HD11	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Y:505:GLN:OE1	9:Y:509:ASN:N	2.34	0.61
4:G:20:ASP:OD1	4:G:46:GLN:NE2	2.29	0.61
5:J:82:GLY:N	5:J:85:ASP:OD2	2.27	0.61
5:J:266:TYR:N	5:J:281:TRP:O	2.29	0.61
6:L:452:LYS:O	6:N:371:VAL:HG22	2.01	0.61
4:c:111:ILE:O	4:c:118:PHE:N	2.29	0.61
4:d:57:GLN:NE2	4:d:61:ASP:OD2	2.34	0.61
4:d:92:THR:O	4:d:185:THR:N	2.32	0.61
6:i:325:ASN:HA	6:i:457:ASN:ND2	2.16	0.61
9:Y:455:LEU:N	9:Y:472:LYS:O	2.25	0.61
9:Y:916:TYR:OH	9:Y:997:SER:OG	2.17	0.61
4:H:99:VAL:HG11	4:H:120:PHE:HB2	1.83	0.60
5:I:493:TRP:NE1	5:I:503:GLY:O	2.34	0.60
5:I:569:TYR:CD2	5:J:555:ILE:HG12	2.36	0.60
5:K:35:GLU:HA	5:K:40:GLY:HA2	1.82	0.60
5:e:533:ILE:O	5:g:586:PRO:HB3	2.01	0.60
5:f:466:ALA:HB2	5:g:462:ILE:HD11	1.82	0.60
6:h:263:GLU:OE1	6:i:283:ASN:ND2	2.31	0.60
12:A:74:ASN:O	12:A:75:GLN:HG2	2.00	0.60
3:E:16:ASP:CG	3:E:19:ARG:HH21	2.09	0.60
5:K:264:ARG:HG2	5:K:266:TYR:HE1	1.65	0.60
10:T:154:ARG:NE	9:Y:476:ARG:HG2	2.16	0.60
5:f:85:ASP:HA	5:f:88:LYS:HE3	1.83	0.60
5:f:173:PHE:HB3	5:f:176:VAL:HG22	1.83	0.60
5:g:465:ASN:OD1	5:g:468:ASN:N	2.24	0.60
6:h:385:ARG:HD3	6:h:391:GLN:NE2	2.16	0.60
6:h:406:TYR:HD1	6:h:421:LEU:HB2	1.65	0.60
6:i:332:CYS:SG	6:i:337:ARG:NH2	2.74	0.60
6:j:310:ILE:O	6:j:314:LEU:N	2.33	0.60
6:j:404:MET:HE2	6:j:421:LEU:HD11	1.82	0.60
9:Y:203:ARG:O	9:Y:205:GLN:NE2	2.33	0.60
9:Y:434:ASN:OD1	9:Y:435:MET:N	2.34	0.60
5:I:156:LEU:HD22	5:K:157:ALA:H	1.67	0.60
5:J:53:SER:HB3	5:J:68:ASN:HB3	1.82	0.60
5:J:421:ARG:O	5:J:438:ILE:N	2.34	0.60
6:L:289:THR:OG1	6:M:282:SER:O	2.17	0.60
6:M:145:THR:HG23	6:M:165:GLN:HE22	1.67	0.60
8:Q:180:TRP:HB2	8:Q:194:VAL:HB	1.83	0.60
9:R:209:LYS:HE3	9:R:220:TYR:CZ	2.37	0.60
4:b:29:LYS:HE3	4:b:39:ILE:HD11	1.83	0.60
6:i:406:TYR:HA	6:i:421:LEU:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:A:239:ALA:HB2	12:A:263:ASN:HB2	1.83	0.60
5:I:2:LYS:N	5:J:41:GLU:OE1	2.32	0.60
5:J:11:VAL:O	9:R:981:ARG:NH1	2.31	0.60
5:J:100:ALA:N	5:J:126:ASP:OD1	2.30	0.60
5:J:449:LEU:N	5:K:414:GLU:OE2	2.34	0.60
5:K:214:SER:OG	5:K:224:ASP:O	2.18	0.60
5:K:312:LEU:HB2	5:K:381:THR:HB	1.83	0.60
6:L:10:SER:HB3	6:L:15:TYR:CD2	2.37	0.60
6:L:63:ALA:HB3	6:L:82:LEU:HD13	1.82	0.60
6:L:260:LEU:HB3	6:L:274:SER:HB3	1.82	0.60
6:N:105:ASP:HA	6:N:125:VAL:HG21	1.84	0.60
4:b:44:VAL:O	4:b:48:ARG:N	2.32	0.60
4:b:45:ASP:OD1	4:b:48:ARG:NH1	2.29	0.60
4:b:173:THR:O	4:b:184:GLY:N	2.32	0.60
5:I:126:ASP:O	5:I:147:GLN:NE2	2.35	0.60
5:I:423:GLU:HB2	5:I:436:ARG:HB2	1.84	0.60
5:J:214:SER:OG	5:J:223:ILE:HG13	2.01	0.60
6:L:36:LEU:HD11	6:N:32:VAL:HG13	1.83	0.60
10:S:210:ASP:O	10:S:214:GLU:N	2.33	0.60
8:W:228:ILE:HD11	8:X:301:PRO:HG2	1.84	0.60
5:e:159:VAL:H	5:f:251:ILE:HG22	1.65	0.60
4:H:95:PHE:CZ	4:H:133:VAL:HG11	2.36	0.60
5:I:502:PHE:HA	5:K:597:THR:HG21	1.83	0.60
6:L:161:LEU:N	6:N:153:ASP:O	2.25	0.60
6:L:255:PHE:CE1	6:M:259:LYS:HG3	2.37	0.60
6:M:374:GLY:HA2	6:N:456:ILE:O	2.02	0.60
8:P:343:ALA:HB3	8:P:377:PRO:HA	1.84	0.60
9:R:308:GLU:CD	9:R:322:LYS:H	2.08	0.60
10:Z:46:TRP:CZ2	10:Z:266:ARG:HB3	2.36	0.60
5:e:83:VAL:HG21	5:g:442:PHE:HB2	1.82	0.60
12:A:172:GLN:NE2	12:A:286:GLN:OE1	2.34	0.60
5:J:421:ARG:HB2	5:J:438:ILE:HB	1.84	0.60
6:M:79:THR:H	6:M:82:LEU:HD12	1.67	0.60
4:d:73:ASN:HA	4:d:217:LYS:HE3	1.84	0.60
5:f:277:PRO:HB3	5:f:294:ALA:O	2.01	0.60
6:h:123:ILE:HG12	6:j:126:VAL:HG11	1.84	0.60
6:i:376:ASP:OD1	6:i:382:ASP:N	2.30	0.60
9:Y:257:THR:C	9:Y:259:THR:H	2.09	0.60
6:L:297:SER:O	6:L:302:ASN:ND2	2.28	0.60
10:S:55:PHE:HE1	9:Y:468:VAL:HB	1.66	0.60
4:U:89:GLN:HE21	4:U:186:ILE:HD12	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:e:505:ASN:N	5:e:516:THR:O	2.21	0.60
5:e:524:GLY:HA3	5:g:593:PRO:O	2.00	0.60
5:f:597:THR:OG1	5:g:520:GLY:N	2.32	0.60
5:g:427:TYR:CE2	5:g:605:ALA:HB2	2.35	0.60
6:i:420:GLU:OE2	6:i:422:ARG:NE	2.34	0.60
4:G:136:LYS:HE3	4:G:140:PHE:CE1	2.37	0.60
5:I:569:TYR:HD2	5:J:555:ILE:H	1.50	0.60
5:J:457:HIS:O	5:J:603:ARG:NE	2.34	0.60
5:K:52:HIS:O	5:K:68:ASN:N	2.28	0.60
6:L:179:GLU:OE2	6:L:199:ARG:NE	2.35	0.60
9:R:37:MET:HB3	9:R:58:LEU:HD11	1.83	0.60
9:R:325:VAL:N	9:R:354:TYR:O	2.34	0.60
10:T:96:ASP:CG	10:T:98:ARG:HE	2.09	0.60
4:b:85:THR:O	4:b:191:ARG:NH2	2.35	0.60
5:J:62:GLY:HA3	5:K:44:HIS:CD2	2.37	0.60
5:K:55:PRO:HA	5:K:74:ILE:HA	1.84	0.60
6:N:82:LEU:O	6:N:85:TYR:HB3	2.01	0.60
10:S:169:PRO:HA	10:S:178:MET:HE3	1.84	0.60
4:b:99:VAL:O	4:b:123:THR:N	2.26	0.60
5:f:82:GLY:N	5:f:85:ASP:OD2	2.29	0.60
5:f:353:GLY:O	5:g:264:ARG:NH2	2.35	0.60
6:h:276:GLY:HA3	6:j:266:ALA:HA	1.84	0.60
12:A:52:ILE:HD11	12:A:99:LEU:HD23	1.82	0.60
5:K:161:LYS:HG3	5:K:245:VAL:HG22	1.83	0.59
6:L:331:LEU:HB3	6:L:459:VAL:HB	1.83	0.59
6:M:41:PRO:HA	6:M:44:ARG:HD3	1.85	0.59
6:M:392:HIS:O	6:N:450:ARG:NE	2.23	0.59
8:X:84:ILE:HG22	8:X:137:LEU:HB3	1.83	0.59
5:e:61:PHE:HE1	5:e:140:TRP:HH2	1.49	0.59
5:e:324:ALA:HA	5:e:358:LEU:HA	1.83	0.59
5:g:176:VAL:HG23	5:g:229:ASN:HA	1.84	0.59
6:i:229:GLU:OE2	6:i:238:LYS:NZ	2.18	0.59
9:Y:799:ASP:HB3	9:Y:806:ARG:HB2	1.83	0.59
4:G:73:ASN:HB3	4:H:79:THR:H	1.66	0.59
5:I:318:LEU:HB3	5:I:356:TYR:CE1	2.37	0.59
5:K:330:VAL:HG23	5:K:349:TRP:HD1	1.66	0.59
9:R:302:ASP:OD2	9:R:326:ARG:NH1	2.32	0.59
8:X:336:ASP:OD2	8:X:339:LYS:NZ	2.26	0.59
10:Z:294:THR:N	10:Z:297:GLN:OE1	2.31	0.59
10:a:307:TYR:OH	10:a:309:GLU:OE1	2.19	0.59
5:e:569:TYR:HD1	5:g:553:ILE:HD13	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:I:100:ALA:N	5:I:126:ASP:OD1	2.32	0.59
5:K:190:VAL:O	5:K:196:LEU:HD12	2.02	0.59
6:L:398:HIS:HB2	6:N:444:VAL:HG11	1.83	0.59
8:P:571:GLU:O	8:P:572:ARG:NH1	2.35	0.59
4:U:90:VAL:HG22	4:U:163:ARG:HG3	1.83	0.59
8:W:488:TYR:OH	8:W:491:ALA:O	2.10	0.59
4:c:196:THR:N	4:c:220:ALA:O	2.26	0.59
9:Y:799:ASP:O	9:Y:806:ARG:N	2.35	0.59
4:G:73:ASN:HD22	4:H:79:THR:HG1	1.47	0.59
5:I:421:ARG:HB2	5:I:438:ILE:HD12	1.84	0.59
5:K:454:ASP:HA	5:K:603:ARG:NH1	2.11	0.59
6:N:262:THR:HA	6:N:277:ALA:HA	1.84	0.59
9:R:244:THR:OG1	9:R:518:ARG:NH1	2.35	0.59
9:R:929:ARG:HG3	9:R:993:ALA:HB3	1.84	0.59
5:f:505:ASN:HB2	5:f:518:THR:O	2.02	0.59
5:J:413:GLU:HA	5:J:445:ARG:NE	2.17	0.59
6:L:164:LYS:HA	6:L:167:ILE:HD12	1.83	0.59
6:M:374:GLY:HA3	6:N:367:MET:O	2.02	0.59
6:M:422:ARG:NH2	6:N:425:GLU:OE2	2.34	0.59
10:S:152:CYS:O	10:S:157:GLY:N	2.35	0.59
10:T:117:PRO:HA	10:T:120:ARG:HG2	1.84	0.59
10:Z:77:ALA:N	10:Z:293:TYR:O	2.33	0.59
5:e:595:TYR:N	5:f:523:GLY:O	2.28	0.59
6:h:379:ARG:HD2	6:i:368:ARG:HB2	1.84	0.59
6:i:20:PRO:HG3	6:i:27:SER:HA	1.84	0.59
10:Z:201:ASN:O	9:Y:1015:ARG:NH1	2.35	0.59
5:e:266:TYR:N	5:e:271:THR:OG1	2.36	0.59
5:e:328:THR:HG22	5:e:359:ILE:HG13	1.85	0.59
5:f:587:ASP:HB2	5:g:533:ILE:HG22	1.85	0.59
9:Y:3:LYS:HE3	9:Y:90:PRO:O	2.02	0.59
4:G:94:THR:HG23	4:G:159:ILE:HG12	1.84	0.59
5:I:338:ASP:N	5:I:341:SER:OG	2.31	0.59
9:R:83:VAL:N	9:R:91:SER:OG	2.30	0.59
10:Z:255:PRO:O	10:Z:259:LEU:N	2.35	0.59
4:c:134:TYR:HB2	4:c:152:ARG:HG3	1.84	0.59
4:c:200:LEU:HD11	4:c:217:LYS:HB2	1.85	0.59
5:e:20:ARG:NH2	5:g:9:ASN:O	2.35	0.59
5:e:326:LEU:HB2	5:e:359:ILE:HB	1.84	0.59
5:e:416:LEU:HD13	5:e:455:VAL:HG11	1.85	0.59
5:f:34:TYR:HB3	5:f:40:GLY:HA2	1.84	0.59
5:f:128:MET:HA	5:f:147:GLN:HG2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:266:TYR:HE2	5:f:377:ARG:HG2	1.68	0.59
6:i:407:GLN:HB2	6:i:420:GLU:HB2	1.85	0.59
6:j:331:LEU:HD13	6:j:459:VAL:HG21	1.85	0.59
7:k:86:GLU:CD	7:k:88:ARG:HH21	2.10	0.59
9:Y:192:VAL:HB	9:Y:199:TYR:HB2	1.85	0.59
9:Y:254:TYR:HB3	9:Y:296:PHE:HB2	1.82	0.59
4:G:194:TYR:OH	4:U:68:GLN:O	2.13	0.59
5:I:46:ALA:HA	5:K:91:ARG:NH2	2.17	0.59
5:I:261:HIS:O	5:I:382:ILE:N	2.24	0.59
5:I:400:GLY:HA2	5:I:403:GLU:CD	2.27	0.59
6:L:163:VAL:O	6:L:167:ILE:N	2.33	0.59
6:M:405:ILE:N	6:M:419:TYR:OH	2.34	0.59
5:e:564:ALA:HB1	5:e:568:GLY:HA3	1.85	0.59
5:f:425:THR:N	5:f:434:THR:O	2.31	0.59
6:h:154:ASP:OD2	6:i:162:LYS:NZ	2.34	0.59
6:i:192:GLU:HB3	6:i:198:ILE:HD13	1.85	0.59
6:i:442:MET:HB2	6:j:401:PRO:HG2	1.84	0.59
4:H:33:ILE:HD11	4:H:39:ILE:HG22	1.84	0.59
4:H:69:GLN:OE1	4:U:218:ARG:NH1	2.35	0.59
5:K:191:TYR:CE1	5:K:196:LEU:HD13	2.37	0.59
6:L:62:ILE:HD12	6:N:54:PRO:HD3	1.84	0.59
9:R:380:THR:OG1	9:R:430:HIS:ND1	2.23	0.59
10:S:57:PRO:HG2	10:S:311:ARG:C	2.28	0.59
5:e:564:ALA:HA	5:e:567:PRO:HG2	1.85	0.59
6:h:336:GLY:HA2	6:h:364:LEU:O	2.02	0.59
6:L:127:PHE:HD1	6:L:139:SER:HB3	1.68	0.59
6:L:221:ILE:HB	6:N:219:LEU:HB3	1.84	0.59
6:L:381:LEU:HD22	6:N:452:LYS:HD3	1.85	0.59
4:b:129:VAL:HG11	4:b:180:ILE:HG13	1.85	0.59
5:g:310:GLU:HG3	5:g:383:ARG:HH21	1.67	0.59
6:h:260:LEU:HD22	6:h:274:SER:HA	1.84	0.59
5:J:258:TYR:HB2	5:J:385:PHE:HD1	1.67	0.58
5:J:319:VAL:HB	5:J:355:ASP:H	1.67	0.58
5:K:52:HIS:HB3	5:K:67:LEU:HD23	1.83	0.58
5:K:142:TYR:HE2	5:K:144:GLU:HB2	1.69	0.58
6:L:329:GLY:O	6:L:463:ARG:NH2	2.36	0.58
6:M:198:ILE:HD12	6:M:202:PHE:CD1	2.38	0.58
8:Q:429:SER:HB2	8:W:447:ILE:HD11	1.84	0.58
9:R:209:LYS:HE3	9:R:220:TYR:CE1	2.37	0.58
9:R:326:ARG:NH2	9:R:350:ASP:O	2.36	0.58
5:f:49:TRP:CH2	5:f:91:ARG:HB3	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:255:ARG:HE	5:g:250:GLY:C	2.11	0.58
5:g:557:GLY:HA2	9:Y:207:MET:HG3	1.85	0.58
6:h:450:ARG:O	6:j:393:HIS:HB2	2.02	0.58
6:i:13:SER:HA	6:i:16:VAL:HG23	1.84	0.58
4:G:143:ASP:HB3	4:G:145:LYS:HE3	1.83	0.58
5:K:157:ALA:HB2	5:K:249:ASP:CG	2.28	0.58
5:K:504:LEU:HB3	5:K:515:PRO:HB2	1.85	0.58
6:M:420:GLU:OE2	6:M:422:ARG:NE	2.35	0.58
10:S:233:ASP:HB2	10:S:236:PHE:HB2	1.84	0.58
5:f:100:ALA:HB2	5:f:126:ASP:H	1.67	0.58
6:j:123:ILE:HD12	6:j:126:VAL:HB	1.86	0.58
9:Y:850:ASP:HB2	9:Y:854:ARG:HH12	1.68	0.58
4:G:130:CYS:SG	4:G:160:LEU:HB2	2.43	0.58
5:J:578:LYS:HA	5:K:539:GLU:HA	1.84	0.58
10:T:166:VAL:HG12	10:T:167:GLU:HG3	1.85	0.58
8:X:185:ILE:HD11	9:Y:728:ARG:HB2	1.85	0.58
5:e:311:LEU:HD12	5:e:381:THR:O	2.03	0.58
6:h:104:THR:N	6:h:107:GLU:OE1	2.29	0.58
6:i:17:THR:HG1	6:j:13:SER:HG	1.48	0.58
5:I:194:GLY:HA2	5:I:243:GLN:HE21	1.68	0.58
5:J:190:VAL:HG11	5:J:232:LEU:HD21	1.85	0.58
5:K:355:ASP:O	5:K:371:SER:N	2.30	0.58
4:b:22:LEU:HD11	4:d:22:LEU:HD22	1.85	0.58
5:e:322:GLY:HA2	5:e:360:PHE:CZ	2.39	0.58
5:f:571:LYS:HG2	5:g:554:ILE:HG12	1.84	0.58
6:i:395:VAL:O	6:j:446:GLY:N	2.30	0.58
12:A:231:ASP:N	12:A:300:GLU:OE1	2.26	0.58
6:M:245:LEU:HD13	6:N:245:LEU:HD21	1.84	0.58
10:Z:116:ALA:O	10:Z:120:ARG:N	2.36	0.58
5:e:569:TYR:HB2	5:f:555:ILE:HG12	1.85	0.58
5:g:52:HIS:NE2	5:g:54:ALA:HB3	2.18	0.58
5:g:506:ASN:HA	5:g:515:PRO:HG3	1.85	0.58
6:i:95:THR:HA	6:j:101:LYS:HE3	1.85	0.58
5:I:108:PRO:HB3	5:I:114:ILE:HG13	1.85	0.58
6:L:288:ILE:HD11	6:N:293:LEU:HD21	1.86	0.58
4:c:137:PHE:HB3	4:c:150:VAL:HG21	1.84	0.58
5:f:505:ASN:ND2	5:f:519:ALA:O	2.35	0.58
5:J:162:GLU:N	5:J:244:PHE:O	2.34	0.58
5:J:250:GLY:HA2	5:K:159:VAL:HG23	1.84	0.58
5:J:317:GLN:NE2	5:J:318:LEU:O	2.36	0.58
5:K:493:TRP:HE1	5:K:503:GLY:HA2	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Z:250:ASP:OD1	10:Z:251:SER:N	2.37	0.58
10:a:57:PRO:HG2	10:a:311:ARG:HA	1.86	0.58
4:b:36:LYS:HB3	4:c:165:ILE:HG23	1.85	0.58
5:e:18:TYR:HB3	9:Y:991:SER:CB	2.34	0.58
5:e:594:PRO:HB2	5:f:488:GLN:HG2	1.86	0.58
5:f:139:ARG:NE	5:f:141:GLU:OE2	2.37	0.58
6:i:216:GLU:O	6:j:238:LYS:NZ	2.37	0.58
9:Y:324:ILE:HG23	9:Y:353:SER:HB2	1.84	0.58
4:H:139:GLU:O	4:H:143:ASP:N	2.37	0.58
5:I:261:HIS:HB3	5:I:382:ILE:HB	1.86	0.58
8:P:518:PRO:HB2	8:P:541:THR:HB	1.86	0.58
10:Z:176:ILE:O	10:Z:184:TRP:N	2.31	0.58
5:f:582:GLY:N	5:g:537:GLN:OE1	2.37	0.58
6:h:94:GLN:HA	6:i:102:TYR:HB2	1.85	0.58
6:i:42:TRP:CD1	6:j:49:LEU:HD21	2.39	0.58
6:i:42:TRP:CZ2	6:j:48:GLY:HA2	2.39	0.58
6:i:256:GLY:HA2	6:j:257:LEU:HD22	1.85	0.58
6:j:260:LEU:HB3	6:j:274:SER:HB3	1.85	0.58
9:Y:677:GLU:OE2	9:Y:697:ASN:ND2	2.36	0.58
7:O:19:ASP:N	7:O:23:ASP:O	2.32	0.58
10:T:18:GLU:O	10:T:22:ASN:ND2	2.37	0.58
4:U:197:TRP:CZ3	4:U:218:ARG:HB2	2.38	0.58
5:e:423:GLU:N	5:e:436:ARG:O	2.21	0.58
5:f:258:TYR:HA	5:f:385:PHE:HA	1.86	0.58
5:g:503:GLY:O	5:g:518:THR:N	2.37	0.58
5:g:518:THR:HG22	5:g:519:ALA:O	2.04	0.58
6:h:95:THR:HA	6:i:101:LYS:HE3	1.86	0.58
6:i:186:GLN:N	6:i:201:GLY:O	2.36	0.58
6:i:271:THR:O	6:j:275:ALA:N	2.35	0.58
9:Y:541:GLU:OE2	9:Y:587:TYR:OH	2.18	0.58
4:G:89:GLN:HB3	4:G:164:PHE:HD2	1.69	0.58
4:G:135:ASN:O	4:G:139:GLU:HG3	2.04	0.58
4:G:199:LYS:HA	4:G:216:PHE:HA	1.85	0.58
5:K:394:GLU:O	5:K:402:LYS:HB2	2.04	0.58
6:L:43:ALA:O	6:N:40:GLY:N	2.25	0.58
6:N:406:TYR:CE2	6:N:408:SER:HB3	2.38	0.58
10:Z:263:ARG:HA	10:Z:315:ILE:HG23	1.85	0.58
4:b:200:LEU:HB3	4:c:207:VAL:HG11	1.84	0.58
5:e:272:GLU:HA	5:g:324:ALA:HB2	1.86	0.58
5:f:78:LEU:HD21	5:f:106:ILE:HG23	1.85	0.58
5:g:395:TRP:O	5:g:402:LYS:HD2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:g:493:TRP:CG	5:g:519:ALA:HB2	2.39	0.58
6:h:297:SER:O	6:h:302:ASN:ND2	2.25	0.58
4:H:65:THR:HG22	4:U:192:SER:OG	2.04	0.57
5:I:271:THR:HG22	5:I:272:GLU:HG2	1.86	0.57
6:L:118:LEU:HD21	6:M:120:PRO:HG3	1.86	0.57
6:M:113:ASN:O	6:N:121:ARG:N	2.37	0.57
6:M:216:GLU:HG2	6:N:224:LEU:HB2	1.86	0.57
8:Q:42:GLN:HG3	11:V:19:ILE:HD11	1.86	0.57
4:U:140:PHE:O	4:U:144:GLU:N	2.37	0.57
6:h:236:ASP:OD1	6:i:241:THR:OG1	2.20	0.57
6:i:319:MET:N	6:j:321:MET:O	2.29	0.57
9:Y:83:VAL:N	9:Y:91:SER:OG	2.31	0.57
9:Y:139:ASP:O	9:Y:554:ARG:NH2	2.35	0.57
5:I:266:TYR:CE2	5:I:377:ARG:HG2	2.39	0.57
6:L:127:PHE:O	6:L:139:SER:OG	2.17	0.57
6:M:387:PHE:CE1	6:N:456:ILE:HA	2.39	0.57
5:g:104:VAL:HB	5:g:123:LEU:HB2	1.85	0.57
6:i:408:SER:O	6:j:430:GLN:NE2	2.37	0.57
5:J:23:GLY:O	5:J:27:ASN:ND2	2.35	0.57
5:K:328:THR:HB	5:K:352:SER:H	1.67	0.57
6:L:434:PRO:HB2	6:L:439:SER:HB2	1.85	0.57
6:M:40:GLY:HA3	6:M:42:TRP:CZ3	2.40	0.57
6:M:406:TYR:CE2	6:M:408:SER:HB3	2.39	0.57
4:U:166:ASP:OD1	4:U:170:HIS:NE2	2.37	0.57
10:Z:222:ASP:HA	10:Z:225:ILE:HG13	1.85	0.57
4:b:93:ILE:HA	4:b:184:GLY:HA2	1.84	0.57
4:d:136:LYS:HE3	4:d:140:PHE:CZ	2.39	0.57
5:e:450:GLN:NE2	5:e:453:PHE:HB3	2.18	0.57
6:h:257:LEU:HD22	6:j:256:GLY:HA2	1.85	0.57
6:j:79:THR:H	6:j:82:LEU:HD12	1.68	0.57
6:j:262:THR:HA	6:j:277:ALA:HA	1.85	0.57
9:R:481:ALA:O	9:R:486:ASN:ND2	2.24	0.57
10:Z:101:ASN:CG	10:Z:104:ILE:HD12	2.30	0.57
10:Z:176:ILE:HB	10:Z:184:TRP:HB2	1.85	0.57
10:a:226:LYS:HD2	10:a:230:ASP:HA	1.87	0.57
4:b:96:ASP:O	4:b:181:SER:N	2.31	0.57
5:e:161:LYS:O	5:f:301:ARG:NH2	2.36	0.57
6:h:351:ILE:HD12	6:h:362:PHE:HE2	1.70	0.57
6:i:137:TRP:C	6:j:139:SER:HB2	2.29	0.57
4:H:69:GLN:HG3	4:U:69:GLN:HB2	1.86	0.57
5:J:2:LYS:NZ	5:K:41:GLU:HG2	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:330:VAL:HG22	5:K:349:TRP:HA	1.87	0.57
6:L:42:TRP:NE1	6:M:43:ALA:HA	2.18	0.57
6:L:198:ILE:HD12	6:L:202:PHE:CD1	2.39	0.57
6:L:249:LYS:HD3	6:L:270:ASN:HB2	1.86	0.57
6:M:439:SER:OG	6:N:419:TYR:OH	2.17	0.57
10:S:255:PRO:O	10:S:259:LEU:N	2.38	0.57
4:b:17:ARG:NE	4:d:23:GLN:OE1	2.33	0.57
5:e:49:TRP:CE3	5:e:64:SER:HB2	2.39	0.57
5:e:412:ASN:HD22	5:e:445:ARG:NH1	2.02	0.57
5:g:132:LEU:HB3	5:g:140:TRP:CZ3	2.39	0.57
6:h:142:LEU:HB2	6:j:134:GLU:HG2	1.87	0.57
6:j:198:ILE:HD12	6:j:202:PHE:CD1	2.39	0.57
1:D:122:CYS:SG	1:D:123:GLN:N	2.77	0.57
5:I:193:ARG:HA	5:I:241:THR:H	1.69	0.57
5:I:195:ASN:OD1	5:J:195:ASN:ND2	2.38	0.57
5:I:214:SER:HA	5:I:230:ILE:HA	1.86	0.57
5:J:192:TYR:HE1	5:J:240:ASP:HB3	1.70	0.57
6:L:62:ILE:HD13	6:N:74:ASN:O	2.05	0.57
6:N:78:VAL:HA	6:N:82:LEU:HD12	1.86	0.57
9:R:416:ARG:NH2	9:R:425:ARG:HD3	2.20	0.57
4:c:197:TRP:CZ3	4:c:218:ARG:HB2	2.40	0.57
5:g:421:ARG:HB2	5:g:438:ILE:HB	1.86	0.57
6:h:62:ILE:HD13	6:j:75:GLU:HA	1.85	0.57
1:B:139:ARG:NE	1:B:189:GLY:O	2.30	0.57
5:I:191:TYR:HB2	5:I:243:GLN:HB2	1.86	0.57
5:I:329:PHE:HA	5:I:351:PRO:HA	1.87	0.57
5:J:10:VAL:HG21	9:R:973:LEU:HB2	1.85	0.57
5:K:484:TYR:HB2	5:K:602:ILE:HG13	1.85	0.57
6:L:301:ALA:HA	6:M:307:HIS:HB3	1.87	0.57
10:S:306:ILE:HB	10:T:15:PHE:HB2	1.86	0.57
4:d:141:VAL:HG21	4:d:150:VAL:HG23	1.87	0.57
5:f:432:GLN:HA	5:f:435:MET:HB2	1.87	0.57
6:i:223:ARG:HD2	6:i:238:LYS:HE2	1.86	0.57
9:Y:912:ILE:HG22	9:Y:1002:LEU:HD12	1.87	0.57
4:H:71:PRO:C	4:H:218:ARG:HD3	2.30	0.57
5:I:538:ILE:HD11	5:K:535:VAL:HG21	1.87	0.57
5:J:12:ASP:HB2	9:R:981:ARG:NH1	2.19	0.57
5:J:128:MET:HG3	5:J:146:LYS:O	2.03	0.57
5:K:561:ASP:HB3	5:K:564:ALA:HB2	1.86	0.57
8:Q:491:ALA:HA	8:Q:496:TYR:CE1	2.40	0.57
4:U:197:TRP:CH2	4:U:218:ARG:HB2	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Z:228:TYR:OH	10:Z:237:ARG:NH2	2.37	0.57
4:d:72:ILE:HA	4:d:218:ARG:HB3	1.85	0.57
5:g:329:PHE:HD1	5:g:349:TRP:HE1	1.53	0.57
6:i:379:ARG:HD2	6:j:368:ARG:HB2	1.86	0.57
9:Y:31:PHE:CD2	9:Y:85:HIS:HB2	2.40	0.57
4:H:111:ILE:O	4:H:118:PHE:N	2.32	0.57
5:J:481:TRP:HA	5:J:602:ILE:O	2.05	0.57
5:K:308:SER:HB2	5:K:385:PHE:HD1	1.70	0.57
5:K:558:CYS:O	5:K:560:VAL:HG23	2.05	0.57
6:M:406:TYR:O	6:N:430:GLN:N	2.38	0.57
8:Q:516:ILE:N	8:Q:547:TYR:O	2.32	0.57
6:i:401:PRO:HA	6:j:440:LYS:HG3	1.87	0.57
10:S:40:ILE:HB	10:S:75:ILE:HB	1.87	0.57
10:S:111:VAL:HG21	10:S:184:TRP:HZ3	1.70	0.57
4:U:200:LEU:HD12	4:U:215:TYR:HB3	1.87	0.57
10:a:32:ASP:OD1	10:a:33:HIS:ND1	2.34	0.57
5:e:571:LYS:HD3	5:f:550:ASN:HA	1.87	0.57
3:E:16:ASP:OD1	3:E:19:ARG:NH2	2.30	0.56
3:E:16:ASP:O	3:F:172:SER:HB3	2.05	0.56
5:I:36:LYS:HD2	5:J:45:PRO:HD3	1.87	0.56
5:K:330:VAL:HB	5:K:336:GLY:C	2.30	0.56
5:K:360:PHE:CE1	5:K:361:VAL:HG22	2.40	0.56
6:M:410:GLY:CA	6:N:430:GLN:HB3	2.32	0.56
9:R:914:ARG:HB2	9:R:1002:LEU:HD21	1.87	0.56
8:X:432:LYS:NZ	8:X:451:ALA:O	2.27	0.56
5:e:76:VAL:HB	5:e:106:ILE:HG12	1.87	0.56
5:e:94:ASP:HB3	5:e:128:MET:H	1.69	0.56
5:f:398:VAL:HA	5:f:401:ILE:HD12	1.87	0.56
5:g:493:TRP:NE1	5:g:503:GLY:HA2	2.20	0.56
9:Y:206:ASN:HA	9:Y:224:PHE:HB2	1.87	0.56
5:J:175:ASN:N	5:J:229:ASN:OD1	2.38	0.56
5:J:360:PHE:CE2	5:J:363:SER:HA	2.40	0.56
8:P:488:TYR:CZ	8:P:491:ALA:HB3	2.40	0.56
9:R:934:ASP:N	9:R:938:ASN:O	2.32	0.56
8:X:338:GLU:OE1	9:Y:856:ARG:NH1	2.38	0.56
4:d:175:THR:O	4:d:182:MET:N	2.29	0.56
5:e:328:THR:HB	5:e:352:SER:OG	2.05	0.56
5:e:335:GLU:O	5:e:341:SER:OG	2.22	0.56
5:g:94:ASP:HB3	5:g:128:MET:N	2.20	0.56
6:h:235:ASP:O	6:i:243:LEU:N	2.31	0.56
4:G:108:LYS:NZ	4:G:121:ASP:OD1	2.33	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:I:257:THR:HG23	5:K:388:ASP:OD1	2.05	0.56
6:L:100:THR:O	6:N:97:TRP:HA	2.05	0.56
8:X:304:ARG:HA	8:X:304:ARG:HH11	1.71	0.56
10:Z:46:TRP:HB2	10:Z:50:GLU:HG3	1.88	0.56
10:Z:249:MET:N	10:Z:322:GLU:O	2.33	0.56
10:a:277:LYS:HE3	10:a:298:PHE:O	2.05	0.56
4:b:134:TYR:CD2	4:b:152:ARG:HD2	2.40	0.56
5:e:257:THR:O	5:e:386:ASN:ND2	2.38	0.56
5:e:314:ASN:ND2	5:e:378:ASP:OD1	2.34	0.56
5:f:177:PHE:CZ	5:f:246:THR:HG23	2.40	0.56
5:f:214:SER:OG	5:f:224:ASP:O	2.22	0.56
5:f:565:THR:HG22	9:Y:220:TYR:HE2	1.70	0.56
5:g:311:LEU:HG	5:g:381:THR:O	2.05	0.56
6:h:296:GLY:N	6:i:288:ILE:O	2.30	0.56
6:j:392:HIS:ND1	6:j:393:HIS:O	2.38	0.56
9:Y:157:THR:O	9:Y:593:ILE:N	2.26	0.56
6:L:414:SER:HB3	6:M:426:LYS:O	2.06	0.56
6:L:442:MET:HB2	6:M:401:PRO:HG2	1.87	0.56
9:R:932:ARG:HB2	9:R:951:GLU:HG3	1.86	0.56
6:h:339:MET:HE3	6:h:344:TYR:CZ	2.39	0.56
6:i:163:VAL:HG22	6:j:163:VAL:HG21	1.87	0.56
6:i:434:PRO:HB2	6:i:439:SER:HB2	1.86	0.56
4:G:69:GLN:HB2	4:U:69:GLN:HG3	1.87	0.56
4:H:149:LEU:HB3	4:H:163:ARG:N	2.21	0.56
4:H:205:LEU:HD11	4:H:215:TYR:OH	2.05	0.56
5:K:171:THR:O	5:K:232:LEU:N	2.38	0.56
6:L:100:THR:HB	6:M:100:THR:CG2	2.36	0.56
6:M:159:THR:OG1	6:M:162:LYS:HG2	2.05	0.56
6:N:90:PRO:HB2	6:N:99:TYR:CD2	2.41	0.56
6:N:398:HIS:HD2	6:N:400:HIS:NE2	2.03	0.56
9:R:454:THR:HB	9:R:471:VAL:HB	1.88	0.56
10:S:233:ASP:HB2	10:S:236:PHE:HD2	1.71	0.56
4:b:47:LEU:O	4:c:115:GLY:HA3	2.06	0.56
6:i:42:TRP:CH2	6:j:48:GLY:HA2	2.40	0.56
6:i:340:TYR:HB2	6:i:343:GLU:HG3	1.87	0.56
2:C:158:ASN:N	2:C:380:ARG:O	2.36	0.56
2:C:578:LEU:O	2:C:580:LYS:N	2.39	0.56
6:M:16:VAL:HG12	6:N:13:SER:HB3	1.88	0.56
8:Q:115:PHE:CE2	8:Q:247:ASN:HB2	2.41	0.56
9:R:3:LYS:HA	9:R:89:GLU:HB2	1.88	0.56
9:R:547:ALA:HB1	9:R:551:SER:HB3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:W:89:ASN:ND2	8:W:132:ASN:OD1	2.38	0.56
4:d:140:PHE:O	4:d:144:GLU:N	2.39	0.56
6:h:179:GLU:OE2	6:h:199:ARG:NE	2.39	0.56
6:i:182:PHE:HB3	6:j:184:LEU:HB3	1.86	0.56
5:J:497:ALA:HA	5:J:517:HIS:CD2	2.40	0.56
6:L:154:ASP:OD1	6:M:162:LYS:NZ	2.38	0.56
6:M:98:GLY:HA2	6:N:99:TYR:CD1	2.41	0.56
6:M:153:ASP:O	6:N:161:LEU:N	2.35	0.56
10:T:256:GLN:HA	10:T:259:LEU:HD21	1.88	0.56
11:V:130:LYS:HB2	11:V:132:MET:HG2	1.87	0.56
10:Z:46:TRP:NE1	10:Z:57:PRO:HG3	2.21	0.56
10:a:94:TRP:CH2	10:a:168:PRO:HD3	2.41	0.56
5:f:565:THR:HG22	9:Y:220:TYR:CE2	2.40	0.56
6:i:329:GLY:O	6:i:463:ARG:NH2	2.22	0.56
5:I:69:THR:HB	5:I:102:ASN:HB2	1.88	0.56
6:L:120:PRO:HG3	6:N:118:LEU:HD21	1.87	0.56
6:L:230:VAL:HA	6:M:242:PRO:HB3	1.88	0.56
6:L:255:PHE:CE1	6:M:270:ASN:HB2	2.41	0.56
6:M:299:ALA:O	6:M:303:LYS:N	2.39	0.56
8:Q:378:SER:HA	9:R:849:ILE:HD11	1.88	0.56
10:T:265:PHE:HB3	10:T:316:ARG:HH12	1.71	0.56
4:U:131:GLU:HA	4:U:134:TYR:HB3	1.88	0.56
4:U:134:TYR:O	4:U:138:THR:N	2.34	0.56
4:c:22:LEU:HD13	4:d:22:LEU:HD11	1.88	0.56
5:g:3:GLN:NE2	5:g:25:LYS:HA	2.20	0.56
6:h:28:THR:O	6:h:34:GLN:NE2	2.33	0.56
6:h:332:CYS:O	6:h:460:ILE:N	2.27	0.56
6:i:395:VAL:HB	6:i:449:THR:OG1	2.06	0.56
5:K:212:TYR:HB3	5:K:232:LEU:HD23	1.88	0.56
5:K:267:ASN:HB2	5:K:270:ASP:OD2	2.06	0.56
8:Q:329:GLN:HB2	8:Q:350:LYS:HA	1.88	0.56
10:T:150:VAL:HG13	10:T:154:ARG:NH1	2.21	0.56
8:W:167:GLN:HG3	8:W:244:ILE:HD12	1.88	0.56
5:e:323:ASP:HB3	5:e:365:VAL:HG22	1.88	0.56
5:g:183:TYR:HE1	5:g:225:LEU:HB3	1.69	0.56
6:h:395:VAL:O	6:i:446:GLY:N	2.33	0.56
4:H:85:THR:C	4:H:191:ARG:HH21	2.11	0.56
5:I:96:TRP:O	5:I:98:LYS:NZ	2.38	0.56
5:I:293:THR:HA	5:I:298:ILE:HD12	1.87	0.56
5:J:250:GLY:CA	5:K:159:VAL:HG23	2.36	0.56
5:J:494:THR:HG22	5:J:502:PHE:HB2	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:63:ALA:HA	6:L:76:THR:HB	1.87	0.56
6:L:140:SER:HB2	6:M:140:SER:CB	2.36	0.56
6:M:461:ARG:NE	6:M:463:ARG:O	2.37	0.56
6:N:198:ILE:HD12	6:N:202:PHE:CD1	2.41	0.56
9:R:368:MET:SD	9:R:375:LEU:HD21	2.46	0.56
10:T:237:ARG:NH2	9:Y:482:SER:OG	2.31	0.56
8:X:602:ASP:OD1	8:X:603:LEU:N	2.39	0.56
5:e:319:VAL:HB	5:e:355:ASP:H	1.71	0.56
5:e:472:PRO:HD2	5:e:481:TRP:HB2	1.87	0.56
5:e:488:GLN:HE22	5:e:522:SER:HB2	1.71	0.56
5:e:546:ILE:HA	5:f:544:VAL:HG12	1.88	0.56
5:f:200:ASP:N	5:f:210:SER:OG	2.31	0.56
6:h:243:LEU:HA	6:j:233:GLY:O	2.06	0.56
9:Y:580:TYR:CE1	9:Y:604:ARG:HB2	2.41	0.56
4:H:204:ASP:HA	4:H:212:PRO:HA	1.88	0.55
5:I:445:ARG:NH2	5:J:406:ASP:O	2.38	0.55
5:J:573:ARG:NH1	5:J:575:ASP:OD2	2.39	0.55
5:K:483:ARG:HH12	5:K:599:HIS:HB3	1.71	0.55
6:L:357:GLY:HA3	6:L:362:PHE:HA	1.88	0.55
8:X:101:ARG:NH1	8:X:242:GLU:OE1	2.40	0.55
4:b:146:TYR:HD1	4:d:42:ALA:O	1.89	0.55
4:c:99:VAL:HG13	4:c:109:ALA:HB3	1.86	0.55
4:d:175:THR:HG23	4:d:182:MET:HE3	1.86	0.55
6:h:351:ILE:HD12	6:h:362:PHE:CE2	2.41	0.55
6:h:385:ARG:NH1	6:i:453:ASN:OD1	2.34	0.55
6:i:366:ASP:OD2	6:i:368:ARG:NH2	2.28	0.55
6:j:329:GLY:C	6:j:463:ARG:HH21	2.14	0.55
1:D:140:TYR:HD2	1:D:186:ALA:O	1.89	0.55
6:L:337:ARG:HH21	6:L:339:MET:HE1	1.71	0.55
7:O:23:ASP:OD1	7:O:24:VAL:N	2.36	0.55
8:Q:109:VAL:HG12	8:Q:110:LYS:H	1.71	0.55
8:Q:401:ILE:HD13	9:Y:718:ARG:HH12	1.70	0.55
5:e:147:GLN:HB2	5:e:150:LYS:O	2.06	0.55
5:f:266:TYR:CE2	5:f:377:ARG:HG2	2.40	0.55
5:I:310:GLU:OE1	5:J:383:ARG:NH2	2.39	0.55
5:I:320:LYS:HA	5:I:358:LEU:HD13	1.89	0.55
5:J:105:ARG:HA	5:J:121:LYS:O	2.07	0.55
5:K:191:TYR:O	5:K:242:LEU:HA	2.06	0.55
6:L:394:GLU:H	6:M:450:ARG:HG2	1.71	0.55
8:Q:433:SER:O	8:Q:437:THR:HG23	2.07	0.55
9:R:7:ILE:HG23	9:R:83:VAL:HG22	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S:116:ALA:O	10:S:120:ARG:N	2.40	0.55
10:S:136:PRO:HB3	10:S:181:GLY:HA3	1.88	0.55
4:b:197:TRP:HB3	4:b:216:PHE:HB3	1.87	0.55
5:e:488:GLN:OE1	5:g:596:ILE:HB	2.06	0.55
5:f:112:ASP:HA	5:f:138:GLY:O	2.06	0.55
5:f:310:GLU:O	5:f:382:ILE:HG23	2.06	0.55
5:g:211:ASP:O	5:g:233:LYS:N	2.27	0.55
5:g:323:ASP:OD1	5:g:324:ALA:N	2.38	0.55
6:h:441:ALA:HB1	6:i:400:HIS:HB2	1.88	0.55
1:D:62:ASN:HD21	1:D:128:ARG:HG3	1.71	0.55
2:C:83:VAL:HG12	2:C:100:THR:HG22	1.88	0.55
4:G:41:GLY:O	4:G:58:SER:OG	2.17	0.55
4:G:165:ILE:HG23	4:U:36:LYS:HB2	1.88	0.55
5:I:99:TRP:HB2	5:I:125:LYS:O	2.06	0.55
6:M:135:THR:C	6:N:141:LYS:HE3	2.31	0.55
9:R:323:ASN:OD1	9:R:357:VAL:N	2.33	0.55
4:b:64:TYR:HE1	4:d:32:LEU:HD11	1.69	0.55
5:g:193:ARG:NE	5:g:240:ASP:OD1	2.39	0.55
6:h:192:GLU:HB3	6:h:198:ILE:HD13	1.88	0.55
6:h:315:PRO:HB3	6:i:328:TYR:CE1	2.41	0.55
9:Y:189:THR:O	9:Y:234:ARG:NE	2.31	0.55
1:B:200:THR:O	3:E:148:ASN:ND2	2.38	0.55
4:G:153:LYS:C	4:G:159:ILE:HB	2.32	0.55
5:I:12:ASP:OD2	9:R:929:ARG:NH2	2.38	0.55
5:I:69:THR:O	5:I:102:ASN:ND2	2.32	0.55
5:J:337:TYR:HE2	5:J:345:ASN:HD21	1.55	0.55
8:P:212:GLY:O	8:P:230:GLY:N	2.32	0.55
10:S:275:LEU:H	10:S:302:SER:HB2	1.71	0.55
8:X:259:TYR:CG	8:X:268:ILE:HD12	2.42	0.55
10:a:257:ALA:O	10:a:316:ARG:NH2	2.39	0.55
4:b:94:THR:HG23	4:b:159:ILE:HG12	1.88	0.55
4:b:95:PHE:CZ	4:b:133:VAL:HG11	2.41	0.55
4:c:101:ASN:ND2	4:c:108:LYS:O	2.23	0.55
5:e:49:TRP:HB2	5:g:87:ASN:HB3	1.87	0.55
5:e:51:THR:HA	5:e:66:ALA:HB3	1.88	0.55
5:f:94:ASP:HB2	5:f:99:TRP:CD2	2.41	0.55
6:h:406:TYR:CE2	6:h:408:SER:HB3	2.41	0.55
6:i:108:ALA:HA	6:j:120:PRO:HG3	1.87	0.55
12:A:130:MET:HG3	12:A:144:ILE:HD11	1.88	0.55
9:Y:3:LYS:HA	9:Y:89:GLU:HB2	1.89	0.55
9:Y:226:ASP:OD1	9:Y:227:ARG:N	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:142:ASP:OD1	1:B:143:ALA:N	2.40	0.55
5:I:472:PRO:HB3	5:I:476:MET:HE2	1.88	0.55
6:N:329:GLY:O	6:N:463:ARG:NE	2.34	0.55
9:R:325:VAL:HG21	9:R:414:PHE:HE2	1.72	0.55
4:c:47:LEU:CB	4:d:114:TYR:HB3	2.36	0.55
12:A:107:HIS:HD1	12:A:134:TYR:HH	1.52	0.55
12:A:232:ASN:C	12:A:234:THR:H	2.14	0.55
5:J:170:GLN:NE2	5:J:172:ASP:O	2.24	0.55
5:J:582:GLY:N	5:K:537:GLN:OE1	2.36	0.55
6:M:393:HIS:HD2	6:N:452:LYS:HE3	1.72	0.55
4:c:78:MET:O	4:c:214:PHE:N	2.35	0.55
5:e:340:ASP:O	5:e:344:ALA:N	2.31	0.55
5:f:2:LYS:NZ	5:g:40:GLY:O	2.27	0.55
5:f:422:ILE:HB	5:f:435:MET:HE1	1.88	0.55
5:f:423:GLU:OE2	5:f:427:TYR:OH	2.24	0.55
6:h:315:PRO:HG2	6:h:318:CYS:HB3	1.88	0.55
6:h:403:GLN:OE1	6:i:433:TRP:NE1	2.40	0.55
6:i:398:HIS:HD2	6:i:400:HIS:NE2	2.04	0.55
4:G:96:ASP:O	4:G:181:SER:N	2.40	0.55
5:I:499:ASP:HB3	5:I:503:GLY:H	1.72	0.55
5:J:339:GLU:HG2	5:J:349:TRP:CD1	2.41	0.55
6:M:86:ARG:HG2	6:N:83:LEU:HD11	1.88	0.55
10:T:279:ALA:N	10:T:283:ASP:OD2	2.40	0.55
4:c:175:THR:HG23	4:c:182:MET:HE3	1.88	0.55
4:d:127:SER:O	4:d:152:ARG:NH2	2.40	0.55
5:e:37:LEU:HD21	5:f:43:PRO:HB2	1.89	0.55
6:i:312:ALA:O	6:j:330:ASN:N	2.33	0.55
9:Y:148:GLU:O	9:Y:602:ARG:NH2	2.40	0.55
1:B:322:MET:HB3	3:E:155:ARG:HH21	1.72	0.55
4:H:127:SER:OG	4:H:152:ARG:NH2	2.40	0.55
5:I:135:CYS:N	5:I:139:ARG:O	2.40	0.55
5:J:83:VAL:HG13	5:J:86:TYR:CE2	2.42	0.55
5:J:573:ARG:O	5:K:545:LEU:HA	2.07	0.55
5:K:104:VAL:O	5:K:123:LEU:N	2.34	0.55
6:N:327:ASP:CG	6:N:337:ARG:HH22	2.13	0.55
9:R:123:ASN:HB3	9:R:128:LYS:HE3	1.87	0.55
9:R:327:ARG:HG2	9:R:354:TYR:CE2	2.41	0.55
9:R:559:VAL:O	9:R:565:VAL:HA	2.07	0.55
10:T:59:TYR:CD1	10:T:60:PRO:HD2	2.42	0.55
10:a:174:ASN:ND2	10:a:185:GLU:OE2	2.40	0.55
5:f:57:LEU:HG	5:f:59:PRO:HD3	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:65:TRP:O	5:f:92:LEU:HA	2.07	0.55
6:h:430:GLN:N	6:j:406:TYR:O	2.33	0.55
6:i:301:ALA:O	6:j:307:HIS:HB3	2.07	0.55
6:i:407:GLN:HG3	6:j:429:GLN:NE2	2.22	0.55
4:G:136:LYS:HG3	4:G:140:PHE:CZ	2.42	0.55
9:R:898:ASN:HA	10:T:329:GLU:HG3	1.88	0.55
10:Z:113:VAL:HG21	10:Z:169:PRO:HG2	1.89	0.55
5:g:166:ALA:HB2	5:g:242:LEU:HD23	1.88	0.55
5:g:329:PHE:HB2	5:g:352:SER:OG	2.06	0.55
5:g:423:GLU:O	5:g:436:ARG:N	2.39	0.55
6:i:402:LEU:HG	6:j:440:LYS:HA	1.89	0.55
4:H:24:TYR:CE2	4:H:26:MET:HA	2.41	0.54
5:J:127:PHE:HB3	5:J:148:VAL:HG22	1.89	0.54
5:J:500:SER:HA	5:J:504:LEU:HB2	1.87	0.54
6:L:127:PHE:HB3	6:L:139:SER:HB3	1.88	0.54
6:L:251:SER:N	6:L:254:SER:O	2.37	0.54
6:M:374:GLY:O	6:N:369:GLY:N	2.40	0.54
9:R:366:LYS:NZ	9:R:433:THR:O	2.34	0.54
8:W:253:GLY:HA2	8:W:283:GLY:HA3	1.87	0.54
5:e:320:LYS:HA	5:e:358:LEU:HD13	1.88	0.54
5:g:423:GLU:OE1	5:g:436:ARG:NH1	2.40	0.54
5:g:533:ILE:H	5:g:533:ILE:HD12	1.72	0.54
6:h:101:LYS:HB3	6:h:116:VAL:HG12	1.88	0.54
6:j:231:ASN:HA	6:j:248:LEU:HD13	1.89	0.54
4:G:20:ASP:HB3	4:G:46:GLN:HG3	1.89	0.54
5:K:65:TRP:O	5:K:92:LEU:HA	2.08	0.54
5:K:80:LYS:HE2	5:K:110:THR:O	2.08	0.54
6:L:288:ILE:N	6:N:294:TYR:O	2.35	0.54
10:S:86:ASP:O	10:S:243:MET:HG3	2.06	0.54
10:T:139:GLY:HA2	10:T:162:THR:HG23	1.89	0.54
10:a:309:GLU:OE1	9:Y:895:VAL:HG21	2.07	0.54
5:e:6:ILE:N	5:e:17:ASP:OD2	2.23	0.54
5:e:160:ALA:N	5:e:246:THR:O	2.28	0.54
5:f:317:GLN:NE2	5:f:318:LEU:O	2.40	0.54
5:g:354:GLN:CG	5:g:355:ASP:H	2.20	0.54
5:g:497:ALA:HA	5:g:517:HIS:CD2	2.42	0.54
6:h:242:PRO:HB3	6:j:230:VAL:HA	1.89	0.54
6:i:318:CYS:HA	6:j:322:ALA:HA	1.90	0.54
9:Y:174:GLU:OE1	9:Y:214:LYS:NZ	2.39	0.54
9:Y:198:LEU:HD11	9:Y:214:LYS:HA	1.89	0.54
6:L:134:GLU:HA	6:M:142:LEU:O	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:242:PRO:HB3	6:N:233:GLY:HA2	1.89	0.54
8:P:253:GLY:HA2	8:P:283:GLY:HA3	1.89	0.54
10:S:38:MET:O	10:S:77:ALA:HA	2.08	0.54
10:S:45:GLN:HA	10:S:266:ARG:HE	1.73	0.54
10:S:125:LYS:NZ	10:S:172:GLU:OE2	2.34	0.54
8:W:212:GLY:N	8:W:230:GLY:O	2.38	0.54
6:j:178:THR:OG1	6:j:181:ALA:N	2.39	0.54
9:Y:416:ARG:NH2	9:Y:425:ARG:HD3	2.22	0.54
5:I:242:LEU:HB3	5:I:244:PHE:HE1	1.72	0.54
5:I:484:TYR:HB2	5:I:602:ILE:HG13	1.89	0.54
5:J:508:ASP:O	5:J:515:PRO:HA	2.08	0.54
5:K:157:ALA:HB2	5:K:249:ASP:OD1	2.07	0.54
6:M:255:PHE:HB3	6:N:257:LEU:HB3	1.89	0.54
10:Z:225:ILE:C	10:Z:227:TRP:H	2.16	0.54
5:e:569:TYR:CD1	5:g:553:ILE:HD13	2.43	0.54
5:e:586:PRO:HG3	5:f:536:PRO:HB3	1.90	0.54
5:e:593:PRO:O	5:f:524:GLY:HA3	2.07	0.54
6:i:296:GLY:HA2	6:j:289:THR:HA	1.89	0.54
6:i:346:GLU:O	6:i:350:LEU:N	2.40	0.54
6:i:392:HIS:CE1	6:j:452:LYS:HE2	2.43	0.54
6:j:351:ILE:HD11	6:j:362:PHE:HE2	1.71	0.54
3:F:67:ILE:HG22	3:F:68:THR:HG23	1.90	0.54
4:G:18:GLU:OE1	4:G:49:LYS:NZ	2.41	0.54
5:I:285:LEU:HB3	5:I:374:LEU:HD12	1.90	0.54
5:J:580:ASN:HB3	5:K:537:GLN:HA	1.89	0.54
6:L:162:LYS:NZ	6:N:154:ASP:OD2	2.41	0.54
4:U:18:GLU:OE2	4:U:49:LYS:NZ	2.41	0.54
5:g:483:ARG:NH1	5:g:600:ARG:H	2.04	0.54
6:h:443:ALA:HB1	6:j:397:SER:OG	2.07	0.54
5:I:156:LEU:HD13	5:K:156:LEU:HD22	1.88	0.54
5:I:192:TYR:HB3	5:I:197:LEU:HD21	1.89	0.54
5:K:76:VAL:HB	5:K:106:ILE:HG22	1.90	0.54
6:M:295:GLN:O	6:M:302:ASN:HB3	2.07	0.54
4:U:99:VAL:HG11	4:U:120:PHE:HB2	1.90	0.54
4:c:42:ALA:HB3	4:d:146:TYR:HE1	1.73	0.54
4:c:89:GLN:HB2	4:c:190:ALA:HB2	1.90	0.54
5:e:257:THR:HA	5:g:387:ASN:O	2.06	0.54
5:g:310:GLU:HB2	5:g:383:ARG:HE	1.71	0.54
5:g:488:GLN:O	5:g:600:ARG:NH1	2.28	0.54
6:i:105:ASP:OD1	6:i:121:ARG:NH1	2.41	0.54
4:H:77:MET:HG2	4:H:215:TYR:CE2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:233:GLY:O	6:M:243:LEU:HA	2.07	0.54
6:M:137:TRP:CD1	6:N:141:LYS:HD2	2.42	0.54
9:R:298:LYS:NZ	9:R:346:GLU:OE2	2.25	0.54
11:V:105:ASP:OD2	11:V:109:ASN:HB2	2.08	0.54
4:d:130:CYS:O	4:d:134:TYR:N	2.28	0.54
5:e:331:CYS:SG	5:e:341:SER:OG	2.66	0.54
5:e:414:GLU:OE1	5:g:450:GLN:N	2.40	0.54
5:f:292:THR:N	5:f:295:GLU:OE1	2.39	0.54
5:f:331:CYS:HB2	5:f:336:GLY:CA	2.38	0.54
4:H:93:ILE:HD11	4:H:114:TYR:CZ	2.42	0.54
5:J:36:LYS:HG3	5:K:43:PRO:HB2	1.89	0.54
5:J:304:ILE:HD12	5:J:384:TRP:CE2	2.42	0.54
5:K:14:GLY:HA2	9:R:988:LEU:HD13	1.89	0.54
5:K:57:LEU:HG	5:K:59:PRO:HD3	1.89	0.54
6:N:202:PHE:CZ	4:b:220:ALA:HB2	2.42	0.54
9:R:273:ASP:HA	9:R:276:THR:OG1	2.08	0.54
9:R:926:TRP:CD1	9:R:958:GLN:HB2	2.43	0.54
9:R:965:GLN:HA	9:R:968:ILE:HB	1.89	0.54
4:U:125:ASN:O	4:U:129:VAL:HG23	2.08	0.54
10:Z:176:ILE:N	10:Z:184:TRP:O	2.40	0.54
5:f:266:TYR:CD1	5:f:280:ILE:HG23	2.43	0.54
5:g:192:TYR:O	5:g:195:ASN:HB2	2.08	0.54
6:i:40:GLY:HA3	6:i:42:TRP:CH2	2.43	0.54
9:Y:230:ASN:ND2	9:Y:391:THR:HG21	2.23	0.54
9:Y:481:ALA:HB3	9:Y:486:ASN:HA	1.88	0.54
2:C:33:PHE:HE1	12:A:252:TYR:HB2	1.73	0.54
5:I:52:HIS:NE2	5:I:54:ALA:HB3	2.23	0.54
5:I:483:ARG:HH12	5:I:599:HIS:HA	1.72	0.54
5:K:293:THR:OG1	5:K:366:THR:HA	2.08	0.54
4:U:134:TYR:CD1	4:U:152:ARG:HG3	2.42	0.54
8:X:165:ARG:NH1	8:X:199:GLU:OE1	2.41	0.54
4:c:217:LYS:HD2	4:d:79:THR:HG21	1.90	0.54
5:f:52:HIS:CE1	5:f:54:ALA:HB3	2.43	0.54
9:Y:483:LEU:O	9:Y:508:TYR:OH	2.26	0.54
5:I:545:LEU:HA	5:K:573:ARG:O	2.07	0.54
5:J:149:ASP:OD1	5:J:150:LYS:N	2.41	0.54
5:K:97:SER:HB3	5:K:127:PHE:CE2	2.43	0.54
6:L:399:GLU:O	6:N:444:VAL:HG21	2.08	0.54
6:M:355:TYR:O	6:M:363:ASN:HB2	2.08	0.54
4:U:92:THR:OG1	4:U:187:ASP:OD2	2.22	0.54
10:Z:125:LYS:NZ	10:Z:189:THR:HG21	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:c:36:LYS:HD2	4:d:144:GLU:HB3	1.90	0.54
4:c:98:THR:N	4:c:179:GLY:O	2.36	0.54
5:e:488:GLN:O	5:e:600:ARG:NH1	2.24	0.54
6:h:443:ALA:HA	6:j:398:HIS:O	2.08	0.54
6:i:69:ASP:OD2	6:i:85:TYR:OH	2.15	0.54
6:i:344:TYR:HB2	6:i:362:PHE:HZ	1.73	0.54
4:H:61:ASP:HB3	4:U:168:VAL:HG22	1.90	0.53
4:H:173:THR:O	4:H:184:GLY:N	2.34	0.53
5:I:191:TYR:CZ	5:I:196:LEU:HB2	2.43	0.53
5:K:260:ALA:O	5:K:261:HIS:ND1	2.41	0.53
6:L:57:ARG:HH22	6:M:75:GLU:HB2	1.73	0.53
10:S:264:GLY:HA3	10:S:315:ILE:HA	1.90	0.53
4:c:203:VAL:HG21	4:d:207:VAL:HG22	1.89	0.53
5:e:259:GLU:OE1	5:e:384:TRP:HB2	2.08	0.53
5:f:221:GLU:O	5:f:231:ARG:HD2	2.07	0.53
5:f:340:ASP:HA	5:f:343:LEU:HB2	1.89	0.53
5:g:423:GLU:N	5:g:436:ARG:O	2.42	0.53
5:J:422:ILE:HD11	5:J:459:ILE:O	2.07	0.53
5:J:533:ILE:HD12	5:J:533:ILE:H	1.73	0.53
6:L:282:SER:HB2	6:N:288:ILE:HB	1.90	0.53
6:L:453:ASN:HA	6:N:371:VAL:O	2.08	0.53
6:M:341:THR:N	6:M:360:ASN:O	2.38	0.53
6:N:212:LEU:O	6:N:221:ILE:HG12	2.08	0.53
6:N:367:MET:HG3	6:N:458:TYR:HB2	1.90	0.53
9:R:1008:LYS:H	9:R:1021:THR:HG1	1.54	0.53
4:d:153:LYS:N	4:d:159:ILE:O	2.39	0.53
5:e:17:ASP:HB2	9:Y:996:TYR:CD2	2.44	0.53
5:e:542:ASP:O	5:g:576:VAL:HG12	2.07	0.53
5:f:4:GLU:O	5:f:25:LYS:NZ	2.28	0.53
5:f:6:ILE:HD12	5:f:21:ARG:HH21	1.73	0.53
5:g:387:ASN:HD22	5:g:387:ASN:H	1.55	0.53
6:h:236:ASP:HB2	6:i:243:LEU:HB3	1.89	0.53
6:h:369:GLY:O	6:j:373:ARG:NE	2.33	0.53
9:Y:479:TYR:HB3	9:Y:504:ALA:HB2	1.90	0.53
5:K:526:ARG:O	5:K:591:THR:N	2.41	0.53
5:K:533:ILE:H	5:K:533:ILE:HD12	1.73	0.53
6:L:148:ALA:HB1	6:L:162:LYS:HB3	1.91	0.53
6:M:13:SER:OG	6:M:33:GLN:HG3	2.08	0.53
6:M:227:GLN:NE2	6:M:247:ASN:HB2	2.22	0.53
10:S:316:ARG:NH2	10:S:321:THR:HA	2.22	0.53
4:c:130:CYS:SG	4:c:152:ARG:HG2	2.49	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:d:112:HIS:CD2	4:d:117:PRO:HB3	2.43	0.53
4:d:135:ASN:O	4:d:139:GLU:HG3	2.08	0.53
5:e:39:ASP:OD1	5:e:42:ILE:N	2.28	0.53
5:f:422:ILE:HA	5:f:437:LYS:HA	1.89	0.53
5:g:463:TYR:CE2	5:g:465:ASN:HB2	2.44	0.53
9:Y:790:ARG:NH2	9:Y:827:GLU:OE2	2.41	0.53
5:I:322:GLY:HA2	5:I:360:PHE:CE2	2.43	0.53
5:I:576:VAL:HB	5:J:540:SER:O	2.08	0.53
6:L:255:PHE:CZ	6:M:259:LYS:HE3	2.43	0.53
6:M:229:GLU:O	6:M:233:GLY:N	2.32	0.53
6:N:62:ILE:HD13	6:N:79:THR:HG21	1.90	0.53
9:R:1008:LYS:N	9:R:1021:THR:OG1	2.31	0.53
4:U:95:PHE:HB2	4:U:130:CYS:HB2	1.90	0.53
4:c:33:ILE:HG22	4:d:165:ILE:HG22	1.90	0.53
4:d:26:MET:HE1	4:d:37:ARG:HD2	1.90	0.53
4:d:83:PRO:HB2	4:d:197:TRP:CD1	2.42	0.53
5:e:159:VAL:HA	5:e:247:TYR:HA	1.90	0.53
5:e:502:PHE:HA	5:g:597:THR:HG21	1.91	0.53
5:f:8:GLY:C	5:g:20:ARG:HH21	2.17	0.53
5:g:127:PHE:O	5:g:148:VAL:N	2.41	0.53
5:g:159:VAL:HG13	5:g:247:TYR:HE1	1.73	0.53
5:g:173:PHE:HB2	5:g:176:VAL:HG22	1.90	0.53
1:B:302:ARG:HH12	1:B:305:HIS:HB2	1.73	0.53
2:C:194:TRP:NE1	2:C:238:GLY:H	2.06	0.53
2:C:340:LEU:HB2	2:C:345:VAL:HB	1.90	0.53
4:H:101:ASN:HD21	5:K:272:GLU:HB3	1.73	0.53
5:I:277:PRO:HG3	5:I:297:GLY:HA3	1.90	0.53
5:J:52:HIS:NE2	5:J:57:LEU:HB2	2.23	0.53
5:J:103:ASN:HB3	5:J:122:GLU:HB3	1.89	0.53
5:J:117:SER:OG	5:J:121:LYS:HE2	2.08	0.53
5:K:293:THR:HG23	5:K:298:ILE:HB	1.91	0.53
6:M:67:MET:O	6:M:71:GLY:N	2.41	0.53
6:M:262:THR:HA	6:M:277:ALA:HA	1.90	0.53
6:M:413:PRO:HB2	6:M:415:TRP:CD1	2.43	0.53
6:M:422:ARG:NH1	6:N:422:ARG:HH11	2.07	0.53
10:T:246:ARG:NH1	10:T:323:GLU:OE2	2.42	0.53
4:U:126:ALA:HB2	4:U:180:ILE:HD12	1.90	0.53
4:c:75:VAL:HB	4:d:77:MET:HB3	1.91	0.53
5:e:296:PHE:HB3	5:e:298:ILE:HG13	1.89	0.53
5:f:158:THR:O	5:f:248:MET:N	2.42	0.53
5:I:469:ASP:OD1	5:J:437:LYS:NZ	2.28	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:J:125:LYS:HB2	5:J:128:MET:SD	2.48	0.53
5:J:470:ALA:HB1	5:J:474:GLU:OE1	2.09	0.53
5:K:258:TYR:OH	5:K:383:ARG:HD2	2.08	0.53
5:K:328:THR:HG22	5:K:329:PHE:CD2	2.44	0.53
5:K:393:MET:H	5:K:401:ILE:HD12	1.74	0.53
5:K:493:TRP:NE1	5:K:503:GLY:HA2	2.23	0.53
6:L:12:ALA:H	6:L:15:TYR:HD2	1.57	0.53
6:M:439:SER:HG	6:N:419:TYR:HH	1.52	0.53
11:V:129:ASP:O	11:V:132:MET:HG2	2.08	0.53
8:W:305:GLU:OE1	9:Y:878:ARG:NH1	2.37	0.53
10:Z:59:TYR:CE1	9:Y:1027:LYS:HD2	2.44	0.53
10:a:270:VAL:HG23	10:a:307:TYR:HD2	1.73	0.53
5:g:105:ARG:HG3	5:g:120:TYR:CD1	2.42	0.53
5:g:472:PRO:HB2	5:g:481:TRP:CG	2.44	0.53
6:h:207:TYR:O	6:h:211:ARG:NH1	2.38	0.53
6:i:44:ARG:HB3	6:i:46:ASP:OD1	2.08	0.53
6:i:113:ASN:O	6:j:121:ARG:N	2.40	0.53
6:j:50:PRO:HG2	6:j:58:GLY:HA2	1.90	0.53
5:I:281:TRP:HB3	5:I:285:LEU:HD22	1.89	0.53
5:I:415:GLU:HG2	5:I:445:ARG:HB2	1.90	0.53
5:I:448:ASP:OD2	5:I:450:GLN:HB3	2.09	0.53
5:J:472:PRO:HA	5:J:475:TYR:CZ	2.44	0.53
6:L:99:TYR:HB3	6:N:97:TRP:C	2.33	0.53
6:M:450:ARG:HA	6:N:451:MET:HG3	1.91	0.53
8:Q:363:MET:HA	8:Q:366:TYR:CD2	2.44	0.53
9:R:909:ILE:HB	10:S:325:SER:HB2	1.90	0.53
10:S:207:PRO:HB3	10:S:219:TRP:CH2	2.44	0.53
5:g:267:ASN:HA	5:g:283:GLY:O	2.09	0.53
6:h:184:LEU:HD22	6:j:183:GLY:C	2.34	0.53
12:A:120:ASN:ND2	12:A:151:ILE:O	2.42	0.53
9:Y:204:PHE:CZ	9:Y:230:ASN:HB2	2.44	0.53
3:E:97:ALA:O	1:D:330:ARG:NH1	2.42	0.53
5:I:191:TYR:CE2	5:I:196:LEU:HB2	2.44	0.53
5:I:258:TYR:OH	5:I:383:ARG:NH1	2.41	0.53
10:T:210:ASP:N	10:T:210:ASP:OD1	2.41	0.53
6:h:256:GLY:C	6:i:257:LEU:HD22	2.34	0.53
9:Y:157:THR:HG1	9:Y:161:GLN:HE22	1.54	0.53
5:I:172:ASP:HA	5:I:231:ARG:HG2	1.90	0.53
5:K:159:VAL:HG22	5:K:247:TYR:CD1	2.44	0.53
6:M:190:VAL:HG13	6:M:212:LEU:HD23	1.90	0.53
6:N:406:TYR:HD1	6:N:421:LEU:HB2	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S:42:ARG:HG2	10:S:73:HIS:CG	2.43	0.53
4:U:77:MET:HG2	4:U:215:TYR:CE2	2.44	0.53
8:X:523:ASP:OD1	8:X:524:ILE:N	2.42	0.53
4:b:61:ASP:O	4:b:65:THR:HG23	2.09	0.53
5:f:7:ILE:HG23	5:g:20:ARG:HG2	1.91	0.53
5:g:127:PHE:O	5:g:147:GLN:HB3	2.08	0.53
6:i:135:THR:C	6:j:141:LYS:HE3	2.33	0.53
9:Y:286:LEU:HD13	9:Y:290:VAL:HG11	1.91	0.53
5:I:387:ASN:HA	5:J:257:THR:HG21	1.90	0.53
6:M:391:GLN:OE1	6:N:453:ASN:ND2	2.37	0.53
6:N:306:THR:O	6:N:310:ILE:HG12	2.09	0.53
6:N:316:ILE:HA	6:N:461:ARG:HD3	1.91	0.53
9:R:213:ASP:CG	9:R:216:GLN:HB2	2.33	0.53
10:T:135:VAL:HB	10:T:161:PRO:HG3	1.91	0.53
8:W:395:TYR:CZ	8:W:614:PRO:HB3	2.44	0.53
5:e:300:SER:O	5:e:304:ILE:HG13	2.08	0.53
6:h:148:ALA:HB1	6:h:162:LYS:HB3	1.91	0.53
6:h:255:PHE:CE2	6:i:259:LYS:HE3	2.43	0.53
6:i:193:VAL:HG21	6:i:208:THR:HG21	1.90	0.53
9:Y:280:LEU:HA	9:Y:283:GLN:NE2	2.23	0.53
9:Y:484:SER:OG	9:Y:485:ILE:N	2.42	0.53
3:E:189:ASP:OD2	3:E:192:THR:N	2.26	0.52
4:G:69:GLN:HG3	4:U:69:GLN:HG3	1.91	0.52
5:I:80:LYS:NZ	5:I:81:GLY:O	2.36	0.52
5:I:236:CYS:SG	5:I:242:LEU:HD11	2.49	0.52
5:I:528:TYR:HB3	5:K:589:LEU:HD21	1.91	0.52
5:J:115:LYS:HA	5:J:139:ARG:HH21	1.74	0.52
5:J:164:TYR:O	5:J:242:LEU:HB2	2.09	0.52
5:J:330:VAL:HG22	5:J:331:CYS:H	1.75	0.52
5:K:108:PRO:HG3	5:K:114:ILE:HG13	1.90	0.52
6:L:57:ARG:HH22	6:M:75:GLU:CB	2.22	0.52
6:L:79:THR:H	6:L:82:LEU:HD12	1.75	0.52
6:L:324:PHE:HZ	6:L:331:LEU:HD12	1.74	0.52
6:N:258:VAL:HA	6:N:270:ASN:O	2.09	0.52
8:X:324:PHE:HB2	8:X:366:TYR:CE2	2.44	0.52
5:e:256:SER:HA	5:e:386:ASN:HB2	1.91	0.52
5:f:253:THR:OG1	5:g:250:GLY:O	2.25	0.52
6:h:40:GLY:HA3	6:h:42:TRP:CH2	2.44	0.52
6:h:230:VAL:HG22	6:i:242:PRO:HG3	1.91	0.52
6:h:382:ASP:CG	6:h:391:GLN:HE22	2.17	0.52
6:h:401:PRO:HG2	6:j:442:MET:HB2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:i:303:LYS:HG2	6:i:304:TYR:O	2.10	0.52
3:F:74:LEU:H	3:F:74:LEU:HD12	1.75	0.52
4:H:83:PRO:CB	4:H:197:TRP:HB2	2.37	0.52
5:I:464:GLU:HB3	5:J:462:ILE:HD12	1.91	0.52
5:J:317:GLN:H	5:K:315:GLY:HA2	1.74	0.52
5:K:305:ASN:ND2	5:K:388:ASP:HB2	2.24	0.52
9:R:895:VAL:HG13	10:S:7:TYR:CE2	2.44	0.52
4:b:89:GLN:NE2	4:b:186:ILE:HD12	2.24	0.52
4:b:89:GLN:HG3	4:b:188:VAL:O	2.09	0.52
4:c:120:PHE:CZ	4:c:129:VAL:HG13	2.45	0.52
5:e:400:GLY:O	5:e:404:HIS:ND1	2.32	0.52
5:e:486:GLU:OE1	5:f:494:THR:OG1	2.14	0.52
5:g:472:PRO:HD2	5:g:481:TRP:HB2	1.90	0.52
6:h:455:ALA:HB1	6:j:375:PHE:HA	1.90	0.52
6:i:38:SER:O	6:j:45:THR:N	2.25	0.52
6:i:67:MET:O	6:i:71:GLY:N	2.39	0.52
1:B:224:TYR:O	1:D:353:GLN:NE2	2.38	0.52
5:I:57:LEU:HB3	5:I:76:VAL:HG22	1.91	0.52
5:I:76:VAL:O	5:I:106:ILE:HA	2.10	0.52
5:I:592:LEU:HD13	5:I:595:TYR:HE2	1.75	0.52
6:M:450:ARG:HB2	6:N:451:MET:HE3	1.90	0.52
6:N:105:ASP:CG	6:N:121:ARG:HH12	2.18	0.52
6:N:105:ASP:O	6:N:125:VAL:HG11	2.09	0.52
8:P:518:PRO:CB	8:P:541:THR:HB	2.39	0.52
9:R:138:ASN:HA	9:R:549:PRO:HG3	1.90	0.52
9:R:240:SER:HB3	9:R:245:TYR:HE2	1.74	0.52
10:S:217:VAL:HA	10:S:223:ASN:ND2	2.23	0.52
4:b:148:ASP:OD2	4:b:163:ARG:NH2	2.41	0.52
5:f:359:ILE:HB	5:f:367:GLY:N	2.24	0.52
6:h:60:ALA:C	6:j:57:ARG:HA	2.35	0.52
6:h:224:LEU:O	6:j:216:GLU:HG2	2.09	0.52
11:l:51:ALA:HB1	11:l:57:ASN:O	2.10	0.52
9:Y:159:VAL:HG12	9:Y:591:GLY:HA2	1.91	0.52
9:Y:159:VAL:N	9:Y:591:GLY:O	2.31	0.52
5:I:166:ALA:HA	5:I:242:LEU:HD12	1.92	0.52
5:J:183:TYR:HE1	5:J:225:LEU:HB3	1.75	0.52
6:M:19:ASP:H	6:N:33:GLN:HE22	1.58	0.52
4:U:131:GLU:HB2	4:U:152:ARG:NH1	2.25	0.52
10:Z:93:ASP:CG	9:Y:1015:ARG:HH21	2.16	0.52
4:b:198:SER:N	4:b:217:LYS:O	2.40	0.52
4:c:51:VAL:HG13	4:c:53:TYR:CE2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:d:85:THR:C	4:d:191:ARG:HH21	2.16	0.52
12:A:178:ASP:OD1	12:A:178:ASP:N	2.36	0.52
5:I:52:HIS:HE2	5:I:54:ALA:HB3	1.74	0.52
5:I:298:ILE:HG23	5:I:384:TRP:CZ2	2.44	0.52
5:K:145:ASN:HD22	5:K:153:THR:HA	1.75	0.52
6:L:333:ILE:HG22	6:L:335:ASN:HB3	1.91	0.52
6:L:392:HIS:CE1	6:L:393:HIS:CE1	2.98	0.52
9:R:401:ASP:HA	9:R:416:ARG:NH1	2.25	0.52
8:W:63:VAL:HG21	8:W:293:ILE:HG13	1.91	0.52
8:X:499:ARG:NH1	8:X:500:TYR:O	2.41	0.52
10:Z:138:ILE:HD11	10:Z:163:HIS:HB2	1.92	0.52
5:g:58:ASN:OD1	5:g:77:ASN:ND2	2.36	0.52
6:i:90:PRO:O	6:i:99:TYR:N	2.34	0.52
2:C:160:ASP:OD2	2:C:380:ARG:NH2	2.42	0.52
4:H:71:PRO:HA	4:H:218:ARG:NH1	2.24	0.52
5:I:266:TYR:CZ	5:I:377:ARG:HA	2.45	0.52
5:I:540:SER:HA	5:J:579:VAL:HA	1.91	0.52
5:I:574:GLU:OE2	5:K:572:TYR:OH	2.14	0.52
5:J:59:PRO:HB3	5:J:65:TRP:NE1	2.24	0.52
5:J:320:LYS:HE3	5:J:358:LEU:HD11	1.92	0.52
6:L:325:ASN:ND2	6:L:457:ASN:OD1	2.33	0.52
6:L:403:GLN:NE2	6:N:438:LEU:O	2.41	0.52
6:N:341:THR:N	6:N:360:ASN:O	2.35	0.52
8:Q:463:TYR:CE1	8:Q:563:LEU:HB2	2.45	0.52
9:R:379:VAL:O	9:R:403:GLY:N	2.39	0.52
10:Z:94:TRP:CH2	10:Z:103:LYS:HE2	2.45	0.52
6:h:184:LEU:HB3	6:j:183:GLY:N	2.25	0.52
6:h:216:GLU:HA	6:i:224:LEU:H	1.75	0.52
6:h:442:MET:HB2	6:i:401:PRO:HG2	1.92	0.52
6:i:358:SER:N	6:i:361:ILE:O	2.42	0.52
9:Y:174:GLU:OE1	9:Y:176:GLN:NE2	2.41	0.52
9:Y:356:ILE:HA	9:Y:414:PHE:CD2	2.44	0.52
9:Y:869:ALA:HA	9:Y:872:TYR:CZ	2.44	0.52
5:I:44:HIS:ND1	5:I:48:ALA:HB2	2.24	0.52
5:I:65:TRP:N	5:I:91:ARG:O	2.36	0.52
5:K:19:LEU:HA	9:R:989:PHE:CE2	2.44	0.52
9:R:914:ARG:HD3	9:R:1002:LEU:HD11	1.92	0.52
4:c:203:VAL:CG2	4:d:207:VAL:HG22	2.39	0.52
4:d:39:ILE:HG21	4:d:63:LEU:HG	1.90	0.52
5:g:493:TRP:HE1	5:g:503:GLY:HA2	1.72	0.52
6:h:179:GLU:HG2	6:i:187:LEU:HB2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:i:216:GLU:HA	6:j:224:LEU:O	2.09	0.52
6:i:346:GLU:O	6:i:350:LEU:HG	2.09	0.52
9:Y:133:TYR:CD2	9:Y:134:VAL:HG23	2.45	0.52
5:J:335:GLU:HB2	5:J:337:TYR:OH	2.09	0.52
5:K:164:TYR:O	5:K:242:LEU:N	2.28	0.52
5:K:214:SER:N	5:K:223:ILE:O	2.42	0.52
8:W:403:SER:O	8:W:406:TRP:HB3	2.09	0.52
10:Z:244:ARG:HG3	10:Z:327:ILE:HG12	1.91	0.52
4:d:88:GLN:NE2	4:d:165:ILE:O	2.31	0.52
4:d:134:TYR:CD1	4:d:152:ARG:HG3	2.44	0.52
5:f:533:ILE:H	5:f:533:ILE:HD12	1.73	0.52
6:h:130:ARG:NH1	6:i:124:ASN:OD1	2.42	0.52
6:h:225:ALA:N	6:h:239:ALA:O	2.32	0.52
6:h:321:MET:HB2	6:j:319:MET:HB2	1.91	0.52
6:j:385:ARG:CZ	6:j:391:GLN:HB2	2.40	0.52
1:D:62:ASN:OD1	1:D:63:GLY:N	2.42	0.52
4:G:77:MET:HG2	4:G:215:TYR:CE2	2.44	0.52
5:I:314:ASN:ND2	5:I:377:ARG:O	2.42	0.52
5:I:323:ASP:OD2	5:I:361:VAL:HG22	2.10	0.52
5:J:52:HIS:CE1	5:J:57:LEU:HB2	2.45	0.52
6:L:127:PHE:CD1	6:L:139:SER:HB3	2.45	0.52
6:L:241:THR:HB	6:N:236:ASP:HA	1.92	0.52
6:N:294:TYR:CD2	6:N:303:LYS:HA	2.45	0.52
4:U:95:PHE:CD2	4:U:182:MET:HG2	2.45	0.52
10:Z:130:TYR:CD2	10:Z:186:TYR:HA	2.45	0.52
4:d:139:GLU:HA	4:d:142:ASN:HB2	1.92	0.52
5:f:137:PRO:HD2	5:f:139:ARG:HD2	1.91	0.52
5:g:166:ALA:HB3	5:g:240:ASP:HB2	1.90	0.52
6:h:388:GLY:HA2	6:i:454:LEU:HD11	1.92	0.52
6:i:294:TYR:HB2	6:j:287:ALA:CB	2.39	0.52
6:j:130:ARG:O	6:j:139:SER:N	2.34	0.52
9:Y:354:TYR:CE1	9:Y:412:LYS:HB3	2.44	0.52
5:I:132:LEU:HD22	5:I:140:TRP:HB3	1.92	0.52
5:J:2:LYS:HB3	5:K:34:TYR:CZ	2.44	0.52
5:J:482:LYS:O	5:J:602:ILE:HG22	2.11	0.52
5:K:81:GLY:HA3	5:K:134:TYR:CE2	2.45	0.52
6:L:71:GLY:O	6:M:81:ALA:HA	2.10	0.52
6:L:161:LEU:HB2	6:N:152:THR:O	2.10	0.52
6:N:230:VAL:HG22	6:N:240:VAL:HG22	1.92	0.52
9:R:323:ASN:O	9:R:355:THR:HA	2.09	0.52
9:R:757:GLU:OE1	9:R:864:ARG:NH2	2.32	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S:46:TRP:CZ2	10:S:266:ARG:HB3	2.45	0.52
4:c:17:ARG:HA	4:c:22:LEU:HD21	1.92	0.52
5:e:569:TYR:CB	5:f:555:ILE:H	2.22	0.52
5:g:464:GLU:HA	5:g:599:HIS:O	2.10	0.52
6:h:153:ASP:HB3	6:i:160:PRO:HG2	1.91	0.52
6:i:137:TRP:CD1	6:j:141:LYS:HD2	2.45	0.52
9:Y:343:THR:HB	9:Y:346:GLU:HB2	1.91	0.52
3:F:91:PHE:CG	3:F:92:SER:N	2.78	0.51
5:I:175:ASN:ND2	5:I:179:PRO:HA	2.25	0.51
5:I:356:TYR:CE1	5:I:358:LEU:HD11	2.45	0.51
5:K:319:VAL:HG12	5:K:320:LYS:O	2.10	0.51
6:L:245:LEU:HD11	6:L:257:LEU:HD12	1.92	0.51
8:Q:172:ILE:N	8:Q:175:ALA:O	2.38	0.51
9:R:460:LEU:HD23	9:R:470:ALA:HB1	1.92	0.51
10:S:244:ARG:HB2	10:S:327:ILE:HG12	1.91	0.51
11:V:92:TYR:HB3	11:V:96:GLY:O	2.10	0.51
5:e:62:GLY:HA2	5:f:46:ALA:HB3	1.91	0.51
5:e:581:GLN:HA	5:f:537:GLN:HG3	1.92	0.51
5:f:330:VAL:HG22	5:f:331:CYS:H	1.75	0.51
6:h:152:THR:O	6:i:161:LEU:HB2	2.09	0.51
6:h:381:LEU:HB2	6:i:369:GLY:HA3	1.93	0.51
9:Y:936:ASN:HB2	9:Y:938:ASN:ND2	2.24	0.51
4:H:18:GLU:O	4:H:22:LEU:HG	2.11	0.51
5:I:407:LYS:O	5:K:445:ARG:NH1	2.43	0.51
5:K:55:PRO:O	5:K:75:THR:N	2.43	0.51
5:K:142:TYR:CE2	5:K:144:GLU:HB2	2.44	0.51
6:L:392:HIS:O	6:M:450:ARG:NE	2.42	0.51
6:M:331:LEU:HB3	6:M:459:VAL:HB	1.91	0.51
8:P:323:ARG:NH2	8:P:366:TYR:O	2.43	0.51
9:R:182:VAL:HG12	9:R:209:LYS:HB2	1.93	0.51
10:S:163:HIS:O	10:S:182:TYR:OH	2.16	0.51
10:Z:101:ASN:HB3	10:Z:104:ILE:HB	1.92	0.51
6:h:25:TRP:CZ3	6:i:44:ARG:HD2	2.45	0.51
6:h:57:ARG:HH11	6:i:60:ALA:HA	1.76	0.51
6:h:339:MET:HB3	6:h:344:TYR:CD2	2.45	0.51
6:i:260:LEU:HA	6:i:272:ALA:O	2.11	0.51
9:Y:181:HIS:CE1	9:Y:186:ILE:H	2.28	0.51
9:Y:380:THR:HB	9:Y:430:HIS:HA	1.92	0.51
9:Y:604:ARG:HE	9:Y:605:ASP:CG	2.18	0.51
4:G:92:THR:HA	4:G:161:GLU:HA	1.92	0.51
5:I:331:CYS:HB3	5:I:347:GLY:HA3	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:I:502:PHE:HD1	5:K:597:THR:HG22	1.76	0.51
6:L:347:LEU:HD13	6:L:462:VAL:HA	1.93	0.51
8:X:454:SER:HA	8:X:584:PRO:HD3	1.91	0.51
10:a:218:ARG:CZ	10:a:219:TRP:HE1	2.23	0.51
4:c:111:ILE:N	4:c:118:PHE:O	2.32	0.51
5:e:14:GLY:O	9:Y:995:LYS:NZ	2.39	0.51
5:g:387:ASN:H	5:g:387:ASN:ND2	2.09	0.51
6:h:120:PRO:HB3	6:j:108:ALA:HA	1.92	0.51
6:h:266:ALA:HA	6:i:276:GLY:HA2	1.93	0.51
6:i:255:PHE:CE1	6:j:270:ASN:HB2	2.44	0.51
9:Y:765:GLU:OE2	9:Y:846:ASN:ND2	2.43	0.51
3:E:91:PHE:CG	3:E:92:SER:N	2.78	0.51
4:H:148:ASP:N	4:H:163:ARG:O	2.39	0.51
5:K:185:VAL:HG22	5:K:227:GLY:HA2	1.92	0.51
6:L:18:PHE:CD2	6:L:29:PHE:HB3	2.46	0.51
6:N:295:GLN:HB2	6:N:304:TYR:CZ	2.45	0.51
8:Q:320:LEU:HD21	8:Q:367:LEU:HD21	1.93	0.51
10:a:191:PRO:O	10:a:195:VAL:HG23	2.11	0.51
10:a:200:THR:OG1	10:a:203:HIS:N	2.42	0.51
5:e:190:VAL:O	5:e:196:LEU:HA	2.10	0.51
5:g:310:GLU:HB2	5:g:383:ARG:HB2	1.91	0.51
1:B:317:ARG:HG2	1:D:135:VAL:HG12	1.92	0.51
4:H:149:LEU:HB3	4:H:162:VAL:HA	1.92	0.51
5:I:104:VAL:O	5:I:123:LEU:N	2.36	0.51
5:I:243:GLN:NE2	5:K:196:LEU:HB3	2.24	0.51
5:J:177:PHE:CZ	5:J:183:TYR:HB3	2.44	0.51
5:J:309:PHE:C	5:J:320:LYS:HZ3	2.19	0.51
5:K:257:THR:HG21	5:K:387:ASN:HB3	1.93	0.51
6:L:414:SER:HB2	6:M:424:ALA:O	2.10	0.51
6:N:405:ILE:HD12	6:N:419:TYR:CE1	2.46	0.51
6:N:406:TYR:CZ	6:N:408:SER:HB3	2.46	0.51
10:a:166:VAL:HG12	10:a:167:GLU:HG3	1.93	0.51
5:e:495:THR:C	5:e:517:HIS:HE2	2.17	0.51
5:g:504:LEU:HD13	5:g:515:PRO:HB2	1.91	0.51
6:h:13:SER:HB3	6:j:16:VAL:CG1	2.40	0.51
1:D:302:ARG:HG2	1:D:303:PHE:N	2.25	0.51
9:Y:243:THR:HG21	9:Y:254:TYR:HB2	1.93	0.51
2:C:33:PHE:CE1	12:A:252:TYR:HB2	2.46	0.51
5:I:190:VAL:O	5:I:197:LEU:N	2.32	0.51
5:K:200:ASP:HB3	5:K:206:VAL:HB	1.92	0.51
6:L:451:MET:HE2	6:M:373:ARG:HD2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:455:ALA:HA	6:N:373:ARG:O	2.10	0.51
6:N:29:PHE:CE2	6:N:34:GLN:HG2	2.46	0.51
8:Q:395:TYR:OH	8:Q:404:GLU:OE2	2.13	0.51
10:S:63:ASP:O	10:S:67:ILE:HG13	2.10	0.51
10:T:280:GLN:H	10:T:283:ASP:CG	2.18	0.51
8:X:514:ILE:O	8:X:548:GLU:HA	2.10	0.51
10:a:116:ALA:HB1	10:a:117:PRO:HD2	1.92	0.51
5:e:311:LEU:HD22	5:e:320:LYS:HD2	1.91	0.51
5:e:418:LEU:HD22	5:g:475:TYR:O	2.11	0.51
5:f:11:VAL:HG22	5:g:20:ARG:HD3	1.92	0.51
5:g:265:VAL:N	5:g:378:ASP:O	2.43	0.51
5:g:325:ASP:HB2	5:g:353:GLY:O	2.10	0.51
6:h:439:SER:HA	6:i:403:GLN:O	2.10	0.51
6:i:413:PRO:HA	6:j:427:ASN:HA	1.93	0.51
6:j:29:PHE:HA	6:j:34:GLN:CD	2.36	0.51
9:Y:209:LYS:HE3	9:Y:220:TYR:CZ	2.46	0.51
9:Y:253:PHE:HB3	9:Y:293:TYR:HD2	1.75	0.51
4:H:173:THR:C	4:H:184:GLY:H	2.16	0.51
5:J:482:LYS:HD2	5:J:604:VAL:HG11	1.92	0.51
5:J:571:LYS:HB3	5:K:551:GLY:O	2.10	0.51
5:K:263:MET:HG2	5:K:265:VAL:HG13	1.93	0.51
6:M:255:PHE:CE1	6:N:270:ASN:HB2	2.45	0.51
6:M:319:MET:HB2	6:N:321:MET:HB2	1.93	0.51
6:N:53:ALA:HB3	6:N:56:MET:HB3	1.92	0.51
9:R:953:HIS:CE1	9:R:955:LYS:HB2	2.46	0.51
10:S:167:GLU:CD	10:S:168:PRO:HD2	2.35	0.51
8:X:317:GLU:OE2	8:X:333:CYS:N	2.39	0.51
10:Z:307:TYR:CE2	10:Z:309:GLU:HG3	2.45	0.51
10:a:235:VAL:HG23	10:a:236:PHE:CD1	2.46	0.51
10:a:277:LYS:HB2	10:a:298:PHE:C	2.35	0.51
4:d:118:PHE:CZ	4:d:133:VAL:HG22	2.46	0.51
5:e:289:LYS:HB3	5:e:370:PHE:O	2.11	0.51
5:f:185:VAL:HG13	5:f:225:LEU:HB2	1.92	0.51
9:Y:542:MET:HG2	9:Y:574:PHE:CZ	2.46	0.51
4:G:22:LEU:O	4:G:55:ASN:HA	2.11	0.51
5:I:39:ASP:OD1	5:I:41:GLU:N	2.39	0.51
5:I:494:THR:HA	5:K:486:GLU:OE1	2.11	0.51
6:L:81:ALA:N	6:N:73:ASP:O	2.37	0.51
6:M:227:GLN:OE1	6:M:244:LYS:HD3	2.10	0.51
6:M:394:GLU:O	6:N:450:ARG:N	2.35	0.51
8:Q:50:PHE:CE2	11:V:22:ASP:HA	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S:45:GLN:OE1	10:S:45:GLN:N	2.43	0.51
4:b:98:THR:O	4:b:179:GLY:HA3	2.11	0.51
5:e:331:CYS:HA	5:e:348:ALA:O	2.11	0.51
5:f:100:ALA:HB2	5:f:126:ASP:N	2.25	0.51
5:f:290:GLU:HG3	5:f:369:LYS:HG2	1.93	0.51
6:h:83:LEU:HD23	6:j:68:ILE:HD12	1.93	0.51
6:i:295:GLN:H	6:i:302:ASN:HB3	1.76	0.51
6:i:355:TYR:CE2	6:i:365:PRO:HG3	2.45	0.51
9:Y:206:ASN:HB2	9:Y:224:PHE:O	2.11	0.51
5:I:20:ARG:HB2	9:R:991:SER:H	1.75	0.51
5:I:159:VAL:HA	5:I:247:TYR:HA	1.91	0.51
5:I:184:ASN:HB3	5:I:187:ALA:HB3	1.93	0.51
5:I:341:SER:O	5:I:345:ASN:N	2.32	0.51
5:I:480:ILE:HB	5:I:605:ALA:HB3	1.93	0.51
5:J:396:GLU:N	5:K:390:GLY:H	2.08	0.51
5:K:330:VAL:CG2	5:K:342:CYS:HB3	2.41	0.51
5:K:505:ASN:HB2	5:K:518:THR:HB	1.92	0.51
6:L:38:SER:O	6:M:45:THR:N	2.33	0.51
6:M:439:SER:HA	6:N:403:GLN:O	2.11	0.51
8:P:309:ARG:NH2	8:Q:305:GLU:OE2	2.44	0.51
8:Q:171:THR:HB	8:Q:240:VAL:CG1	2.40	0.51
10:S:42:ARG:HD2	10:S:73:HIS:CE1	2.45	0.51
10:T:319:ASP:OD1	10:T:319:ASP:N	2.43	0.51
10:Z:154:ARG:C	10:Z:156:GLY:H	2.19	0.51
10:Z:316:ARG:NH2	10:Z:321:THR:HA	2.25	0.51
4:d:118:PHE:HB3	4:d:120:PHE:CE2	2.45	0.51
5:e:27:ASN:HD22	5:g:7:ILE:HD11	1.75	0.51
5:f:215:PRO:HD2	5:f:229:ASN:HB2	1.93	0.51
5:f:281:TRP:CZ3	5:f:291:PHE:HE2	2.29	0.51
5:f:317:GLN:H	5:g:315:GLY:HA3	1.76	0.51
5:f:595:TYR:N	5:g:523:GLY:O	2.27	0.51
5:g:171:THR:HA	5:g:232:LEU:HB2	1.92	0.51
6:h:139:SER:HB2	6:j:137:TRP:HB3	1.93	0.51
6:h:368:ARG:HB2	6:j:379:ARG:HD2	1.92	0.51
6:j:78:VAL:HA	6:j:82:LEU:HD12	1.92	0.51
6:j:294:TYR:CE1	6:j:298:VAL:HG13	2.46	0.51
9:Y:184:ASN:H	9:Y:202:GLU:CD	2.19	0.51
9:Y:256:ARG:NH1	9:Y:260:ASP:OD2	2.43	0.51
5:I:67:LEU:HD11	5:I:92:LEU:HD13	1.92	0.51
5:I:322:GLY:HA2	5:I:360:PHE:CZ	2.45	0.51
9:R:323:ASN:HA	9:R:356:ILE:HD12	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:U:77:MET:HB3	4:U:213:ILE:HG21	1.92	0.51
4:U:116:PHE:CE2	4:U:136:LYS:HE2	2.46	0.51
4:b:57:GLN:NE2	4:b:61:ASP:OD1	2.44	0.51
5:e:194:GLY:HA3	5:g:195:ASN:HB3	1.92	0.51
5:f:26:THR:HG23	5:g:30:PHE:HE2	1.74	0.51
5:g:159:VAL:HA	5:g:247:TYR:HD1	1.76	0.51
6:h:97:TRP:CD2	6:i:101:LYS:HB2	2.46	0.51
6:h:305:GLN:HG2	6:i:305:GLN:O	2.11	0.51
6:i:350:LEU:HD13	6:j:324:PHE:HD2	1.75	0.51
6:i:357:GLY:HA3	6:i:362:PHE:HA	1.92	0.51
6:j:29:PHE:CD2	6:j:34:GLN:HG2	2.46	0.51
5:I:38:GLY:HA2	5:I:44:HIS:CG	2.45	0.50
5:J:266:TYR:CD1	5:J:280:ILE:HG23	2.46	0.50
5:J:452:PHE:O	5:J:456:ILE:HG12	2.11	0.50
5:K:78:LEU:HD21	5:K:106:ILE:HB	1.93	0.50
6:M:355:TYR:HB2	6:M:363:ASN:O	2.10	0.50
8:Q:109:VAL:HG12	8:Q:110:LYS:N	2.26	0.50
9:R:181:HIS:O	9:R:209:LYS:NZ	2.43	0.50
4:U:108:LYS:HA	4:U:120:PHE:O	2.11	0.50
4:b:36:LYS:CB	4:c:165:ILE:HG23	2.41	0.50
4:c:44:VAL:HG21	4:d:170:HIS:HB3	1.93	0.50
5:g:176:VAL:HG21	5:g:230:ILE:HB	1.93	0.50
6:h:29:PHE:HA	6:h:34:GLN:CD	2.36	0.50
6:h:347:LEU:HA	6:h:350:LEU:HD12	1.92	0.50
6:h:446:GLY:HA3	6:j:394:GLU:CD	2.37	0.50
6:j:104:THR:O	6:j:108:ALA:N	2.43	0.50
4:G:73:ASN:ND2	4:H:80:GLU:HG3	2.26	0.50
6:L:35:ALA:O	6:L:39:ILE:HG12	2.10	0.50
6:L:259:LYS:HE2	6:N:254:SER:HA	1.93	0.50
6:N:189:THR:O	6:N:193:VAL:HG23	2.10	0.50
9:R:333:THR:HB	9:R:347:LYS:HD3	1.93	0.50
4:b:43:ASN:N	4:b:46:GLN:OE1	2.38	0.50
5:g:330:VAL:HG11	5:g:342:CYS:HB3	1.92	0.50
6:j:142:LEU:HD13	6:j:159:THR:HG21	1.93	0.50
6:j:351:ILE:HD11	6:j:362:PHE:CE2	2.46	0.50
11:l:87:CYS:HG	9:Y:646:HIS:HD1	1.59	0.50
9:Y:226:ASP:HB3	9:Y:253:PHE:HZ	1.76	0.50
9:Y:302:ASP:OD2	9:Y:326:ARG:NH1	2.37	0.50
1:B:302:ARG:NH1	1:B:303:PHE:O	2.45	0.50
2:C:202:THR:HG23	2:C:207:HIS:O	2.11	0.50
3:F:118:GLU:C	3:F:120:ARG:H	2.20	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:I:263:MET:HE3	5:I:296:PHE:HA	1.94	0.50
5:I:556:GLY:C	5:I:558:CYS:H	2.20	0.50
5:J:162:GLU:HB3	5:J:164:TYR:HE1	1.76	0.50
5:K:134:TYR:OH	5:K:138:GLY:HA2	2.10	0.50
5:K:334:ALA:HB1	5:K:345:ASN:HB2	1.92	0.50
6:L:270:ASN:OD1	5:e:343:LEU:HD12	2.12	0.50
6:M:413:PRO:HA	6:N:427:ASN:HA	1.93	0.50
8:P:509:THR:C	8:P:511:ARG:H	2.20	0.50
8:Q:464:SER:HA	8:Q:561:PHE:O	2.12	0.50
9:R:451:TYR:CE1	9:R:475:LEU:HA	2.47	0.50
9:R:1027:LYS:HB2	10:S:59:TYR:CD1	2.45	0.50
10:S:69:ASP:CG	9:Y:450:LYS:HA	2.37	0.50
8:X:182:ASN:O	8:X:308:ARG:NH2	2.44	0.50
5:e:426:ASP:H	5:e:434:THR:HB	1.77	0.50
5:f:425:THR:HG23	5:f:436:ARG:HB2	1.93	0.50
6:h:158:MET:HB3	6:h:163:VAL:HG23	1.92	0.50
6:i:301:ALA:HA	6:j:307:HIS:CD2	2.45	0.50
6:j:13:SER:HA	6:j:16:VAL:HG23	1.93	0.50
9:Y:146:MET:O	9:Y:581:THR:OG1	2.27	0.50
9:Y:557:LYS:HG2	9:Y:568:TYR:HB2	1.93	0.50
4:G:152:ARG:NH2	4:G:157:GLY:O	2.44	0.50
4:H:113:VAL:HG22	4:H:182:MET:SD	2.51	0.50
4:H:197:TRP:CZ3	4:H:218:ARG:HB2	2.46	0.50
5:I:460:GLY:N	5:I:603:ARG:O	2.26	0.50
5:J:67:LEU:HB3	5:J:74:ILE:HD12	1.94	0.50
6:L:86:ARG:HG2	6:M:83:LEU:HD21	1.92	0.50
6:M:198:ILE:HB	6:M:202:PHE:CD2	2.44	0.50
10:T:97:THR:HA	10:T:102:PRO:HG3	1.94	0.50
4:c:113:VAL:HB	4:c:118:PHE:HE2	1.76	0.50
4:c:127:SER:OG	4:c:156:ASN:HB3	2.12	0.50
4:d:89:GLN:O	4:d:163:ARG:HG3	2.11	0.50
4:d:116:PHE:CE2	4:d:136:LYS:HE2	2.47	0.50
5:e:2:LYS:HB2	5:f:34:TYR:CE2	2.46	0.50
5:f:108:PRO:HB2	5:f:112:ASP:HB2	1.94	0.50
5:f:293:THR:N	5:f:366:THR:O	2.32	0.50
5:f:308:SER:HA	5:g:258:TYR:HD2	1.76	0.50
4:G:89:GLN:HB3	4:G:164:PHE:CD2	2.46	0.50
4:H:22:LEU:HD13	4:U:22:LEU:HD11	1.94	0.50
5:I:5:ILE:HA	5:I:25:LYS:NZ	2.27	0.50
5:J:127:PHE:O	5:J:148:VAL:N	2.36	0.50
5:K:421:ARG:HB2	5:K:438:ILE:HB	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:526:ARG:HD3	5:K:592:LEU:HD11	1.92	0.50
6:M:70:ALA:O	6:M:72:THR:HG23	2.12	0.50
6:M:355:TYR:OH	6:N:323:ALA:HB1	2.10	0.50
6:M:376:ASP:OD2	6:M:380:GLY:N	2.30	0.50
7:O:8:LEU:N	7:O:116:GLU:OE1	2.45	0.50
8:Q:46:ASN:HB2	11:V:19:ILE:HG23	1.92	0.50
9:R:515:TRP:HE1	9:R:517:PHE:HB2	1.76	0.50
10:S:127:TRP:O	10:S:190:ILE:N	2.44	0.50
4:U:131:GLU:HB2	4:U:152:ARG:CZ	2.42	0.50
10:Z:93:ASP:OD1	10:Z:93:ASP:N	2.45	0.50
10:Z:248:TYR:HA	10:Z:323:GLU:HA	1.93	0.50
5:e:61:PHE:CD1	5:e:88:LYS:HB3	2.45	0.50
5:e:168:GLN:OE1	5:e:237:ASN:ND2	2.44	0.50
5:f:310:GLU:OE2	5:g:258:TYR:OH	2.14	0.50
5:f:311:LEU:HB2	5:f:320:LYS:HZ2	1.77	0.50
5:f:400:GLY:HA2	5:f:403:GLU:CD	2.36	0.50
5:g:52:HIS:HB2	5:g:65:TRP:CE3	2.46	0.50
5:g:92:LEU:HB2	5:g:130:VAL:HB	1.93	0.50
5:g:191:TYR:O	5:g:242:LEU:HA	2.12	0.50
5:g:214:SER:OG	5:g:223:ILE:HG13	2.12	0.50
11:l:41:LEU:HD21	11:l:160:ILE:HD12	1.92	0.50
11:l:87:CYS:SG	9:Y:646:HIS:ND1	2.85	0.50
9:Y:522:ARG:HH21	9:Y:534:VAL:HG11	1.75	0.50
9:Y:915:ASN:ND2	9:Y:917:ARG:HE	2.09	0.50
2:C:30:VAL:HG21	2:C:97:ILE:HD11	1.94	0.50
5:I:86:TYR:OH	5:I:138:GLY:N	2.44	0.50
5:I:158:THR:O	5:I:248:MET:N	2.40	0.50
5:J:304:ILE:HG21	5:J:309:PHE:CD1	2.47	0.50
6:L:16:VAL:CG1	6:M:13:SER:HB3	2.42	0.50
6:M:182:PHE:HZ	4:b:196:THR:HG21	1.75	0.50
6:N:329:GLY:O	6:N:463:ARG:NH2	2.44	0.50
9:R:580:TYR:HA	9:R:603:ALA:O	2.12	0.50
8:X:159:ARG:HG3	8:X:204:HIS:CE1	2.46	0.50
5:e:115:LYS:N	5:e:140:TRP:O	2.42	0.50
5:e:212:TYR:CE2	5:e:225:LEU:HD11	2.47	0.50
5:e:263:MET:HE3	5:e:296:PHE:HA	1.93	0.50
5:f:447:LEU:HG	5:g:411:ASN:HB2	1.94	0.50
5:f:472:PRO:HA	5:f:475:TYR:CZ	2.46	0.50
6:h:153:ASP:O	6:i:161:LEU:N	2.35	0.50
9:Y:173:HIS:HA	9:Y:533:VAL:O	2.11	0.50
1:B:327:ASN:HB3	1:B:337:ILE:HD12	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:G:25:GLU:HB2	4:H:20:ASP:OD2	2.11	0.50
5:I:2:LYS:HB2	5:J:34:TYR:CZ	2.47	0.50
5:I:55:PRO:HA	5:I:74:ILE:HA	1.93	0.50
5:I:67:LEU:HG	5:I:92:LEU:HB3	1.93	0.50
5:K:456:ILE:HG22	5:K:457:HIS:CE1	2.47	0.50
6:L:387:PHE:CE1	6:M:456:ILE:HA	2.47	0.50
6:M:270:ASN:HA	6:N:260:LEU:HD11	1.92	0.50
9:R:324:ILE:HG23	9:R:353:SER:HB2	1.93	0.50
4:U:136:LYS:HE3	4:U:140:PHE:CZ	2.46	0.50
5:e:278:GLY:N	5:e:295:GLU:O	2.28	0.50
5:e:310:GLU:HB2	5:e:383:ARG:HD2	1.93	0.50
5:f:2:LYS:HB3	5:g:34:TYR:CD2	2.47	0.50
5:f:252:ALA:CB	5:g:247:TYR:HB2	2.35	0.50
5:f:264:ARG:O	5:f:280:ILE:HA	2.12	0.50
6:h:68:ILE:HG13	6:h:82:LEU:HB3	1.92	0.50
6:h:393:HIS:CD2	6:h:449:THR:H	2.29	0.50
6:i:179:GLU:CD	6:i:199:ARG:HH21	2.20	0.50
6:i:194:ARG:HH21	6:i:212:LEU:C	2.20	0.50
6:i:395:VAL:HG13	6:j:445:GLY:HA2	1.93	0.50
12:A:107:HIS:ND1	12:A:134:TYR:OH	2.41	0.50
1:D:44:SER:HA	1:D:211:GLU:OE1	2.12	0.50
9:Y:788:THR:OG1	9:Y:822:GLN:NE2	2.38	0.50
4:H:29:LYS:HE3	4:H:39:ILE:HD11	1.94	0.50
5:I:147:GLN:H	5:I:151:ILE:HG12	1.75	0.50
5:I:509:LEU:HB3	5:I:513:GLY:HA2	1.92	0.50
5:I:548:ASP:CG	5:K:573:ARG:HH21	2.19	0.50
5:J:7:ILE:O	5:K:20:ARG:NE	2.40	0.50
5:J:214:SER:OG	5:J:224:ASP:O	2.15	0.50
5:J:580:ASN:OD1	5:J:583:ASN:ND2	2.28	0.50
6:L:256:GLY:N	6:M:257:LEU:HB3	2.27	0.50
6:L:430:GLN:HB3	6:N:410:GLY:CA	2.42	0.50
6:M:166:ALA:HB1	6:N:167:ILE:HD11	1.93	0.50
6:M:312:ALA:O	6:N:330:ASN:N	2.31	0.50
10:a:252:LEU:HD23	10:a:253:PHE:HE1	1.76	0.50
5:e:342:CYS:SG	5:e:349:TRP:HB2	2.52	0.50
5:f:106:ILE:O	5:f:121:LYS:N	2.44	0.50
5:f:483:ARG:HH22	5:g:493:TRP:HZ3	1.60	0.50
5:g:215:PRO:HD3	5:g:229:ASN:C	2.37	0.50
5:g:354:GLN:NE2	5:g:355:ASP:H	2.09	0.50
6:h:20:PRO:CG	6:h:27:SER:HA	2.42	0.50
6:j:50:PRO:O	6:j:59:ILE:HG12	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:j:295:GLN:HB2	6:j:304:TYR:CE2	2.47	0.50
9:Y:247:LEU:HD11	9:Y:299:LEU:HD11	1.93	0.50
9:Y:416:ARG:HH22	9:Y:425:ARG:HD3	1.77	0.50
9:Y:418:TYR:HE2	9:Y:428:ILE:HD11	1.76	0.50
4:G:99:VAL:HG13	4:G:109:ALA:HB3	1.92	0.50
4:G:170:HIS:HB3	4:U:44:VAL:HG21	1.94	0.50
4:H:25:GLU:O	4:U:57:GLN:NE2	2.45	0.50
6:N:140:SER:HG	6:N:157:SER:HG	1.60	0.50
6:N:405:ILE:O	6:N:421:LEU:HG	2.12	0.50
9:R:354:TYR:HE1	9:R:412:LYS:HD3	1.76	0.50
9:R:370:VAL:HG22	9:R:375:LEU:HA	1.93	0.50
10:S:81:PRO:HD2	10:S:84:MET:HG3	1.94	0.50
4:d:140:PHE:HA	4:d:143:ASP:HB2	1.93	0.50
5:e:321:ALA:N	5:e:358:LEU:HD13	2.21	0.50
5:f:308:SER:HA	5:g:258:TYR:CD2	2.47	0.50
6:h:142:LEU:HD22	6:h:159:THR:HG22	1.93	0.50
6:h:268:LEU:HB2	6:i:275:ALA:CB	2.42	0.50
6:h:268:LEU:HB2	6:i:275:ALA:HB3	1.94	0.50
6:h:305:GLN:HG3	6:i:310:ILE:HG13	1.94	0.50
11:l:98:GLU:H	11:l:146:ILE:HD12	1.77	0.50
9:Y:158:ASP:H	9:Y:161:GLN:CD	2.20	0.50
9:Y:590:SER:OG	9:Y:592:GLU:OE1	2.27	0.50
9:Y:850:ASP:OD1	9:Y:851:TYR:N	2.45	0.50
9:Y:939:GLN:NE2	9:Y:948:ALA:HB1	2.27	0.50
4:H:116:PHE:CZ	4:H:136:LYS:HG2	2.47	0.49
5:I:73:ARG:CZ	5:I:103:ASN:HB2	2.42	0.49
5:J:2:LYS:HZ3	5:K:41:GLU:HG2	1.77	0.49
6:L:259:LYS:HE3	6:N:255:PHE:CE2	2.47	0.49
6:L:306:THR:O	6:L:310:ILE:HG12	2.12	0.49
6:M:224:LEU:O	6:M:238:LYS:HD3	2.12	0.49
6:M:281:PRO:HG3	6:M:284:ARG:CZ	2.42	0.49
6:M:330:ASN:HB3	6:M:461:ARG:HG3	1.94	0.49
6:M:336:GLY:HA2	6:M:364:LEU:O	2.12	0.49
6:N:240:VAL:HG12	6:N:245:LEU:HB2	1.94	0.49
8:Q:78:THR:O	8:Q:287:GLY:HA2	2.12	0.49
8:Q:364:GLN:HG2	8:Q:379:ILE:HD12	1.94	0.49
9:R:182:VAL:HG12	9:R:209:LYS:HD2	1.93	0.49
9:R:638:GLY:O	11:V:94:LYS:HD2	2.12	0.49
9:R:903:MET:HA	10:S:329:GLU:O	2.12	0.49
8:W:151:TYR:O	8:W:153:GLY:N	2.41	0.49
5:e:261:HIS:CE1	5:e:296:PHE:HD1	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:e:314:ASN:OD1	5:g:316:ARG:NE	2.45	0.49
5:f:158:THR:HA	5:f:248:MET:HB2	1.93	0.49
5:g:188:LEU:HD11	5:g:244:PHE:HB3	1.93	0.49
6:h:120:PRO:HG3	6:j:108:ALA:HA	1.92	0.49
6:i:303:LYS:NZ	6:i:309:ASP:OD2	2.44	0.49
11:l:104:MET:HG3	11:l:144:ILE:HD11	1.94	0.49
1:D:327:ASN:HB3	1:D:337:ILE:HD12	1.94	0.49
2:C:158:ASN:OD1	2:C:159:PRO:HD2	2.12	0.49
2:C:274:ASN:CG	2:C:276:PRO:HD2	2.37	0.49
5:J:173:PHE:CE2	5:J:242:LEU:HD11	2.47	0.49
5:J:221:GLU:O	5:J:231:ARG:HD2	2.10	0.49
6:N:187:LEU:HB3	6:N:205:SER:HB3	1.93	0.49
6:N:336:GLY:N	6:N:365:PRO:O	2.44	0.49
6:N:340:TYR:HB2	6:N:343:GLU:HG3	1.94	0.49
8:P:228:ILE:HD11	8:Q:301:PRO:HG2	1.94	0.49
10:S:46:TRP:CD1	10:S:57:PRO:HB3	2.47	0.49
10:S:244:ARG:HA	10:S:327:ILE:HA	1.94	0.49
11:V:51:ALA:HB1	11:V:57:ASN:O	2.11	0.49
8:W:520:LYS:HA	8:W:542:ASP:HB3	1.93	0.49
4:d:176:THR:HA	4:d:181:SER:HA	1.93	0.49
5:e:293:THR:HB	5:e:301:ARG:HH12	1.77	0.49
5:e:529:GLU:N	5:e:588:LYS:HG2	2.27	0.49
5:f:172:ASP:HB3	5:f:231:ARG:NE	2.20	0.49
5:g:328:THR:HG22	5:g:329:PHE:CE2	2.47	0.49
6:h:307:HIS:N	6:j:303:LYS:O	2.44	0.49
9:Y:323:ASN:HA	9:Y:356:ILE:HD12	1.94	0.49
4:G:165:ILE:HG23	4:U:36:LYS:CB	2.43	0.49
4:H:76:ILE:HG22	4:H:216:PHE:O	2.12	0.49
5:I:83:VAL:HG13	5:I:86:TYR:CE2	2.47	0.49
5:J:49:TRP:CH2	5:J:91:ARG:HB3	2.47	0.49
5:K:359:ILE:HG22	5:K:366:THR:H	1.77	0.49
6:L:393:HIS:CE1	6:L:448:GLU:HA	2.47	0.49
8:Q:98:ARG:HG2	8:Q:124:VAL:HG22	1.93	0.49
9:R:585:LEU:HD11	9:R:593:ILE:HG23	1.95	0.49
9:R:819:LEU:HB2	9:R:822:GLN:NE2	2.27	0.49
10:S:115:SER:HA	10:S:127:TRP:NE1	2.26	0.49
10:Z:318:PRO:O	9:Y:917:ARG:NH1	2.45	0.49
4:c:33:ILE:HB	4:c:37:ARG:O	2.13	0.49
4:d:75:VAL:HA	4:d:216:PHE:O	2.12	0.49
9:Y:114:GLU:OE1	9:Y:114:GLU:N	2.42	0.49
9:Y:183:CYS:HB2	9:Y:202:GLU:CD	2.37	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:325:ILE:HG23	1:B:327:ASN:OD1	2.12	0.49
2:C:281:ILE:HD11	2:C:303:MET:HE1	1.94	0.49
5:I:18:TYR:HB2	5:I:21:ARG:HG3	1.95	0.49
5:I:574:GLU:HA	5:J:544:VAL:O	2.11	0.49
5:J:183:TYR:HB2	5:J:188:LEU:HD13	1.94	0.49
6:N:436:PRO:HB3	6:N:440:LYS:HD2	1.94	0.49
8:Q:329:GLN:HB2	8:Q:350:LYS:CA	2.42	0.49
8:Q:586:GLU:OE1	8:W:392:LYS:NZ	2.35	0.49
10:T:194:VAL:HG22	10:T:198:ARG:HD3	1.93	0.49
8:W:419:TYR:N	8:W:435:MET:HE1	2.27	0.49
10:a:18:GLU:O	10:a:22:ASN:ND2	2.45	0.49
6:i:350:LEU:HD13	6:j:324:PHE:CD2	2.47	0.49
4:H:95:PHE:HA	4:H:181:SER:O	2.13	0.49
5:I:18:TYR:CD2	9:R:991:SER:HB2	2.47	0.49
5:K:69:THR:CG2	5:K:104:VAL:HG22	2.42	0.49
5:K:123:LEU:HD22	5:K:130:VAL:HG21	1.94	0.49
6:L:80:PRO:HG3	6:N:68:ILE:HD13	1.94	0.49
6:L:377:ALA:HB3	6:M:368:ARG:CD	2.39	0.49
6:M:294:TYR:CZ	6:M:298:VAL:HG13	2.48	0.49
6:M:414:SER:H	6:N:427:ASN:HA	1.77	0.49
6:N:227:GLN:OE1	6:N:247:ASN:HB2	2.12	0.49
9:R:850:ASP:OD1	9:R:850:ASP:N	2.46	0.49
10:T:275:LEU:HB2	10:T:302:SER:HB2	1.94	0.49
10:Z:246:ARG:NH1	10:Z:323:GLU:OE2	2.41	0.49
4:b:55:ASN:OD1	4:b:58:SER:N	2.28	0.49
5:e:61:PHE:CE1	5:e:140:TRP:HH2	2.31	0.49
5:e:82:GLY:O	5:e:134:TYR:HE2	1.95	0.49
5:e:94:ASP:HB2	5:e:99:TRP:CE2	2.47	0.49
5:e:411:ASN:HB3	5:g:447:LEU:O	2.13	0.49
5:g:183:TYR:HB2	5:g:246:THR:HG21	1.93	0.49
6:h:266:ALA:HA	6:i:276:GLY:CA	2.42	0.49
6:i:319:MET:HA	6:i:460:ILE:HA	1.94	0.49
5:I:296:PHE:CE1	5:I:382:ILE:HD11	2.48	0.49
5:I:538:ILE:HG12	5:K:532:PRO:HB3	1.95	0.49
5:J:214:SER:HB3	5:J:225:LEU:HA	1.95	0.49
5:K:188:LEU:HD23	5:K:225:LEU:HD13	1.95	0.49
5:K:214:SER:OG	5:K:223:ILE:HG13	2.13	0.49
6:L:38:SER:O	6:M:44:ARG:HA	2.13	0.49
6:L:355:TYR:OH	6:M:323:ALA:HA	2.13	0.49
6:M:57:ARG:HG2	6:N:61:ALA:H	1.77	0.49
6:M:258:VAL:HA	6:M:270:ASN:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:M:345:PRO:O	6:M:349:ALA:N	2.44	0.49
6:N:188:ALA:N	6:N:203:ALA:O	2.38	0.49
9:R:354:TYR:CE1	9:R:412:LYS:HD3	2.47	0.49
5:e:356:TYR:CZ	5:e:358:LEU:HD11	2.47	0.49
6:h:275:ALA:N	6:j:271:THR:O	2.35	0.49
6:h:314:LEU:O	6:h:461:ARG:NH1	2.45	0.49
6:h:321:MET:HB3	6:h:456:ILE:HD11	1.95	0.49
12:A:74:ASN:C	12:A:75:GLN:HG2	2.37	0.49
9:Y:452:PRO:HD2	9:Y:474:ASP:HB3	1.95	0.49
9:Y:869:ALA:HA	9:Y:872:TYR:CE2	2.48	0.49
9:Y:1010:ASP:H	9:Y:1020:PRO:HB3	1.77	0.49
4:G:76:ILE:HG22	4:G:216:PHE:O	2.12	0.49
4:H:198:SER:O	4:H:216:PHE:HA	2.13	0.49
5:I:73:ARG:HA	5:I:102:ASN:HB3	1.95	0.49
5:I:483:ARG:HG2	5:I:600:ARG:O	2.13	0.49
5:K:321:ALA:HB2	5:K:354:GLN:HB2	1.94	0.49
6:L:340:TYR:HB2	6:L:343:GLU:HB2	1.94	0.49
6:M:376:ASP:HA	6:N:368:ARG:HB3	1.94	0.49
9:R:443:TYR:CE1	9:R:510:GLU:HG3	2.48	0.49
10:S:94:TRP:CD1	10:S:105:PHE:HZ	2.30	0.49
11:V:120:ASN:HB3	11:V:123:HIS:CD2	2.47	0.49
10:a:72:THR:O	10:a:295:LYS:NZ	2.45	0.49
4:c:76:ILE:HG22	4:c:216:PHE:O	2.13	0.49
4:c:103:ASP:OD2	4:c:106:GLN:HG2	2.13	0.49
4:c:131:GLU:HA	4:c:152:ARG:HD2	1.94	0.49
4:d:205:LEU:HB3	4:d:207:VAL:HG23	1.95	0.49
5:e:254:TRP:CZ3	5:e:387:ASN:HB3	2.48	0.49
5:g:192:TYR:HB2	5:g:197:LEU:HD11	1.93	0.49
5:g:321:ALA:HB2	5:g:353:GLY:C	2.37	0.49
5:g:480:ILE:HB	5:g:605:ALA:HB3	1.95	0.49
6:h:321:MET:HE1	6:h:458:TYR:CE1	2.48	0.49
6:h:373:ARG:NE	6:i:369:GLY:O	2.40	0.49
9:Y:489:THR:OG1	9:Y:503:GLY:O	2.28	0.49
4:G:17:ARG:HB2	4:U:22:LEU:HD23	1.94	0.49
6:N:317:GLY:H	6:N:461:ARG:HB3	1.77	0.49
9:R:9:SER:OG	9:R:25:ASP:OD2	2.23	0.49
10:S:69:ASP:OD2	9:Y:451:TYR:N	2.43	0.49
8:X:72:TYR:HB2	8:X:303:MET:HE2	1.93	0.49
10:a:172:GLU:OE1	10:a:223:ASN:ND2	2.45	0.49
4:c:93:ILE:HD11	4:c:114:TYR:CZ	2.48	0.49
5:e:158:THR:OG1	5:e:248:MET:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:e:202:LYS:NZ	5:f:162:GLU:OE1	2.31	0.49
5:e:356:TYR:CE1	5:e:358:LEU:HD11	2.48	0.49
5:e:460:GLY:HA2	5:e:602:ILE:HG23	1.95	0.49
5:e:594:PRO:HD3	5:f:525:GLU:C	2.38	0.49
5:g:557:GLY:CA	9:Y:207:MET:HG3	2.43	0.49
6:j:31:ASN:OD1	6:j:34:GLN:N	2.35	0.49
5:K:163:THR:HG22	5:K:243:GLN:HG2	1.94	0.49
6:L:68:ILE:HD11	6:L:78:VAL:HG22	1.95	0.49
6:L:455:ALA:O	6:N:388:GLY:N	2.32	0.49
10:S:294:THR:N	10:S:297:GLN:OE1	2.32	0.49
10:T:68:VAL:O	10:T:72:THR:N	2.42	0.49
8:X:46:ASN:HB2	11:l:19:ILE:HG23	1.95	0.49
10:a:169:PRO:HB3	10:a:184:TRP:CD1	2.48	0.49
5:e:288:LYS:HE2	5:e:290:GLU:HB2	1.94	0.49
5:f:174:PRO:HA	5:f:229:ASN:HB3	1.94	0.49
5:g:471:ASN:HB3	5:g:474:GLU:HG3	1.95	0.49
6:i:192:GLU:HB3	6:i:198:ILE:CD1	2.43	0.49
9:Y:37:MET:HB3	9:Y:58:LEU:HD11	1.94	0.49
9:Y:239:GLN:NE2	9:Y:519:ASP:OD2	2.30	0.49
4:G:21:PHE:CZ	4:G:49:LYS:HD3	2.48	0.49
5:I:93:ARG:HH22	5:K:89:VAL:HG21	1.78	0.49
5:I:569:TYR:CD2	5:J:554:ILE:HA	2.47	0.49
5:K:528:TYR:C	5:K:588:LYS:HG2	2.38	0.49
6:L:160:PRO:HG2	6:N:153:ASP:HB3	1.95	0.49
6:L:227:GLN:HE21	6:L:231:ASN:CG	2.20	0.49
6:N:223:ARG:HB2	6:N:238:LYS:HD3	1.95	0.49
8:Q:163:ILE:HD11	8:Q:205:THR:OG1	2.13	0.49
4:b:64:TYR:CE1	4:d:32:LEU:HD11	2.47	0.49
5:e:9:ASN:O	9:Y:997:SER:HA	2.13	0.49
5:f:360:PHE:CE2	5:f:363:SER:HA	2.48	0.49
5:f:500:SER:HA	5:f:504:LEU:HB2	1.95	0.49
5:g:339:GLU:HG2	5:g:349:TRP:HB2	1.93	0.49
6:h:320:MET:HB2	6:j:319:MET:O	2.13	0.49
6:h:333:ILE:HA	6:h:459:VAL:HA	1.93	0.49
6:i:376:ASP:HB2	6:i:382:ASP:HB3	1.95	0.49
9:Y:508:TYR:O	9:Y:513:TYR:OH	2.19	0.49
2:C:196:TYR:O	2:C:196:TYR:CG	2.66	0.48
4:G:69:GLN:HA	4:H:194:TYR:CE1	2.48	0.48
5:I:94:ASP:OD2	5:I:127:PHE:N	2.45	0.48
5:I:193:ARG:HE	6:L:10:SER:N	2.11	0.48
5:J:135:CYS:HB2	5:J:141:GLU:HG2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:51:ASN:HB3	6:N:57:ARG:NH1	2.28	0.48
6:M:31:ASN:ND2	6:M:34:GLN:HB2	2.26	0.48
6:M:399:GLU:HG2	6:N:443:ALA:N	2.28	0.48
9:R:911:ASP:O	10:S:323:GLU:N	2.27	0.48
8:X:147:THR:HG22	8:X:241:ILE:HB	1.94	0.48
10:Z:62:ASP:OD2	10:a:12:THR:HA	2.13	0.48
10:Z:201:ASN:O	9:Y:1015:ARG:HD3	2.13	0.48
5:e:323:ASP:O	5:e:368:ILE:HA	2.12	0.48
5:f:94:ASP:O	5:f:148:VAL:HG21	2.13	0.48
5:g:93:ARG:HG2	5:g:148:VAL:HG22	1.94	0.48
6:h:404:MET:N	6:i:432:TYR:O	2.28	0.48
5:I:97:SER:HB3	5:I:127:PHE:CE2	2.48	0.48
5:J:115:LYS:HA	5:J:139:ARG:NH2	2.28	0.48
5:K:115:LYS:HG2	5:K:140:TRP:O	2.12	0.48
6:L:102:TYR:HB2	6:N:94:GLN:HA	1.95	0.48
6:L:119:THR:N	6:L:122:SER:OG	2.46	0.48
10:T:86:ASP:CG	10:T:244:ARG:HH21	2.17	0.48
4:U:98:THR:HA	4:U:125:ASN:HA	1.94	0.48
8:W:602:ASP:OD1	8:W:603:LEU:N	2.46	0.48
5:e:2:LYS:HA	5:e:29:ASN:OD1	2.13	0.48
5:e:20:ARG:HB2	9:Y:991:SER:H	1.77	0.48
5:e:162:GLU:HG3	5:e:177:PHE:HA	1.95	0.48
6:h:115:LEU:O	6:i:102:TYR:OH	2.21	0.48
6:i:94:GLN:CA	6:j:102:TYR:HB2	2.43	0.48
6:i:97:TRP:C	6:j:99:TYR:HB3	2.38	0.48
9:Y:185:ASP:OD2	9:Y:187:ASN:ND2	2.46	0.48
9:Y:192:VAL:HG13	9:Y:516:PHE:CE1	2.47	0.48
9:Y:1008:LYS:HE3	9:Y:1017:PRO:HD2	1.94	0.48
2:C:417:GLU:H	2:C:417:GLU:CD	2.21	0.48
4:G:47:LEU:O	4:H:115:GLY:HA3	2.13	0.48
5:I:493:TRP:CD1	5:I:519:ALA:HA	2.48	0.48
5:J:259:GLU:HB3	5:J:384:TRP:CE2	2.48	0.48
6:L:41:PRO:O	6:L:47:VAL:HB	2.13	0.48
6:L:321:MET:HE3	6:L:456:ILE:HD11	1.94	0.48
9:R:354:TYR:CD1	9:R:412:LYS:HB3	2.48	0.48
8:W:483:SER:HB3	8:W:580:LEU:HD23	1.95	0.48
8:X:510:GLY:O	8:X:553:GLU:HA	2.13	0.48
5:e:279:GLU:HG2	5:e:280:ILE:O	2.13	0.48
5:e:281:TRP:HB3	5:e:285:LEU:HD13	1.95	0.48
5:e:324:ALA:HB2	5:e:358:LEU:HG	1.95	0.48
5:e:592:LEU:HD13	5:e:595:TYR:HE2	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:164:TYR:O	5:f:242:LEU:HB2	2.12	0.48
5:f:472:PRO:HB2	5:f:481:TRP:CD1	2.48	0.48
5:g:330:VAL:CG1	5:g:342:CYS:HB3	2.43	0.48
5:g:418:LEU:HD12	5:g:442:PHE:HD2	1.77	0.48
5:g:573:ARG:HG2	5:g:574:GLU:N	2.28	0.48
5:I:172:ASP:OD2	5:I:231:ARG:NH2	2.46	0.48
5:J:57:LEU:HD21	5:J:65:TRP:CG	2.48	0.48
5:J:422:ILE:HG22	5:J:437:LYS:HD3	1.96	0.48
6:L:410:GLY:CA	6:M:430:GLN:HB3	2.44	0.48
6:L:453:ASN:HB2	6:N:373:ARG:HB2	1.96	0.48
6:M:294:TYR:CE1	6:M:298:VAL:HG13	2.48	0.48
8:W:149:VAL:HG22	8:W:150:ILE:H	1.78	0.48
8:W:518:PRO:HG3	8:W:544:THR:HA	1.94	0.48
5:e:324:ALA:HB3	5:e:369:LYS:H	1.78	0.48
5:e:453:PHE:CE1	5:e:478:PHE:HB2	2.48	0.48
5:g:83:VAL:HG13	5:g:86:TYR:CE2	2.48	0.48
6:h:162:LYS:NZ	6:j:134:GLU:OE2	2.46	0.48
6:i:259:LYS:O	6:i:272:ALA:N	2.37	0.48
6:j:52:ALA:HB3	6:j:60:ALA:HB2	1.96	0.48
4:G:24:TYR:CE2	4:G:26:MET:HA	2.48	0.48
5:I:155:ASP:CG	5:I:156:LEU:H	2.22	0.48
5:I:572:TYR:HA	5:J:548:ASP:H	1.79	0.48
5:I:592:LEU:HD13	5:I:595:TYR:CE2	2.48	0.48
5:J:218:ASN:HB2	5:J:221:GLU:HB2	1.95	0.48
5:K:472:PRO:HD2	5:K:481:TRP:HB2	1.94	0.48
6:L:103:ALA:N	6:L:117:SER:O	2.41	0.48
6:M:149:THR:HG23	6:M:165:GLN:OE1	2.13	0.48
9:R:972:PRO:HB3	9:R:977:LEU:HD23	1.95	0.48
8:X:190:GLY:HA2	8:X:229:GLY:O	2.14	0.48
8:X:402:GLU:HG3	8:X:406:TRP:HB2	1.95	0.48
4:c:21:PHE:HE1	4:c:49:LYS:HD3	1.78	0.48
4:c:151:THR:O	4:c:160:LEU:HD12	2.14	0.48
5:f:411:ASN:HA	5:g:408:ILE:O	2.14	0.48
5:g:328:THR:HB	5:g:352:SER:H	1.78	0.48
6:h:137:TRP:HB3	6:i:139:SER:OG	2.14	0.48
6:h:210:ILE:HG12	6:j:196:GLY:HA3	1.95	0.48
6:h:321:MET:HE2	6:j:372:ALA:HB1	1.94	0.48
6:i:216:GLU:CD	6:j:226:SER:HA	2.38	0.48
6:j:110:ASP:HB3	6:j:113:ASN:HB2	1.94	0.48
9:Y:302:ASP:OD1	9:Y:302:ASP:N	2.43	0.48
9:Y:611:TRP:O	9:Y:614:ASP:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:325:ILE:HD13	1:B:326:VAL:H	1.78	0.48
2:C:200:GLY:HA3	2:C:208:PHE:CE1	2.49	0.48
4:G:18:GLU:HB2	4:G:21:PHE:HD1	1.79	0.48
4:G:29:LYS:NZ	4:H:61:ASP:OD1	2.28	0.48
4:H:116:PHE:CE1	4:H:136:LYS:HG2	2.49	0.48
5:I:472:PRO:HA	5:I:475:TYR:CZ	2.49	0.48
5:K:258:TYR:HE1	5:K:383:ARG:HB3	1.79	0.48
5:K:281:TRP:CZ2	5:K:283:GLY:HA3	2.48	0.48
5:K:332:GLU:N	5:K:350:VAL:O	2.47	0.48
6:L:120:PRO:HA	6:N:118:LEU:HD11	1.95	0.48
8:Q:602:ASP:OD1	8:Q:602:ASP:N	2.44	0.48
9:R:557:LYS:HG2	9:R:568:TYR:HB2	1.94	0.48
10:T:38:MET:O	10:T:77:ALA:HA	2.14	0.48
8:W:186:VAL:HG23	8:W:187:ASN:OD1	2.13	0.48
10:Z:115:SER:HA	10:Z:127:TRP:CD1	2.49	0.48
10:Z:329:GLU:O	9:Y:903:MET:HA	2.14	0.48
10:a:16:ARG:HA	10:a:19:ASN:OD1	2.13	0.48
4:c:69:GLN:HA	4:d:194:TYR:CE1	2.49	0.48
5:e:10:VAL:HG13	9:Y:998:GLN:HB2	1.96	0.48
5:e:78:LEU:HD12	5:e:108:PRO:HB3	1.96	0.48
5:e:215:PRO:HD3	5:e:230:ILE:C	2.38	0.48
5:f:10:VAL:HG22	5:f:13:ASP:HB3	1.94	0.48
5:g:94:ASP:HB2	5:g:99:TRP:CD2	2.48	0.48
5:g:431:SER:O	5:g:435:MET:N	2.46	0.48
5:g:562:PRO:HD3	9:Y:227:ARG:HD3	1.96	0.48
6:h:193:VAL:CG2	6:h:208:THR:HG21	2.43	0.48
6:h:339:MET:N	6:h:362:PHE:O	2.39	0.48
9:Y:401:ASP:HA	9:Y:416:ARG:HH12	1.79	0.48
9:Y:405:TYR:HA	9:Y:416:ARG:HA	1.96	0.48
2:C:529:VAL:HG12	2:C:531:GLN:H	1.79	0.48
5:I:398:VAL:HA	5:I:401:ILE:HB	1.96	0.48
5:J:183:TYR:CE1	5:J:225:LEU:HB3	2.49	0.48
5:J:572:TYR:O	5:K:553:ILE:N	2.33	0.48
5:K:51:THR:HG23	5:K:96:TRP:CH2	2.49	0.48
6:L:160:PRO:HG3	6:N:158:MET:SD	2.53	0.48
6:L:429:GLN:C	6:N:410:GLY:HA3	2.39	0.48
6:M:97:TRP:HA	6:N:100:THR:O	2.13	0.48
6:M:182:PHE:CZ	4:b:196:THR:HG21	2.49	0.48
8:P:97:ILE:HD12	8:P:127:ARG:HE	1.79	0.48
9:R:673:VAL:O	9:R:679:THR:HB	2.14	0.48
9:R:930:VAL:C	9:R:993:ALA:HB2	2.39	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:T:88:ILE:HG13	10:T:203:HIS:HB3	1.96	0.48
10:T:108:ASN:OD1	10:T:131:ARG:NH1	2.44	0.48
8:X:117:PHE:HA	8:X:141:GLN:HA	1.96	0.48
10:Z:45:GLN:OE1	10:Z:45:GLN:N	2.45	0.48
5:f:493:TRP:NE1	5:f:503:GLY:O	2.33	0.48
5:g:52:HIS:HB2	5:g:65:TRP:CZ3	2.49	0.48
5:g:161:LYS:HE2	5:g:163:THR:HG22	1.96	0.48
7:k:11:ASP:OD1	7:k:12:ILE:N	2.44	0.48
9:Y:404:VAL:HB	9:Y:418:TYR:HB3	1.94	0.48
9:Y:583:GLY:HA3	9:Y:596:PHE:CZ	2.48	0.48
9:Y:673:VAL:O	9:Y:679:THR:HB	2.14	0.48
5:I:273:LEU:O	5:I:276:VAL:HG22	2.14	0.48
5:I:329:PHE:HB2	5:I:349:TRP:CH2	2.49	0.48
5:I:386:ASN:HB3	5:I:392:VAL:HG21	1.94	0.48
5:I:491:ALA:HB2	5:K:489:PHE:CE1	2.49	0.48
5:J:237:ASN:HB2	5:J:240:ASP:OD2	2.14	0.48
5:K:356:TYR:HB2	5:K:368:ILE:CG2	2.44	0.48
9:R:913:LEU:O	10:S:321:THR:OG1	2.24	0.48
10:T:61:ASN:O	10:T:308:MET:HE1	2.14	0.48
4:U:92:THR:O	4:U:185:THR:N	2.42	0.48
4:b:197:TRP:CZ3	4:b:218:ARG:HB2	2.48	0.48
4:c:18:GLU:O	4:c:22:LEU:HG	2.13	0.48
5:e:431:SER:HA	5:g:467:HIS:NE2	2.28	0.48
5:f:143:VAL:HG22	5:g:150:LYS:HA	1.96	0.48
5:f:580:ASN:OD1	5:f:583:ASN:ND2	2.44	0.48
5:g:210:SER:HB3	5:g:212:TYR:O	2.14	0.48
5:g:354:GLN:CD	5:g:355:ASP:H	2.21	0.48
6:i:138:GLY:N	6:j:140:SER:O	2.38	0.48
12:A:41:ILE:HG22	12:A:42:ILE:O	2.13	0.48
9:Y:251:ARG:HD3	9:Y:295:THR:OG1	2.13	0.48
9:Y:487:PHE:HB2	9:Y:505:GLN:HE22	1.78	0.48
3:E:132:VAL:O	3:F:236:SER:OG	2.26	0.48
4:G:118:PHE:HB3	4:G:120:PHE:CE2	2.49	0.48
5:J:413:GLU:HA	5:J:445:ARG:HE	1.79	0.48
5:J:449:LEU:HD13	5:K:452:PHE:CE1	2.49	0.48
5:K:398:VAL:O	5:K:403:GLU:HG3	2.13	0.48
5:K:497:ALA:HA	5:K:517:HIS:CD2	2.48	0.48
6:L:398:HIS:O	6:M:443:ALA:HA	2.14	0.48
6:L:429:GLN:HG3	6:N:417:CYS:CB	2.44	0.48
6:M:376:ASP:OD1	6:M:381:LEU:N	2.34	0.48
6:N:212:LEU:C	6:N:221:ILE:HG12	2.39	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:406:TYR:HA	6:N:421:LEU:HB2	1.95	0.48
8:P:277:ASN:HB2	8:P:281:TYR:CB	2.44	0.48
9:R:566:THR:HG23	9:R:616:THR:HG23	1.95	0.48
4:c:140:PHE:HD2	4:c:147:PHE:CD2	2.32	0.48
5:e:49:TRP:CZ3	5:e:93:ARG:HB2	2.49	0.48
5:e:313:LEU:HD11	5:e:370:PHE:CE2	2.49	0.48
5:e:423:GLU:HB2	5:e:436:ARG:CB	2.40	0.48
5:f:338:ASP:N	5:f:341:SER:OG	2.41	0.48
5:g:462:ILE:HG12	5:g:602:ILE:HG12	1.95	0.48
6:h:355:TYR:CE2	6:h:365:PRO:HG3	2.49	0.48
6:h:407:GLN:HA	6:i:429:GLN:HA	1.96	0.48
6:i:113:ASN:HB3	6:j:120:PRO:HB2	1.96	0.48
6:j:214:ALA:HB3	6:j:222:VAL:HG13	1.95	0.48
3:F:141:LEU:HD23	3:F:159:PRO:HB3	1.95	0.48
5:I:59:PRO:HG2	5:I:90:ILE:HD13	1.96	0.48
5:J:86:TYR:O	5:J:87:ASN:ND2	2.46	0.48
5:K:419:VAL:HG22	5:K:441:PRO:HB3	1.96	0.48
5:K:472:PRO:HD3	5:K:601:TRP:CE2	2.48	0.48
5:K:484:TYR:CB	5:K:602:ILE:HG13	2.44	0.48
6:L:210:ILE:CG2	6:N:196:GLY:HA3	2.44	0.48
6:L:251:SER:OG	6:L:254:SER:N	2.37	0.48
6:L:449:THR:O	6:M:451:MET:HA	2.14	0.48
6:N:284:ARG:HG3	6:N:285:ASP:O	2.14	0.48
8:P:49:LEU:HD11	9:R:683:LYS:HD3	1.96	0.48
9:R:114:GLU:OE1	9:R:114:GLU:N	2.47	0.48
10:S:44:GLU:HG2	10:S:263:ARG:NH2	2.29	0.48
4:U:33:ILE:HD11	4:U:39:ILE:HG22	1.96	0.48
5:f:123:LEU:HB3	5:f:128:MET:HE1	1.96	0.48
5:f:164:TYR:HB2	5:f:244:PHE:HE1	1.79	0.48
5:f:509:LEU:HD22	5:f:513:GLY:O	2.13	0.48
6:h:13:SER:HB3	6:j:16:VAL:HG12	1.95	0.48
6:h:44:ARG:NH1	6:j:26:PRO:HD2	2.29	0.48
6:h:236:ASP:OD1	6:i:244:LYS:HG2	2.14	0.48
6:i:24:GLN:OE1	6:j:41:PRO:HG3	2.14	0.48
6:i:137:TRP:CD2	6:j:141:LYS:HB2	2.48	0.48
6:i:321:MET:HB3	6:i:456:ILE:HD12	1.96	0.48
6:j:102:TYR:HD1	6:j:117:SER:OG	1.97	0.48
9:Y:198:LEU:O	9:Y:210:VAL:HG23	2.14	0.48
4:H:48:ARG:HG3	4:U:114:TYR:CD1	2.49	0.47
5:I:313:LEU:HA	5:I:379:VAL:O	2.14	0.47
5:J:115:LYS:HD3	5:J:144:GLU:OE2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:354:GLN:HG3	5:K:355:ASP:H	1.79	0.47
6:L:379:ARG:NH1	6:M:366:ASP:O	2.47	0.47
6:L:387:PHE:HE1	6:M:457:ASN:N	2.12	0.47
6:N:227:GLN:N	6:N:244:LYS:HD2	2.29	0.47
4:b:153:LYS:HE3	4:b:161:GLU:HB2	1.95	0.47
4:c:175:THR:O	4:c:182:MET:N	2.35	0.47
5:e:163:THR:OG1	5:f:301:ARG:NH1	2.47	0.47
5:f:188:LEU:HA	5:f:246:THR:HG22	1.96	0.47
5:g:10:VAL:N	5:g:13:ASP:OD2	2.39	0.47
5:g:12:ASP:HB3	9:Y:953:HIS:NE2	2.28	0.47
6:h:102:TYR:HB2	6:j:94:GLN:HA	1.96	0.47
6:h:184:LEU:CB	6:j:182:PHE:HB3	2.44	0.47
9:Y:251:ARG:HA	9:Y:298:LYS:HA	1.96	0.47
3:E:156:PHE:CE2	3:F:198:ILE:HD12	2.49	0.47
4:G:137:PHE:HA	4:G:140:PHE:CD2	2.49	0.47
5:J:311:LEU:HB3	5:J:356:TYR:OH	2.13	0.47
6:L:394:GLU:CD	6:M:446:GLY:HA3	2.39	0.47
6:N:13:SER:HA	6:N:16:VAL:HG23	1.96	0.47
9:R:204:PHE:CE1	9:R:230:ASN:HB2	2.49	0.47
10:S:212:LEU:HD11	10:S:221:TYR:CB	2.44	0.47
10:Z:330:PHE:CD2	9:Y:903:MET:HE1	2.48	0.47
10:a:106:TYR:N	10:a:109:ASP:OD2	2.35	0.47
4:b:94:THR:O	4:b:182:MET:HA	2.14	0.47
4:c:33:ILE:HD11	4:c:39:ILE:HG22	1.96	0.47
4:d:94:THR:CG2	4:d:159:ILE:HG12	2.40	0.47
5:e:152:THR:CB	5:g:153:THR:H	2.27	0.47
5:f:177:PHE:CE1	5:f:183:TYR:HB3	2.49	0.47
5:g:394:GLU:HA	5:g:401:ILE:HB	1.96	0.47
6:h:134:GLU:OE2	6:i:162:LYS:NZ	2.37	0.47
6:h:201:GLY:H	6:i:187:LEU:HD11	1.79	0.47
6:h:347:LEU:HD12	6:h:350:LEU:HD12	1.96	0.47
5:I:52:HIS:CD2	5:I:57:LEU:HD13	2.49	0.47
5:J:539:GLU:C	5:K:579:VAL:HG13	2.39	0.47
5:K:74:ILE:HB	5:K:104:VAL:HG13	1.95	0.47
6:L:332:CYS:HB3	6:L:337:ARG:NH1	2.28	0.47
6:M:214:ALA:HB3	6:M:222:VAL:CG1	2.44	0.47
8:P:71:GLY:HA3	8:Q:304:ARG:NH2	2.30	0.47
8:Q:113:ASN:OD1	8:Q:114:SER:N	2.46	0.47
8:Q:395:TYR:O	8:Q:615:ILE:HG22	2.14	0.47
8:Q:402:GLU:HG3	8:Q:406:TRP:HE3	1.78	0.47
8:Q:432:LYS:HE3	8:Q:587:GLU:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:R:323:ASN:ND2	9:R:357:VAL:O	2.47	0.47
10:Z:74:MET:HB2	10:Z:295:LYS:HD2	1.96	0.47
4:d:86:ALA:HB2	4:d:193:GLY:O	2.15	0.47
5:e:356:TYR:O	5:e:358:LEU:HD12	2.14	0.47
6:h:42:TRP:NE1	6:i:43:ALA:HA	2.24	0.47
6:h:344:TYR:HB3	6:h:347:LEU:HB3	1.95	0.47
6:j:214:ALA:HB2	6:j:220:GLY:O	2.14	0.47
9:Y:568:TYR:HA	9:Y:615:ASN:O	2.14	0.47
4:G:174:ASN:OD1	4:G:183:VAL:HA	2.13	0.47
4:H:172:VAL:HB	4:H:186:ILE:HG12	1.97	0.47
4:H:197:TRP:HB3	4:H:216:PHE:HB3	1.95	0.47
5:K:99:TRP:CE3	5:K:128:MET:HB3	2.50	0.47
5:K:483:ARG:HA	5:K:601:TRP:HA	1.96	0.47
9:R:129:ASN:OD1	9:R:131:GLN:NE2	2.36	0.47
9:R:915:ASN:ND2	10:S:321:THR:HG23	2.30	0.47
10:S:68:VAL:HG21	9:Y:480:THR:HG21	1.95	0.47
4:d:141:VAL:CG2	4:d:150:VAL:HG23	2.44	0.47
6:i:157:SER:HB3	6:j:157:SER:HB3	1.96	0.47
6:i:312:ALA:HA	6:j:329:GLY:HA3	1.96	0.47
2:C:420:ASN:OD1	2:C:421:ARG:N	2.47	0.47
5:I:327:PRO:HB2	5:I:329:PHE:CD2	2.50	0.47
5:J:62:GLY:HA3	5:K:44:HIS:CG	2.49	0.47
5:J:265:VAL:HA	5:J:281:TRP:HB3	1.96	0.47
5:K:164:TYR:N	5:K:242:LEU:O	2.25	0.47
6:L:45:THR:N	6:N:38:SER:O	2.33	0.47
6:L:392:HIS:O	6:M:450:ARG:NH2	2.43	0.47
6:L:441:ALA:HB2	6:N:402:LEU:HD21	1.97	0.47
6:M:313:SER:HA	6:N:330:ASN:HB2	1.97	0.47
6:N:53:ALA:HB3	6:N:56:MET:HE2	1.95	0.47
8:P:14:GLN:OE1	8:P:14:GLN:N	2.46	0.47
8:Q:505:MET:HA	8:Q:512:ALA:HB2	1.96	0.47
8:Q:512:ALA:O	8:Q:552:ILE:N	2.43	0.47
9:R:286:LEU:HD12	9:R:290:VAL:HG21	1.97	0.47
4:U:134:TYR:CD1	4:U:150:VAL:HG12	2.50	0.47
8:X:180:TRP:CE2	8:X:188:ALA:HB2	2.50	0.47
8:X:195:PHE:HE2	8:X:197:MET:HE3	1.79	0.47
10:a:176:ILE:O	10:a:183:LYS:HA	2.13	0.47
5:g:66:ALA:HA	5:g:93:ARG:HB2	1.97	0.47
5:g:446:LEU:HD22	5:g:451:ALA:HB1	1.96	0.47
6:h:272:ALA:HB2	6:i:260:LEU:HD21	1.97	0.47
6:h:414:SER:HB2	6:i:424:ALA:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:h:443:ALA:N	6:j:399:GLU:HG2	2.29	0.47
6:h:446:GLY:O	6:j:397:SER:N	2.47	0.47
12:A:110:PHE:CE2	12:A:137:LYS:HE2	2.49	0.47
9:Y:767:ASP:OD2	9:Y:842:LYS:HG3	2.14	0.47
4:G:71:PRO:HG2	4:H:78:MET:HE1	1.96	0.47
4:H:101:ASN:ND2	5:K:272:GLU:HB3	2.30	0.47
4:H:168:VAL:HB	4:H:170:HIS:CE1	2.50	0.47
4:H:194:TYR:CE2	4:H:197:TRP:HZ2	2.32	0.47
5:J:115:LYS:HG3	5:J:142:TYR:CE1	2.49	0.47
5:J:358:LEU:HA	5:J:368:ILE:HA	1.95	0.47
5:K:562:PRO:HD3	9:R:204:PHE:CG	2.49	0.47
6:L:430:GLN:HB3	6:N:410:GLY:HA2	1.95	0.47
6:M:185:VAL:HG12	6:M:201:GLY:HA2	1.96	0.47
8:P:172:ILE:HD12	8:P:239:VAL:HG22	1.97	0.47
8:Q:406:TRP:N	8:Q:406:TRP:CD1	2.82	0.47
10:S:42:ARG:NH2	10:S:45:GLN:O	2.47	0.47
10:T:40:ILE:HD11	10:T:249:MET:HG3	1.96	0.47
4:U:152:ARG:NE	4:U:157:GLY:O	2.43	0.47
8:W:434:LYS:O	8:W:437:THR:N	2.37	0.47
4:b:146:TYR:CE2	4:d:47:LEU:HD11	2.49	0.47
5:e:156:LEU:HD22	5:g:156:LEU:HA	1.96	0.47
5:e:273:LEU:O	5:e:279:GLU:HB2	2.14	0.47
5:e:421:ARG:HB2	5:e:438:ILE:HB	1.96	0.47
5:f:57:LEU:HD22	5:f:67:LEU:HD21	1.95	0.47
5:f:183:TYR:CB	5:f:246:THR:HG21	2.43	0.47
5:f:267:ASN:HA	5:f:283:GLY:O	2.14	0.47
6:h:99:TYR:HB3	6:j:98:GLY:N	2.29	0.47
6:h:118:LEU:HD22	6:h:122:SER:HB2	1.97	0.47
9:Y:848:SER:O	9:Y:852:PHE:HB2	2.15	0.47
4:H:74:GLY:HA2	4:U:77:MET:O	2.14	0.47
5:I:494:THR:HB	5:K:486:GLU:HB3	1.96	0.47
5:I:571:LYS:HB3	5:J:551:GLY:N	2.29	0.47
5:J:273:LEU:O	5:J:282:VAL:HG21	2.15	0.47
5:J:304:ILE:HG23	5:J:384:TRP:CG	2.49	0.47
5:K:184:ASN:HB3	5:K:247:TYR:O	2.14	0.47
5:K:529:GLU:N	5:K:588:LYS:HE2	2.29	0.47
6:L:31:ASN:OD1	6:L:34:GLN:N	2.33	0.47
6:L:186:GLN:O	6:L:202:PHE:HA	2.15	0.47
6:L:284:ARG:NH1	6:N:264:VAL:O	2.47	0.47
6:M:24:GLN:O	6:N:44:ARG:NH1	2.48	0.47
6:M:190:VAL:HG22	6:M:208:THR:HG23	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:M:347:LEU:O	6:M:351:ILE:HG12	2.15	0.47
6:M:414:SER:HB3	6:N:426:LYS:O	2.14	0.47
8:P:98:ARG:HH21	8:W:406:TRP:HZ3	1.63	0.47
10:S:177:ASP:OD1	10:S:178:MET:N	2.48	0.47
8:W:182:ASN:O	8:W:182:ASN:ND2	2.45	0.47
8:X:253:GLY:O	8:X:283:GLY:HA3	2.14	0.47
8:X:514:ILE:HD11	8:X:552:ILE:HD11	1.96	0.47
10:a:117:PRO:HA	10:a:120:ARG:HG2	1.96	0.47
4:b:33:ILE:HG13	4:b:62:ASP:OD1	2.14	0.47
5:e:18:TYR:OH	9:Y:939:GLN:N	2.39	0.47
5:e:211:ASP:OD1	5:e:233:LYS:NZ	2.40	0.47
5:e:475:TYR:HD2	5:f:458:PRO:HG2	1.79	0.47
5:e:538:ILE:HG21	5:f:580:ASN:HB2	1.96	0.47
5:f:317:GLN:H	5:g:315:GLY:CA	2.27	0.47
5:f:319:VAL:HG12	5:f:354:GLN:HG2	1.97	0.47
5:g:83:VAL:HA	5:g:86:TYR:CZ	2.49	0.47
5:g:562:PRO:HA	9:Y:227:ARG:NH1	2.28	0.47
6:i:141:LYS:O	6:i:157:SER:N	2.33	0.47
6:i:439:SER:HA	6:j:403:GLN:O	2.15	0.47
9:Y:766:TYR:HA	9:Y:840:ARG:O	2.15	0.47
9:Y:924:LYS:HG2	9:Y:925:TYR:CE2	2.50	0.47
9:Y:940:THR:OG1	9:Y:949:LEU:HB2	2.15	0.47
3:F:81:LYS:HE2	3:F:81:LYS:H	1.78	0.47
4:H:44:VAL:HB	4:U:114:TYR:CD1	2.49	0.47
4:H:132:THR:HA	4:H:135:ASN:ND2	2.30	0.47
5:I:20:ARG:HD2	9:R:991:SER:H	1.79	0.47
5:J:411:ASN:HA	5:K:408:ILE:O	2.15	0.47
5:K:267:ASN:OD1	5:K:284:ASN:HA	2.14	0.47
6:L:92:ALA:HB2	6:L:98:GLY:C	2.40	0.47
6:L:114:ASP:HB3	6:M:121:ARG:HB3	1.96	0.47
6:L:251:SER:O	6:M:259:LYS:HG2	2.15	0.47
8:Q:173:ASN:OD1	8:Q:238:VAL:N	2.32	0.47
8:Q:185:ILE:HG22	9:R:744:PHE:CE1	2.50	0.47
9:R:754:VAL:HG23	9:R:865:SER:HB2	1.97	0.47
10:S:24:ARG:HG2	10:S:208:PHE:CE1	2.50	0.47
4:U:19:ALA:HB3	4:U:57:GLN:HB2	1.97	0.47
11:V:137:TYR:CE2	11:V:141:LEU:HD21	2.50	0.47
10:a:39:SER:HB2	10:a:74:MET:HG3	1.97	0.47
4:b:112:HIS:HA	4:b:116:PHE:O	2.15	0.47
5:f:171:THR:C	5:f:231:ARG:HG3	2.40	0.47
5:f:190:VAL:O	5:f:196:LEU:HA	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:467:HIS:HB3	5:g:435:MET:HE2	1.97	0.47
5:g:214:SER:HA	5:g:230:ILE:HA	1.97	0.47
6:h:241:THR:HA	6:j:238:LYS:O	2.15	0.47
6:i:315:PRO:HB3	6:j:328:TYR:CD1	2.50	0.47
9:Y:80:ARG:HG3	9:Y:93:TRP:CZ3	2.49	0.47
4:G:118:PHE:CZ	4:G:136:LYS:HG2	2.50	0.47
5:J:38:GLY:HA2	5:J:44:HIS:CD2	2.50	0.47
5:K:291:PHE:O	5:K:367:GLY:HA3	2.14	0.47
5:K:329:PHE:HD2	5:K:352:SER:OG	1.98	0.47
6:L:158:MET:N	6:M:158:MET:O	2.31	0.47
6:M:105:ASP:HB3	6:M:125:VAL:HG21	1.97	0.47
6:M:434:PRO:HB2	6:M:439:SER:HB2	1.97	0.47
8:P:571:GLU:C	8:P:572:ARG:HD2	2.39	0.47
9:R:146:MET:O	9:R:581:THR:OG1	2.24	0.47
4:U:22:LEU:HD12	4:U:56:VAL:HB	1.97	0.47
5:e:277:PRO:HB3	5:e:297:GLY:HA3	1.97	0.47
5:e:560:VAL:HG21	5:g:567:PRO:HG2	1.97	0.47
6:j:214:ALA:HB3	6:j:222:VAL:CG1	2.45	0.47
9:Y:953:HIS:CE1	9:Y:955:LYS:HB2	2.50	0.47
5:I:46:ALA:HB3	5:K:62:GLY:HA2	1.97	0.47
5:I:61:PHE:CE1	5:I:140:TRP:HZ2	2.32	0.47
6:N:187:LEU:HA	6:N:203:ALA:O	2.15	0.47
7:O:36:SER:OG	7:O:86:GLU:OE1	2.30	0.47
10:Z:7:TYR:CE2	9:Y:895:VAL:HG13	2.50	0.47
4:d:39:ILE:HD12	4:d:59:ALA:HB1	1.97	0.47
5:e:252:ALA:O	5:e:389:ILE:HD11	2.15	0.47
5:e:571:LYS:HB3	5:f:551:GLY:H	1.78	0.47
5:f:197:LEU:O	5:f:212:TYR:HE2	1.98	0.47
5:g:264:ARG:HG3	5:g:379:VAL:HG22	1.96	0.47
5:g:387:ASN:HD22	5:g:387:ASN:N	2.13	0.47
6:h:405:ILE:HG21	6:h:417:CYS:SG	2.55	0.47
6:i:148:ALA:HB2	6:i:162:LYS:HB3	1.97	0.47
6:i:405:ILE:N	6:i:419:TYR:OH	2.48	0.47
6:j:194:ARG:NH2	6:j:213:ASN:O	2.48	0.47
9:Y:102:PHE:HA	9:Y:627:ARG:HH22	1.80	0.47
4:H:103:ASP:HB2	5:J:332:GLU:OE2	2.15	0.46
5:I:265:VAL:HG22	5:I:280:ILE:HD11	1.95	0.46
5:I:307:ASN:O	5:J:258:TYR:OH	2.33	0.46
5:J:188:LEU:HD21	5:J:230:ILE:HD11	1.97	0.46
5:J:362:ASP:O	5:J:363:SER:OG	2.28	0.46
6:L:137:TRP:CH2	6:M:131:HIS:HB3	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:186:GLN:O	6:L:203:ALA:N	2.39	0.46
6:M:31:ASN:CG	6:M:34:GLN:HB2	2.39	0.46
6:M:57:ARG:HG2	6:N:61:ALA:N	2.29	0.46
6:M:137:TRP:CD2	6:N:141:LYS:HB2	2.51	0.46
6:M:260:LEU:HB3	6:M:274:SER:HB3	1.96	0.46
6:N:294:TYR:CG	6:N:298:VAL:HA	2.50	0.46
6:N:342:TYR:CE2	6:N:360:ASN:HB3	2.49	0.46
9:R:189:THR:O	9:R:234:ARG:NH2	2.47	0.46
10:S:68:VAL:O	10:S:72:THR:HG23	2.15	0.46
4:U:93:ILE:HA	4:U:184:GLY:HA2	1.96	0.46
8:W:397:ILE:HD11	8:W:614:PRO:HB2	1.96	0.46
10:a:18:GLU:C	10:a:22:ASN:HD22	2.23	0.46
10:a:317:SER:HB2	10:a:320:GLN:HB2	1.96	0.46
4:b:147:PHE:CZ	4:d:44:VAL:HG11	2.51	0.46
5:g:330:VAL:HB	5:g:336:GLY:C	2.39	0.46
6:h:68:ILE:HD13	6:i:80:PRO:HG3	1.96	0.46
6:h:108:ALA:HA	6:i:120:PRO:HG3	1.97	0.46
9:Y:451:TYR:CE1	9:Y:475:LEU:HA	2.50	0.46
4:G:198:SER:N	4:G:217:LYS:O	2.42	0.46
5:I:5:ILE:HD12	5:J:27:ASN:ND2	2.19	0.46
5:J:177:PHE:CE1	5:J:183:TYR:HB3	2.51	0.46
5:K:113:THR:HB	5:K:116:GLY:C	2.40	0.46
9:R:590:SER:OG	9:R:592:GLU:OE1	2.24	0.46
9:R:736:LYS:HE3	9:R:879:PHE:O	2.15	0.46
9:R:769:LEU:HD21	9:R:806:ARG:NH1	2.30	0.46
10:S:188:TYR:HB3	10:S:221:TYR:HD1	1.80	0.46
10:T:55:PHE:O	10:T:312:GLN:NE2	2.38	0.46
4:c:199:LYS:HA	4:c:216:PHE:CD2	2.51	0.46
4:d:143:ASP:HB3	4:d:145:LYS:HG3	1.96	0.46
5:e:76:VAL:HB	5:e:106:ILE:HG23	1.97	0.46
5:e:426:ASP:HB3	5:e:434:THR:HG21	1.98	0.46
5:e:547:LYS:HD2	5:e:574:GLU:HB3	1.96	0.46
5:f:339:GLU:O	5:f:343:LEU:HG	2.15	0.46
5:g:1:MET:N	5:g:32:GLU:OE1	2.40	0.46
5:g:166:ALA:HB1	5:g:236:CYS:CB	2.46	0.46
6:h:452:LYS:HB3	6:j:390:TYR:HE1	1.80	0.46
6:j:229:GLU:O	6:j:233:GLY:N	2.46	0.46
11:l:94:LYS:HD2	9:Y:640:ILE:HD11	1.97	0.46
9:Y:877:LEU:HD23	9:Y:877:LEU:HA	1.76	0.46
4:H:95:PHE:HB2	4:H:158:GLU:O	2.15	0.46
5:I:52:HIS:HB2	5:I:65:TRP:CE3	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:I:94:ASP:HB3	5:I:128:MET:N	2.30	0.46
5:I:242:LEU:HB3	5:I:244:PHE:CE1	2.51	0.46
5:I:394:GLU:HB3	5:I:397:GLY:HA2	1.97	0.46
5:J:158:THR:O	5:J:248:MET:N	2.49	0.46
5:J:467:HIS:HB3	5:K:435:MET:HE2	1.97	0.46
5:K:171:THR:HG23	5:K:235:PRO:HB3	1.96	0.46
6:L:420:GLU:OE1	6:M:424:ALA:HA	2.15	0.46
6:N:235:ASP:OD2	6:N:238:LYS:N	2.40	0.46
8:X:512:ALA:O	8:X:552:ILE:N	2.30	0.46
4:c:152:ARG:NH2	4:c:156:ASN:O	2.48	0.46
5:e:448:ASP:OD2	5:e:451:ALA:N	2.48	0.46
5:e:472:PRO:HA	5:e:475:TYR:CZ	2.49	0.46
5:e:553:ILE:HD11	5:g:574:GLU:HG2	1.96	0.46
5:e:592:LEU:HD13	5:e:595:TYR:CE2	2.50	0.46
5:f:421:ARG:HB2	5:f:438:ILE:HB	1.96	0.46
5:g:19:LEU:HD23	9:Y:989:PHE:CZ	2.50	0.46
5:g:69:THR:HG22	5:g:74:ILE:HG13	1.96	0.46
6:h:99:TYR:O	6:j:97:TRP:HE3	1.98	0.46
6:h:128:ASN:O	6:h:131:HIS:NE2	2.47	0.46
6:i:31:ASN:OD1	6:i:34:GLN:N	2.28	0.46
6:i:39:ILE:HD13	6:j:44:ARG:HG3	1.97	0.46
6:i:345:PRO:HA	6:i:348:PHE:HB3	1.97	0.46
6:i:422:ARG:NH1	6:j:422:ARG:HH11	2.12	0.46
9:Y:130:ASN:ND2	9:Y:133:TYR:HB2	2.30	0.46
9:Y:916:TYR:HE1	9:Y:997:SER:O	1.99	0.46
2:C:202:THR:HG23	2:C:207:HIS:C	2.41	0.46
4:H:31:PRO:HA	4:H:38:THR:CA	2.45	0.46
4:H:51:VAL:HG13	4:H:53:TYR:CE2	2.51	0.46
4:H:111:ILE:N	4:H:118:PHE:O	2.34	0.46
5:I:558:CYS:O	5:I:559:GLN:C	2.59	0.46
5:J:412:ASN:HB3	5:K:407:LYS:O	2.15	0.46
5:K:356:TYR:HB2	5:K:368:ILE:HG21	1.97	0.46
6:L:434:PRO:HD2	6:N:402:LEU:O	2.15	0.46
9:R:74:ASN:N	9:R:101:THR:OG1	2.48	0.46
10:S:88:ILE:HG23	10:S:203:HIS:HB3	1.98	0.46
5:e:288:LYS:HG2	5:e:290:GLU:HB2	1.97	0.46
5:f:159:VAL:HG13	5:f:246:THR:O	2.15	0.46
5:f:329:PHE:CE2	5:f:351:PRO:HD3	2.51	0.46
5:f:424:TYR:HB2	5:f:427:TYR:HD1	1.80	0.46
5:g:139:ARG:NH2	5:g:141:GLU:OE1	2.49	0.46
1:D:68:ALA:HB2	1:D:290:TRP:CE3	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:E:156:PHE:HE2	3:F:198:ILE:HD12	1.80	0.46
5:I:533:ILE:HA	5:K:583:ASN:ND2	2.30	0.46
5:J:52:HIS:CE1	5:J:54:ALA:HB3	2.49	0.46
5:K:356:TYR:CD1	5:K:368:ILE:HG21	2.51	0.46
6:L:68:ILE:HG13	6:L:82:LEU:HB3	1.97	0.46
6:L:369:GLY:O	6:N:373:ARG:NE	2.28	0.46
6:L:450:ARG:HG2	6:N:394:GLU:N	2.30	0.46
6:N:198:ILE:HB	6:N:202:PHE:CD2	2.51	0.46
8:P:329:GLN:HG3	8:P:350:LYS:HA	1.97	0.46
8:Q:185:ILE:HD11	9:R:728:ARG:HB2	1.97	0.46
8:Q:553:GLU:O	8:Q:557:ASP:N	2.47	0.46
9:R:194:SER:HB3	9:R:199:TYR:CE1	2.50	0.46
9:R:939:GLN:NE2	9:R:948:ALA:HB1	2.30	0.46
10:T:40:ILE:HA	10:T:268:ILE:HD13	1.95	0.46
8:W:14:GLN:HG2	9:Y:668:TYR:CG	2.50	0.46
8:W:280:ASP:O	8:W:282:VAL:N	2.49	0.46
10:Z:39:SER:OG	10:Z:269:SER:N	2.49	0.46
4:c:113:VAL:HB	4:c:118:PHE:CE2	2.50	0.46
5:e:421:ARG:HB3	5:e:438:ILE:HD12	1.97	0.46
5:e:481:TRP:CH2	5:e:603:ARG:HB2	2.51	0.46
5:e:523:GLY:O	5:g:594:PRO:HA	2.15	0.46
5:g:90:ILE:O	5:g:132:LEU:HB2	2.15	0.46
5:g:431:SER:N	5:g:434:THR:OG1	2.47	0.46
6:h:148:ALA:O	6:h:166:ALA:HB2	2.15	0.46
6:i:23:THR:OG1	6:i:25:TRP:HD1	1.98	0.46
6:i:39:ILE:HA	6:j:44:ARG:HA	1.97	0.46
6:i:351:ILE:HD11	6:i:362:PHE:HD2	1.80	0.46
6:i:417:CYS:O	6:j:424:ALA:HB3	2.15	0.46
5:I:61:PHE:HB3	5:I:88:LYS:HD2	1.98	0.46
5:I:288:LYS:O	5:I:290:GLU:HG3	2.15	0.46
5:I:409:TYR:OH	5:K:406:ASP:HA	2.15	0.46
5:J:59:PRO:HB3	5:J:65:TRP:CD1	2.50	0.46
5:J:471:ASN:N	5:J:474:GLU:OE1	2.47	0.46
6:L:242:PRO:CB	6:N:233:GLY:HA2	2.46	0.46
6:L:257:LEU:HD21	6:N:257:LEU:HD23	1.97	0.46
6:M:124:ASN:OD1	6:M:128:ASN:ND2	2.47	0.46
10:S:74:MET:HB2	10:S:295:LYS:HD2	1.98	0.46
8:W:49:LEU:HD11	9:Y:683:LYS:HB3	1.98	0.46
10:Z:309:GLU:HG2	9:Y:1027:LYS:OXT	2.15	0.46
4:c:29:LYS:HB3	4:d:64:TYR:CE2	2.51	0.46
4:c:118:PHE:HB3	4:c:120:PHE:CE2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:c:131:GLU:HB2	4:c:152:ARG:NH1	2.31	0.46
4:d:151:THR:OG1	4:d:161:GLU:HB3	2.15	0.46
5:e:61:PHE:CG	5:e:88:LYS:HD2	2.50	0.46
5:e:546:ILE:HG12	5:g:577:LEU:HD21	1.96	0.46
5:f:131:GLU:O	5:f:142:TYR:HB2	2.15	0.46
5:f:316:ARG:HA	5:g:315:GLY:HA3	1.97	0.46
5:g:152:THR:HB	5:g:156:LEU:CD1	2.46	0.46
5:g:330:VAL:HG22	5:g:349:TRP:HA	1.97	0.46
5:g:548:ASP:OD1	5:g:549:ASP:N	2.49	0.46
6:h:441:ALA:N	6:j:400:HIS:O	2.41	0.46
12:A:76:THR:C	12:A:77:LEU:HD12	2.40	0.46
9:Y:308:GLU:N	9:Y:320:ALA:O	2.43	0.46
4:H:62:ASP:O	4:H:65:THR:OG1	2.24	0.46
5:I:69:THR:HG22	5:I:74:ILE:HG13	1.97	0.46
5:I:554:ILE:HG12	5:K:571:LYS:HE2	1.96	0.46
5:J:596:ILE:N	5:K:489:PHE:O	2.46	0.46
5:K:99:TRP:HB2	5:K:125:LYS:O	2.16	0.46
5:K:337:TYR:O	5:K:349:TRP:NE1	2.43	0.46
6:M:118:LEU:HD11	6:N:123:ILE:HB	1.98	0.46
6:M:192:GLU:HB3	6:M:198:ILE:CD1	2.45	0.46
6:N:392:HIS:ND1	6:N:393:HIS:O	2.48	0.46
7:O:12:ILE:HD11	8:Q:27:MET:SD	2.56	0.46
10:S:111:VAL:HG21	10:S:184:TRP:CZ3	2.50	0.46
4:U:22:LEU:O	4:U:55:ASN:HA	2.15	0.46
8:X:472:PHE:N	8:X:557:ASP:OD2	2.46	0.46
10:Z:109:ASP:HB2	10:Z:132:VAL:HG21	1.97	0.46
5:e:569:TYR:HB2	5:f:555:ILE:CG1	2.46	0.46
5:f:298:ILE:HG21	5:f:304:ILE:HD11	1.97	0.46
5:g:139:ARG:NE	5:g:141:GLU:OE2	2.44	0.46
6:i:110:ASP:HB3	6:i:113:ASN:HB2	1.96	0.46
11:l:27:PHE:CD2	11:l:31:ILE:HD11	2.37	0.46
4:G:134:TYR:HB2	4:G:160:LEU:HD13	1.98	0.46
5:K:18:TYR:HB2	9:R:921:GLY:HA2	1.97	0.46
5:K:171:THR:HB	5:K:231:ARG:HG3	1.98	0.46
6:M:189:THR:O	6:M:193:VAL:HG23	2.16	0.46
6:M:351:ILE:HD11	6:M:362:PHE:CD2	2.51	0.46
6:N:436:PRO:O	6:N:440:LYS:HB2	2.16	0.46
9:R:312:CYS:HA	9:R:317:LEU:HA	1.98	0.46
9:R:976:VAL:HG12	9:R:981:ARG:HB3	1.97	0.46
10:T:18:GLU:C	10:T:22:ASN:HD22	2.24	0.46
10:a:328:PHE:HE1	9:Y:897:ILE:HD12	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b:84:PRO:HD2	4:b:197:TRP:CD1	2.50	0.46
5:e:418:LEU:HB2	5:e:421:ARG:HD2	1.98	0.46
5:f:449:LEU:HD22	5:g:452:PHE:CE1	2.50	0.46
5:g:55:PRO:HA	5:g:74:ILE:HA	1.97	0.46
6:h:16:VAL:HG12	6:i:13:SER:HB3	1.97	0.46
6:h:198:ILE:HD12	6:h:202:PHE:CD1	2.51	0.46
6:j:299:ALA:O	6:j:303:LYS:N	2.49	0.46
9:Y:75:SER:N	9:Y:101:THR:HG1	2.09	0.46
9:Y:914:ARG:HD3	9:Y:1002:LEU:HD11	1.98	0.46
3:F:178:LYS:HE3	3:F:178:LYS:HB2	1.76	0.46
5:I:320:LYS:HG3	5:I:358:LEU:HD22	1.96	0.46
5:I:341:SER:HA	5:I:344:ALA:HB3	1.98	0.46
5:I:476:MET:HA	5:J:455:VAL:HG13	1.98	0.46
5:J:173:PHE:CZ	5:J:242:LEU:HD11	2.50	0.46
5:K:332:GLU:C	5:K:334:ALA:N	2.74	0.46
6:L:145:THR:HG23	6:L:165:GLN:HE22	1.81	0.46
6:L:292:ALA:HB3	6:L:294:TYR:CE1	2.51	0.46
6:L:348:PHE:HB2	6:L:362:PHE:CE1	2.51	0.46
7:O:11:ASP:OD1	7:O:12:ILE:N	2.49	0.46
9:R:192:VAL:O	9:R:199:TYR:N	2.34	0.46
10:T:316:ARG:HG2	10:T:322:GLU:OE2	2.16	0.46
8:W:402:GLU:HB2	8:W:406:TRP:CD1	2.51	0.46
8:X:512:ALA:N	8:X:552:ILE:O	2.42	0.46
4:c:42:ALA:HB3	4:d:146:TYR:CE1	2.49	0.46
5:g:310:GLU:HB3	5:g:317:GLN:NE2	2.30	0.46
6:h:319:MET:SD	6:h:365:PRO:HG2	2.56	0.46
6:i:111:VAL:HB	6:j:124:ASN:CG	2.41	0.46
6:j:436:PRO:O	6:j:440:LYS:HB2	2.14	0.46
11:l:137:TYR:CE2	11:l:141:LEU:HD21	2.51	0.46
9:Y:135:ASN:N	9:Y:139:ASP:OD2	2.43	0.46
9:Y:238:TYR:HB3	9:Y:312:CYS:SG	2.56	0.46
9:Y:976:VAL:CG1	9:Y:981:ARG:HB3	2.46	0.46
2:C:551:ASP:OD1	2:C:552:ILE:N	2.49	0.46
5:I:7:ILE:HB	5:J:20:ARG:HG3	1.97	0.46
5:I:261:HIS:NE2	5:I:296:PHE:O	2.48	0.46
5:I:267:ASN:ND2	5:I:376:SER:HB3	2.31	0.46
5:J:172:ASP:HB3	5:J:231:ARG:NE	2.29	0.46
5:K:114:ILE:HA	5:K:140:TRP:HB2	1.98	0.46
5:K:168:GLN:HB2	5:K:238:ALA:HB2	1.98	0.46
5:K:356:TYR:HD1	5:K:368:ILE:HG21	1.81	0.46
6:L:29:PHE:HA	6:L:34:GLN:OE1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:M:158:MET:CE	6:N:163:VAL:HG21	2.41	0.46
6:N:294:TYR:CE1	6:N:298:VAL:HG13	2.51	0.46
8:P:615:ILE:HG22	8:P:617:GLN:H	1.81	0.46
8:Q:602:ASP:OD1	8:Q:603:LEU:N	2.48	0.46
9:R:85:HIS:ND1	9:R:86:GLN:O	2.49	0.46
10:S:104:ILE:HG12	10:S:164:GLU:HG2	1.98	0.46
8:X:81:ASN:OD1	8:X:82:THR:N	2.49	0.46
10:Z:172:GLU:HA	10:Z:186:TYR:CG	2.51	0.46
4:b:198:SER:O	4:b:216:PHE:HA	2.16	0.46
4:b:206:ALA:O	4:b:210:ALA:HA	2.15	0.46
4:c:75:VAL:HB	4:d:77:MET:CB	2.46	0.46
5:e:49:TRP:CD2	5:e:64:SER:HB2	2.51	0.46
5:e:99:TRP:CE3	5:e:128:MET:HB3	2.51	0.46
5:e:150:LYS:HA	5:g:143:VAL:HG22	1.98	0.46
5:e:177:PHE:CE1	5:e:183:TYR:HB3	2.51	0.46
5:f:359:ILE:HD12	5:f:367:GLY:HA3	1.98	0.46
5:g:330:VAL:HG21	5:g:338:ASP:O	2.15	0.46
6:h:193:VAL:HA	6:i:206:PRO:CG	2.46	0.46
6:i:16:VAL:HG13	6:j:13:SER:CB	2.41	0.46
6:j:198:ILE:HB	6:j:202:PHE:CD2	2.51	0.46
9:Y:333:THR:HG21	9:Y:347:LYS:HD3	1.97	0.46
9:Y:510:GLU:HA	9:Y:513:TYR:CD2	2.51	0.46
5:I:145:ASN:C	5:I:151:ILE:HG23	2.41	0.45
5:I:452:PHE:HD2	5:J:452:PHE:HE2	1.63	0.45
5:I:537:GLN:HG3	5:K:579:VAL:O	2.16	0.45
5:J:68:ASN:HB2	5:J:96:TRP:CZ2	2.51	0.45
5:K:69:THR:HG22	5:K:74:ILE:HG13	1.98	0.45
5:K:262:THR:OG1	5:K:381:THR:HG23	2.16	0.45
6:L:26:PRO:HD2	6:L:29:PHE:CE1	2.51	0.45
6:L:120:PRO:CB	6:N:113:ASN:HB3	2.43	0.45
6:L:186:GLN:HB2	6:N:182:PHE:CE1	2.51	0.45
6:L:373:ARG:NH1	6:M:448:GLU:OE2	2.47	0.45
6:M:65:GLU:HA	6:M:68:ILE:HB	1.98	0.45
4:d:92:THR:HG23	4:d:187:ASP:OD2	2.17	0.45
5:e:339:GLU:O	5:e:343:LEU:HG	2.16	0.45
5:f:509:LEU:HB3	5:f:513:GLY:HA2	1.97	0.45
5:g:70:SER:HB3	5:g:98:LYS:HG3	1.98	0.45
5:g:169:GLY:N	5:g:236:CYS:O	2.50	0.45
5:g:319:VAL:HB	5:g:354:GLN:HG2	1.98	0.45
6:i:373:ARG:HE	6:j:369:GLY:C	2.22	0.45
9:Y:153:SER:HB3	9:Y:156:TYR:CE2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:108:LYS:HG2	4:H:121:ASP:OD1	2.16	0.45
4:H:150:VAL:HG13	4:H:160:LEU:HD21	1.98	0.45
5:I:216:GLY:HA2	5:I:223:ILE:HG12	1.98	0.45
5:I:331:CYS:HA	5:I:348:ALA:O	2.17	0.45
6:L:240:VAL:O	6:N:240:VAL:HG23	2.16	0.45
6:L:351:ILE:HG23	6:L:354:THR:HB	1.97	0.45
6:L:444:VAL:HB	6:M:400:HIS:CE1	2.51	0.45
6:M:227:GLN:OE1	6:M:244:LYS:HA	2.16	0.45
6:N:340:TYR:CE1	6:N:361:ILE:HG12	2.51	0.45
8:P:504:ASP:H	8:P:533:ASP:CB	2.29	0.45
10:S:244:ARG:CB	10:S:327:ILE:HG12	2.46	0.45
4:d:197:TRP:CZ3	4:d:218:ARG:HB2	2.50	0.45
5:e:10:VAL:O	9:Y:998:GLN:N	2.49	0.45
5:e:455:VAL:HB	5:g:476:MET:O	2.16	0.45
5:f:86:TYR:OH	5:f:138:GLY:N	2.49	0.45
5:f:214:SER:HB2	5:f:226:ASP:OD2	2.16	0.45
5:g:199:ILE:HB	5:g:212:TYR:CZ	2.51	0.45
5:g:205:PHE:HZ	5:g:213:GLY:HA3	1.81	0.45
6:h:44:ARG:O	6:j:42:TRP:HZ2	2.00	0.45
6:i:25:TRP:CH2	6:i:39:ILE:HD11	2.51	0.45
6:i:25:TRP:CH2	6:i:35:ALA:HB1	2.52	0.45
9:Y:150:PHE:CE1	9:Y:162:ILE:HD12	2.51	0.45
9:Y:381:GLY:HA2	9:Y:399:SER:HB3	1.98	0.45
5:I:254:TRP:CD1	5:I:389:ILE:HD11	2.51	0.45
5:I:264:ARG:HG2	5:K:319:VAL:HG11	1.99	0.45
5:I:475:TYR:O	5:J:418:LEU:HD22	2.17	0.45
5:J:34:TYR:HB3	5:J:40:GLY:O	2.16	0.45
5:J:409:TYR:HB2	5:K:409:TYR:CD1	2.51	0.45
5:K:326:LEU:HD22	5:K:350:VAL:HG11	1.98	0.45
6:L:319:MET:N	6:M:321:MET:O	2.28	0.45
6:M:376:ASP:O	6:N:368:ARG:HD2	2.15	0.45
8:Q:117:PHE:HA	8:Q:141:GLN:HA	1.97	0.45
10:S:58:PRO:HB3	9:Y:471:VAL:O	2.17	0.45
11:V:98:GLU:H	11:V:146:ILE:HD12	1.81	0.45
8:W:518:PRO:CB	8:W:544:THR:HA	2.45	0.45
4:c:36:LYS:HB3	4:d:144:GLU:HB3	1.97	0.45
4:d:86:ALA:HB2	4:d:193:GLY:C	2.41	0.45
5:e:556:GLY:C	5:e:558:CYS:H	2.25	0.45
5:f:69:THR:HG21	5:f:104:VAL:HG22	1.97	0.45
6:h:94:GLN:OE1	6:i:121:ARG:NH1	2.50	0.45
6:h:406:TYR:N	6:i:430:GLN:O	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:i:104:THR:O	6:i:108:ALA:N	2.38	0.45
12:A:124:GLN:O	12:A:127:THR:N	2.49	0.45
9:Y:459:GLU:HA	9:Y:462:ILE:HD12	1.98	0.45
4:G:78:MET:HE1	4:G:82:SER:C	2.41	0.45
4:G:140:PHE:CD1	4:G:146:TYR:HD2	2.34	0.45
4:G:148:ASP:HB3	4:G:165:ILE:HA	1.98	0.45
5:I:127:PHE:O	5:I:148:VAL:HG23	2.16	0.45
5:I:189:GLU:OE2	5:J:161:LYS:NZ	2.35	0.45
5:I:571:LYS:HD3	5:J:550:ASN:C	2.41	0.45
5:J:531:HIS:HB3	5:J:533:ILE:HD12	1.98	0.45
5:K:135:CYS:HB2	5:K:141:GLU:HG2	1.97	0.45
5:K:496:ASP:O	5:K:503:GLY:HA3	2.17	0.45
5:K:559:GLN:HA	9:R:205:GLN:OE1	2.16	0.45
6:L:18:PHE:HD2	6:L:29:PHE:HB3	1.82	0.45
6:L:188:ALA:CB	6:L:198:ILE:HD11	2.46	0.45
6:L:441:ALA:HB1	6:M:400:HIS:HB2	1.99	0.45
6:M:348:PHE:CD1	6:M:352:GLY:HA2	2.52	0.45
9:R:425:ARG:HA	9:R:428:ILE:HD12	1.98	0.45
10:S:211:GLU:HA	10:S:214:GLU:HB2	1.98	0.45
8:W:19:ASP:OD2	7:k:18:LYS:NZ	2.44	0.45
10:Z:72:THR:O	10:Z:295:LYS:NZ	2.37	0.45
4:b:111:ILE:CD1	4:b:178:ASN:HB2	2.46	0.45
4:b:111:ILE:HD13	4:b:178:ASN:HB2	1.99	0.45
4:b:169:PRO:HG2	4:c:28:THR:OG1	2.17	0.45
5:e:191:TYR:HD2	5:e:194:GLY:O	1.99	0.45
5:e:313:LEU:HD11	5:e:370:PHE:CZ	2.51	0.45
5:e:480:ILE:HB	5:e:605:ALA:HB3	1.98	0.45
5:f:321:ALA:O	5:f:358:LEU:HG	2.16	0.45
5:g:424:TYR:HB2	5:g:427:TYR:CD1	2.52	0.45
6:h:223:ARG:HG2	6:j:215:THR:O	2.16	0.45
6:h:414:SER:HB3	6:i:426:LYS:N	2.32	0.45
6:h:424:ALA:HA	6:j:420:GLU:CG	2.46	0.45
6:i:252:GLY:HA2	6:j:260:LEU:O	2.16	0.45
6:j:29:PHE:CE2	6:j:38:SER:HB3	2.52	0.45
9:Y:192:VAL:HG13	9:Y:516:PHE:CZ	2.51	0.45
9:Y:513:TYR:CD1	9:Y:524:TRP:HB2	2.52	0.45
9:Y:775:ILE:HG21	9:Y:807:TRP:CD1	2.52	0.45
4:H:84:PRO:HD2	4:H:197:TRP:CD1	2.52	0.45
5:I:296:PHE:HB3	5:I:298:ILE:HG13	1.99	0.45
5:I:308:SER:HA	5:J:258:TYR:OH	2.17	0.45
5:J:259:GLU:HB3	5:J:384:TRP:NE1	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:J:301:ARG:HD2	5:K:186:ARG:HG3	1.99	0.45
5:J:421:ARG:CB	5:J:438:ILE:HB	2.46	0.45
5:K:221:GLU:O	5:K:231:ARG:HD2	2.16	0.45
5:K:483:ARG:HH12	5:K:599:HIS:CB	2.28	0.45
6:L:133:SER:O	6:M:142:LEU:N	2.38	0.45
6:L:188:ALA:HB2	6:L:198:ILE:HD11	1.98	0.45
6:N:367:MET:HE1	6:N:372:ALA:HB2	1.98	0.45
10:T:154:ARG:O	9:Y:475:LEU:HD12	2.17	0.45
10:Z:45:GLN:HA	10:Z:266:ARG:HG2	1.97	0.45
10:a:311:ARG:HH22	10:a:314:ILE:HG13	1.81	0.45
4:c:33:ILE:HD11	4:c:66:LEU:HD11	1.97	0.45
5:e:261:HIS:HB3	5:e:382:ILE:HD12	1.97	0.45
5:e:452:PHE:HE2	5:g:452:PHE:HD2	1.64	0.45
5:e:456:ILE:HG22	5:e:457:HIS:CD2	2.51	0.45
5:f:214:SER:HB3	5:f:225:LEU:HA	1.99	0.45
5:g:356:TYR:HA	5:g:370:PHE:HA	1.97	0.45
6:i:258:VAL:HG11	6:j:260:LEU:HD21	1.98	0.45
6:j:251:SER:N	6:j:254:SER:O	2.48	0.45
6:j:303:LYS:NZ	6:j:305:GLN:HA	2.31	0.45
9:Y:484:SER:OG	9:Y:508:TYR:OH	2.29	0.45
9:Y:510:GLU:HA	9:Y:513:TYR:CE2	2.51	0.45
4:G:22:LEU:HD12	4:G:56:VAL:HB	1.98	0.45
4:H:174:ASN:HA	4:H:183:VAL:HA	1.99	0.45
5:I:158:THR:OG1	5:I:248:MET:HB2	2.16	0.45
5:I:190:VAL:O	5:I:196:LEU:HD12	2.16	0.45
5:J:485:ALA:HB3	5:J:600:ARG:HH11	1.81	0.45
5:K:413:GLU:HA	5:K:445:ARG:NE	2.31	0.45
6:L:140:SER:HB3	6:N:132:ALA:CB	2.46	0.45
6:N:105:ASP:OD1	6:N:121:ARG:NH1	2.49	0.45
6:N:142:LEU:HD22	6:N:159:THR:HG22	1.98	0.45
6:N:143:SER:N	6:N:157:SER:O	2.45	0.45
8:Q:399:LYS:NZ	9:Y:708:ARG:HB3	2.31	0.45
11:V:61:TYR:CD1	11:V:61:TYR:C	2.94	0.45
5:e:98:LYS:HD3	5:e:98:LYS:HA	1.77	0.45
5:f:52:HIS:O	5:f:68:ASN:N	2.32	0.45
6:h:134:GLU:HA	6:i:142:LEU:HB2	1.99	0.45
6:h:138:GLY:N	6:i:139:SER:HB2	2.32	0.45
6:i:319:MET:SD	6:j:323:ALA:HB2	2.57	0.45
6:i:412:LEU:HD11	6:j:431:LEU:HG	1.99	0.45
9:Y:437:THR:OG1	9:Y:441:GLU:O	2.31	0.45
1:B:70:ASP:HA	1:B:119:ASN:HB2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:G:197:TRP:HA	4:G:217:LYS:O	2.17	0.45
4:H:75:VAL:HB	4:U:77:MET:HB2	1.99	0.45
5:J:76:VAL:HB	5:J:106:ILE:HG12	1.98	0.45
5:K:326:LEU:HD22	5:K:350:VAL:CG1	2.47	0.45
6:L:303:LYS:NZ	6:L:304:TYR:O	2.38	0.45
6:M:73:ASP:HB3	6:N:80:PRO:HG2	1.98	0.45
6:M:147:GLN:O	6:M:151:GLY:N	2.41	0.45
6:N:206:PRO:O	6:N:209:PHE:HB3	2.16	0.45
8:Q:604:ARG:HH21	8:Q:607:TYR:CB	2.30	0.45
10:T:154:ARG:HH21	9:Y:476:ARG:HG2	1.80	0.45
8:X:84:ILE:HD11	8:X:273:GLU:HG3	1.98	0.45
4:c:103:ASP:CG	4:c:106:GLN:HG2	2.42	0.45
5:e:32:GLU:OE1	5:f:34:TYR:OH	2.26	0.45
5:e:80:LYS:NZ	5:e:81:GLY:O	2.47	0.45
5:e:430:PRO:HG3	5:e:604:VAL:HG12	1.98	0.45
5:e:487:GLY:HA2	5:f:502:PHE:CD2	2.52	0.45
5:f:218:ASN:HB2	5:f:221:GLU:HB2	1.98	0.45
5:f:479:GLY:HA3	5:f:603:ARG:HH11	1.82	0.45
5:g:38:GLY:HA3	5:g:43:PRO:HA	1.99	0.45
5:g:67:LEU:HB2	5:g:99:TRP:CZ2	2.52	0.45
5:g:401:ILE:HA	5:g:404:HIS:HB2	1.97	0.45
5:g:483:ARG:HH12	5:g:600:ARG:H	1.65	0.45
6:h:160:PRO:HG2	6:j:153:ASP:HB3	1.99	0.45
6:h:293:LEU:HD22	6:j:293:LEU:CD2	2.47	0.45
6:h:392:HIS:CE1	6:h:393:HIS:CE1	3.05	0.45
6:i:236:ASP:OD1	6:j:244:LYS:HG2	2.16	0.45
9:Y:356:ILE:HA	9:Y:414:PHE:HD2	1.81	0.45
9:Y:388:GLN:HG2	9:Y:395:ASN:CG	2.42	0.45
9:Y:914:ARG:HB2	9:Y:1002:LEU:HD21	1.99	0.45
4:G:69:GLN:HB2	4:U:69:GLN:CG	2.47	0.45
5:I:41:GLU:O	5:K:1:MET:HG2	2.16	0.45
5:I:261:HIS:ND1	5:I:382:ILE:HD12	2.32	0.45
5:I:495:THR:O	5:I:517:HIS:NE2	2.36	0.45
5:J:544:VAL:HG23	5:J:546:ILE:HG13	1.99	0.45
6:L:79:THR:HG21	6:N:74:ASN:O	2.17	0.45
6:L:189:THR:O	6:L:193:VAL:HG23	2.17	0.45
6:M:331:LEU:HD13	6:M:459:VAL:HG21	1.98	0.45
6:N:121:ARG:O	6:N:124:ASN:HB3	2.17	0.45
8:P:89:ASN:HA	8:P:127:ARG:HH22	1.82	0.45
8:Q:36:TYR:CZ	8:Q:40:TYR:HE2	2.35	0.45
10:T:311:ARG:NH2	10:T:314:ILE:HG13	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:a:195:VAL:HA	10:a:199:CYS:SG	2.57	0.45
10:a:252:LEU:HD23	10:a:253:PHE:CE1	2.52	0.45
10:a:294:THR:N	10:a:297:GLN:OE1	2.46	0.45
5:e:569:TYR:HB3	5:f:555:ILE:N	2.30	0.45
5:f:94:ASP:HB3	5:f:127:PHE:HA	1.99	0.45
5:f:486:GLU:OE1	5:g:495:THR:OG1	2.30	0.45
5:g:356:TYR:HB2	5:g:368:ILE:CG2	2.47	0.45
6:h:31:ASN:ND2	6:h:34:GLN:HB2	2.32	0.45
6:h:216:GLU:HG2	6:i:224:LEU:CB	2.35	0.45
6:h:282:SER:HB2	6:j:288:ILE:HB	1.98	0.45
12:A:286:GLN:HG2	12:A:291:VAL:N	2.32	0.45
9:Y:148:GLU:HB2	9:Y:602:ARG:CZ	2.46	0.45
9:Y:207:MET:SD	9:Y:222:LYS:HA	2.57	0.45
2:C:449:VAL:HG12	2:C:451:GLN:H	1.80	0.45
4:G:198:SER:HB3	4:G:217:LYS:HB3	1.98	0.45
4:H:75:VAL:HG21	4:U:213:ILE:HD12	1.98	0.45
4:H:77:MET:HG2	4:H:215:TYR:CZ	2.52	0.45
5:I:97:SER:HA	5:I:127:PHE:N	2.31	0.45
5:I:312:LEU:HD21	5:I:315:GLY:H	1.82	0.45
5:J:39:ASP:OD1	5:J:42:ILE:N	2.34	0.45
5:J:103:ASN:HA	5:J:123:LEU:O	2.17	0.45
5:J:182:SER:HA	5:J:227:GLY:O	2.16	0.45
5:K:147:GLN:HB2	5:K:150:LYS:O	2.16	0.45
5:K:309:PHE:CZ	5:K:368:ILE:HD11	2.51	0.45
6:L:347:LEU:HD22	6:L:462:VAL:HB	1.97	0.45
6:M:240:VAL:HG13	6:M:244:LYS:HB2	1.98	0.45
6:M:248:LEU:O	6:M:257:LEU:HG	2.16	0.45
6:M:348:PHE:O	6:M:352:GLY:N	2.48	0.45
8:P:394:THR:HA	8:P:613:ASN:O	2.17	0.45
8:P:503:THR:HG22	8:P:513:LYS:H	1.81	0.45
8:Q:145:VAL:O	8:Q:242:GLU:HA	2.17	0.45
9:R:895:VAL:HG21	10:T:309:GLU:OE1	2.17	0.45
8:X:76:SER:HB3	8:X:165:ARG:CZ	2.46	0.45
4:c:37:ARG:HD2	4:c:41:GLY:HA3	1.99	0.45
5:e:85:ASP:OD1	5:e:88:LYS:NZ	2.29	0.45
5:e:212:TYR:HE2	5:e:225:LEU:HD11	1.82	0.45
5:e:452:PHE:HE1	5:g:478:PHE:CE2	2.34	0.45
5:g:73:ARG:NH1	5:g:103:ASN:HB2	2.31	0.45
5:g:558:CYS:O	5:g:560:VAL:HG23	2.17	0.45
6:i:41:PRO:O	6:i:47:VAL:HB	2.16	0.45
6:i:407:GLN:HG3	6:j:429:GLN:HE22	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:A:243:SER:O	12:A:253:SER:HA	2.17	0.45
9:Y:418:TYR:CE2	9:Y:428:ILE:HD11	2.52	0.45
9:Y:766:TYR:HB2	9:Y:839:VAL:HG13	1.99	0.45
4:H:167:CYS:O	4:H:190:ALA:HB1	2.17	0.45
5:I:5:ILE:HA	5:I:25:LYS:HZ2	1.81	0.45
5:I:36:LYS:NZ	5:I:63:ASP:OD1	2.49	0.45
5:I:469:ASP:HB3	5:I:599:HIS:CE1	2.51	0.45
5:I:505:ASN:HB2	5:I:518:THR:O	2.17	0.45
5:J:423:GLU:N	5:J:436:ARG:O	2.46	0.45
5:J:599:HIS:CE1	5:K:519:ALA:HB3	2.51	0.45
5:K:114:ILE:N	5:K:117:SER:O	2.50	0.45
6:L:183:GLY:HA2	6:M:184:LEU:HD22	1.99	0.45
6:L:219:LEU:HB3	6:M:221:ILE:HG13	1.99	0.45
6:L:241:THR:OG1	6:L:244:LYS:HG2	2.17	0.45
6:L:294:TYR:CE1	6:L:298:VAL:HG13	2.51	0.45
6:L:454:LEU:O	6:N:373:ARG:N	2.49	0.45
6:N:23:THR:OG1	6:N:25:TRP:HD1	2.00	0.45
6:N:162:LYS:O	6:N:166:ALA:N	2.40	0.45
6:N:299:ALA:O	6:N:303:LYS:N	2.50	0.45
8:P:157:LEU:HD13	11:V:29:ARG:CZ	2.47	0.45
8:Q:44:MET:HE1	9:R:681:TYR:CD1	2.52	0.45
10:S:191:PRO:HG2	10:S:194:VAL:CG2	2.47	0.45
10:S:233:ASP:HB2	10:S:236:PHE:CD2	2.52	0.45
4:U:96:ASP:O	4:U:181:SER:N	2.47	0.45
8:X:85:LEU:HD22	8:X:272:VAL:HB	1.99	0.45
4:c:47:LEU:HD21	4:d:146:TYR:CZ	2.52	0.45
5:e:152:THR:HB	5:g:153:THR:H	1.81	0.45
5:e:308:SER:HB2	5:e:385:PHE:CD1	2.46	0.45
5:f:113:THR:HB	5:f:116:GLY:C	2.42	0.45
5:f:163:THR:HG22	5:f:243:GLN:HG2	1.98	0.45
5:f:259:GLU:HB3	5:f:384:TRP:CE2	2.51	0.45
5:f:289:LYS:O	5:f:369:LYS:HA	2.16	0.45
5:f:321:ALA:HB3	5:f:357:SER:HA	1.99	0.45
5:f:456:ILE:HG22	5:f:457:HIS:CD2	2.51	0.45
5:g:30:PHE:O	5:g:34:TYR:HD1	2.00	0.45
5:g:94:ASP:HB2	5:g:99:TRP:CE2	2.52	0.45
6:h:397:SER:OG	6:i:443:ALA:HB1	2.17	0.45
6:h:410:GLY:HA3	6:i:430:GLN:HB3	1.99	0.45
6:h:432:TYR:CZ	6:h:434:PRO:HA	2.52	0.45
6:i:63:ALA:HB3	6:i:82:LEU:CD1	2.47	0.45
6:i:255:PHE:CG	6:j:259:LYS:HG3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:j:294:TYR:CE2	6:j:303:LYS:HG3	2.52	0.45
6:j:342:TYR:CE2	6:j:360:ASN:HB3	2.52	0.45
4:G:87:VAL:HB	4:G:191:ARG:H	1.81	0.44
5:I:183:TYR:HE1	5:I:225:LEU:HD13	1.82	0.44
5:J:311:LEU:HB3	5:J:356:TYR:CZ	2.52	0.44
5:J:573:ARG:HH21	5:K:546:ILE:HG21	1.82	0.44
6:L:222:VAL:O	6:N:220:GLY:N	2.43	0.44
6:M:113:ASN:HB3	6:N:120:PRO:HB2	1.98	0.44
9:R:142:MET:HB2	9:R:587:TYR:CZ	2.52	0.44
9:R:204:PHE:O	9:R:227:ARG:HG2	2.17	0.44
9:R:416:ARG:HH22	9:R:425:ARG:HD3	1.80	0.44
9:R:915:ASN:ND2	10:S:318:PRO:O	2.50	0.44
9:R:934:ASP:OD1	9:R:938:ASN:N	2.40	0.44
10:T:215:ASP:OD1	10:T:217:VAL:HG22	2.17	0.44
8:X:146:ARG:NH1	8:X:240:VAL:HG21	2.32	0.44
8:X:305:GLU:HG3	8:X:307:GLN:HE22	1.82	0.44
10:Z:323:GLU:O	9:Y:911:ASP:HB2	2.17	0.44
4:c:200:LEU:N	4:c:215:TYR:O	2.41	0.44
4:d:68:GLN:HB3	4:d:218:ARG:HH12	1.81	0.44
5:e:219:PRO:C	5:e:221:GLU:H	2.25	0.44
5:f:275:SER:HA	5:f:282:VAL:H	1.81	0.44
5:f:475:TYR:HA	5:g:419:VAL:O	2.17	0.44
5:g:481:TRP:CH2	5:g:603:ARG:HB2	2.51	0.44
6:h:113:ASN:OD1	6:h:116:VAL:HG22	2.16	0.44
6:i:12:ALA:HB3	6:i:15:TYR:CD2	2.52	0.44
6:i:25:TRP:CZ3	6:j:44:ARG:HD2	2.52	0.44
6:i:405:ILE:HG12	6:j:431:LEU:HD23	1.98	0.44
6:j:29:PHE:HA	6:j:34:GLN:OE1	2.17	0.44
1:B:350:ASP:OD1	1:B:350:ASP:N	2.49	0.44
3:F:175:ARG:HD3	3:F:178:LYS:HZ1	1.82	0.44
5:I:493:TRP:CH2	5:I:495:THR:HA	2.52	0.44
5:J:97:SER:HB3	5:J:127:PHE:CZ	2.51	0.44
5:J:139:ARG:NE	5:J:141:GLU:OE2	2.51	0.44
5:K:39:ASP:H	5:K:44:HIS:CE1	2.35	0.44
5:K:191:TYR:CE2	5:K:196:LEU:HB2	2.51	0.44
6:L:32:VAL:HG11	6:N:32:VAL:HG11	1.98	0.44
6:L:44:ARG:NH1	6:N:26:PRO:HD2	2.33	0.44
6:L:117:SER:HB3	6:M:102:TYR:HE1	1.81	0.44
6:L:266:ALA:HA	6:M:276:GLY:HA3	1.99	0.44
6:L:348:PHE:O	6:L:352:GLY:N	2.44	0.44
6:M:91:HIS:C	6:M:98:GLY:HA3	2.42	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:M:351:ILE:HG13	6:M:352:GLY:O	2.17	0.44
6:N:92:ALA:N	6:N:99:TYR:O	2.28	0.44
6:N:330:ASN:O	6:N:461:ARG:HA	2.17	0.44
6:N:344:TYR:HE1	6:N:463:ARG:HB3	1.81	0.44
8:P:149:VAL:HG22	8:P:150:ILE:N	2.31	0.44
10:S:46:TRP:NE1	10:S:57:PRO:HB3	2.33	0.44
4:U:118:PHE:HB3	4:U:120:PHE:CZ	2.52	0.44
8:W:475:GLN:OE1	10:a:259:LEU:HB3	2.18	0.44
8:X:76:SER:HB3	8:X:165:ARG:NH2	2.31	0.44
4:c:99:VAL:CG1	4:c:109:ALA:HB3	2.46	0.44
5:e:187:ALA:O	5:e:246:THR:HG22	2.18	0.44
5:e:296:PHE:CE1	5:e:380:VAL:HG11	2.52	0.44
5:f:19:LEU:HD12	9:Y:916:TYR:CE1	2.51	0.44
5:g:99:TRP:CE3	5:g:128:MET:HB3	2.51	0.44
5:g:525:GLU:N	5:g:528:TYR:OH	2.49	0.44
6:h:107:GLU:OE2	6:h:116:VAL:HG11	2.17	0.44
6:h:303:LYS:O	6:h:305:GLN:NE2	2.47	0.44
6:i:91:HIS:C	6:i:98:GLY:HA3	2.42	0.44
6:i:350:LEU:HD22	6:j:324:PHE:CG	2.52	0.44
4:G:200:LEU:N	4:G:215:TYR:O	2.48	0.44
4:H:102:THR:HG23	4:H:178:ASN:HA	1.98	0.44
4:H:111:ILE:HD12	4:H:180:ILE:HB	2.00	0.44
4:H:131:GLU:HA	4:H:134:TYR:HB3	1.99	0.44
5:I:256:SER:OG	5:K:255:ARG:O	2.29	0.44
5:I:396:GLU:OE1	5:K:396:GLU:N	2.32	0.44
5:I:472:PRO:HD3	5:I:601:TRP:CD2	2.51	0.44
5:J:57:LEU:O	5:J:76:VAL:HA	2.17	0.44
5:J:199:ILE:HG13	5:J:210:SER:HB3	1.99	0.44
5:J:314:ASN:N	5:J:379:VAL:O	2.40	0.44
5:J:538:ILE:HG22	5:K:579:VAL:HG12	1.99	0.44
5:K:226:ASP:CG	5:K:229:ASN:H	2.25	0.44
5:K:526:ARG:O	5:K:591:THR:OG1	2.35	0.44
6:L:355:TYR:CG	6:L:365:PRO:HG3	2.52	0.44
6:L:453:ASN:OD1	6:N:385:ARG:NH1	2.37	0.44
6:M:227:GLN:CD	6:M:247:ASN:HD22	2.24	0.44
6:N:190:VAL:HG23	6:N:208:THR:HG22	1.99	0.44
9:R:21:TYR:OH	9:R:65:GLU:OE1	2.24	0.44
10:S:217:VAL:HG13	10:S:223:ASN:HD21	1.82	0.44
10:S:275:LEU:H	10:S:302:SER:CB	2.30	0.44
8:W:128:ASP:OD1	8:W:132:ASN:N	2.36	0.44
8:X:215:SER:N	8:X:224:THR:O	2.40	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Z:250:ASP:HB3	10:Z:253:PHE:CG	2.52	0.44
4:d:53:TYR:HD1	4:d:54:PRO:O	2.00	0.44
4:d:91:GLU:OE2	4:d:172:VAL:HA	2.18	0.44
4:d:205:LEU:HA	4:d:205:LEU:HD23	1.66	0.44
5:e:356:TYR:OH	5:e:358:LEU:HD21	2.18	0.44
5:e:393:MET:HA	5:g:389:ILE:O	2.17	0.44
5:e:472:PRO:HB3	5:e:476:MET:HE2	1.98	0.44
5:e:554:ILE:HG12	5:g:571:LYS:HE2	1.99	0.44
5:e:573:ARG:CG	5:f:548:ASP:HB2	2.47	0.44
5:f:189:GLU:OE2	5:f:247:TYR:OH	2.25	0.44
5:f:192:TYR:O	5:f:195:ASN:HB2	2.18	0.44
5:f:359:ILE:N	5:f:367:GLY:O	2.50	0.44
5:g:270:ASP:OD2	5:g:376:SER:OG	2.35	0.44
5:g:458:PRO:C	5:g:603:ARG:HH11	2.26	0.44
6:h:373:ARG:HA	6:i:371:VAL:HG12	2.00	0.44
9:Y:33:TYR:HD1	9:Y:83:VAL:HG22	1.81	0.44
3:E:67:ILE:HG22	3:E:68:THR:HG23	2.00	0.44
4:G:52:ASP:O	4:H:146:TYR:OH	2.29	0.44
6:L:159:THR:OG1	6:L:162:LYS:HG2	2.17	0.44
6:L:411:ASN:N	6:M:429:GLN:O	2.50	0.44
6:L:420:GLU:OE2	6:L:422:ARG:NH2	2.50	0.44
6:N:159:THR:OG1	6:N:162:LYS:HG2	2.16	0.44
8:P:419:TYR:N	8:P:435:MET:HE1	2.33	0.44
9:R:250:ASP:CG	9:R:251:ARG:HE	2.25	0.44
9:R:308:GLU:CD	9:R:321:ALA:HA	2.42	0.44
10:S:217:VAL:HA	10:S:223:ASN:OD1	2.17	0.44
10:T:39:SER:OG	10:T:269:SER:OG	2.10	0.44
10:T:154:ARG:HE	9:Y:476:ARG:HA	1.83	0.44
10:T:307:TYR:OH	10:T:309:GLU:HB2	2.18	0.44
5:e:80:LYS:HE2	5:e:111:GLY:HA3	1.99	0.44
5:e:183:TYR:CB	5:e:246:THR:HG21	2.46	0.44
5:f:448:ASP:HB2	5:g:414:GLU:OE2	2.17	0.44
5:g:97:SER:HB3	5:g:127:PHE:CE2	2.53	0.44
5:g:338:ASP:OD1	5:g:341:SER:N	2.42	0.44
6:h:130:ARG:CZ	6:i:127:PHE:HB3	2.48	0.44
6:h:242:PRO:HG3	6:j:230:VAL:HG22	1.98	0.44
6:h:311:GLU:O	6:i:328:TYR:HE1	2.00	0.44
6:i:102:TYR:HB3	6:i:119:THR:HG23	1.98	0.44
11:l:183:ASN:O	11:l:184:THR:OG1	2.34	0.44
9:Y:37:MET:SD	9:Y:58:LEU:HD21	2.57	0.44
4:G:60:ILE:HD11	4:U:56:VAL:HG13	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:H:51:VAL:HG13	4:H:53:TYR:CZ	2.52	0.44
5:I:586:PRO:HB2	5:J:534:ASN:O	2.17	0.44
5:J:65:TRP:O	5:J:92:LEU:HA	2.17	0.44
5:J:205:PHE:HZ	5:J:222:LEU:HB3	1.82	0.44
5:J:214:SER:HB2	5:J:226:ASP:OD2	2.18	0.44
5:J:489:PHE:CE1	5:K:491:ALA:HB2	2.53	0.44
5:K:166:ALA:CB	5:K:240:ASP:HB2	2.45	0.44
5:K:340:ASP:HA	5:K:343:LEU:HD12	2.00	0.44
6:M:345:PRO:HA	6:M:348:PHE:HB3	1.99	0.44
6:N:405:ILE:HB	6:N:419:TYR:CZ	2.53	0.44
8:Q:477:ALA:HA	8:Q:585:LEU:HD21	1.99	0.44
9:R:929:ARG:HG3	9:R:993:ALA:CB	2.47	0.44
9:R:978:PRO:HA	9:R:981:ARG:HE	1.83	0.44
10:T:209:PRO:HD3	10:T:235:VAL:HG11	1.99	0.44
10:Z:221:TYR:CE2	10:Z:225:ILE:HD11	2.53	0.44
4:b:153:LYS:HB2	4:b:159:ILE:HB	1.98	0.44
5:e:598:ALA:HA	5:f:519:ALA:HB1	2.00	0.44
5:f:147:GLN:HB2	5:f:150:LYS:O	2.18	0.44
5:f:149:ASP:OD1	5:f:150:LYS:N	2.50	0.44
6:h:245:LEU:HD22	6:j:240:VAL:HG11	1.98	0.44
6:i:71:GLY:O	6:j:81:ALA:HA	2.18	0.44
1:D:201:PHE:HE2	1:D:341:ILE:HD12	1.82	0.44
9:Y:298:LYS:HD2	9:Y:346:GLU:OE1	2.18	0.44
3:F:47:LEU:HB2	3:F:92:SER:HB3	1.99	0.44
4:H:31:PRO:HA	4:H:38:THR:HA	1.99	0.44
4:H:128:THR:HA	4:H:131:GLU:HB3	2.00	0.44
4:H:173:THR:HB	4:H:184:GLY:N	2.31	0.44
5:I:17:ASP:HB2	9:R:996:TYR:CD2	2.52	0.44
5:I:558:CYS:SG	5:K:559:GLN:HB2	2.57	0.44
5:K:264:ARG:HG2	5:K:266:TYR:CE1	2.50	0.44
6:M:394:GLU:N	6:N:450:ARG:HG2	2.32	0.44
9:R:252:ILE:N	9:R:297:ALA:O	2.30	0.44
9:R:510:GLU:HA	9:R:513:TYR:CE1	2.53	0.44
9:R:515:TRP:NE1	9:R:517:PHE:HB2	2.33	0.44
10:T:112:VAL:HG12	10:T:115:SER:HB3	1.98	0.44
4:U:180:ILE:HG22	4:U:182:MET:HG3	1.98	0.44
8:X:488:TYR:HE1	8:X:493:ASP:H	1.66	0.44
10:Z:136:PRO:HG2	10:Z:161:PRO:HB2	1.98	0.44
10:a:40:ILE:HD12	10:a:249:MET:HE2	1.98	0.44
4:b:65:THR:HG22	4:c:192:SER:OG	2.17	0.44
5:e:128:MET:HA	5:e:147:GLN:HG2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:83:VAL:HA	5:f:86:TYR:CE2	2.52	0.44
5:f:476:MET:O	5:g:455:VAL:HG13	2.17	0.44
5:f:599:HIS:HD1	5:g:519:ALA:HB3	1.82	0.44
6:h:402:LEU:HB2	6:i:434:PRO:HG2	1.98	0.44
9:Y:18:ASN:OD1	9:Y:105:ASN:ND2	2.42	0.44
9:Y:317:LEU:O	9:Y:327:ARG:HA	2.18	0.44
9:Y:923:PRO:HA	9:Y:983:PHE:O	2.18	0.44
4:H:19:ALA:O	4:H:56:VAL:HB	2.18	0.44
5:I:166:ALA:HB1	5:I:236:CYS:HB3	1.99	0.44
5:J:250:GLY:C	5:J:251:ILE:HG13	2.42	0.44
5:J:342:CYS:HA	5:J:345:ASN:HB2	2.00	0.44
5:J:578:LYS:HD3	5:J:581:GLN:NE2	2.33	0.44
5:K:329:PHE:HD1	5:K:337:TYR:O	2.00	0.44
6:M:137:TRP:CE3	6:N:131:HIS:HB3	2.53	0.44
6:M:388:GLY:O	6:N:454:LEU:HD11	2.18	0.44
6:N:333:ILE:HA	6:N:459:VAL:HA	1.99	0.44
8:P:34:LEU:HD13	9:R:669:TYR:CD1	2.53	0.44
8:Q:53:PHE:N	8:Q:53:PHE:CD1	2.86	0.44
8:Q:323:ARG:CZ	8:Q:366:TYR:HB3	2.48	0.44
8:Q:492:ASP:N	8:Q:494:ASP:OD1	2.38	0.44
8:Q:591:THR:HG21	8:Q:597:ILE:HG12	1.99	0.44
10:S:45:GLN:HA	10:S:266:ARG:HG2	2.00	0.44
4:U:116:PHE:HE2	4:U:136:LYS:HE2	1.81	0.44
4:b:25:GLU:HB3	4:c:57:GLN:CD	2.43	0.44
4:c:36:LYS:HD2	4:d:144:GLU:CG	2.48	0.44
4:c:72:ILE:HA	4:c:218:ARG:HD3	2.00	0.44
4:c:89:GLN:O	4:c:163:ARG:HG3	2.17	0.44
4:c:101:ASN:H	4:c:122:ASN:CG	2.24	0.44
5:e:171:THR:HA	5:e:232:LEU:HD12	1.98	0.44
5:f:242:LEU:HB3	5:f:244:PHE:CZ	2.52	0.44
5:f:599:HIS:ND1	5:g:519:ALA:HB3	2.33	0.44
6:h:41:PRO:HD2	6:h:42:TRP:CZ3	2.53	0.44
6:h:74:ASN:HA	6:i:79:THR:OG1	2.18	0.44
6:h:306:THR:N	6:h:309:ASP:OD2	2.43	0.44
6:h:385:ARG:NH2	6:h:389:THR:O	2.38	0.44
6:h:394:GLU:O	6:h:449:THR:HG21	2.18	0.44
6:i:78:VAL:HA	6:i:82:LEU:HD12	1.98	0.44
12:A:145:ASP:O	12:A:190:PHE:HA	2.18	0.44
12:A:177:SER:OG	12:A:282:ASP:HB2	2.17	0.44
9:Y:206:ASN:CA	9:Y:224:PHE:HB2	2.47	0.44
9:Y:257:THR:C	9:Y:259:THR:N	2.72	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Y:286:LEU:HD23	9:Y:286:LEU:HA	1.74	0.44
9:Y:487:PHE:HB2	9:Y:505:GLN:NE2	2.33	0.44
2:C:341:GLU:OE2	2:C:380:ARG:NH2	2.46	0.44
5:I:57:LEU:HB3	5:I:76:VAL:HG13	1.99	0.44
5:I:272:GLU:HG3	5:I:278:GLY:CA	2.43	0.44
5:K:330:VAL:HG23	5:K:349:TRP:CD1	2.50	0.44
5:K:504:LEU:HD13	5:K:515:PRO:HB2	2.00	0.44
6:L:236:ASP:HA	6:M:241:THR:CB	2.47	0.44
6:M:62:ILE:HA	6:M:77:ILE:HB	2.00	0.44
8:P:214:THR:HG22	8:P:229:GLY:HA3	2.00	0.44
9:R:907:GLU:OE2	9:R:1008:LYS:NZ	2.50	0.44
10:T:296:ASP:N	10:T:296:ASP:OD1	2.51	0.44
4:U:204:ASP:HA	4:U:212:PRO:HA	1.99	0.44
8:W:360:LYS:O	8:W:364:GLN:NE2	2.50	0.44
8:X:128:ASP:OD1	8:X:129:LYS:N	2.44	0.44
4:b:114:TYR:HH	4:b:173:THR:HG1	1.56	0.44
4:b:148:ASP:OD1	4:b:163:ARG:HB3	2.18	0.44
4:c:73:ASN:HA	4:c:217:LYS:HE3	1.99	0.44
4:d:70:ILE:O	4:d:218:ARG:NH1	2.39	0.44
5:e:314:ASN:CG	5:e:378:ASP:HA	2.42	0.44
5:f:530:ILE:HD11	5:g:530:ILE:HD13	2.00	0.44
5:f:537:GLN:HE22	5:f:539:GLU:HG2	1.83	0.44
5:f:544:VAL:HG11	5:g:577:LEU:HD21	2.00	0.44
6:h:41:PRO:O	6:h:47:VAL:HB	2.18	0.44
6:h:45:THR:HA	6:j:42:TRP:CH2	2.52	0.44
6:h:348:PHE:CD1	6:h:362:PHE:HB3	2.53	0.44
6:i:345:PRO:O	6:i:349:ALA:N	2.42	0.44
6:i:373:ARG:NH2	6:i:382:ASP:HB2	2.32	0.44
9:Y:215:GLY:HA2	9:Y:218:TRP:CZ2	2.51	0.44
9:Y:221:TYR:CE2	9:Y:223:ALA:HB2	2.53	0.44
9:Y:365:VAL:HA	9:Y:378:LEU:O	2.18	0.44
9:Y:536:PRO:O	9:Y:538:ILE:HG13	2.18	0.44
9:Y:547:ALA:HB1	9:Y:551:SER:HB3	2.00	0.44
1:B:319:GLY:HA2	1:D:133:ASN:OD1	2.17	0.44
4:H:151:THR:OG1	4:H:161:GLU:HB3	2.17	0.44
5:I:89:VAL:CG1	5:I:131:GLU:HG3	2.48	0.44
5:J:128:MET:HG2	5:J:130:VAL:HG23	2.00	0.44
5:K:354:GLN:CG	5:K:355:ASP:H	2.30	0.44
6:L:193:VAL:HG22	6:L:204:ILE:HG12	1.99	0.44
6:L:257:LEU:HD22	6:N:256:GLY:C	2.43	0.44
6:M:381:LEU:HB2	6:N:369:GLY:HA3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:P:434:LYS:O	8:P:437:THR:N	2.46	0.44
9:R:380:THR:HB	9:R:430:HIS:HA	1.99	0.44
10:S:138:ILE:O	10:S:161:PRO:HA	2.17	0.44
10:S:172:GLU:HG2	10:S:186:TYR:CZ	2.52	0.44
8:W:518:PRO:HB3	8:W:544:THR:HA	1.99	0.44
8:X:463:TYR:OH	8:X:564:GLY:HA2	2.18	0.44
10:Z:70:MET:HG3	10:Z:308:MET:SD	2.58	0.44
4:b:186:ILE:HG21	4:b:189:GLN:NE2	2.33	0.44
4:d:101:ASN:ND2	5:g:272:GLU:OE1	2.50	0.44
5:e:249:ASP:HB3	5:e:252:ALA:H	1.83	0.44
5:f:253:THR:OG1	5:g:249:ASP:HB3	2.18	0.44
5:g:267:ASN:ND2	5:g:376:SER:HB2	2.32	0.44
5:g:308:SER:CB	5:g:385:PHE:H	2.30	0.44
6:h:111:VAL:O	6:i:121:ARG:HA	2.17	0.44
6:h:368:ARG:HD2	6:j:377:ALA:HB3	2.00	0.44
6:h:429:GLN:NE2	6:j:407:GLN:HG3	2.33	0.44
6:i:325:ASN:HA	6:i:457:ASN:HD21	1.82	0.44
9:Y:592:GLU:OE1	9:Y:592:GLU:N	2.33	0.44
5:I:329:PHE:HB2	5:I:349:TRP:CZ2	2.53	0.43
5:J:192:TYR:CE1	5:J:240:ASP:HB3	2.51	0.43
5:J:530:ILE:HD12	5:K:534:ASN:O	2.18	0.43
5:K:51:THR:HG23	5:K:96:TRP:HH2	1.83	0.43
5:K:94:ASP:HB2	5:K:99:TRP:CD2	2.52	0.43
5:K:207:GLU:HG3	5:K:222:LEU:HB2	2.00	0.43
5:K:508:ASP:O	5:K:515:PRO:HA	2.17	0.43
6:L:390:TYR:HA	6:M:454:LEU:HD12	2.00	0.43
9:R:7:ILE:HG23	9:R:83:VAL:CG2	2.48	0.43
4:U:205:LEU:HD12	4:U:213:ILE:HG13	2.00	0.43
8:W:489:THR:HG22	8:W:573:PHE:HA	1.98	0.43
8:W:505:MET:HA	8:W:512:ALA:HB2	2.01	0.43
10:Z:131:ARG:HB2	10:Z:187:LEU:HD11	1.99	0.43
5:e:573:ARG:O	5:f:546:ILE:N	2.25	0.43
5:f:546:ILE:HA	5:g:544:VAL:HG12	2.00	0.43
6:h:373:ARG:HH22	6:j:452:LYS:HD2	1.82	0.43
6:i:190:VAL:HA	6:i:208:THR:HG23	2.00	0.43
6:i:350:LEU:HD22	6:j:324:PHE:CB	2.48	0.43
12:A:239:ALA:CB	12:A:264:ALA:H	2.31	0.43
1:D:302:ARG:HH12	1:D:305:HIS:CG	2.36	0.43
9:Y:339:PRO:HA	9:Y:344:PHE:CG	2.52	0.43
9:Y:496:ASP:OD1	9:Y:498:THR:OG1	2.28	0.43
1:B:337:ILE:HD11	3:F:195:PHE:CD1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:I:162:GLU:HB2	5:I:244:PHE:HB2	2.00	0.43
5:I:325:ASP:OD1	5:I:369:LYS:HE3	2.18	0.43
5:J:57:LEU:HG	5:J:59:PRO:HD3	2.00	0.43
5:J:578:LYS:HB2	5:J:581:GLN:CD	2.43	0.43
5:K:405:THR:HA	5:K:408:ILE:HG13	2.00	0.43
6:L:117:SER:HB3	6:M:102:TYR:CE1	2.53	0.43
6:L:259:LYS:HG3	6:N:255:PHE:CD1	2.52	0.43
6:L:393:HIS:HD2	6:N:396:GLN:OE1	2.01	0.43
6:M:68:ILE:HG23	6:N:83:LEU:CD2	2.48	0.43
6:M:103:ALA:HB2	6:M:116:VAL:HG23	2.00	0.43
8:Q:492:ASP:CB	8:Q:572:ARG:HE	2.31	0.43
9:R:536:PRO:O	9:R:538:ILE:HG13	2.16	0.43
9:R:890:ILE:HA	10:T:321:THR:O	2.18	0.43
4:U:89:GLN:HB3	4:U:164:PHE:HD2	1.83	0.43
8:X:27:MET:SD	7:k:12:ILE:HD11	2.58	0.43
8:X:299:LEU:HA	8:X:299:LEU:HD23	1.76	0.43
10:a:14:LYS:HE3	10:a:239:LYS:HE3	2.00	0.43
10:a:296:ASP:N	10:a:296:ASP:OD1	2.50	0.43
4:b:114:TYR:CG	4:d:44:VAL:HB	2.53	0.43
4:c:75:VAL:O	4:d:77:MET:HB2	2.16	0.43
5:e:194:GLY:HA3	5:g:195:ASN:CB	2.47	0.43
5:f:12:ASP:HA	9:Y:983:PHE:HE2	1.83	0.43
5:f:174:PRO:HA	5:f:229:ASN:CB	2.48	0.43
5:f:525:GLU:HB2	5:f:528:TYR:CE1	2.53	0.43
5:g:135:CYS:O	5:g:138:GLY:N	2.52	0.43
6:h:204:ILE:N	6:i:204:ILE:O	2.46	0.43
6:h:443:ALA:H	6:j:399:GLU:HG2	1.83	0.43
6:j:78:VAL:HG13	6:j:82:LEU:HB2	1.99	0.43
11:l:152:LEU:HD23	11:l:152:LEU:HA	1.81	0.43
4:G:134:TYR:CD1	4:G:152:ARG:HG3	2.53	0.43
5:J:75:THR:HG23	5:J:105:ARG:HG2	2.00	0.43
5:K:61:PHE:HB3	5:K:88:LYS:HB3	2.00	0.43
5:K:329:PHE:HA	5:K:349:TRP:CD1	2.53	0.43
6:L:427:ASN:HA	6:N:413:PRO:HA	2.00	0.43
6:L:450:ARG:O	6:N:393:HIS:HB2	2.18	0.43
6:M:337:ARG:O	6:M:364:LEU:N	2.41	0.43
6:M:444:VAL:HB	6:N:400:HIS:CE1	2.53	0.43
8:Q:115:PHE:CZ	8:Q:247:ASN:HB2	2.53	0.43
9:R:510:GLU:HA	9:R:513:TYR:CD1	2.53	0.43
9:R:518:ARG:NH2	9:R:519:ASP:OD2	2.20	0.43
9:R:819:LEU:HB2	9:R:822:GLN:HE21	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:S:250:ASP:HB3	10:S:253:PHE:CG	2.54	0.43
8:W:14:GLN:HG2	9:Y:668:TYR:CD2	2.53	0.43
10:Z:37:TYR:CE2	10:Z:79:LYS:HB3	2.53	0.43
4:b:61:ASP:HB3	4:c:168:VAL:HG21	2.01	0.43
4:d:111:ILE:N	4:d:118:PHE:O	2.36	0.43
5:e:43:PRO:HB2	5:g:36:LYS:HB3	1.99	0.43
5:e:199:ILE:HB	5:e:212:TYR:CE1	2.53	0.43
5:e:400:GLY:O	5:e:404:HIS:N	2.43	0.43
5:g:99:TRP:HB2	5:g:125:LYS:O	2.18	0.43
6:h:18:PHE:N	6:h:30:VAL:O	2.39	0.43
6:h:36:LEU:C	6:j:25:TRP:HE1	2.21	0.43
9:Y:12:VAL:HG22	9:Y:22:LEU:CD2	2.48	0.43
9:Y:436:SER:HB3	9:Y:443:TYR:CE1	2.53	0.43
4:G:200:LEU:HB2	4:G:215:TYR:HB2	2.00	0.43
5:J:89:VAL:HG12	5:K:46:ALA:HB1	2.00	0.43
5:J:510:ASP:C	5:J:513:GLY:H	2.25	0.43
5:K:160:ALA:HB3	5:K:246:THR:OG1	2.19	0.43
5:K:308:SER:HB2	5:K:385:PHE:CD1	2.53	0.43
5:K:561:ASP:CG	5:K:562:PRO:HD2	2.42	0.43
6:M:98:GLY:N	6:N:99:TYR:HB3	2.34	0.43
8:Q:72:TYR:HB2	8:Q:303:MET:SD	2.58	0.43
10:S:212:LEU:HD11	10:S:221:TYR:HB2	2.00	0.43
10:Z:104:ILE:HG12	10:Z:164:GLU:HG2	1.99	0.43
4:b:97:GLY:O	4:b:126:ALA:HB2	2.19	0.43
4:d:92:THR:HG22	4:d:161:GLU:HA	2.01	0.43
5:e:300:SER:O	5:e:304:ILE:N	2.52	0.43
5:e:328:THR:H	5:e:357:SER:HB3	1.83	0.43
5:e:526:ARG:HG3	5:e:592:LEU:HD21	2.01	0.43
5:f:183:TYR:HE1	5:f:225:LEU:HB3	1.83	0.43
5:f:574:GLU:HG2	5:g:543:LYS:HD3	2.01	0.43
5:f:591:THR:HB	5:g:591:THR:HB	1.99	0.43
5:g:325:ASP:O	5:g:354:GLN:HA	2.18	0.43
6:h:148:ALA:HA	6:h:158:MET:SD	2.58	0.43
6:h:234:THR:O	6:i:243:LEU:HB2	2.18	0.43
6:h:285:ASP:OD1	6:j:291:GLY:HA2	2.18	0.43
6:h:425:GLU:H	6:j:420:GLU:CD	2.25	0.43
6:i:63:ALA:HB3	6:i:82:LEU:HD13	1.99	0.43
6:i:330:ASN:HA	6:i:463:ARG:HE	1.82	0.43
6:i:341:THR:N	6:i:360:ASN:O	2.35	0.43
6:j:262:THR:O	6:j:278:ASN:N	2.32	0.43
9:Y:215:GLY:HA2	9:Y:218:TRP:CE2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Y:441:GLU:OE1	9:Y:491:ARG:NH1	2.51	0.43
4:G:76:ILE:HB	4:G:197:TRP:HZ3	1.84	0.43
5:I:97:SER:HB3	5:I:127:PHE:CD2	2.54	0.43
5:I:291:PHE:N	5:I:368:ILE:O	2.46	0.43
5:I:555:ILE:HD12	5:J:555:ILE:HG21	2.01	0.43
5:J:431:SER:OG	5:J:434:THR:HG23	2.18	0.43
5:K:321:ALA:HB1	5:K:325:ASP:OD2	2.18	0.43
6:L:130:ARG:O	6:L:138:GLY:HA3	2.19	0.43
6:L:331:LEU:HD13	6:L:459:VAL:HG21	2.01	0.43
10:S:42:ARG:HG2	10:S:73:HIS:HB3	2.00	0.43
10:S:43:THR:HG22	10:S:264:GLY:O	2.18	0.43
10:S:78:THR:HA	10:S:291:GLN:O	2.19	0.43
4:c:37:ARG:NH1	4:c:41:GLY:H	2.17	0.43
4:c:88:GLN:HA	4:c:167:CYS:HB3	1.99	0.43
5:e:305:ASN:H	5:e:384:TRP:CD1	2.36	0.43
5:e:581:GLN:HA	5:f:537:GLN:CG	2.49	0.43
5:e:586:PRO:CG	5:f:536:PRO:HB3	2.49	0.43
5:f:580:ASN:CG	5:f:583:ASN:HD22	2.24	0.43
5:g:573:ARG:HD2	5:g:575:ASP:HB2	1.99	0.43
6:h:198:ILE:HD12	6:h:202:PHE:HB3	2.00	0.43
6:i:331:LEU:HB3	6:i:459:VAL:HB	2.00	0.43
12:A:110:PHE:CD2	12:A:137:LYS:HE2	2.54	0.43
2:C:444:ASP:OD1	2:C:444:ASP:N	2.39	0.43
3:E:135:GLN:HB3	3:E:165:SER:HB2	2.01	0.43
4:G:76:ILE:HG22	4:G:216:PHE:HB2	1.99	0.43
4:H:65:THR:HG21	4:U:167:CYS:SG	2.58	0.43
5:I:206:VAL:HG11	5:I:209:ASN:ND2	2.32	0.43
5:I:452:PHE:O	5:I:456:ILE:HG12	2.18	0.43
5:K:105:ARG:HG3	5:K:120:TYR:CD1	2.53	0.43
5:K:107:VAL:HG23	5:K:120:TYR:HB3	2.00	0.43
6:L:294:TYR:CD1	6:L:298:VAL:HG13	2.54	0.43
6:L:400:HIS:O	6:M:441:ALA:N	2.30	0.43
6:M:147:GLN:CD	6:M:153:ASP:HB2	2.44	0.43
6:M:185:VAL:HA	6:M:201:GLY:O	2.18	0.43
8:P:309:ARG:HD2	8:Q:307:GLN:CD	2.43	0.43
8:P:422:ASN:OD1	8:P:422:ASN:N	2.50	0.43
9:R:209:LYS:CG	9:R:218:TRP:HB3	2.48	0.43
9:R:449:TYR:CE2	9:R:478:GLY:HA3	2.54	0.43
10:S:95:GLY:C	10:S:102:PRO:HB2	2.44	0.43
10:T:40:ILE:O	10:T:75:ILE:N	2.44	0.43
10:T:115:SER:HA	10:T:127:TRP:CD1	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:U:33:ILE:CD1	4:U:62:ASP:HB3	2.49	0.43
10:Z:9:ALA:HB2	10:a:309:GLU:HG3	2.01	0.43
10:Z:57:PRO:CB	10:Z:310:ASN:HB3	2.46	0.43
4:d:150:VAL:HA	4:d:161:GLU:O	2.19	0.43
5:e:215:PRO:HB3	5:e:231:ARG:HB2	2.01	0.43
5:e:219:PRO:HA	5:e:231:ARG:NH2	2.34	0.43
5:e:331:CYS:HB3	5:e:347:GLY:HA3	1.99	0.43
5:f:250:GLY:C	5:f:251:ILE:HG13	2.42	0.43
5:f:447:LEU:HD12	5:g:410:LEU:HA	2.00	0.43
5:g:456:ILE:HG22	5:g:457:HIS:CE1	2.54	0.43
5:g:493:TRP:CD1	5:g:519:ALA:HB2	2.53	0.43
6:h:40:GLY:HA3	6:h:42:TRP:CZ2	2.54	0.43
6:h:442:MET:O	6:i:401:PRO:HD2	2.18	0.43
6:i:176:ASN:C	6:i:183:GLY:HA3	2.43	0.43
6:i:332:CYS:O	6:i:459:VAL:HA	2.18	0.43
6:j:341:THR:HG22	6:j:362:PHE:CD1	2.53	0.43
11:l:22:ASP:OD2	11:l:25:PHE:HD2	2.00	0.43
11:l:40:GLN:HA	11:l:158:ARG:O	2.19	0.43
9:Y:942:ASP:HB3	9:Y:946:GLY:N	2.34	0.43
5:K:83:VAL:HA	5:K:86:TYR:CE2	2.54	0.43
5:K:183:TYR:CE1	5:K:185:VAL:HA	2.53	0.43
5:K:226:ASP:OD1	5:K:229:ASN:N	2.43	0.43
6:M:14:VAL:HA	6:M:31:ASN:HB2	2.00	0.43
6:M:198:ILE:HD12	6:M:202:PHE:CG	2.54	0.43
6:N:63:ALA:HB2	6:N:76:THR:OG1	2.18	0.43
6:N:227:GLN:HB2	6:N:244:LYS:HD2	2.00	0.43
8:P:212:GLY:N	8:P:230:GLY:O	2.50	0.43
9:R:930:VAL:HG23	9:R:951:GLU:HB2	1.99	0.43
8:W:518:PRO:HB2	8:W:541:THR:HB	2.00	0.43
10:Z:103:LYS:HA	10:Z:105:PHE:CZ	2.52	0.43
4:d:134:TYR:CB	4:d:152:ARG:HD2	2.48	0.43
5:e:174:PRO:HA	5:e:229:ASN:OD1	2.19	0.43
5:f:20:ARG:O	5:f:24:GLN:HG3	2.19	0.43
5:f:69:THR:HB	5:f:102:ASN:HB2	1.99	0.43
5:f:113:THR:HG22	5:f:118:PRO:HB3	2.00	0.43
6:h:284:ARG:HA	6:j:290:GLY:O	2.17	0.43
6:h:385:ARG:CZ	6:h:391:GLN:HB2	2.48	0.43
6:j:229:GLU:HG2	6:j:235:ASP:HB2	2.01	0.43
9:Y:8:THR:OG1	9:Y:25:ASP:OD2	2.29	0.43
9:Y:33:TYR:HB2	9:Y:61:ALA:HB3	2.01	0.43
9:Y:254:TYR:HE1	9:Y:294:ASN:HB2	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Y:422:GLU:O	9:Y:425:ARG:N	2.52	0.43
9:Y:934:ASP:OD2	9:Y:938:ASN:HB2	2.18	0.43
5:I:165:ILE:HD11	5:K:200:ASP:OD2	2.18	0.43
5:I:192:TYR:OH	5:I:237:ASN:OD1	2.36	0.43
5:I:290:GLU:OE2	5:I:369:LYS:HD3	2.19	0.43
5:I:422:ILE:HD12	5:K:468:ASN:CG	2.44	0.43
5:I:569:TYR:HD2	5:J:554:ILE:HA	1.84	0.43
5:J:55:PRO:O	5:J:74:ILE:HA	2.19	0.43
5:K:30:PHE:O	5:K:34:TYR:HD1	2.02	0.43
5:K:453:PHE:CZ	5:K:481:TRP:HZ2	2.37	0.43
6:L:142:LEU:O	6:N:134:GLU:HG2	2.19	0.43
6:M:10:SER:HB3	6:M:15:TYR:CD2	2.54	0.43
6:M:295:GLN:HB2	6:M:304:TYR:CZ	2.54	0.43
6:M:438:LEU:HD13	6:N:405:ILE:HD11	2.01	0.43
8:Q:57:ALA:O	8:Q:297:ARG:NH2	2.51	0.43
8:Q:499:ARG:NH1	8:Q:501:ALA:HB2	2.31	0.43
9:R:133:TYR:CD2	9:R:134:VAL:HG23	2.54	0.43
10:T:122:ASP:OD2	10:T:125:LYS:NZ	2.48	0.43
10:T:149:LYS:HA	10:T:159:TRP:CE3	2.53	0.43
4:U:113:VAL:HB	4:U:118:PHE:HE1	1.83	0.43
8:X:146:ARG:HA	8:X:241:ILE:O	2.19	0.43
4:d:37:ARG:NH1	4:d:41:GLY:H	2.17	0.43
5:e:485:ALA:HB2	5:g:596:ILE:HG21	2.01	0.43
5:g:61:PHE:HB3	5:g:88:LYS:HD3	2.00	0.43
5:g:128:MET:C	5:g:148:VAL:HG23	2.44	0.43
5:g:360:PHE:HB3	5:g:364:ILE:O	2.18	0.43
6:h:367:MET:O	6:j:374:GLY:HA3	2.18	0.43
6:h:425:GLU:HG3	6:j:420:GLU:OE2	2.19	0.43
6:i:219:LEU:HD23	6:j:223:ARG:HG3	1.99	0.43
9:Y:926:TRP:NE1	9:Y:960:PHE:HA	2.34	0.43
3:F:42:SER:O	3:F:44:ARG:N	2.51	0.43
5:I:91:ARG:HE	5:I:131:GLU:CD	2.26	0.43
5:I:149:ASP:O	5:K:143:VAL:HA	2.19	0.43
5:J:183:TYR:CD1	5:J:188:LEU:HD22	2.54	0.43
5:J:255:ARG:HB3	5:J:386:ASN:CG	2.44	0.43
5:K:494:THR:OG1	5:K:503:GLY:N	2.52	0.43
6:L:80:PRO:HG2	6:N:73:ASP:HB3	2.01	0.43
6:M:16:VAL:O	6:M:32:VAL:HG23	2.19	0.43
6:M:18:PHE:HB2	6:M:32:VAL:HG22	2.00	0.43
6:M:255:PHE:HE1	6:N:270:ASN:HB2	1.83	0.43
7:O:65:ASN:O	7:O:70:THR:HG21	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:P:424:GLU:OE1	8:P:427:ASN:ND2	2.39	0.43
8:P:542:ASP:OD1	8:P:543:ARG:N	2.52	0.43
9:R:177:ASP:CG	9:R:178:HIS:H	2.26	0.43
10:T:15:PHE:O	10:T:18:GLU:HB2	2.19	0.43
4:U:40:GLY:O	4:U:54:PRO:HA	2.19	0.43
4:U:103:ASP:CB	4:U:106:GLN:HG2	2.47	0.43
11:V:144:ILE:HG22	11:V:145:ASP:O	2.18	0.43
8:X:356:THR:OG1	8:X:359:GLN:OE1	2.24	0.43
10:Z:23:PHE:CD2	10:Z:243:MET:HE1	2.53	0.43
4:c:21:PHE:CZ	4:c:49:LYS:HB3	2.53	0.43
4:c:43:ASN:N	4:c:46:GLN:OE1	2.36	0.43
4:c:92:THR:O	4:c:185:THR:N	2.38	0.43
4:d:71:PRO:C	4:d:218:ARG:HD3	2.43	0.43
4:d:143:ASP:HB3	4:d:145:LYS:HE3	2.00	0.43
5:f:127:PHE:O	5:f:147:GLN:HB3	2.18	0.43
5:f:457:HIS:HB3	5:f:461:THR:HG21	2.00	0.43
5:g:97:SER:HB3	5:g:127:PHE:CZ	2.54	0.43
6:h:159:THR:OG1	6:h:162:LYS:HG2	2.19	0.43
6:h:293:LEU:HD23	6:h:304:TYR:CD2	2.54	0.43
6:i:444:VAL:HG21	6:j:399:GLU:O	2.19	0.43
9:Y:183:CYS:SG	9:Y:202:GLU:HB3	2.58	0.43
9:Y:288:PHE:O	9:Y:290:VAL:HG13	2.19	0.43
3:E:118:GLU:C	3:E:120:ARG:H	2.27	0.43
4:H:47:LEU:HD23	4:H:52:ASP:HA	2.00	0.43
5:I:115:LYS:HA	5:I:141:GLU:OE1	2.19	0.43
5:J:135:CYS:N	5:J:139:ARG:O	2.48	0.43
5:J:326:LEU:HD21	5:J:330:VAL:HG23	2.01	0.43
5:J:560:VAL:HG21	9:R:181:HIS:HB2	2.01	0.43
5:J:595:TYR:N	5:K:523:GLY:O	2.31	0.43
6:L:342:TYR:HE2	6:L:360:ASN:HB3	1.83	0.43
6:L:365:PRO:HB3	6:M:454:LEU:CD2	2.49	0.43
6:L:375:PHE:HE1	6:L:385:ARG:O	2.02	0.43
6:L:376:ASP:CG	6:L:380:GLY:H	2.26	0.43
6:M:402:LEU:HB2	6:N:434:PRO:HG2	2.01	0.43
6:N:187:LEU:HD23	6:N:203:ALA:HB3	2.00	0.43
7:O:67:ASN:OD1	7:O:70:THR:HG23	2.18	0.43
8:Q:510:GLY:O	8:Q:554:HIS:N	2.45	0.43
9:R:251:ARG:HD3	9:R:295:THR:CG2	2.44	0.43
4:U:67:SER:O	4:U:69:GLN:N	2.51	0.43
8:W:217:GLN:OE1	8:W:218:VAL:N	2.47	0.43
10:Z:94:TRP:CE2	10:Z:168:PRO:HA	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Z:127:TRP:CD1	10:Z:127:TRP:N	2.82	0.43
4:b:148:ASP:CG	4:b:163:ARG:HE	2.27	0.43
4:b:167:CYS:C	4:b:190:ALA:HB1	2.43	0.43
4:c:24:TYR:O	4:c:54:PRO:HB2	2.18	0.43
4:d:26:MET:HG3	4:d:54:PRO:HB3	2.00	0.43
5:f:135:CYS:SG	5:g:95:VAL:HG13	2.59	0.43
6:i:137:TRP:HA	6:j:140:SER:O	2.19	0.43
6:i:341:THR:HG23	6:i:360:ASN:C	2.43	0.43
9:Y:181:HIS:ND1	9:Y:185:ASP:HA	2.34	0.43
9:Y:337:THR:O	9:Y:339:PRO:HD3	2.19	0.43
9:Y:772:SER:OG	9:Y:832:THR:O	2.22	0.43
3:E:73:LYS:HD3	3:E:73:LYS:HA	1.91	0.42
4:G:74:GLY:O	4:G:218:ARG:N	2.50	0.42
4:G:78:MET:HE1	4:G:82:SER:O	2.19	0.42
4:G:213:ILE:HB	4:G:215:TYR:CE1	2.54	0.42
5:I:331:CYS:HB2	5:I:334:ALA:C	2.43	0.42
5:I:501:ASP:HB3	5:K:595:TYR:OH	2.18	0.42
5:J:145:ASN:ND2	5:J:153:THR:HA	2.33	0.42
5:J:472:PRO:HA	5:J:475:TYR:CE1	2.54	0.42
5:K:562:PRO:HA	9:R:227:ARG:CZ	2.48	0.42
6:L:114:ASP:HA	6:M:119:THR:HB	2.00	0.42
6:L:436:PRO:HG3	6:N:401:PRO:HB3	2.01	0.42
6:M:434:PRO:HB2	6:M:439:SER:CB	2.50	0.42
6:N:133:SER:OG	6:N:136:VAL:N	2.50	0.42
9:R:583:GLY:HA3	9:R:596:PHE:CZ	2.54	0.42
11:V:144:ILE:HG23	11:V:148:GLU:HB2	2.01	0.42
8:W:28:ASN:O	8:W:32:ASP:HB2	2.19	0.42
8:X:336:ASP:OD1	8:X:336:ASP:N	2.46	0.42
10:Z:128:MET:HG2	10:Z:189:THR:HB	2.01	0.42
10:a:40:ILE:O	10:a:75:ILE:N	2.42	0.42
4:b:38:THR:HG23	4:b:39:ILE:O	2.19	0.42
4:c:197:TRP:HA	4:c:218:ARG:HA	2.00	0.42
5:e:125:LYS:O	5:e:128:MET:HB2	2.18	0.42
5:f:158:THR:CA	5:f:248:MET:HB2	2.49	0.42
5:f:409:TYR:HB2	5:g:409:TYR:CD1	2.54	0.42
6:h:43:ALA:HB1	6:j:43:ALA:HB2	2.00	0.42
6:h:236:ASP:HB2	6:i:243:LEU:HD23	2.01	0.42
6:h:375:PHE:CE1	6:h:387:PHE:HB2	2.54	0.42
6:h:413:PRO:HB2	6:h:415:TRP:CD1	2.54	0.42
6:i:29:PHE:CD1	6:i:35:ALA:HA	2.53	0.42
6:i:70:ALA:O	6:i:72:THR:HG23	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:i:196:GLY:O	6:j:207:TYR:HA	2.18	0.42
4:G:55:ASN:OD1	4:G:57:GLN:HB3	2.18	0.42
5:I:149:ASP:OD2	5:K:115:LYS:NZ	2.44	0.42
5:I:582:GLY:H	5:J:537:GLN:HG3	1.84	0.42
5:J:172:ASP:N	5:J:231:ARG:HG3	2.35	0.42
5:K:362:ASP:O	5:K:363:SER:OG	2.32	0.42
6:L:60:ALA:HB3	6:L:77:ILE:HD11	2.01	0.42
6:N:29:PHE:CD2	6:N:35:ALA:HA	2.54	0.42
6:N:249:LYS:HB3	6:N:270:ASN:CG	2.44	0.42
8:P:187:ASN:ND2	8:Q:314:SER:OG	2.48	0.42
8:Q:54:ILE:HG22	8:Q:55:ARG:N	2.25	0.42
10:S:92:LYS:O	10:S:112:VAL:HG23	2.19	0.42
8:W:154:SER:OG	11:l:32:ARG:NH1	2.52	0.42
8:X:264:THR:O	8:X:266:ILE:HG22	2.19	0.42
10:Z:116:ALA:N	10:Z:119:ASN:OD1	2.35	0.42
4:b:166:ASP:HB3	4:d:37:ARG:NH2	2.34	0.42
5:e:125:LYS:HB3	5:e:147:GLN:OE1	2.18	0.42
5:g:63:ASP:HB3	5:g:65:TRP:CD1	2.54	0.42
5:g:342:CYS:O	5:g:347:GLY:N	2.50	0.42
5:g:356:TYR:HB2	5:g:368:ILE:HG22	2.01	0.42
6:h:137:TRP:HA	6:i:140:SER:O	2.19	0.42
6:j:295:GLN:HB2	6:j:304:TYR:CZ	2.54	0.42
11:l:61:TYR:CZ	11:l:62:TRP:NE1	2.87	0.42
9:Y:42:GLY:N	9:Y:48:ILE:HG13	2.34	0.42
2:C:183:MET:CE	2:C:283:ASN:HD22	2.33	0.42
4:G:72:ILE:HG12	4:G:219:ILE:O	2.19	0.42
5:I:183:TYR:CE1	5:I:225:LEU:HD13	2.54	0.42
5:J:189:GLU:HG2	5:K:161:LYS:NZ	2.35	0.42
5:K:292:THR:HA	5:K:366:THR:O	2.19	0.42
6:L:62:ILE:HD12	6:N:53:ALA:HA	2.00	0.42
6:L:393:HIS:NE2	6:L:448:GLU:HA	2.35	0.42
6:M:259:LYS:HB2	6:M:271:THR:OG1	2.18	0.42
6:M:393:HIS:CE1	6:M:449:THR:H	2.38	0.42
6:N:342:TYR:HE2	6:N:360:ASN:HB3	1.83	0.42
10:T:137:ASP:OD1	10:T:149:LYS:HD2	2.20	0.42
4:U:77:MET:HG2	4:U:215:TYR:CZ	2.55	0.42
11:V:162:ILE:HG22	11:V:163:ILE:O	2.18	0.42
8:X:494:ASP:OD1	8:X:494:ASP:N	2.53	0.42
10:Z:63:ASP:O	10:Z:66:GLY:N	2.52	0.42
10:Z:116:ALA:HB3	10:Z:118:TYR:CZ	2.54	0.42
10:a:175:GLY:HA2	10:a:183:LYS:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:b:36:LYS:HE3	4:c:148:ASP:OD2	2.18	0.42
4:d:113:VAL:HG22	4:d:182:MET:SD	2.58	0.42
4:d:141:VAL:HG22	4:d:147:PHE:C	2.44	0.42
5:e:398:VAL:HA	5:e:401:ILE:HD12	2.01	0.42
5:f:412:ASN:N	5:g:408:ILE:O	2.46	0.42
5:f:479:GLY:CA	5:f:603:ARG:HH11	2.32	0.42
5:g:173:PHE:CB	5:g:176:VAL:HG22	2.49	0.42
5:g:469:ASP:O	5:g:601:TRP:HZ2	2.03	0.42
5:g:494:THR:OG1	5:g:503:GLY:N	2.52	0.42
6:h:20:PRO:HG2	6:h:27:SER:HA	2.01	0.42
6:h:368:ARG:HD2	6:j:376:ASP:O	2.19	0.42
6:i:18:PHE:HB3	6:i:30:VAL:C	2.44	0.42
6:j:73:ASP:OD1	6:j:76:THR:OG1	2.37	0.42
6:j:121:ARG:O	6:j:124:ASN:HB3	2.19	0.42
1:D:64:LEU:HA	1:D:64:LEU:HD23	1.78	0.42
1:D:352:ARG:NH1	1:D:354:ASP:OD1	2.51	0.42
5:I:328:THR:O	5:I:330:VAL:HG23	2.18	0.42
5:I:439:THR:OG1	5:I:440:GLU:OE1	2.34	0.42
5:J:75:THR:HA	5:J:105:ARG:O	2.19	0.42
5:J:94:ASP:HB2	5:J:99:TRP:CE2	2.54	0.42
5:J:331:CYS:HB2	5:J:336:GLY:HA2	2.00	0.42
5:K:52:HIS:CE1	5:K:54:ALA:HB3	2.54	0.42
5:K:311:LEU:HD13	5:K:356:TYR:CE2	2.55	0.42
5:K:411:ASN:ND2	5:K:413:GLU:OE1	2.53	0.42
6:L:45:THR:CG2	6:N:40:GLY:HA2	2.49	0.42
6:L:57:ARG:NH2	6:M:75:GLU:OE1	2.52	0.42
6:L:223:ARG:NE	6:N:217:SER:O	2.50	0.42
6:M:288:ILE:HA	6:N:282:SER:O	2.20	0.42
6:N:426:LYS:O	6:N:429:GLN:NE2	2.30	0.42
8:P:214:THR:CG2	8:P:229:GLY:HA3	2.50	0.42
8:P:489:THR:O	8:P:495:SER:OG	2.33	0.42
10:S:155:ILE:O	10:S:155:ILE:HG22	2.19	0.42
4:U:89:GLN:HB3	4:U:164:PHE:CD2	2.54	0.42
8:W:523:ASP:OD2	8:W:547:TYR:OH	2.33	0.42
8:X:342:TYR:HE1	9:Y:852:PHE:CE2	2.36	0.42
4:b:19:ALA:HB1	4:b:56:VAL:HB	2.01	0.42
5:e:248:MET:HG3	5:f:254:TRP:CE2	2.54	0.42
5:f:569:TYR:CD1	9:Y:220:TYR:HB3	2.53	0.42
5:g:20:ARG:N	9:Y:918:PHE:O	2.53	0.42
5:g:183:TYR:CB	5:g:246:THR:HG21	2.49	0.42
5:g:493:TRP:CD1	5:g:503:GLY:HA2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:i:179:GLU:HA	6:j:187:LEU:O	2.20	0.42
6:i:330:ASN:O	6:i:462:VAL:HG22	2.20	0.42
9:Y:513:TYR:CD1	9:Y:513:TYR:N	2.85	0.42
9:Y:774:ASN:ND2	9:Y:830:ASN:O	2.47	0.42
4:G:99:VAL:CG1	4:G:109:ALA:HB3	2.49	0.42
5:I:273:LEU:O	5:I:279:GLU:HB2	2.20	0.42
5:I:481:TRP:HA	5:I:602:ILE:O	2.20	0.42
5:J:275:SER:HA	5:J:282:VAL:H	1.85	0.42
5:J:586:PRO:HB2	5:K:534:ASN:O	2.19	0.42
5:K:67:LEU:HB2	5:K:99:TRP:HZ2	1.84	0.42
5:K:518:THR:HG22	5:K:519:ALA:O	2.20	0.42
6:L:368:ARG:HB3	6:N:376:ASP:O	2.20	0.42
6:M:25:TRP:CH2	6:M:35:ALA:HB1	2.54	0.42
6:M:44:ARG:HB3	6:M:46:ASP:OD1	2.20	0.42
6:N:177:ALA:HB2	6:N:183:GLY:C	2.45	0.42
6:N:178:THR:OG1	6:N:181:ALA:N	2.52	0.42
8:P:372:LEU:HD23	8:P:372:LEU:HA	1.92	0.42
9:R:427:PHE:CE1	9:R:449:TYR:HA	2.55	0.42
10:T:277:LYS:HA	10:T:299:GLU:HB2	2.01	0.42
4:U:90:VAL:HA	4:U:163:ARG:HA	2.00	0.42
4:U:95:PHE:O	4:U:158:GLU:HB2	2.20	0.42
10:a:307:TYR:CE1	9:Y:897:ILE:HD11	2.54	0.42
4:b:99:VAL:HG12	4:b:122:ASN:HA	2.01	0.42
4:b:204:ASP:HA	4:b:212:PRO:HA	2.02	0.42
5:e:453:PHE:CZ	5:e:478:PHE:HB2	2.55	0.42
5:e:489:PHE:HD2	5:f:489:PHE:HB3	1.84	0.42
5:f:446:LEU:HD22	5:f:451:ALA:HB1	2.00	0.42
5:g:10:VAL:HG12	5:g:11:VAL:N	2.35	0.42
5:g:67:LEU:HB3	5:g:74:ILE:HD12	2.00	0.42
5:g:308:SER:O	5:g:384:TRP:HA	2.19	0.42
5:g:413:GLU:HA	5:g:445:ARG:NH2	2.35	0.42
5:g:483:ARG:HH22	5:g:599:HIS:CB	2.28	0.42
11:l:102:TYR:HB2	11:l:111:TYR:O	2.20	0.42
9:Y:260:ASP:O	9:Y:280:LEU:HD12	2.19	0.42
9:Y:421:THR:O	9:Y:425:ARG:HG3	2.19	0.42
1:B:337:ILE:HD11	3:F:195:PHE:CG	2.53	0.42
3:F:207:VAL:O	3:F:220:TYR:N	2.51	0.42
5:I:277:PRO:HA	5:I:296:PHE:O	2.20	0.42
5:J:12:ASP:N	9:R:919:ASP:HB2	2.34	0.42
5:J:355:ASP:O	5:J:371:SER:HB2	2.20	0.42
5:K:129:ASP:N	5:K:147:GLN:HA	2.23	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:266:TYR:CE1	5:K:377:ARG:HA	2.54	0.42
5:K:268:THR:HA	5:K:282:VAL:HG12	2.01	0.42
6:L:40:GLY:N	6:M:43:ALA:O	2.39	0.42
6:L:398:HIS:CD2	6:L:400:HIS:NE2	2.88	0.42
6:M:261:SER:HB3	6:M:273:LEU:HD23	2.02	0.42
6:M:426:LYS:C	6:M:428:ASP:H	2.27	0.42
6:N:192:GLU:HG3	4:d:35:GLY:O	2.19	0.42
6:N:292:ALA:HB3	6:N:294:TYR:HE1	1.85	0.42
6:N:405:ILE:N	6:N:419:TYR:OH	2.52	0.42
6:N:424:ALA:HB1	6:N:429:GLN:NE2	2.34	0.42
8:Q:402:GLU:CG	8:Q:406:TRP:HB2	2.49	0.42
9:R:1:MET:CB	9:R:89:GLU:HG3	2.47	0.42
9:R:200:LEU:HD12	9:R:209:LYS:HB3	2.01	0.42
9:R:230:ASN:HD21	9:R:391:THR:HG21	1.85	0.42
9:R:302:ASP:N	9:R:302:ASP:OD1	2.53	0.42
9:R:923:PRO:HB3	9:R:986:SER:HB2	2.01	0.42
8:W:338:GLU:OE2	9:Y:828:LYS:NZ	2.50	0.42
8:X:36:TYR:CD2	7:k:49:PRO:HB3	2.55	0.42
10:Z:94:TRP:CE3	10:Z:168:PRO:HB3	2.55	0.42
10:Z:141:CYS:SG	10:Z:143:ILE:N	2.92	0.42
4:c:73:ASN:N	4:c:218:ARG:O	2.46	0.42
4:c:86:ALA:HB2	4:c:193:GLY:C	2.45	0.42
5:e:5:ILE:HB	5:f:27:ASN:HD21	1.84	0.42
5:e:318:LEU:HA	5:e:318:LEU:HD23	1.79	0.42
5:g:330:VAL:HG22	5:g:348:ALA:O	2.19	0.42
7:k:37:LEU:HA	7:k:37:LEU:HD23	1.71	0.42
11:l:71:TYR:O	11:l:71:TYR:CG	2.72	0.42
12:A:173:SER:OG	12:A:176:SER:O	2.18	0.42
2:C:285:CYS:SG	2:C:293:VAL:HG21	2.59	0.42
4:H:75:VAL:HG12	4:H:215:TYR:HD2	1.83	0.42
4:H:134:TYR:HD1	4:H:150:VAL:HG11	1.85	0.42
5:J:69:THR:O	5:J:102:ASN:ND2	2.49	0.42
5:J:127:PHE:O	5:J:148:VAL:HG22	2.20	0.42
6:L:322:ALA:HB2	6:L:459:VAL:HG22	2.02	0.42
6:L:387:PHE:HE1	6:M:457:ASN:H	1.66	0.42
6:M:341:THR:HG21	6:M:353:TYR:CE1	2.54	0.42
6:M:412:LEU:N	6:N:429:GLN:O	2.37	0.42
9:R:1006:ARG:HH12	10:S:201:ASN:CG	2.26	0.42
10:S:225:ILE:C	10:S:227:TRP:N	2.75	0.42
8:W:387:ILE:HD11	8:W:589:ILE:HD11	2.02	0.42
8:W:587:GLU:HG2	8:W:588:THR:HG23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:X:362:ASP:O	8:X:365:ASN:HB3	2.20	0.42
10:Z:172:GLU:HG2	10:Z:186:TYR:CE1	2.54	0.42
10:Z:201:ASN:OD1	9:Y:1006:ARG:NH2	2.50	0.42
4:c:196:THR:HB	4:c:220:ALA:HB3	2.00	0.42
5:e:32:GLU:OE2	5:f:42:ILE:HG23	2.20	0.42
5:e:191:TYR:HA	5:e:195:ASN:O	2.20	0.42
5:e:274:VAL:HG23	5:e:279:GLU:OE2	2.19	0.42
5:e:314:ASN:HB2	5:e:379:VAL:H	1.84	0.42
5:e:324:ALA:O	5:e:369:LYS:HD2	2.20	0.42
5:e:409:TYR:CD1	5:g:409:TYR:HB2	2.55	0.42
5:f:34:TYR:CE1	5:f:43:PRO:HD3	2.54	0.42
5:g:398:VAL:HG22	5:g:402:LYS:HD3	2.00	0.42
6:h:57:ARG:HH22	6:i:75:GLU:HB3	1.85	0.42
6:h:366:ASP:O	6:j:379:ARG:NH1	2.53	0.42
12:A:206:TYR:CE2	12:A:323:LEU:HD12	2.55	0.42
12:A:209:ASN:OD1	12:A:209:ASN:N	2.53	0.42
1:D:301:LEU:HD12	1:D:301:LEU:HA	1.86	0.42
9:Y:765:GLU:O	9:Y:841:GLY:HA2	2.20	0.42
2:C:188:GLU:OE2	2:C:327:ARG:NH2	2.41	0.42
3:E:42:SER:O	3:E:44:ARG:HG2	2.20	0.42
5:I:134:TYR:CZ	5:I:138:GLY:HA2	2.55	0.42
5:I:156:LEU:HD21	5:J:250:GLY:O	2.19	0.42
5:I:451:ALA:HA	5:I:454:ASP:OD2	2.19	0.42
5:I:534:ASN:HB3	5:K:530:ILE:HD12	2.01	0.42
5:J:38:GLY:HA3	5:J:43:PRO:HA	2.01	0.42
5:K:50:LYS:O	5:K:66:ALA:N	2.31	0.42
5:K:95:VAL:HG12	5:K:95:VAL:O	2.20	0.42
5:K:330:VAL:HG22	5:K:342:CYS:HB3	2.01	0.42
6:L:42:TRP:CD1	6:M:49:LEU:HD21	2.54	0.42
6:L:105:ASP:O	6:L:109:VAL:HG13	2.19	0.42
6:L:381:LEU:HB2	6:M:369:GLY:HA3	2.02	0.42
6:L:438:LEU:HB3	6:M:405:ILE:HD11	2.00	0.42
6:M:153:ASP:OD2	6:M:156:THR:OG1	2.19	0.42
6:M:407:GLN:HA	6:N:429:GLN:HA	2.02	0.42
6:N:127:PHE:O	6:N:139:SER:OG	2.19	0.42
7:O:115:ASP:OD1	7:O:116:GLU:N	2.52	0.42
8:P:475:GLN:NE2	10:T:259:LEU:HD22	2.34	0.42
8:Q:360:LYS:NZ	8:Q:381:ASP:OD2	2.32	0.42
9:R:260:ASP:HB3	9:R:280:LEU:HD12	2.01	0.42
10:S:42:ARG:HG2	10:S:73:HIS:CB	2.49	0.42
11:V:160:ILE:HA	11:V:160:ILE:HD13	1.80	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:Z:39:SER:HB2	10:Z:74:MET:SD	2.60	0.42
4:c:130:CYS:HB3	4:c:152:ARG:HH21	1.84	0.42
4:d:39:ILE:HD13	4:d:63:LEU:HG	2.01	0.42
5:f:97:SER:HB3	5:f:127:PHE:CZ	2.54	0.42
5:g:166:ALA:HB1	5:g:236:CYS:HB3	2.01	0.42
5:g:183:TYR:CE1	5:g:225:LEU:HB3	2.52	0.42
5:g:194:GLY:N	5:g:241:THR:OG1	2.53	0.42
6:h:30:VAL:N	6:h:34:GLN:OE1	2.36	0.42
6:h:113:ASN:CG	6:h:116:VAL:HG22	2.45	0.42
6:h:448:GLU:HG3	6:h:450:ARG:HB3	2.02	0.42
6:i:71:GLY:HA3	6:j:84:ALA:HB3	2.02	0.42
6:i:193:VAL:CG2	6:i:208:THR:HG21	2.50	0.42
6:i:255:PHE:HD1	6:j:258:VAL:HA	1.84	0.42
6:i:441:ALA:HB1	6:j:400:HIS:CB	2.50	0.42
9:Y:757:GLU:CD	9:Y:864:ARG:HE	2.27	0.42
1:B:119:ASN:N	1:B:120:PRO:CD	2.83	0.42
2:C:457:ILE:HG22	2:C:458:LYS:O	2.19	0.42
5:I:484:TYR:CD1	5:I:602:ILE:HD11	2.55	0.42
5:I:489:PHE:CB	5:K:489:PHE:HE2	2.33	0.42
5:J:250:GLY:N	5:K:157:ALA:O	2.53	0.42
5:J:318:LEU:HD13	5:J:372:GLN:NE2	2.35	0.42
5:J:555:ILE:HD12	5:K:555:ILE:HG12	2.02	0.42
5:K:329:PHE:HA	5:K:349:TRP:NE1	2.35	0.42
6:N:80:PRO:O	6:N:83:LEU:HB3	2.20	0.42
6:N:198:ILE:HB	6:N:202:PHE:CE2	2.55	0.42
8:P:374:THR:HB	8:Q:335:THR:HG21	2.02	0.42
8:P:553:GLU:O	8:P:557:ASP:N	2.51	0.42
9:R:140:VAL:HG13	9:R:543:VAL:HG13	2.02	0.42
9:R:445:SER:HB3	9:R:511:ALA:HB3	2.02	0.42
9:R:893:LEU:HD22	10:T:311:ARG:NH2	2.35	0.42
8:W:99:ILE:HG23	8:W:103:THR:HG21	2.01	0.42
8:X:423:VAL:CG1	8:X:597:ILE:HB	2.49	0.42
8:X:476:VAL:HG13	8:X:582:ALA:HB1	2.01	0.42
4:b:114:TYR:HA	4:d:48:ARG:HG3	2.01	0.42
5:e:547:LYS:HA	5:g:572:TYR:CD2	2.54	0.42
5:f:311:LEU:HB3	5:f:356:TYR:OH	2.20	0.42
5:g:18:TYR:HB2	9:Y:921:GLY:HA2	2.01	0.42
6:h:327:ASP:OD1	6:h:333:ILE:HG13	2.19	0.42
6:h:425:GLU:HB2	6:j:407:GLN:HE22	1.85	0.42
6:i:32:VAL:HG22	6:j:36:LEU:HD11	2.01	0.42
6:i:103:ALA:HB3	6:i:118:LEU:HD23	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:i:319:MET:HG2	6:i:460:ILE:HB	2.02	0.42
6:j:148:ALA:HB1	6:j:158:MET:HE1	2.02	0.42
11:l:116:GLU:HG3	11:l:124:TRP:CZ3	2.55	0.42
1:D:62:ASN:ND2	1:D:128:ARG:HG3	2.35	0.42
1:B:201:PHE:CE2	1:B:341:ILE:HD12	2.55	0.42
4:H:141:VAL:HG22	4:H:148:ASP:HA	2.01	0.42
5:I:18:TYR:HB3	9:R:991:SER:CB	2.50	0.42
5:I:190:VAL:HG13	5:I:244:PHE:CE2	2.55	0.42
5:I:308:SER:OG	5:I:384:TRP:HA	2.19	0.42
5:J:572:TYR:CD2	5:K:547:LYS:HA	2.55	0.42
5:K:481:TRP:CZ3	5:K:603:ARG:HB2	2.55	0.42
6:L:137:TRP:HA	6:M:140:SER:O	2.20	0.42
6:L:342:TYR:CE2	6:L:360:ASN:HB3	2.54	0.42
6:M:97:TRP:HE3	6:N:99:TYR:O	2.03	0.42
6:M:337:ARG:O	6:M:364:LEU:HG	2.20	0.42
6:M:355:TYR:CE2	6:M:365:PRO:HG3	2.55	0.42
6:M:431:LEU:HD23	6:M:431:LEU:HA	1.81	0.42
8:Q:497:ASP:CG	8:Q:498:VAL:N	2.78	0.42
9:R:40:THR:HA	9:R:53:LEU:HD22	2.02	0.42
4:c:197:TRP:CE3	4:c:218:ARG:HB2	2.54	0.42
4:d:68:GLN:OE1	4:d:218:ARG:NH2	2.50	0.42
4:d:118:PHE:HB3	4:d:120:PHE:HE2	1.85	0.42
5:e:271:THR:CG2	5:e:272:GLU:HG2	2.46	0.42
5:e:313:LEU:HD12	5:e:318:LEU:HD12	2.00	0.42
5:e:452:PHE:HA	5:e:455:VAL:HG22	2.02	0.42
5:e:467:HIS:HB2	5:f:435:MET:HE2	2.01	0.42
5:f:506:ASN:H	5:f:521:GLY:HA2	1.84	0.42
5:g:161:LYS:CE	5:g:163:THR:HG22	2.49	0.42
6:h:90:PRO:HB2	6:h:99:TYR:CE2	2.55	0.42
6:h:417:CYS:SG	6:i:429:GLN:HG3	2.59	0.42
6:i:163:VAL:HG13	6:j:163:VAL:HG13	2.01	0.42
12:A:340:VAL:HG12	12:A:341:SER:N	2.34	0.42
9:Y:268:VAL:HG11	9:Y:275:ILE:HD12	2.01	0.42
9:Y:758:ILE:HG22	9:Y:759:GLU:N	2.35	0.42
9:Y:990:ASP:O	9:Y:991:SER:C	2.63	0.42
1:B:39:THR:HA	1:B:123:GLN:O	2.20	0.41
1:B:226:THR:HG22	1:D:353:GLN:CD	2.44	0.41
4:H:203:VAL:HG13	4:U:207:VAL:HG23	2.02	0.41
5:I:94:ASP:HB3	5:I:128:MET:H	1.85	0.41
5:I:152:THR:HB	5:K:153:THR:C	2.45	0.41
5:I:222:LEU:HD11	5:I:233:LYS:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:I:573:ARG:HB3	5:J:548:ASP:HB2	2.01	0.41
5:K:67:LEU:HD13	5:K:104:VAL:HG11	2.01	0.41
5:K:169:GLY:N	5:K:236:CYS:O	2.53	0.41
5:K:496:ASP:OD2	5:K:499:ASP:N	2.50	0.41
6:L:203:ALA:HA	6:M:204:ILE:O	2.20	0.41
6:L:321:MET:HB2	6:N:319:MET:CB	2.48	0.41
6:L:396:GLN:HB3	6:M:393:HIS:CE1	2.55	0.41
6:M:140:SER:HB2	6:N:140:SER:CB	2.50	0.41
6:M:255:PHE:HB3	6:N:257:LEU:CB	2.49	0.41
6:M:319:MET:HE2	6:M:319:MET:HB3	1.92	0.41
6:M:401:PRO:HA	6:N:440:LYS:HG3	2.02	0.41
10:S:105:PHE:HB3	10:S:132:VAL:HG21	2.02	0.41
11:V:95:VAL:HG12	11:V:99:GLN:OE1	2.20	0.41
8:X:84:ILE:O	8:X:137:LEU:N	2.51	0.41
10:Z:155:ILE:HG22	10:Z:155:ILE:O	2.20	0.41
10:Z:230:ASP:HA	10:a:285:GLU:OE2	2.20	0.41
4:c:110:THR:O	4:c:111:ILE:HD13	2.20	0.41
4:d:110:THR:N	5:g:272:GLU:HG2	2.35	0.41
5:e:35:GLU:HA	5:e:40:GLY:HA2	2.02	0.41
5:e:61:PHE:HE1	5:e:140:TRP:CH2	2.33	0.41
5:e:314:ASN:H	5:e:379:VAL:HB	1.85	0.41
5:e:476:MET:HE1	5:e:481:TRP:CZ2	2.54	0.41
5:g:548:ASP:OD2	5:g:550:ASN:HB3	2.20	0.41
6:h:147:GLN:O	6:i:160:PRO:HB3	2.20	0.41
1:D:119:ASN:N	1:D:120:PRO:CD	2.83	0.41
9:Y:405:TYR:CE2	9:Y:416:ARG:HB2	2.55	0.41
9:Y:942:ASP:OD1	9:Y:944:VAL:N	2.46	0.41
2:C:419:TYR:OH	2:C:421:ARG:NH1	2.39	0.41
2:C:551:ASP:C	2:C:552:ILE:HG13	2.45	0.41
3:E:55:ILE:O	3:E:55:ILE:HG22	2.21	0.41
4:G:77:MET:HG3	4:H:77:MET:CE	2.45	0.41
5:I:261:HIS:HE1	5:I:296:PHE:HB3	1.79	0.41
5:J:289:LYS:HD3	5:J:370:PHE:O	2.20	0.41
5:K:38:GLY:HA2	5:K:44:HIS:CG	2.54	0.41
5:K:160:ALA:HB1	5:K:177:PHE:CZ	2.55	0.41
5:K:306:PRO:HG3	5:K:363:SER:OG	2.20	0.41
5:K:334:ALA:HB1	5:K:345:ASN:CB	2.50	0.41
6:L:101:LYS:HB2	6:N:97:TRP:CD2	2.54	0.41
6:L:130:ARG:NE	6:L:137:TRP:O	2.38	0.41
6:M:236:ASP:HB2	6:N:243:LEU:HD23	2.02	0.41
8:Q:84:ILE:HG13	8:Q:85:LEU:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:Q:204:HIS:NE2	7:k:129:SER:HB2	2.35	0.41
8:Q:254:ALA:H	8:Q:283:GLY:HA3	1.84	0.41
8:Q:378:SER:CA	9:R:849:ILE:HD11	2.50	0.41
8:Q:617:GLN:OE1	8:W:592:ARG:NH1	2.53	0.41
9:R:136:PHE:O	9:R:554:ARG:NH2	2.30	0.41
10:S:105:PHE:CE2	10:S:184:TRP:HH2	2.39	0.41
10:S:151:GLU:OE1	10:S:154:ARG:NH1	2.40	0.41
8:W:331:VAL:HG23	8:W:347:VAL:HG22	2.02	0.41
8:X:505:MET:HA	8:X:512:ALA:HB2	2.03	0.41
10:Z:9:ALA:HB1	10:a:307:TYR:HE1	1.84	0.41
10:Z:59:TYR:HE1	9:Y:1027:LYS:HB2	1.85	0.41
10:Z:93:ASP:HA	10:Z:112:VAL:HB	2.01	0.41
10:Z:142:SER:HG	10:Z:158:ILE:H	1.60	0.41
5:f:214:SER:OG	5:f:223:ILE:HG13	2.20	0.41
5:f:527:GLY:HA3	5:f:588:LYS:HB3	2.01	0.41
6:h:12:ALA:HB3	6:h:15:TYR:CD2	2.55	0.41
6:h:60:ALA:HA	6:j:57:ARG:HG2	2.01	0.41
6:h:127:PHE:CE2	6:j:130:ARG:HD3	2.55	0.41
6:i:188:ALA:HB3	6:i:203:ALA:O	2.20	0.41
6:i:219:LEU:CD2	6:j:223:ARG:HG3	2.50	0.41
4:G:31:PRO:HA	4:G:38:THR:HA	2.02	0.41
5:I:199:ILE:HB	5:I:212:TYR:CZ	2.55	0.41
5:I:215:PRO:HD3	5:I:230:ILE:CA	2.51	0.41
5:I:430:PRO:HG3	5:I:604:VAL:CG1	2.50	0.41
5:I:576:VAL:HA	5:J:542:ASP:O	2.20	0.41
5:J:133:VAL:O	5:J:141:GLU:N	2.40	0.41
5:J:464:GLU:HG3	5:J:599:HIS:O	2.20	0.41
5:J:526:ARG:HH22	5:K:494:THR:HG21	1.84	0.41
5:K:481:TRP:CE2	5:K:603:ARG:HG3	2.54	0.41
6:L:104:THR:O	6:L:108:ALA:N	2.45	0.41
6:L:456:ILE:O	6:N:375:PHE:N	2.40	0.41
6:M:413:PRO:HG2	6:M:416:GLN:HG3	2.02	0.41
6:N:86:ARG:HD2	6:N:86:ARG:HA	1.84	0.41
8:Q:19:ASP:OD2	8:Q:25:SER:OG	2.37	0.41
8:Q:419:TYR:O	8:Q:424:GLU:HG3	2.21	0.41
9:R:36:GLU:OE1	9:R:80:ARG:NE	2.44	0.41
10:S:207:PRO:HB3	10:S:219:TRP:CZ2	2.55	0.41
8:X:337:SER:O	8:X:340:PRO:HD3	2.20	0.41
10:Z:91:ARG:CZ	10:Z:127:TRP:HH2	2.33	0.41
5:e:412:ASN:CG	5:f:410:LEU:HB2	2.45	0.41
5:e:493:TRP:CD1	5:e:519:ALA:HA	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:91:ARG:NH2	5:f:131:GLU:OE2	2.54	0.41
5:f:115:LYS:HG3	5:f:142:TYR:CE1	2.55	0.41
5:f:176:VAL:HG21	5:f:230:ILE:HB	2.02	0.41
5:g:504:LEU:HD23	5:g:517:HIS:HA	2.02	0.41
6:i:26:PRO:HD2	6:i:29:PHE:CE2	2.55	0.41
6:i:441:ALA:HA	6:j:402:LEU:HD23	2.02	0.41
6:j:412:LEU:HB3	6:j:417:CYS:SG	2.61	0.41
12:A:74:ASN:O	12:A:76:THR:N	2.53	0.41
1:D:41:GLU:OE1	1:D:46:ARG:N	2.54	0.41
3:E:206:GLN:HE21	3:E:219:THR:HG21	1.85	0.41
5:I:61:PHE:HE1	5:I:140:TRP:HZ2	1.67	0.41
5:I:198:TYR:CE1	5:J:163:THR:HB	2.55	0.41
5:I:200:ASP:OD2	5:I:209:ASN:HB2	2.19	0.41
5:I:426:ASP:OD2	5:I:429:ASN:HB2	2.20	0.41
5:I:480:ILE:H	5:I:605:ALA:HB3	1.84	0.41
5:K:192:TYR:O	5:K:195:ASN:HB2	2.19	0.41
5:K:289:LYS:HB3	5:K:370:PHE:HB2	2.02	0.41
5:K:423:GLU:N	5:K:436:ARG:O	2.54	0.41
6:L:258:VAL:HG22	6:N:258:VAL:HG21	2.01	0.41
6:L:303:LYS:HG2	6:L:304:TYR:O	2.20	0.41
6:L:429:GLN:O	6:N:411:ASN:N	2.52	0.41
6:M:190:VAL:CG2	6:M:208:THR:HG23	2.50	0.41
6:M:315:PRO:HD2	6:N:331:LEU:HD12	2.02	0.41
6:M:373:ARG:O	6:N:456:ILE:N	2.46	0.41
6:M:393:HIS:CD2	6:M:448:GLU:HB2	2.55	0.41
6:N:244:LYS:HA	6:N:244:LYS:HD3	1.91	0.41
8:P:132:ASN:O	8:P:134:VAL:HG23	2.20	0.41
8:P:335:THR:HB	9:R:884:GLY:H	1.84	0.41
9:R:213:ASP:OD2	9:R:217:THR:N	2.53	0.41
9:R:238:TYR:CD2	9:R:311:ALA:HA	2.55	0.41
8:X:402:GLU:CG	8:X:406:TRP:HB2	2.50	0.41
8:X:598:VAL:HG12	8:X:600:GLU:HG3	2.02	0.41
10:Z:167:GLU:CD	10:Z:168:PRO:HD2	2.45	0.41
10:a:16:ARG:HB3	10:a:330:PHE:O	2.19	0.41
10:a:92:LYS:HE2	10:a:105:PHE:HE1	1.86	0.41
10:a:115:SER:HA	10:a:127:TRP:CD1	2.56	0.41
4:b:57:GLN:HA	4:b:60:ILE:HD12	2.02	0.41
5:e:265:VAL:O	5:e:377:ARG:N	2.53	0.41
5:e:293:THR:O	5:e:297:GLY:N	2.41	0.41
5:e:489:PHE:HB2	5:g:489:PHE:HE2	1.85	0.41
5:e:575:ASP:HA	5:f:543:LYS:HE2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:g:16:GLY:HA3	9:Y:989:PHE:HB2	2.02	0.41
5:g:61:PHE:CB	5:g:88:LYS:HD3	2.49	0.41
5:g:132:LEU:HB3	5:g:140:TRP:CE3	2.54	0.41
5:g:412:ASN:ND2	5:g:445:ARG:HD3	2.36	0.41
6:i:93:SER:O	6:j:102:TYR:N	2.32	0.41
6:j:230:VAL:CB	6:j:244:LYS:HB3	2.50	0.41
11:l:98:GLU:N	11:l:146:ILE:HD12	2.35	0.41
1:D:139:ARG:NE	1:D:189:GLY:O	2.47	0.41
9:Y:416:ARG:CZ	9:Y:419:GLY:O	2.68	0.41
4:G:174:ASN:HA	4:G:182:MET:O	2.21	0.41
5:J:422:ILE:O	5:J:459:ILE:HD12	2.20	0.41
5:K:19:LEU:HD11	9:R:987:PRO:CG	2.49	0.41
5:K:105:ARG:HA	5:K:122:GLU:HG2	2.02	0.41
6:L:256:GLY:CA	6:M:257:LEU:HD22	2.47	0.41
6:L:393:HIS:HB2	6:M:450:ARG:O	2.20	0.41
6:M:26:PRO:HD3	6:N:44:ARG:NH2	2.36	0.41
6:M:366:ASP:CG	6:M:368:ARG:HE	2.24	0.41
8:Q:84:ILE:HG13	8:Q:85:LEU:H	1.85	0.41
8:X:79:ALA:HB2	8:X:246:THR:HG21	2.03	0.41
8:X:128:ASP:OD1	8:X:128:ASP:N	2.51	0.41
10:Z:59:TYR:CE1	9:Y:1027:LYS:HB2	2.56	0.41
4:b:149:LEU:O	4:b:162:VAL:HA	2.21	0.41
4:c:208:THR:HA	4:c:209:PRO:HA	1.88	0.41
5:f:205:PHE:CZ	5:f:222:LEU:HB3	2.55	0.41
5:f:596:ILE:O	5:g:490:ILE:HA	2.21	0.41
5:g:190:VAL:O	5:g:196:LEU:HD12	2.20	0.41
5:g:220:GLY:HA2	5:g:231:ARG:HD3	2.02	0.41
6:h:127:PHE:HD1	6:h:139:SER:CB	2.33	0.41
6:i:28:THR:O	6:i:34:GLN:NE2	2.54	0.41
12:A:248:ASP:O	12:A:249:LYS:C	2.64	0.41
1:D:41:GLU:CD	1:D:45:GLN:HA	2.45	0.41
9:Y:195:ASN:HD21	9:Y:518:ARG:HH22	1.66	0.41
9:Y:449:TYR:OH	9:Y:476:ARG:O	2.35	0.41
9:Y:692:TYR:OH	9:Y:694:ARG:HD3	2.20	0.41
2:C:296:PHE:HB3	2:C:299:ALA:HB3	2.03	0.41
4:G:69:GLN:HB2	4:U:69:GLN:OE1	2.20	0.41
5:I:41:GLU:OE2	5:K:2:LYS:HB3	2.20	0.41
5:I:321:ALA:N	5:I:358:LEU:HD13	2.27	0.41
5:I:462:ILE:HA	5:I:601:TRP:O	2.20	0.41
5:J:34:TYR:HB3	5:J:40:GLY:C	2.45	0.41
5:K:248:MET:O	5:K:249:ASP:C	2.63	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:K:469:ASP:HB3	5:K:599:HIS:CE1	2.55	0.41
6:M:294:TYR:CG	6:M:298:VAL:HA	2.56	0.41
6:N:107:GLU:HB3	6:N:113:ASN:ND2	2.36	0.41
8:Q:249:GLU:HG2	8:Q:287:GLY:O	2.21	0.41
9:R:481:ALA:HB3	9:R:486:ASN:C	2.46	0.41
9:R:934:ASP:OD1	9:R:937:GLY:N	2.54	0.41
9:R:940:THR:OG1	9:R:949:LEU:HB2	2.21	0.41
10:S:154:ARG:C	10:S:156:GLY:H	2.28	0.41
11:V:38:THR:HA	11:V:160:ILE:O	2.20	0.41
11:V:117:ASP:CG	11:V:120:ASN:H	2.29	0.41
8:W:299:LEU:HA	8:W:299:LEU:HD23	1.88	0.41
8:X:97:ILE:N	8:X:125:ILE:O	2.50	0.41
8:X:342:TYR:HE1	9:Y:852:PHE:CZ	2.38	0.41
5:e:463:TYR:HE1	5:f:461:THR:HG23	1.85	0.41
5:e:539:GLU:C	5:f:579:VAL:HG13	2.45	0.41
5:f:266:TYR:HD1	5:f:280:ILE:HG23	1.85	0.41
5:f:530:ILE:HD11	5:f:589:LEU:HD11	2.02	0.41
6:h:393:HIS:HB2	6:h:449:THR:HB	2.00	0.41
6:i:64:THR:O	6:i:68:ILE:HG12	2.20	0.41
6:j:281:PRO:HG3	6:j:284:ARG:NE	2.35	0.41
6:j:424:ALA:HB1	6:j:429:GLN:CD	2.46	0.41
12:A:110:PHE:CD1	12:A:110:PHE:N	2.86	0.41
9:Y:326:ARG:NH2	9:Y:350:ASP:O	2.52	0.41
9:Y:443:TYR:CE1	9:Y:510:GLU:HG3	2.55	0.41
4:G:151:THR:O	4:G:160:LEU:HD12	2.21	0.41
4:H:71:PRO:HD2	4:U:76:ILE:HD11	2.02	0.41
5:I:214:SER:OG	5:I:223:ILE:HG13	2.20	0.41
5:I:268:THR:HA	5:I:283:GLY:HA2	2.03	0.41
5:K:145:ASN:ND2	5:K:153:THR:HA	2.35	0.41
5:K:356:TYR:CD1	5:K:368:ILE:HD13	2.55	0.41
6:L:114:ASP:HB3	6:M:121:ARG:CB	2.50	0.41
6:N:382:ASP:CG	6:N:391:GLN:HE22	2.27	0.41
8:P:361:GLU:CD	8:P:361:GLU:C	2.89	0.41
9:R:467:LEU:HD23	9:R:467:LEU:HA	1.88	0.41
8:W:117:PHE:HA	8:W:141:GLN:HA	2.03	0.41
8:X:62:SER:O	8:X:65:GLN:HB3	2.21	0.41
8:X:473:LEU:N	8:X:557:ASP:OD2	2.50	0.41
10:Z:115:SER:O	10:Z:120:ARG:NH2	2.54	0.41
10:Z:254:PHE:CE1	10:Z:292:PHE:HD2	2.38	0.41
10:a:103:LYS:HD2	10:a:164:GLU:OE1	2.21	0.41
5:e:423:GLU:HG3	5:e:438:ILE:HG12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:128:MET:HG3	5:f:147:GLN:HG2	2.01	0.41
5:f:215:PRO:HA	5:f:231:ARG:HB2	2.03	0.41
5:f:293:THR:HG23	5:f:366:THR:C	2.45	0.41
5:f:424:TYR:HB3	5:f:426:ASP:O	2.20	0.41
5:f:493:TRP:CZ2	5:f:517:HIS:CE1	3.09	0.41
5:g:145:ASN:CB	5:g:153:THR:HA	2.47	0.41
5:g:176:VAL:HG21	5:g:230:ILE:CB	2.50	0.41
5:g:190:VAL:HG22	5:g:244:PHE:CD2	2.56	0.41
5:g:193:ARG:HH11	6:j:10:SER:N	2.18	0.41
6:h:134:GLU:OE1	6:i:144:THR:HG22	2.21	0.41
6:h:325:ASN:HB2	6:j:387:PHE:CE1	2.56	0.41
6:i:393:HIS:HD2	6:j:452:LYS:HE3	1.86	0.41
11:l:168:ILE:H	11:l:168:ILE:HG13	1.68	0.41
9:Y:40:THR:OG1	9:Y:76:PHE:HB3	2.20	0.41
9:Y:1009:ASP:OD1	9:Y:1022:GLN:HG3	2.21	0.41
3:E:1:MET:SD	3:F:125:TYR:CZ	3.14	0.41
4:G:20:ASP:OD1	4:G:57:GLN:HG2	2.19	0.41
4:G:69:GLN:O	4:H:194:TYR:HE1	2.03	0.41
4:G:83:PRO:HB3	4:G:197:TRP:CD2	2.56	0.41
4:G:166:ASP:HB3	4:U:37:ARG:NH2	2.35	0.41
4:G:203:VAL:HG21	4:H:207:VAL:HA	2.02	0.41
5:I:67:LEU:HD21	5:I:92:LEU:HD22	2.02	0.41
5:I:82:GLY:O	5:I:134:TYR:HE2	2.04	0.41
5:I:157:ALA:HB3	5:J:251:ILE:CD1	2.47	0.41
5:I:263:MET:HG2	5:I:278:GLY:HA2	2.02	0.41
5:J:59:PRO:HB3	5:J:65:TRP:HE1	1.86	0.41
5:J:259:GLU:HG2	5:J:261:HIS:CE1	2.56	0.41
6:L:161:LEU:HA	6:N:151:GLY:O	2.20	0.41
6:L:331:LEU:HB3	6:L:459:VAL:CB	2.49	0.41
8:Q:489:THR:HA	8:Q:572:ARG:O	2.20	0.41
9:R:189:THR:O	9:R:234:ARG:NE	2.52	0.41
10:S:243:MET:HE3	10:S:245:PHE:CZ	2.56	0.41
4:U:21:PHE:O	4:U:53:TYR:OH	2.25	0.41
4:U:111:ILE:O	4:U:117:PRO:HA	2.21	0.41
5:e:66:ALA:HB2	5:g:87:ASN:ND2	2.36	0.41
5:e:168:GLN:HA	5:e:236:CYS:O	2.21	0.41
5:e:277:PRO:HA	5:e:295:GLU:O	2.20	0.41
5:e:329:PHE:HA	5:e:350:VAL:O	2.21	0.41
5:e:489:PHE:CD2	5:f:489:PHE:HB3	2.56	0.41
5:e:576:VAL:HB	5:f:540:SER:O	2.19	0.41
5:f:26:THR:HG23	5:g:30:PHE:CE2	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:f:32:GLU:O	5:f:36:LYS:N	2.43	0.41
5:f:284:ASN:CG	5:f:287:THR:HG23	2.45	0.41
5:f:309:PHE:HA	5:f:384:TRP:CB	2.48	0.41
5:f:310:GLU:HB2	5:f:383:ARG:O	2.21	0.41
5:f:331:CYS:HB2	5:f:336:GLY:N	2.36	0.41
5:g:545:LEU:HD23	5:g:545:LEU:HA	1.80	0.41
6:h:432:TYR:OH	6:i:418:VAL:HB	2.20	0.41
6:i:31:ASN:ND2	6:i:34:GLN:HB2	2.36	0.41
6:i:128:ASN:HA	6:i:131:HIS:NE2	2.36	0.41
6:i:255:PHE:CD1	6:j:259:LYS:HG3	2.55	0.41
6:i:372:ALA:HB2	6:i:458:TYR:CE1	2.55	0.41
1:D:332:SER:O	1:D:334:ASN:N	2.54	0.41
9:Y:1:MET:HB2	9:Y:89:GLU:HG3	2.03	0.41
1:B:218:LEU:HD23	1:B:218:LEU:HA	1.83	0.41
2:C:64:SER:OG	2:C:71:GLY:HA3	2.21	0.41
3:F:31:PRO:HB3	3:F:201:VAL:HA	2.03	0.41
5:I:196:LEU:HB3	5:J:194:GLY:HA2	2.03	0.41
5:I:202:LYS:HE3	5:J:162:GLU:HA	2.01	0.41
5:I:544:VAL:HG11	5:J:577:LEU:HD22	2.02	0.41
5:J:99:TRP:N	5:J:126:ASP:OD1	2.54	0.41
5:J:311:LEU:HA	5:J:382:ILE:HG12	2.02	0.41
5:J:471:ASN:OD1	5:J:481:TRP:HB2	2.21	0.41
5:J:544:VAL:HG11	5:K:577:LEU:HD21	2.02	0.41
5:J:572:TYR:N	5:K:553:ILE:O	2.52	0.41
5:K:82:GLY:N	5:K:85:ASP:OD2	2.54	0.41
5:K:472:PRO:HA	5:K:475:TYR:CE2	2.56	0.41
6:L:236:ASP:O	6:M:224:LEU:HD13	2.21	0.41
6:L:265:ASN:HB3	6:L:268:LEU:HG	2.02	0.41
6:L:315:PRO:HB3	6:M:328:TYR:CE1	2.56	0.41
6:L:335:ASN:HB2	6:L:368:ARG:HD3	2.03	0.41
6:L:400:HIS:HB2	6:M:441:ALA:CB	2.39	0.41
6:L:400:HIS:HB2	6:N:441:ALA:HB1	2.03	0.41
6:M:149:THR:HG22	6:M:165:GLN:HB3	2.03	0.41
6:M:179:GLU:OE1	6:M:199:ARG:NH2	2.54	0.41
6:M:182:PHE:HB3	6:N:184:LEU:CB	2.50	0.41
6:M:342:TYR:CE1	6:M:343:GLU:HG3	2.55	0.41
6:M:399:GLU:OE1	6:N:440:LYS:HD3	2.21	0.41
6:N:322:ALA:HB1	6:N:324:PHE:CZ	2.55	0.41
8:P:70:PHE:O	8:Q:304:ARG:NH2	2.53	0.41
8:P:430:PHE:CD1	8:P:430:PHE:C	2.99	0.41
9:R:460:LEU:HD23	9:R:470:ALA:CB	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:R:869:ALA:HA	9:R:872:TYR:CE2	2.56	0.41
9:R:902:SER:HB2	10:S:330:PHE:OXT	2.21	0.41
9:R:1015:ARG:HD3	10:S:201:ASN:O	2.21	0.41
10:S:70:MET:SD	10:S:269:SER:OG	2.64	0.41
10:S:172:GLU:HG2	10:S:186:TYR:CE1	2.56	0.41
10:T:226:LYS:HB2	10:T:226:LYS:HE2	1.85	0.41
8:W:277:ASN:HB2	8:W:281:TYR:CB	2.51	0.41
8:W:330:ALA:HA	8:W:424:GLU:OE1	2.21	0.41
8:W:424:GLU:CD	8:W:424:GLU:C	2.89	0.41
8:X:137:LEU:HD12	8:X:137:LEU:HA	1.84	0.41
10:Z:46:TRP:CD1	10:Z:50:GLU:HG3	2.56	0.41
10:Z:46:TRP:CE2	10:Z:57:PRO:HB3	2.55	0.41
10:Z:91:ARG:NH1	10:Z:201:ASN:HA	2.35	0.41
10:a:134:ASP:OD1	10:a:135:VAL:N	2.49	0.41
4:b:92:THR:OG1	4:b:187:ASP:OD2	2.30	0.41
4:b:126:ALA:HA	4:b:129:VAL:HB	2.03	0.41
4:b:134:TYR:CE1	4:b:150:VAL:HG12	2.56	0.41
4:b:200:LEU:HA	4:b:200:LEU:HD23	1.82	0.41
4:c:207:VAL:CG1	4:c:208:THR:N	2.83	0.41
4:d:62:ASP:O	4:d:65:THR:OG1	2.31	0.41
5:e:69:THR:O	5:e:102:ASN:HB2	2.20	0.41
5:e:99:TRP:CZ3	5:e:128:MET:HB3	2.56	0.41
5:e:124:TYR:CE2	5:g:301:ARG:HG3	2.56	0.41
5:e:262:THR:HA	5:e:380:VAL:O	2.20	0.41
5:e:290:GLU:OE2	5:e:369:LYS:NZ	2.36	0.41
5:e:445:ARG:HH12	5:f:409:TYR:C	2.29	0.41
5:e:520:GLY:N	5:g:597:THR:OG1	2.54	0.41
5:e:546:ILE:HG21	5:g:573:ARG:CZ	2.51	0.41
5:f:68:ASN:HB2	5:f:96:TRP:CZ2	2.56	0.41
5:f:86:TYR:HA	5:f:134:TYR:O	2.20	0.41
5:f:309:PHE:HD1	5:f:384:TRP:HB3	1.86	0.41
5:f:469:ASP:HA	5:f:599:HIS:CG	2.56	0.41
5:g:73:ARG:HH12	5:g:122:GLU:CD	2.27	0.41
5:g:129:ASP:HB2	5:g:148:VAL:HA	2.03	0.41
5:g:173:PHE:HE2	5:g:232:LEU:HD11	1.86	0.41
6:h:63:ALA:O	6:h:82:LEU:HD11	2.21	0.41
6:h:353:TYR:CE1	6:h:358:SER:HA	2.56	0.41
6:h:400:HIS:CB	6:j:441:ALA:HB1	2.50	0.41
6:h:405:ILE:HG12	6:i:431:LEU:HD23	2.03	0.41
6:h:432:TYR:CB	6:j:406:TYR:HB2	2.45	0.41
6:i:13:SER:HA	6:i:16:VAL:CG2	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:i:259:LYS:C	6:i:271:THR:HG23	2.46	0.41
6:j:94:GLN:NE2	6:j:114:ASP:OD2	2.54	0.41
6:j:106:ALA:O	6:j:109:VAL:HG22	2.21	0.41
6:j:187:LEU:HD13	6:j:205:SER:HB3	2.03	0.41
1:D:348:LEU:HD23	1:D:348:LEU:HA	1.87	0.41
9:Y:123:ASN:HA	9:Y:127:ALA:HB3	2.02	0.41
9:Y:315:ASP:O	9:Y:329:ALA:HA	2.20	0.41
9:Y:657:LEU:HA	9:Y:657:LEU:HD23	1.83	0.41
9:Y:709:ARG:NH1	9:Y:875:ASP:OD1	2.54	0.41
4:G:42:ALA:HB2	4:G:53:TYR:O	2.21	0.41
5:K:14:GLY:HA3	9:R:926:TRP:CH2	2.56	0.41
5:K:313:LEU:HD12	5:K:379:VAL:O	2.21	0.41
8:P:510:GLY:O	8:P:553:GLU:HA	2.21	0.41
8:Q:602:ASP:O	8:Q:605:PRO:HD3	2.21	0.41
10:S:52:ASP:HB2	10:S:55:PHE:CE2	2.57	0.41
10:S:126:GLY:HA3	10:S:190:ILE:O	2.21	0.41
4:U:118:PHE:CZ	4:U:133:VAL:HG22	2.56	0.41
8:X:297:ARG:HG2	8:X:297:ARG:HH11	1.86	0.41
10:Z:134:ASP:OD1	10:Z:135:VAL:N	2.53	0.41
4:b:46:GLN:HG2	4:b:55:ASN:ND2	2.36	0.41
5:e:466:ALA:HB1	5:f:484:TYR:CZ	2.56	0.41
5:g:334:ALA:HB1	5:g:345:ASN:HB2	2.02	0.41
5:g:424:TYR:HB2	5:g:427:TYR:CE1	2.56	0.41
6:h:127:PHE:HD1	6:h:139:SER:HB3	1.85	0.41
6:h:207:TYR:HA	6:j:196:GLY:O	2.21	0.41
6:h:355:TYR:O	6:h:363:ASN:HB2	2.21	0.41
6:h:413:PRO:HG2	6:h:416:GLN:HG3	2.02	0.41
6:i:138:GLY:N	6:j:139:SER:HB2	2.36	0.41
6:j:107:GLU:HB3	6:j:113:ASN:ND2	2.35	0.41
6:j:223:ARG:HB2	6:j:238:LYS:HE2	2.03	0.41
6:j:260:LEU:HA	6:j:272:ALA:O	2.21	0.41
6:j:348:PHE:HB2	6:j:362:PHE:CE1	2.56	0.41
11:l:26:TYR:HB2	11:l:175:TYR:CZ	2.56	0.41
9:Y:308:GLU:HG2	9:Y:390:PRO:CG	2.48	0.41
9:Y:316:TRP:HB2	9:Y:318:TYR:CZ	2.56	0.41
9:Y:942:ASP:HB3	9:Y:946:GLY:H	1.85	0.41
3:E:113:GLY:HA2	3:E:182:GLU:HG2	2.03	0.40
3:F:55:ILE:HG22	3:F:55:ILE:O	2.21	0.40
4:G:26:MET:HE3	4:G:38:THR:HG22	2.02	0.40
4:G:68:GLN:HB2	4:H:192:SER:HB3	2.02	0.40
5:I:431:SER:N	5:I:434:THR:OG1	2.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:J:61:PHE:HB3	5:J:88:LYS:HD2	2.03	0.40
5:J:162:GLU:HB3	5:J:164:TYR:CE1	2.56	0.40
6:L:145:THR:HG23	6:L:165:GLN:NE2	2.35	0.40
6:L:294:TYR:CG	6:L:298:VAL:HA	2.56	0.40
6:L:451:MET:CE	6:M:373:ARG:HD2	2.51	0.40
6:M:114:ASP:HB3	6:N:121:ARG:HB3	2.03	0.40
6:M:402:LEU:HB2	6:N:434:PRO:CG	2.51	0.40
8:P:465:ALA:N	8:P:561:PHE:O	2.40	0.40
10:S:34:ASN:HA	10:S:273:ASN:ND2	2.35	0.40
10:T:16:ARG:HA	10:T:19:ASN:OD1	2.21	0.40
8:X:34:LEU:O	8:X:38:THR:HG23	2.20	0.40
8:X:406:TRP:CD1	8:X:406:TRP:N	2.87	0.40
8:X:491:ALA:HB2	8:X:496:TYR:O	2.21	0.40
8:X:516:ILE:N	8:X:547:TYR:O	2.47	0.40
10:Z:92:LYS:O	10:Z:112:VAL:HG23	2.21	0.40
10:Z:209:PRO:HD3	10:Z:235:VAL:HG11	2.02	0.40
4:d:24:TYR:O	4:d:54:PRO:HB2	2.21	0.40
5:e:137:PRO:HG2	5:g:447:LEU:HD11	2.03	0.40
5:e:484:TYR:CE1	5:g:596:ILE:HD13	2.56	0.40
5:f:19:LEU:HD23	5:f:19:LEU:HA	1.86	0.40
5:f:53:SER:HB3	5:f:68:ASN:HB3	2.03	0.40
5:f:304:ILE:HG23	5:f:384:TRP:NE1	2.36	0.40
5:f:323:ASP:HA	5:f:358:LEU:O	2.20	0.40
5:g:67:LEU:HD12	5:g:99:TRP:CZ2	2.57	0.40
5:g:214:SER:OG	5:g:224:ASP:O	2.38	0.40
6:h:193:VAL:HG22	6:i:206:PRO:HG3	2.02	0.40
6:h:200:ASP:HA	6:i:187:LEU:HD13	2.03	0.40
6:i:41:PRO:HB3	6:i:44:ARG:NH1	2.36	0.40
6:i:314:LEU:HG	6:i:461:ARG:HH11	1.86	0.40
6:j:376:ASP:CG	6:j:382:ASP:H	2.28	0.40
2:C:341:GLU:OE2	2:C:380:ARG:NE	2.50	0.40
3:E:31:PRO:HG2	3:E:116:LEU:HD21	2.03	0.40
3:E:206:GLN:NE2	3:F:105:SER:HB2	2.29	0.40
3:E:217:HIS:NE2	3:F:172:SER:O	2.54	0.40
3:F:55:ILE:HD12	3:F:55:ILE:HG23	1.86	0.40
4:G:94:THR:HB	4:G:183:VAL:O	2.21	0.40
5:K:472:PRO:HA	5:K:475:TYR:CZ	2.56	0.40
5:K:537:GLN:C	5:K:538:ILE:HG13	2.47	0.40
6:L:255:PHE:CE2	6:M:259:LYS:HE3	2.56	0.40
6:M:271:THR:O	6:N:275:ALA:N	2.52	0.40
8:P:171:THR:HA	8:P:175:ALA:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:P:225:ALA:O	8:Q:302:ILE:HD13	2.22	0.40
8:Q:79:ALA:CA	8:Q:246:THR:HG21	2.50	0.40
9:R:198:LEU:O	9:R:210:VAL:HA	2.21	0.40
9:R:425:ARG:HA	9:R:428:ILE:CD1	2.52	0.40
10:T:91:ARG:HD3	10:T:201:ASN:O	2.21	0.40
10:T:227:TRP:H	9:Y:508:TYR:HE2	1.68	0.40
8:W:41:ILE:HD11	8:X:38:THR:HA	2.03	0.40
10:a:87:ALA:HB3	10:a:206:VAL:O	2.21	0.40
10:a:209:PRO:HB3	10:a:232:TYR:O	2.21	0.40
4:b:95:PHE:HZ	4:b:113:VAL:HG11	1.86	0.40
4:c:88:GLN:OE1	4:c:88:GLN:N	2.54	0.40
4:c:140:PHE:HD2	4:c:147:PHE:HD2	1.69	0.40
4:d:99:VAL:HG11	4:d:120:PHE:HB2	2.04	0.40
5:e:545:LEU:O	5:f:544:VAL:HB	2.21	0.40
5:f:18:TYR:N	5:f:18:TYR:CD1	2.87	0.40
5:f:100:ALA:HB3	5:f:126:ASP:CG	2.46	0.40
5:f:461:THR:O	5:f:602:ILE:HG13	2.21	0.40
5:g:342:CYS:O	5:g:346:SER:N	2.54	0.40
5:g:398:VAL:HA	5:g:402:LYS:HB2	2.03	0.40
6:h:102:TYR:CE1	6:j:117:SER:HB3	2.50	0.40
6:h:141:LYS:HB2	6:j:137:TRP:CD2	2.57	0.40
6:h:236:ASP:HA	6:i:241:THR:OG1	2.21	0.40
6:h:263:GLU:OE2	6:h:278:ASN:ND2	2.55	0.40
6:h:373:ARG:HD2	6:j:451:MET:HE2	2.02	0.40
6:h:407:GLN:HB2	6:h:420:GLU:HB2	2.04	0.40
6:i:123:ILE:HD12	6:i:123:ILE:HA	1.97	0.40
6:i:306:THR:O	6:i:310:ILE:HG12	2.21	0.40
6:i:395:VAL:HA	6:i:449:THR:HG21	2.03	0.40
6:j:130:ARG:C	6:j:139:SER:HG	2.29	0.40
12:A:165:ASP:OD1	12:A:168:ARG:NH1	2.48	0.40
1:D:323:ASP:OD1	1:D:324:ASN:N	2.49	0.40
9:Y:312:CYS:HB3	9:Y:317:LEU:HG	2.03	0.40
3:E:132:VAL:HG11	3:E:169:ARG:CZ	2.51	0.40
5:I:105:ARG:NE	5:I:122:GLU:OE2	2.55	0.40
5:I:472:PRO:HA	5:I:475:TYR:CE2	2.56	0.40
5:J:59:PRO:O	5:J:79:PRO:HD3	2.21	0.40
5:J:125:LYS:HD2	5:J:128:MET:SD	2.61	0.40
5:K:183:TYR:HE1	5:K:185:VAL:HA	1.87	0.40
5:K:453:PHE:HD1	5:K:603:ARG:NH2	2.19	0.40
5:K:505:ASN:O	5:K:515:PRO:HB3	2.20	0.40
6:L:29:PHE:HA	6:L:34:GLN:CD	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:L:347:LEU:O	6:L:351:ILE:N	2.38	0.40
6:M:259:LYS:HB2	6:M:271:THR:HG23	2.04	0.40
6:N:209:PHE:O	6:N:221:ILE:HD13	2.21	0.40
9:R:33:TYR:O	9:R:60:TYR:HA	2.22	0.40
10:S:109:ASP:HB2	10:S:132:VAL:HG21	2.03	0.40
10:T:300:LEU:HD23	10:T:300:LEU:HA	1.81	0.40
4:U:92:THR:HA	4:U:161:GLU:HA	2.02	0.40
11:V:104:MET:CG	11:V:144:ILE:HD11	2.51	0.40
8:W:7:LEU:HA	8:W:7:LEU:HD23	1.89	0.40
8:W:503:THR:HG23	8:W:504:ASP:O	2.21	0.40
8:X:528:PRO:HB3	8:X:547:TYR:CE1	2.56	0.40
10:Z:119:ASN:O	10:Z:121:THR:N	2.54	0.40
10:Z:198:ARG:HB3	10:Z:205:VAL:HG11	2.02	0.40
10:a:83:GLU:HG2	9:Y:817:ASN:HB3	2.03	0.40
4:b:40:GLY:HA2	4:b:58:SER:HB3	2.03	0.40
4:b:153:LYS:C	4:b:159:ILE:HB	2.46	0.40
4:c:52:ASP:HB2	4:d:146:TYR:OH	2.22	0.40
4:c:86:ALA:HA	4:c:193:GLY:HA3	2.03	0.40
4:d:136:LYS:O	4:d:139:GLU:HB2	2.21	0.40
5:e:173:PHE:O	5:e:229:ASN:HA	2.21	0.40
5:e:317:GLN:HG2	5:f:381:THR:OG1	2.20	0.40
5:e:493:TRP:CD1	5:e:502:PHE:O	2.74	0.40
5:f:12:ASP:HA	9:Y:983:PHE:CE2	2.56	0.40
5:f:472:PRO:HB2	5:f:481:TRP:CG	2.56	0.40
5:g:171:THR:HG23	5:g:235:PRO:HB3	2.03	0.40
5:g:385:PHE:HB3	5:g:387:ASN:ND2	2.37	0.40
5:g:577:LEU:HD23	5:g:577:LEU:HA	1.83	0.40
6:h:339:MET:HB3	6:h:344:TYR:CE2	2.56	0.40
6:h:339:MET:HB2	6:h:362:PHE:CE1	2.55	0.40
6:i:373:ARG:CZ	6:i:382:ASP:HB2	2.50	0.40
12:A:9:VAL:HG21	12:A:340:VAL:HG11	2.04	0.40
2:C:409:GLU:OE1	2:C:418:ARG:NH1	2.55	0.40
4:H:63:LEU:HD11	4:U:60:ILE:HG23	2.04	0.40
5:I:271:THR:O	5:I:279:GLU:HG3	2.22	0.40
5:I:325:ASP:HB2	5:I:361:VAL:HG11	2.03	0.40
5:J:359:ILE:N	5:J:367:GLY:O	2.54	0.40
6:L:321:MET:SD	6:L:458:TYR:CZ	3.15	0.40
6:L:394:GLU:HB2	6:M:450:ARG:CZ	2.52	0.40
6:L:404:MET:HE2	6:L:419:TYR:CE2	2.56	0.40
6:M:298:VAL:HG21	6:N:285:ASP:HB3	2.03	0.40
6:N:332:CYS:HB3	6:N:337:ARG:NH2	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:99:GLN:HE21	7:O:104:ALA:HB3	1.87	0.40
8:P:506:ASP:OD1	8:P:507:THR:N	2.55	0.40
8:P:601:ASN:OD1	8:P:602:ASP:N	2.54	0.40
8:Q:72:TYR:HB2	8:Q:303:MET:HG3	2.03	0.40
8:Q:463:TYR:CZ	8:Q:563:LEU:HB2	2.56	0.40
9:R:178:HIS:HA	9:R:531:PRO:HD3	2.03	0.40
9:R:400:VAL:O	9:R:416:ARG:NH2	2.47	0.40
10:S:115:SER:HA	10:S:127:TRP:CD1	2.56	0.40
10:T:78:THR:OG1	10:T:249:MET:HE1	2.21	0.40
4:U:131:GLU:HG2	4:U:135:ASN:ND2	2.36	0.40
4:U:134:TYR:CD2	4:U:152:ARG:HD2	2.56	0.40
8:X:228:ILE:HD11	9:Y:748:LEU:CB	2.49	0.40
8:X:492:ASP:N	8:X:494:ASP:OD1	2.30	0.40
10:Z:120:ARG:HH11	10:Z:120:ARG:HG3	1.87	0.40
4:d:112:HIS:HA	4:d:116:PHE:O	2.21	0.40
5:e:2:LYS:NZ	5:e:4:GLU:OE2	2.54	0.40
5:e:159:VAL:HG22	5:e:247:TYR:HB3	2.03	0.40
5:e:268:THR:HA	5:e:283:GLY:N	2.32	0.40
5:e:452:PHE:HE2	5:g:452:PHE:CD2	2.40	0.40
5:e:522:SER:HA	5:g:595:TYR:O	2.21	0.40
5:g:490:ILE:HG13	5:g:600:ARG:NH2	2.37	0.40
6:h:57:ARG:HH22	6:i:75:GLU:CB	2.35	0.40
6:j:102:TYR:HB3	6:j:119:THR:HG23	2.03	0.40
6:j:179:GLU:CD	6:j:199:ARG:HH21	2.29	0.40
9:Y:15:LEU:HD21	9:Y:100:TRP:O	2.22	0.40
9:Y:27:VAL:HG21	9:Y:83:VAL:HG11	2.03	0.40
9:Y:158:ASP:HB3	9:Y:161:GLN:HG3	2.04	0.40
9:Y:369:ASP:O	9:Y:375:LEU:HD12	2.20	0.40
9:Y:810:THR:O	9:Y:811:LEU:HD23	2.21	0.40
3:F:147:TYR:HE1	3:F:152:PRO:HD3	1.85	0.40
5:I:7:ILE:HB	5:J:20:ARG:CG	2.52	0.40
5:I:49:TRP:HE3	5:I:65:TRP:O	2.05	0.40
5:I:75:THR:OG1	5:I:105:ARG:HB3	2.22	0.40
5:I:482:LYS:O	5:I:602:ILE:N	2.45	0.40
5:J:370:PHE:CD2	5:J:374:LEU:HD21	2.56	0.40
5:J:412:ASN:O	5:J:445:ARG:HD3	2.22	0.40
5:K:291:PHE:C	5:K:367:GLY:HA3	2.47	0.40
6:L:140:SER:HB3	6:N:132:ALA:HB1	2.03	0.40
6:L:222:VAL:O	6:N:219:LEU:HA	2.21	0.40
6:L:370:VAL:HB	6:M:453:ASN:HA	2.02	0.40
6:M:400:HIS:HB2	6:N:441:ALA:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:240:VAL:CG1	6:N:245:LEU:HB2	2.51	0.40
8:P:374:THR:CB	8:Q:335:THR:HG21	2.52	0.40
8:Q:336:ASP:OD1	8:Q:336:ASP:N	2.40	0.40
9:R:239:GLN:CD	9:R:518:ARG:HB3	2.47	0.40
9:R:684:LEU:HD12	9:R:684:LEU:HA	1.90	0.40
9:R:749:LEU:HA	9:R:749:LEU:HD23	1.82	0.40
10:S:38:MET:HE2	10:S:38:MET:HB3	1.93	0.40
10:S:200:THR:HG22	10:S:201:ASN:N	2.37	0.40
10:Z:78:THR:HA	10:Z:292:PHE:HA	2.02	0.40
10:Z:80:VAL:HG22	10:Z:247:ALA:HB2	2.03	0.40
10:Z:305:MET:SD	10:Z:308:MET:HG3	2.61	0.40
10:a:188:TYR:OH	10:a:206:VAL:HG22	2.22	0.40
4:c:108:LYS:NZ	4:c:121:ASP:OD1	2.37	0.40
4:c:150:VAL:HA	4:c:162:VAL:HG12	2.03	0.40
5:e:14:GLY:HA2	9:Y:995:LYS:HD2	2.03	0.40
5:e:19:LEU:HG	9:Y:989:PHE:HA	2.03	0.40
5:e:46:ALA:HA	5:g:91:ARG:NH2	2.37	0.40
5:e:483:ARG:HA	5:e:600:ARG:O	2.21	0.40
5:e:555:ILE:HD13	5:e:555:ILE:HA	1.90	0.40
5:f:114:ILE:HG21	5:f:121:LYS:HD2	2.04	0.40
5:f:255:ARG:HH11	5:f:387:ASN:HB2	1.86	0.40
5:f:482:LYS:O	5:f:602:ILE:HG22	2.22	0.40
5:g:329:PHE:O	5:g:351:PRO:C	2.64	0.40
6:h:68:ILE:CD1	6:h:78:VAL:HG22	2.51	0.40
6:h:92:ALA:HB2	6:h:98:GLY:O	2.22	0.40
6:h:339:MET:O	6:h:361:ILE:HA	2.21	0.40
6:h:398:HIS:HB2	6:j:444:VAL:HG11	2.04	0.40
6:i:40:GLY:HA3	6:i:42:TRP:CZ3	2.57	0.40
6:i:304:TYR:HA	6:j:306:THR:HA	2.03	0.40
6:j:390:TYR:OH	6:j:392:HIS:HA	2.21	0.40
9:Y:407:TRP:NE1	9:Y:409:GLU:HG2	2.32	0.40
9:Y:976:VAL:HG12	9:Y:981:ARG:HB3	2.03	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	213/361 (59%)	201 (94%)	12 (6%)	0	100	100
1	D	193/361 (54%)	181 (94%)	12 (6%)	0	100	100
2	C	552/589 (94%)	529 (96%)	23 (4%)	0	100	100
3	E	258/287 (90%)	239 (93%)	19 (7%)	0	100	100
3	F	258/287 (90%)	237 (92%)	21 (8%)	0	100	100
4	G	202/220 (92%)	194 (96%)	8 (4%)	0	100	100
4	H	202/220 (92%)	192 (95%)	10 (5%)	0	100	100
4	U	202/220 (92%)	196 (97%)	6 (3%)	0	100	100
4	b	202/220 (92%)	193 (96%)	9 (4%)	0	100	100
4	c	202/220 (92%)	195 (96%)	7 (4%)	0	100	100
4	d	202/220 (92%)	191 (95%)	11 (5%)	0	100	100
5	I	603/605 (100%)	574 (95%)	29 (5%)	0	100	100
5	J	593/605 (98%)	570 (96%)	23 (4%)	0	100	100
5	K	597/605 (99%)	565 (95%)	32 (5%)	0	100	100
5	e	603/605 (100%)	574 (95%)	28 (5%)	1 (0%)	43	74
5	f	593/605 (98%)	574 (97%)	19 (3%)	0	100	100
5	g	597/605 (99%)	561 (94%)	36 (6%)	0	100	100
6	L	439/463 (95%)	430 (98%)	9 (2%)	0	100	100
6	M	439/463 (95%)	433 (99%)	6 (1%)	0	100	100
6	N	439/463 (95%)	431 (98%)	8 (2%)	0	100	100
6	h	439/463 (95%)	430 (98%)	9 (2%)	0	100	100
6	i	439/463 (95%)	430 (98%)	9 (2%)	0	100	100
6	j	439/463 (95%)	430 (98%)	9 (2%)	0	100	100
7	O	120/130 (92%)	114 (95%)	6 (5%)	0	100	100
7	k	120/130 (92%)	114 (95%)	6 (5%)	0	100	100
8	P	615/617 (100%)	581 (94%)	34 (6%)	0	100	100
8	Q	609/617 (99%)	561 (92%)	47 (8%)	1 (0%)	43	74
8	W	615/617 (100%)	579 (94%)	36 (6%)	0	100	100
8	X	609/617 (99%)	568 (93%)	41 (7%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
9	R	1025/1027 (100%)	992 (97%)	32 (3%)	1 (0%)	48 79
9	Y	1025/1027 (100%)	986 (96%)	37 (4%)	2 (0%)	43 74
10	S	324/330 (98%)	302 (93%)	22 (7%)	0	100 100
10	T	318/330 (96%)	309 (97%)	9 (3%)	0	100 100
10	Z	324/330 (98%)	310 (96%)	14 (4%)	0	100 100
10	a	318/330 (96%)	305 (96%)	13 (4%)	0	100 100
11	V	182/184 (99%)	178 (98%)	4 (2%)	0	100 100
11	l	182/184 (99%)	174 (96%)	8 (4%)	0	100 100
12	A	337/367 (92%)	310 (92%)	27 (8%)	0	100 100
All	All	15629/16450 (95%)	14933 (96%)	691 (4%)	5 (0%)	100 100

All (5) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
9	Y	258	SER
5	e	564	ALA
9	R	487	PHE
9	Y	614	ASP
8	Q	54	ILE

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	B	193/304 (64%)	192 (100%)	1 (0%)	81 81
1	D	178/304 (59%)	178 (100%)	0	100 100
2	C	466/493 (94%)	466 (100%)	0	100 100
3	E	228/247 (92%)	227 (100%)	1 (0%)	84 82
3	F	228/247 (92%)	227 (100%)	1 (0%)	84 82
4	G	178/192 (93%)	178 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	H	178/192 (93%)	178 (100%)	0	100	100
4	U	178/192 (93%)	178 (100%)	0	100	100
4	b	178/192 (93%)	178 (100%)	0	100	100
4	c	178/192 (93%)	178 (100%)	0	100	100
4	d	178/192 (93%)	178 (100%)	0	100	100
5	I	506/507 (100%)	506 (100%)	0	100	100
5	J	500/507 (99%)	500 (100%)	0	100	100
5	K	498/507 (98%)	498 (100%)	0	100	100
5	e	506/507 (100%)	505 (100%)	1 (0%)	87	85
5	f	500/507 (99%)	500 (100%)	0	100	100
5	g	498/507 (98%)	497 (100%)	1 (0%)	87	85
6	L	346/364 (95%)	346 (100%)	0	100	100
6	M	346/364 (95%)	346 (100%)	0	100	100
6	N	346/364 (95%)	346 (100%)	0	100	100
6	h	346/364 (95%)	346 (100%)	0	100	100
6	i	346/364 (95%)	346 (100%)	0	100	100
6	j	346/364 (95%)	346 (100%)	0	100	100
7	O	109/116 (94%)	109 (100%)	0	100	100
7	k	109/116 (94%)	109 (100%)	0	100	100
8	P	456/539 (85%)	453 (99%)	3 (1%)	76	78
8	Q	489/539 (91%)	489 (100%)	0	100	100
8	W	456/539 (85%)	455 (100%)	1 (0%)	87	85
8	X	489/539 (91%)	489 (100%)	0	100	100
9	R	919/919 (100%)	919 (100%)	0	100	100
9	Y	919/919 (100%)	919 (100%)	0	100	100
10	S	293/296 (99%)	293 (100%)	0	100	100
10	T	288/296 (97%)	288 (100%)	0	100	100
10	Z	293/296 (99%)	293 (100%)	0	100	100
10	a	288/296 (97%)	288 (100%)	0	100	100
11	V	164/169 (97%)	162 (99%)	2 (1%)	63	73
11	l	164/169 (97%)	163 (99%)	1 (1%)	78	80

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
12	A	316/335 (94%)	316 (100%)	0	100 100
All	All	13197/14056 (94%)	13185 (100%)	12 (0%)	87 87

All (12) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	325	ILE
3	E	16	ASP
3	F	16	ASP
8	P	503	THR
8	P	536	LYS
8	P	568	VAL
11	V	69	ASP
11	V	109	ASN
8	W	182	ASN
5	e	190	VAL
5	g	387	ASN
11	l	160	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (103) such sidechains are listed below:

Mol	Chain	Res	Type
2	C	462	GLN
3	E	56	ASN
3	E	206	GLN
3	E	208	ASN
4	G	73	ASN
4	G	100	GLN
4	G	122	ASN
5	I	3	GLN
5	I	209	ASN
5	I	314	ASN
5	I	468	ASN
5	J	24	GLN
5	J	87	ASN
5	J	267	ASN
5	J	314	ASN
5	J	372	GLN
5	J	412	ASN
5	J	450	GLN
5	J	468	ASN

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Mol	Chain	Res	Type
5	K	145	ASN
5	K	243	GLN
5	K	507	ASN
5	K	517	HIS
5	K	581	GLN
5	K	583	ASN
6	L	392	HIS
6	L	393	HIS
6	M	94	GLN
6	M	165	GLN
6	M	302	ASN
6	M	392	HIS
6	M	403	GLN
6	M	430	GLN
6	N	186	GLN
6	N	392	HIS
6	N	393	HIS
6	N	416	GLN
8	P	42	GLN
8	P	90	ASN
8	P	307	GLN
8	P	554	HIS
8	Q	65	GLN
8	Q	162	ASN
8	Q	389	GLN
9	R	762	ASN
9	R	939	GLN
9	R	998	GLN
10	S	267	GLN
10	S	280	GLN
10	S	310	ASN
4	U	100	GLN
4	U	135	ASN
8	W	167	GLN
8	W	329	GLN
8	X	113	ASN
8	X	132	ASN
8	X	204	HIS
8	X	332	GLN
8	X	427	ASN
10	Z	34	ASN
10	a	22	ASN

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Mol	Chain	Res	Type
4	b	23	GLN
4	b	170	HIS
4	b	189	GLN
4	c	100	GLN
4	d	57	GLN
4	d	112	HIS
4	d	142	ASN
5	e	168	GLN
5	e	237	ASN
5	e	412	ASN
5	e	467	HIS
5	e	507	ASN
5	e	581	GLN
5	f	58	ASN
5	f	168	GLN
5	f	404	HIS
5	f	457	HIS
5	f	537	GLN
5	f	581	GLN
5	g	147	GLN
5	g	354	GLN
5	g	387	ASN
5	g	412	ASN
5	g	514	GLN
5	g	517	HIS
6	h	407	GLN
6	i	330	ASN
6	i	393	HIS
6	j	94	GLN
6	j	231	ASN
6	j	403	GLN
6	j	407	GLN
11	l	103	HIS
12	A	51	GLN
12	A	55	ASN
12	A	120	ASN
12	A	212	ASN
9	Y	130	ASN
9	Y	184	ASN
9	Y	406	GLN
9	Y	659	GLN
9	Y	720	GLN

5.3.3 RNA

There are no RNA molecules in this entry.

5.4 Non-standard residues in protein, DNA, RNA chains

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

There are no ligands in this entry.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

The following chains have linkage breaks:

Mol	Chain	Number of breaks
2	C	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	C	72:PHE	C	73:SER	N	1.18

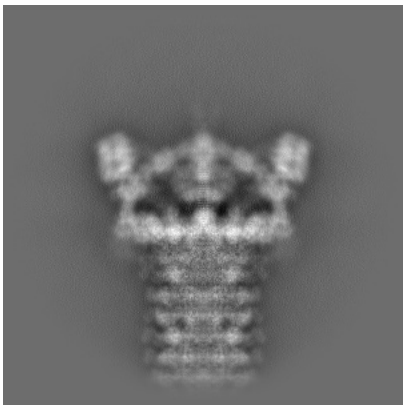
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-80009. These allow visual inspection of the internal detail of the map and identification of artifacts.

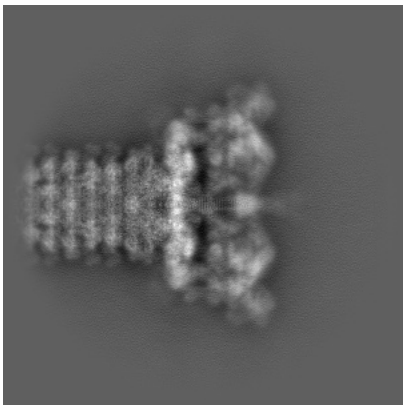
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections

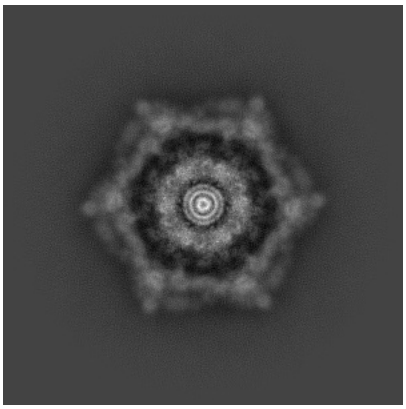
6.1.1 Primary map



X

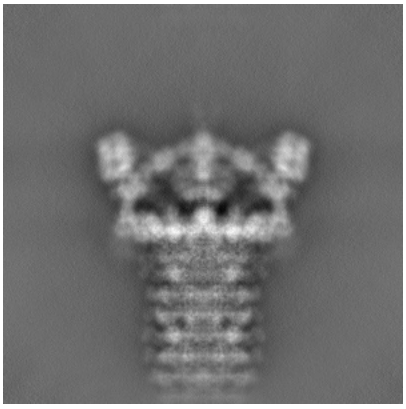


Y

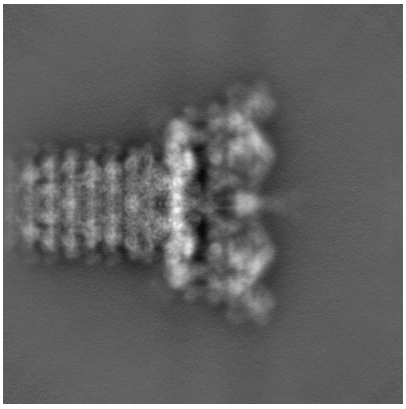


Z

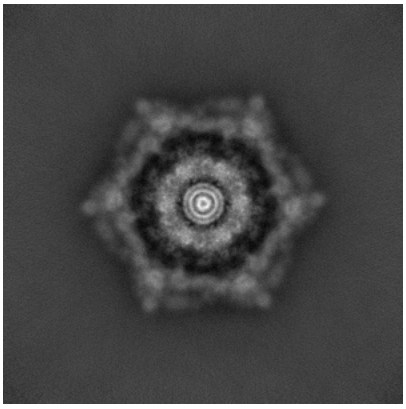
6.1.2 Raw map



X



Y

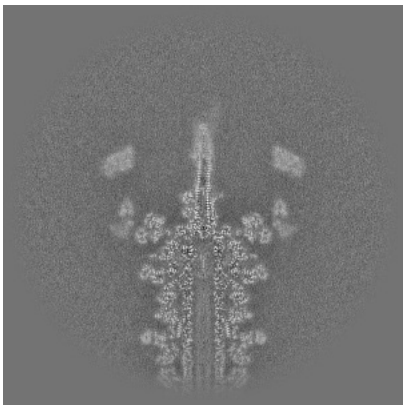


Z

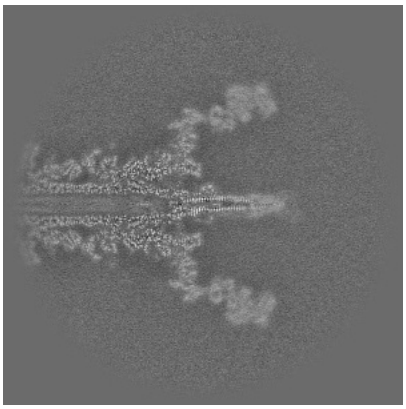
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

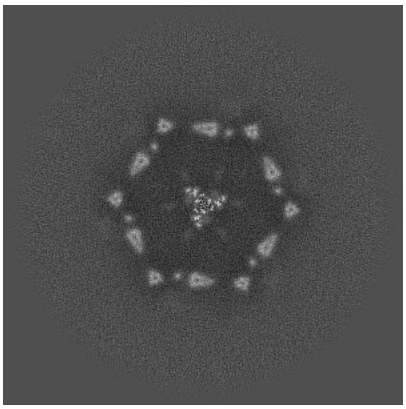
6.2.1 Primary map



X Index: 245

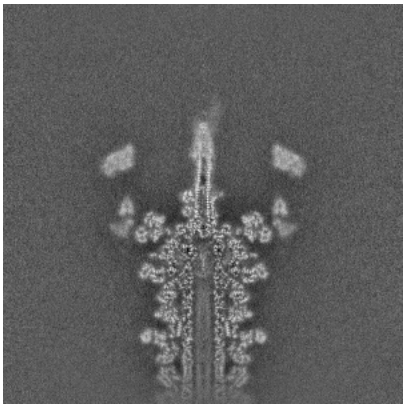


Y Index: 245

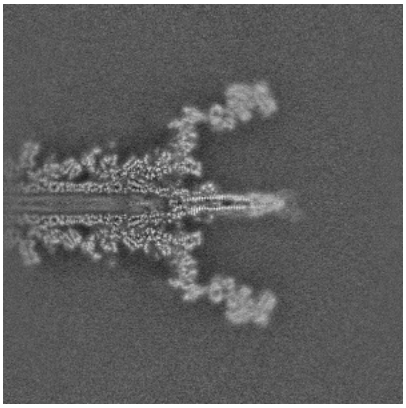


Z Index: 245

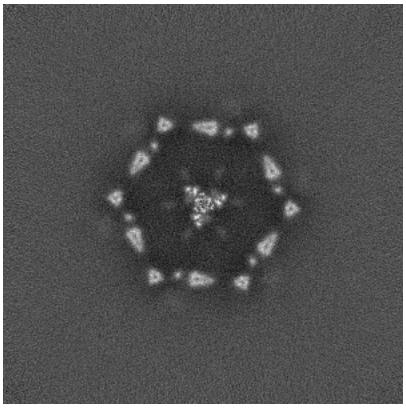
6.2.2 Raw map



X Index: 245



Y Index: 245

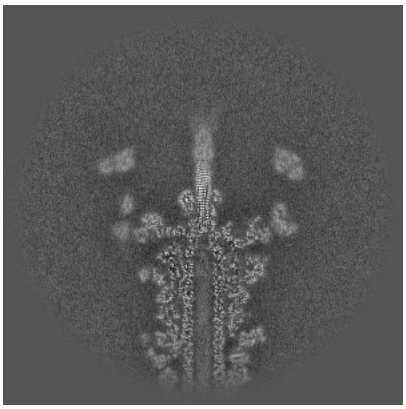


Z Index: 245

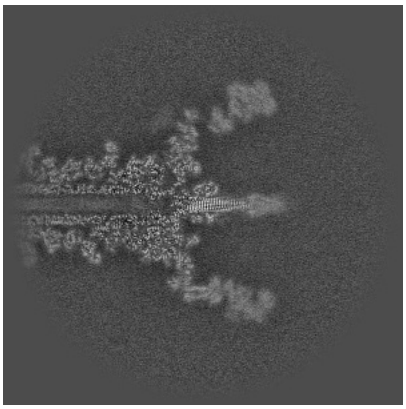
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

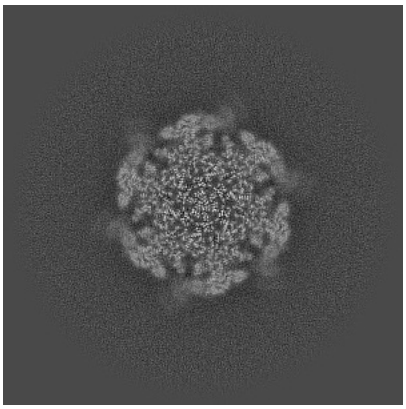
6.3.1 Primary map



X Index: 240

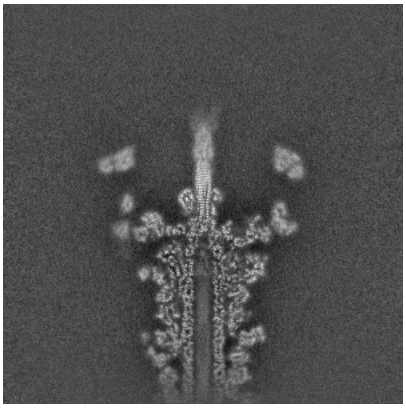


Y Index: 250

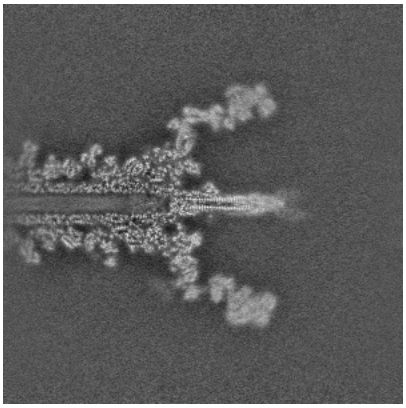


Z Index: 212

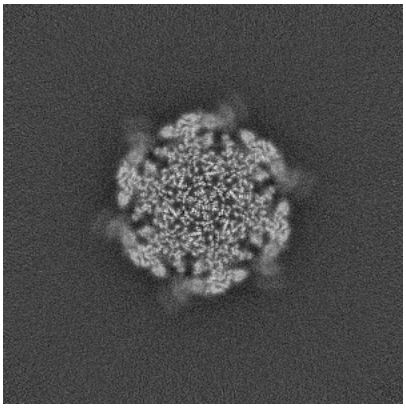
6.3.2 Raw map



X Index: 240



Y Index: 242

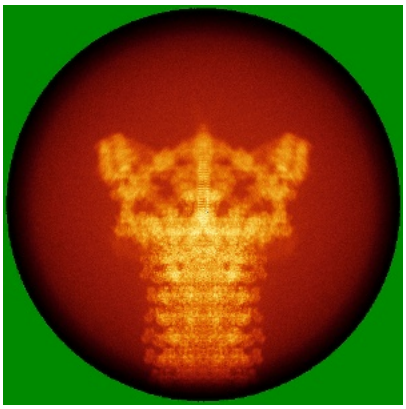


Z Index: 212

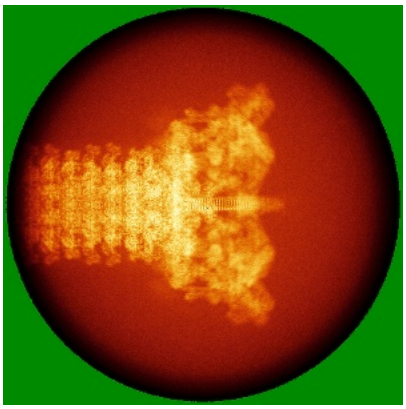
The images above show the largest variance slices of the map in three orthogonal directions.

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

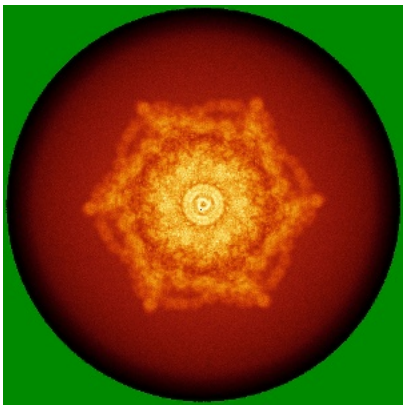
6.4.1 Primary map



X

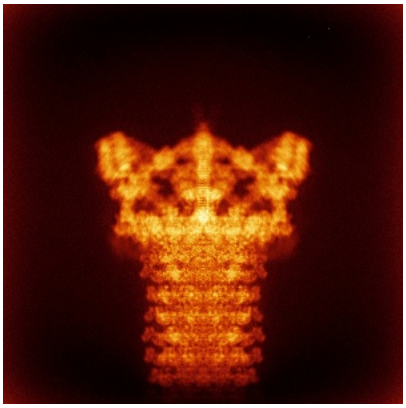


Y

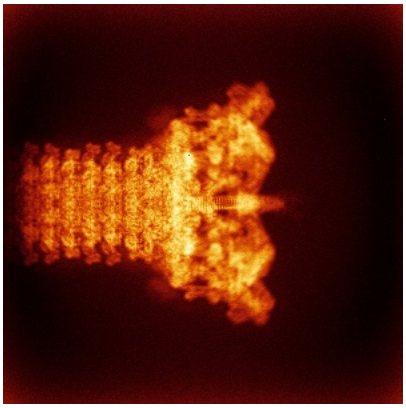


Z

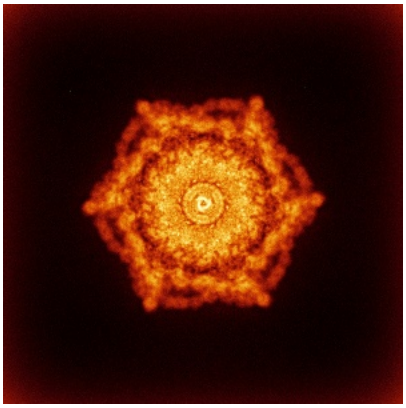
6.4.2 Raw map



X



Y

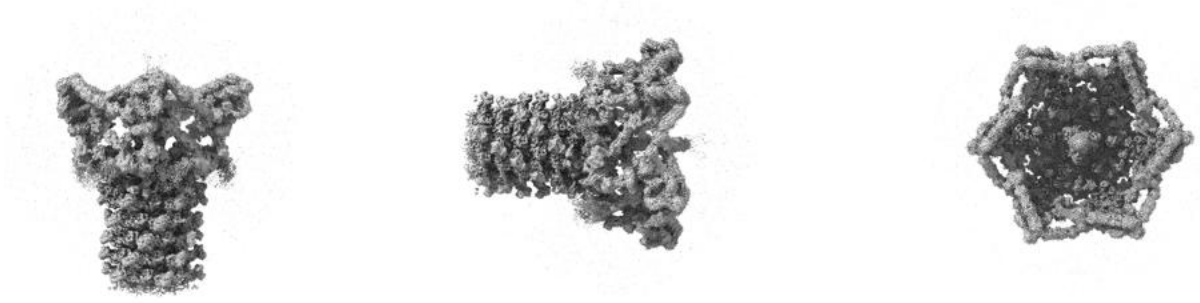


Z

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

6.5 Orthogonal surface views (i)

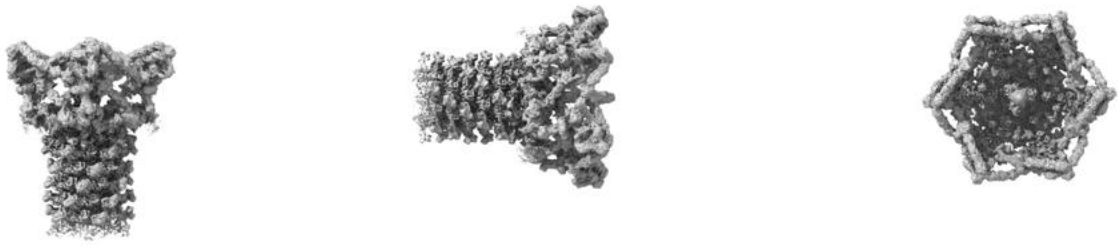
6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.902. 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.

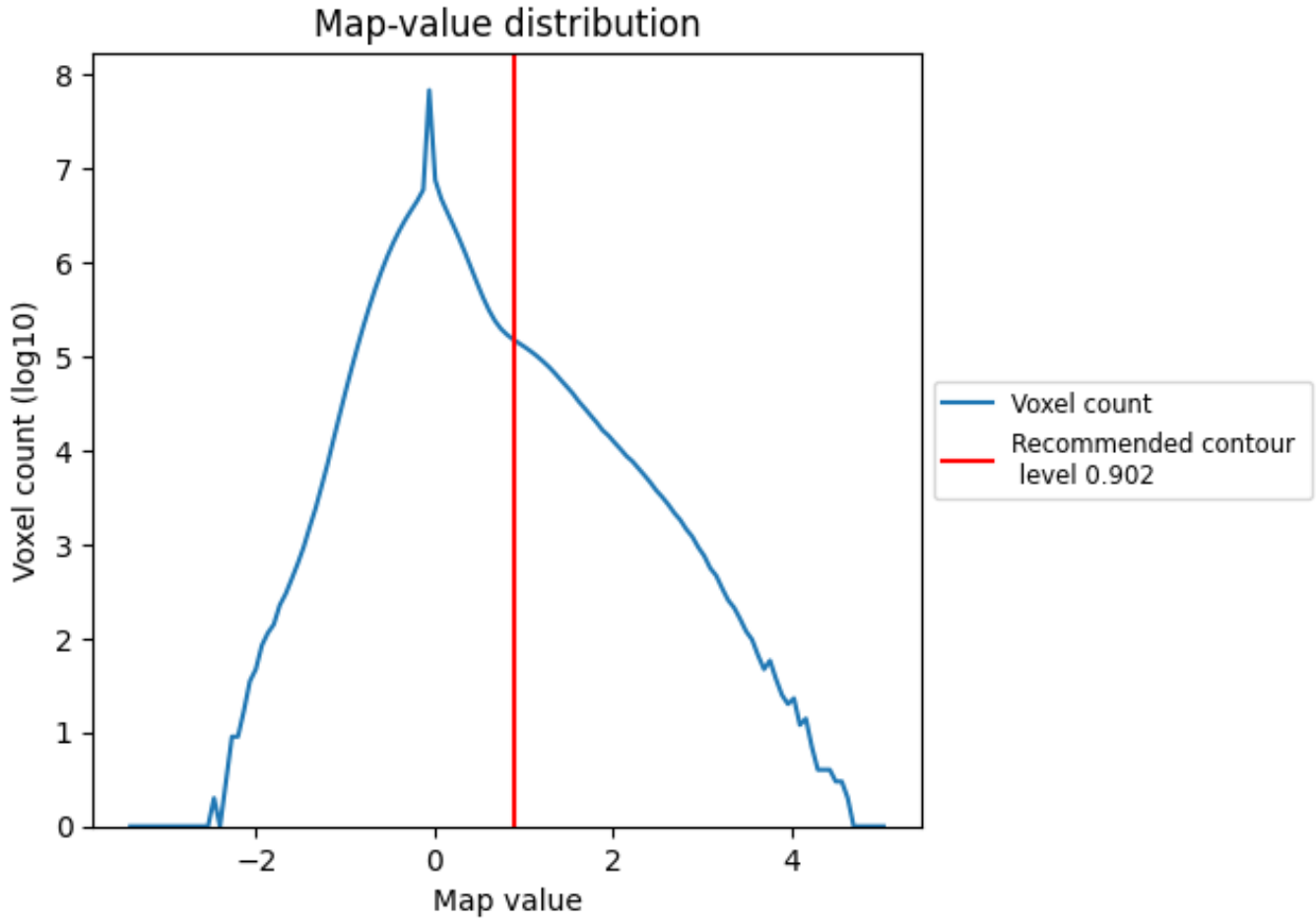
6.6 Mask visualisation (i)

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

7 Map analysis

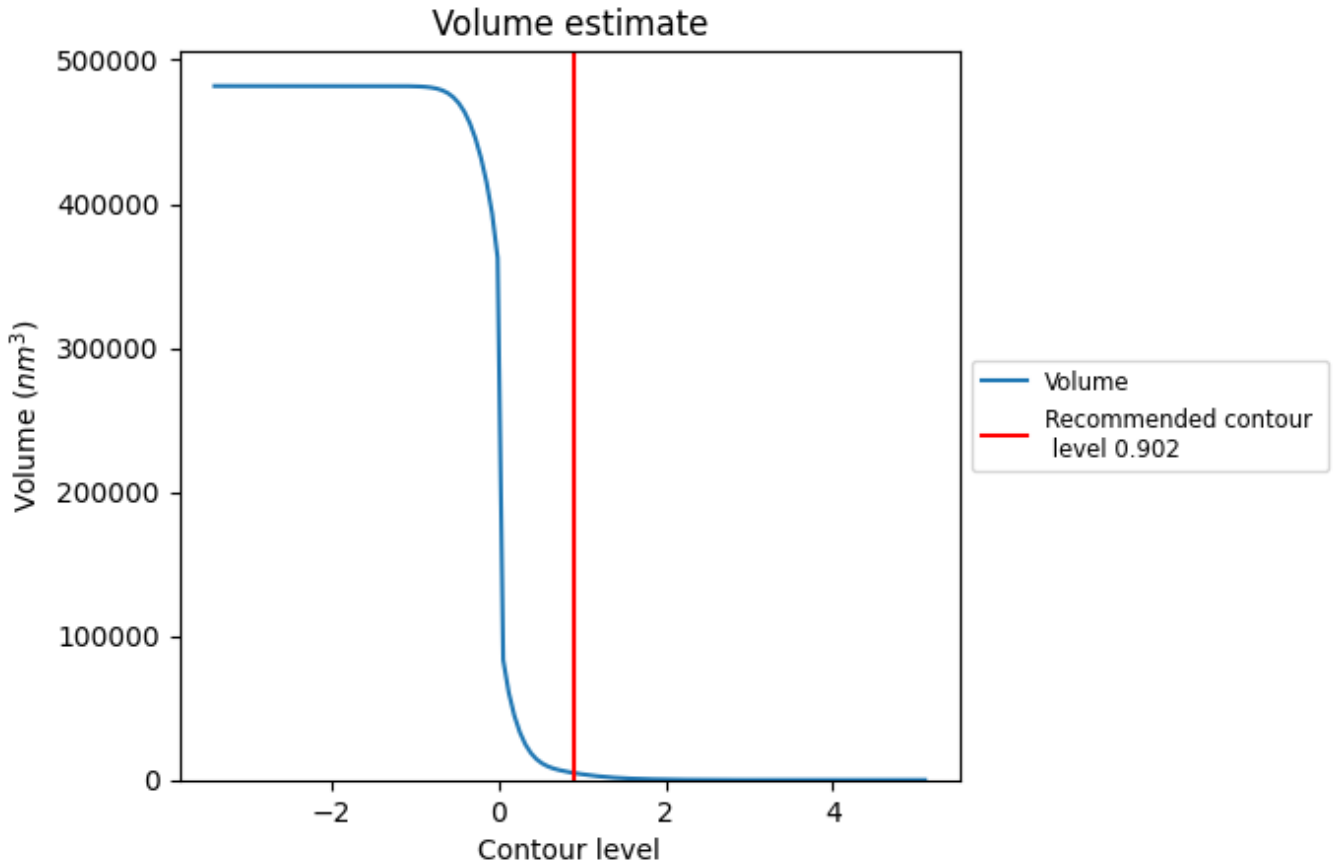
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

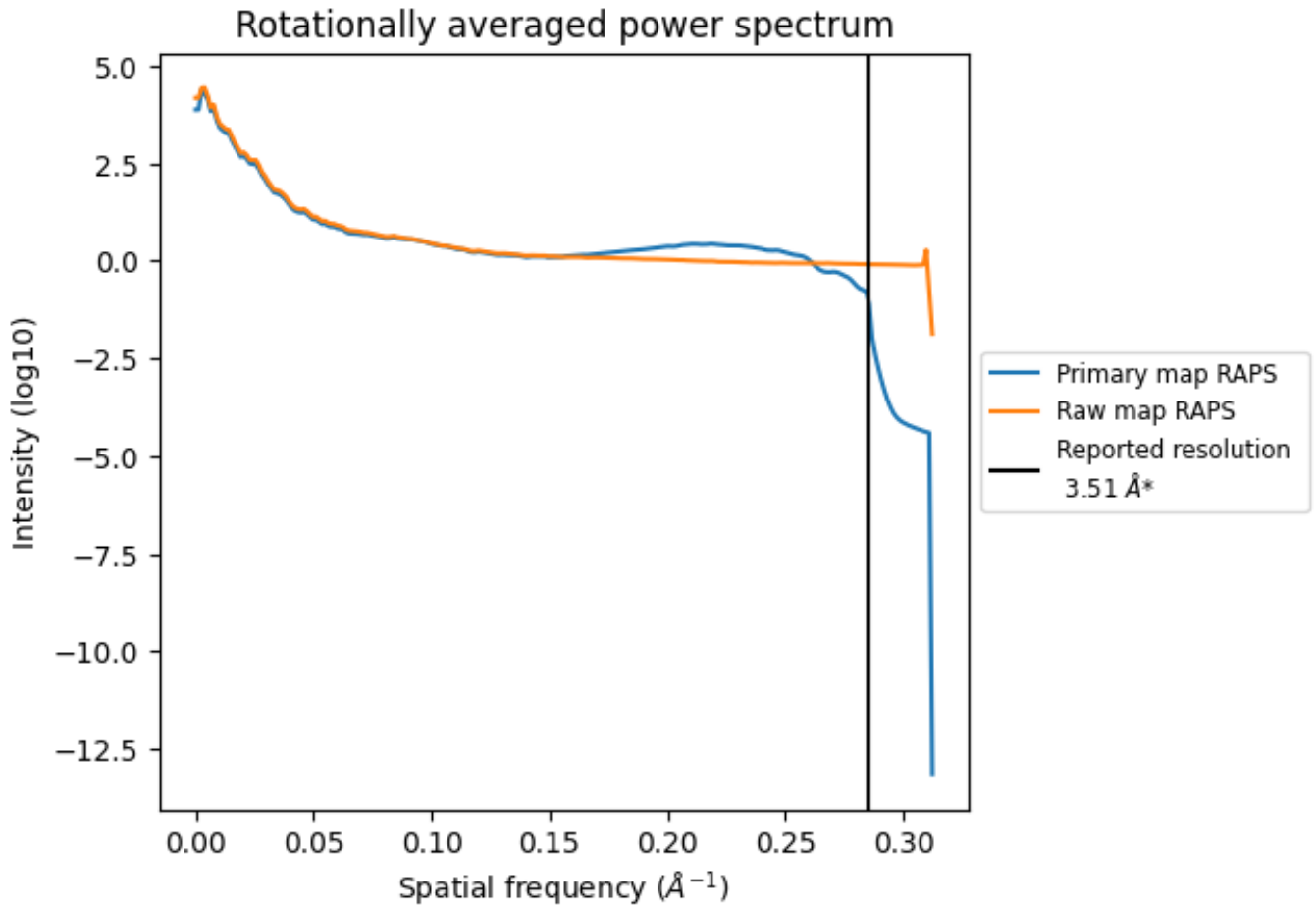
7.2 Volume estimate



The volume at the recommended contour level is 4817 nm^3; this corresponds to an approximate mass of 4351 kDa.

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

7.3 Rotationally averaged power spectrum (i)

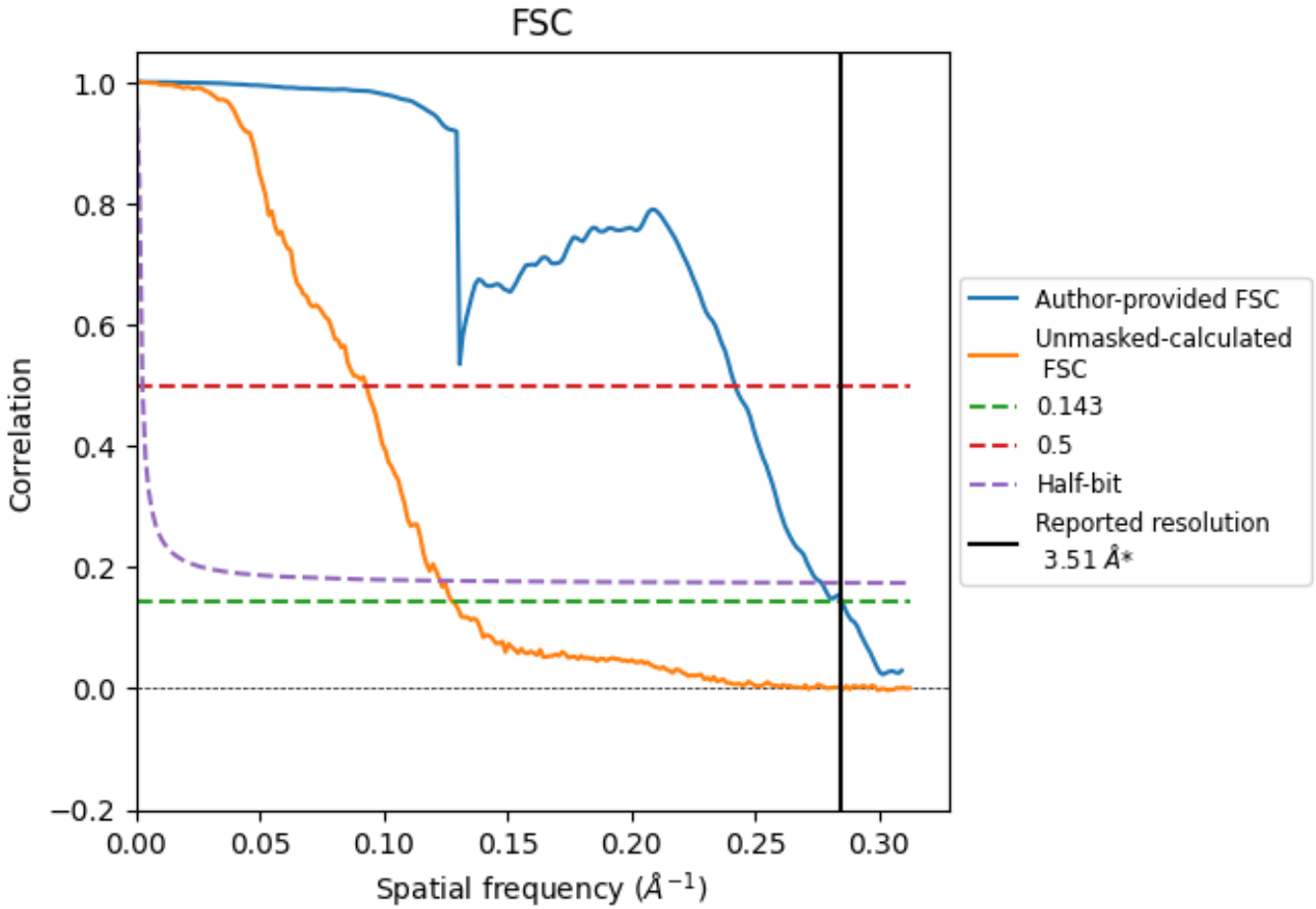


*Reported resolution corresponds to spatial frequency of 0.285 $Å^{-1}$

8 Fourier-Shell correlation

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



*Reported resolution corresponds to spatial frequency of 0.285 Å^{-1}

8.2 Resolution estimates (i)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.51	-	-
Author-provided FSC curve	3.51	4.13	3.61
Unmasked-calculated*	7.82	10.76	8.14

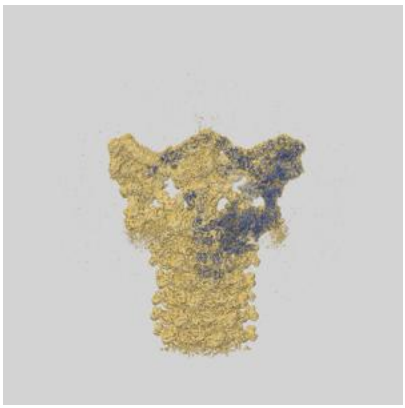
*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 7.82 differs from the reported value 3.51 by more than 10 %

9 Map-model fit

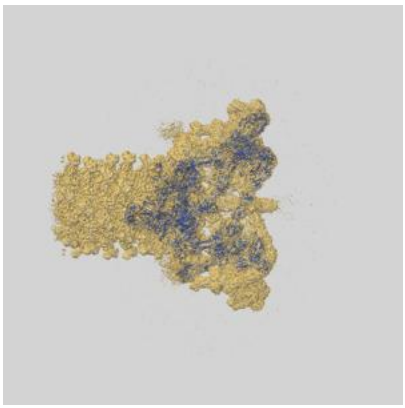
This section contains information regarding the fit between EMDB map EMD-80009 and PDB model 25CE. Per-residue inclusion information can be found in section 3 on page 9.

9.1 Map-model overlays

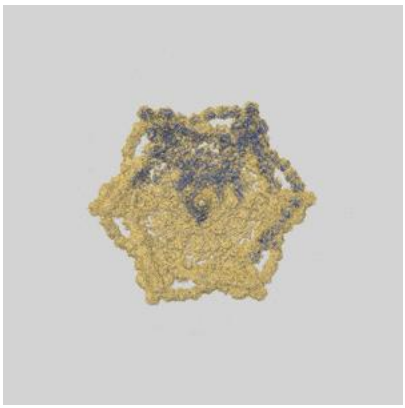
9.1.1 Map-model overlay



X

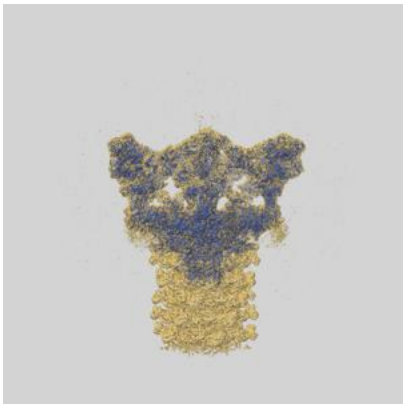


Y

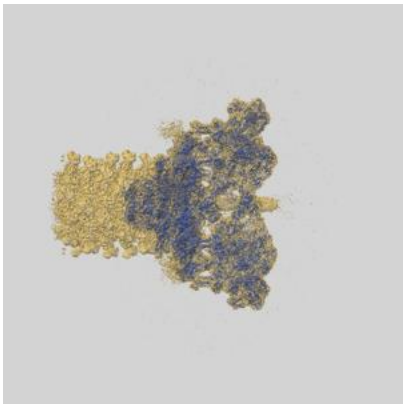


Z

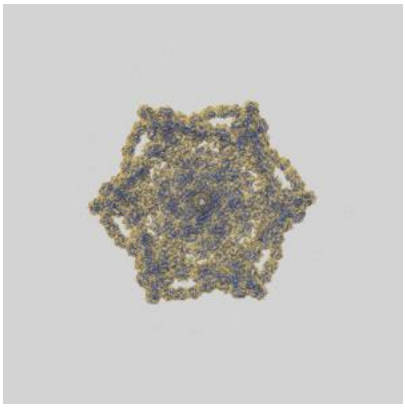
9.1.2 Map-model assembly overlay



X



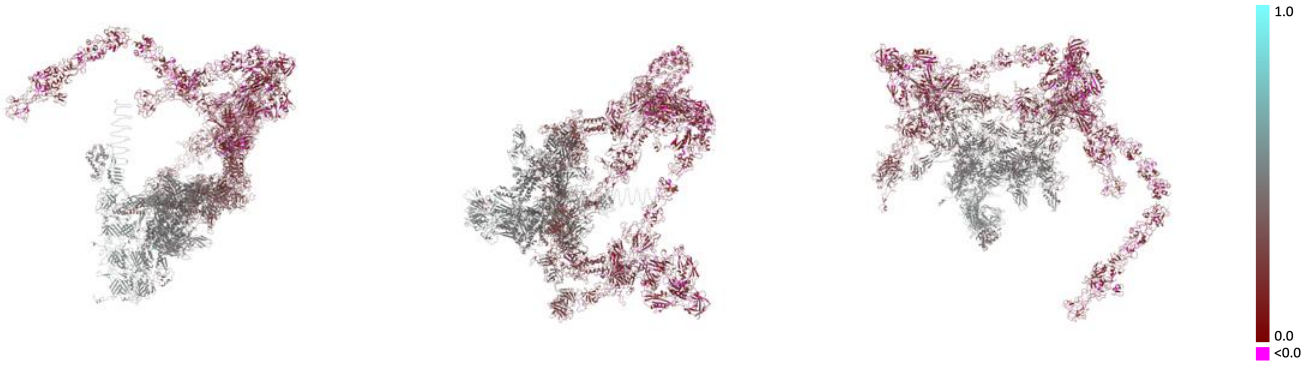
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.902 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

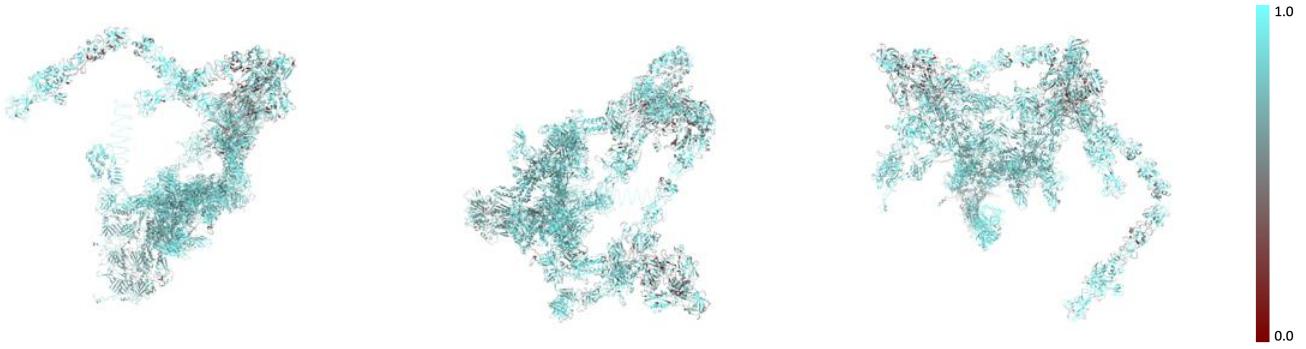
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

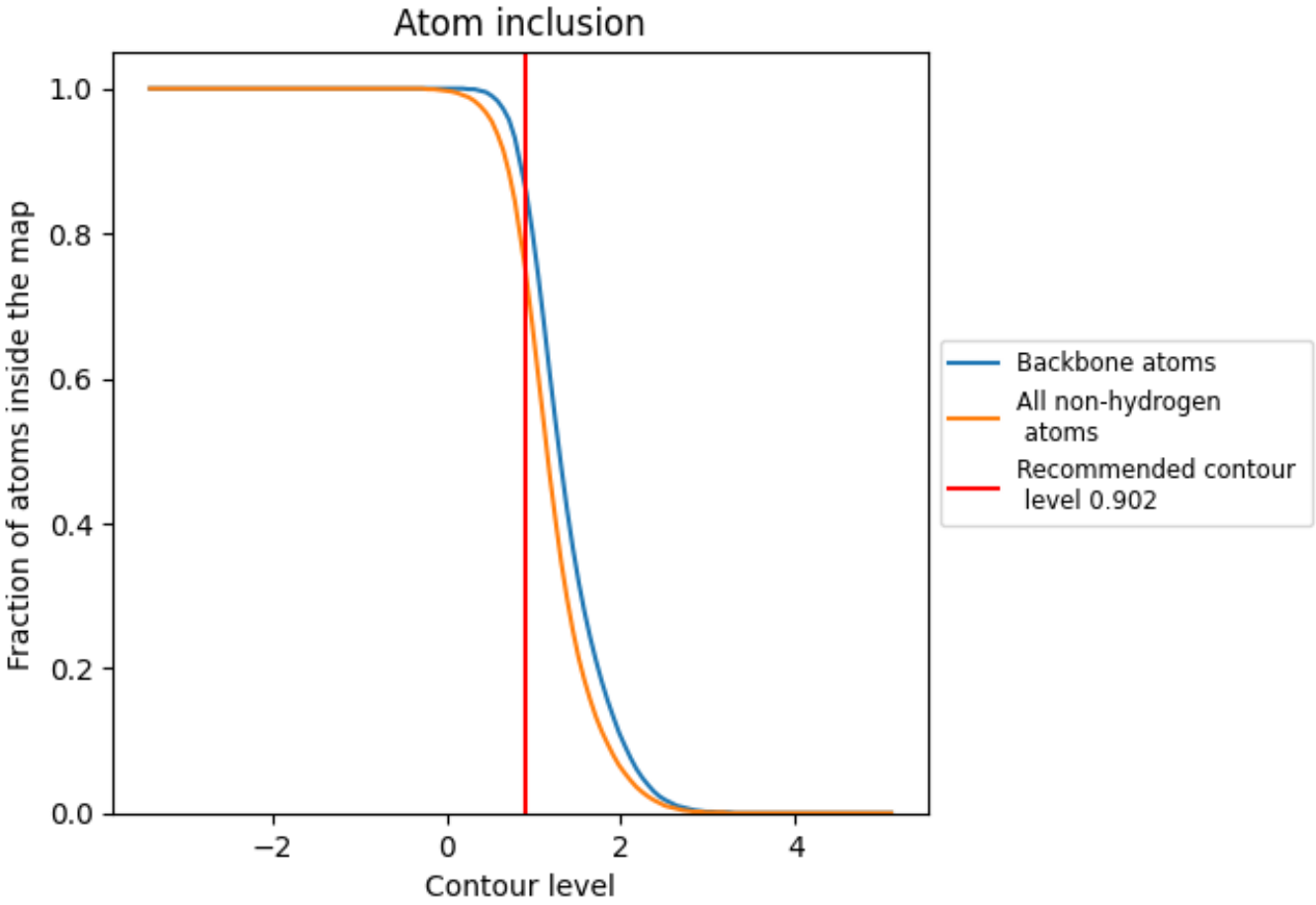
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.902).

9.4 Atom inclusion (i)



At the recommended contour level, 86% of all backbone atoms, 75% 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 (0.902) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7520	0.3200
A	0.7310	0.4910
B	0.6850	0.5010
C	0.8820	0.4760
D	0.6870	0.4960
E	0.6500	0.4720
F	0.6550	0.4870
G	0.6600	0.1910
H	0.6600	0.1860
I	0.7030	0.2220
J	0.7180	0.2230
K	0.7050	0.2230
L	0.7720	0.1850
M	0.7520	0.2040
N	0.7720	0.1860
O	0.7080	0.4640
P	0.8140	0.4570
Q	0.8090	0.4460
R	0.7840	0.3590
S	0.7830	0.3120
T	0.7900	0.3930
U	0.6130	0.1880
V	0.7930	0.4670
W	0.8020	0.4530
X	0.8110	0.4480
Y	0.7880	0.3630
Z	0.7930	0.3280
a	0.7930	0.3840
b	0.6370	0.2020
c	0.6700	0.1980
d	0.6790	0.1800
e	0.6930	0.2300
f	0.7070	0.2270
g	0.7090	0.2230
h	0.7630	0.1970



Continued on next page...

Continued from previous page...

Chain	Atom inclusion	Q-score
i	0.7590	0.1910
j	0.7780	0.1790
k	0.7390	0.4890
l	0.7800	0.4660