



Full wwPDB EM Validation Report ⓘ

Mar 24, 2026 – 03:15 AM UTC

PDB ID : 5FMF / pdb_00005fmf
EMDB ID : EMD-3114
Title : the P-lobe of RNA polymerase II pre-initiation complex
Authors : Murakami, K.; Tsai, K.; Kalisman, N.; Bushnell, D.A.; Asturias, F.J.; Kornberg, R.D.
Deposited on : 2015-11-03
Resolution : 6.00 Å(reported)

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

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

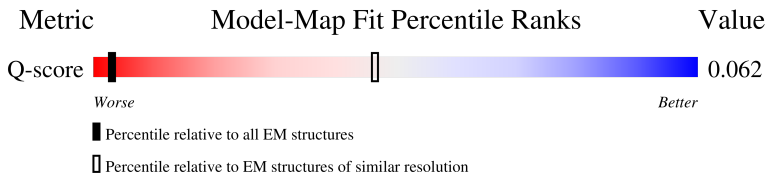
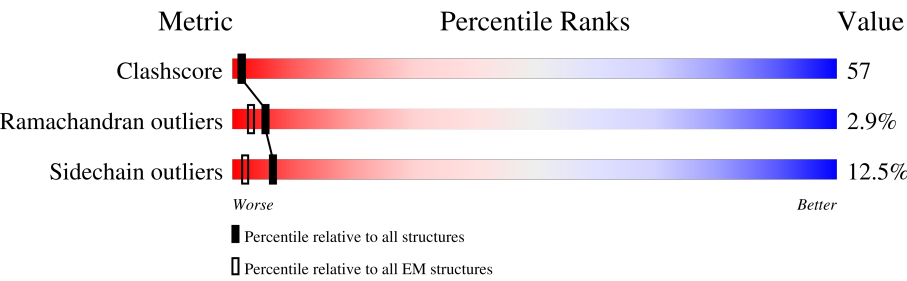
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh &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

1 Overall quality at a glance i

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

The reported resolution of this entry is 6.00 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	97 (10.50 - 11.50)

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

Mol	Chain	Length	Quality of chain
1	1	492	66% 35% 47% 13% • •
2	2	174	60% 63% 25% 9% •
3	A	1733	37% 50% 26% 6% • 18%
4	B	1224	52% 58% 30% 6% • 6%

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Mol	Chain	Length	Quality of chain
5	C	266	
6	D	178	
7	E	214	
8	F	84	
9	G	171	
10	H	146	
11	I	119	
12	J	65	
13	K	115	
14	L	46	
15	M	116	
16	N	72	
17	O	122	
18	P	345	
19	Q	180	
20	R	160	
21	S	123	
22	T	72	
23	U	150	
24	V	174	
25	W	62	
26	X	63	
27	Y	778	

2 Entry composition

There are 29 unique types of molecules in this entry. The entry contains 55363 atoms, of which 691 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 DNA REPAIR HELICASE RAD25, SSL2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	1	473	Total	C	N	O	S	0	0
			3797	2390	664	720	23		

- Molecule 2 is a protein called TRANSCRIPTION ELONGATION FACTOR S-II, DST1.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	2	174	Total	C	N	O	S	0	104
			666	454	99	108	5		

- Molecule 3 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	A	1422	Total	C	N	O	S	0	0
			11174	7036	1954	2122	62		

- Molecule 4 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB2.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	B	1156	Total	C	N	O	S	0	0
			9140	5781	1606	1697	56		

- Molecule 5 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB3.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	C	266	Total	C	N	O	S	0	0
			2095	1317	348	417	13		

- Molecule 6 is a protein called RNA POLYMERASE II PRE-INITIATION COMPLEX, RPB4.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	D	178	Total	C	N	O	S	0	0
			1434	887	257	288	2		

- Molecule 7 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC1, RPB5.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	E	214	Total	C	N	O	S	0	0
			1752	1111	309	321	11		

- Molecule 8 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC2, RPB6.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	F	84	Total	C	N	O	S	0	0
			679	434	115	127	3		

- Molecule 9 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB7.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	G	171	Total	C	N	O	S	0	0
			1340	861	222	249	8		

- Molecule 10 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC3, RPB8.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	H	133	Total	C	N	O	S	0	0
			1068	673	180	211	4		

- Molecule 11 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB9.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	I	119	Total	C	N	O	S	0	0
			971	596	179	186	10		

- Molecule 12 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC5, RPB10.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	J	65	Total	C	N	O	S	0	0
			532	339	93	94	6		

- Molecule 13 is a protein called DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB11.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	K	115	Total	C	N	O	S	0	1
			920	590	157	171	2		

- Molecule 14 is a protein called DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC4, RPB12.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	L	46	Total	C	N	O	S	0	0
			363	224	72	63	4		

- Molecule 15 is a protein called RNA POLYMERASE II PRE-INITIATION COMPLEX, TOA1.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	M	116	Total	C	N	O	S	0	0
			956	599	159	195	3		

- Molecule 16 is a DNA chain called NON-TEMPLATE STRAND DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	N	72	Total	C	N	O	P	0	0
			1500	711	300	417	72		

- Molecule 17 is a protein called TRANSCRIPTION INITIATION FACTOR IIA SUBUNIT 2, TOA2.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	O	101	Total	C	N	O	S	0	0
			792	500	132	156	4		

- Molecule 18 is a protein called TRANSCRIPTION INITIATION FACTOR IIB, SUA7.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	P	293	Total	C	N	O	S	0	0
			2269	1437	386	428	18		

- Molecule 19 is a protein called TATA-BOX-BINDING PROTEIN, TBP.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	Q	180	Total	C	N	O	S	0	0
			1416	921	242	247	6		

- Molecule 20 is a protein called TRANSCRIPTION INITIATION FACTOR IIE SUBUNIT

ALPHA, TFA1.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	R	118	Total	C	N	O	S	0	0
			960	625	158	172	5		

- Molecule 21 is a protein called TRANSCRIPTION INITIATION FACTOR IIE SUBUNIT BETA, TFA2.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	S	121	Total	C	N	O	S	0	0
			1005	650	164	188	3		

- Molecule 22 is a DNA chain called TEMPLATE STRAND DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	T	72	Total	C	N	O	P	0	0
			1452	700	233	447	72		

- Molecule 23 is a protein called RNA POLYMERASE II PRE-INITIATION COMPLEX, TFG1.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	U	150	Total	C	N	O	S	0	0
			1248	793	220	232	3		

- Molecule 24 is a protein called TRANSCRIPTION INITIATION FACTOR IIF SUBUNIT BETA, TFG2.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	V	174	Total	C	N	O	S	0	0
			1455	930	250	269	6		

- Molecule 25 is a protein called RNA POLYMERASE II TRANSCRIPTION FACTOR B SUBUNIT 2, TFB2.

Mol	Chain	Residues	Atoms				AltConf	Trace
25	W	62	Total	C	N	O	0	0
			518	334	83	101		

- Molecule 26 is a protein called RNA POLYMERASE II TRANSCRIPTION FACTOR B SUBUNIT 5, TFB5.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	X	63	Total	C	N	O	S	0	0
			499	316	88	93	2		

- Molecule 27 is a protein called DNA REPAIR HELICASE RAD3.

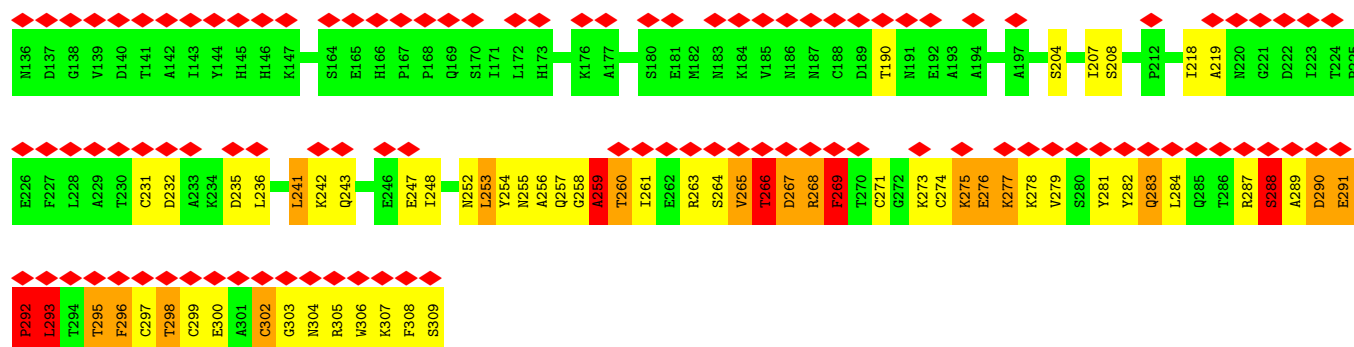
Mol	Chain	Residues	Atoms						AltConf	Trace
27	Y	578	Total	C	H	N	O	S	0	0
			5351	2975	691	790	862	33		

- Molecule 28 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

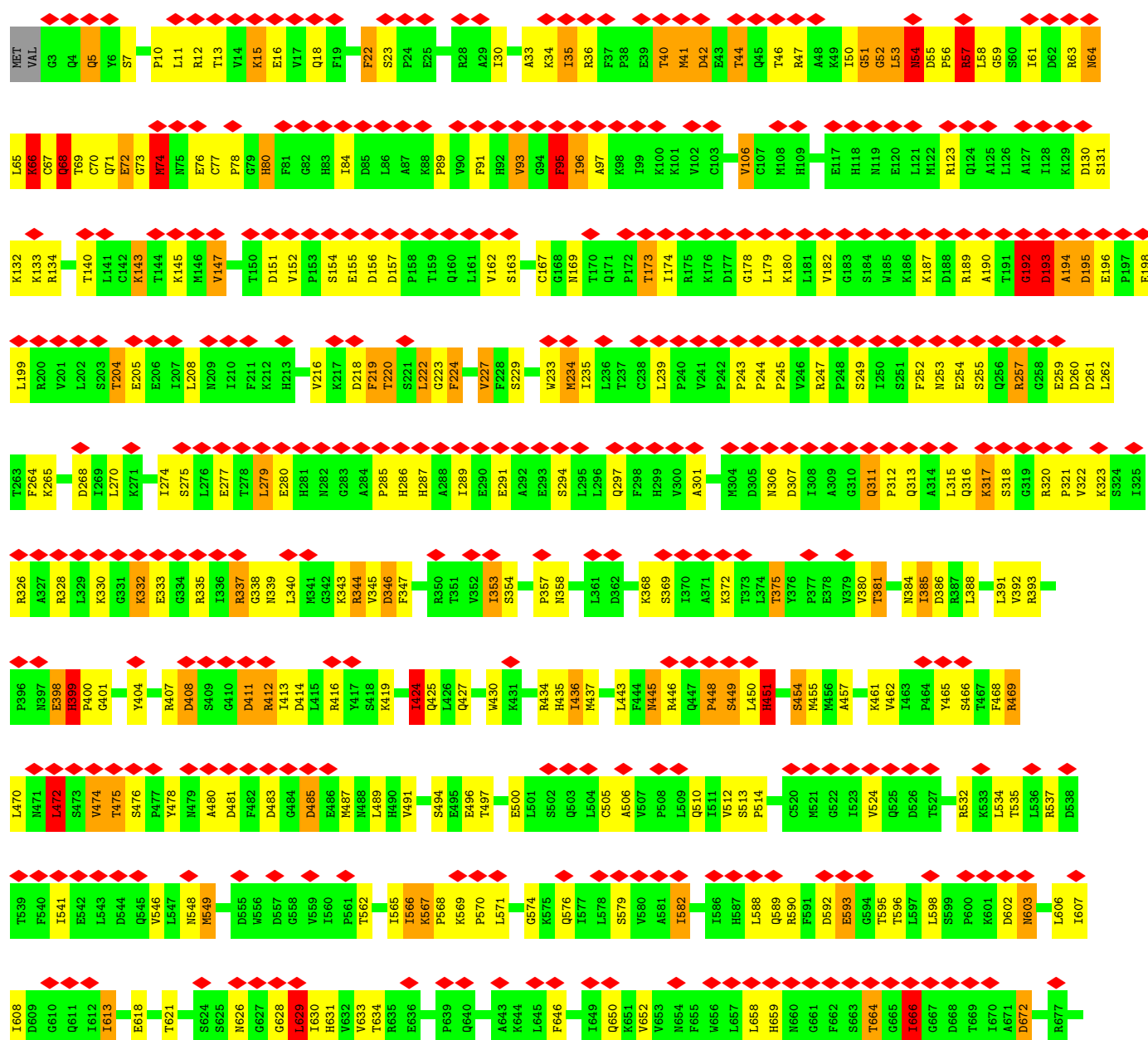
Mol	Chain	Residues	Atoms		AltConf
28	2	1	Total	Mg	0
			1	1	
28	A	1	Total	Mg	0
			1	1	

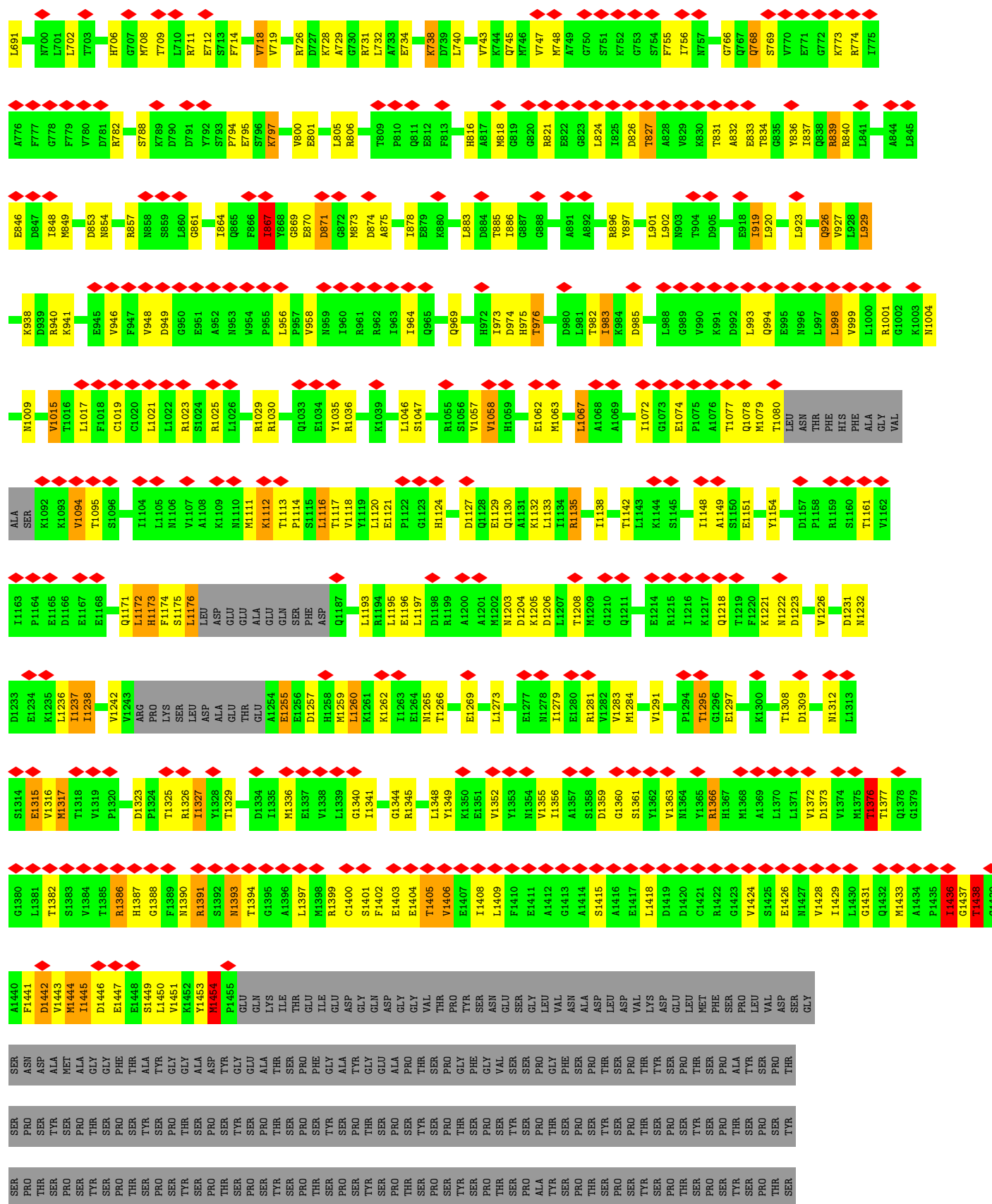
- Molecule 29 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
29	2	1	Total	Zn	0
			1	1	
29	A	2	Total	Zn	0
			2	2	
29	B	1	Total	Zn	0
			1	1	
29	C	1	Total	Zn	0
			1	1	
29	I	2	Total	Zn	0
			2	2	
29	J	1	Total	Zn	0
			1	1	
29	L	1	Total	Zn	0
			1	1	

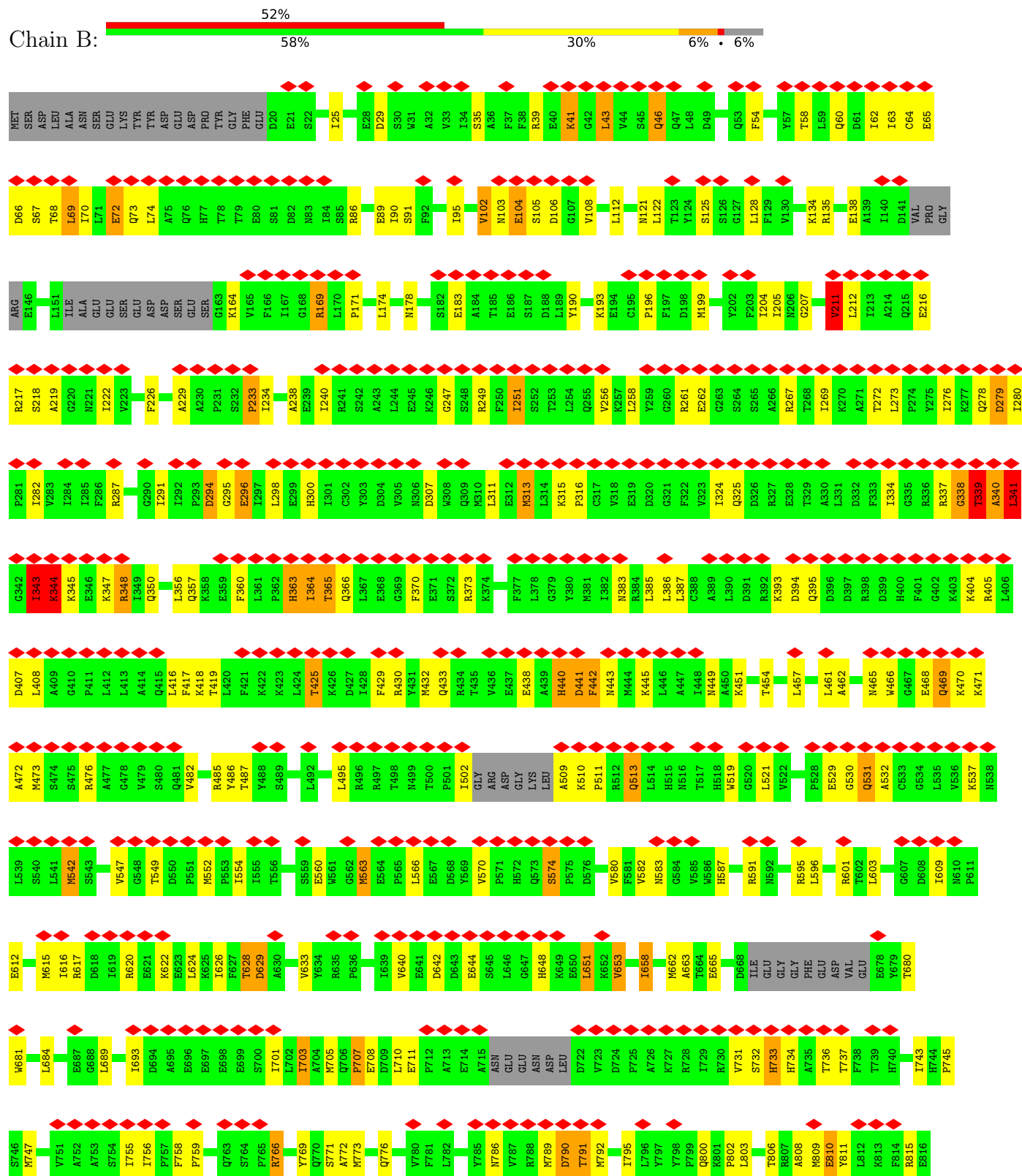


• Molecule 3: DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB1

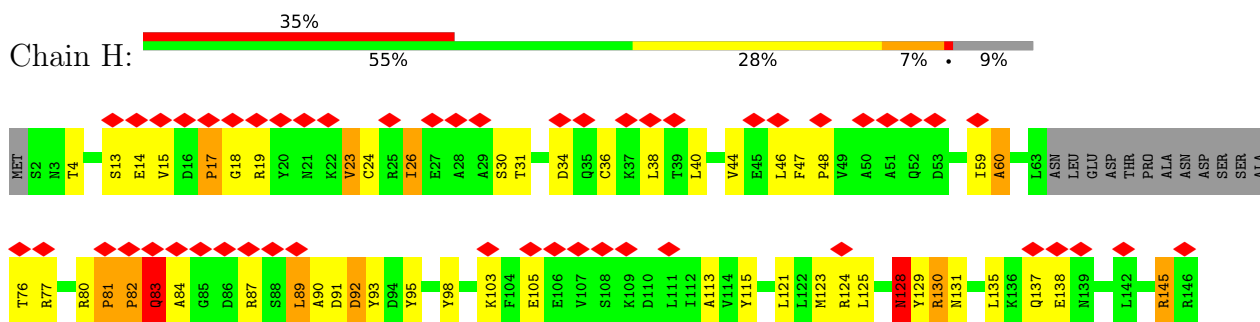




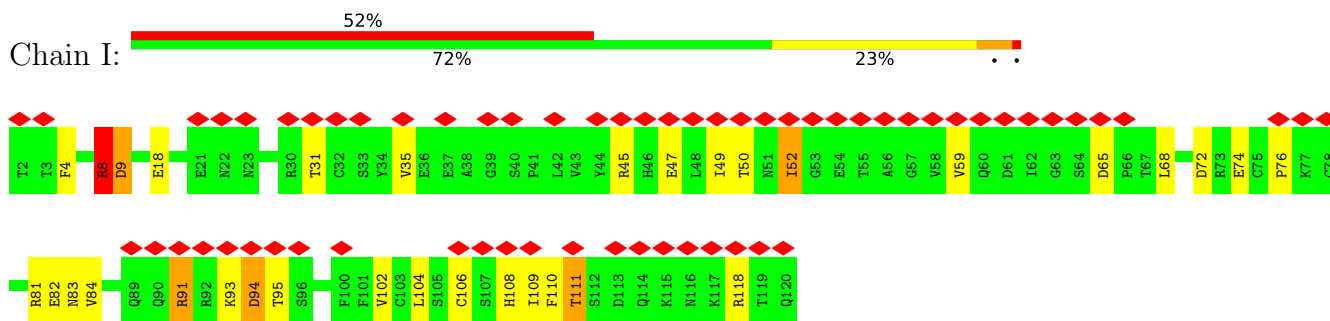
Chain B:



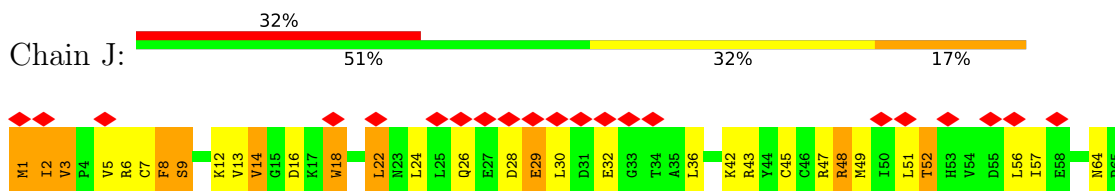
- Molecule 10: DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC3, RPB8



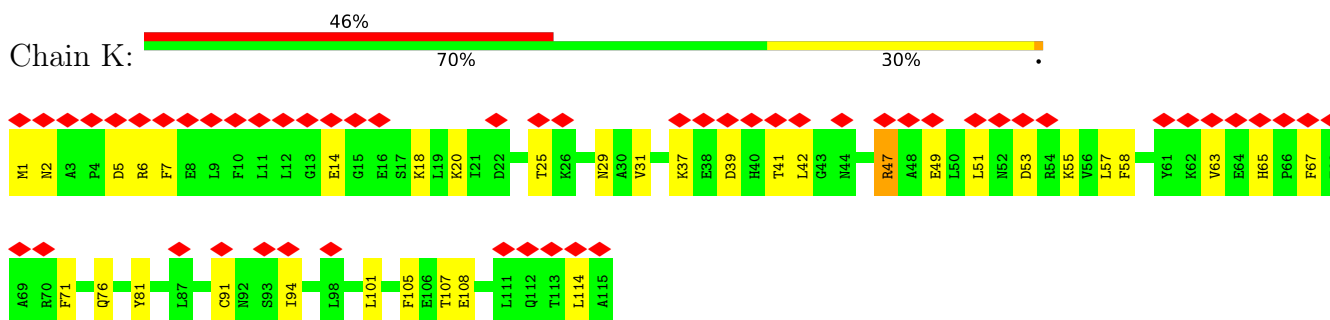
- Molecule 11: DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB9



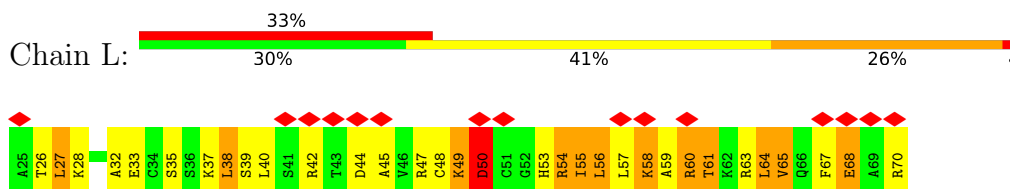
- Molecule 12: DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC5, RPB10



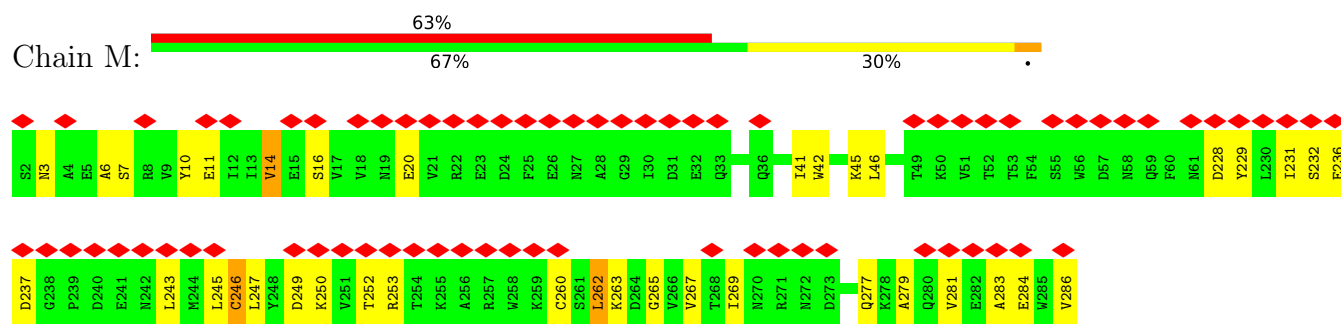
- Molecule 13: DNA-DIRECTED RNA POLYMERASE II SUBUNIT RPB11



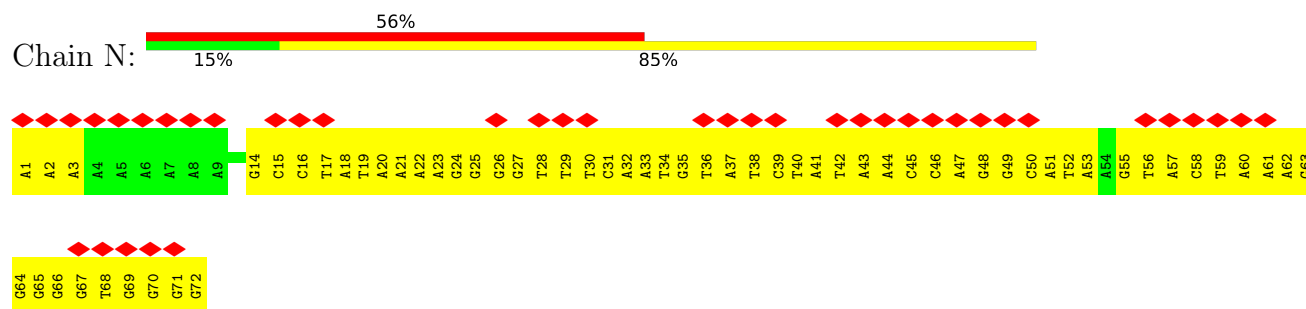
- Molecule 14: DNA-DIRECTED RNA POLYMERASES I, II, AND III SUBUNIT RPABC4, RPB12



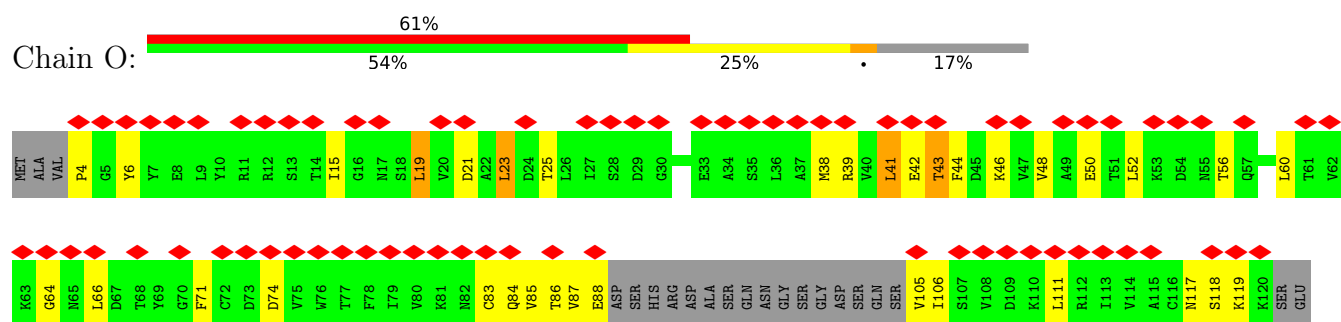
• Molecule 15: RNA POLYMERASE II PRE-INITIATION COMPLEX, TOA1



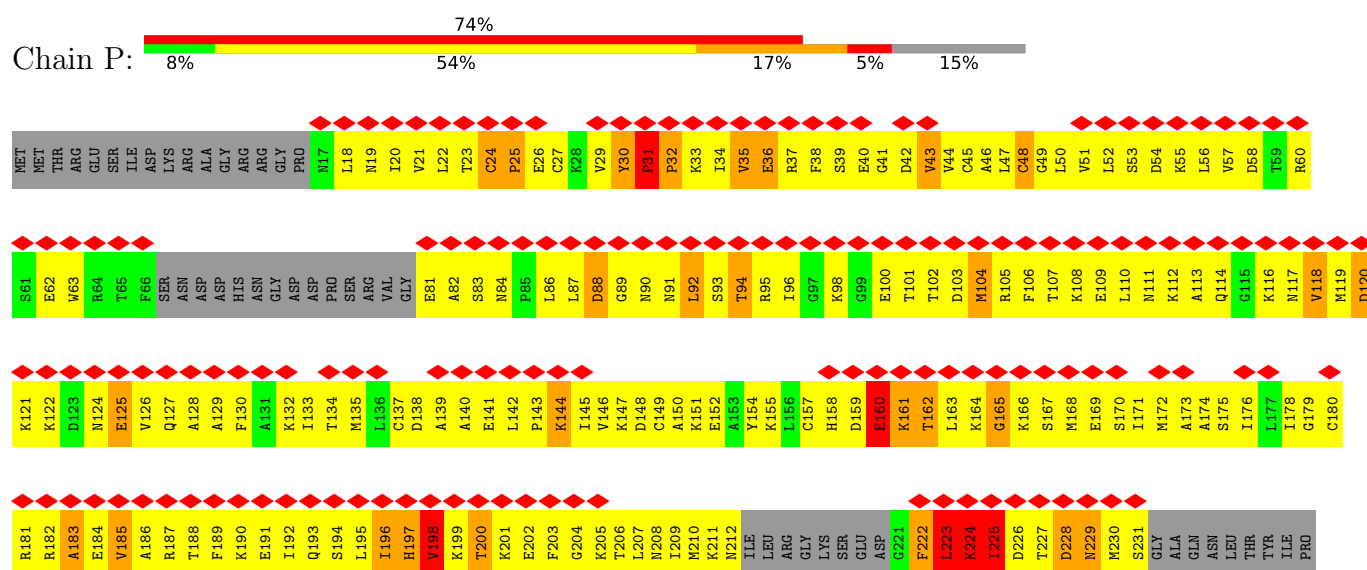
• Molecule 16: NON-TEMPLATE STRAND DNA

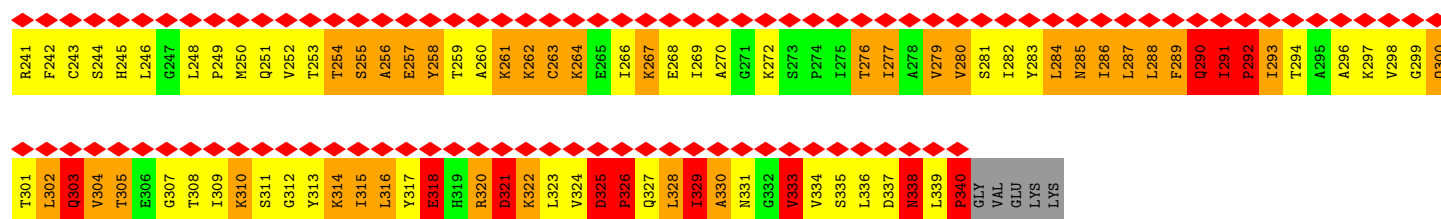


• Molecule 17: TRANSCRIPTION INITIATION FACTOR IIA SUBUNIT 2, TOA2

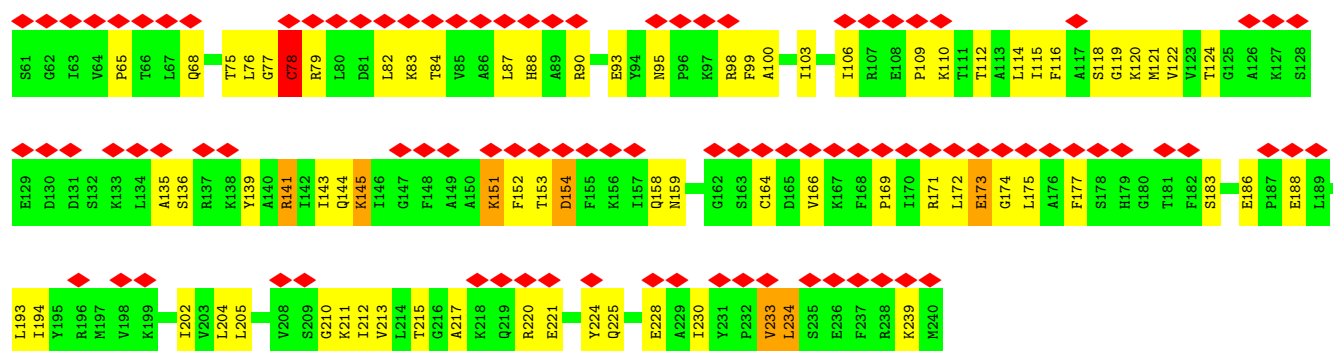


• Molecule 18: TRANSCRIPTION INITIATION FACTOR IIB, SUA7

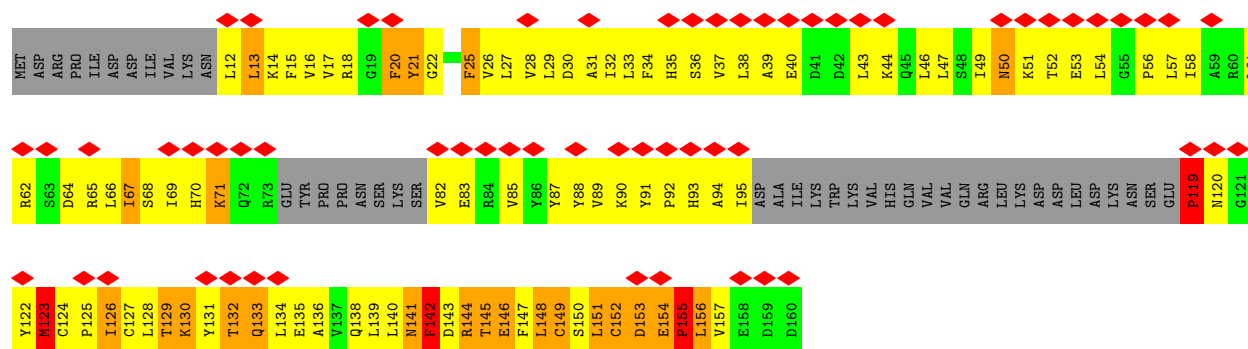




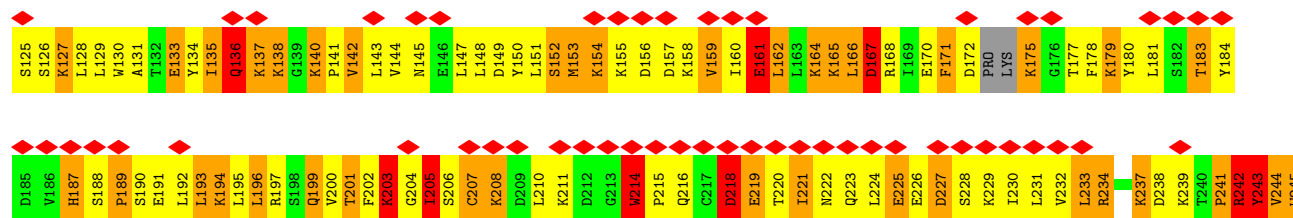
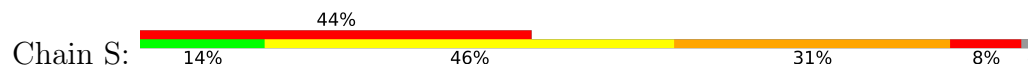
• Molecule 19: TATA-BOX-BINDING PROTEIN, TBP



• Molecule 20: TRANSCRIPTION INITIATION FACTOR IIE SUBUNIT ALPHA, TFA1

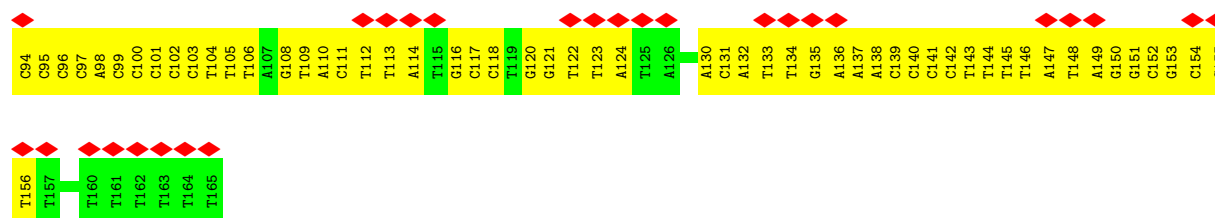


• Molecule 21: TRANSCRIPTION INITIATION FACTOR IIE SUBUNIT BETA, TFA2

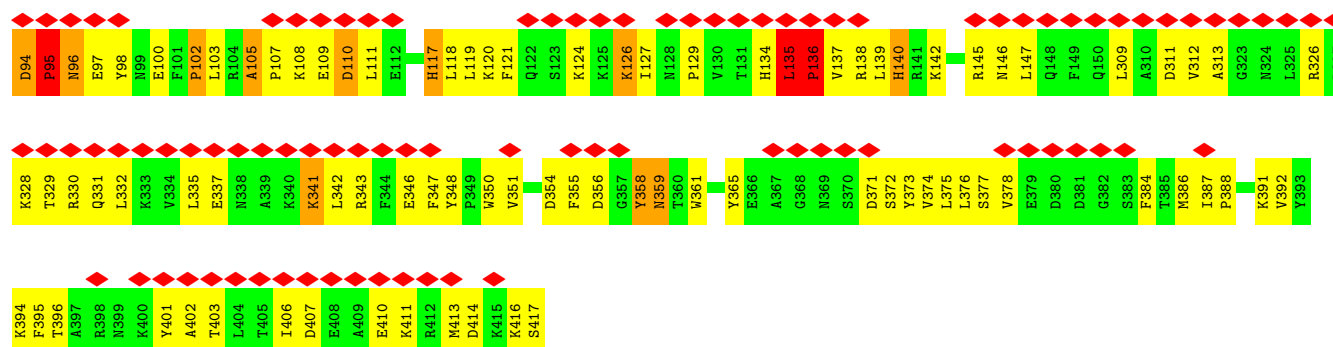




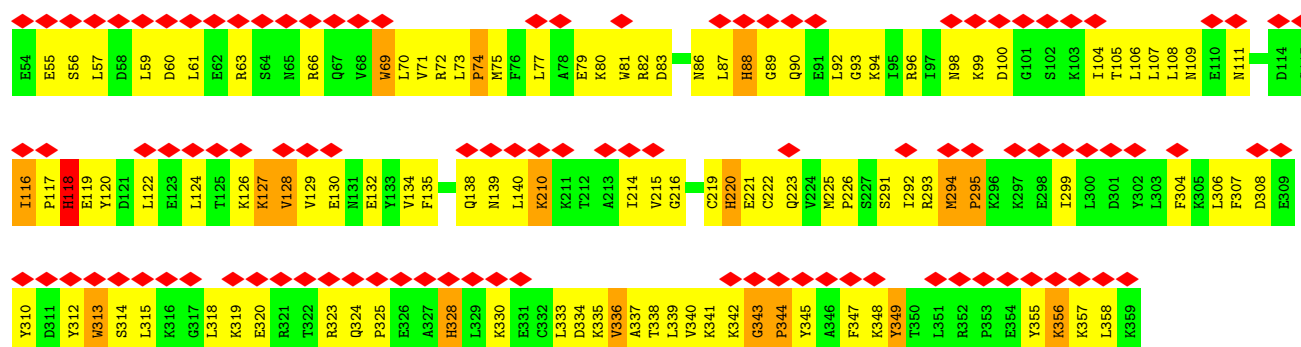
• Molecule 22: TEMPLATE STRAND DNA



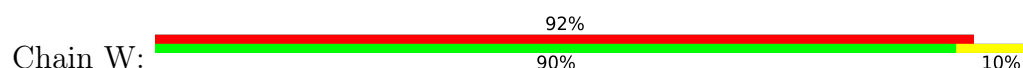
• Molecule 23: RNA POLYMERASE II PRE-INITIATION COMPLEX, TFG1

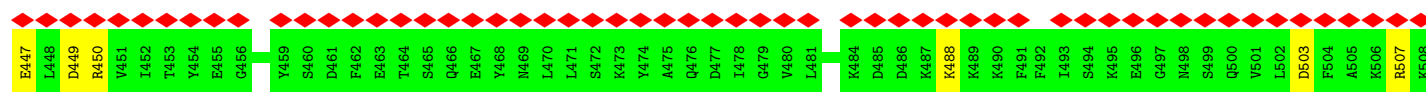


• Molecule 24: TRANSCRIPTION INITIATION FACTOR IIF SUBUNIT BETA, TFG2

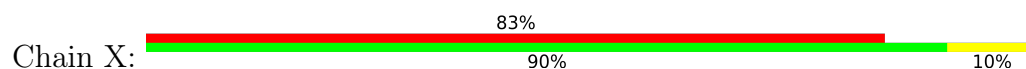


• Molecule 25: RNA POLYMERASE II TRANSCRIPTION FACTOR B SUBUNIT 2, TFB2

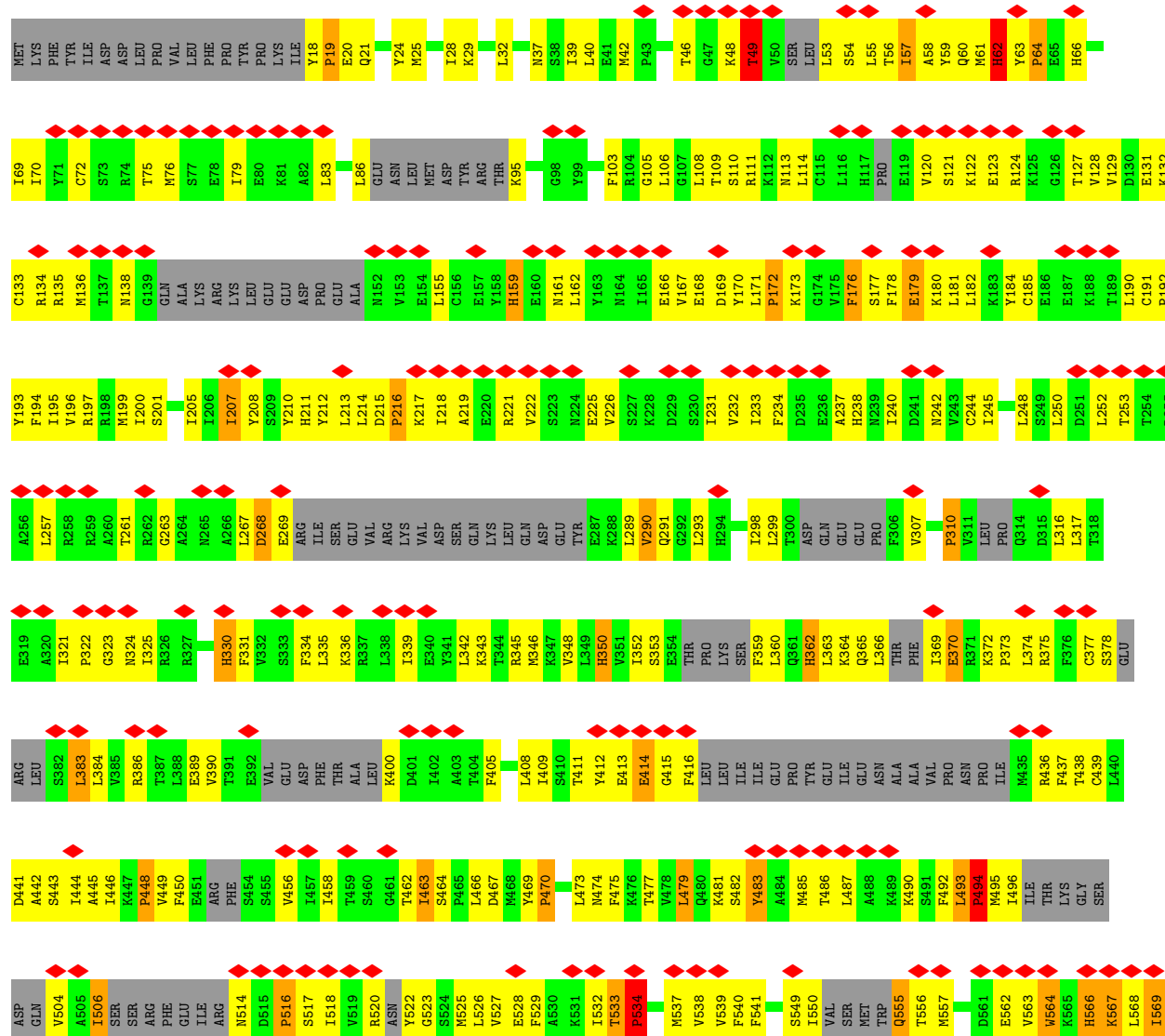


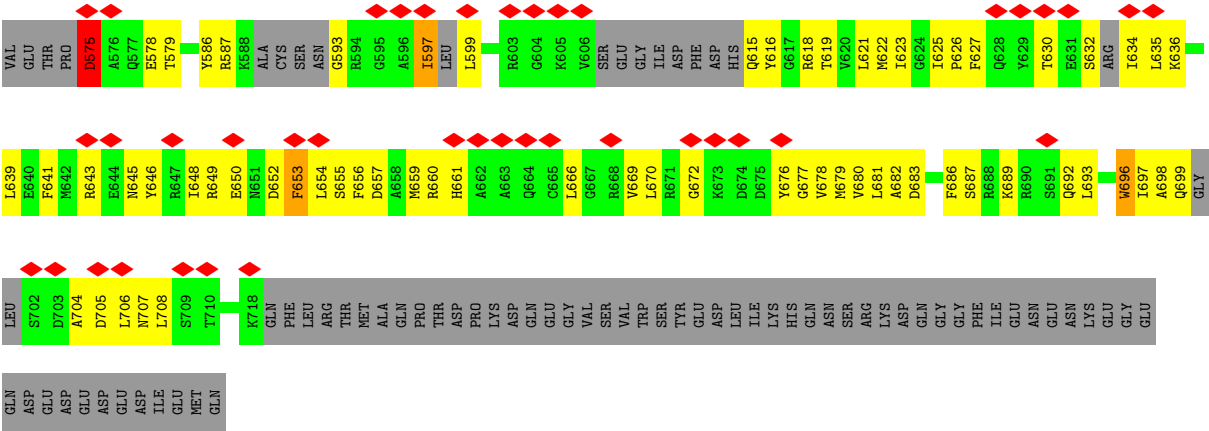


• Molecule 26: RNA POLYMERASE II TRANSCRIPTION FACTOR B SUBUNIT 5, TFB5



• Molecule 27: DNA REPAIR HELICASE RAD3





4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	7578	Depositor
Resolution determination method	Not provided	
CTF correction method	SPARX	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	40	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	22500	Depositor
Image detector	GATAN K2 (4k x 4k)	Depositor
Maximum map value	9.151	Depositor
Minimum map value	-0.003	Depositor
Average map value	0.142	Depositor
Map value standard deviation	0.652	Depositor
Recommended contour level	3.99	Depositor
Map size ($\text{\AA}$)	399.76, 399.76, 399.76	wwPDB
Map dimensions	152, 152, 152	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	2.63, 2.63, 2.63	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: MG, ZN

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	1	4.39	7/3867 (0.2%)	2.74	77/5221 (1.5%)
2	2	1.91	9/571 (1.6%)	2.23	15/765 (2.0%)
3	A	0.93	10/11374 (0.1%)	1.47	107/15384 (0.7%)
4	B	0.80	7/9316 (0.1%)	1.32	69/12564 (0.5%)
5	C	0.84	0/2133	1.42	16/2891 (0.6%)
6	D	0.87	2/1444 (0.1%)	1.60	20/1935 (1.0%)
7	E	0.82	0/1788	1.42	12/2406 (0.5%)
8	F	1.00	1/691 (0.1%)	1.41	5/933 (0.5%)
9	G	0.88	1/1368 (0.1%)	1.39	12/1844 (0.7%)
10	H	0.86	0/1086	1.43	13/1470 (0.9%)
11	I	0.82	0/989	1.37	7/1331 (0.5%)
12	J	0.91	0/541	1.60	8/727 (1.1%)
13	K	0.77	0/938	1.35	1/1267 (0.1%)
14	L	0.93	0/365	1.50	5/485 (1.0%)
15	M	0.48	0/970	0.88	1/1310 (0.1%)
16	N	0.65	2/1692 (0.1%)	0.68	0/2613
17	O	0.50	0/800	0.86	1/1080 (0.1%)
18	P	4.21	7/2297 (0.3%)	2.63	69/3090 (2.2%)
19	Q	0.48	0/1443	0.89	1/1942 (0.1%)
20	R	9.56	2/978 (0.2%)	3.88	15/1321 (1.1%)
21	S	5.36	7/1017 (0.7%)	4.12	37/1356 (2.7%)
22	T	0.68	0/1618	0.80	0/2491
23	U	1.03	7/1273 (0.5%)	1.10	15/1710 (0.9%)
24	V	1.35	8/1481 (0.5%)	1.16	16/1988 (0.8%)
25	W	0.73	0/527	0.78	0/704
26	X	0.70	0/504	0.79	0/679
27	Y	1.10	20/4735 (0.4%)	1.02	26/6369 (0.4%)
All	All	2.21	90/55806 (0.2%)	1.67	548/75876 (0.7%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected

by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	1	1	1
2	2	0	2
3	A	0	2
4	B	0	1
18	P	2	0
20	R	1	0
21	S	0	1
27	Y	0	2
All	All	4	9

All (90) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	R	155	PRO	N-CD	213.30	4.46	1.47
20	R	119	PRO	N-CD	204.99	4.34	1.47
1	1	753	PRO	N-CD	203.11	4.32	1.47
18	P	292	PRO	N-CD	198.08	4.25	1.47
1	1	746	PRO	N-CD	168.41	3.83	1.47
21	S	215	PRO	N-CD	162.83	3.75	1.47
21	S	189	PRO	N-CD	33.38	1.94	1.47
21	S	214	TRP	NE1-CE2	26.99	1.67	1.37
2	2	269	PHE	C-N	-26.90	0.95	1.33
3	A	95	PHE	C-N	-24.06	1.00	1.33
24	V	344	PRO	N-CD	22.29	1.78	1.47
3	A	234	MET	C-N	-22.04	1.07	1.33
2	2	260	THR	CA-CB	21.00	1.80	1.53
27	Y	310	PRO	N-CD	19.63	1.75	1.47
23	U	136	PRO	N-CD	18.40	1.73	1.47
3	A	1436	ILE	C-N	18.15	1.59	1.33
27	Y	470	PRO	N-CD	17.86	1.72	1.47
27	Y	216	PRO	N-CD	17.45	1.72	1.47
24	V	74	PRO	N-CD	17.39	1.72	1.47
24	V	295	PRO	N-CD	17.23	1.71	1.47
23	U	102	PRO	N-CD	16.07	1.70	1.47
27	Y	64	PRO	N-CD	16.01	1.70	1.47
23	U	95	PRO	N-CD	15.80	1.69	1.47
21	S	189	PRO	CG-CD	14.92	2.01	1.50
18	P	340	PRO	N-CD	14.68	1.68	1.47
27	Y	448	PRO	N-CD	14.47	1.68	1.47
21	S	214	TRP	CD1-NE1	14.04	1.67	1.37
27	Y	516	PRO	N-CD	13.97	1.67	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	Y	19	PRO	N-CD	12.99	1.66	1.47
27	Y	322	PRO	N-CD	12.66	1.65	1.47
27	Y	494	PRO	N-CD	12.61	1.65	1.47
18	P	258	TYR	CE2-CZ	-11.33	1.11	1.38
23	U	129	PRO	N-CD	11.32	1.63	1.47
1	1	645	TYR	CE2-CZ	-11.22	1.11	1.38
27	Y	534	PRO	N-CD	10.59	1.62	1.47
3	A	1394	THR	C-N	-9.80	1.21	1.33
18	P	258	TYR	CG-CD1	-8.56	1.21	1.39
1	1	645	TYR	CG-CD1	-8.46	1.21	1.39
6	D	25	ALA	CA-C	8.41	1.62	1.53
27	Y	566	HIS	CD2-NE2	8.22	1.46	1.37
24	V	88	HIS	CD2-NE2	8.20	1.46	1.37
27	Y	661	HIS	CD2-NE2	8.16	1.46	1.37
3	A	867	ILE	CG1-CD1	8.15	1.83	1.51
24	V	118	HIS	CD2-NE2	8.15	1.46	1.37
27	Y	362	HIS	CD2-NE2	8.15	1.46	1.37
23	U	140	HIS	CD2-NE2	8.14	1.46	1.37
27	Y	62	HIS	CD2-NE2	8.14	1.46	1.37
24	V	220	HIS	CD2-NE2	8.14	1.46	1.37
27	Y	350	HIS	CD2-NE2	8.12	1.46	1.37
23	U	134	HIS	CD2-NE2	8.12	1.46	1.37
27	Y	159	HIS	CD2-NE2	8.12	1.46	1.37
27	Y	211	HIS	CD2-NE2	8.10	1.46	1.37
23	U	117	HIS	CD2-NE2	8.09	1.46	1.37
24	V	328	HIS	CD2-NE2	8.04	1.46	1.37
27	Y	66	HIS	CD2-NE2	8.04	1.46	1.37
27	Y	330	HIS	CD2-NE2	8.01	1.46	1.37
4	B	851	PHE	C-N	7.74	1.43	1.33
4	B	973	ILE	C-N	7.67	1.51	1.33
3	A	549	MET	SD-CE	-7.51	1.60	1.79
4	B	218	SER	C-N	7.30	1.43	1.33
18	P	340	PRO	CG-CD	7.21	1.75	1.50
3	A	346	ASP	C-N	-6.89	1.24	1.33
3	A	1454	MET	CA-C	6.82	1.61	1.52
9	G	1	MET	C-N	6.45	1.42	1.33
16	N	1	DA	P-O5'	6.45	1.73	1.60
2	2	260	THR	N-CA	6.28	1.54	1.46
21	S	243	TYR	CG-CD2	6.28	1.52	1.39
8	F	122	MET	SD-CE	6.24	1.95	1.79
21	S	243	TYR	CG-CD1	6.12	1.52	1.39
2	2	269	PHE	CA-C	6.01	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	2	259	ALA	CA-C	5.89	1.60	1.52
6	D	18	VAL	CA-C	5.75	1.60	1.52
4	B	43	LEU	C-N	-5.74	1.25	1.33
27	Y	172	PRO	N-CD	5.65	1.55	1.47
1	1	645	TYR	CE1-CZ	-5.64	1.24	1.38
4	B	839	MET	SD-CE	-5.64	1.65	1.79
18	P	258	TYR	CE1-CZ	-5.59	1.24	1.38
2	2	266	THR	C-O	5.57	1.30	1.24
3	A	437	MET	SD-CE	5.46	1.93	1.79
4	B	1017	ILE	CA-C	5.45	1.58	1.52
2	2	269	PHE	CA-CB	5.34	1.63	1.53
4	B	465	ASN	C-N	-5.31	1.26	1.33
1	1	493	VAL	CA-CB	-5.23	1.50	1.53
2	2	268	ARG	CA-C	5.20	1.59	1.52
3	A	1057	VAL	C-N	5.18	1.39	1.33
18	P	280	VAL	CA-CB	-5.17	1.48	1.54
24	V	336	VAL	N-CA	5.10	1.50	1.46
16	N	1	DA	P-OP2	5.06	1.58	1.48
2	2	290	ASP	N-CA	5.05	1.52	1.46
1	1	408	ILE	CA-CB	-5.04	1.48	1.54

All (548) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	R	155	PRO	CA-N-CD	-67.07	18.11	112.00
20	R	141	ASN	OD1-CG-ND2	-60.58	62.02	122.60
1	1	747	ASN	OD1-CG-ND2	-59.61	62.99	122.60
21	S	199	GLN	OE1-CD-NE2	-59.59	63.01	122.60
20	R	119	PRO	N-CD-CG	-58.68	15.18	103.20
21	S	189	PRO	CA-N-CD	-54.16	36.18	112.00
1	1	753	PRO	N-CD-CG	-48.67	30.19	103.20
18	P	292	PRO	N-CD-CG	-48.02	31.17	103.20
1	1	753	PRO	CA-N-CD	-46.20	47.33	112.00
20	R	119	PRO	CA-N-CD	-42.59	52.37	112.00
1	1	746	PRO	CA-N-CD	-41.41	54.03	112.00
20	R	141	ASN	CB-CG-ND2	-40.18	56.12	116.40
21	S	215	PRO	N-CD-CG	-39.75	43.58	103.20
1	1	747	ASN	CB-CG-ND2	-39.48	57.18	116.40
21	S	199	GLN	CG-CD-NE2	-39.45	57.22	116.40
20	R	155	PRO	N-CD-CG	-38.69	45.16	103.20
1	1	638	ASN	OD1-CG-ND2	-38.63	83.97	122.60
1	1	616	GLN	OE1-CD-NE2	-38.63	83.97	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	P	290	GLN	OE1-CD-NE2	-38.62	83.98	122.60
21	S	136	GLN	OE1-CD-NE2	-38.62	83.98	122.60
1	1	567	GLN	OE1-CD-NE2	-38.61	83.99	122.60
1	1	744	ASN	OD1-CG-ND2	-38.61	83.99	122.60
21	S	247	ASN	OD1-CG-ND2	-38.60	84.00	122.60
1	1	781	ASN	OD1-CG-ND2	-38.60	84.00	122.60
18	P	338	ASN	OD1-CG-ND2	-38.59	84.02	122.60
21	S	216	GLN	OE1-CD-NE2	-38.58	84.02	122.60
18	P	229	ASN	OD1-CG-ND2	-38.56	84.04	122.60
1	1	746	PRO	N-CD-CG	-36.38	48.62	103.20
21	S	215	PRO	CA-N-CD	-34.22	64.10	112.00
18	P	292	PRO	CA-N-CD	-33.49	65.11	112.00
21	S	189	PRO	N-CD-CG	29.58	147.56	103.20
21	S	242	ARG	CD-NE-CZ	-28.84	84.03	124.40
1	1	754	ARG	CD-NE-CZ	-28.82	84.06	124.40
1	1	785	ARG	CD-NE-CZ	-28.82	84.06	124.40
1	1	571	ARG	CD-NE-CZ	-28.80	84.08	124.40
18	P	340	PRO	CA-N-CD	-27.20	73.92	112.00
18	P	24	CYS	C-N-CD	-26.75	15.32	125.00
2	2	269	PHE	O-C-N	-25.50	92.24	123.36
18	P	338	ASN	CB-CG-ND2	-25.50	78.15	116.40
21	S	216	GLN	CG-CD-NE2	-25.50	78.16	116.40
18	P	229	ASN	CB-CG-ND2	-25.49	78.16	116.40
18	P	290	GLN	CG-CD-NE2	-25.47	78.20	116.40
1	1	744	ASN	CB-CG-ND2	-25.46	78.22	116.40
1	1	781	ASN	CB-CG-ND2	-25.45	78.22	116.40
1	1	638	ASN	CB-CG-ND2	-25.45	78.23	116.40
1	1	616	GLN	CG-CD-NE2	-25.45	78.23	116.40
21	S	136	GLN	CG-CD-NE2	-25.45	78.23	116.40
1	1	567	GLN	CG-CD-NE2	-25.44	78.24	116.40
21	S	247	ASN	CB-CG-ND2	-25.39	78.31	116.40
21	S	189	PRO	CB-CG-CD	-25.16	25.59	106.10
18	P	326	PRO	CA-N-CD	-24.73	77.38	112.00
2	2	269	PHE	CA-C-N	23.98	163.62	122.37
2	2	269	PHE	C-N-CA	23.98	163.62	122.37
18	P	30	TYR	C-N-CD	-21.44	73.43	120.60
18	P	326	PRO	CA-CB-CG	-20.98	64.63	104.50
21	S	247	ASN	CB-CG-OD1	20.29	161.39	120.80
1	1	567	GLN	CG-CD-OE1	20.26	161.31	120.80
1	1	781	ASN	CB-CG-OD1	20.25	161.31	120.80
1	1	744	ASN	CB-CG-OD1	20.25	161.30	120.80
21	S	136	GLN	CG-CD-OE1	20.25	161.31	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	1	616	GLN	CG-CD-OE1	20.25	161.30	120.80
18	P	229	ASN	CB-CG-OD1	20.25	161.29	120.80
1	1	638	ASN	CB-CG-OD1	20.24	161.28	120.80
18	P	290	GLN	CG-CD-OE1	20.24	161.28	120.80
21	S	216	GLN	CG-CD-OE1	20.23	161.26	120.80
18	P	338	ASN	CB-CG-OD1	20.23	161.26	120.80
18	P	303	GLN	N-CA-CB	-20.11	76.50	110.49
18	P	340	PRO	N-CD-CG	19.40	132.30	103.20
3	A	234	MET	O-C-N	-18.92	99.27	122.17
18	P	303	GLN	CB-CA-C	-17.17	76.25	110.42
27	Y	533	THR	C-N-CD	-16.23	58.45	125.00
1	1	505	ILE	CB-CA-C	-15.57	91.60	110.91
18	P	326	PRO	N-CA-CB	14.30	118.27	103.25
3	A	1394	THR	CA-C-N	13.99	133.39	120.10
3	A	1394	THR	C-N-CA	13.99	133.39	120.10
3	A	234	MET	CA-C-N	12.68	138.23	120.98
3	A	234	MET	C-N-CA	12.68	138.23	120.98
21	S	214	TRP	CG-CD1-NE1	-11.96	94.66	110.20
6	D	26	THR	N-CA-C	-11.85	96.19	112.30
18	P	120	ASP	N-CA-C	11.67	123.56	111.07
18	P	325	ASP	CA-CB-CG	-11.52	101.08	112.60
21	S	214	TRP	CE2-CD2-CG	11.44	120.93	107.20
3	A	95	PHE	CA-C-N	-11.27	101.69	121.97
3	A	95	PHE	C-N-CA	-11.27	101.69	121.97
1	1	476	PHE	N-CA-C	-10.64	99.69	111.28
23	U	102	PRO	N-CA-CB	10.56	113.23	103.19
21	S	214	TRP	NE1-CE2-CD2	-10.45	93.82	107.40
18	P	340	PRO	CB-CG-CD	-9.97	74.19	106.10
10	H	92	ASP	N-CA-C	-9.78	101.57	112.72
4	B	296	GLU	N-CA-C	-9.75	99.70	111.69
18	P	161	LYS	N-CA-C	9.67	124.69	111.54
21	S	218	ASP	CA-CB-CG	-9.59	103.01	112.60
23	U	94	ASP	C-N-CD	-9.56	85.81	125.00
5	C	39	ALA	N-CA-C	9.53	125.69	112.45
24	V	74	PRO	N-CA-CB	9.51	113.23	103.25
18	P	258	TYR	CG-CD2-CE2	9.47	135.40	121.20
4	B	628	THR	CA-C-N	9.42	135.34	121.31
4	B	628	THR	C-N-CA	9.42	135.34	121.31
12	J	5	VAL	N-CA-C	-9.39	97.46	109.58
24	V	344	PRO	CA-N-CD	-9.37	98.88	112.00
1	1	645	TYR	CG-CD2-CE2	9.34	135.21	121.20
3	A	346	ASP	O-C-N	-9.32	110.64	122.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	P	165	GLY	N-CA-C	-9.22	100.02	113.48
23	U	136	PRO	N-CA-CB	9.11	112.81	103.25
24	V	128	VAL	N-CA-C	9.01	119.03	110.30
18	P	46	ALA	N-CA-C	-9.00	102.85	112.93
18	P	321	ASP	CA-CB-CG	-8.93	103.67	112.60
18	P	326	PRO	N-CD-CG	-8.91	89.83	103.20
6	D	25	ALA	CA-C-N	8.89	136.99	122.14
6	D	25	ALA	C-N-CA	8.89	136.99	122.14
20	R	142	PHE	CA-CB-CG	-8.81	104.99	113.80
1	1	450	SER	N-CA-C	-8.78	101.61	111.71
10	H	81	PRO	N-CA-C	8.75	121.38	110.70
20	R	25	PHE	CA-CB-CG	-8.68	105.12	113.80
20	R	15	PHE	CA-CB-CG	-8.55	105.25	113.80
4	B	1122	ARG	CA-C-N	8.42	131.90	120.54
4	B	1122	ARG	C-N-CA	8.42	131.90	120.54
21	S	243	TYR	CB-CG-CD2	-8.36	108.25	120.80
24	V	74	PRO	CA-N-CD	-8.33	100.34	112.00
23	U	136	PRO	CA-N-CD	-8.24	100.46	112.00
6	D	54	GLU	N-CA-C	-8.21	102.41	111.36
24	V	295	PRO	N-CA-CB	8.21	111.87	103.25
10	H	129	TYR	N-CA-C	8.12	119.76	111.07
1	1	477	LEU	CA-C-N	-8.09	106.08	121.54
1	1	477	LEU	C-N-CA	-8.09	106.08	121.54
18	P	338	ASN	CA-CB-CG	-8.07	104.53	112.60
23	U	102	PRO	CA-N-CD	-7.98	100.83	112.00
21	S	241	PRO	N-CA-CB	7.98	110.38	103.36
1	1	498	PHE	CA-CB-CG	-7.92	105.88	113.80
24	V	295	PRO	CA-N-CD	-7.89	100.95	112.00
1	1	502	VAL	CB-CA-C	-7.87	101.71	112.02
21	S	214	TRP	CD1-CG-CD2	7.87	118.89	106.30
3	A	194	ALA	CA-C-N	7.87	135.86	121.70
3	A	194	ALA	C-N-CA	7.87	135.86	121.70
1	1	645	TYR	CD1-CG-CD2	-7.84	106.34	118.10
24	V	344	PRO	N-CA-CB	7.81	111.45	103.25
23	U	108	LYS	N-CA-C	-7.78	103.24	112.89
18	P	340	PRO	N-CA-CB	7.77	111.55	103.00
18	P	258	TYR	CD1-CG-CD2	-7.75	106.48	118.10
18	P	94	THR	CB-CA-C	-7.75	107.63	116.54
27	Y	493	LEU	C-N-CD	-7.72	93.36	125.00
21	S	214	TRP	CG-CD2-CE3	-7.71	126.19	133.90
18	P	222	PHE	N-CA-C	7.70	122.82	112.88
3	A	143	LYS	CA-C-N	7.69	130.58	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	143	LYS	C-N-CA	7.69	130.58	120.28
6	D	31	GLN	N-CA-C	-7.64	103.04	111.36
18	P	48	CYS	N-CA-C	-7.62	104.13	113.50
4	B	629	ASP	CA-CB-CG	7.56	120.16	112.60
3	A	485	ASP	CA-CB-CG	7.55	120.16	112.60
4	B	340	ALA	CA-C-N	7.50	135.87	121.54
4	B	340	ALA	C-N-CA	7.50	135.87	121.54
23	U	135	LEU	C-N-CD	-7.50	94.24	125.00
3	A	399	HIS	N-CA-CB	7.44	123.61	110.37
20	R	20	PHE	CA-CB-CG	-7.44	106.36	113.80
1	1	647	ASP	CA-CB-CG	-7.38	105.22	112.60
27	Y	516	PRO	N-CA-CB	7.36	111.33	103.52
2	2	292	PRO	N-CA-C	7.34	127.59	112.47
3	A	998	LEU	N-CA-C	7.32	120.60	108.96
4	B	736	THR	N-CA-C	-7.32	104.20	113.72
18	P	183	ALA	N-CA-C	-7.32	97.91	108.60
1	1	746	PRO	N-CA-CB	7.31	110.92	103.25
4	B	1169	MET	CA-C-N	7.24	130.95	120.38
4	B	1169	MET	C-N-CA	7.24	130.95	120.38
2	2	266	THR	N-CA-C	7.22	121.45	109.46
5	C	62	PHE	CA-C-N	7.21	129.64	120.56
5	C	62	PHE	C-N-CA	7.21	129.64	120.56
12	J	9	SER	N-CA-C	7.21	118.78	111.07
8	F	87	LYS	CA-C-N	7.20	129.92	120.28
8	F	87	LYS	C-N-CA	7.20	129.92	120.28
18	P	318	GLU	CB-CG-CD	-7.13	100.48	112.60
10	H	128	ASN	CA-C-N	7.12	129.70	120.44
10	H	128	ASN	C-N-CA	7.12	129.70	120.44
23	U	95	PRO	N-CA-CB	7.12	110.72	103.25
2	2	303	GLY	N-CA-C	7.11	125.84	115.32
27	Y	310	PRO	N-CA-CB	7.10	110.82	103.23
9	G	34	VAL	N-CA-C	7.07	117.68	110.82
18	P	198	VAL	N-CA-C	7.06	124.02	109.34
27	Y	310	PRO	CA-N-CD	-7.04	102.14	112.00
1	1	632	PRO	N-CA-CB	7.02	109.99	103.39
1	1	484	PHE	CA-CB-CG	-6.99	106.81	113.80
1	1	465	ASN	CA-CB-CG	-6.97	105.63	112.60
5	C	183	TRP	N-CA-C	-6.96	97.89	109.24
1	1	451	GLY	CA-C-N	-6.95	110.43	120.29
1	1	451	GLY	C-N-CA	-6.95	110.43	120.29
24	V	127	LYS	N-CA-C	-6.93	104.13	112.59
1	1	744	ASN	C-N-CD	-6.93	96.58	125.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
18	P	258	TYR	CB-CG-CD2	6.91	131.17	120.80
2	2	267	ASP	N-CA-C	6.85	122.82	113.37
27	Y	516	PRO	CA-N-CD	-6.84	102.42	112.00
6	D	51	ASN	CA-CB-CG	6.79	119.39	112.60
27	Y	216	PRO	CA-N-CD	-6.77	102.53	112.00
1	1	493	VAL	CB-CA-C	-6.76	107.18	114.35
18	P	325	ASP	C-N-CD	-6.75	97.33	125.00
1	1	492	VAL	CA-C-N	6.70	124.46	120.24
1	1	492	VAL	C-N-CA	6.70	124.46	120.24
21	S	215	PRO	N-CA-CB	6.69	110.36	103.00
23	U	95	PRO	CA-N-CD	-6.69	102.63	112.00
18	P	292	PRO	N-CA-CB	6.66	110.24	103.25
9	G	2	PHE	CA-CB-CG	6.65	120.45	113.80
2	2	291	GLU	CA-C-N	6.64	128.14	119.84
2	2	291	GLU	C-N-CA	6.64	128.14	119.84
12	J	18	TRP	N-CA-C	6.64	118.40	111.03
1	1	645	TYR	CB-CG-CD2	6.62	130.74	120.80
18	P	325	ASP	CA-C-N	6.62	128.12	119.84
18	P	325	ASP	C-N-CA	6.62	128.12	119.84
4	B	1181	GLU	N-CA-C	6.62	124.90	110.80
1	1	469	ASP	CA-CB-CG	-6.60	106.00	112.60
27	Y	216	PRO	N-CA-CB	6.58	110.57	103.33
3	A	219	PHE	CA-CB-CG	6.57	120.36	113.80
18	P	256	ALA	N-CA-C	-6.56	104.05	111.07
4	B	339	THR	CA-C-N	6.53	134.01	121.54
4	B	339	THR	C-N-CA	6.53	134.01	121.54
4	B	294	ASP	CA-CB-CG	6.52	119.12	112.60
5	C	40	GLU	N-CA-C	6.52	121.39	113.17
5	C	178	PHE	CA-CB-CG	6.52	120.32	113.80
3	A	897	TYR	N-CA-C	6.51	121.36	113.41
1	1	753	PRO	N-CA-CB	6.51	110.49	103.33
18	P	31	PRO	C-N-CD	-6.49	98.41	125.00
3	A	223	GLY	CA-C-N	6.47	133.90	121.54
3	A	223	GLY	C-N-CA	6.47	133.90	121.54
3	A	472	LEU	N-CA-C	6.47	119.15	111.71
6	D	163	VAL	CA-C-N	6.46	129.31	120.46
6	D	163	VAL	C-N-CA	6.46	129.31	120.46
4	B	1156	ASP	N-CA-C	6.46	124.56	110.80
4	B	790	ASP	CA-CB-CG	6.45	119.05	112.60
9	G	65	ASP	CA-CB-CG	6.45	119.05	112.60
5	C	200	GLU	N-CA-C	6.43	118.37	111.36
1	1	434	ASN	CA-CB-CG	-6.42	106.17	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	C	135	GLN	CA-C-N	6.40	131.55	121.56
5	C	135	GLN	C-N-CA	6.40	131.55	121.56
1	1	452	LEU	N-CA-CB	6.39	119.62	110.16
4	B	1177	HIS	N-CA-C	-6.39	105.52	113.38
4	B	1219	ASP	CA-CB-CG	6.39	118.99	112.60
18	P	161	LYS	CB-CA-C	-6.39	102.47	111.80
18	P	185	VAL	N-CA-C	6.36	116.52	110.42
5	C	89	GLU	N-CA-C	-6.35	96.72	108.02
6	D	31	GLN	CA-C-N	6.32	128.75	120.28
6	D	31	GLN	C-N-CA	6.32	128.75	120.28
4	B	818	PRO	N-CA-C	6.32	120.07	111.22
2	2	302	CYS	N-CA-C	6.31	120.71	112.89
27	Y	470	PRO	CA-N-CD	-6.29	103.19	112.00
27	Y	448	PRO	CA-N-CD	-6.25	103.24	112.00
18	P	263	CYS	N-CA-C	-6.25	104.38	111.07
24	V	66	ARG	N-CA-C	-6.25	105.23	112.92
3	A	169	ASN	N-CA-C	6.24	119.09	110.35
3	A	408	ASP	CA-C-N	6.24	130.68	120.63
3	A	408	ASP	C-N-CA	6.24	130.68	120.63
18	P	160	GLU	N-CA-C	6.23	124.07	110.80
4	B	1180	PHE	CA-CB-CG	-6.22	107.58	113.80
3	A	123	ARG	CA-C-N	6.20	128.88	120.44
3	A	123	ARG	C-N-CA	6.20	128.88	120.44
19	Q	172	LEU	N-CA-C	6.20	117.70	111.07
18	P	36	GLU	N-CA-C	-6.19	105.67	113.72
3	A	398	GLU	CA-C-O	-6.19	114.82	121.56
1	1	446	PHE	CA-CB-CG	-6.17	107.62	113.80
3	A	411	ASP	CA-C-N	6.16	130.31	121.50
3	A	411	ASP	C-N-CA	6.16	130.31	121.50
4	B	363	HIS	N-CA-C	-6.15	102.56	110.19
27	Y	470	PRO	N-CA-CB	6.14	109.80	103.23
6	D	188	ALA	N-CA-C	-6.09	105.11	112.54
1	1	529	PHE	CA-CB-CG	-6.07	107.73	113.80
13	K	53	ASP	CA-CB-CG	6.07	118.67	112.60
18	P	318	GLU	CA-CB-CG	-6.07	101.96	114.10
6	D	18	VAL	CA-C-N	6.06	132.61	121.70
6	D	18	VAL	C-N-CA	6.06	132.61	121.70
9	G	106	MET	N-CA-C	6.06	119.53	110.14
18	P	30	TYR	CB-CA-C	-6.05	105.02	110.71
4	B	338	GLY	CA-C-N	6.05	132.58	121.70
4	B	338	GLY	C-N-CA	6.05	132.58	121.70
18	P	88	ASP	CB-CA-C	-6.04	109.62	116.63

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	1112	LYS	N-CA-C	6.04	119.11	111.69
21	S	214	TRP	CE2-CD2-CE3	-6.04	112.76	118.80
11	I	8	ARG	N-CA-C	-6.01	100.20	109.76
18	P	225	ILE	N-CA-C	6.01	115.86	108.53
2	2	261	ILE	N-CA-C	-6.00	100.08	108.12
27	Y	448	PRO	N-CA-CB	5.99	109.86	103.39
3	A	1376	THR	CB-CA-C	5.99	120.91	111.39
10	H	131	ASN	N-CA-C	-5.98	104.84	111.36
27	Y	494	PRO	N-CA-CB	5.98	109.53	103.25
4	B	642	ASP	N-CA-C	-5.97	105.09	112.38
11	I	94	ASP	CA-C-N	5.96	132.93	121.54
11	I	94	ASP	C-N-CA	5.96	132.93	121.54
4	B	707	PRO	CA-C-N	5.96	128.59	120.54
4	B	707	PRO	C-N-CA	5.96	128.59	120.54
20	R	22	GLY	CA-C-N	5.96	126.56	120.00
20	R	22	GLY	C-N-CA	5.96	126.56	120.00
18	P	324	VAL	CA-C-N	5.92	127.50	120.09
18	P	324	VAL	C-N-CA	5.92	127.50	120.09
12	J	14	VAL	N-CA-C	-5.92	107.36	113.10
3	A	794	PRO	CA-C-N	5.89	128.76	120.28
3	A	794	PRO	C-N-CA	5.89	128.76	120.28
7	E	123	LEU	CA-C-N	5.88	125.03	120.33
7	E	123	LEU	C-N-CA	5.88	125.03	120.33
3	A	853	ASP	CA-CB-CG	5.88	118.47	112.60
21	S	243	TYR	CB-CG-CD1	-5.87	111.99	120.80
1	1	452	LEU	CA-C-N	-5.85	115.56	122.93
1	1	452	LEU	C-N-CA	-5.85	115.56	122.93
3	A	718	VAL	CA-C-N	5.85	128.78	120.53
3	A	718	VAL	C-N-CA	5.85	128.78	120.53
3	A	462	VAL	N-CA-CB	5.85	117.50	110.31
7	E	171	LYS	N-CA-C	-5.84	100.76	110.17
4	B	211	VAL	CB-CA-C	-5.84	102.43	110.96
4	B	791	THR	N-CA-C	-5.83	101.02	109.59
27	Y	64	PRO	CA-N-CD	-5.83	103.83	112.00
1	1	487	LEU	CB-CA-C	-5.83	101.29	110.79
7	E	95	THR	CA-C-N	5.82	128.08	120.28
7	E	95	THR	C-N-CA	5.82	128.08	120.28
21	S	227	ASP	CA-CB-CG	5.82	118.42	112.60
14	L	44	ASP	CA-C-N	5.80	132.62	121.54
14	L	44	ASP	C-N-CA	5.80	132.62	121.54
18	P	198	VAL	CB-CA-C	-5.80	101.77	111.29
3	A	424	ILE	CA-C-N	-5.80	115.30	122.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	A	424	ILE	C-N-CA	-5.80	115.30	122.84
3	A	30	ILE	CB-CA-C	-5.79	104.43	112.02
3	A	871	ASP	CA-CB-CG	5.79	118.39	112.60
4	B	703	ILE	N-CA-C	5.78	117.33	108.71
9	G	141	SER	N-CA-C	5.75	117.72	110.24
4	B	825	VAL	N-CA-C	5.75	116.13	107.80
3	A	832	ALA	CA-C-N	5.75	127.91	120.44
3	A	832	ALA	C-N-CA	5.75	127.91	120.44
3	A	800	VAL	CA-C-N	5.74	127.98	120.28
3	A	800	VAL	C-N-CA	5.74	127.98	120.28
1	1	374	PHE	CA-CB-CG	-5.73	108.07	113.80
27	Y	64	PRO	N-CA-CB	5.73	109.64	103.33
12	J	14	VAL	CB-CA-C	5.72	117.23	110.93
3	A	728	LYS	CA-C-N	5.72	128.22	120.38
3	A	728	LYS	C-N-CA	5.72	128.22	120.38
11	I	52	ILE	N-CA-CB	5.71	118.17	111.66
21	S	215	PRO	CA-CB-CG	5.71	115.34	104.50
3	A	833	GLU	CA-C-N	5.70	127.91	120.28
3	A	833	GLU	C-N-CA	5.70	127.91	120.28
3	A	938	LYS	CA-C-N	5.69	128.23	120.54
3	A	938	LYS	C-N-CA	5.69	128.23	120.54
3	A	537	ARG	CA-C-N	5.68	128.68	120.38
3	A	537	ARG	C-N-CA	5.68	128.68	120.38
6	D	173	HIS	CB-CA-C	5.68	118.34	109.42
1	1	326	VAL	N-CA-C	-5.68	103.79	110.21
18	P	223	LEU	N-CA-C	5.68	122.89	110.80
3	A	602	ASP	CA-CB-CG	5.67	118.27	112.60
14	L	49	LYS	CA-C-N	5.67	132.37	121.54
14	L	49	LYS	C-N-CA	5.67	132.37	121.54
1	1	645	TYR	CD1-CE1-CZ	5.67	129.80	119.60
18	P	162	THR	N-CA-C	5.67	118.49	108.24
23	U	328	LYS	N-CA-C	-5.66	103.05	110.53
27	Y	494	PRO	CA-N-CD	-5.66	104.07	112.00
18	P	258	TYR	CD1-CE1-CZ	5.66	129.79	119.60
4	B	732	SER	N-CA-C	5.65	116.83	108.86
18	P	326	PRO	CB-CG-CD	5.65	124.19	106.10
3	A	1138	ILE	N-CA-C	5.63	116.46	111.90
1	1	309	ASP	CA-CB-CG	-5.62	106.98	112.60
9	G	66	GLY	CA-C-N	5.62	132.27	121.54
9	G	66	GLY	C-N-CA	5.62	132.27	121.54
4	B	343	ILE	CA-C-N	5.61	132.25	121.54
4	B	343	ILE	C-N-CA	5.61	132.25	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	V	116	ILE	N-CA-C	5.61	120.99	108.88
21	S	167	ASP	CA-CB-CG	-5.60	107.00	112.60
27	Y	322	PRO	N-CA-CB	5.60	109.16	103.00
3	A	1344	GLY	CA-C-N	5.59	127.71	120.44
3	A	1344	GLY	C-N-CA	5.59	127.71	120.44
6	D	158	GLU	CA-C-N	5.58	127.70	120.44
6	D	158	GLU	C-N-CA	5.58	127.70	120.44
4	B	1013	ASN	N-CA-C	5.57	117.69	109.50
18	P	197	HIS	N-CA-C	5.57	118.16	109.52
1	1	746	PRO	CA-CB-CG	5.56	115.06	104.50
4	B	1009	ASP	N-CA-C	-5.56	105.62	112.90
3	A	1001	ARG	N-CA-C	5.55	120.71	113.88
3	A	1072	ILE	N-CA-C	-5.55	107.41	111.90
21	S	194	LYS	CG-CD-CE	5.54	124.05	111.30
1	1	343	PHE	CA-CB-CG	-5.54	108.26	113.80
3	A	222	LEU	N-CA-C	-5.54	103.60	110.41
3	A	346	ASP	CA-C-N	5.54	129.99	122.07
3	A	346	ASP	C-N-CA	5.54	129.99	122.07
1	1	478	THR	CB-CA-C	5.53	121.43	110.42
4	B	1155	SER	CA-C-N	5.53	132.10	121.54
4	B	1155	SER	C-N-CA	5.53	132.10	121.54
3	A	496	GLU	CA-C-N	5.52	127.67	120.28
3	A	496	GLU	C-N-CA	5.52	127.67	120.28
4	B	1017	ILE	N-CA-C	5.52	120.80	108.88
1	1	472	LYS	N-CA-C	5.51	116.98	110.97
3	A	229	SER	N-CA-C	5.51	117.69	107.60
1	1	473	VAL	N-CA-C	5.51	115.98	107.78
3	A	629	LEU	N-CA-C	-5.50	105.28	111.28
20	R	123	MET	CG-SD-CE	-5.50	88.81	100.90
4	B	755	ILE	N-CA-C	-5.49	107.44	113.43
3	A	218	ASP	CA-CB-CG	5.48	118.08	112.60
3	A	173	THR	CB-CA-C	5.48	120.51	111.31
3	A	399	HIS	CA-CB-CG	-5.47	108.33	113.80
3	A	874	ASP	CA-CB-CG	5.46	118.06	112.60
4	B	733	HIS	CA-C-N	5.45	127.85	120.38
4	B	733	HIS	C-N-CA	5.45	127.85	120.38
4	B	41	LYS	N-CA-C	5.45	117.30	111.36
8	F	82	THR	CB-CA-C	-5.45	100.91	109.52
3	A	332	LYS	N-CA-C	-5.44	102.34	110.23
4	B	1185	CYS	N-CA-C	-5.44	106.77	113.41
4	B	1180	PHE	N-CA-C	5.44	119.58	112.13
20	R	50	ASN	CA-CB-CG	-5.43	107.17	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	43	LEU	N-CA-C	5.43	119.89	113.16
3	A	1269	GLU	N-CA-C	5.42	118.36	111.69
7	E	172	GLU	CA-C-N	5.41	127.85	120.54
7	E	172	GLU	C-N-CA	5.41	127.85	120.54
3	A	1231	ASP	CA-C-N	5.41	127.98	120.63
3	A	1231	ASP	C-N-CA	5.41	127.98	120.63
1	1	379	ALA	N-CA-C	-5.41	105.29	111.07
27	Y	322	PRO	CA-N-CD	-5.41	104.43	112.00
3	A	867	ILE	CB-CA-C	5.39	118.79	110.28
3	A	224	PHE	CA-CB-CG	-5.38	108.42	113.80
5	C	87	PHE	N-CA-C	5.38	119.83	113.16
1	1	479	GLY	N-CA-C	5.38	125.93	113.18
4	B	218	SER	O-C-N	-5.37	116.76	123.04
4	B	1186	ASP	CA-CB-CG	5.37	117.97	112.60
12	J	8	PHE	CA-CB-CG	5.36	119.16	113.80
6	D	214	LEU	N-CA-C	-5.36	106.42	113.12
10	H	137	GLN	CA-C-N	5.35	127.99	120.28
10	H	137	GLN	C-N-CA	5.35	127.99	120.28
1	1	430	LEU	N-CA-C	-5.35	105.45	111.28
3	A	1295	THR	CB-CA-C	5.34	121.07	110.17
12	J	16	ASP	CA-CB-CG	5.34	117.94	112.60
3	A	510	GLN	N-CA-C	5.34	119.42	113.01
27	Y	383	LEU	N-CA-C	5.34	116.78	111.07
18	P	325	ASP	N-CA-CB	-5.33	102.16	110.43
24	V	216	GLY	N-CA-C	5.33	118.27	110.38
2	2	298	THR	CB-CA-C	-5.33	103.38	110.79
10	H	128	ASN	CA-CB-CG	5.33	117.93	112.60
6	D	26	THR	CA-C-N	5.33	130.12	122.40
6	D	26	THR	C-N-CA	5.33	130.12	122.40
3	A	1161	THR	N-CA-C	5.32	118.16	109.59
23	U	105	ALA	CA-C-N	5.32	126.15	119.98
23	U	105	ALA	C-N-CA	5.32	126.15	119.98
14	L	40	LEU	N-CA-C	5.32	117.55	110.53
18	P	144	LYS	N-CA-C	5.31	117.15	111.36
27	Y	696	TRP	CZ3-CH2-CZ2	5.31	128.41	121.50
4	B	1099	VAL	N-CA-CB	5.31	116.40	110.51
2	2	276	GLU	N-CA-C	5.30	118.05	109.40
24	V	69	TRP	CZ3-CH2-CZ2	5.30	128.39	121.50
18	P	292	PRO	CA-CB-CG	5.30	114.56	104.50
4	B	1065	GLN	CB-CA-C	5.29	118.97	110.29
23	U	361	TRP	CZ3-CH2-CZ2	5.29	128.37	121.50
24	V	81	TRP	CZ3-CH2-CZ2	5.28	128.37	121.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	V	100	ASP	N-CA-C	-5.28	101.27	109.14
3	A	592	ASP	CA-CB-CG	5.28	117.88	112.60
3	A	664	THR	CB-CA-C	5.27	118.80	109.89
23	U	359	ASN	N-CA-C	5.27	117.09	110.24
3	A	1205	LYS	N-CA-C	-5.26	98.26	107.73
3	A	1117	THR	CB-CA-C	5.26	120.07	111.23
3	A	535	THR	N-CA-C	5.25	118.53	112.97
4	B	973	ILE	O-C-N	5.25	125.55	121.46
3	A	1266	THR	N-CA-C	-5.24	105.47	111.07
4	B	222	ILE	CA-C-N	5.24	129.03	121.18
4	B	222	ILE	C-N-CA	5.24	129.03	121.18
24	V	313	TRP	CZ3-CH2-CZ2	5.23	128.30	121.50
9	G	63	PRO	N-CA-C	5.23	123.25	112.47
10	H	83	GLN	CA-C-N	5.23	130.72	120.99
10	H	83	GLN	C-N-CA	5.23	130.72	120.99
27	Y	564	TRP	CZ3-CH2-CZ2	5.23	128.29	121.50
4	B	628	THR	N-CA-C	-5.22	106.91	113.28
21	S	189	PRO	N-CA-CB	5.22	109.08	103.33
7	E	147	HIS	CA-C-N	5.22	129.49	121.19
7	E	147	HIS	C-N-CA	5.22	129.49	121.19
7	E	177	ARG	N-CA-C	5.22	117.47	109.07
3	A	451	HIS	N-CA-CB	-5.21	101.82	111.52
3	A	969	GLN	N-CA-CB	5.21	117.87	110.16
24	V	294	MET	N-CA-C	-5.21	105.77	113.16
2	2	253	LEU	N-CA-C	-5.20	105.52	111.14
21	S	188	SER	C-N-CD	5.20	146.31	125.00
7	E	21	GLU	CA-C-N	5.19	127.24	120.28
7	E	21	GLU	C-N-CA	5.19	127.24	120.28
3	A	666	ILE	N-CA-CB	5.19	119.52	110.65
1	1	449	GLU	N-CA-C	-5.18	99.75	110.80
5	C	262	LEU	CA-C-N	5.18	127.22	120.28
5	C	262	LEU	C-N-CA	5.18	127.22	120.28
3	A	1079	MET	N-CA-C	5.17	116.95	108.52
18	P	43	VAL	N-CA-C	5.17	120.10	109.34
4	B	233	PRO	CA-C-N	5.17	128.79	121.66
4	B	233	PRO	C-N-CA	5.17	128.79	121.66
27	Y	444	ILE	N-CA-C	5.17	115.38	110.42
21	S	243	TYR	CG-CD2-CE2	-5.17	113.45	121.20
1	1	377	GLY	N-CA-C	-5.16	105.92	114.48
11	I	110	PHE	CA-CB-CG	5.15	118.95	113.80
12	J	64	ASN	N-CA-C	5.15	121.19	109.81
1	1	376	ASN	N-CA-C	-5.15	107.67	114.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
8	F	122	MET	CA-C-N	5.14	127.12	120.44
8	F	122	MET	C-N-CA	5.14	127.12	120.44
11	I	93	LYS	CA-C-N	5.14	129.36	121.19
11	I	93	LYS	C-N-CA	5.14	129.36	121.19
3	A	408	ASP	CA-CB-CG	5.14	117.74	112.60
5	C	225	ALA	N-CA-C	5.14	116.63	108.67
1	1	753	PRO	CA-CB-CG	5.13	114.25	104.50
18	P	290	GLN	N-CA-C	-5.13	99.87	110.80
6	D	23	ASN	CA-CB-CG	5.13	117.73	112.60
21	S	243	TYR	CD1-CG-CD2	-5.13	110.41	118.10
4	B	366	GLN	N-CA-C	-5.12	105.93	113.61
1	1	431	GLN	N-CA-C	-5.12	105.90	113.16
1	1	451	GLY	N-CA-C	-5.12	101.06	113.18
1	1	447	GLN	N-CA-C	5.11	121.69	110.80
27	Y	463	ILE	N-CA-C	5.11	119.97	109.34
1	1	358	PRO	N-CA-C	-5.11	101.94	112.47
3	A	244	PRO	N-CA-C	5.11	116.93	110.70
4	B	810	GLU	CA-C-N	5.10	129.35	120.68
4	B	810	GLU	C-N-CA	5.10	129.35	120.68
9	G	18	PHE	CA-CB-CG	5.10	118.90	113.80
10	H	145	ARG	CA-C-N	5.10	130.88	121.70
10	H	145	ARG	C-N-CA	5.10	130.88	121.70
3	A	5	GLN	N-CA-C	5.09	117.11	110.43
17	O	43	THR	N-CA-C	-5.09	105.42	111.69
1	1	307	ASP	CA-CB-CG	-5.09	107.51	112.60
3	A	478	TYR	CA-C-N	5.09	129.78	122.35
3	A	478	TYR	C-N-CA	5.09	129.78	122.35
1	1	337	VAL	N-CA-C	5.08	115.20	110.42
3	A	1315	GLU	N-CA-C	5.08	116.63	111.14
4	B	472	ALA	CA-C-N	5.08	131.24	121.54
4	B	472	ALA	C-N-CA	5.08	131.24	121.54
4	B	681	TRP	N-CA-C	-5.08	105.82	111.36
1	1	476	PHE	CA-CB-CG	-5.07	108.73	113.80
3	A	106	VAL	N-CA-CB	-5.07	106.56	112.34
4	B	296	GLU	CA-C-N	5.07	126.95	120.56
4	B	296	GLU	C-N-CA	5.07	126.95	120.56
9	G	46	LEU	N-CA-C	5.07	117.78	111.24
3	A	193	ASP	CA-C-N	5.07	130.82	121.70
3	A	193	ASP	C-N-CA	5.07	130.82	121.70
5	C	136	ASP	CA-CB-CG	5.07	117.67	112.60
4	B	1096	ARG	N-CA-C	5.06	118.94	112.87
3	A	1127	ASP	CA-CB-CG	5.05	117.65	112.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	U	358	TYR	N-CA-C	5.05	121.56	110.80
20	R	21	TYR	CA-CB-CG	-5.05	104.81	113.90
3	A	192	GLY	CA-C-N	5.05	131.18	121.54
3	A	192	GLY	C-N-CA	5.05	131.18	121.54
21	S	189	PRO	CA-CB-CG	5.05	114.09	104.50
3	A	466	SER	N-CA-C	5.04	120.33	113.37
5	C	243	VAL	N-CA-C	-5.04	105.63	110.72
4	B	663	ALA	N-CA-C	-5.03	105.26	111.40
3	A	474	VAL	CA-C-N	5.03	127.29	120.65
3	A	474	VAL	C-N-CA	5.03	127.29	120.65
18	P	315	ILE	CA-CB-CG1	5.02	118.94	110.40
18	P	333	VAL	N-CA-CB	-5.02	102.27	111.91
15	M	246	CYS	N-CA-C	5.02	114.46	107.73
27	Y	534	PRO	N-CA-CB	5.02	108.52	103.25
4	B	222	ILE	N-CA-C	5.02	115.08	107.75
3	A	818	MET	CA-C-N	5.02	125.55	119.98
3	A	818	MET	C-N-CA	5.02	125.55	119.98
9	G	154	VAL	CA-C-N	5.01	130.97	122.65
9	G	154	VAL	C-N-CA	5.01	130.97	122.65
27	Y	414	GLU	N-CA-CB	-5.01	106.05	114.27
27	Y	49	THR	CB-CA-C	5.01	119.37	110.85
3	A	147	VAL	N-CA-C	5.01	115.13	108.27
3	A	1237	ILE	N-CA-C	5.01	117.02	108.86
2	2	241	LEU	N-CA-C	-5.00	106.35	112.90
4	B	276	ILE	CA-C-N	5.00	127.29	120.54
4	B	276	ILE	C-N-CA	5.00	127.29	120.54

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	1	690	ILE	CB
18	P	269	ILE	CB
18	P	277	ILE	CB
20	R	126	ILE	CB

All (9) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	1	661	SER	Peptide
2	2	269	PHE	Peptide,Sidechain
3	A	234	MET	Mainchain
3	A	95	PHE	Mainchain

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Mol	Chain	Res	Type	Group
4	B	43	LEU	Mainchain
21	S	243	TYR	Sidechain
27	Y	555	GLN	Peptide
27	Y	593	GLY	Peptide

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	1	3797	0	3727	947	0
2	2	666	0	546	253	0
3	A	11174	0	11219	733	0
4	B	9140	0	9107	436	0
5	C	2095	0	2051	46	0
6	D	1434	0	1460	71	0
7	E	1752	0	1776	30	0
8	F	679	0	699	94	0
9	G	1340	0	1353	175	0
10	H	1068	0	1040	22	0
11	I	971	0	927	16	0
12	J	532	0	542	16	0
13	K	920	0	929	19	0
14	L	363	0	386	24	0
15	M	956	0	916	34	0
16	N	1500	0	805	233	0
17	O	792	0	806	49	0
18	P	2269	0	2346	1265	0
19	Q	1416	0	1491	159	0
20	R	960	0	969	345	0
21	S	1005	0	1024	586	0
22	T	1452	0	822	274	0
23	U	1248	0	1230	238	0
24	V	1455	0	1465	474	0
25	W	518	0	514	30	0
26	X	499	0	525	12	0
27	Y	4660	691	4743	825	0
28	2	1	0	0	0	0
28	A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
29	2	1	0	0	0	0
29	A	2	0	0	0	0
29	B	1	0	0	0	0
29	C	1	0	0	0	0
29	I	2	0	0	0	0
29	J	1	0	0	0	0
29	L	1	0	0	0	0
All	All	54672	691	53418	6148	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 57.

All (6148) 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)
22:T:134:DT:C6	24:V:323:ARG:HD2	1.24	1.69
18:P:279:VAL:HG23	18:P:302:LEU:CG	1.19	1.66
20:R:34:PHE:CE2	20:R:134:LEU:HD11	1.25	1.65
18:P:137:CYS:SG	18:P:142:LEU:HB3	1.34	1.64
27:Y:132:LYS:HD3	27:Y:155:LEU:CD1	1.24	1.64
21:S:203:LYS:CB	21:S:242:ARG:HG3	1.18	1.64
21:S:129:LEU:HD23	24:V:347:PHE:CD2	1.29	1.63
18:P:223:LEU:HG	19:Q:177:PHE:CZ	1.25	1.63
21:S:203:LYS:HE3	21:S:242:ARG:CZ	1.19	1.63
21:S:130:TRP:CE3	24:V:339:LEU:HG	1.31	1.62
1:1:773:ILE:CD1	1:1:775:VAL:H	1.06	1.62
21:S:129:LEU:HD23	24:V:347:PHE:CE2	1.13	1.61
2:2:253:LEU:HD22	3:A:1132:LYS:CD	1.24	1.60
18:P:142:LEU:HD22	18:P:147:LYS:CG	1.22	1.60
1:1:717:TYR:CE2	1:1:718:TYR:CE1	1.89	1.59
3:A:1443:VAL:CB	9:G:63:PRO:HA	1.16	1.59
18:P:279:VAL:CB	18:P:302:LEU:CD2	1.77	1.59
21:S:148:LEU:HB3	21:S:154:LYS:CE	1.30	1.59
2:2:257:GLN:CG	3:A:1284:MET:CE	1.80	1.59
20:R:46:LEU:HD21	20:R:132:THR:CG2	1.22	1.59
18:P:340:PRO:CG	18:P:340:PRO:CD	1.75	1.58
1:1:561:MET:CB	25:W:450:ARG:HH22	1.13	1.58
18:P:310:LYS:HZ3	18:P:340:PRO:CB	1.08	1.58
27:Y:639:LEU:HD12	27:Y:653:PHE:CE2	1.32	1.58
2:2:253:LEU:CD2	3:A:1132:LYS:HD3	1.24	1.57
18:P:340:PRO:CD	18:P:340:PRO:N	1.68	1.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:V:63:ARG:CG	24:V:215:VAL:HA	1.27	1.57
2:2:260:THR:CA	2:2:260:THR:CB	1.80	1.56
27:Y:400:LYS:HB3	27:Y:437:PHE:CZ	1.37	1.56
20:R:27:LEU:HD22	20:R:129:THR:CA	1.13	1.56
18:P:184:GLU:HB2	18:P:241:ARG:CG	1.13	1.56
20:R:34:PHE:CE2	20:R:134:LEU:CD1	1.80	1.56
1:1:757:ARG:HH22	1:1:760:LEU:CG	1.04	1.55
21:S:130:TRP:CZ2	24:V:334:ASP:HA	1.40	1.55
4:B:296:GLU:CD	23:U:124:LYS:HZ2	1.09	1.55
21:S:207:CYS:SG	21:S:208:LYS:HE2	1.46	1.55
27:Y:639:LEU:CD2	27:Y:649:ARG:HD2	1.30	1.54
1:1:606:ILE:HD12	1:1:690:ILE:CD1	1.33	1.54
21:S:129:LEU:CD2	24:V:347:PHE:CD2	1.87	1.53
1:1:585:PRO:CB	1:1:756:ARG:NH1	1.69	1.53
2:2:283:GLN:CD	3:A:756:ILE:HD13	1.32	1.53
2:2:204:SER:CA	3:A:1176:LEU:C	1.80	1.53
21:S:234:ARG:CB	21:S:234:ARG:NH1	1.71	1.52
21:S:203:LYS:CD	21:S:204:GLY:N	1.71	1.52
3:A:1443:VAL:HB	9:G:63:PRO:CA	1.28	1.52
20:R:27:LEU:CD2	20:R:129:THR:HA	1.40	1.52
1:1:757:ARG:NH1	1:1:760:LEU:CD2	1.67	1.52
3:A:867:ILE:CG1	3:A:867:ILE:CD1	1.83	1.51
21:S:203:LYS:HB3	21:S:242:ARG:CG	1.10	1.51
2:2:269:PHE:CZ	2:2:297:CYS:SG	2.04	1.50
18:P:142:LEU:CD2	18:P:147:LYS:CB	1.83	1.50
18:P:143:PRO:CB	18:P:182:ARG:HE	1.24	1.50
20:R:123:MET:CA	20:R:130:LYS:NZ	1.69	1.50
19:Q:99:PHE:CB	22:T:143:DT:H5'	1.41	1.50
27:Y:639:LEU:CD1	27:Y:653:PHE:CE2	1.89	1.50
4:B:1185:CYS:SG	6:D:17:LYS:HD3	1.52	1.49
18:P:34:ILE:CD1	18:P:43:VAL:HB	1.36	1.49
18:P:340:PRO:CD	18:P:340:PRO:CA	1.90	1.49
4:B:959:ASP:CB	18:P:182:ARG:NH1	1.71	1.49
21:S:203:LYS:CE	21:S:242:ARG:NH2	1.77	1.48
27:Y:132:LYS:CD	27:Y:155:LEU:HD11	1.40	1.48
1:1:773:ILE:HD11	1:1:775:VAL:CB	1.38	1.48
18:P:142:LEU:CD2	18:P:147:LYS:CG	1.91	1.48
4:B:1215:ARG:CD	6:D:15:LEU:CD1	1.91	1.47
21:S:125:SER:N	21:S:127:LYS:HZ3	1.11	1.47
21:S:154:LYS:HZ3	21:S:154:LYS:N	1.01	1.47
8:F:92:ARG:NH2	9:G:63:PRO:CB	1.75	1.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:92:ARG:CZ	9:G:63:PRO:HB2	1.44	1.47
18:P:184:GLU:CB	18:P:241:ARG:CG	1.91	1.47
4:B:296:GLU:CD	23:U:124:LYS:NZ	1.67	1.46
27:Y:639:LEU:CG	27:Y:653:PHE:CE2	1.96	1.46
17:O:4:PRO:HD2	24:V:357:LYS:CB	1.42	1.46
21:S:127:LYS:CB	21:S:153:MET:HE1	1.41	1.46
27:Y:257:LEU:CD2	27:Y:383:LEU:HD11	1.44	1.46
27:Y:639:LEU:HD21	27:Y:649:ARG:CD	1.45	1.45
8:F:96:THR:HG23	9:G:65:ASP:C	1.42	1.45
20:R:34:PHE:CE2	20:R:134:LEU:CG	1.98	1.45
4:B:449:ASN:HD21	18:P:138:ASP:CG	1.25	1.45
21:S:129:LEU:N	24:V:341:LYS:HE3	1.29	1.44
23:U:95:PRO:CD	23:U:95:PRO:N	1.69	1.44
18:P:184:GLU:HB2	18:P:241:ARG:CD	1.42	1.44
18:P:290:GLN:HG2	18:P:331:ASN:ND2	1.30	1.44
27:Y:190:LEU:HD13	27:Y:195:ILE:CD1	1.47	1.43
27:Y:400:LYS:HB3	27:Y:437:PHE:CE2	1.52	1.43
18:P:29:VAL:CG1	18:P:32:PRO:CD	1.94	1.43
1:1:757:ARG:NH2	1:1:760:LEU:HG	1.17	1.43
18:P:279:VAL:CG2	18:P:302:LEU:CG	1.80	1.43
21:S:127:LYS:CA	21:S:153:MET:HE1	1.48	1.43
18:P:102:THR:CG2	18:P:104:MET:HE3	1.45	1.43
27:Y:64:PRO:CD	27:Y:64:PRO:N	1.70	1.43
2:2:248:ILE:CB	3:A:1203:ASN:OD1	1.68	1.42
1:1:773:ILE:HD12	1:1:775:VAL:N	1.16	1.42
2:2:241:LEU:HD21	3:A:1232:ASN:ND2	1.29	1.42
19:Q:99:PHE:HB3	22:T:143:DT:C5'	1.47	1.42
20:R:124:CYS:N	20:R:130:LYS:NZ	1.68	1.42
2:2:253:LEU:HD13	3:A:1132:LYS:NZ	1.24	1.42
18:P:223:LEU:CG	19:Q:177:PHE:CZ	2.01	1.42
24:V:69:TRP:HB2	24:V:219:CYS:SG	1.60	1.42
20:R:126:ILE:CG2	20:R:154:GLU:HG2	1.46	1.41
18:P:143:PRO:HB2	18:P:182:ARG:NE	1.35	1.41
21:S:203:LYS:CE	21:S:242:ARG:CZ	1.99	1.41
1:1:757:ARG:NH1	1:1:760:LEU:HD23	1.08	1.41
18:P:34:ILE:CD1	18:P:43:VAL:CB	1.98	1.41
21:S:154:LYS:CE	21:S:154:LYS:HA	1.36	1.41
2:2:269:PHE:CE2	2:2:297:CYS:SG	2.14	1.40
1:1:717:TYR:HE2	1:1:718:TYR:CE1	1.28	1.40
19:Q:103:ILE:CG1	22:T:143:DT:H2''	1.44	1.40
27:Y:639:LEU:HB2	27:Y:653:PHE:CD2	1.57	1.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:132:LYS:CD	27:Y:155:LEU:CD1	1.94	1.39
1:1:757:ARG:CZ	1:1:760:LEU:HD23	1.52	1.39
18:P:190:LYS:HE3	18:P:242:PHE:CE1	1.56	1.39
21:S:164:LYS:CE	21:S:165:LYS:HG2	1.48	1.39
2:2:257:GLN:CG	3:A:1284:MET:HE2	1.42	1.39
18:P:187:ARG:HB2	18:P:189:PHE:N	1.38	1.38
18:P:286:ILE:CG1	18:P:293:ILE:HD11	1.54	1.38
24:V:295:PRO:CD	24:V:295:PRO:N	1.71	1.38
27:Y:493:LEU:CD2	27:Y:696:TRP:HE1	1.35	1.38
18:P:286:ILE:HD12	18:P:292:PRO:CA	1.51	1.37
21:S:202:PHE:CB	21:S:242:ARG:HH22	1.36	1.37
24:V:74:PRO:CD	24:V:74:PRO:N	1.72	1.37
1:1:585:PRO:HB2	1:1:756:ARG:CZ	1.50	1.37
18:P:340:PRO:CD	18:P:340:PRO:CB	1.98	1.37
3:A:1451:VAL:CG1	9:G:20:PRO:HA	1.54	1.37
27:Y:448:PRO:CD	27:Y:448:PRO:N	1.68	1.37
18:P:143:PRO:O	18:P:147:LYS:CB	1.72	1.37
21:S:130:TRP:HZ2	24:V:334:ASP:CA	1.36	1.37
20:R:27:LEU:CD1	20:R:128:LEU:O	1.69	1.37
21:S:148:LEU:CB	21:S:154:LYS:CE	2.01	1.37
27:Y:493:LEU:HD23	27:Y:696:TRP:NE1	1.34	1.37
18:P:184:GLU:CB	18:P:241:ARG:HG2	1.50	1.36
20:R:27:LEU:CD2	20:R:129:THR:CA	1.93	1.36
21:S:237:LYS:CG	21:S:241:PRO:HG2	1.55	1.36
27:Y:470:PRO:CD	27:Y:470:PRO:N	1.72	1.36
19:Q:103:ILE:HG12	22:T:143:DT:C2'	1.55	1.36
21:S:125:SER:N	21:S:127:LYS:NZ	1.67	1.36
16:N:23:DA:C2	19:Q:116:PHE:CZ	2.14	1.36
18:P:286:ILE:CD1	18:P:292:PRO:HA	1.52	1.36
20:R:46:LEU:CD2	20:R:132:THR:CG2	2.04	1.36
22:T:134:DT:C6	24:V:323:ARG:CD	2.06	1.36
1:1:561:MET:HB2	25:W:450:ARG:NH2	1.37	1.36
18:P:263:CYS:H	18:P:264:LYS:NZ	1.23	1.36
1:1:561:MET:CB	25:W:450:ARG:NH2	1.89	1.35
1:1:585:PRO:HB2	1:1:756:ARG:NH2	1.40	1.35
2:2:241:LEU:CD2	3:A:1232:ASN:HD22	1.35	1.35
18:P:329:ILE:CG2	18:P:330:ALA:H	1.23	1.35
1:1:561:MET:O	25:W:450:ARG:CZ	1.72	1.35
18:P:286:ILE:HG13	18:P:293:ILE:CD1	1.54	1.35
20:R:123:MET:HA	20:R:130:LYS:NZ	1.09	1.35
21:S:234:ARG:CB	21:S:234:ARG:HH11	1.30	1.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:U:138:ARG:NH2	24:V:57:LEU:HB2	1.40	1.35
24:V:313:TRP:HB2	24:V:349:TYR:CE1	1.60	1.35
24:V:344:PRO:N	24:V:344:PRO:CD	1.78	1.35
27:Y:683:ASP:O	27:Y:686:PHE:CD2	1.79	1.35
18:P:263:CYS:N	18:P:264:LYS:HZ3	1.24	1.35
22:T:134:DT:C1'	24:V:323:ARG:HD3	1.54	1.35
27:Y:216:PRO:CD	27:Y:216:PRO:N	1.72	1.35
1:1:575:ARG:NH2	22:T:102:DC:OP1	1.60	1.35
2:2:241:LEU:CD2	3:A:1232:ASN:ND2	1.86	1.35
2:2:253:LEU:CG	3:A:1132:LYS:HD3	1.55	1.35
3:A:411:ASP:OD1	18:P:51:VAL:CG1	1.72	1.35
18:P:223:LEU:HG	19:Q:177:PHE:CE1	1.59	1.34
3:A:1450:LEU:C	9:G:18:PHE:O	1.70	1.34
4:B:433:GLN:OE1	23:U:326:ARG:CD	1.74	1.34
21:S:237:LYS:O	21:S:241:PRO:CD	1.75	1.34
4:B:959:ASP:HB2	18:P:182:ARG:NH1	1.01	1.34
18:P:145:ILE:CG1	18:P:182:ARG:HD2	1.57	1.34
18:P:142:LEU:CD2	18:P:147:LYS:HG3	1.49	1.34
18:P:142:LEU:HD23	18:P:147:LYS:CB	1.42	1.34
4:B:1221:SER:OG	6:D:14:ARG:NH1	1.59	1.33
4:B:885:MET:HB2	18:P:33:LYS:NZ	1.41	1.33
21:S:203:LYS:NZ	21:S:205:ILE:HB	1.43	1.33
4:B:959:ASP:OD2	18:P:145:ILE:CD1	1.75	1.33
21:S:175:LYS:HA	21:S:175:LYS:CE	1.32	1.33
27:Y:310:PRO:CD	27:Y:310:PRO:N	1.75	1.33
4:B:1215:ARG:HD2	6:D:15:LEU:CD1	1.50	1.33
18:P:187:ARG:HB2	18:P:188:THR:C	1.52	1.33
18:P:279:VAL:CB	18:P:302:LEU:HD23	1.38	1.33
24:V:63:ARG:HB2	24:V:214:ILE:O	1.23	1.33
24:V:63:ARG:HG3	24:V:215:VAL:CA	1.57	1.33
4:B:1220:ARG:C	6:D:14:ARG:NH2	1.86	1.32
21:S:214:TRP:CZ3	21:S:218:ASP:OD2	1.80	1.32
21:S:175:LYS:NZ	21:S:175:LYS:CB	1.87	1.32
4:B:1220:ARG:CA	6:D:14:ARG:HH22	1.43	1.32
20:R:123:MET:C	20:R:130:LYS:NZ	1.84	1.32
18:P:226:ASP:OD2	18:P:260:ALA:CB	1.75	1.32
21:S:170:GLU:O	21:S:179:LYS:CD	1.76	1.32
23:U:136:PRO:CD	23:U:136:PRO:N	1.73	1.32
18:P:187:ARG:HD3	18:P:189:PHE:CB	1.59	1.31
20:R:34:PHE:CD2	20:R:134:LEU:HD11	1.62	1.31
21:S:202:PHE:CB	21:S:242:ARG:NH2	1.87	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:1215:ARG:NE	6:D:15:LEU:HD11	1.45	1.31
27:Y:103:PHE:CE1	27:Y:205:ILE:HD12	1.64	1.31
18:P:310:LYS:NZ	18:P:340:PRO:CB	1.93	1.31
22:T:134:DT:O4'	24:V:323:ARG:CD	1.71	1.31
17:O:4:PRO:CD	24:V:357:LYS:HB3	1.59	1.31
2:2:253:LEU:HD22	3:A:1132:LYS:CG	1.60	1.31
18:P:102:THR:HG21	18:P:104:MET:CE	1.61	1.31
20:R:130:LYS:CE	20:R:130:LYS:HA	1.39	1.31
21:S:127:LYS:HB2	21:S:153:MET:CE	1.58	1.31
2:2:248:ILE:HG23	3:A:1203:ASN:CG	0.89	1.30
18:P:22:LEU:CD2	18:P:34:ILE:HD13	1.61	1.30
21:S:164:LYS:HE2	21:S:165:LYS:CG	1.29	1.30
3:A:291:GLU:OE2	18:P:116:LYS:HD3	1.29	1.30
24:V:63:ARG:CB	24:V:215:VAL:HA	1.60	1.30
3:A:315:LEU:O	18:P:92:LEU:HD23	1.32	1.30
16:N:23:DA:C2	19:Q:116:PHE:CE1	2.18	1.30
18:P:150:ALA:CB	18:P:178:ILE:HG13	1.60	1.30
21:S:187:HIS:CE1	21:S:225:GLU:HB3	1.65	1.30
4:B:560:GLU:O	24:V:225:MET:CE	1.78	1.29
17:O:4:PRO:HG3	24:V:357:LYS:O	1.12	1.29
1:1:561:MET:O	25:W:450:ARG:NH1	1.62	1.29
1:1:757:ARG:NH2	1:1:760:LEU:CG	1.76	1.29
18:P:263:CYS:HB2	18:P:264:LYS:NZ	1.40	1.29
18:P:313:TYR:O	18:P:316:LEU:CD2	1.80	1.29
16:N:24:DG:H4'	19:Q:118:SER:CB	1.62	1.29
21:S:129:LEU:CD2	24:V:347:PHE:CE2	2.08	1.29
21:S:191:GLU:O	21:S:195:LEU:HD22	1.27	1.29
1:1:773:ILE:CD1	1:1:775:VAL:HB	1.60	1.29
18:P:180:CYS:SG	18:P:187:ARG:HG2	1.73	1.29
18:P:320:ARG:HG3	18:P:321:ASP:OD1	1.29	1.29
1:1:621:LYS:NZ	1:1:621:LYS:HB3	1.40	1.28
18:P:287:LEU:HD12	18:P:338:ASN:OD1	1.26	1.28
21:S:237:LYS:HG3	21:S:241:PRO:CG	1.61	1.28
27:Y:28:ILE:CG2	27:Y:57:ILE:HG13	1.62	1.28
2:2:284:LEU:CB	3:A:1080:THR:HG21	1.63	1.28
24:V:292:ILE:C	24:V:295:PRO:HD2	1.59	1.28
18:P:29:VAL:HG11	18:P:32:PRO:CG	1.62	1.28
3:A:1442:ASP:CB	9:G:60:ARG:HH12	1.40	1.28
21:S:140:LYS:NZ	21:S:141:PRO:C	1.90	1.28
1:1:754:ARG:HH11	1:1:754:ARG:CB	1.47	1.27
3:A:1451:VAL:CG1	9:G:20:PRO:CA	2.13	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:184:GLU:OE1	18:P:231:SER:HB3	1.20	1.27
27:Y:257:LEU:HD23	27:Y:383:LEU:CD1	1.62	1.27
1:1:560:PRO:O	1:1:586:THR:HG21	1.21	1.27
27:Y:193:TYR:CZ	27:Y:197:ARG:HD2	1.69	1.27
23:U:94:ASP:C	23:U:95:PRO:CD	2.08	1.27
27:Y:360:LEU:CB	27:Y:375:ARG:HD2	1.63	1.27
8:F:105:ALA:CB	9:G:14:HIS:CE1	2.18	1.27
20:R:34:PHE:HE2	20:R:134:LEU:CG	1.36	1.27
1:1:754:ARG:CB	1:1:754:ARG:NH1	1.98	1.27
3:A:291:GLU:CG	18:P:116:LYS:HE2	1.65	1.27
18:P:184:GLU:OE1	18:P:231:SER:CB	1.82	1.27
2:2:241:LEU:HD21	3:A:1232:ASN:CG	1.51	1.26
18:P:226:ASP:OD2	18:P:260:ALA:HB3	1.29	1.26
21:S:175:LYS:HZ2	21:S:175:LYS:C	1.42	1.26
18:P:34:ILE:CD1	18:P:43:VAL:CG2	2.14	1.26
20:R:123:MET:CE	20:R:130:LYS:HD2	1.64	1.26
4:B:959:ASP:OD2	18:P:145:ILE:HD13	1.08	1.26
18:P:63:TRP:NE1	18:P:81:GLU:HG2	1.50	1.25
18:P:263:CYS:CB	18:P:264:LYS:HZ2	1.48	1.25
27:Y:405:PHE:HB3	27:Y:437:PHE:CE1	1.69	1.25
3:A:1443:VAL:CG2	9:G:63:PRO:HA	1.66	1.25
2:2:253:LEU:HD13	3:A:1132:LYS:CE	1.66	1.25
21:S:148:LEU:CB	21:S:154:LYS:HE3	1.62	1.25
21:S:207:CYS:SG	21:S:208:LYS:CE	2.22	1.25
18:P:257:GLU:H	18:P:257:GLU:CD	1.42	1.25
21:S:203:LYS:HE3	21:S:203:LYS:N	1.50	1.25
21:S:164:LYS:CE	21:S:165:LYS:CG	1.95	1.25
27:Y:639:LEU:CB	27:Y:653:PHE:CD2	2.19	1.25
1:1:712:ASP:HB3	25:W:447:GLU:OE2	1.08	1.24
3:A:419:LYS:NZ	18:P:47:LEU:O	1.67	1.24
4:B:343:ILE:HG13	22:T:121:DG:C5'	1.65	1.24
18:P:27:CYS:HB3	18:P:47:LEU:CD2	1.66	1.24
20:R:120:ASN:CG	20:R:133:GLN:HB3	1.61	1.24
21:S:137:LYS:N	21:S:137:LYS:HD2	1.40	1.24
23:U:102:PRO:CD	23:U:102:PRO:N	1.70	1.24
3:A:344:ARG:NH2	4:B:1120:GLU:HG3	1.48	1.24
20:R:130:LYS:HE2	20:R:130:LYS:CA	1.02	1.24
20:R:142:PHE:HD1	20:R:142:PHE:N	0.99	1.24
2:2:241:LEU:CG	3:A:1232:ASN:HD22	1.46	1.24
2:2:257:GLN:CG	3:A:1284:MET:HE3	1.53	1.24
21:S:143:LEU:HD13	21:S:144:VAL:N	1.53	1.24

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:28:ILE:HG22	27:Y:57:ILE:CG1	1.68	1.24
27:Y:60:GLN:O	27:Y:64:PRO:HD3	1.36	1.24
18:P:34:ILE:HD12	18:P:43:VAL:CG2	1.68	1.24
18:P:263:CYS:N	18:P:264:LYS:NZ	1.81	1.23
18:P:310:LYS:NZ	18:P:340:PRO:HB3	1.49	1.23
21:S:129:LEU:CA	24:V:341:LYS:HE3	1.68	1.23
21:S:191:GLU:O	21:S:195:LEU:CD2	1.86	1.23
2:2:257:GLN:HG3	3:A:1284:MET:CE	1.54	1.23
18:P:43:VAL:HG13	18:P:55:LYS:CE	1.66	1.23
18:P:137:CYS:SG	18:P:142:LEU:CB	2.26	1.23
1:1:572:GLU:OE2	1:1:576:LYS:HB3	1.28	1.23
1:1:606:ILE:CD1	1:1:690:ILE:HD11	1.68	1.23
2:2:277:LYS:HE3	3:A:593:GLU:CD	1.64	1.23
18:P:34:ILE:HD12	18:P:43:VAL:CB	1.59	1.23
18:P:190:LYS:HE3	18:P:242:PHE:CZ	1.72	1.23
21:S:221:ILE:H	21:S:221:ILE:CD1	1.48	1.23
18:P:288:LEU:C	18:P:288:LEU:HD13	1.64	1.23
24:V:318:LEU:HD21	24:V:349:TYR:OH	1.35	1.23
18:P:94:THR:HG22	18:P:110:LEU:CD2	1.67	1.22
24:V:307:PHE:CZ	24:V:349:TYR:CE1	2.27	1.22
4:B:433:GLN:OE1	23:U:326:ARG:NE	1.71	1.22
4:B:433:GLN:OE1	23:U:326:ARG:HD3	1.27	1.22
21:S:175:LYS:NZ	21:S:175:LYS:N	1.86	1.22
4:B:560:GLU:O	24:V:225:MET:HE1	1.28	1.22
18:P:248:LEU:HD21	18:P:286:ILE:CG1	1.69	1.22
3:A:1446:ASP:N	9:G:61:ILE:HD11	1.50	1.22
20:R:123:MET:CB	20:R:130:LYS:HD3	1.69	1.22
21:S:154:LYS:NZ	21:S:154:LYS:C	1.95	1.22
2:2:253:LEU:CD1	3:A:1132:LYS:NZ	2.00	1.22
4:B:1220:ARG:C	6:D:14:ARG:HH22	1.41	1.22
18:P:34:ILE:CG1	18:P:43:VAL:HB	1.69	1.22
18:P:310:LYS:CE	18:P:340:PRO:HB3	1.69	1.22
23:U:138:ARG:HH21	24:V:57:LEU:CD1	1.51	1.22
27:Y:244:CYS:CB	27:Y:442:ALA:HB1	1.68	1.22
21:S:125:SER:O	24:V:341:LYS:CG	1.65	1.21
16:N:23:DA:O3'	19:Q:120:LYS:CD	1.85	1.21
4:B:1215:ARG:CD	6:D:15:LEU:HD13	1.62	1.21
18:P:26:GLU:OE1	18:P:50:LEU:CD1	1.88	1.21
18:P:29:VAL:HG11	18:P:32:PRO:CD	1.58	1.21
1:1:717:TYR:CE2	1:1:718:TYR:CD1	2.28	1.21
18:P:58:ASP:OD1	18:P:60:ARG:HG2	1.40	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:224:LYS:NZ	18:P:229:ASN:OD1	1.72	1.21
27:Y:639:LEU:CD1	27:Y:653:PHE:HE2	1.34	1.21
1:1:606:ILE:CD1	1:1:690:ILE:CD1	2.19	1.20
2:2:253:LEU:CD2	3:A:1132:LYS:CD	1.96	1.20
21:S:130:TRP:CE3	24:V:339:LEU:CG	2.23	1.20
21:S:141:PRO:HB2	21:S:177:THR:CG2	1.69	1.20
21:S:219:GLU:O	21:S:223:GLN:OE1	1.59	1.20
21:S:221:ILE:HD13	21:S:221:ILE:N	1.45	1.20
8:F:96:THR:CG2	9:G:65:ASP:O	1.90	1.20
27:Y:400:LYS:CB	27:Y:437:PHE:CZ	2.25	1.20
18:P:303:GLN:NE2	18:P:304:VAL:HG23	1.55	1.20
19:Q:99:PHE:CB	22:T:143:DT:C5'	2.10	1.20
4:B:343:ILE:CG1	22:T:121:DG:H5'	1.70	1.20
18:P:285:ASN:C	18:P:285:ASN:HD22	1.48	1.20
23:U:119:LEU:HD21	24:V:135:PHE:CE2	1.76	1.20
2:2:277:LYS:CE	3:A:593:GLU:OE2	1.90	1.20
20:R:34:PHE:HZ	20:R:135:GLU:N	1.22	1.19
3:A:411:ASP:OD1	18:P:51:VAL:HG12	1.03	1.19
18:P:87:LEU:CD1	18:P:126:VAL:CG2	2.20	1.19
21:S:137:LYS:CD	21:S:137:LYS:H	1.52	1.19
18:P:187:ARG:HD3	18:P:189:PHE:CA	1.70	1.19
23:U:374:VAL:CG2	24:V:73:LEU:HG	1.72	1.19
3:A:291:GLU:OE2	18:P:116:LYS:CD	1.91	1.19
21:S:130:TRP:CH2	24:V:333:LEU:O	1.96	1.19
23:U:372:SER:CB	24:V:80:LYS:NZ	2.06	1.19
27:Y:639:LEU:HB2	27:Y:653:PHE:CE2	1.77	1.19
2:2:235:ASP:CA	2:2:242:LYS:HE2	1.72	1.18
18:P:143:PRO:CB	18:P:182:ARG:NE	1.95	1.18
18:P:145:ILE:CG1	18:P:182:ARG:CD	2.21	1.18
21:S:154:LYS:N	21:S:154:LYS:NZ	1.66	1.18
27:Y:639:LEU:CB	27:Y:653:PHE:CE2	2.23	1.18
3:A:317:LYS:O	4:B:471:LYS:NZ	1.73	1.18
18:P:310:LYS:HZ3	18:P:340:PRO:CG	1.56	1.18
4:B:343:ILE:CD1	22:T:121:DG:O3'	1.92	1.18
4:B:1215:ARG:NE	6:D:15:LEU:CD1	1.99	1.18
18:P:226:ASP:CG	18:P:260:ALA:HB1	1.67	1.18
21:S:201:THR:OG1	21:S:243:TYR:OH	1.57	1.18
27:Y:331:PHE:CE2	27:Y:335:LEU:HD11	1.78	1.18
1:1:585:PRO:HB3	1:1:756:ARG:NH1	1.33	1.18
3:A:227:VAL:CG2	6:D:16:LYS:HE3	1.72	1.18
16:N:23:DA:O3'	19:Q:120:LYS:HD2	1.01	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:237:LYS:NZ	21:S:241:PRO:HB2	1.57	1.18
27:Y:321:ILE:HD11	27:Y:409:ILE:HG22	1.25	1.18
27:Y:639:LEU:HD12	27:Y:653:PHE:CZ	1.77	1.18
18:P:154:TYR:HA	18:P:157:CYS:SG	1.84	1.18
18:P:202:GLU:CG	18:P:205:LYS:HE2	1.73	1.18
21:S:170:GLU:O	21:S:179:LYS:HD2	1.39	1.18
2:2:253:LEU:HD13	3:A:1132:LYS:CD	1.72	1.17
18:P:42:ASP:OD1	18:P:54:ASP:HA	1.40	1.17
18:P:184:GLU:CB	18:P:241:ARG:CD	2.19	1.17
20:R:34:PHE:HE2	20:R:134:LEU:CD2	1.56	1.17
20:R:46:LEU:CD2	20:R:132:THR:HG21	1.70	1.17
1:1:527:LEU:HD22	1:1:531:ILE:HD12	1.21	1.17
18:P:43:VAL:HG13	18:P:55:LYS:HE2	1.23	1.17
18:P:289:PHE:CE1	18:P:290:GLN:HB2	1.68	1.17
17:O:4:PRO:CG	24:V:357:LYS:O	1.92	1.17
21:S:130:TRP:HH2	24:V:333:LEU:O	1.22	1.17
21:S:234:ARG:NH1	21:S:234:ARG:HB2	0.84	1.17
27:Y:28:ILE:HG22	27:Y:57:ILE:CD1	1.72	1.17
27:Y:405:PHE:CB	27:Y:437:PHE:CE1	2.26	1.17
2:2:253:LEU:O	3:A:1135:ARG:NH2	1.77	1.17
3:A:1450:LEU:O	9:G:18:PHE:O	1.59	1.17
4:B:451:LYS:HZ2	18:P:147:LYS:NZ	1.42	1.17
8:F:92:ARG:CZ	9:G:63:PRO:CB	2.12	1.17
18:P:44:VAL:HG23	18:P:50:LEU:O	1.43	1.17
23:U:138:ARG:NH2	24:V:57:LEU:CB	2.07	1.17
27:Y:60:GLN:O	27:Y:64:PRO:CD	1.90	1.17
4:B:104:GLU:OE2	14:L:54:ARG:HD3	1.44	1.17
8:F:92:ARG:HE	9:G:64:THR:N	1.40	1.17
20:R:27:LEU:HD11	20:R:128:LEU:O	1.39	1.17
1:1:410:LEU:HD11	1:1:457:TYR:HA	1.17	1.16
3:A:1451:VAL:HG13	9:G:20:PRO:CA	1.75	1.16
4:B:343:ILE:HD12	22:T:121:DG:O3'	1.43	1.16
4:B:350:GLN:HG3	23:U:407:ASP:CG	1.68	1.16
18:P:94:THR:HG21	18:P:110:LEU:HG	1.27	1.16
18:P:152:GLU:HG3	18:P:155:LYS:CE	1.72	1.16
18:P:202:GLU:HG3	18:P:205:LYS:CE	1.75	1.16
1:1:754:ARG:NH1	1:1:754:ARG:HG3	1.49	1.16
4:B:296:GLU:CG	23:U:124:LYS:NZ	2.07	1.16
1:1:773:ILE:HD11	1:1:775:VAL:CA	1.75	1.16
2:2:284:LEU:HB3	3:A:1080:THR:CG2	1.75	1.16
8:F:96:THR:CG2	9:G:65:ASP:C	2.18	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:142:LEU:CD2	18:P:147:LYS:HB2	1.56	1.16
20:R:34:PHE:CZ	20:R:134:LEU:CD1	2.28	1.16
21:S:135:ILE:HD11	21:S:180:TYR:HD2	1.02	1.16
21:S:137:LYS:N	21:S:137:LYS:CD	2.08	1.16
21:S:175:LYS:CB	21:S:175:LYS:HZ2	1.48	1.16
1:1:757:ARG:CZ	1:1:760:LEU:HB3	1.76	1.16
3:A:411:ASP:OD1	18:P:51:VAL:N	1.76	1.16
8:F:92:ARG:NH2	9:G:63:PRO:HB2	0.84	1.16
18:P:116:LYS:O	18:P:119:MET:HG2	1.42	1.16
18:P:143:PRO:HB3	18:P:182:ARG:NH2	1.61	1.16
3:A:1443:VAL:HG23	9:G:63:PRO:HB3	1.26	1.15
18:P:22:LEU:HG	18:P:52:LEU:CD1	1.74	1.15
23:U:374:VAL:HG23	24:V:73:LEU:CD2	1.76	1.15
1:1:487:LEU:HD23	1:1:493:VAL:HG21	1.19	1.15
21:S:148:LEU:CB	21:S:154:LYS:HE2	1.67	1.15
21:S:203:LYS:HE3	21:S:242:ARG:NE	1.61	1.15
27:Y:193:TYR:CE2	27:Y:197:ARG:HD2	1.80	1.15
20:R:127:CYS:SG	20:R:129:THR:HG22	1.87	1.15
21:S:203:LYS:HE2	21:S:242:ARG:NH2	1.49	1.15
1:1:428:CYS:HB2	1:1:434:ASN:HB2	1.26	1.15
2:2:283:GLN:CD	3:A:756:ILE:CD1	2.19	1.15
4:B:959:ASP:HB2	18:P:182:ARG:CZ	1.76	1.15
21:S:203:LYS:HD2	21:S:204:GLY:N	0.83	1.15
4:B:1215:ARG:CZ	6:D:15:LEU:HD11	1.77	1.15
16:N:60:DA:H2''	16:N:61:DA:H5'	1.29	1.15
18:P:22:LEU:CG	18:P:52:LEU:HD13	1.76	1.15
18:P:248:LEU:HD21	18:P:293:ILE:HD11	1.22	1.15
20:R:34:PHE:CZ	20:R:135:GLU:N	2.05	1.15
27:Y:495:MET:HG2	27:Y:686:PHE:HB2	1.29	1.15
18:P:29:VAL:CG1	18:P:32:PRO:HD3	1.67	1.14
18:P:143:PRO:O	18:P:147:LYS:HB2	1.36	1.14
18:P:154:TYR:HE1	18:P:171:ILE:CG2	1.59	1.14
21:S:135:ILE:CG1	21:S:180:TYR:HB2	1.76	1.14
21:S:203:LYS:HD2	21:S:204:GLY:CA	1.76	1.14
27:Y:639:LEU:CD1	27:Y:653:PHE:CZ	2.28	1.14
1:1:712:ASP:CB	25:W:447:GLU:OE2	1.94	1.14
16:N:61:DA:H2''	16:N:62:DA:H5'	1.23	1.14
18:P:302:LEU:H	18:P:302:LEU:HD12	0.99	1.14
20:R:123:MET:HA	20:R:130:LYS:CE	1.77	1.14
2:2:289:ALA:O	4:B:769:TYR:CE2	1.86	1.14
4:B:959:ASP:CA	18:P:182:ARG:NH1	2.10	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:128:LEU:C	24:V:341:LYS:HE3	1.73	1.14
27:Y:400:LYS:CB	27:Y:437:PHE:CE2	2.31	1.14
1:1:474:MET:HB3	1:1:482:TRP:H	1.13	1.14
4:B:885:MET:CB	18:P:33:LYS:NZ	2.09	1.14
4:B:1220:ARG:HA	6:D:14:ARG:HH22	1.11	1.13
18:P:187:ARG:HH21	18:P:192:ILE:CG2	1.60	1.13
18:P:290:GLN:CG	18:P:331:ASN:ND2	2.09	1.13
18:P:303:GLN:HG2	18:P:304:VAL:HG22	1.15	1.13
23:U:119:LEU:HG	24:V:135:PHE:HD2	1.07	1.13
2:2:190:THR:CA	7:E:50:MET:HE1	1.79	1.13
18:P:250:MET:O	18:P:254:THR:HG22	1.48	1.13
20:R:34:PHE:CZ	20:R:134:LEU:HG	1.82	1.13
20:R:123:MET:HB2	20:R:130:LYS:HD3	1.25	1.13
23:U:373:TYR:CE2	24:V:72:ARG:NH1	2.15	1.13
1:1:773:ILE:CD1	1:1:775:VAL:N	1.78	1.13
16:N:23:DA:H4'	19:Q:120:LYS:HD3	1.29	1.13
18:P:87:LEU:HD11	18:P:126:VAL:CG2	1.74	1.13
18:P:100:GLU:OE1	18:P:101:THR:HG23	1.47	1.13
18:P:184:GLU:OE2	18:P:241:ARG:N	1.82	1.13
18:P:248:LEU:CD2	18:P:286:ILE:HG12	1.77	1.13
20:R:156:LEU:CD2	20:R:156:LEU:H	1.58	1.13
21:S:130:TRP:HH2	24:V:337:ALA:HB3	1.07	1.13
21:S:158:LYS:NZ	21:S:162:LEU:HG	1.60	1.13
27:Y:353:SER:HB2	27:Y:378:SER:HB2	1.17	1.13
3:A:411:ASP:CG	18:P:51:VAL:H	1.55	1.13
18:P:145:ILE:CD1	18:P:182:ARG:HD2	1.79	1.13
18:P:152:GLU:HG3	18:P:155:LYS:HE3	1.23	1.13
18:P:248:LEU:CD2	18:P:286:ILE:CG1	2.26	1.13
20:R:27:LEU:HD21	20:R:129:THR:N	1.61	1.13
21:S:130:TRP:CD2	24:V:339:LEU:HG	1.63	1.13
2:2:253:LEU:CD1	3:A:1132:LYS:CD	2.27	1.13
18:P:184:GLU:CB	18:P:241:ARG:HD3	1.75	1.13
18:P:223:LEU:CB	19:Q:177:PHE:CZ	2.32	1.12
20:R:46:LEU:HD21	20:R:132:THR:HG22	1.20	1.12
18:P:29:VAL:CG1	18:P:32:PRO:HD2	1.72	1.12
18:P:173:ALA:HA	18:P:176:ILE:HG12	1.30	1.12
18:P:329:ILE:CG2	18:P:330:ALA:N	1.99	1.12
24:V:107:LEU:HD11	24:V:119:GLU:HG3	1.28	1.12
18:P:223:LEU:HB2	19:Q:177:PHE:CZ	1.82	1.12
18:P:226:ASP:CG	18:P:260:ALA:CB	2.22	1.12
21:S:154:LYS:NZ	21:S:154:LYS:CB	2.09	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:192:GLY:CA	22:T:117:DC:P	2.37	1.12
3:A:1443:VAL:HG23	9:G:63:PRO:CB	1.80	1.12
2:2:257:GLN:HG2	3:A:1284:MET:CE	1.51	1.12
18:P:279:VAL:CB	18:P:302:LEU:HD22	1.57	1.12
20:R:27:LEU:HD13	20:R:128:LEU:O	1.48	1.12
1:1:621:LYS:NZ	1:1:621:LYS:CB	2.10	1.11
3:A:1451:VAL:HG13	9:G:20:PRO:CB	1.80	1.11
20:R:27:LEU:CD2	20:R:129:THR:N	2.13	1.11
27:Y:400:LYS:HD2	27:Y:437:PHE:CE2	1.84	1.11
1:1:477:LEU:HA	1:1:501:VAL:HB	1.20	1.11
1:1:754:ARG:NH2	1:1:758:GLU:OE2	1.83	1.11
3:A:227:VAL:HG21	6:D:16:LYS:HE3	1.18	1.11
18:P:27:CYS:CB	18:P:47:LEU:HD21	1.81	1.11
18:P:94:THR:HG22	18:P:110:LEU:HD21	1.13	1.11
20:R:123:MET:HE3	20:R:130:LYS:CD	1.78	1.11
24:V:63:ARG:CG	24:V:215:VAL:CA	2.22	1.11
3:A:1445:ILE:C	9:G:61:ILE:CD1	2.08	1.11
4:B:887:HIS:CE1	18:P:38:PHE:HB3	1.84	1.11
8:F:96:THR:OG1	9:G:64:THR:O	1.65	1.11
18:P:169:GLU:HG3	18:P:197:HIS:CE1	1.86	1.11
20:R:17:VAL:CG1	20:R:66:LEU:HG	1.79	1.11
23:U:138:ARG:HH21	24:V:57:LEU:HD12	1.13	1.11
27:Y:405:PHE:CB	27:Y:437:PHE:CZ	2.34	1.11
27:Y:495:MET:HG2	27:Y:686:PHE:CB	1.81	1.11
1:1:460:VAL:HB	16:N:63:DG:H4'	1.12	1.11
2:2:258:GLY:N	3:A:1284:MET:H	1.47	1.11
18:P:154:TYR:HE1	18:P:171:ILE:HG23	1.05	1.11
18:P:223:LEU:CB	19:Q:177:PHE:HZ	1.62	1.11
18:P:310:LYS:NZ	18:P:340:PRO:CG	2.10	1.11
18:P:333:VAL:HG22	18:P:336:LEU:HD12	1.24	1.11
21:S:135:ILE:HD11	21:S:180:TYR:CD2	1.85	1.11
23:U:374:VAL:HG23	24:V:73:LEU:CG	1.80	1.11
2:2:248:ILE:HG22	3:A:1203:ASN:OD1	1.36	1.11
4:B:343:ILE:HD12	22:T:122:DT:P	1.91	1.11
4:B:449:ASN:ND2	18:P:138:ASP:CG	2.07	1.11
20:R:17:VAL:HG12	20:R:66:LEU:CG	1.79	1.11
21:S:141:PRO:HB2	21:S:177:THR:HG21	1.31	1.11
24:V:63:ARG:HB3	24:V:215:VAL:C	1.76	1.11
1:1:408:ILE:HG12	1:1:475:ASP:HB3	1.28	1.10
8:F:105:ALA:CA	9:G:14:HIS:HE1	1.64	1.10
18:P:143:PRO:HB3	18:P:182:ARG:HH21	1.07	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:128:LEU:HD22	21:S:162:LEU:HD12	1.29	1.10
27:Y:643:ARG:HB2	27:Y:649:ARG:HB3	1.26	1.10
18:P:133:ILE:HG13	18:P:151:LYS:HD3	1.26	1.10
21:S:164:LYS:NZ	21:S:165:LYS:HG2	1.65	1.10
27:Y:386:ARG:O	27:Y:390:VAL:HG23	1.51	1.10
3:A:192:GLY:HA2	22:T:117:DC:P	1.91	1.10
4:B:430:ARG:HA	23:U:326:ARG:NH1	1.66	1.10
16:N:24:DG:C4'	19:Q:118:SER:HB3	1.79	1.10
16:N:27:DG:H3'	24:V:291:SER:C	1.70	1.10
18:P:145:ILE:HG12	18:P:182:ARG:HD2	1.29	1.10
24:V:318:LEU:HD21	24:V:349:TYR:CZ	1.87	1.10
1:1:757:ARG:CZ	1:1:760:LEU:CD2	2.21	1.10
2:2:277:LYS:HE3	3:A:593:GLU:OE1	1.51	1.10
8:F:96:THR:HG21	9:G:65:ASP:O	1.48	1.10
18:P:22:LEU:HD11	18:P:43:VAL:HG21	1.15	1.10
18:P:22:LEU:HD11	18:P:34:ILE:CD1	1.82	1.10
18:P:86:LEU:CD2	18:P:155:LYS:HE2	1.79	1.10
18:P:184:GLU:CG	18:P:241:ARG:HG2	1.78	1.10
23:U:119:LEU:CD2	24:V:135:PHE:CE2	2.34	1.10
24:V:69:TRP:CB	24:V:219:CYS:SG	2.40	1.10
1:1:515:ALA:C	1:1:681:ARG:HD3	1.76	1.10
1:1:757:ARG:NH2	1:1:760:LEU:CB	2.13	1.10
2:2:248:ILE:HG12	3:A:1203:ASN:ND2	1.65	1.10
2:2:258:GLY:H	3:A:1284:MET:N	1.48	1.10
18:P:86:LEU:HD23	18:P:155:LYS:HE2	1.25	1.10
24:V:74:PRO:CD	24:V:222:CYS:O	2.00	1.10
3:A:404:TYR:OH	18:P:37:ARG:NH2	1.85	1.09
3:A:1445:ILE:C	9:G:61:ILE:HD11	1.54	1.09
16:N:63:DG:H2''	16:N:64:DG:H5''	1.30	1.09
18:P:190:LYS:CE	18:P:242:PHE:CZ	2.36	1.09
18:P:202:GLU:HG3	18:P:205:LYS:HE2	1.11	1.09
24:V:292:ILE:O	24:V:295:PRO:HD2	1.51	1.09
27:Y:321:ILE:HD11	27:Y:409:ILE:CG2	1.81	1.09
18:P:313:TYR:O	18:P:316:LEU:HD23	1.51	1.09
20:R:34:PHE:CE2	20:R:134:LEU:HG	1.78	1.09
21:S:129:LEU:HD22	24:V:347:PHE:CD2	1.77	1.09
2:2:266:THR:HG23	3:A:731:ARG:HD3	1.23	1.09
4:B:350:GLN:HG3	23:U:407:ASP:OD2	1.49	1.09
4:B:350:GLN:HE21	23:U:411:LYS:CE	1.64	1.09
18:P:94:THR:CG2	18:P:110:LEU:HG	1.82	1.09
18:P:104:MET:HG3	18:P:105:ARG:H	1.09	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:279:VAL:HG11	18:P:309:ILE:HG12	1.33	1.09
23:U:103:LEU:HD23	24:V:92:LEU:HD11	1.29	1.09
27:Y:353:SER:HB2	27:Y:378:SER:CB	1.83	1.09
27:Y:495:MET:HB3	27:Y:686:PHE:CD2	1.86	1.09
1:1:460:VAL:HG11	16:N:63:DG:C3'	1.79	1.09
1:1:695:ARG:HA	1:1:696:ARG:NH2	1.66	1.09
1:1:785:ARG:NE	1:1:785:ARG:O	1.85	1.09
2:2:241:LEU:HD22	3:A:1232:ASN:HA	1.13	1.09
18:P:133:ILE:CG1	18:P:151:LYS:CD	2.31	1.09
18:P:188:THR:HB	18:P:245:HIS:HE1	1.09	1.09
27:Y:449:VAL:HG12	27:Y:456:VAL:HG21	1.34	1.09
4:B:350:GLN:HE21	23:U:411:LYS:HE3	0.94	1.09
18:P:254:THR:C	18:P:257:GLU:OE1	1.96	1.09
20:R:44:LYS:HG3	20:R:51:LYS:HA	1.12	1.09
21:S:154:LYS:HZ3	21:S:154:LYS:CB	1.65	1.09
1:1:410:LEU:HD22	1:1:477:LEU:HD11	1.35	1.08
18:P:87:LEU:CD1	18:P:126:VAL:HG21	1.77	1.08
18:P:263:CYS:CB	18:P:264:LYS:NZ	2.07	1.08
18:P:298:VAL:CG1	18:P:302:LEU:HD21	1.82	1.08
18:P:303:GLN:HG2	18:P:304:VAL:CG2	1.83	1.08
18:P:109:GLU:HA	18:P:112:LYS:HE3	1.30	1.08
18:P:207:LEU:HD22	19:Q:186:GLU:OE1	1.51	1.08
18:P:264:LYS:N	18:P:264:LYS:CD	2.16	1.08
21:S:129:LEU:HD22	24:V:347:PHE:CG	1.88	1.08
21:S:138:LYS:CB	21:S:138:LYS:HZ2	1.66	1.08
21:S:156:ASP:O	21:S:159:VAL:HG13	1.54	1.08
1:1:566:TYR:HB2	25:W:450:ARG:HH21	0.92	1.08
2:2:306:TRP:HA	3:A:1360:GLY:CA	1.83	1.08
3:A:317:LYS:N	18:P:92:LEU:HD22	1.69	1.08
18:P:263:CYS:CA	18:P:264:LYS:HZ3	1.67	1.08
27:Y:128:VAL:HG23	27:Y:373:PRO:HD2	1.17	1.08
1:1:421:ARG:HG2	1:1:430:LEU:HG	1.30	1.08
1:1:476:PHE:HD1	1:1:485:ILE:HD12	1.17	1.08
1:1:757:ARG:CZ	1:1:760:LEU:CG	2.32	1.08
3:A:192:GLY:HA3	22:T:117:DC:OP1	1.54	1.08
18:P:63:TRP:HE1	18:P:81:GLU:HG2	1.04	1.08
21:S:134:TYR:OH	21:S:138:LYS:HE3	1.53	1.08
21:S:203:LYS:HE2	21:S:242:ARG:HH21	0.96	1.08
21:S:237:LYS:HZ3	21:S:241:PRO:CB	1.67	1.08
1:1:455:SER:HB3	1:1:466:ARG:HH11	1.14	1.08
3:A:89:PRO:HG2	3:A:204:THR:HB	1.35	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:29:VAL:HG13	18:P:32:PRO:HD3	1.14	1.08
18:P:288:LEU:O	18:P:288:LEU:HD22	1.54	1.08
18:P:321:ASP:OD1	18:P:321:ASP:N	1.76	1.08
21:S:203:LYS:HZ2	21:S:204:GLY:C	1.59	1.08
21:S:231:LEU:CD2	21:S:232:VAL:HG13	1.82	1.08
1:1:408:ILE:HB	1:1:482:TRP:HD1	1.16	1.07
2:2:283:GLN:OE1	3:A:756:ILE:HD13	1.52	1.07
8:F:105:ALA:HB2	9:G:14:HIS:NE2	1.67	1.07
20:R:43:LEU:HD23	20:R:54:LEU:HD11	1.15	1.07
20:R:126:ILE:CG2	20:R:154:GLU:CG	2.32	1.07
21:S:202:PHE:HB3	21:S:242:ARG:NH2	1.07	1.07
23:U:376:LEU:HG	24:V:73:LEU:HD22	1.25	1.07
27:Y:360:LEU:HB3	27:Y:375:ARG:HD2	1.09	1.07
3:A:836:TYR:OH	3:A:1403:GLU:OE2	1.69	1.07
9:G:1:MET:HE1	9:G:80:LYS:O	1.54	1.07
18:P:22:LEU:HD21	18:P:34:ILE:HD13	1.14	1.07
18:P:163:LEU:HD23	18:P:163:LEU:O	1.51	1.07
18:P:196:ILE:HG13	18:P:197:HIS:H	1.06	1.07
21:S:129:LEU:CD2	24:V:347:PHE:CG	2.36	1.07
23:U:135:LEU:C	23:U:136:PRO:CD	2.26	1.07
24:V:306:LEU:HD11	24:V:313:TRP:CZ3	1.87	1.07
18:P:133:ILE:HG12	18:P:151:LYS:CG	1.84	1.07
18:P:154:TYR:CE1	18:P:171:ILE:HG23	1.89	1.07
23:U:137:VAL:HG13	24:V:59:LEU:HB3	1.25	1.07
27:Y:405:PHE:HB2	27:Y:437:PHE:CZ	1.89	1.07
1:1:424:PHE:HB3	1:1:449:GLU:HG2	1.28	1.07
2:2:266:THR:CG2	3:A:731:ARG:HD3	1.83	1.07
18:P:142:LEU:HD21	18:P:147:LYS:HA	1.34	1.07
18:P:289:PHE:HE1	18:P:290:GLN:CB	1.68	1.07
20:R:27:LEU:HD21	20:R:128:LEU:C	1.79	1.07
24:V:82:ARG:HE	24:V:108:LEU:HD11	1.01	1.07
1:1:472:LYS:HG2	1:1:473:VAL:HG13	1.37	1.07
4:B:296:GLU:OE1	23:U:124:LYS:NZ	1.72	1.07
18:P:22:LEU:HD11	18:P:34:ILE:HD11	1.34	1.07
18:P:29:VAL:HG13	18:P:32:PRO:CD	1.69	1.07
18:P:329:ILE:HG22	18:P:330:ALA:N	1.60	1.07
20:R:119:PRO:HD3	20:R:120:ASN:ND2	1.70	1.07
27:Y:132:LYS:HD2	27:Y:155:LEU:HD13	1.35	1.07
27:Y:244:CYS:HB3	27:Y:442:ALA:HB1	1.34	1.07
3:A:16:GLU:OE1	6:D:14:ARG:NH1	1.86	1.06
3:A:1443:VAL:CB	9:G:63:PRO:CA	2.01	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:105:ALA:HA	9:G:14:HIS:HE1	1.18	1.06
18:P:198:VAL:O	18:P:198:VAL:HG12	1.30	1.06
18:P:225:ILE:C	18:P:225:ILE:HD12	1.80	1.06
21:S:129:LEU:CA	24:V:341:LYS:CE	2.32	1.06
1:1:405:LYS:HD3	1:1:483:GLY:HA3	1.35	1.06
2:2:284:LEU:HB3	3:A:1080:THR:HG21	1.13	1.06
18:P:264:LYS:N	18:P:264:LYS:HD3	1.32	1.06
27:Y:128:VAL:CG2	27:Y:373:PRO:HD2	1.84	1.06
27:Y:257:LEU:HD23	27:Y:383:LEU:HD11	1.07	1.06
1:1:647:ASP:OD1	1:1:647:ASP:N	1.84	1.06
18:P:195:LEU:O	18:P:196:ILE:HG22	1.54	1.06
21:S:129:LEU:HA	24:V:341:LYS:CE	1.85	1.06
23:U:372:SER:CB	24:V:80:LYS:HZ1	1.62	1.06
23:U:376:LEU:HG	24:V:73:LEU:CD2	1.84	1.06
24:V:318:LEU:HD11	24:V:349:TYR:CE2	1.90	1.06
3:A:1442:ASP:CB	9:G:60:ARG:NH1	1.94	1.06
18:P:143:PRO:O	18:P:147:LYS:HB3	1.49	1.06
18:P:184:GLU:CD	18:P:241:ARG:N	2.12	1.06
21:S:130:TRP:CH2	24:V:337:ALA:HB3	1.89	1.06
27:Y:479:LEU:O	27:Y:479:LEU:HD22	1.55	1.06
27:Y:639:LEU:HG	27:Y:653:PHE:CE2	1.84	1.06
2:2:306:TRP:HA	3:A:1360:GLY:HA3	1.08	1.06
3:A:192:GLY:CA	22:T:117:DC:OP1	2.03	1.06
18:P:187:ARG:CD	18:P:189:PHE:HA	1.85	1.06
21:S:170:GLU:O	21:S:179:LYS:HD3	1.49	1.06
27:Y:353:SER:CB	27:Y:378:SER:HB2	1.86	1.06
27:Y:650:GLU:HA	27:Y:653:PHE:CE1	1.91	1.06
16:N:21:DA:H2''	16:N:22:DA:H5'	1.33	1.05
18:P:187:ARG:HD3	18:P:189:PHE:HA	1.35	1.05
18:P:298:VAL:HG12	18:P:302:LEU:CD2	1.85	1.05
20:R:46:LEU:HD21	20:R:132:THR:HG23	1.32	1.05
21:S:127:LYS:HA	21:S:153:MET:HE1	1.35	1.05
21:S:203:LYS:NZ	21:S:204:GLY:C	2.14	1.05
3:A:317:LYS:H	18:P:92:LEU:HD22	1.16	1.05
18:P:248:LEU:HD21	18:P:286:ILE:HG13	1.12	1.05
24:V:306:LEU:HD11	24:V:313:TRP:CE3	1.92	1.05
27:Y:495:MET:SD	27:Y:696:TRP:CE3	2.49	1.05
1:1:502:VAL:HG11	1:1:530:LEU:HB3	1.35	1.05
3:A:1443:VAL:HB	9:G:63:PRO:N	1.71	1.05
18:P:298:VAL:HG12	18:P:302:LEU:HD21	1.08	1.05
21:S:129:LEU:N	24:V:341:LYS:CE	2.18	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:148:LEU:HB3	21:S:154:LYS:HE3	1.21	1.05
21:S:231:LEU:HD23	21:S:232:VAL:CG1	1.86	1.05
23:U:137:VAL:HG11	24:V:61:LEU:HD21	1.35	1.05
2:2:248:ILE:CD1	3:A:1203:ASN:HD21	1.68	1.05
3:A:1443:VAL:CG1	9:G:61:ILE:HG22	1.86	1.05
3:A:1443:VAL:HG12	9:G:61:ILE:CG2	1.86	1.05
18:P:34:ILE:HD11	18:P:43:VAL:CB	1.83	1.05
1:1:578:MET:SD	1:1:779:ALA:O	2.15	1.05
2:2:235:ASP:CA	2:2:242:LYS:CE	2.34	1.05
18:P:130:PHE:C	18:P:133:ILE:HG22	1.82	1.05
20:R:124:CYS:H	20:R:130:LYS:NZ	1.36	1.05
21:S:127:LYS:HB2	21:S:153:MET:SD	1.97	1.05
8:F:132:LEU:HB3	9:G:61:ILE:HG21	1.37	1.04
16:N:19:DT:H2''	16:N:20:DA:H5'	1.38	1.04
18:P:94:THR:HG22	18:P:110:LEU:CG	1.86	1.04
18:P:187:ARG:HB2	18:P:189:PHE:CA	1.87	1.04
18:P:196:ILE:HG13	18:P:197:HIS:N	1.58	1.04
18:P:223:LEU:HB2	19:Q:177:PHE:HZ	0.94	1.04
2:2:241:LEU:HG	3:A:1232:ASN:HD22	1.13	1.04
21:S:194:LYS:NZ	21:S:210:LEU:HD11	1.70	1.04
23:U:137:VAL:CG1	24:V:59:LEU:HB3	1.87	1.04
27:Y:128:VAL:CG2	27:Y:372:LYS:HA	1.88	1.04
27:Y:248:LEU:HD21	27:Y:445:ALA:HB2	1.37	1.04
1:1:505:ILE:HG22	1:1:507:ALA:H	1.21	1.04
1:1:756:ARG:HH11	1:1:756:ARG:CG	1.69	1.04
3:A:1442:ASP:HB3	9:G:60:ARG:NH1	1.12	1.04
18:P:150:ALA:CB	18:P:178:ILE:CG1	2.34	1.04
18:P:150:ALA:HB2	18:P:178:ILE:HG13	1.10	1.04
18:P:279:VAL:CA	18:P:302:LEU:HD23	1.86	1.04
21:S:127:LYS:CB	21:S:153:MET:CE	2.27	1.04
21:S:138:LYS:CB	21:S:138:LYS:NZ	2.16	1.04
21:S:138:LYS:NZ	21:S:138:LYS:HB3	1.70	1.04
21:S:154:LYS:C	21:S:154:LYS:HZ2	1.59	1.04
22:T:134:DT:N1	24:V:323:ARG:CD	2.21	1.04
23:U:119:LEU:HG	24:V:135:PHE:CD2	1.93	1.04
24:V:63:ARG:CB	24:V:215:VAL:CA	2.36	1.04
8:F:105:ALA:HB2	9:G:14:HIS:CE1	1.91	1.04
21:S:183:THR:HA	21:S:222:ASN:ND2	1.73	1.04
27:Y:28:ILE:CG2	27:Y:57:ILE:CG1	2.32	1.04
27:Y:42:MET:SD	27:Y:48:LYS:HG2	1.96	1.04
2:2:248:ILE:HG23	3:A:1203:ASN:CB	1.88	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:78:PRO:O	4:B:1201:LYS:NZ	1.89	1.03
18:P:94:THR:CG2	18:P:110:LEU:CG	2.35	1.03
18:P:279:VAL:HG22	18:P:298:VAL:HG12	1.39	1.03
18:P:287:LEU:CD1	18:P:338:ASN:OD1	2.05	1.03
20:R:126:ILE:HG21	20:R:154:GLU:HG2	1.08	1.03
2:2:306:TRP:CA	3:A:1360:GLY:HA3	1.89	1.03
4:B:1220:ARG:CA	6:D:14:ARG:NH2	2.14	1.03
27:Y:537:MET:SD	27:Y:621:LEU:HD13	1.98	1.03
1:1:568:GLU:O	1:1:571:ARG:NH1	1.65	1.03
18:P:27:CYS:HB3	18:P:47:LEU:HD21	1.28	1.03
24:V:333:LEU:O	24:V:337:ALA:HB3	1.58	1.03
3:A:63:ARG:O	18:P:20:ILE:HG12	1.58	1.03
3:A:89:PRO:CG	3:A:204:THR:HB	1.88	1.03
3:A:1451:VAL:HG11	9:G:20:PRO:HA	1.13	1.03
4:B:296:GLU:HG3	23:U:124:LYS:NZ	1.74	1.03
4:B:350:GLN:NE2	23:U:411:LYS:HE3	1.72	1.03
4:B:902:GLY:O	14:L:65:VAL:HG11	1.59	1.03
18:P:172:MET:O	18:P:176:ILE:HG23	1.59	1.03
20:R:28:VAL:HG13	20:R:43:LEU:HD21	1.37	1.03
20:R:144:ARG:NH1	20:R:144:ARG:HA	1.52	1.03
21:S:143:LEU:CD1	21:S:145:ASN:H	1.72	1.03
27:Y:215:ASP:O	27:Y:218:ILE:HG22	1.59	1.03
27:Y:360:LEU:CG	27:Y:375:ARG:HD2	1.89	1.03
27:Y:495:MET:HG2	27:Y:686:PHE:CG	1.93	1.03
1:1:303:ARG:HG2	1:1:504:THR:HB	1.40	1.03
16:N:58:DC:H2''	16:N:59:DT:H5'	1.40	1.03
27:Y:28:ILE:HG22	27:Y:57:ILE:HG13	1.19	1.03
27:Y:683:ASP:O	27:Y:686:PHE:HD2	1.26	1.03
1:1:566:TYR:HB2	25:W:450:ARG:NH2	1.73	1.02
1:1:757:ARG:NH1	1:1:760:LEU:CB	2.22	1.02
3:A:344:ARG:CZ	4:B:1120:GLU:HG3	1.88	1.02
16:N:18:DA:H2''	16:N:19:DT:H5'	1.38	1.02
18:P:180:CYS:SG	18:P:187:ARG:CG	2.46	1.02
18:P:279:VAL:CG1	18:P:309:ILE:HG12	1.88	1.02
19:Q:114:LEU:HB3	22:T:143:DT:O2	1.59	1.02
21:S:237:LYS:NZ	21:S:241:PRO:CB	2.21	1.02
22:T:135:DG:H2'	22:T:136:DA:C8	1.94	1.02
27:Y:289:LEU:HD22	27:Y:348:VAL:HG12	1.41	1.02
27:Y:494:PRO:HD2	27:Y:679:MET:O	1.59	1.02
3:A:317:LYS:O	4:B:471:LYS:CE	2.06	1.02
18:P:142:LEU:CD2	18:P:147:LYS:CA	2.37	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:133:GLU:HG3	21:S:137:LYS:HE3	1.34	1.02
21:S:135:ILE:CD1	21:S:180:TYR:HD2	1.70	1.02
22:T:145:DT:C6	22:T:146:DT:H72	1.95	1.02
18:P:252:VAL:HG13	18:P:285:ASN:ND2	1.73	1.02
1:1:460:VAL:HB	16:N:63:DG:C4'	1.77	1.02
1:1:757:ARG:HH22	1:1:760:LEU:CB	1.70	1.02
2:2:291:GLU:N	2:2:292:PRO:HD2	1.72	1.02
4:B:433:GLN:OE1	23:U:326:ARG:CZ	2.07	1.02
18:P:43:VAL:HG22	18:P:55:LYS:HZ3	1.22	1.02
18:P:93:SER:HB3	18:P:114:GLN:OE1	1.59	1.02
18:P:170:SER:OG	18:P:205:LYS:HE3	1.59	1.02
18:P:257:GLU:OE1	18:P:257:GLU:N	1.92	1.02
18:P:329:ILE:HG23	18:P:330:ALA:H	1.24	1.02
27:Y:103:PHE:CD1	27:Y:205:ILE:HD12	1.95	1.02
27:Y:190:LEU:HD13	27:Y:195:ILE:HD11	1.42	1.02
27:Y:495:MET:HE1	27:Y:696:TRP:HB3	1.39	1.02
27:Y:495:MET:HG3	27:Y:681:LEU:HB2	1.38	1.02
16:N:23:DA:H2''	19:Q:120:LYS:HB2	1.42	1.02
21:S:203:LYS:HG3	21:S:242:ARG:NE	1.75	1.02
1:1:425:LEU:HG	1:1:429:THR:HA	1.40	1.01
1:1:754:ARG:HH11	1:1:754:ARG:HG3	1.05	1.01
4:B:1185:CYS:SG	6:D:17:LYS:CD	2.48	1.01
18:P:188:THR:HB	18:P:245:HIS:CE1	1.96	1.01
21:S:233:LEU:HD13	21:S:245:TRP:O	1.60	1.01
21:S:234:ARG:CB	21:S:234:ARG:CZ	2.37	1.01
21:S:234:ARG:HB2	21:S:234:ARG:CZ	1.90	1.01
1:1:588:PHE:CE2	1:1:621:LYS:NZ	2.26	1.01
1:1:588:PHE:CZ	1:1:621:LYS:HE2	1.95	1.01
2:2:283:GLN:OE1	3:A:756:ILE:CD1	2.07	1.01
18:P:130:PHE:O	18:P:133:ILE:HG22	1.60	1.01
18:P:133:ILE:HG12	18:P:151:LYS:HG2	1.38	1.01
18:P:310:LYS:HE2	18:P:340:PRO:HB3	1.38	1.01
20:R:156:LEU:H	20:R:156:LEU:HD23	1.21	1.01
21:S:151:LEU:HD23	21:S:151:LEU:O	1.60	1.01
21:S:203:LYS:HZ3	21:S:205:ILE:CB	1.73	1.01
4:B:1215:ARG:HD2	6:D:15:LEU:HD13	1.03	1.01
18:P:187:ARG:CB	18:P:188:THR:C	2.32	1.01
18:P:227:THR:O	18:P:227:THR:HG22	1.61	1.01
21:S:127:LYS:CA	21:S:153:MET:CE	2.38	1.01
27:Y:681:LEU:HD22	27:Y:696:TRP:CZ3	1.95	1.01
3:A:227:VAL:HG11	6:D:16:LYS:CG	1.90	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:291:GLU:HG2	18:P:116:LYS:CE	1.89	1.01
4:B:105:SER:HB2	18:P:183:ALA:CB	1.90	1.01
18:P:29:VAL:HG11	18:P:32:PRO:HG3	1.36	1.01
18:P:198:VAL:O	18:P:198:VAL:CG1	2.07	1.01
22:T:117:DC:H2''	22:T:118:DC:H5'	1.38	1.01
18:P:193:GLN:NE2	18:P:203:PHE:CD2	2.29	1.01
22:T:108:DG:H2''	22:T:109:DT:H5'	1.42	1.01
23:U:119:LEU:CG	24:V:135:PHE:CD2	2.44	1.01
23:U:374:VAL:HG23	24:V:73:LEU:HD21	1.41	1.01
27:Y:360:LEU:CB	27:Y:375:ARG:CD	2.39	1.01
27:Y:449:VAL:CG1	27:Y:456:VAL:HG21	1.91	1.01
2:2:241:LEU:CD2	3:A:1232:ASN:HA	1.89	1.00
3:A:291:GLU:HG2	18:P:116:LYS:HE2	1.01	1.00
3:A:1443:VAL:HG12	9:G:61:ILE:HG22	1.40	1.00
18:P:26:GLU:OE1	18:P:50:LEU:HD11	1.60	1.00
18:P:280:VAL:CG1	18:P:313:TYR:HA	1.91	1.00
27:Y:70:ILE:HB	27:Y:208:TYR:HE2	1.23	1.00
1:1:756:ARG:NH1	1:1:756:ARG:HG2	1.53	1.00
1:1:757:ARG:CZ	1:1:760:LEU:CB	2.39	1.00
4:B:430:ARG:HA	23:U:326:ARG:HH12	1.20	1.00
16:N:23:DA:N3	19:Q:116:PHE:CE1	2.28	1.00
16:N:56:DT:H2''	16:N:57:DA:H5'	1.41	1.00
16:N:58:DC:H2'	16:N:59:DT:C6	1.96	1.00
18:P:184:GLU:OE2	18:P:241:ARG:CA	2.09	1.00
20:R:30:ASP:OD1	20:R:151:LEU:HD12	1.59	1.00
21:S:129:LEU:HG	24:V:341:LYS:HE2	1.42	1.00
21:S:133:GLU:CD	24:V:330:LYS:HD3	1.85	1.00
23:U:386:MET:HE1	24:V:75:MET:SD	2.01	1.00
1:1:384:ILE:HD13	1:1:511:LEU:HD11	1.41	1.00
2:2:253:LEU:CD2	3:A:1132:LYS:HB3	1.90	1.00
8:F:105:ALA:HA	9:G:14:HIS:CE1	1.95	1.00
18:P:133:ILE:HG13	18:P:151:LYS:CD	1.89	1.00
18:P:329:ILE:HG22	18:P:330:ALA:H	0.86	1.00
21:S:219:GLU:CB	21:S:222:ASN:HD22	1.73	1.00
3:A:1386:ARG:NH1	3:A:1403:GLU:OE1	1.95	1.00
1:1:460:VAL:CB	16:N:63:DG:H4'	1.92	1.00
21:S:133:GLU:HA	21:S:137:LYS:HE2	1.41	1.00
27:Y:132:LYS:CD	27:Y:155:LEU:HD13	1.85	1.00
2:2:248:ILE:CG1	3:A:1203:ASN:HD21	1.74	1.00
19:Q:114:LEU:HD13	22:T:143:DT:C2	1.96	1.00
24:V:74:PRO:HD2	24:V:222:CYS:O	1.58	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:678:VAL:HG11	27:Y:708:LEU:HG	1.41	0.99
1:1:560:PRO:O	1:1:586:THR:CG2	2.09	0.99
4:B:343:ILE:HG13	22:T:121:DG:H5'	1.02	0.99
16:N:35:DG:H2''	16:N:36:DT:H71	1.43	0.99
18:P:34:ILE:HD12	18:P:43:VAL:HB	1.17	0.99
18:P:225:ILE:HD13	18:P:227:THR:N	1.76	0.99
21:S:134:TYR:CZ	21:S:138:LYS:HE3	1.97	0.99
3:A:192:GLY:HA2	22:T:116:DG:O3'	1.61	0.99
23:U:374:VAL:CG2	24:V:73:LEU:CG	2.37	0.99
27:Y:360:LEU:HB3	27:Y:375:ARG:CD	1.91	0.99
27:Y:481:LYS:HD3	27:Y:483:TYR:CE2	1.97	0.99
1:1:376:ASN:H	1:1:380:ARG:HB2	1.22	0.99
1:1:459:MET:HB2	1:1:464:ARG:HD2	1.41	0.99
1:1:460:VAL:HG11	16:N:63:DG:H3'	1.39	0.99
3:A:1451:VAL:HG13	9:G:20:PRO:CG	1.92	0.99
18:P:310:LYS:NZ	18:P:340:PRO:HG3	1.76	0.99
21:S:128:LEU:HG	24:V:341:LYS:NZ	1.76	0.99
3:A:1443:VAL:CG2	9:G:63:PRO:CA	2.33	0.99
2:2:252:ASN:ND2	3:A:1206:ASP:OD1	1.95	0.99
21:S:126:SER:O	24:V:339:LEU:HB3	1.62	0.99
27:Y:400:LYS:HD2	27:Y:437:PHE:CD2	1.97	0.99
18:P:187:ARG:HH21	18:P:192:ILE:HG21	1.22	0.99
21:S:131:ALA:O	21:S:135:ILE:CG2	2.11	0.99
21:S:214:TRP:HZ3	21:S:218:ASP:OD2	1.27	0.99
18:P:22:LEU:CD2	18:P:34:ILE:HG21	1.93	0.99
21:S:131:ALA:O	21:S:135:ILE:HG22	1.62	0.99
21:S:133:GLU:HG3	21:S:137:LYS:CE	1.92	0.99
3:A:416:ARG:HH12	18:P:37:ARG:HE	1.10	0.98
18:P:133:ILE:HG12	18:P:151:LYS:CD	1.91	0.98
18:P:173:ALA:HA	18:P:176:ILE:CG1	1.93	0.98
18:P:310:LYS:HZ3	18:P:340:PRO:HB3	1.03	0.98
21:S:158:LYS:HZ3	21:S:162:LEU:HG	1.16	0.98
1:1:376:ASN:HB2	1:1:380:ARG:HD3	1.45	0.98
18:P:184:GLU:OE2	18:P:241:ARG:HA	1.62	0.98
20:R:127:CYS:SG	20:R:129:THR:CG2	2.51	0.98
22:T:133:DT:O2	24:V:323:ARG:NH1	1.90	0.98
27:Y:128:VAL:HG23	27:Y:373:PRO:CD	1.93	0.98
27:Y:245:ILE:HG23	27:Y:439:CYS:O	1.63	0.98
3:A:315:LEU:C	18:P:92:LEU:HD23	1.87	0.98
18:P:27:CYS:SG	18:P:47:LEU:HD21	2.03	0.98
27:Y:639:LEU:CD2	27:Y:649:ARG:CD	2.20	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:43:VAL:HG22	18:P:55:LYS:NZ	1.78	0.98
16:N:39:DC:H2'	16:N:40:DT:C6	1.99	0.98
1:1:408:ILE:HB	1:1:482:TRP:CD1	1.98	0.98
1:1:410:LEU:HB2	1:1:466:ARG:HH22	1.26	0.98
4:B:105:SER:HB2	18:P:183:ALA:HB1	1.46	0.98
4:B:1217:TYR:OH	6:D:15:LEU:HA	1.64	0.98
18:P:152:GLU:CG	18:P:155:LYS:HE3	1.94	0.98
3:A:344:ARG:HD2	4:B:1118:PRO:O	1.64	0.98
2:2:248:ILE:CG1	3:A:1203:ASN:ND2	2.26	0.98
4:B:560:GLU:O	24:V:225:MET:HE2	1.64	0.98
18:P:184:GLU:OE2	18:P:231:SER:C	2.06	0.98
24:V:82:ARG:NE	24:V:108:LEU:HD11	1.78	0.98
27:Y:331:PHE:CZ	27:Y:335:LEU:HD11	1.99	0.98
1:1:477:LEU:CA	1:1:501:VAL:HB	1.92	0.98
18:P:225:ILE:CD1	18:P:227:THR:N	2.26	0.98
18:P:310:LYS:HZ3	18:P:340:PRO:CA	1.77	0.98
27:Y:495:MET:HB3	27:Y:686:PHE:CE2	1.98	0.98
18:P:63:TRP:HE1	18:P:81:GLU:CG	1.77	0.97
18:P:188:THR:CB	18:P:245:HIS:CE1	2.47	0.97
27:Y:190:LEU:HD13	27:Y:195:ILE:HD12	1.46	0.97
1:1:668:THR:HG21	1:1:694:LYS:HB2	1.44	0.97
18:P:292:PRO:C	18:P:293:ILE:HD13	1.89	0.97
18:P:145:ILE:HG12	18:P:182:ARG:CD	1.90	0.97
18:P:206:THR:O	18:P:209:ILE:HG12	1.64	0.97
18:P:250:MET:O	18:P:254:THR:CG2	2.11	0.97
18:P:288:LEU:HD21	18:P:328:LEU:CD1	1.93	0.97
18:P:320:ARG:HH21	18:P:337:ASP:HB2	1.28	0.97
21:S:134:TYR:OH	21:S:138:LYS:CE	2.12	0.97
22:T:134:DT:N1	24:V:323:ARG:HD3	1.76	0.97
18:P:193:GLN:NE2	18:P:203:PHE:CE2	2.32	0.97
22:T:104:DT:H2''	22:T:105:DT:H5'	1.46	0.97
27:Y:193:TYR:OH	27:Y:221:ARG:NH2	1.97	0.97
18:P:263:CYS:H	18:P:264:LYS:HZ1	1.08	0.97
21:S:183:THR:CG2	21:S:184:TYR:HD1	1.77	0.97
21:S:203:LYS:CE	21:S:242:ARG:NE	2.23	0.97
8:F:92:ARG:HE	9:G:64:THR:CA	1.77	0.97
21:S:231:LEU:HD23	21:S:232:VAL:HG13	0.99	0.97
1:1:476:PHE:CD1	1:1:485:ILE:HD12	1.98	0.97
2:2:253:LEU:CG	3:A:1132:LYS:CD	2.36	0.97
18:P:22:LEU:HD23	18:P:22:LEU:O	1.64	0.97
18:P:187:ARG:HD3	18:P:189:PHE:HB3	1.44	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:185:CYS:HB2	27:Y:192:PRO:HG3	1.47	0.97
18:P:87:LEU:HD13	18:P:126:VAL:CG2	1.94	0.97
18:P:310:LYS:HZ1	18:P:340:PRO:HG3	1.27	0.97
21:S:127:LYS:HE3	21:S:127:LYS:H	1.24	0.97
21:S:135:ILE:HG13	21:S:180:TYR:HB2	1.46	0.97
21:S:175:LYS:NZ	21:S:175:LYS:C	2.13	0.97
23:U:119:LEU:CG	24:V:135:PHE:HD2	1.75	0.97
18:P:173:ALA:CA	18:P:176:ILE:HG12	1.93	0.97
1:1:297:ILE:HG22	1:1:308:ASP:HB2	1.47	0.96
4:B:1215:ARG:CD	6:D:15:LEU:HD11	1.74	0.96
16:N:22:DA:C2	19:Q:122:VAL:HG11	2.00	0.96
18:P:26:GLU:CD	18:P:50:LEU:HD21	1.90	0.96
18:P:142:LEU:HD21	18:P:147:LYS:CA	1.92	0.96
18:P:291:ILE:H	18:P:291:ILE:HD13	1.30	0.96
1:1:757:ARG:NH1	1:1:760:LEU:CG	2.27	0.96
4:B:451:LYS:NZ	18:P:147:LYS:NZ	2.11	0.96
27:Y:237:ALA:CB	27:Y:458:ILE:HG23	1.95	0.96
2:2:241:LEU:HG	3:A:1232:ASN:ND2	1.79	0.96
4:B:72:GLU:OE2	23:U:311:ASP:O	1.81	0.96
4:B:449:ASN:ND2	18:P:138:ASP:OD1	1.99	0.96
18:P:268:GLU:C	18:P:269:ILE:HD12	1.90	0.96
21:S:194:LYS:HZ2	21:S:210:LEU:HD11	1.31	0.96
18:P:87:LEU:CD2	18:P:126:VAL:HG21	1.94	0.96
18:P:198:VAL:HG11	18:P:202:GLU:OE1	1.65	0.96
18:P:248:LEU:HD21	18:P:293:ILE:CD1	1.94	0.96
27:Y:190:LEU:CD1	27:Y:195:ILE:CD1	2.42	0.96
2:2:277:LYS:CE	3:A:593:GLU:CD	2.35	0.96
18:P:184:GLU:CA	18:P:241:ARG:HD3	1.95	0.96
18:P:263:CYS:CA	18:P:264:LYS:NZ	2.27	0.96
21:S:142:VAL:HG21	21:S:147:LEU:HG	1.45	0.96
18:P:24:CYS:HB2	18:P:48:CYS:SG	2.06	0.96
18:P:171:ILE:HD13	18:P:209:ILE:HD12	1.47	0.96
18:P:252:VAL:O	18:P:285:ASN:OD1	1.83	0.96
27:Y:128:VAL:HG21	27:Y:372:LYS:HA	1.46	0.96
18:P:150:ALA:HB1	18:P:178:ILE:CG1	1.95	0.96
27:Y:128:VAL:CG2	27:Y:373:PRO:CD	2.42	0.96
27:Y:193:TYR:CE2	27:Y:197:ARG:CD	2.48	0.96
18:P:87:LEU:HD11	18:P:126:VAL:HG21	1.37	0.96
22:T:147:DA:H2''	22:T:148:DT:H5'	1.45	0.96
27:Y:639:LEU:HB2	27:Y:653:PHE:HD2	1.19	0.96
1:1:474:MET:H	1:1:481:GLU:H	1.07	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:142:LEU:O	18:P:147:LYS:HD3	1.64	0.96
20:R:43:LEU:HB3	20:R:54:LEU:HD21	1.48	0.96
20:R:44:LYS:HE2	20:R:44:LYS:HA	1.44	0.96
27:Y:532:ILE:C	27:Y:534:PRO:HD3	1.91	0.96
1:1:495:ALA:HB3	1:1:498:PHE:HD2	1.29	0.96
18:P:87:LEU:HD11	18:P:126:VAL:HG23	1.48	0.96
18:P:143:PRO:CG	18:P:182:ARG:HE	1.77	0.96
27:Y:244:CYS:HB2	27:Y:442:ALA:HB1	1.44	0.96
1:1:397:ILE:HG23	1:1:427:TRP:CZ2	2.01	0.95
1:1:572:GLU:OE2	1:1:576:LYS:CB	2.13	0.95
21:S:237:LYS:O	21:S:241:PRO:HD2	0.79	0.95
27:Y:136:MET:CE	27:Y:159:HIS:HD2	1.78	0.95
27:Y:541:PHE:CE1	27:Y:599:LEU:HD22	1.99	0.95
1:1:588:PHE:CZ	1:1:621:LYS:CE	2.49	0.95
1:1:656:LYS:HD2	1:1:656:LYS:O	1.66	0.95
8:F:96:THR:OG1	9:G:64:THR:C	2.08	0.95
18:P:145:ILE:HD11	18:P:182:ARG:HD2	1.48	0.95
18:P:223:LEU:CD1	19:Q:173:GLU:HB2	1.95	0.95
23:U:138:ARG:NH2	24:V:57:LEU:HD12	1.80	0.95
16:N:22:DA:H2	19:Q:122:VAL:HG11	1.29	0.95
21:S:129:LEU:HD23	24:V:347:PHE:CZ	2.01	0.95
23:U:138:ARG:HH22	24:V:57:LEU:HB2	1.22	0.95
1:1:585:PRO:CB	1:1:756:ARG:CZ	2.22	0.95
18:P:34:ILE:CD1	18:P:43:VAL:HG21	1.95	0.95
21:S:127:LYS:HB2	21:S:153:MET:HE1	1.08	0.95
2:2:241:LEU:HD22	3:A:1232:ASN:CA	1.97	0.95
3:A:320:ARG:HH12	18:P:81:GLU:HB2	1.30	0.95
4:B:583:ASN:HD21	4:B:628:THR:HG22	1.27	0.95
18:P:26:GLU:OE1	18:P:50:LEU:HD13	1.66	0.95
18:P:116:LYS:HA	18:P:119:MET:HE3	1.49	0.95
18:P:140:ALA:O	18:P:141:GLU:HG2	1.64	0.95
21:S:127:LYS:HA	21:S:153:MET:CE	1.97	0.95
23:U:374:VAL:HG22	24:V:73:LEU:HG	1.47	0.95
27:Y:679:MET:HE2	27:Y:681:LEU:HD11	1.49	0.95
1:1:458:SER:HA	1:1:465:ASN:HB2	1.47	0.95
1:1:584:ASN:HD21	1:1:586:THR:CG2	1.78	0.95
1:1:561:MET:HB3	25:W:450:ARG:NH2	1.81	0.95
18:P:276:THR:O	18:P:280:VAL:HG23	1.67	0.95
27:Y:350:HIS:HB2	27:Y:384:LEU:HD12	1.46	0.95
1:1:376:ASN:HB3	1:1:380:ARG:H	1.31	0.95
18:P:169:GLU:HG3	18:P:197:HIS:HE1	1.30	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:203:LYS:HG3	21:S:242:ARG:HE	1.27	0.95
18:P:22:LEU:CD1	18:P:34:ILE:CD1	2.44	0.95
20:R:34:PHE:HE2	20:R:134:LEU:HD21	1.32	0.95
21:S:187:HIS:HE1	21:S:225:GLU:HB3	1.32	0.95
18:P:142:LEU:HG	18:P:143:PRO:HD2	1.46	0.94
18:P:187:ARG:HA	18:P:188:THR:HB	1.46	0.94
20:R:119:PRO:CD	20:R:120:ASN:HD22	1.78	0.94
21:S:154:LYS:NZ	21:S:154:LYS:CA	0.80	0.94
1:1:407:VAL:HG13	1:1:452:LEU:H	1.29	0.94
1:1:621:LYS:HB3	1:1:621:LYS:HZ2	1.32	0.94
18:P:257:GLU:CD	18:P:257:GLU:N	2.24	0.94
20:R:17:VAL:HG12	20:R:66:LEU:HG	1.37	0.94
21:S:126:SER:N	21:S:127:LYS:HZ2	1.65	0.94
21:S:133:GLU:CD	24:V:330:LYS:CD	2.40	0.94
21:S:159:VAL:HG22	21:S:160:ILE:HG23	1.46	0.94
27:Y:495:MET:HB3	27:Y:686:PHE:CG	2.01	0.94
1:1:474:MET:HB2	1:1:480:ARG:CA	1.97	0.94
18:P:320:ARG:HH21	18:P:337:ASP:CB	1.79	0.94
21:S:125:SER:O	21:S:129:LEU:HD12	1.32	0.94
24:V:306:LEU:HG	24:V:313:TRP:CE2	2.03	0.94
1:1:421:ARG:HA	1:1:424:PHE:HD2	1.29	0.94
3:A:313:GLN:CD	18:P:98:LYS:HD3	1.92	0.94
4:B:350:GLN:NE2	23:U:411:LYS:CE	2.27	0.94
8:F:92:ARG:NE	9:G:64:THR:N	2.15	0.94
18:P:23:THR:O	18:P:25:PRO:HD3	1.65	0.94
24:V:74:PRO:HD2	24:V:223:GLN:HA	1.47	0.94
3:A:416:ARG:NH2	18:P:37:ARG:HH21	1.64	0.94
3:A:1444:MET:HE1	8:F:135:ARG:HB2	1.45	0.94
17:O:87:VAL:HG12	17:O:88:GLU:H	1.32	0.94
18:P:248:LEU:HD22	18:P:286:ILE:HG12	1.46	0.94
18:P:326:PRO:HD2	18:P:328:LEU:H	1.27	0.94
2:2:248:ILE:HG21	3:A:1203:ASN:OD1	1.13	0.94
4:B:885:MET:HB2	18:P:33:LYS:HZ3	1.00	0.94
18:P:128:ALA:C	18:P:132:LYS:HZ3	1.76	0.94
18:P:171:ILE:CD1	18:P:209:ILE:HD12	1.97	0.94
18:P:263:CYS:HB2	18:P:264:LYS:HZ2	0.88	0.94
18:P:264:LYS:HD3	18:P:264:LYS:H	1.18	0.94
22:T:134:DT:H6	24:V:323:ARG:HD2	1.15	0.94
23:U:119:LEU:HD21	24:V:135:PHE:CD2	2.03	0.94
23:U:138:ARG:NH2	24:V:57:LEU:CD1	2.31	0.94
27:Y:666:LEU:HD23	27:Y:679:MET:SD	2.07	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:253:LEU:HD22	3:A:1132:LYS:CB	1.96	0.94
18:P:264:LYS:CD	18:P:264:LYS:H	1.72	0.94
18:P:329:ILE:HG23	18:P:330:ALA:N	1.81	0.94
3:A:1450:LEU:HD11	9:G:15:PRO:O	1.66	0.94
27:Y:28:ILE:HG21	27:Y:57:ILE:HG21	1.47	0.94
27:Y:517:SER:O	27:Y:522:TYR:HD2	1.51	0.94
27:Y:649:ARG:O	27:Y:653:PHE:CD1	2.21	0.93
1:1:712:ASP:N	25:W:449:ASP:OD2	2.02	0.93
18:P:133:ILE:CG1	18:P:151:LYS:HG2	1.98	0.93
18:P:200:THR:HG23	18:P:201:LYS:H	1.33	0.93
24:V:313:TRP:HB2	24:V:349:TYR:HE1	1.01	0.93
27:Y:162:LEU:HD23	27:Y:195:ILE:HG13	1.48	0.93
3:A:315:LEU:O	18:P:92:LEU:CD2	2.16	0.93
18:P:248:LEU:HD22	18:P:252:VAL:HG11	1.48	0.93
21:S:153:MET:C	21:S:154:LYS:NZ	2.25	0.93
8:F:105:ALA:CB	9:G:14:HIS:HE1	1.64	0.93
18:P:34:ILE:HG13	18:P:43:VAL:HB	1.49	0.93
18:P:263:CYS:HB2	18:P:264:LYS:CE	1.98	0.93
20:R:34:PHE:HZ	20:R:135:GLU:H	1.17	0.93
27:Y:18:TYR:CB	27:Y:19:PRO:HD3	1.98	0.93
1:1:297:ILE:CG2	1:1:308:ASP:HB2	1.99	0.93
1:1:466:ARG:HB2	1:1:477:LEU:HD22	1.48	0.93
1:1:584:ASN:OD1	1:1:586:THR:HG22	1.67	0.93
1:1:588:PHE:CE2	1:1:621:LYS:HE2	2.02	0.93
18:P:104:MET:O	18:P:107:THR:HG22	1.66	0.93
18:P:154:TYR:CE1	18:P:171:ILE:CG2	2.48	0.93
21:S:133:GLU:OE1	24:V:330:LYS:HD3	1.69	0.93
2:2:257:GLN:HG2	3:A:1284:MET:HE3	0.93	0.93
3:A:227:VAL:HG11	6:D:16:LYS:HG3	1.50	0.93
18:P:261:LYS:NZ	18:P:261:LYS:HB3	1.80	0.93
18:P:299:GLY:O	18:P:303:GLN:OE1	1.86	0.93
18:P:302:LEU:HD12	18:P:302:LEU:N	1.84	0.93
2:2:252:ASN:ND2	3:A:1206:ASP:HA	1.82	0.93
18:P:145:ILE:HG13	18:P:182:ARG:CD	1.97	0.93
18:P:193:GLN:HG2	18:P:199:LYS:HG3	1.50	0.93
23:U:372:SER:OG	24:V:80:LYS:CE	2.15	0.93
18:P:142:LEU:C	18:P:147:LYS:HD3	1.93	0.93
18:P:184:GLU:HB2	18:P:241:ARG:HG2	0.93	0.93
18:P:188:THR:CB	18:P:245:HIS:HE1	1.81	0.93
27:Y:28:ILE:CB	27:Y:57:ILE:HG13	1.96	0.93
27:Y:657:ASP:OD1	27:Y:660:ARG:NH2	2.02	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:410:LEU:HD11	1:1:457:TYR:CA	1.99	0.93
16:N:36:DT:H2''	16:N:37:DA:C8	2.04	0.93
18:P:128:ALA:HB1	18:P:132:LYS:NZ	1.83	0.93
18:P:224:LYS:CE	18:P:229:ASN:OD1	2.17	0.93
20:R:120:ASN:ND2	20:R:133:GLN:HB3	1.83	0.93
21:S:210:LEU:HB3	21:S:214:TRP:HH2	1.34	0.93
21:S:183:THR:HG23	21:S:184:TYR:HD1	1.30	0.93
27:Y:62:HIS:HD2	27:Y:63:TYR:N	1.66	0.93
27:Y:450:PHE:HZ	27:Y:475:PHE:HA	1.33	0.93
2:2:253:LEU:HD13	3:A:1132:LYS:HZ2	1.14	0.92
2:2:277:LYS:NZ	3:A:593:GLU:OE2	2.01	0.92
3:A:411:ASP:CG	18:P:51:VAL:HG12	1.92	0.92
18:P:43:VAL:CG1	18:P:55:LYS:CE	2.47	0.92
21:S:148:LEU:HB3	21:S:154:LYS:HE2	0.93	0.92
27:Y:103:PHE:HE1	27:Y:205:ILE:HD12	1.19	0.92
27:Y:639:LEU:HD23	27:Y:649:ARG:HB2	1.50	0.92
1:1:439:THR:HG22	1:1:440:SER:H	1.34	0.92
2:2:290:ASP:C	4:B:766:ARG:NH2	2.27	0.92
3:A:64:ASN:OD1	18:P:18:LEU:HB3	1.68	0.92
18:P:187:ARG:CB	18:P:189:PHE:N	2.32	0.92
18:P:285:ASN:C	18:P:285:ASN:ND2	2.15	0.92
27:Y:492:PHE:CE2	27:Y:707:ASN:OD1	2.21	0.92
18:P:100:GLU:CD	18:P:101:THR:HG23	1.95	0.92
21:S:214:TRP:CZ3	21:S:218:ASP:CG	2.47	0.92
18:P:277:ILE:O	18:P:277:ILE:HD13	1.69	0.92
20:R:17:VAL:HG11	20:R:29:LEU:HD22	1.52	0.92
21:S:219:GLU:OE1	21:S:219:GLU:HA	1.69	0.92
24:V:307:PHE:HZ	24:V:349:TYR:CE1	1.86	0.92
27:Y:569:ILE:HA	27:Y:575:ASP:HB2	1.52	0.92
18:P:225:ILE:C	18:P:225:ILE:CD1	2.42	0.92
27:Y:18:TYR:HB2	27:Y:19:PRO:CD	1.99	0.92
4:B:1109:GLY:HA2	18:P:39:SER:O	1.68	0.92
1:1:424:PHE:CE1	1:1:450:SER:HB3	2.04	0.92
1:1:585:PRO:CG	1:1:756:ARG:NH1	2.32	0.92
2:2:281:TYR:HH	3:A:755:PHE:HE2	1.05	0.92
4:B:885:MET:H	18:P:33:LYS:HZ2	1.05	0.92
18:P:184:GLU:CB	18:P:241:ARG:HG3	1.97	0.92
18:P:258:TYR:CZ	18:P:262:LYS:HE3	2.04	0.92
22:T:152:DC:H2''	22:T:153:DG:H5'	1.51	0.92
24:V:86:ASN:HD21	24:V:92:LEU:HB3	1.35	0.92
2:2:258:GLY:N	3:A:1284:MET:N	2.13	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:63:DG:H2''	16:N:64:DG:C5'	1.99	0.92
16:N:69:DG:H3'	26:X:63:TYR:HE1	1.35	0.92
18:P:94:THR:CG2	18:P:110:LEU:CD2	2.47	0.92
18:P:184:GLU:HA	18:P:241:ARG:HD3	1.50	0.92
18:P:320:ARG:HG3	18:P:321:ASP:N	1.84	0.92
21:S:130:TRP:CE3	24:V:338:THR:C	2.48	0.92
21:S:214:TRP:CE3	21:S:218:ASP:OD2	2.22	0.92
1:1:424:PHE:HB3	1:1:449:GLU:CG	2.00	0.92
3:A:416:ARG:HH22	18:P:37:ARG:NH2	1.67	0.92
16:N:69:DG:H3'	26:X:63:TYR:CE1	2.05	0.92
18:P:34:ILE:HD11	18:P:43:VAL:HG21	1.46	0.92
21:S:203:LYS:CG	21:S:242:ARG:NE	2.33	0.92
27:Y:42:MET:SD	27:Y:53:LEU:HD12	2.10	0.92
1:1:368:LYS:HD2	1:1:372:LYS:HE2	1.50	0.92
1:1:773:ILE:CD1	1:1:775:VAL:CA	2.40	0.92
2:2:284:LEU:HB2	3:A:1080:THR:HG21	1.50	0.92
16:N:41:DA:H2''	16:N:42:DT:H5''	1.52	0.92
21:S:148:LEU:HB2	21:S:154:LYS:CE	1.99	0.92
21:S:183:THR:HA	21:S:222:ASN:HD21	1.27	0.92
2:2:241:LEU:CD2	3:A:1232:ASN:CA	2.47	0.91
18:P:290:GLN:HE21	18:P:331:ASN:HD21	0.97	0.91
18:P:316:LEU:HD23	18:P:317:TYR:N	1.85	0.91
23:U:376:LEU:HD11	24:V:73:LEU:HD13	1.49	0.91
18:P:223:LEU:HG	19:Q:177:PHE:CE2	2.05	0.91
18:P:293:ILE:HD13	18:P:293:ILE:N	1.85	0.91
20:R:27:LEU:CD2	20:R:128:LEU:C	2.41	0.91
27:Y:342:LEU:HD23	27:Y:345:ARG:NH2	1.83	0.91
1:1:403:ILE:CG2	1:1:405:LYS:HG2	2.00	0.91
18:P:277:ILE:CD1	18:P:277:ILE:C	2.44	0.91
20:R:126:ILE:HG23	20:R:154:GLU:HG2	1.48	0.91
16:N:60:DA:H2''	16:N:61:DA:C5'	2.00	0.91
21:S:164:LYS:CD	21:S:165:LYS:HG2	2.00	0.91
1:1:397:ILE:HG23	1:1:427:TRP:CH2	2.05	0.91
23:U:371:ASP:OD1	24:V:75:MET:O	1.87	0.91
27:Y:400:LYS:CD	27:Y:437:PHE:CE2	2.53	0.91
1:1:474:MET:HB3	1:1:482:TRP:N	1.85	0.91
1:1:477:LEU:HA	1:1:501:VAL:CB	2.00	0.91
1:1:527:LEU:HD22	1:1:531:ILE:CD1	2.00	0.91
1:1:585:PRO:HB2	1:1:756:ARG:HH22	1.28	0.91
3:A:416:ARG:HH22	18:P:37:ARG:HH21	0.96	0.91
4:B:430:ARG:CA	23:U:326:ARG:HH12	1.82	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:22:LEU:CD1	18:P:34:ILE:HD11	2.01	0.91
18:P:143:PRO:HB2	18:P:182:ARG:HE	0.87	0.91
18:P:302:LEU:H	18:P:302:LEU:CD1	1.80	0.91
21:S:202:PHE:HB2	21:S:242:ARG:HH22	1.36	0.91
27:Y:185:CYS:CB	27:Y:192:PRO:HG3	1.99	0.91
1:1:408:ILE:HD11	1:1:466:ARG:HD3	1.53	0.91
18:P:338:ASN:H	18:P:338:ASN:ND2	1.65	0.91
27:Y:70:ILE:HD12	27:Y:208:TYR:OH	1.70	0.91
4:B:887:HIS:HE1	18:P:38:PHE:HB3	1.29	0.91
16:N:58:DC:H2''	16:N:59:DT:C5'	2.01	0.91
18:P:288:LEU:C	18:P:288:LEU:CD1	2.41	0.91
21:S:129:LEU:HA	24:V:341:LYS:HE2	1.53	0.91
21:S:130:TRP:CD1	21:S:151:LEU:HG	2.05	0.91
1:1:403:ILE:HG22	1:1:405:LYS:HG2	1.53	0.91
1:1:429:THR:HB	1:1:432:PRO:HD2	1.50	0.91
18:P:320:ARG:CG	18:P:321:ASP:OD1	2.18	0.91
21:S:135:ILE:HG12	21:S:180:TYR:HB2	1.53	0.91
22:T:134:DT:H2''	24:V:323:ARG:O	1.71	0.91
1:1:307:ASP:HB2	1:1:323:VAL:HB	1.53	0.91
18:P:187:ARG:NH2	18:P:192:ILE:CG2	2.31	0.91
20:R:156:LEU:HD23	20:R:156:LEU:N	1.86	0.91
21:S:138:LYS:HZ2	21:S:138:LYS:HB2	1.33	0.91
21:S:154:LYS:HZ3	21:S:154:LYS:CA	0.57	0.91
27:Y:237:ALA:HB1	27:Y:458:ILE:HG23	1.51	0.91
1:1:585:PRO:CB	1:1:756:ARG:NH2	2.31	0.90
18:P:207:LEU:HA	18:P:210:MET:HE3	1.50	0.90
18:P:223:LEU:CD1	19:Q:173:GLU:CB	2.49	0.90
21:S:134:TYR:CZ	21:S:138:LYS:CE	2.54	0.90
21:S:170:GLU:C	21:S:179:LYS:HD2	1.94	0.90
1:1:588:PHE:CE2	1:1:621:LYS:CE	2.53	0.90
2:2:279:VAL:HG22	2:2:299:CYS:HA	1.51	0.90
2:2:284:LEU:HD13	3:A:1080:THR:HG22	1.53	0.90
4:B:1220:ARG:HA	6:D:14:ARG:NH2	1.82	0.90
8:F:105:ALA:HB1	9:G:14:HIS:CE1	2.04	0.90
17:O:86:THR:HG22	17:O:105:VAL:HG22	1.53	0.90
18:P:289:PHE:CZ	18:P:291:ILE:HG12	2.05	0.90
20:R:120:ASN:CG	20:R:133:GLN:CB	2.45	0.90
2:2:253:LEU:CD1	3:A:1132:LYS:HD2	2.01	0.90
18:P:143:PRO:HD3	18:P:185:VAL:HG11	1.54	0.90
20:R:17:VAL:CG1	20:R:66:LEU:CD1	2.50	0.90
23:U:119:LEU:CD2	24:V:135:PHE:CD2	2.53	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:1451:VAL:HG11	9:G:20:PRO:CA	1.90	0.90
18:P:190:LYS:CE	18:P:242:PHE:CE1	2.51	0.90
21:S:141:PRO:HB2	21:S:177:THR:HG23	1.52	0.90
21:S:203:LYS:HD2	21:S:203:LYS:C	1.95	0.90
21:S:219:GLU:HB2	21:S:222:ASN:HD22	1.33	0.90
21:S:233:LEU:HD22	21:S:233:LEU:C	1.97	0.90
27:Y:317:LEU:HD23	27:Y:409:ILE:CG2	2.01	0.90
1:1:467:SER:N	1:1:477:LEU:HD23	1.86	0.90
2:2:252:ASN:CB	3:A:1206:ASP:HB2	2.01	0.90
2:2:253:LEU:CD1	3:A:1132:LYS:HZ3	1.72	0.90
2:2:258:GLY:H	3:A:1284:MET:H	0.97	0.90
18:P:193:GLN:HG2	18:P:199:LYS:CG	2.02	0.90
24:V:292:ILE:CA	24:V:295:PRO:HD2	2.02	0.90
1:1:516:THR:HA	1:1:681:ARG:CZ	2.01	0.90
2:2:252:ASN:HD22	3:A:1206:ASP:CG	1.78	0.90
20:R:30:ASP:CG	20:R:151:LEU:HD11	1.96	0.90
21:S:125:SER:O	21:S:129:LEU:CD1	2.18	0.90
21:S:210:LEU:HB3	21:S:214:TRP:CH2	2.05	0.90
1:1:588:PHE:CZ	1:1:621:LYS:NZ	2.39	0.90
18:P:63:TRP:CD1	18:P:81:GLU:HG2	2.05	0.90
1:1:459:MET:HB2	1:1:464:ARG:CD	2.01	0.90
4:B:885:MET:N	18:P:33:LYS:NZ	2.18	0.90
16:N:61:DA:C2'	16:N:62:DA:H5'	2.01	0.90
20:R:44:LYS:CD	20:R:54:LEU:HB2	2.02	0.90
21:S:131:ALA:HA	21:S:151:LEU:HD12	1.51	0.90
27:Y:360:LEU:CG	27:Y:375:ARG:CD	2.49	0.90
27:Y:646:TYR:HB2	27:Y:648:ILE:HG12	1.51	0.90
1:1:487:LEU:CD2	1:1:490:VAL:HG23	2.02	0.90
3:A:1443:VAL:CG1	9:G:61:ILE:CG2	2.49	0.90
18:P:26:GLU:OE1	18:P:50:LEU:CD2	2.20	0.90
21:S:137:LYS:H	21:S:137:LYS:HD3	1.35	0.90
21:S:153:MET:C	21:S:154:LYS:HZ1	1.80	0.90
21:S:183:THR:CA	21:S:222:ASN:HD21	1.85	0.90
24:V:299:ILE:HD11	24:V:324:GLN:OE1	1.72	0.90
27:Y:103:PHE:CE1	27:Y:205:ILE:CD1	2.53	0.90
27:Y:136:MET:HE2	27:Y:159:HIS:HD2	1.37	0.90
18:P:150:ALA:HB2	18:P:178:ILE:CG1	1.99	0.89
21:S:143:LEU:HD13	21:S:144:VAL:H	1.37	0.89
27:Y:103:PHE:HE1	27:Y:205:ILE:CD1	1.85	0.89
3:A:291:GLU:CD	18:P:116:LYS:CD	2.44	0.89
4:B:885:MET:N	18:P:33:LYS:HZ2	1.70	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:23:DA:C3'	19:Q:120:LYS:HD2	2.02	0.89
18:P:94:THR:CG2	18:P:110:LEU:HD21	2.01	0.89
27:Y:400:LYS:CD	27:Y:437:PHE:CD2	2.55	0.89
27:Y:495:MET:CB	27:Y:686:PHE:CD1	2.55	0.89
27:Y:656:PHE:HA	27:Y:659:MET:HE3	1.51	0.89
18:P:143:PRO:CD	18:P:185:VAL:HG11	2.02	0.89
27:Y:171:LEU:HB2	27:Y:172:PRO:HD3	1.52	0.89
1:1:417:VAL:HG13	1:1:454:VAL:CG1	2.01	0.89
1:1:516:THR:N	1:1:681:ARG:HD3	1.83	0.89
16:N:24:DG:H4'	19:Q:118:SER:HB3	0.90	0.89
21:S:194:LYS:NZ	21:S:210:LEU:CD1	2.35	0.89
27:Y:317:LEU:HD23	27:Y:409:ILE:HG22	1.53	0.89
1:1:470:SER:C	1:1:478:THR:HG23	1.97	0.89
18:P:223:LEU:HD12	19:Q:173:GLU:HB2	1.55	0.89
27:Y:131:GLU:OE1	27:Y:134:ARG:NH1	2.06	0.89
27:Y:346:MET:HB3	27:Y:384:LEU:HD21	1.53	0.89
16:N:23:DA:H2	19:Q:116:PHE:CE1	1.81	0.89
20:R:34:PHE:CZ	20:R:134:LEU:CG	2.40	0.89
22:T:135:DG:H2''	22:T:136:DA:H5'	1.52	0.89
24:V:307:PHE:CZ	24:V:349:TYR:CZ	2.60	0.89
1:1:757:ARG:NH1	1:1:760:LEU:HB3	1.85	0.89
3:A:1451:VAL:CG1	9:G:20:PRO:CB	2.46	0.89
18:P:286:ILE:CD1	18:P:292:PRO:CA	2.23	0.89
18:P:325:ASP:OD1	18:P:325:ASP:N	2.00	0.89
20:R:28:VAL:HG13	20:R:43:LEU:CD2	2.03	0.89
21:S:138:LYS:HB3	21:S:138:LYS:HZ3	1.38	0.89
1:1:347:HIS:CD2	1:1:348:ARG:HG3	2.08	0.89
1:1:405:LYS:HD3	1:1:483:GLY:CA	2.03	0.89
1:1:456:THR:HB	1:1:465:ASN:CG	1.98	0.89
18:P:102:THR:HG23	18:P:104:MET:HE3	1.53	0.89
20:R:44:LYS:HG3	20:R:51:LYS:CA	1.99	0.89
3:A:227:VAL:CG2	6:D:16:LYS:CE	2.50	0.89
16:N:18:DA:H2''	16:N:19:DT:C5'	2.03	0.89
18:P:22:LEU:HD21	18:P:34:ILE:CD1	2.01	0.89
2:2:204:SER:CA	3:A:1176:LEU:O	2.21	0.88
20:R:17:VAL:CG1	20:R:66:LEU:CG	2.46	0.88
21:S:187:HIS:NE2	21:S:225:GLU:HB3	1.87	0.88
27:Y:248:LEU:CD2	27:Y:445:ALA:HB2	2.03	0.88
2:2:253:LEU:CD1	3:A:1132:LYS:HZ2	1.77	0.88
3:A:1438:THR:HG22	4:B:1144:ALA:HB3	1.52	0.88
20:R:142:PHE:N	20:R:142:PHE:CD1	1.76	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:133:GLU:OE2	24:V:330:LYS:NZ	2.06	0.88
8:F:76:LYS:HA	8:F:79:ARG:HD3	1.56	0.88
8:F:132:LEU:CD2	9:G:66:GLY:O	2.21	0.88
19:Q:99:PHE:HB2	22:T:143:DT:O5'	1.71	0.88
24:V:306:LEU:HD12	24:V:313:TRP:CZ2	2.07	0.88
27:Y:190:LEU:HD13	27:Y:195:ILE:HD13	1.52	0.88
1:1:408:ILE:HG21	1:1:475:ASP:CA	2.04	0.88
4:B:343:ILE:HD11	22:T:121:DG:O3'	1.73	0.88
18:P:34:ILE:HD12	18:P:43:VAL:HG23	1.54	0.88
18:P:333:VAL:CG2	18:P:336:LEU:HD12	2.03	0.88
24:V:104:ILE:CG2	24:V:122:LEU:HD22	2.03	0.88
27:Y:400:LYS:CG	27:Y:437:PHE:CE2	2.56	0.88
1:1:457:TYR:HB3	1:1:498:PHE:CD1	2.08	0.88
3:A:411:ASP:OD1	18:P:51:VAL:CA	2.22	0.88
18:P:252:VAL:HG13	18:P:285:ASN:CG	1.98	0.88
21:S:126:SER:O	24:V:339:LEU:CB	2.20	0.88
4:B:959:ASP:HB2	18:P:182:ARG:HH11	1.26	0.88
18:P:143:PRO:HB3	18:P:182:ARG:CZ	2.04	0.88
18:P:340:PRO:CD	18:P:340:PRO:HA	2.01	0.88
21:S:133:GLU:CA	21:S:137:LYS:HE2	1.98	0.88
24:V:333:LEU:HD22	24:V:349:TYR:CD2	2.08	0.88
1:1:477:LEU:HG	1:1:501:VAL:HG11	1.56	0.88
3:A:416:ARG:HH12	18:P:37:ARG:NE	1.72	0.88
16:N:27:DG:H2'	24:V:291:SER:O	1.71	0.88
16:N:56:DT:H2''	16:N:57:DA:C5'	2.03	0.88
18:P:187:ARG:CB	18:P:189:PHE:HA	2.04	0.88
18:P:280:VAL:CG1	18:P:313:TYR:CA	2.51	0.88
27:Y:495:MET:CB	27:Y:686:PHE:CG	2.56	0.88
1:1:362:ILE:HG23	1:1:366:GLN:HB2	1.54	0.88
21:S:155:LYS:O	21:S:159:VAL:HG12	1.73	0.88
21:S:207:CYS:SG	21:S:208:LYS:NZ	2.46	0.88
27:Y:124:ARG:HG2	27:Y:374:LEU:CA	2.04	0.88
27:Y:639:LEU:HD11	27:Y:649:ARG:NH1	1.89	0.88
21:S:128:LEU:HB3	24:V:341:LYS:HD2	1.53	0.88
1:1:460:VAL:CG1	16:N:63:DG:C3'	2.44	0.87
24:V:63:ARG:CB	24:V:214:ILE:O	2.18	0.87
27:Y:70:ILE:HB	27:Y:208:TYR:CE2	2.09	0.87
27:Y:650:GLU:HA	27:Y:653:PHE:HE1	1.34	0.87
1:1:446:PHE:HB2	1:1:452:LEU:HD21	1.54	0.87
4:B:451:LYS:HZ2	18:P:147:LYS:HZ3	1.22	0.87
8:F:105:ALA:CA	9:G:14:HIS:CE1	2.48	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:U:374:VAL:O	24:V:73:LEU:HD23	1.73	0.87
27:Y:124:ARG:HG3	27:Y:373:PRO:O	1.72	0.87
1:1:424:PHE:CD1	1:1:450:SER:HB3	2.10	0.87
1:1:427:TRP:CH2	1:1:450:SER:HB2	2.10	0.87
16:N:63:DG:C2'	16:N:64:DG:H5''	2.03	0.87
18:P:195:LEU:O	18:P:196:ILE:CG2	2.20	0.87
20:R:123:MET:HE3	20:R:130:LYS:HD2	0.89	0.87
22:T:134:DT:O4'	24:V:323:ARG:HD3	0.96	0.87
1:1:474:MET:HE2	1:1:480:ARG:C	2.00	0.87
16:N:27:DG:C3'	24:V:291:SER:C	2.45	0.87
18:P:289:PHE:CE1	18:P:291:ILE:CD1	2.57	0.87
18:P:289:PHE:HE1	18:P:290:GLN:HB2	1.04	0.87
23:U:135:LEU:HB2	23:U:136:PRO:CD	2.04	0.87
24:V:306:LEU:CD1	24:V:313:TRP:CH2	2.57	0.87
24:V:306:LEU:CD2	24:V:318:LEU:HD23	2.03	0.87
2:2:253:LEU:HD11	3:A:1129:GLU:OE1	1.74	0.87
24:V:318:LEU:HD11	24:V:349:TYR:CD2	2.09	0.87
27:Y:360:LEU:HG	27:Y:375:ARG:CD	2.03	0.87
27:Y:506:ILE:HB	27:Y:522:TYR:CE2	2.10	0.87
3:A:411:ASP:OD1	18:P:51:VAL:CB	2.22	0.87
3:A:1445:ILE:CA	9:G:68:ALA:HB2	1.76	0.87
21:S:144:VAL:HG22	21:S:178:PHE:HE2	1.40	0.87
27:Y:493:LEU:CD2	27:Y:696:TRP:NE1	2.10	0.87
1:1:421:ARG:HA	1:1:424:PHE:CD2	2.09	0.87
1:1:717:TYR:CE2	1:1:718:TYR:HE1	1.56	0.87
16:N:60:DA:H2'	16:N:61:DA:C8	2.10	0.87
18:P:279:VAL:HG21	18:P:303:GLN:NE2	1.90	0.87
19:Q:145:LYS:HA	19:Q:145:LYS:HE3	1.55	0.87
20:R:30:ASP:CG	20:R:151:LEU:CD1	2.47	0.87
21:S:203:LYS:HB3	21:S:242:ARG:CD	2.04	0.87
16:N:39:DC:H2'	16:N:40:DT:H71	1.57	0.87
18:P:104:MET:HG3	18:P:105:ARG:N	1.90	0.87
20:R:123:MET:CB	20:R:130:LYS:CD	2.52	0.87
27:Y:360:LEU:HG	27:Y:375:ARG:NE	1.89	0.87
27:Y:692:GLN:O	27:Y:693:LEU:HD22	1.75	0.87
1:1:376:ASN:HB2	1:1:380:ARG:CD	2.05	0.87
3:A:91:PHE:HB3	3:A:96:ILE:HG13	1.56	0.87
4:B:1113:VAL:HG22	18:P:57:VAL:HG23	1.55	0.87
24:V:318:LEU:CD1	24:V:349:TYR:CE2	2.57	0.87
1:1:410:LEU:CD2	1:1:477:LEU:HD11	2.05	0.86
1:1:477:LEU:HG	1:1:501:VAL:CG1	2.04	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:21:VAL:HG22	18:P:23:THR:H	1.40	0.86
22:T:130:DA:C5	22:T:131:DC:C2	2.62	0.86
3:A:64:ASN:OD1	18:P:18:LEU:HD13	1.75	0.86
20:R:119:PRO:CD	20:R:120:ASN:ND2	2.36	0.86
23:U:137:VAL:CG1	24:V:61:LEU:HD21	2.04	0.86
24:V:104:ILE:HD12	24:V:124:LEU:HD21	1.55	0.86
1:1:584:ASN:HD21	1:1:586:THR:HG23	1.39	0.86
1:1:588:PHE:HE2	1:1:621:LYS:HZ1	0.95	0.86
1:1:634:GLN:OE1	1:1:634:GLN:HA	1.75	0.86
4:B:104:GLU:OE2	14:L:54:ARG:CD	2.22	0.86
18:P:188:THR:O	18:P:188:THR:HG22	1.74	0.86
21:S:203:LYS:CB	21:S:242:ARG:CD	2.51	0.86
27:Y:538:VAL:HG13	27:Y:597:ILE:HG22	1.58	0.86
18:P:102:THR:HG21	18:P:104:MET:HE3	0.87	0.86
19:Q:100:ALA:N	22:T:142:DC:O2	2.08	0.86
21:S:125:SER:O	24:V:341:LYS:HG3	1.05	0.86
21:S:141:PRO:CB	21:S:177:THR:CG2	2.53	0.86
27:Y:375:ARG:NH1	27:Y:377:CYS:SG	2.48	0.86
3:A:1445:ILE:C	9:G:68:ALA:HB2	2.01	0.86
1:1:383:ILE:HG22	1:1:512:GLY:HA3	1.57	0.86
18:P:184:GLU:HB2	18:P:241:ARG:HD3	1.37	0.86
22:T:132:DA:H2''	22:T:133:DT:H72	1.55	0.86
1:1:425:LEU:HG	1:1:429:THR:HG23	1.57	0.86
18:P:207:LEU:CD1	19:Q:188:GLU:OE2	2.24	0.86
27:Y:124:ARG:HG2	27:Y:374:LEU:HA	1.55	0.86
1:1:757:ARG:NH2	1:1:760:LEU:HB3	1.83	0.86
2:2:248:ILE:HG12	3:A:1203:ASN:HD21	1.33	0.86
18:P:170:SER:CB	18:P:205:LYS:HE3	2.05	0.86
21:S:131:ALA:N	21:S:151:LEU:HD11	1.91	0.86
1:1:470:SER:CA	1:1:478:THR:HG23	2.05	0.86
2:2:290:ASP:HA	4:B:766:ARG:NH2	1.89	0.86
18:P:207:LEU:HD13	19:Q:188:GLU:OE2	1.74	0.86
21:S:136:GLN:CD	21:S:137:LYS:NZ	2.33	0.86
21:S:183:THR:HA	21:S:222:ASN:CG	2.00	0.86
21:S:203:LYS:NZ	21:S:205:ILE:CB	2.34	0.86
22:T:108:DG:H2''	22:T:109:DT:C5'	2.05	0.86
22:T:121:DG:H2''	22:T:122:DT:H5'	1.58	0.86
24:V:318:LEU:CD2	24:V:349:TYR:OH	2.21	0.86
27:Y:495:MET:CG	27:Y:686:PHE:CG	2.58	0.86
1:1:717:TYR:CD2	1:1:718:TYR:CE1	2.64	0.86
18:P:87:LEU:CD1	18:P:126:VAL:HG23	2.04	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:U:98:TYR:CZ	24:V:96:ARG:NH2	2.43	0.86
24:V:74:PRO:HD3	24:V:222:CYS:O	1.73	0.86
18:P:22:LEU:HD11	18:P:43:VAL:CG2	2.05	0.85
18:P:93:SER:CB	18:P:114:GLN:OE1	2.24	0.85
20:R:17:VAL:HG12	20:R:66:LEU:CD1	2.04	0.85
27:Y:18:TYR:HB2	27:Y:19:PRO:HD3	1.57	0.85
27:Y:248:LEU:HD11	27:Y:445:ALA:HB2	1.58	0.85
3:A:413:ILE:HA	18:P:49:GLY:O	1.76	0.85
18:P:187:ARG:CD	18:P:189:PHE:CA	2.50	0.85
1:1:447:GLN:N	1:1:452:LEU:HD13	1.89	0.85
1:1:474:MET:SD	1:1:506:ALA:HB3	2.16	0.85
21:S:158:LYS:HZ3	21:S:162:LEU:CG	1.90	0.85
22:T:132:DA:C2'	22:T:133:DT:H72	2.06	0.85
24:V:104:ILE:HG22	24:V:122:LEU:HD22	1.56	0.85
27:Y:267:LEU:O	27:Y:268:ASP:HB2	1.76	0.85
27:Y:656:PHE:HD1	27:Y:659:MET:SD	1.98	0.85
1:1:757:ARG:NH1	1:1:760:LEU:HD22	1.88	0.85
2:2:253:LEU:CD2	3:A:1132:LYS:CB	2.51	0.85
18:P:137:CYS:SG	18:P:142:LEU:HD22	2.16	0.85
21:S:210:LEU:CB	21:S:214:TRP:HH2	1.90	0.85
18:P:143:PRO:CB	18:P:182:ARG:CZ	2.54	0.85
18:P:289:PHE:CZ	18:P:291:ILE:HD11	2.12	0.85
21:S:151:LEU:CD2	21:S:153:MET:HE2	2.07	0.85
18:P:142:LEU:CD2	18:P:147:LYS:HA	2.04	0.85
18:P:258:TYR:OH	18:P:262:LYS:HE3	1.74	0.85
27:Y:493:LEU:HD23	27:Y:696:TRP:HE1	0.68	0.85
27:Y:566:HIS:CE1	27:Y:569:ILE:HG13	2.11	0.85
2:2:190:THR:CA	7:E:50:MET:CE	2.55	0.85
18:P:290:GLN:HE21	18:P:331:ASN:ND2	1.70	0.85
2:2:265:VAL:CG1	2:2:278:LYS:HA	2.06	0.85
18:P:208:ASN:O	18:P:211:LYS:HG2	1.76	0.85
20:R:91:TYR:HB3	20:R:92:PRO:HD3	1.59	0.85
23:U:140:HIS:HB3	24:V:57:LEU:HD22	1.57	0.85
16:N:69:DG:OP1	26:X:63:TYR:HA	1.74	0.85
24:V:63:ARG:HG3	24:V:215:VAL:HA	0.85	0.85
1:1:328:LYS:HD3	1:1:530:LEU:CD2	2.07	0.85
1:1:487:LEU:CD2	1:1:493:VAL:HG21	2.05	0.85
1:1:621:LYS:HB3	1:1:621:LYS:HZ3	0.98	0.85
18:P:34:ILE:HD11	18:P:43:VAL:CG2	1.90	0.85
20:R:32:ILE:CG2	20:R:89:VAL:HG23	2.07	0.85
20:R:43:LEU:HD23	20:R:54:LEU:CD1	2.05	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:130:TRP:CH2	24:V:333:LEU:C	2.54	0.85
1:1:417:VAL:HG13	1:1:454:VAL:HG11	1.57	0.84
1:1:487:LEU:HD22	1:1:490:VAL:HG23	1.59	0.84
18:P:130:PHE:O	18:P:133:ILE:CG2	2.24	0.84
27:Y:353:SER:CB	27:Y:378:SER:CA	2.55	0.84
1:1:407:VAL:HG13	1:1:452:LEU:N	1.93	0.84
16:N:28:DT:C6	24:V:291:SER:O	2.21	0.84
18:P:290:GLN:HG2	18:P:331:ASN:HD22	1.41	0.84
27:Y:321:ILE:CD1	27:Y:409:ILE:HG22	2.05	0.84
27:Y:493:LEU:HD21	27:Y:666:LEU:HG	1.57	0.84
3:A:11:LEU:HD11	4:B:1195:HIS:CD2	2.11	0.84
16:N:16:DC:H2''	16:N:17:DT:H5'	1.57	0.84
20:R:141:ASN:C	20:R:142:PHE:HD1	1.84	0.84
27:Y:681:LEU:CD2	27:Y:696:TRP:CZ3	2.60	0.84
1:1:566:TYR:CB	25:W:450:ARG:HH21	1.86	0.84
18:P:173:ALA:HA	18:P:176:ILE:CD1	2.06	0.84
27:Y:539:VAL:CG1	27:Y:623:ILE:HG12	2.07	0.84
1:1:756:ARG:HH11	1:1:756:ARG:HG2	0.75	0.84
3:A:836:TYR:HH	3:A:1403:GLU:CD	1.84	0.84
18:P:173:ALA:C	18:P:176:ILE:HG12	2.02	0.84
18:P:200:THR:HG23	18:P:201:LYS:N	1.89	0.84
18:P:223:LEU:CG	19:Q:177:PHE:CE1	2.43	0.84
24:V:333:LEU:C	24:V:337:ALA:HB3	2.02	0.84
1:1:457:TYR:HB3	1:1:498:PHE:CE1	2.12	0.84
1:1:606:ILE:HD12	1:1:690:ILE:HD12	1.58	0.84
16:N:22:DA:H5''	19:Q:158:GLN:NE2	1.91	0.84
18:P:313:TYR:O	18:P:316:LEU:HD22	1.77	0.84
1:1:785:ARG:CG	1:1:785:ARG:NH1	2.18	0.84
3:A:315:LEU:HD12	18:P:95:ARG:O	1.77	0.84
3:A:902:LEU:HG	3:A:926:GLN:HG3	1.59	0.84
16:N:16:DC:H2'	16:N:17:DT:C6	2.12	0.84
16:N:28:DT:OP2	24:V:291:SER:O	1.95	0.84
18:P:171:ILE:CD1	18:P:209:ILE:CD1	2.55	0.84
20:R:123:MET:CG	20:R:130:LYS:CD	2.56	0.84
21:S:170:GLU:C	21:S:179:LYS:CD	2.38	0.84
23:U:374:VAL:HG21	24:V:75:MET:SD	2.17	0.84
27:Y:60:GLN:O	27:Y:64:PRO:HD2	1.77	0.84
27:Y:257:LEU:CD2	27:Y:383:LEU:CD1	2.32	0.84
1:1:425:LEU:HG	1:1:429:THR:CA	2.07	0.84
19:Q:99:PHE:CB	22:T:143:DT:O5'	2.23	0.84
24:V:307:PHE:CE2	24:V:349:TYR:CZ	2.65	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:346:MET:CA	27:Y:384:LEU:HD21	2.08	0.84
3:A:419:LYS:HZ1	18:P:47:LEU:HG	1.41	0.84
16:N:25:DG:P	19:Q:79:ARG:HH22	2.00	0.84
24:V:306:LEU:HD11	24:V:313:TRP:CH2	2.12	0.84
27:Y:289:LEU:HB3	27:Y:348:VAL:HG11	1.59	0.84
3:A:344:ARG:HA	4:B:1129:ARG:HA	1.57	0.83
18:P:277:ILE:HD13	18:P:277:ILE:C	2.03	0.83
27:Y:257:LEU:HD23	27:Y:383:LEU:HD12	1.58	0.83
27:Y:541:PHE:HE1	27:Y:599:LEU:HD22	1.37	0.83
1:1:421:ARG:HE	1:1:430:LEU:HD11	1.41	0.83
1:1:473:VAL:H	1:1:478:THR:HG22	1.42	0.83
3:A:192:GLY:C	22:T:117:DC:OP1	2.21	0.83
20:R:31:ALA:HB3	20:R:43:LEU:HD11	1.58	0.83
21:S:234:ARG:HH22	21:S:242:ARG:HG2	1.43	0.83
3:A:1445:ILE:C	9:G:61:ILE:HD12	2.01	0.83
18:P:193:GLN:CG	18:P:199:LYS:HG3	2.08	0.83
24:V:89:GLY:O	24:V:90:GLN:HB2	1.78	0.83
27:Y:400:LYS:CG	27:Y:437:PHE:CD2	2.61	0.83
1:1:466:ARG:NH2	1:1:477:LEU:HD13	1.92	0.83
1:1:476:PHE:CE1	1:1:502:VAL:HG22	2.13	0.83
3:A:414:ASP:CB	18:P:44:VAL:HG11	2.08	0.83
18:P:63:TRP:NE1	18:P:81:GLU:CG	2.35	0.83
18:P:86:LEU:CD2	18:P:155:LYS:CE	2.56	0.83
18:P:176:ILE:HD12	18:P:187:ARG:HH22	1.43	0.83
21:S:171:PHE:N	21:S:171:PHE:CD1	2.40	0.83
21:S:175:LYS:HZ2	21:S:175:LYS:CA	0.24	0.83
2:2:257:GLN:CD	3:A:1284:MET:CE	2.51	0.83
4:B:560:GLU:C	24:V:225:MET:HE1	2.03	0.83
16:N:28:DT:OP2	24:V:292:ILE:C	2.21	0.83
21:S:164:LYS:CD	21:S:165:LYS:CG	2.56	0.83
23:U:94:ASP:C	23:U:95:PRO:HD3	2.02	0.83
27:Y:405:PHE:CG	27:Y:437:PHE:CZ	2.66	0.83
1:1:372:LYS:O	1:1:380:ARG:HB3	1.78	0.83
1:1:408:ILE:HG21	1:1:475:ASP:HA	1.60	0.83
3:A:53:LEU:HD23	3:A:54:ASN:H	1.44	0.83
16:N:19:DT:H2'	16:N:20:DA:C8	2.14	0.83
18:P:225:ILE:HD13	18:P:227:THR:H	1.40	0.83
3:A:419:LYS:NZ	18:P:47:LEU:C	2.36	0.83
18:P:87:LEU:HD21	18:P:126:VAL:HG21	1.58	0.83
18:P:133:ILE:CG1	18:P:151:LYS:CG	2.53	0.83
18:P:290:GLN:CG	18:P:331:ASN:HD22	1.91	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:126:ILE:HG23	20:R:154:GLU:CG	2.03	0.83
24:V:63:ARG:HB2	24:V:214:ILE:C	2.04	0.83
1:1:407:VAL:CG1	1:1:451:GLY:HA2	2.08	0.83
4:B:885:MET:H	18:P:33:LYS:NZ	1.73	0.83
18:P:22:LEU:CD1	18:P:34:ILE:HD13	2.07	0.83
18:P:145:ILE:HG13	18:P:182:ARG:HD3	1.58	0.83
18:P:294:THR:OG1	18:P:297:LYS:HG3	1.78	0.83
20:R:17:VAL:HG11	20:R:66:LEU:HG	1.57	0.83
3:A:1443:VAL:C	9:G:61:ILE:HG22	2.04	0.83
4:B:1184:GLY:O	6:D:17:LYS:NZ	2.12	0.83
16:N:23:DA:C4'	19:Q:120:LYS:HD3	2.09	0.83
18:P:145:ILE:CG1	18:P:182:ARG:HD3	2.08	0.83
18:P:150:ALA:CB	18:P:178:ILE:CD1	2.56	0.83
18:P:150:ALA:HA	18:P:178:ILE:CD1	2.08	0.83
18:P:223:LEU:HD11	19:Q:173:GLU:CB	2.09	0.83
20:R:44:LYS:CG	20:R:51:LYS:HA	2.03	0.83
21:S:143:LEU:HD12	21:S:145:ASN:H	1.41	0.83
27:Y:353:SER:HB3	27:Y:378:SER:N	1.94	0.83
3:A:313:GLN:HG3	18:P:98:LYS:CE	2.08	0.83
3:A:1443:VAL:CG2	9:G:63:PRO:CB	2.57	0.83
4:B:350:GLN:HG3	23:U:407:ASP:CB	2.08	0.83
27:Y:639:LEU:HD11	27:Y:649:ARG:HH11	1.43	0.83
1:1:376:ASN:N	1:1:380:ARG:HB2	1.92	0.82
1:1:505:ILE:HG22	1:1:507:ALA:N	1.94	0.82
18:P:34:ILE:HD12	18:P:43:VAL:O	1.77	0.82
20:R:44:LYS:HD2	20:R:54:LEU:HB2	1.61	0.82
27:Y:72:CYS:SG	27:Y:234:PHE:CD1	2.72	0.82
1:1:474:MET:HE3	1:1:482:TRP:C	2.04	0.82
5:C:148:ARG:H	5:C:151:GLN:HG3	1.43	0.82
16:N:39:DC:H2'	16:N:40:DT:C5	2.13	0.82
18:P:252:VAL:HG13	18:P:285:ASN:HD21	1.38	0.82
20:R:43:LEU:HB3	20:R:54:LEU:CD2	2.09	0.82
21:S:203:LYS:HZ3	21:S:205:ILE:HB	0.77	0.82
21:S:221:ILE:H	21:S:221:ILE:HD13	0.66	0.82
21:S:233:LEU:HD22	21:S:233:LEU:O	1.79	0.82
21:S:234:ARG:HB2	21:S:234:ARG:HH12	1.41	0.82
27:Y:86:LEU:HD22	27:Y:103:PHE:CE1	2.15	0.82
1:1:335:TYR:HD1	1:1:336:PRO:HD3	1.44	0.82
4:B:433:GLN:CD	23:U:326:ARG:HD3	2.03	0.82
21:S:142:VAL:CG2	21:S:147:LEU:HG	2.09	0.82
21:S:218:ASP:HB2	21:S:223:GLN:NE2	1.93	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:959:ASP:OD2	18:P:145:ILE:HD11	1.79	0.82
18:P:171:ILE:HD13	18:P:209:ILE:CD1	2.08	0.82
24:V:306:LEU:CD1	24:V:313:TRP:CZ2	2.62	0.82
8:F:132:LEU:HD21	9:G:66:GLY:O	1.79	0.82
8:F:132:LEU:HD22	9:G:61:ILE:HG23	1.62	0.82
18:P:26:GLU:CD	18:P:50:LEU:CD2	2.51	0.82
27:Y:42:MET:CG	27:Y:48:LYS:HG2	2.09	0.82
27:Y:208:TYR:CE1	27:Y:213:LEU:HB2	2.15	0.82
27:Y:639:LEU:HG	27:Y:653:PHE:CZ	2.15	0.82
21:S:160:ILE:C	21:S:160:ILE:HD12	2.05	0.82
1:1:478:THR:HG22	1:1:479:GLY:H	1.43	0.82
2:2:266:THR:HG23	3:A:731:ARG:CD	2.09	0.82
18:P:289:PHE:CZ	18:P:291:ILE:CG1	2.62	0.82
24:V:63:ARG:HB3	24:V:215:VAL:O	1.77	0.82
1:1:695:ARG:HA	1:1:696:ARG:CZ	2.09	0.82
18:P:45:CYS:SG	18:P:49:GLY:N	2.52	0.82
18:P:280:VAL:HG13	18:P:313:TYR:CA	2.08	0.82
18:P:303:GLN:CD	18:P:304:VAL:HG23	2.04	0.82
20:R:12:LEU:O	20:R:16:VAL:HG23	1.80	0.82
27:Y:518:ILE:HG23	27:Y:550:ILE:HD13	1.60	0.82
2:2:291:GLU:H	2:2:292:PRO:HD2	1.42	0.82
4:B:885:MET:CA	18:P:33:LYS:NZ	2.41	0.82
18:P:225:ILE:HD11	18:P:227:THR:C	2.05	0.82
21:S:151:LEU:HD22	21:S:153:MET:HG3	1.61	0.82
21:S:172:ASP:OD2	21:S:179:LYS:HG3	1.80	0.82
21:S:203:LYS:CD	21:S:203:LYS:C	2.49	0.82
27:Y:481:LYS:HD3	27:Y:483:TYR:CD2	2.15	0.82
3:A:227:VAL:HG21	6:D:16:LYS:CE	2.07	0.82
18:P:320:ARG:NH2	18:P:337:ASP:H	1.77	0.82
27:Y:244:CYS:HB2	27:Y:442:ALA:CB	2.09	0.82
1:1:300:ASP:OD2	1:1:480:ARG:HD3	1.80	0.81
1:1:373:MET:HG3	1:1:381:SER:HA	1.61	0.81
1:1:410:LEU:HD21	1:1:457:TYR:CD2	2.15	0.81
1:1:574:ALA:HB1	1:1:774:GLU:CD	2.03	0.81
2:2:288:SER:O	2:2:292:PRO:HD3	1.80	0.81
3:A:68:GLN:O	3:A:68:GLN:NE2	2.11	0.81
18:P:108:LYS:O	18:P:112:LYS:HG2	1.80	0.81
20:R:27:LEU:HD21	20:R:127:CYS:O	1.80	0.81
21:S:167:ASP:OD1	21:S:167:ASP:N	2.08	0.81
3:A:344:ARG:NH2	4:B:1120:GLU:CG	2.39	0.81
8:F:92:ARG:HH22	9:G:63:PRO:HB2	1.02	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:96:THR:CB	9:G:64:THR:O	2.27	0.81
18:P:184:GLU:OE1	18:P:241:ARG:N	2.13	0.81
18:P:189:PHE:H	18:P:241:ARG:NH2	1.77	0.81
18:P:339:LEU:C	18:P:340:PRO:CD	2.52	0.81
21:S:129:LEU:H	24:V:341:LYS:HG3	1.45	0.81
24:V:63:ARG:CB	24:V:215:VAL:C	2.53	0.81
27:Y:28:ILE:CG2	27:Y:57:ILE:CD1	2.58	0.81
27:Y:135:ARG:NH1	27:Y:370:GLU:OE2	2.10	0.81
1:1:458:SER:CB	1:1:467:SER:HB3	2.11	0.81
2:2:248:ILE:CG2	3:A:1203:ASN:CG	1.75	0.81
2:2:253:LEU:CB	3:A:1132:LYS:HD3	2.09	0.81
3:A:55:ASP:HA	3:A:58:LEU:HB2	1.63	0.81
5:C:148:ARG:HD3	5:C:149:LYS:HG2	1.62	0.81
16:N:70:DG:OP2	26:X:63:TYR:OH	1.97	0.81
18:P:113:ALA:O	18:P:116:LYS:HG2	1.79	0.81
18:P:184:GLU:CD	18:P:231:SER:OG	2.23	0.81
21:S:131:ALA:CA	21:S:151:LEU:HD12	2.09	0.81
22:T:141:DC:H2''	22:T:142:DC:H5'	1.61	0.81
23:U:135:LEU:HD12	23:U:355:PHE:CE1	2.15	0.81
1:1:331:GLN:HE22	1:1:378:ARG:HD2	1.45	0.81
21:S:237:LYS:HG3	21:S:241:PRO:HG2	0.82	0.81
23:U:372:SER:OG	24:V:80:LYS:NZ	0.68	0.81
27:Y:42:MET:SD	27:Y:48:LYS:CG	2.69	0.81
27:Y:248:LEU:HD11	27:Y:445:ALA:CB	2.10	0.81
1:1:474:MET:HA	1:1:478:THR:O	1.79	0.81
3:A:312:PRO:HA	18:P:96:ILE:HG21	1.63	0.81
16:N:23:DA:C2	19:Q:116:PHE:HZ	1.93	0.81
21:S:181:LEU:HD21	21:S:183:THR:O	1.81	0.81
3:A:95:PHE:O	3:A:96:ILE:C	2.13	0.81
4:B:445:LYS:O	18:P:139:ALA:HB1	1.79	0.81
16:N:24:DG:P	19:Q:120:LYS:HD2	2.21	0.81
27:Y:18:TYR:CB	27:Y:19:PRO:CD	2.57	0.81
27:Y:257:LEU:HD22	27:Y:383:LEU:HD11	1.61	0.81
1:1:384:ILE:HD13	1:1:511:LEU:CD1	2.10	0.81
1:1:502:VAL:HA	1:1:505:ILE:CD1	2.10	0.81
18:P:286:ILE:CG1	18:P:293:ILE:CD1	2.33	0.81
18:P:326:PRO:HD2	18:P:328:LEU:N	1.93	0.81
27:Y:244:CYS:CB	27:Y:442:ALA:CB	2.57	0.81
27:Y:639:LEU:CG	27:Y:653:PHE:CZ	2.60	0.81
2:2:207:ILE:CA	3:A:1172:LEU:HD22	2.10	0.81
2:2:248:ILE:CG2	3:A:1203:ASN:OD1	0.51	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:154:TYR:CA	18:P:157:CYS:SG	2.69	0.81
20:R:123:MET:CA	20:R:130:LYS:HD3	2.11	0.81
1:1:621:LYS:CB	1:1:621:LYS:HZ2	1.86	0.81
15:M:236:GLU:HG3	15:M:237:ASP:H	1.46	0.81
21:S:184:TYR:HA	21:S:221:ILE:H	1.32	0.81
27:Y:346:MET:CB	27:Y:384:LEU:HD21	2.09	0.81
1:1:428:CYS:HB2	1:1:434:ASN:CB	2.08	0.81
1:1:446:PHE:C	1:1:452:LEU:HD22	2.06	0.81
16:N:35:DG:C2'	16:N:36:DT:H71	2.11	0.81
18:P:316:LEU:HD23	18:P:317:TYR:H	1.44	0.81
22:T:132:DA:H2''	22:T:133:DT:C7	2.10	0.81
1:1:410:LEU:HA	1:1:466:ARG:HH12	1.46	0.80
1:1:627:ILE:HB	1:1:654:LEU:HD23	1.62	0.80
3:A:320:ARG:HH12	18:P:81:GLU:CB	1.94	0.80
3:A:1445:ILE:O	9:G:68:ALA:CB	2.28	0.80
21:S:129:LEU:HG	24:V:341:LYS:CE	2.09	0.80
21:S:142:VAL:C	21:S:177:THR:OG1	2.23	0.80
23:U:365:TYR:CE1	23:U:391:LYS:HD2	2.17	0.80
2:2:235:ASP:CA	2:2:242:LYS:CG	2.58	0.80
4:B:1221:SER:OG	6:D:14:ARG:CZ	2.28	0.80
21:S:141:PRO:CB	21:S:177:THR:HG23	2.10	0.80
23:U:135:LEU:HB2	23:U:136:PRO:HD2	1.63	0.80
4:B:416:LEU:HD23	4:B:457:LEU:HD23	1.61	0.80
21:S:130:TRP:HE3	24:V:339:LEU:HG	0.99	0.80
21:S:187:HIS:CE1	21:S:225:GLU:CB	2.59	0.80
22:T:147:DA:H2''	22:T:148:DT:C5'	2.10	0.80
27:Y:353:SER:CB	27:Y:378:SER:N	2.45	0.80
27:Y:353:SER:HA	27:Y:375:ARG:HG2	1.64	0.80
1:1:466:ARG:HB2	1:1:477:LEU:CD2	2.10	0.80
16:N:69:DG:P	26:X:62:ILE:O	2.40	0.80
18:P:150:ALA:HA	18:P:178:ILE:HD12	1.60	0.80
1:1:458:SER:CA	1:1:465:ASN:HB2	2.12	0.80
1:1:502:VAL:CG1	1:1:530:LEU:HB3	2.12	0.80
1:1:578:MET:O	1:1:582:ILE:HG13	1.81	0.80
2:2:252:ASN:HD22	3:A:1206:ASP:CB	1.95	0.80
16:N:23:DA:H2''	19:Q:120:LYS:CB	2.10	0.80
20:R:34:PHE:CE2	20:R:134:LEU:HD21	2.12	0.80
21:S:200:VAL:O	21:S:200:VAL:CG1	2.29	0.80
21:S:221:ILE:CD1	21:S:221:ILE:N	2.17	0.80
27:Y:659:MET:SD	27:Y:692:GLN:HG2	2.21	0.80
1:1:584:ASN:ND2	1:1:586:THR:HG23	1.96	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:350:GLN:CG	23:U:407:ASP:OD2	2.28	0.80
18:P:184:GLU:CD	18:P:241:ARG:CG	2.54	0.80
23:U:386:MET:CE	24:V:75:MET:SD	2.70	0.80
1:1:773:ILE:HD12	1:1:774:GLU:C	2.06	0.80
3:A:192:GLY:C	22:T:117:DC:P	2.64	0.80
27:Y:317:LEU:HA	27:Y:321:ILE:HD13	1.63	0.80
4:B:849:GLY:HA2	4:B:852:ARG:HD2	1.63	0.80
18:P:196:ILE:CG1	18:P:197:HIS:H	1.76	0.80
18:P:289:PHE:CE1	18:P:291:ILE:HG12	2.16	0.80
27:Y:162:LEU:HD21	27:Y:191:CYS:HB3	1.64	0.80
1:1:502:VAL:HA	1:1:505:ILE:HD11	1.64	0.80
1:1:757:ARG:NH2	1:1:760:LEU:CD2	2.41	0.80
3:A:227:VAL:CG1	6:D:16:LYS:HG2	2.11	0.80
15:M:16:SER:O	15:M:20:GLU:HG2	1.81	0.80
18:P:202:GLU:HG3	18:P:205:LYS:NZ	1.96	0.80
21:S:130:TRP:HE3	24:V:339:LEU:CG	1.76	0.80
21:S:202:PHE:C	21:S:203:LYS:HE3	2.06	0.80
21:S:203:LYS:HB3	21:S:242:ARG:CB	2.12	0.80
27:Y:62:HIS:CD2	27:Y:63:TYR:N	2.49	0.80
1:1:353:ASP:OD2	1:1:405:LYS:HA	1.80	0.80
1:1:378:ARG:HH21	1:1:508:HIS:HA	1.45	0.80
3:A:22:PHE:HB2	4:B:1211:ASN:CG	2.06	0.80
18:P:140:ALA:O	18:P:141:GLU:CG	2.30	0.80
18:P:255:SER:HA	18:P:325:ASP:OD2	1.81	0.80
18:P:325:ASP:O	18:P:326:PRO:HG3	1.81	0.80
20:R:43:LEU:CD2	20:R:54:LEU:HD11	2.05	0.80
20:R:156:LEU:CD2	20:R:156:LEU:N	2.35	0.80
21:S:196:LEU:HD12	21:S:196:LEU:C	2.07	0.80
21:S:200:VAL:O	21:S:200:VAL:HG12	1.81	0.80
22:T:135:DG:H2''	22:T:136:DA:C5'	2.11	0.80
27:Y:310:PRO:HG2	27:Y:335:LEU:HD23	1.62	0.80
27:Y:639:LEU:CA	27:Y:653:PHE:CD2	2.65	0.80
1:1:398:THR:O	1:1:402:THR:HG23	1.83	0.79
2:2:253:LEU:HD13	3:A:1132:LYS:HD2	1.62	0.79
2:2:269:PHE:HZ	2:2:297:CYS:SG	1.97	0.79
20:R:144:ARG:HB3	20:R:146:GLU:CD	2.07	0.79
21:S:130:TRP:HH2	24:V:333:LEU:C	1.89	0.79
21:S:172:ASP:C	21:S:175:LYS:HZ1	1.89	0.79
27:Y:443:SER:HB2	27:Y:474:ASN:HB2	1.64	0.79
8:F:96:THR:HA	9:G:64:THR:O	1.82	0.79
18:P:104:MET:CG	18:P:105:ARG:H	1.92	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:T:102:DC:H2'	22:T:103:DC:C6	2.17	0.79
22:T:102:DC:H2''	22:T:103:DC:H5'	1.64	0.79
22:T:117:DC:H2'	22:T:118:DC:C6	2.16	0.79
24:V:56:SER:O	24:V:57:LEU:HB2	1.81	0.79
27:Y:479:LEU:O	27:Y:479:LEU:CD2	2.31	0.79
27:Y:586:TYR:HD1	27:Y:616:TYR:CE2	1.99	0.79
1:1:425:LEU:CG	1:1:429:THR:HA	2.12	0.79
1:1:459:MET:O	1:1:464:ARG:HG3	1.81	0.79
18:P:29:VAL:HG13	18:P:31:PRO:HA	1.65	0.79
18:P:279:VAL:HG22	18:P:298:VAL:CG1	2.12	0.79
21:S:140:LYS:NZ	21:S:141:PRO:O	2.14	0.79
27:Y:193:TYR:HE2	27:Y:197:ARG:HH11	1.29	0.79
27:Y:212:TYR:OH	27:Y:222:VAL:HG22	1.81	0.79
27:Y:298:ILE:CD1	27:Y:345:ARG:HD2	2.11	0.79
1:1:327:LYS:HA	1:1:327:LYS:HE3	1.65	0.79
18:P:22:LEU:HD22	18:P:34:ILE:HG21	1.63	0.79
21:S:130:TRP:HB3	21:S:151:LEU:HD21	1.62	0.79
1:1:458:SER:HA	1:1:465:ASN:CB	2.12	0.79
1:1:561:MET:C	25:W:450:ARG:CZ	2.55	0.79
18:P:291:ILE:HD13	18:P:291:ILE:N	1.94	0.79
20:R:34:PHE:CZ	20:R:134:LEU:HD12	2.18	0.79
21:S:148:LEU:CD1	21:S:154:LYS:HE3	2.12	0.79
21:S:219:GLU:HB3	21:S:222:ASN:HD22	1.47	0.79
27:Y:131:GLU:CD	27:Y:134:ARG:HH12	1.91	0.79
4:B:29:ASP:HB3	4:B:658:ILE:HG12	1.64	0.79
4:B:1215:ARG:HD2	6:D:15:LEU:HD12	1.60	0.79
18:P:286:ILE:CD1	18:P:293:ILE:HD13	2.13	0.79
21:S:164:LYS:HE2	21:S:165:LYS:HG3	1.58	0.79
21:S:175:LYS:NZ	21:S:175:LYS:CA	0.85	0.79
18:P:193:GLN:HG2	18:P:199:LYS:CD	2.12	0.79
18:P:279:VAL:HA	18:P:302:LEU:HD23	1.63	0.79
19:Q:103:ILE:CG1	22:T:143:DT:C2'	2.22	0.79
20:R:30:ASP:OD1	20:R:151:LEU:CD1	2.30	0.79
27:Y:331:PHE:CE2	27:Y:335:LEU:CD1	2.65	0.79
1:1:494:PRO:HB2	1:1:519:ARG:NH1	1.98	0.79
1:1:785:ARG:HG2	1:1:785:ARG:HH11	1.47	0.79
17:O:4:PRO:CD	24:V:357:LYS:CB	2.34	0.79
18:P:289:PHE:CE1	18:P:290:GLN:CB	2.39	0.79
21:S:127:LYS:N	24:V:339:LEU:O	2.16	0.79
27:Y:42:MET:CG	27:Y:48:LYS:CG	2.59	0.79
3:A:89:PRO:HB2	3:A:204:THR:CG2	2.13	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:55:DG:C2'	16:N:56:DT:H72	2.13	0.79
18:P:142:LEU:HB3	18:P:147:LYS:CD	2.12	0.79
18:P:286:ILE:CD1	18:P:293:ILE:CD1	2.61	0.79
21:S:175:LYS:CB	21:S:175:LYS:HZ3	1.69	0.79
18:P:35:VAL:HG12	18:P:37:ARG:H	1.45	0.79
18:P:102:THR:CG2	18:P:104:MET:CE	2.37	0.79
18:P:124:ASN:OD1	18:P:128:ALA:HB2	1.83	0.79
27:Y:400:LYS:HG3	27:Y:437:PHE:CD2	2.18	0.79
1:1:362:ILE:HG22	1:1:363:ARG:O	1.81	0.78
1:1:400:ALA:HB1	1:1:449:GLU:O	1.82	0.78
1:1:473:VAL:H	1:1:478:THR:CG2	1.96	0.78
1:1:584:ASN:ND2	1:1:586:THR:CG2	2.45	0.78
2:2:283:GLN:CG	3:A:756:ILE:HD13	2.12	0.78
4:B:900:ALA:HB3	14:L:61:THR:HG23	1.64	0.78
18:P:22:LEU:HA	18:P:52:LEU:HD11	1.64	0.78
20:R:149:CYS:SG	20:R:151:LEU:HD22	2.24	0.78
27:Y:136:MET:HE2	27:Y:159:HIS:CD2	2.17	0.78
1:1:773:ILE:HD11	1:1:775:VAL:HB	0.81	0.78
18:P:86:LEU:HD21	18:P:155:LYS:CE	2.13	0.78
18:P:285:ASN:ND2	18:P:286:ILE:N	2.30	0.78
21:S:166:LEU:CD1	21:S:166:LEU:C	2.55	0.78
27:Y:321:ILE:CD1	27:Y:409:ILE:CG2	2.61	0.78
1:1:439:THR:HG23	1:1:465:ASN:ND2	1.97	0.78
18:P:152:GLU:O	18:P:155:LYS:HG2	1.83	0.78
18:P:279:VAL:HG23	18:P:302:LEU:HG	1.57	0.78
18:P:338:ASN:ND2	18:P:338:ASN:N	2.27	0.78
21:S:154:LYS:CE	21:S:154:LYS:CA	2.13	0.78
21:S:190:SER:C	21:S:226:GLU:OE1	2.27	0.78
21:S:210:LEU:CB	21:S:214:TRP:CH2	2.66	0.78
27:Y:405:PHE:HB3	27:Y:437:PHE:CD1	2.18	0.78
18:P:63:TRP:CD1	18:P:82:ALA:H	2.01	0.78
24:V:107:LEU:CD1	24:V:119:GLU:HG3	2.12	0.78
27:Y:39:ILE:HG12	27:Y:458:ILE:HB	1.63	0.78
27:Y:257:LEU:HD21	27:Y:383:LEU:HD11	1.64	0.78
27:Y:526:LEU:HD13	27:Y:623:ILE:HD11	1.64	0.78
27:Y:569:ILE:CG2	27:Y:579:THR:OG1	2.32	0.78
18:P:43:VAL:HG13	18:P:55:LYS:NZ	1.98	0.78
18:P:222:PHE:O	18:P:223:LEU:HB2	1.84	0.78
27:Y:18:TYR:HB3	27:Y:19:PRO:HD3	1.66	0.78
27:Y:408:LEU:HD22	27:Y:634:ILE:HG13	1.64	0.78
1:1:485:ILE:CD1	1:1:510:LYS:HG2	2.14	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:187:ARG:CB	18:P:189:PHE:CA	2.62	0.78
18:P:289:PHE:CZ	18:P:291:ILE:CD1	2.66	0.78
21:S:194:LYS:HZ1	21:S:210:LEU:CD1	1.95	0.78
21:S:203:LYS:CE	21:S:204:GLY:N	2.47	0.78
22:T:117:DC:H2''	22:T:118:DC:C5'	2.13	0.78
27:Y:215:ASP:HB3	27:Y:218:ILE:CG2	2.14	0.78
1:1:368:LYS:HZ2	1:1:372:LYS:HD2	1.49	0.78
1:1:376:ASN:CB	1:1:380:ARG:H	1.97	0.78
18:P:193:GLN:NE2	18:P:203:PHE:CG	2.51	0.78
21:S:130:TRP:CZ3	24:V:338:THR:N	2.52	0.78
21:S:183:THR:CG2	21:S:184:TYR:CD1	2.65	0.78
21:S:184:TYR:H	21:S:222:ASN:ND2	1.81	0.78
21:S:203:LYS:HE3	21:S:203:LYS:CA	2.14	0.78
27:Y:307:VAL:C	27:Y:310:PRO:HD2	2.07	0.78
16:N:56:DT:H2'	16:N:57:DA:C8	2.19	0.78
18:P:288:LEU:HD13	18:P:289:PHE:N	1.98	0.78
20:R:156:LEU:H	20:R:156:LEU:HD22	1.47	0.78
8:F:92:ARG:NH2	9:G:63:PRO:CA	2.46	0.78
18:P:130:PHE:HA	18:P:133:ILE:CG2	2.14	0.78
22:T:104:DT:C2'	22:T:105:DT:H5'	2.13	0.78
27:Y:111:ARG:NE	27:Y:129:VAL:HG21	1.98	0.78
1:1:425:LEU:HG	1:1:429:THR:CB	2.13	0.78
1:1:516:THR:HA	1:1:681:ARG:NE	1.99	0.78
2:2:271:CYS:SG	2:2:304:ASN:ND2	2.57	0.78
16:N:39:DC:H2''	16:N:40:DT:H5'	1.66	0.78
16:N:65:DG:H1'	16:N:66:DG:H5'	1.66	0.78
18:P:188:THR:OG1	18:P:241:ARG:HB3	1.84	0.78
21:S:166:LEU:HD12	21:S:168:ARG:H	1.46	0.78
21:S:219:GLU:HB2	21:S:222:ASN:ND2	1.99	0.78
27:Y:136:MET:CE	27:Y:159:HIS:CD2	2.67	0.78
27:Y:289:LEU:HD22	27:Y:348:VAL:CG1	2.13	0.78
27:Y:681:LEU:HD22	27:Y:696:TRP:HZ3	1.45	0.78
1:1:476:PHE:HA	1:1:485:ILE:HB	1.66	0.77
2:2:252:ASN:ND2	3:A:1206:ASP:CB	2.47	0.77
18:P:290:GLN:NE2	18:P:331:ASN:HD21	1.79	0.77
18:P:296:ALA:O	18:P:300:GLN:NE2	2.16	0.77
22:T:121:DG:C2'	22:T:122:DT:H5'	2.14	0.77
27:Y:359:PHE:CE2	27:Y:363:LEU:HD11	2.19	0.77
27:Y:532:ILE:C	27:Y:534:PRO:CD	2.56	0.77
1:1:363:ARG:HH21	1:1:366:GLN:HE22	1.32	0.77
1:1:425:LEU:CD1	1:1:429:THR:HG23	2.15	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:255:ASN:HB2	3:A:1204:ASP:O	1.84	0.77
4:B:451:LYS:NZ	18:P:147:LYS:HZ1	1.82	0.77
18:P:152:GLU:HG3	18:P:155:LYS:NZ	1.98	0.77
18:P:288:LEU:HD13	18:P:288:LEU:O	1.84	0.77
27:Y:298:ILE:HD11	27:Y:345:ARG:HD2	1.66	0.77
3:A:1443:VAL:HB	9:G:62:LEU:C	2.09	0.77
4:B:885:MET:CA	18:P:33:LYS:HZ1	1.97	0.77
18:P:45:CYS:SG	18:P:48:CYS:N	2.57	0.77
18:P:116:LYS:O	18:P:119:MET:CG	2.30	0.77
18:P:225:ILE:HD12	18:P:225:ILE:O	1.84	0.77
18:P:268:GLU:O	18:P:315:ILE:CG2	2.32	0.77
18:P:268:GLU:O	18:P:269:ILE:HD12	1.85	0.77
27:Y:37:ASN:O	27:Y:477:THR:OG1	2.02	0.77
1:1:310:ILE:HD13	1:1:313:VAL:CG2	2.15	0.77
2:2:257:GLN:CD	3:A:1284:MET:HE3	2.10	0.77
18:P:184:GLU:CD	18:P:241:ARG:HG2	2.08	0.77
18:P:303:GLN:CG	18:P:304:VAL:CG2	2.62	0.77
27:Y:54:SER:O	27:Y:57:ILE:HG22	1.85	0.77
1:1:656:LYS:O	1:1:656:LYS:CD	2.33	0.77
2:2:252:ASN:HD21	3:A:1203:ASN:HA	1.50	0.77
2:2:265:VAL:HG13	2:2:278:LYS:HA	1.65	0.77
8:F:92:ARG:CZ	9:G:63:PRO:HB3	2.11	0.77
18:P:128:ALA:C	18:P:132:LYS:NZ	2.42	0.77
20:R:145:THR:C	20:R:146:GLU:OE1	2.26	0.77
23:U:375:LEU:HD21	24:V:70:LEU:HD13	1.67	0.77
1:1:310:ILE:HD13	1:1:313:VAL:HG23	1.67	0.77
1:1:407:VAL:CG2	1:1:451:GLY:HA2	2.15	0.77
2:2:281:TYR:OH	3:A:755:PHE:HE2	1.66	0.77
2:2:290:ASP:CA	4:B:766:ARG:NH2	2.47	0.77
3:A:64:ASN:CG	18:P:18:LEU:HD13	2.09	0.77
3:A:1451:VAL:HG13	9:G:20:PRO:HG3	1.67	0.77
21:S:134:TYR:CE1	21:S:138:LYS:HE3	2.19	0.77
21:S:136:GLN:CD	21:S:137:LYS:HZ2	1.91	0.77
21:S:144:VAL:HG22	21:S:178:PHE:CE2	2.19	0.77
21:S:166:LEU:HD12	21:S:168:ARG:N	2.00	0.77
21:S:200:VAL:O	21:S:201:THR:HG23	1.84	0.77
21:S:203:LYS:CB	21:S:242:ARG:CG	2.02	0.77
27:Y:212:TYR:OH	27:Y:222:VAL:CG2	2.33	0.77
27:Y:346:MET:O	27:Y:384:LEU:HG	1.84	0.77
27:Y:639:LEU:HD23	27:Y:649:ARG:CB	2.15	0.77
1:1:406:SER:HB3	1:1:482:TRP:CE3	2.20	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:313:GLN:HG3	18:P:98:LYS:HD3	1.67	0.77
16:N:28:DT:OP2	24:V:293:ARG:N	2.17	0.77
18:P:288:LEU:O	18:P:288:LEU:CD2	2.32	0.77
21:S:157:ASP:O	21:S:162:LEU:HD23	1.84	0.77
21:S:203:LYS:NZ	21:S:242:ARG:NH2	2.32	0.77
27:Y:369:ILE:O	27:Y:370:GLU:HB2	1.85	0.77
18:P:189:PHE:CD1	18:P:241:ARG:NH2	2.53	0.77
18:P:303:GLN:CG	18:P:304:VAL:HG22	2.08	0.77
19:Q:112:THR:HG21	22:T:144:DT:H4'	1.67	0.77
19:Q:114:LEU:HD22	22:T:143:DT:C2'	2.15	0.77
23:U:96:ASN:HD21	24:V:99:LYS:N	1.83	0.77
24:V:333:LEU:O	24:V:337:ALA:CB	2.32	0.77
1:1:326:VAL:HG11	1:1:503:SER:OG	1.83	0.76
21:S:127:LYS:HE3	21:S:127:LYS:N	2.00	0.76
22:T:102:DC:H2''	22:T:103:DC:C5'	2.15	0.76
24:V:306:LEU:HD12	24:V:313:TRP:CH2	2.20	0.76
1:1:474:MET:HA	1:1:478:THR:C	2.10	0.76
18:P:42:ASP:OD1	18:P:54:ASP:CA	2.28	0.76
21:S:237:LYS:HZ2	21:S:241:PRO:HB2	1.47	0.76
24:V:59:LEU:CD2	24:V:214:ILE:HD11	2.16	0.76
27:Y:639:LEU:CD2	27:Y:649:ARG:HB2	2.13	0.76
1:1:425:LEU:HG	1:1:429:THR:CG2	2.15	0.76
18:P:313:TYR:C	18:P:316:LEU:CD2	2.58	0.76
21:S:166:LEU:CD1	21:S:168:ARG:H	1.96	0.76
1:1:568:GLU:HA	1:1:571:ARG:HG3	1.67	0.76
3:A:313:GLN:CG	18:P:98:LYS:HD3	2.14	0.76
4:B:885:MET:CB	18:P:33:LYS:HZ2	1.95	0.76
18:P:103:ASP:HB2	18:P:107:THR:HB	1.66	0.76
18:P:198:VAL:CG1	18:P:202:GLU:OE1	2.32	0.76
20:R:66:LEU:O	20:R:89:VAL:HG13	1.85	0.76
21:S:130:TRP:HH2	24:V:337:ALA:CB	1.93	0.76
24:V:313:TRP:CB	24:V:349:TYR:HE1	1.92	0.76
27:Y:240:ILE:HG22	27:Y:473:LEU:CD1	2.16	0.76
27:Y:467:ASP:C	27:Y:470:PRO:HD2	2.10	0.76
3:A:368:LYS:HE2	3:A:399:HIS:HB2	1.66	0.76
18:P:279:VAL:HG23	18:P:302:LEU:CB	2.15	0.76
23:U:98:TYR:CE1	24:V:96:ARG:NH2	2.53	0.76
23:U:146:ASN:HA	23:U:348:TYR:OH	1.86	0.76
23:U:376:LEU:CG	24:V:73:LEU:HD22	2.10	0.76
27:Y:360:LEU:CD1	27:Y:364:LYS:HD2	2.15	0.76
1:1:380:ARG:HA	1:1:535:LEU:HD22	1.65	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:17:DT:OP2	16:N:17:DT:H73	1.85	0.76
16:N:39:DC:C2'	16:N:40:DT:H71	2.16	0.76
18:P:187:ARG:CD	18:P:189:PHE:CB	2.54	0.76
19:Q:99:PHE:HB2	22:T:143:DT:C5'	2.09	0.76
19:Q:114:LEU:HD13	22:T:143:DT:O2	1.86	0.76
21:S:158:LYS:NZ	21:S:162:LEU:CG	2.43	0.76
27:Y:493:LEU:HD23	27:Y:696:TRP:CE2	2.20	0.76
1:1:413:SER:O	1:1:417:VAL:HG23	1.85	0.76
1:1:447:GLN:H	1:1:452:LEU:HD13	1.49	0.76
1:1:485:ILE:HD11	1:1:510:LYS:HG2	1.67	0.76
2:2:248:ILE:CD1	3:A:1203:ASN:ND2	2.46	0.76
6:D:40:HIS:HB3	9:G:73:LYS:HE3	1.67	0.76
16:N:55:DG:H2''	16:N:56:DT:C7	2.16	0.76
18:P:142:LEU:HD23	18:P:147:LYS:HB2	0.77	0.76
1:1:354:ILE:H	1:1:447:GLN:HE22	1.34	0.76
3:A:1116:LEU:HD12	3:A:1329:THR:HB	1.67	0.76
8:F:93:ILE:HD11	8:F:134:ILE:HD11	1.66	0.76
18:P:44:VAL:CG2	18:P:50:LEU:O	2.31	0.76
18:P:279:VAL:CG2	18:P:302:LEU:CB	2.63	0.76
23:U:137:VAL:HG13	24:V:59:LEU:CB	2.12	0.76
24:V:61:LEU:CD2	24:V:214:ILE:HD12	2.16	0.76
27:Y:627:PHE:CD1	27:Y:654:LEU:HD11	2.21	0.76
1:1:378:ARG:NH2	1:1:508:HIS:HA	2.01	0.76
1:1:425:LEU:CG	1:1:429:THR:HG23	2.16	0.76
3:A:64:ASN:OD1	18:P:18:LEU:HD22	1.86	0.76
3:A:1433:MET:CE	4:B:1145:SER:OG	2.33	0.76
16:N:59:DT:C2	16:N:60:DA:C8	2.74	0.76
20:R:14:LYS:O	20:R:17:VAL:HG22	1.86	0.76
21:S:237:LYS:NZ	21:S:241:PRO:CG	2.49	0.76
3:A:1445:ILE:O	9:G:68:ALA:HB1	1.86	0.76
4:B:106:ASP:HA	18:P:184:GLU:HG2	1.67	0.76
8:F:92:ARG:HH21	9:G:64:THR:H	1.31	0.76
20:R:46:LEU:HD11	20:R:132:THR:HG23	1.68	0.76
21:S:162:LEU:HD22	21:S:162:LEU:N	2.01	0.76
23:U:377:SER:OG	24:V:70:LEU:HD22	1.85	0.76
27:Y:28:ILE:HG22	27:Y:57:ILE:HD12	1.68	0.76
27:Y:346:MET:C	27:Y:384:LEU:HD21	2.11	0.76
1:1:335:TYR:CD1	1:1:336:PRO:HD3	2.21	0.75
1:1:596:GLN:NE2	1:1:746:PRO:HD3	2.01	0.75
3:A:65:LEU:HD13	18:P:19:ASN:O	1.86	0.75
18:P:42:ASP:HB3	18:P:51:VAL:HG23	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:86:LEU:HD21	18:P:155:LYS:HE2	1.68	0.75
23:U:120:LYS:HG2	24:V:132:GLU:HG2	1.66	0.75
27:Y:32:LEU:HB2	27:Y:61:MET:HE2	1.68	0.75
27:Y:569:ILE:CA	27:Y:575:ASP:HB2	2.14	0.75
1:1:410:LEU:HB2	1:1:466:ARG:NH2	2.01	0.75
1:1:717:TYR:CD2	1:1:718:TYR:CD1	2.73	0.75
2:2:248:ILE:CG1	3:A:1203:ASN:CG	2.57	0.75
17:O:19:LEU:HD22	17:O:23:LEU:HD22	1.68	0.75
18:P:187:ARG:NH2	18:P:192:ILE:HB	2.01	0.75
20:R:124:CYS:CB	20:R:129:THR:HG23	2.16	0.75
21:S:130:TRP:CH2	24:V:337:ALA:CB	2.67	0.75
21:S:234:ARG:NH1	21:S:234:ARG:HB3	1.96	0.75
27:Y:692:GLN:C	27:Y:693:LEU:HD22	2.10	0.75
1:1:425:LEU:HD23	1:1:425:LEU:O	1.87	0.75
5:C:147:LEU:HB3	5:C:151:GLN:HB2	1.66	0.75
18:P:118:VAL:O	18:P:118:VAL:HG22	1.85	0.75
18:P:150:ALA:HB1	18:P:178:ILE:CD1	2.17	0.75
18:P:279:VAL:CA	18:P:302:LEU:CD2	2.56	0.75
20:R:27:LEU:HD11	20:R:128:LEU:C	2.10	0.75
24:V:292:ILE:O	24:V:295:PRO:CD	2.33	0.75
24:V:307:PHE:HZ	24:V:349:TYR:CD1	2.04	0.75
27:Y:128:VAL:HG22	27:Y:373:PRO:HD3	1.67	0.75
1:1:410:LEU:HD22	1:1:477:LEU:CD1	2.15	0.75
2:2:307:LYS:HG3	3:A:1359:ASP:O	1.86	0.75
3:A:291:GLU:CD	18:P:116:LYS:HD2	2.11	0.75
18:P:35:VAL:HG12	18:P:37:ARG:N	2.00	0.75
1:1:297:ILE:HD11	1:1:346:ASP:OD2	1.86	0.75
1:1:410:LEU:HD13	1:1:477:LEU:CD1	2.15	0.75
1:1:476:PHE:HZ	1:1:493:VAL:HG11	1.51	0.75
1:1:487:LEU:HD23	1:1:493:VAL:CG2	2.10	0.75
16:N:69:DG:OP2	26:X:62:ILE:O	2.04	0.75
21:S:219:GLU:CB	21:S:222:ASN:ND2	2.49	0.75
24:V:108:LEU:HD12	24:V:118:HIS:CE1	2.22	0.75
1:1:458:SER:HB3	1:1:467:SER:HB3	1.68	0.75
16:N:39:DC:H2'	16:N:40:DT:C7	2.15	0.75
18:P:286:ILE:HD12	18:P:293:ILE:HD13	1.68	0.75
21:S:128:LEU:HG	24:V:341:LYS:HZ1	1.51	0.75
22:T:134:DT:C1'	24:V:323:ARG:CD	2.25	0.75
18:P:198:VAL:HG21	18:P:202:GLU:OE1	1.87	0.75
18:P:202:GLU:O	18:P:205:LYS:HG2	1.87	0.75
18:P:299:GLY:CA	18:P:302:LEU:HD13	2.13	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:44:LYS:CE	20:R:54:LEU:HB2	2.16	0.75
21:S:151:LEU:HD21	21:S:153:MET:HE2	1.68	0.75
1:1:368:LYS:HD2	1:1:372:LYS:CE	2.16	0.75
1:1:519:ARG:HG3	1:1:524:ILE:CG2	2.17	0.75
3:A:1451:VAL:HG13	9:G:20:PRO:N	2.01	0.75
18:P:148:ASP:HA	18:P:151:LYS:HE2	1.68	0.75
18:P:189:PHE:HD1	18:P:241:ARG:NH2	1.84	0.75
20:R:123:MET:CG	20:R:130:LYS:HD2	2.15	0.75
27:Y:405:PHE:HB2	27:Y:437:PHE:CE1	2.07	0.75
27:Y:693:LEU:HG	27:Y:696:TRP:CZ2	2.21	0.75
18:P:193:GLN:NE2	18:P:203:PHE:CZ	2.54	0.75
24:V:306:LEU:CD1	24:V:313:TRP:CE2	2.70	0.75
27:Y:532:ILE:O	27:Y:534:PRO:HD3	1.85	0.75
3:A:1390:ASN:O	3:A:1399:ARG:CD	2.34	0.74
4:B:430:ARG:CB	23:U:326:ARG:HH12	2.00	0.74
8:F:92:ARG:HH21	9:G:64:THR:N	1.85	0.74
27:Y:353:SER:CB	27:Y:378:SER:CB	2.53	0.74
1:1:315:SER:O	1:1:323:VAL:HG13	1.87	0.74
4:B:902:GLY:O	14:L:65:VAL:CG1	2.36	0.74
4:B:959:ASP:CG	18:P:145:ILE:HD13	2.09	0.74
18:P:227:THR:O	18:P:227:THR:CG2	2.32	0.74
20:R:17:VAL:CG1	20:R:66:LEU:HD11	2.15	0.74
20:R:90:LYS:HB3	20:R:93:HIS:CB	2.17	0.74
23:U:98:TYR:CE1	24:V:96:ARG:CZ	2.70	0.74
27:Y:185:CYS:HB3	27:Y:190:LEU:O	1.86	0.74
1:1:297:ILE:HG13	1:1:344:ARG:HB2	1.69	0.74
1:1:333:ILE:HD13	1:1:333:ILE:O	1.87	0.74
2:2:290:ASP:O	4:B:766:ARG:NH2	2.19	0.74
18:P:152:GLU:HA	18:P:155:LYS:HE3	1.68	0.74
19:Q:114:LEU:HD22	22:T:143:DT:C1'	2.16	0.74
27:Y:586:TYR:CD1	27:Y:616:TYR:CE2	2.75	0.74
15:M:253:ARG:NH2	22:T:145:DT:OP1	2.20	0.74
18:P:145:ILE:HD11	18:P:182:ARG:CD	2.16	0.74
2:2:257:GLN:HG2	3:A:1284:MET:HB2	1.67	0.74
18:P:184:GLU:OE1	18:P:231:SER:OG	2.06	0.74
18:P:266:ILE:O	18:P:266:ILE:HG22	1.88	0.74
1:1:431:GLN:HB2	1:1:432:PRO:HD3	1.67	0.74
16:N:27:DG:C2'	24:V:291:SER:O	2.36	0.74
24:V:63:ARG:HG3	24:V:215:VAL:CB	2.16	0.74
24:V:313:TRP:CB	24:V:349:TYR:CE1	2.57	0.74
3:A:227:VAL:CG1	6:D:16:LYS:CG	2.65	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:O:4:PRO:HD2	24:V:357:LYS:HB2	1.64	0.74
18:P:27:CYS:HB3	18:P:47:LEU:HD22	1.68	0.74
20:R:46:LEU:CG	20:R:132:THR:CG2	2.66	0.74
21:S:203:LYS:CE	21:S:203:LYS:N	2.41	0.74
10:H:38:LEU:HD11	10:H:123:MET:HE2	1.70	0.74
15:M:284:GLU:HG2	15:M:286:VAL:HG23	1.69	0.74
18:P:43:VAL:CG1	18:P:55:LYS:HE2	2.13	0.74
18:P:133:ILE:CG1	18:P:151:LYS:HD2	2.17	0.74
18:P:162:THR:HG23	18:P:162:THR:O	1.86	0.74
20:R:17:VAL:HG12	20:R:66:LEU:HD11	1.70	0.74
21:S:148:LEU:HB2	21:S:154:LYS:HE3	1.59	0.74
1:1:453:VAL:HG21	1:1:482:TRP:CZ2	2.22	0.74
1:1:470:SER:HA	1:1:478:THR:HG23	1.67	0.74
16:N:19:DT:H2''	16:N:20:DA:C5'	2.15	0.74
18:P:208:ASN:HA	18:P:211:LYS:HE3	1.70	0.74
20:R:119:PRO:HD3	20:R:120:ASN:HD21	1.53	0.74
21:S:203:LYS:CE	21:S:203:LYS:C	2.61	0.74
1:1:429:THR:HB	1:1:432:PRO:CD	2.17	0.74
18:P:43:VAL:CG2	18:P:55:LYS:HZ3	1.98	0.74
18:P:226:ASP:CG	18:P:260:ALA:HB3	2.02	0.74
20:R:144:ARG:O	20:R:146:GLU:OE2	2.03	0.74
21:S:234:ARG:CZ	21:S:234:ARG:HB3	2.18	0.74
27:Y:495:MET:HB3	27:Y:686:PHE:CZ	2.23	0.74
1:1:356:LEU:HG	1:1:427:TRP:HD1	1.53	0.73
2:2:235:ASP:CA	2:2:242:LYS:HG2	2.16	0.73
3:A:346:ASP:OD1	4:B:1106:ARG:NE	2.21	0.73
18:P:35:VAL:O	18:P:43:VAL:HG12	1.86	0.73
18:P:121:LYS:O	18:P:122:LYS:HG2	1.87	0.73
22:T:152:DC:H2''	22:T:153:DG:C5'	2.18	0.73
3:A:497:THR:HG22	4:B:1146:PHE:HD1	1.52	0.73
16:N:59:DT:C2	16:N:60:DA:N7	2.56	0.73
24:V:69:TRP:CZ3	24:V:220:HIS:HD2	2.04	0.73
27:Y:346:MET:O	27:Y:384:LEU:CG	2.35	0.73
16:N:28:DT:OP2	24:V:295:PRO:CD	2.36	0.73
27:Y:193:TYR:OH	27:Y:221:ARG:CZ	2.36	0.73
27:Y:248:LEU:CG	27:Y:445:ALA:HB2	2.18	0.73
2:2:256:ALA:O	3:A:1284:MET:HG3	1.87	0.73
4:B:451:LYS:NZ	18:P:147:LYS:HZ3	1.80	0.73
4:B:1221:SER:N	6:D:14:ARG:NH2	2.36	0.73
18:P:206:THR:O	18:P:209:ILE:CG1	2.36	0.73
18:P:279:VAL:CG2	18:P:298:VAL:HG12	2.05	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:125:SER:N	21:S:127:LYS:HZ1	1.81	0.73
21:S:130:TRP:CE3	24:V:338:THR:O	2.40	0.73
23:U:119:LEU:CD2	24:V:135:PHE:HE2	2.00	0.73
23:U:135:LEU:CB	23:U:136:PRO:CD	2.66	0.73
24:V:306:LEU:CG	24:V:313:TRP:CE2	2.72	0.73
1:1:476:PHE:CE1	1:1:487:LEU:HD21	2.23	0.73
3:A:320:ARG:NH1	18:P:81:GLU:HB2	1.94	0.73
8:F:96:THR:CA	9:G:64:THR:O	2.36	0.73
17:O:4:PRO:CD	24:V:357:LYS:O	2.37	0.73
18:P:223:LEU:HD11	19:Q:173:GLU:HB2	1.69	0.73
18:P:322:LYS:N	18:P:322:LYS:CE	2.51	0.73
20:R:123:MET:HA	20:R:130:LYS:CD	2.18	0.73
22:T:140:DC:C2'	22:T:141:DC:H5	2.01	0.73
27:Y:128:VAL:HG22	27:Y:372:LYS:HA	1.68	0.73
27:Y:162:LEU:CD2	27:Y:195:ILE:HG13	2.17	0.73
27:Y:190:LEU:O	27:Y:190:LEU:HD12	1.88	0.73
27:Y:248:LEU:CD1	27:Y:445:ALA:HB2	2.18	0.73
27:Y:639:LEU:HD23	27:Y:649:ARG:HD2	1.62	0.73
3:A:1446:ASP:N	9:G:61:ILE:CD1	2.37	0.73
24:V:295:PRO:O	24:V:299:ILE:HG13	1.88	0.73
1:1:568:GLU:HA	1:1:571:ARG:CG	2.17	0.73
1:1:785:ARG:CG	1:1:785:ARG:HH11	1.73	0.73
2:2:252:ASN:ND2	3:A:1206:ASP:CA	2.50	0.73
16:N:21:DA:H2''	16:N:22:DA:C5'	2.15	0.73
18:P:133:ILE:HG12	18:P:151:LYS:HD2	1.70	0.73
27:Y:62:HIS:CD2	27:Y:62:HIS:C	2.67	0.73
1:1:383:ILE:HG13	1:1:517:LEU:HD13	1.71	0.73
3:A:91:PHE:HB3	3:A:96:ILE:CG1	2.18	0.73
3:A:836:TYR:CZ	3:A:1403:GLU:OE2	2.41	0.73
18:P:57:VAL:HG13	18:P:57:VAL:O	1.88	0.73
21:S:128:LEU:HD22	21:S:162:LEU:CD1	2.15	0.73
21:S:166:LEU:C	21:S:166:LEU:HD12	2.14	0.73
23:U:135:LEU:HD12	23:U:355:PHE:HE1	1.53	0.73
24:V:349:TYR:CD1	24:V:349:TYR:O	2.41	0.73
27:Y:449:VAL:CG1	27:Y:456:VAL:CG2	2.65	0.73
27:Y:462:THR:HG22	27:Y:660:ARG:HG3	1.71	0.73
2:2:289:ALA:O	4:B:769:TYR:CD2	2.42	0.73
8:F:92:ARG:HD2	9:G:64:THR:OG1	1.89	0.73
17:O:87:VAL:HG12	17:O:88:GLU:N	2.01	0.73
18:P:187:ARG:CD	18:P:189:PHE:HB3	2.17	0.73
21:S:130:TRP:HE3	24:V:338:THR:C	1.97	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:208:TYR:CE1	27:Y:213:LEU:CB	2.72	0.73
27:Y:324:ASN:HB3	27:Y:408:LEU:HD11	1.70	0.73
1:1:447:GLN:O	1:1:452:LEU:HB3	1.88	0.73
1:1:455:SER:OG	1:1:466:ARG:HG3	1.89	0.73
4:B:959:ASP:HA	18:P:182:ARG:NH1	2.02	0.73
16:N:28:DT:H6	24:V:291:SER:O	1.71	0.73
18:P:224:LYS:HE3	18:P:229:ASN:OD1	1.88	0.73
18:P:248:LEU:CD2	18:P:286:ILE:HG13	1.98	0.73
18:P:263:CYS:C	18:P:264:LYS:HD3	2.13	0.73
20:R:141:ASN:HD21	20:R:142:PHE:HE1	1.32	0.73
24:V:306:LEU:HD11	24:V:313:TRP:CD2	2.23	0.73
2:2:248:ILE:CG1	3:A:1203:ASN:OD1	2.36	0.72
2:2:252:ASN:HB2	3:A:1206:ASP:HB2	1.69	0.72
2:2:277:LYS:HE2	3:A:593:GLU:OE2	1.84	0.72
3:A:416:ARG:NH2	18:P:37:ARG:NH2	2.33	0.72
18:P:288:LEU:HD11	18:P:328:LEU:HD11	1.71	0.72
21:S:143:LEU:CD1	21:S:144:VAL:N	2.45	0.72
22:T:134:DT:C6	24:V:323:ARG:HB2	2.24	0.72
23:U:138:ARG:CZ	24:V:57:LEU:HB2	2.19	0.72
3:A:35:ILE:HA	3:A:52:GLY:O	1.89	0.72
4:B:1124:ARG:HG2	18:P:60:ARG:HE	1.54	0.72
18:P:37:ARG:NH2	18:P:40:GLU:HB2	2.04	0.72
18:P:261:LYS:HB3	18:P:261:LYS:HZ2	1.53	0.72
18:P:320:ARG:NE	18:P:337:ASP:OD2	2.22	0.72
19:Q:153:THR:HG22	19:Q:154:ASP:N	2.04	0.72
21:S:127:LYS:H	21:S:127:LYS:CE	2.02	0.72
24:V:86:ASN:ND2	24:V:92:LEU:HB3	2.02	0.72
1:1:351:ASP:HB2	1:1:482:TRP:HZ3	1.52	0.72
18:P:100:GLU:OE1	18:P:101:THR:CG2	2.33	0.72
21:S:233:LEU:HD13	21:S:233:LEU:H	1.52	0.72
27:Y:353:SER:CA	27:Y:375:ARG:HG2	2.19	0.72
4:B:952:VAL:O	14:L:58:LYS:HB2	1.89	0.72
13:K:58:PHE:HB3	13:K:76:GLN:HB3	1.71	0.72
18:P:286:ILE:HD12	18:P:292:PRO:HA	0.76	0.72
20:R:34:PHE:HZ	20:R:134:LEU:HG	1.48	0.72
21:S:131:ALA:CA	21:S:151:LEU:CD1	2.67	0.72
21:S:210:LEU:CA	21:S:214:TRP:CH2	2.71	0.72
22:T:134:DT:C5	24:V:323:ARG:HD2	2.15	0.72
22:T:140:DC:H2"	22:T:141:DC:C5	2.24	0.72
24:V:61:LEU:HD22	24:V:214:ILE:HD12	1.71	0.72
27:Y:162:LEU:HA	27:Y:195:ILE:HG12	1.69	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:428:CYS:CB	1:1:434:ASN:HB2	2.15	0.72
6:D:203:SER:HB3	6:D:206:GLU:HB2	1.70	0.72
16:N:57:DA:H2"	16:N:58:DC:C5	2.25	0.72
20:R:123:MET:SD	20:R:130:LYS:HD2	2.30	0.72
21:S:151:LEU:HD22	21:S:153:MET:CG	2.18	0.72
27:Y:128:VAL:CG2	27:Y:373:PRO:HD3	2.19	0.72
1:1:362:ILE:CG2	1:1:366:GLN:HB2	2.17	0.72
2:2:248:ILE:HD13	3:A:1203:ASN:HD21	1.53	0.72
18:P:303:GLN:CD	18:P:304:VAL:H	1.98	0.72
24:V:333:LEU:HD22	24:V:349:TYR:HD2	1.53	0.72
27:Y:290:VAL:HG22	27:Y:291:GLN:N	2.04	0.72
27:Y:643:ARG:HB2	27:Y:649:ARG:CB	2.14	0.72
1:1:446:PHE:HB2	1:1:452:LEU:CD2	2.18	0.72
1:1:475:ASP:HB2	1:1:478:THR:H	1.54	0.72
1:1:606:ILE:CD1	1:1:690:ILE:HD12	2.18	0.72
3:A:1450:LEU:CA	9:G:18:PHE:O	2.37	0.72
16:N:35:DG:H2"	16:N:36:DT:C7	2.19	0.72
18:P:279:VAL:CG2	18:P:302:LEU:CD1	2.65	0.72
21:S:162:LEU:H	21:S:162:LEU:CD2	2.02	0.72
27:Y:161:ASN:O	27:Y:167:VAL:HG21	1.90	0.72
1:1:495:ALA:CB	1:1:498:PHE:HD2	2.03	0.72
18:P:43:VAL:CG2	18:P:55:LYS:NZ	2.50	0.72
18:P:148:ASP:HA	18:P:151:LYS:CE	2.19	0.72
18:P:280:VAL:CG1	18:P:313:TYR:N	2.53	0.72
20:R:27:LEU:HD22	20:R:129:THR:CB	2.17	0.72
20:R:124:CYS:N	20:R:130:LYS:HZ1	1.85	0.72
3:A:313:GLN:HG3	18:P:98:LYS:CD	2.20	0.72
3:A:317:LYS:O	4:B:471:LYS:HE3	1.89	0.72
10:H:84:ALA:HA	10:H:87:ARG:HB2	1.71	0.72
16:N:23:DA:C2	19:Q:116:PHE:HE1	2.01	0.72
18:P:333:VAL:HG22	18:P:336:LEU:CD1	2.12	0.72
23:U:94:ASP:CA	23:U:95:PRO:CD	2.68	0.72
24:V:306:LEU:HD23	24:V:318:LEU:CD2	2.19	0.72
1:1:373:MET:HA	1:1:381:SER:HA	1.72	0.72
1:1:473:VAL:N	1:1:478:THR:HG22	2.05	0.72
3:A:726:ARG:HD3	3:A:766:GLY:HA3	1.72	0.72
15:M:262:LEU:HB2	15:M:279:ALA:HB3	1.72	0.72
18:P:184:GLU:HB3	18:P:241:ARG:CG	2.15	0.72
20:R:32:ILE:HG21	20:R:89:VAL:HG23	1.71	0.72
20:R:126:ILE:O	20:R:128:LEU:HD22	1.89	0.72
27:Y:643:ARG:CB	27:Y:649:ARG:HB3	2.14	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:606:ILE:HD12	1:1:690:ILE:HD11	0.72	0.71
18:P:226:ASP:OD1	18:P:260:ALA:CB	2.36	0.71
21:S:129:LEU:CD2	24:V:347:PHE:CZ	2.68	0.71
27:Y:72:CYS:SG	27:Y:234:PHE:HA	2.30	0.71
27:Y:193:TYR:HH	27:Y:221:ARG:CZ	2.03	0.71
27:Y:495:MET:HB2	27:Y:686:PHE:CD1	2.24	0.71
1:1:429:THR:CB	1:1:432:PRO:HD2	2.20	0.71
1:1:585:PRO:CB	1:1:756:ARG:HH22	1.96	0.71
1:1:717:TYR:HE2	1:1:718:TYR:HE1	0.76	0.71
4:B:430:ARG:HG2	23:U:326:ARG:NH1	2.05	0.71
8:F:132:LEU:HD22	9:G:61:ILE:CG2	2.20	0.71
18:P:93:SER:HB3	18:P:114:GLN:CD	2.15	0.71
22:T:130:DA:C6	22:T:131:DC:O2	2.44	0.71
27:Y:61:MET:C	27:Y:64:PRO:HD2	2.14	0.71
1:1:368:LYS:CD	1:1:372:LYS:HE2	2.19	0.71
1:1:380:ARG:CA	1:1:535:LEU:HD22	2.20	0.71
4:B:350:GLN:CG	23:U:407:ASP:HB3	2.19	0.71
16:N:25:DG:P	19:Q:79:ARG:NH2	2.60	0.71
16:N:39:DC:C3'	16:N:40:DT:H71	2.21	0.71
18:P:105:ARG:HA	18:P:108:LYS:HE3	1.71	0.71
18:P:325:ASP:O	18:P:326:PRO:CG	2.38	0.71
21:S:203:LYS:HZ2	21:S:203:LYS:C	1.98	0.71
27:Y:240:ILE:HG22	27:Y:473:LEU:HD11	1.72	0.71
1:1:613:TYR:OH	1:1:762:GLU:HG2	1.91	0.71
18:P:150:ALA:CA	18:P:178:ILE:CD1	2.67	0.71
20:R:146:GLU:OE1	20:R:146:GLU:N	2.22	0.71
21:S:125:SER:C	21:S:127:LYS:HZ2	1.97	0.71
21:S:154:LYS:CA	21:S:154:LYS:HZ1	1.41	0.71
21:S:183:THR:HA	21:S:222:ASN:OD1	1.90	0.71
22:T:130:DA:C6	22:T:131:DC:C2	2.79	0.71
22:T:140:DC:C2'	22:T:141:DC:C5	2.73	0.71
27:Y:449:VAL:HG12	27:Y:456:VAL:CG2	2.17	0.71
1:1:408:ILE:HG12	1:1:475:ASP:CB	2.13	0.71
3:A:315:LEU:CD1	18:P:95:ARG:O	2.38	0.71
5:C:66:ARG:NH2	12:J:3:VAL:O	2.23	0.71
18:P:187:ARG:HB2	18:P:189:PHE:HA	1.61	0.71
20:R:27:LEU:CD2	20:R:129:THR:CB	2.68	0.71
20:R:120:ASN:OD1	20:R:133:GLN:CG	2.39	0.71
21:S:129:LEU:HA	24:V:341:LYS:HE3	1.51	0.71
1:1:427:TRP:HB2	1:1:449:GLU:CD	2.15	0.71
1:1:773:ILE:HD12	1:1:775:VAL:H	0.54	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:289:ALA:O	4:B:766:ARG:CZ	2.38	0.71
3:A:50:ILE:O	3:A:52:GLY:N	2.22	0.71
4:B:1215:ARG:NE	6:D:15:LEU:HD13	1.83	0.71
18:P:194:SER:OG	18:P:199:LYS:NZ	2.22	0.71
23:U:347:PHE:CD2	23:U:416:LYS:HB3	2.26	0.71
27:Y:28:ILE:HB	27:Y:57:ILE:HG13	1.71	0.71
27:Y:532:ILE:O	27:Y:534:PRO:CD	2.38	0.71
2:2:254:TYR:O	3:A:706:HIS:HB2	1.90	0.71
21:S:233:LEU:HD13	21:S:233:LEU:N	2.05	0.71
23:U:94:ASP:N	23:U:95:PRO:CD	2.53	0.71
23:U:375:LEU:HD22	24:V:134:VAL:HG11	1.73	0.71
27:Y:212:TYR:CE2	27:Y:222:VAL:HG21	2.24	0.71
1:1:561:MET:HB2	25:W:450:ARG:HH22	0.54	0.71
3:A:227:VAL:HG22	6:D:16:LYS:CE	2.20	0.71
3:A:414:ASP:HB3	18:P:44:VAL:HG11	1.73	0.71
4:B:433:GLN:CD	23:U:326:ARG:CD	2.59	0.71
16:N:55:DG:H2''	16:N:56:DT:H72	1.71	0.71
18:P:198:VAL:HG13	18:P:202:GLU:HB3	1.72	0.71
21:S:130:TRP:CZ3	24:V:338:THR:O	2.44	0.71
27:Y:171:LEU:HD21	27:Y:181:LEU:HD22	1.72	0.71
1:1:516:THR:N	1:1:681:ARG:CD	2.52	0.71
3:A:91:PHE:HB2	3:A:96:ILE:HD11	1.72	0.71
4:B:343:ILE:HG13	22:T:121:DG:H5''	1.68	0.71
4:B:1215:ARG:HD3	6:D:15:LEU:CD1	2.16	0.71
21:S:175:LYS:HZ3	21:S:175:LYS:HB2	1.52	0.71
21:S:234:ARG:HH11	21:S:234:ARG:CG	2.04	0.71
1:1:785:ARG:NH1	1:1:785:ARG:HG2	2.01	0.71
18:P:261:LYS:NZ	18:P:261:LYS:CB	2.53	0.71
21:S:151:LEU:HD22	21:S:153:MET:HE2	1.72	0.71
21:S:203:LYS:CA	21:S:242:ARG:HG3	2.18	0.71
21:S:226:GLU:HG3	21:S:227:ASP:N	2.05	0.71
21:S:233:LEU:C	21:S:233:LEU:CD2	2.64	0.71
1:1:621:LYS:CB	1:1:621:LYS:HZ3	1.77	0.70
1:1:668:THR:CG2	1:1:694:LYS:HB2	2.21	0.70
16:N:23:DA:H4'	19:Q:120:LYS:CD	2.16	0.70
18:P:184:GLU:CD	18:P:231:SER:CB	2.64	0.70
18:P:187:ARG:HH21	18:P:192:ILE:CB	2.02	0.70
22:T:151:DG:H2''	22:T:152:DC:C5	2.26	0.70
23:U:96:ASN:HD22	23:U:97:GLU:N	1.89	0.70
27:Y:122:LYS:HD3	27:Y:218:ILE:HD13	1.73	0.70
27:Y:167:VAL:HG22	27:Y:190:LEU:HD22	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:485:ILE:HG21	1:1:505:ILE:HD13	1.72	0.70
4:B:1198:TYR:CE2	4:B:1201:LYS:HE3	2.25	0.70
18:P:128:ALA:CB	18:P:132:LYS:NZ	2.53	0.70
18:P:280:VAL:HG11	18:P:313:TYR:N	2.05	0.70
24:V:292:ILE:HA	24:V:295:PRO:CD	2.21	0.70
27:Y:244:CYS:SG	27:Y:446:ILE:HD13	2.32	0.70
27:Y:481:LYS:CD	27:Y:483:TYR:CE2	2.74	0.70
1:1:455:SER:CB	1:1:466:ARG:HG3	2.21	0.70
1:1:476:PHE:CA	1:1:485:ILE:HB	2.20	0.70
2:2:291:GLU:N	2:2:292:PRO:CD	2.53	0.70
20:R:17:VAL:HG11	20:R:29:LEU:CD2	2.21	0.70
21:S:128:LEU:CB	24:V:341:LYS:HD2	2.20	0.70
21:S:135:ILE:CD1	21:S:180:TYR:CD2	2.60	0.70
21:S:187:HIS:CE1	21:S:222:ASN:O	2.44	0.70
23:U:355:PHE:O	23:U:356:ASP:HB3	1.89	0.70
27:Y:62:HIS:ND1	27:Y:69:ILE:CG1	2.54	0.70
27:Y:167:VAL:CG1	27:Y:195:ILE:CG2	2.68	0.70
27:Y:450:PHE:CZ	27:Y:475:PHE:CD2	2.80	0.70
3:A:317:LYS:C	4:B:471:LYS:HZ2	1.99	0.70
4:B:430:ARG:HG2	23:U:326:ARG:HH12	1.55	0.70
21:S:162:LEU:N	21:S:162:LEU:CD2	2.54	0.70
1:1:474:MET:HB2	1:1:480:ARG:N	2.07	0.70
1:1:477:LEU:HG	1:1:501:VAL:CB	2.20	0.70
1:1:500:ARG:HA	1:1:500:ARG:HE	1.56	0.70
18:P:290:GLN:O	18:P:292:PRO:HG3	1.92	0.70
20:R:142:PHE:O	20:R:144:ARG:NH2	2.25	0.70
21:S:130:TRP:CZ2	24:V:333:LEU:O	2.45	0.70
21:S:175:LYS:CA	21:S:175:LYS:HZ3	1.36	0.70
21:S:203:LYS:CE	21:S:203:LYS:CA	2.70	0.70
22:T:134:DT:H6	24:V:323:ARG:HB2	1.55	0.70
24:V:318:LEU:CD2	24:V:349:TYR:CZ	2.72	0.70
1:1:495:ALA:HB3	1:1:498:PHE:CD2	2.21	0.70
1:1:754:ARG:HH11	1:1:754:ARG:CG	0.10	0.70
1:1:754:ARG:NH1	1:1:754:ARG:CG	0.82	0.70
15:M:3:ASN:HD22	15:M:6:ALA:H	1.36	0.70
20:R:144:ARG:O	20:R:145:THR:OG1	2.09	0.70
21:S:181:LEU:HD23	21:S:181:LEU:C	2.16	0.70
1:1:356:LEU:HG	1:1:427:TRP:CD1	2.26	0.70
1:1:459:MET:C	1:1:464:ARG:HG3	2.17	0.70
3:A:313:GLN:N	18:P:96:ILE:HG12	2.05	0.70
18:P:154:TYR:CE1	18:P:171:ILE:HG21	2.27	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:207:LEU:O	18:P:210:MET:HG2	1.92	0.70
18:P:288:LEU:HD21	18:P:328:LEU:HD11	1.72	0.70
21:S:151:LEU:O	21:S:152:SER:OG	2.10	0.70
24:V:82:ARG:HE	24:V:108:LEU:CD1	1.91	0.70
27:Y:193:TYR:OH	27:Y:221:ARG:NH1	2.24	0.70
1:1:354:ILE:H	1:1:447:GLN:NE2	1.89	0.70
3:A:64:ASN:OD1	18:P:18:LEU:CB	2.40	0.70
8:F:75:PRO:HG2	8:F:78:GLN:HB2	1.72	0.70
24:V:107:LEU:HG	24:V:119:GLU:HA	1.73	0.70
27:Y:237:ALA:CB	27:Y:458:ILE:CG2	2.69	0.70
18:P:145:ILE:O	18:P:149:CYS:SG	2.50	0.70
20:R:123:MET:HG3	20:R:130:LYS:CD	2.21	0.70
23:U:119:LEU:HD22	23:U:395:PHE:CE1	2.27	0.70
27:Y:485:MET:HG3	27:Y:486:THR:HG23	1.72	0.70
1:1:474:MET:HB2	1:1:480:ARG:HA	1.73	0.70
1:1:475:ASP:HB2	1:1:478:THR:N	2.06	0.70
27:Y:389:GLU:O	27:Y:400:LYS:HG2	1.92	0.70
27:Y:405:PHE:CG	27:Y:437:PHE:CE2	2.80	0.70
27:Y:639:LEU:CG	27:Y:653:PHE:CD2	2.62	0.70
3:A:89:PRO:HG2	3:A:204:THR:CB	2.16	0.69
16:N:42:DT:O4	22:T:124:DA:N1	2.25	0.69
18:P:22:LEU:CG	18:P:34:ILE:HD13	2.22	0.69
18:P:243:CYS:SG	18:P:253:THR:HG22	2.32	0.69
21:S:203:LYS:NZ	21:S:203:LYS:C	2.50	0.69
27:Y:111:ARG:CD	27:Y:129:VAL:HG21	2.22	0.69
27:Y:215:ASP:O	27:Y:218:ILE:CG2	2.39	0.69
27:Y:463:ILE:HD11	27:Y:469:TYR:CD1	2.27	0.69
20:R:124:CYS:HB3	20:R:129:THR:CG2	2.21	0.69
20:R:128:LEU:HD22	20:R:128:LEU:N	2.07	0.69
21:S:200:VAL:C	21:S:201:THR:CG2	2.65	0.69
23:U:373:TYR:CE2	24:V:74:PRO:HG3	2.27	0.69
27:Y:185:CYS:SG	27:Y:192:PRO:HA	2.33	0.69
27:Y:495:MET:CB	27:Y:686:PHE:CE1	2.75	0.69
1:1:362:ILE:HG23	1:1:366:GLN:CB	2.23	0.69
1:1:421:ARG:NE	1:1:430:LEU:HD11	2.07	0.69
3:A:870:GLU:HB2	7:E:204:THR:HG21	1.75	0.69
8:F:96:THR:HG23	9:G:65:ASP:CA	2.23	0.69
16:N:19:DT:OP1	19:Q:194:ILE:HD13	1.91	0.69
16:N:27:DG:H2'	16:N:28:DT:C6	2.27	0.69
18:P:160:GLU:O	18:P:161:LYS:HG2	1.91	0.69
18:P:326:PRO:CD	18:P:328:LEU:H	2.03	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:183:THR:HG23	21:S:184:TYR:CD1	2.22	0.69
1:1:373:MET:CG	1:1:381:SER:HA	2.22	0.69
1:1:410:LEU:HD22	1:1:476:PHE:CD2	2.27	0.69
1:1:466:ARG:CB	1:1:477:LEU:HB2	2.22	0.69
3:A:261:ASP:OD1	18:P:81:GLU:HB3	1.92	0.69
5:C:18:VAL:HG23	5:C:240:VAL:HB	1.74	0.69
18:P:138:ASP:OD1	18:P:139:ALA:N	2.25	0.69
18:P:187:ARG:NH2	18:P:192:ILE:CB	2.55	0.69
22:T:122:DT:C2'	22:T:123:DT:H72	2.22	0.69
23:U:342:LEU:HD23	23:U:348:TYR:CE1	2.27	0.69
1:1:397:ILE:CD1	1:1:423:GLN:HE21	2.05	0.69
1:1:400:ALA:CB	1:1:450:SER:HA	2.22	0.69
1:1:467:SER:HA	1:1:501:VAL:HG12	1.74	0.69
2:2:257:GLN:HG3	3:A:1284:MET:HE2	0.70	0.69
18:P:261:LYS:HB3	18:P:261:LYS:HZ1	1.55	0.69
18:P:320:ARG:HG3	18:P:321:ASP:H	1.56	0.69
20:R:147:PHE:HB3	20:R:156:LEU:HD11	1.74	0.69
21:S:234:ARG:HH22	21:S:242:ARG:CG	2.05	0.69
22:T:135:DG:OP2	24:V:319:LYS:HE3	1.93	0.69
1:1:351:ASP:HB2	1:1:482:TRP:CZ3	2.28	0.69
1:1:408:ILE:HG21	1:1:476:PHE:N	2.07	0.69
1:1:475:ASP:OD2	1:1:478:THR:HB	1.93	0.69
1:1:496:ALA:HA	1:1:499:ARG:HH12	1.57	0.69
3:A:411:ASP:OD2	18:P:51:VAL:O	2.10	0.69
3:A:1446:ASP:H	9:G:61:ILE:HD11	1.50	0.69
18:P:60:ARG:O	18:P:62:GLU:OE1	2.09	0.69
18:P:130:PHE:CA	18:P:133:ILE:HG22	2.21	0.69
18:P:286:ILE:HD12	18:P:292:PRO:C	2.17	0.69
18:P:338:ASN:C	18:P:340:PRO:HD2	2.18	0.69
21:S:143:LEU:CD1	21:S:145:ASN:N	2.52	0.69
21:S:191:GLU:N	21:S:226:GLU:OE1	2.25	0.69
27:Y:656:PHE:CD1	27:Y:659:MET:SD	2.84	0.69
3:A:404:TYR:OH	18:P:40:GLU:CB	2.40	0.69
4:B:1124:ARG:HB3	18:P:60:ARG:HH21	1.58	0.69
18:P:150:ALA:HB1	18:P:178:ILE:HD11	1.75	0.69
18:P:243:CYS:CB	18:P:253:THR:HG22	2.23	0.69
20:R:46:LEU:CG	20:R:132:THR:HG23	2.22	0.69
1:1:316:PHE:CZ	1:1:321:GLU:HA	2.27	0.69
1:1:407:VAL:HG12	1:1:448:THR:HA	1.74	0.69
3:A:1197:LEU:HD11	3:A:1238:ILE:HD11	1.74	0.69
9:G:1:MET:SD	9:G:2:PHE:N	2.63	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:207:LEU:CD2	19:Q:186:GLU:OE1	2.36	0.69
18:P:313:TYR:HA	18:P:316:LEU:HD21	1.74	0.69
19:Q:99:PHE:CG	22:T:143:DT:C5'	2.76	0.69
20:R:27:LEU:CD1	20:R:128:LEU:C	2.64	0.69
21:S:143:LEU:HD13	21:S:145:ASN:H	1.58	0.69
21:S:233:LEU:CD1	21:S:245:TRP:O	2.40	0.69
24:V:140:LEU:O	24:V:210:LYS:CB	2.40	0.69
27:Y:72:CYS:SG	27:Y:234:PHE:HD1	2.14	0.69
27:Y:215:ASP:HB3	27:Y:218:ILE:HG21	1.75	0.69
27:Y:495:MET:HB2	27:Y:686:PHE:CE1	2.27	0.69
27:Y:564:TRP:CD1	27:Y:599:LEU:HD12	2.28	0.69
1:1:386:LEU:HB3	1:1:387:PRO:HD2	1.75	0.69
18:P:88:ASP:OD1	18:P:89:GLY:N	2.26	0.69
18:P:303:GLN:CD	18:P:304:VAL:N	2.50	0.69
20:R:71:LYS:O	20:R:71:LYS:HD2	1.93	0.69
27:Y:622:MET:HG2	27:Y:679:MET:HE3	1.72	0.69
3:A:291:GLU:CG	18:P:116:LYS:CE	2.57	0.69
3:A:291:GLU:CD	18:P:116:LYS:HE2	2.18	0.69
16:N:41:DA:H2''	16:N:42:DT:C5'	2.23	0.69
1:1:298:GLY:O	1:1:346:ASP:HB2	1.93	0.68
1:1:561:MET:N	25:W:450:ARG:HH12	1.91	0.68
1:1:712:ASP:HB3	25:W:447:GLU:CD	2.13	0.68
3:A:53:LEU:CD2	3:A:54:ASN:H	2.06	0.68
3:A:227:VAL:HG11	6:D:16:LYS:HG2	1.69	0.68
3:A:411:ASP:CG	18:P:50:LEU:HB3	2.18	0.68
4:B:430:ARG:CG	23:U:326:ARG:HH12	2.07	0.68
18:P:195:LEU:C	18:P:196:ILE:HG22	2.17	0.68
23:U:375:LEU:CD2	24:V:134:VAL:HG11	2.23	0.68
24:V:306:LEU:CD1	24:V:313:TRP:CZ3	2.72	0.68
25:W:447:GLU:N	26:X:13:ASP:OD2	2.26	0.68
25:W:488:LYS:NZ	26:X:35:LEU:O	2.26	0.68
27:Y:267:LEU:O	27:Y:268:ASP:CB	2.40	0.68
2:2:307:LYS:HE2	3:A:1359:ASP:O	1.93	0.68
4:B:106:ASP:HA	18:P:184:GLU:CG	2.24	0.68
18:P:185:VAL:HG13	18:P:186:ALA:N	2.08	0.68
22:T:139:DC:H2'	22:T:140:DC:C6	2.28	0.68
27:Y:538:VAL:HG22	27:Y:597:ILE:HB	1.74	0.68
1:1:516:THR:CA	1:1:681:ARG:NE	2.44	0.68
4:B:106:ASP:HB2	18:P:231:SER:OG	1.94	0.68
4:B:885:MET:HB2	18:P:33:LYS:HZ1	1.55	0.68
16:N:27:DG:C3'	24:V:291:SER:O	2.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:29:VAL:HG12	18:P:32:PRO:HD2	1.74	0.68
21:S:166:LEU:HD13	21:S:167:ASP:N	2.08	0.68
24:V:69:TRP:HB2	24:V:219:CYS:HG	1.56	0.68
1:1:448:THR:O	1:1:452:LEU:HB2	1.92	0.68
1:1:473:VAL:O	1:1:478:THR:HB	1.92	0.68
1:1:485:ILE:HD11	1:1:510:LYS:CG	2.24	0.68
7:E:185:ALA:HA	7:E:190:LEU:HD12	1.74	0.68
18:P:160:GLU:O	18:P:160:GLU:CD	2.36	0.68
21:S:164:LYS:HZ3	21:S:165:LYS:HG2	1.56	0.68
1:1:571:ARG:HD3	1:1:571:ARG:N	2.08	0.68
2:2:283:GLN:NE2	3:A:756:ILE:HD13	2.06	0.68
4:B:343:ILE:CD1	22:T:122:DT:P	2.74	0.68
21:S:184:TYR:HB3	21:S:219:GLU:HG3	1.75	0.68
23:U:94:ASP:CA	23:U:95:PRO:HD3	2.23	0.68
1:1:310:ILE:CD1	1:1:313:VAL:HG23	2.24	0.68
1:1:373:MET:HG3	1:1:381:SER:CA	2.23	0.68
1:1:439:THR:HG23	1:1:465:ASN:HD22	1.58	0.68
1:1:456:THR:O	1:1:465:ASN:HB3	1.94	0.68
1:1:476:PHE:CD1	1:1:487:LEU:HD11	2.28	0.68
3:A:1443:VAL:CG2	9:G:63:PRO:HB3	2.16	0.68
18:P:51:VAL:HG22	18:P:52:LEU:N	2.09	0.68
18:P:187:ARG:CA	18:P:188:THR:C	2.66	0.68
21:S:230:ILE:HG22	21:S:232:VAL:CG1	2.24	0.68
23:U:103:LEU:CD2	24:V:92:LEU:HD11	2.16	0.68
1:1:405:LYS:CD	1:1:483:GLY:HA3	2.19	0.68
18:P:302:LEU:N	18:P:303:GLN:OE1	2.14	0.68
18:P:314:LYS:O	18:P:318:GLU:OE2	2.11	0.68
21:S:179:LYS:HD3	21:S:179:LYS:H	1.58	0.68
21:S:203:LYS:NZ	21:S:204:GLY:O	2.26	0.68
27:Y:248:LEU:HD21	27:Y:445:ALA:CB	2.20	0.68
3:A:445:ASN:HB2	3:A:455:MET:HG2	1.76	0.68
18:P:30:TYR:CD2	18:P:30:TYR:O	2.47	0.68
22:T:134:DT:OP2	24:V:320:GLU:O	2.12	0.68
24:V:306:LEU:HG	24:V:313:TRP:CD2	2.29	0.68
27:Y:95:LYS:NZ	27:Y:173:LYS:O	2.26	0.68
27:Y:244:CYS:SG	27:Y:446:ILE:HB	2.34	0.68
1:1:466:ARG:HB2	1:1:477:LEU:HB2	1.76	0.68
1:1:476:PHE:HA	1:1:485:ILE:CB	2.24	0.68
1:1:476:PHE:HB2	1:1:485:ILE:HB	1.76	0.68
1:1:522:ASP:HA	1:1:524:ILE:CD1	2.24	0.68
7:E:4:GLU:HB3	7:E:7:ARG:HE	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Q:109:PRO:HG2	19:Q:135:ALA:HB2	1.74	0.68
27:Y:167:VAL:CG1	27:Y:195:ILE:HG21	2.23	0.68
1:1:383:ILE:HG22	1:1:512:GLY:CA	2.24	0.68
1:1:695:ARG:CA	1:1:696:ARG:CZ	2.71	0.68
1:1:740:HIS:O	1:1:740:HIS:CD2	2.47	0.68
3:A:1451:VAL:CG1	9:G:20:PRO:HB3	2.24	0.68
17:O:38:MET:O	17:O:42:GLU:HG3	1.94	0.68
18:P:164:LYS:HG2	18:P:166:LYS:CA	2.23	0.68
24:V:306:LEU:CD2	24:V:318:LEU:CD2	2.72	0.68
27:Y:62:HIS:ND1	27:Y:69:ILE:HG12	2.08	0.68
1:1:477:LEU:CB	1:1:501:VAL:HB	2.24	0.67
2:2:279:VAL:HG13	2:2:298:THR:C	2.19	0.67
3:A:140:THR:HA	3:A:143:LYS:HE2	1.75	0.67
3:A:347:PHE:HE1	3:A:375:THR:HG22	1.60	0.67
5:C:259:LEU:HD22	13:K:91:CYS:HB3	1.75	0.67
17:O:4:PRO:CD	24:V:357:LYS:C	2.67	0.67
18:P:289:PHE:CE1	18:P:291:ILE:CG1	2.78	0.67
21:S:128:LEU:C	24:V:341:LYS:CE	2.60	0.67
21:S:164:LYS:NZ	21:S:165:LYS:CG	2.42	0.67
1:1:519:ARG:HG3	1:1:524:ILE:HG22	1.77	0.67
3:A:871:ASP:HB3	7:E:204:THR:HG23	1.76	0.67
18:P:287:LEU:HA	18:P:292:PRO:HG2	1.76	0.67
20:R:124:CYS:HB2	20:R:129:THR:HG23	1.77	0.67
23:U:377:SER:HA	24:V:70:LEU:HD22	1.75	0.67
24:V:318:LEU:HD11	24:V:349:TYR:CZ	2.29	0.67
1:1:410:LEU:HD22	1:1:476:PHE:HD2	1.60	0.67
1:1:474:MET:HB2	1:1:480:ARG:C	2.18	0.67
4:B:959:ASP:C	18:P:182:ARG:NH1	2.52	0.67
9:G:138:THR:HG22	9:G:139:ILE:H	1.59	0.67
16:N:16:DC:H2'	16:N:17:DT:C5	2.28	0.67
18:P:170:SER:OG	18:P:205:LYS:CE	2.41	0.67
18:P:298:VAL:HG12	18:P:302:LEU:HD11	1.76	0.67
27:Y:182:LEU:HD12	27:Y:192:PRO:HG2	1.75	0.67
27:Y:639:LEU:HD21	27:Y:649:ARG:CG	2.21	0.67
1:1:407:VAL:HG13	1:1:451:GLY:HA2	1.76	0.67
1:1:434:ASN:HB3	1:1:449:GLU:OE1	1.95	0.67
1:1:455:SER:CB	1:1:466:ARG:HH11	2.01	0.67
1:1:476:PHE:CD2	1:1:477:LEU:HD12	2.29	0.67
2:2:253:LEU:CD2	3:A:1132:LYS:HD2	2.16	0.67
3:A:1443:VAL:HG13	9:G:61:ILE:HG22	1.76	0.67
16:N:23:DA:C3'	19:Q:120:LYS:CD	2.66	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:128:ALA:HB1	18:P:132:LYS:HZ1	1.60	0.67
20:R:119:PRO:O	20:R:120:ASN:HB2	1.94	0.67
20:R:147:PHE:CB	20:R:156:LEU:HD11	2.23	0.67
21:S:151:LEU:O	21:S:151:LEU:CD2	2.39	0.67
21:S:200:VAL:O	21:S:201:THR:CG2	2.42	0.67
21:S:231:LEU:CD2	21:S:232:VAL:CG1	2.58	0.67
23:U:107:PRO:HA	24:V:90:GLN:OE1	1.94	0.67
27:Y:400:LYS:HD2	27:Y:437:PHE:HE2	1.51	0.67
27:Y:656:PHE:CA	27:Y:659:MET:HE3	2.23	0.67
27:Y:656:PHE:O	27:Y:659:MET:HG2	1.93	0.67
2:2:218:ILE:CA	2:2:219:ALA:CA	2.73	0.67
2:2:248:ILE:HD13	3:A:1203:ASN:ND2	2.09	0.67
3:A:344:ARG:HA	4:B:1128:LEU:O	1.93	0.67
18:P:252:VAL:CG1	18:P:285:ASN:OD1	2.42	0.67
18:P:333:VAL:HG13	18:P:336:LEU:HD13	1.75	0.67
18:P:338:ASN:O	18:P:340:PRO:HD2	1.93	0.67
19:Q:141:ARG:HD3	19:Q:141:ARG:O	1.93	0.67
21:S:136:GLN:CD	21:S:137:LYS:HZ3	2.00	0.67
24:V:333:LEU:HB3	24:V:337:ALA:CB	2.25	0.67
27:Y:185:CYS:SG	27:Y:192:PRO:CA	2.82	0.67
1:1:477:LEU:HG	1:1:501:VAL:HB	1.74	0.67
1:1:477:LEU:CG	1:1:501:VAL:HB	2.25	0.67
1:1:757:ARG:HH22	1:1:760:LEU:HG	0.50	0.67
2:2:257:GLN:HA	3:A:1284:MET:HB2	1.76	0.67
17:O:44:PHE:O	17:O:48:VAL:HG23	1.93	0.67
18:P:63:TRP:CD1	18:P:81:GLU:HA	2.29	0.67
24:V:333:LEU:HA	24:V:337:ALA:HB2	1.76	0.67
27:Y:131:GLU:CD	27:Y:134:ARG:NH1	2.52	0.67
27:Y:212:TYR:CZ	27:Y:222:VAL:HG21	2.29	0.67
2:2:253:LEU:HD12	3:A:1132:LYS:HZ3	1.60	0.67
3:A:63:ARG:O	18:P:20:ILE:CG1	2.41	0.67
4:B:563:MET:HE1	4:B:587:HIS:HB2	1.76	0.67
20:R:123:MET:CA	20:R:130:LYS:CD	2.73	0.67
21:S:200:VAL:C	21:S:201:THR:HG22	2.20	0.67
22:T:140:DC:H2''	22:T:141:DC:H5	1.60	0.67
22:T:155:DC:O5'	22:T:155:DC:H6	1.78	0.67
23:U:135:LEU:CB	23:U:136:PRO:HD3	2.25	0.67
27:Y:517:SER:O	27:Y:522:TYR:CD2	2.43	0.67
1:1:403:ILE:HD13	1:1:484:PHE:CD2	2.30	0.67
1:1:408:ILE:HG21	1:1:475:ASP:C	2.19	0.67
1:1:672:GLN:OE1	1:1:686:ARG:NH2	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Q:99:PHE:CD2	22:T:143:DT:C5'	2.78	0.67
21:S:160:ILE:O	21:S:160:ILE:CD1	2.42	0.67
21:S:191:GLU:O	21:S:195:LEU:HD23	1.93	0.67
21:S:191:GLU:C	21:S:195:LEU:CD2	2.68	0.67
24:V:292:ILE:HA	24:V:295:PRO:HD2	1.75	0.67
27:Y:492:PHE:CZ	27:Y:707:ASN:OD1	2.48	0.67
1:1:373:MET:HE2	1:1:511:LEU:CD1	2.25	0.67
3:A:404:TYR:OH	18:P:40:GLU:CG	2.43	0.67
18:P:252:VAL:HG13	18:P:285:ASN:OD1	1.95	0.67
21:S:156:ASP:O	21:S:160:ILE:HG13	1.95	0.67
23:U:119:LEU:HD23	24:V:135:PHE:HE2	1.59	0.67
27:Y:413:GLU:O	27:Y:414:GLU:HB2	1.94	0.67
1:1:303:ARG:HG2	1:1:504:THR:CB	2.22	0.67
18:P:205:LYS:O	18:P:209:ILE:HG23	1.95	0.67
21:S:166:LEU:CD1	21:S:167:ASP:N	2.58	0.67
2:2:290:ASP:HA	4:B:766:ARG:HH22	1.57	0.66
2:2:302:CYS:SG	2:2:304:ASN:ND2	2.68	0.66
3:A:317:LYS:N	18:P:92:LEU:CD2	2.55	0.66
3:A:1443:VAL:HG12	9:G:61:ILE:HG23	1.76	0.66
4:B:959:ASP:CB	18:P:182:ARG:HH11	1.84	0.66
18:P:58:ASP:OD1	18:P:60:ARG:CG	2.32	0.66
18:P:128:ALA:HB1	18:P:132:LYS:HZ2	1.57	0.66
18:P:159:ASP:OD1	18:P:160:GLU:N	2.28	0.66
18:P:279:VAL:CG1	18:P:302:LEU:HD22	2.24	0.66
21:S:175:LYS:CE	21:S:175:LYS:CA	2.10	0.66
21:S:237:LYS:HZ3	21:S:241:PRO:CG	2.06	0.66
27:Y:124:ARG:HD3	27:Y:374:LEU:HD23	1.77	0.66
27:Y:566:HIS:CE1	27:Y:569:ILE:CG1	2.77	0.66
1:1:356:LEU:CG	1:1:427:TRP:HD1	2.07	0.66
18:P:130:PHE:HA	18:P:133:ILE:HG21	1.76	0.66
18:P:163:LEU:O	18:P:163:LEU:CD2	2.35	0.66
18:P:320:ARG:HH21	18:P:337:ASP:CG	2.03	0.66
20:R:44:LYS:NZ	20:R:49:ILE:HB	2.11	0.66
21:S:129:LEU:CG	24:V:341:LYS:HE2	2.23	0.66
22:T:134:DT:C6	24:V:323:ARG:CB	2.77	0.66
27:Y:346:MET:O	27:Y:384:LEU:CD2	2.42	0.66
27:Y:639:LEU:HD12	27:Y:653:PHE:HE2	0.82	0.66
1:1:370:LEU:HD11	1:1:398:THR:CG2	2.25	0.66
18:P:29:VAL:O	18:P:30:TYR:CD1	2.48	0.66
19:Q:99:PHE:CD2	22:T:143:DT:C4'	2.61	0.66
20:R:34:PHE:CZ	20:R:134:LEU:HD11	2.07	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:138:LYS:HZ2	21:S:138:LYS:HB3	1.41	0.66
21:S:187:HIS:CE1	21:S:226:GLU:N	2.63	0.66
27:Y:28:ILE:HG21	27:Y:57:ILE:CG2	2.24	0.66
27:Y:59:TYR:HA	27:Y:62:HIS:CE1	2.31	0.66
4:B:296:GLU:OE1	23:U:124:LYS:CE	2.44	0.66
18:P:121:LYS:O	18:P:122:LYS:CG	2.43	0.66
24:V:79:GLU:OE2	24:V:106:LEU:HD23	1.95	0.66
27:Y:346:MET:O	27:Y:384:LEU:HD21	1.95	0.66
18:P:42:ASP:O	18:P:43:VAL:HG22	1.95	0.66
18:P:133:ILE:CD1	18:P:151:LYS:HG2	2.24	0.66
18:P:196:ILE:HG23	18:P:197:HIS:N	2.10	0.66
18:P:226:ASP:OD1	18:P:260:ALA:HB1	1.95	0.66
18:P:286:ILE:HG21	18:P:293:ILE:HG12	1.78	0.66
20:R:120:ASN:OD1	20:R:133:GLN:HG2	1.95	0.66
21:S:131:ALA:O	21:S:135:ILE:HG23	1.94	0.66
21:S:160:ILE:HD12	21:S:160:ILE:O	1.93	0.66
24:V:105:THR:OG1	24:V:119:GLU:HG2	1.95	0.66
27:Y:56:THR:HG22	27:Y:60:GLN:NE2	2.10	0.66
27:Y:162:LEU:HD23	27:Y:195:ILE:CG1	2.24	0.66
27:Y:170:TYR:HD2	27:Y:176:PHE:HZ	1.41	0.66
3:A:15:LYS:NZ	4:B:1220:ARG:HE	1.93	0.66
3:A:1451:VAL:HA	9:G:19:GLY:HA2	1.75	0.66
4:B:429:PHE:HA	4:B:432:MET:HE2	1.77	0.66
18:P:164:LYS:HG2	18:P:166:LYS:HB3	1.76	0.66
21:S:142:VAL:O	21:S:177:THR:OG1	2.14	0.66
24:V:140:LEU:O	24:V:210:LYS:HB3	1.95	0.66
27:Y:171:LEU:CB	27:Y:172:PRO:HD3	2.22	0.66
1:1:474:MET:HE2	1:1:480:ARG:O	1.96	0.66
3:A:312:PRO:HA	18:P:96:ILE:CG2	2.25	0.66
3:A:1445:ILE:H	9:G:68:ALA:HA	1.60	0.66
16:N:33:DA:H2'	16:N:34:DT:H72	1.77	0.66
18:P:298:VAL:HG12	18:P:302:LEU:CG	2.26	0.66
19:Q:114:LEU:CB	22:T:143:DT:O2	2.42	0.66
27:Y:123:GLU:OE1	27:Y:217:LYS:NZ	2.27	0.66
2:2:248:ILE:HG12	3:A:1203:ASN:CG	2.21	0.66
3:A:57:ARG:O	3:A:68:GLN:HG2	1.96	0.66
4:B:1221:SER:N	6:D:14:ARG:HH22	1.91	0.66
19:Q:114:LEU:CD2	22:T:143:DT:H2'	2.26	0.66
20:R:31:ALA:O	20:R:34:PHE:HB3	1.96	0.66
1:1:348:ARG:C	1:1:350:PRO:HD3	2.21	0.66
1:1:447:GLN:C	1:1:452:LEU:HB3	2.21	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:452:LEU:O	1:1:452:LEU:HD23	1.96	0.66
2:2:289:ALA:O	4:B:769:TYR:HE2	1.18	0.66
3:A:311:GLN:HG3	3:A:312:PRO:HD2	1.77	0.66
3:A:315:LEU:C	18:P:92:LEU:CD2	2.66	0.66
18:P:223:LEU:CD1	19:Q:173:GLU:HB3	2.24	0.66
20:R:44:LYS:HE3	20:R:54:LEU:HD13	1.78	0.66
22:T:134:DT:H6	24:V:323:ARG:CB	2.09	0.66
23:U:371:ASP:OD1	24:V:75:MET:C	2.39	0.66
23:U:376:LEU:HG	24:V:73:LEU:HD21	1.77	0.66
23:U:386:MET:HE1	24:V:75:MET:CE	2.26	0.66
27:Y:541:PHE:CZ	27:Y:599:LEU:HD22	2.30	0.66
3:A:414:ASP:HB2	18:P:44:VAL:HG11	1.77	0.66
16:N:39:DC:H3'	16:N:40:DT:H71	1.76	0.66
18:P:87:LEU:CG	18:P:126:VAL:HG21	2.26	0.66
21:S:203:LYS:HZ2	21:S:204:GLY:CA	2.08	0.66
21:S:244:VAL:N	21:S:245:TRP:CZ3	2.63	0.66
27:Y:171:LEU:HD21	27:Y:181:LEU:CD2	2.26	0.66
27:Y:555:GLN:HG2	27:Y:562:GLU:OE2	1.96	0.66
1:1:353:ASP:HB2	1:1:448:THR:OG1	1.96	0.65
1:1:356:LEU:HD12	1:1:427:TRP:HB3	1.78	0.65
3:A:388:LEU:O	3:A:392:VAL:HG23	1.96	0.65
3:A:416:ARG:NH1	18:P:37:ARG:HE	1.88	0.65
3:A:1442:ASP:HB2	8:F:137:TYR:HE1	1.61	0.65
4:B:296:GLU:O	4:B:300:HIS:HD2	1.80	0.65
5:C:56:THR:HG21	5:C:145:CYS:SG	2.36	0.65
18:P:22:LEU:CD1	18:P:43:VAL:HG21	2.09	0.65
18:P:95:ARG:O	18:P:95:ARG:HG3	1.94	0.65
21:S:158:LYS:CE	21:S:162:LEU:HG	2.25	0.65
1:1:430:LEU:O	1:1:430:LEU:HD23	1.96	0.65
1:1:439:THR:HG22	1:1:440:SER:N	2.10	0.65
16:N:16:DC:H2''	16:N:17:DT:C5'	2.25	0.65
16:N:39:DC:H6	16:N:39:DC:O5'	1.78	0.65
17:O:4:PRO:HD2	24:V:357:LYS:HB3	0.68	0.65
18:P:159:ASP:O	18:P:160:GLU:HB3	1.96	0.65
18:P:280:VAL:HG11	18:P:313:TYR:HA	1.76	0.65
20:R:67:ILE:HD13	20:R:67:ILE:H	1.60	0.65
20:R:68:SER:HB3	20:R:90:LYS:NZ	2.12	0.65
23:U:312:VAL:HG22	23:U:335:LEU:HG	1.78	0.65
1:1:351:ASP:CB	1:1:482:TRP:HZ3	2.09	0.65
1:1:408:ILE:HD11	1:1:466:ARG:CD	2.25	0.65
1:1:415:VAL:HA	1:1:418:MET:HE2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:452:LEU:HD23	1:1:452:LEU:C	2.21	0.65
2:2:265:VAL:HG11	2:2:278:LYS:HA	1.76	0.65
3:A:46:THR:HG22	3:A:47:ARG:H	1.61	0.65
3:A:204:THR:HG22	3:A:235:ILE:HG21	1.79	0.65
4:B:872:GLU:HG2	4:B:916:THR:HG22	1.78	0.65
4:B:879:ARG:HG3	4:B:885:MET:HE2	1.78	0.65
20:R:126:ILE:CB	20:R:154:GLU:HG2	2.24	0.65
24:V:59:LEU:HD23	24:V:214:ILE:HD11	1.78	0.65
27:Y:289:LEU:HD21	27:Y:352:ILE:HG13	1.78	0.65
27:Y:353:SER:HB2	27:Y:378:SER:CA	2.24	0.65
27:Y:495:MET:HB3	27:Y:686:PHE:CD1	2.24	0.65
1:1:356:LEU:HD23	1:1:448:THR:HG21	1.76	0.65
1:1:385:VAL:O	1:1:386:LEU:HD23	1.97	0.65
1:1:455:SER:HB3	1:1:466:ARG:HD3	1.77	0.65
1:1:585:PRO:C	1:1:756:ARG:HH22	2.05	0.65
3:A:419:LYS:CE	18:P:47:LEU:HA	2.25	0.65
4:B:433:GLN:HB2	23:U:326:ARG:CZ	2.27	0.65
16:N:16:DC:H6	16:N:16:DC:O5'	1.78	0.65
18:P:42:ASP:H	18:P:55:LYS:CG	2.10	0.65
21:S:134:TYR:CZ	21:S:138:LYS:NZ	2.64	0.65
22:T:141:DC:H2''	22:T:142:DC:C5'	2.26	0.65
27:Y:681:LEU:HD21	27:Y:696:TRP:CH2	2.31	0.65
1:1:373:MET:HE2	1:1:511:LEU:HD13	1.79	0.65
1:1:485:ILE:HG23	1:1:507:ALA:CB	2.26	0.65
1:1:505:ILE:HG21	1:1:507:ALA:HB3	1.78	0.65
1:1:677:TYR:O	1:1:677:TYR:CD1	2.50	0.65
18:P:184:GLU:CG	18:P:241:ARG:CG	2.56	0.65
20:R:140:LEU:HD13	20:R:147:PHE:CE1	2.32	0.65
23:U:96:ASN:HB3	23:U:98:TYR:CE2	2.31	0.65
24:V:333:LEU:CA	24:V:337:ALA:HB3	2.27	0.65
27:Y:493:LEU:HB3	27:Y:696:TRP:CD1	2.31	0.65
1:1:373:MET:HG3	1:1:381:SER:CB	2.27	0.65
1:1:410:LEU:CB	1:1:466:ARG:HH22	2.07	0.65
1:1:561:MET:C	25:W:450:ARG:NH2	2.53	0.65
2:2:248:ILE:CB	3:A:1203:ASN:CG	2.47	0.65
2:2:253:LEU:HB3	3:A:1132:LYS:CE	2.27	0.65
3:A:264:PHE:CE2	18:P:90:ASN:O	2.50	0.65
3:A:404:TYR:OH	18:P:40:GLU:HG3	1.96	0.65
4:B:74:LEU:H	23:U:313:ALA:H	1.43	0.65
4:B:1215:ARG:CD	6:D:15:LEU:HD12	2.15	0.65
18:P:150:ALA:CA	18:P:178:ILE:HD11	2.27	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:352:LEU:O	1:1:447:GLN:HB3	1.95	0.65
1:1:473:VAL:CG1	1:1:481:GLU:HG3	2.27	0.65
3:A:316:GLN:O	3:A:318:SER:N	2.30	0.65
4:B:343:ILE:CD1	22:T:121:DG:C3'	2.74	0.65
4:B:433:GLN:HB2	23:U:326:ARG:NH2	2.12	0.65
19:Q:220:ARG:HD3	19:Q:224:TYR:CE2	2.32	0.65
24:V:306:LEU:HG	24:V:313:TRP:NE1	2.10	0.65
27:Y:622:MET:CG	27:Y:679:MET:HE3	2.25	0.65
1:1:455:SER:HB3	1:1:466:ARG:NH1	2.00	0.65
1:1:476:PHE:O	1:1:505:ILE:HD11	1.97	0.65
14:L:61:THR:CG2	14:L:63:ARG:HG2	2.26	0.65
24:V:108:LEU:HD12	24:V:118:HIS:HE1	1.60	0.65
1:1:411:CYS:O	1:1:456:THR:HA	1.97	0.65
1:1:476:PHE:CB	1:1:485:ILE:HB	2.27	0.65
10:H:82:PRO:C	10:H:84:ALA:H	2.05	0.65
16:N:23:DA:H2	19:Q:116:PHE:HE1	1.40	0.65
16:N:28:DT:OP2	24:V:295:PRO:HD3	1.96	0.65
16:N:40:DT:O5'	16:N:40:DT:H6	1.80	0.65
18:P:279:VAL:HG21	18:P:303:GLN:HE22	1.62	0.65
21:S:203:LYS:CA	21:S:242:ARG:CG	2.75	0.65
27:Y:185:CYS:SG	27:Y:192:PRO:HG3	2.36	0.65
27:Y:213:LEU:O	27:Y:213:LEU:HD13	1.96	0.65
27:Y:289:LEU:HB3	27:Y:348:VAL:CG1	2.26	0.65
27:Y:564:TRP:NE1	27:Y:599:LEU:HD12	2.11	0.65
1:1:487:LEU:HD23	1:1:490:VAL:HG23	1.76	0.65
3:A:1409:LEU:HD13	4:B:1207:LEU:HD21	1.79	0.65
3:A:1433:MET:HE2	4:B:1145:SER:OG	1.97	0.65
18:P:196:ILE:HD11	18:P:197:HIS:HD2	1.61	0.65
18:P:206:THR:HG23	18:P:209:ILE:HD11	1.79	0.65
20:R:44:LYS:HA	20:R:44:LYS:CE	2.16	0.65
27:Y:167:VAL:CG2	27:Y:190:LEU:HD22	2.27	0.65
1:1:456:THR:HB	1:1:465:ASN:ND2	2.11	0.64
18:P:22:LEU:HD22	18:P:34:ILE:CG2	2.27	0.64
20:R:37:VAL:HG12	20:R:88:TYR:HB2	1.77	0.64
20:R:124:CYS:CB	20:R:129:THR:CG2	2.75	0.64
1:1:415:VAL:HA	1:1:418:MET:CE	2.28	0.64
1:1:466:ARG:HD2	1:1:475:ASP:OD2	1.96	0.64
4:B:857:ARG:NH1	4:B:945:GLU:OE2	2.29	0.64
4:B:887:HIS:HE1	18:P:38:PHE:CB	2.08	0.64
4:B:959:ASP:O	18:P:182:ARG:NH1	2.30	0.64
4:B:996:ARG:HG3	4:B:1007:VAL:HG11	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:249:ASP:OD1	15:M:263:LYS:HE3	1.97	0.64
18:P:34:ILE:HD11	18:P:43:VAL:CG1	2.27	0.64
18:P:204:GLY:O	18:P:208:ASN:ND2	2.30	0.64
20:R:40:GLU:HA	20:R:54:LEU:HD23	1.79	0.64
21:S:183:THR:HG22	21:S:184:TYR:CD1	2.32	0.64
1:1:453:VAL:HG21	1:1:482:TRP:HZ2	1.62	0.64
1:1:456:THR:HG22	1:1:457:TYR:H	1.63	0.64
3:A:192:GLY:CA	22:T:116:DG:H3'	2.28	0.64
3:A:317:LYS:H	18:P:92:LEU:CD2	2.03	0.64
3:A:404:TYR:HH	18:P:40:GLU:HB3	1.61	0.64
16:N:28:DT:P	24:V:291:SER:O	2.55	0.64
16:N:69:DG:OP1	26:X:62:ILE:O	2.15	0.64
18:P:152:GLU:CA	18:P:155:LYS:HE3	2.27	0.64
19:Q:221:GLU:O	19:Q:225:GLN:HG3	1.96	0.64
21:S:143:LEU:HD13	21:S:144:VAL:CA	2.27	0.64
22:T:135:DG:P	24:V:319:LYS:HE3	2.37	0.64
23:U:372:SER:CB	24:V:80:LYS:HZ3	1.91	0.64
23:U:377:SER:HA	24:V:70:LEU:CD2	2.27	0.64
24:V:333:LEU:CA	24:V:337:ALA:CB	2.75	0.64
27:Y:32:LEU:HD12	27:Y:57:ILE:HD11	1.79	0.64
27:Y:353:SER:CB	27:Y:375:ARG:HG2	2.26	0.64
27:Y:656:PHE:HA	27:Y:659:MET:CE	2.24	0.64
1:1:522:ASP:C	1:1:524:ILE:HD13	2.22	0.64
1:1:622:MET:HE3	1:1:653:PHE:CZ	2.32	0.64
2:2:269:PHE:HE2	2:2:297:CYS:SG	2.14	0.64
8:F:92:ARG:NH2	9:G:64:THR:N	2.46	0.64
16:N:40:DT:H2'	16:N:41:DA:C8	2.32	0.64
18:P:150:ALA:CB	18:P:178:ILE:HD11	2.28	0.64
20:R:46:LEU:HD23	20:R:132:THR:HG21	1.70	0.64
22:T:152:DC:H2'	22:T:153:DG:C8	2.32	0.64
24:V:306:LEU:CG	24:V:313:TRP:CD2	2.80	0.64
24:V:333:LEU:CD2	24:V:349:TYR:CD2	2.79	0.64
24:V:349:TYR:CD1	24:V:349:TYR:C	2.73	0.64
27:Y:342:LEU:CD1	27:Y:346:MET:HE2	2.27	0.64
27:Y:506:ILE:HB	27:Y:522:TYR:CD2	2.33	0.64
1:1:476:PHE:HD2	1:1:477:LEU:CD1	2.11	0.64
2:2:283:GLN:NE2	3:A:756:ILE:CD1	2.61	0.64
3:A:64:ASN:OD1	18:P:18:LEU:CD1	2.44	0.64
3:A:291:GLU:CD	18:P:116:LYS:CE	2.71	0.64
21:S:130:TRP:CZ3	24:V:338:THR:C	2.74	0.64
21:S:154:LYS:HZ2	21:S:154:LYS:CA	1.00	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:215:ASP:HB3	27:Y:218:ILE:HG22	1.78	0.64
27:Y:445:ALA:O	27:Y:448:PRO:HD2	1.96	0.64
1:1:527:LEU:CD2	1:1:531:ILE:HD12	2.14	0.64
2:2:235:ASP:CA	2:2:242:LYS:HE3	2.26	0.64
3:A:419:LYS:HZ1	18:P:47:LEU:CA	2.11	0.64
4:B:806:THR:HG22	4:B:808:ALA:H	1.63	0.64
16:N:38:DT:H2"	16:N:39:DC:C5	2.32	0.64
17:O:87:VAL:CG1	17:O:88:GLU:H	2.09	0.64
18:P:34:ILE:O	18:P:35:VAL:HB	1.97	0.64
18:P:322:LYS:N	18:P:322:LYS:CD	2.61	0.64
20:R:17:VAL:HG12	20:R:66:LEU:CD2	2.26	0.64
20:R:90:LYS:HB3	20:R:93:HIS:HB2	1.79	0.64
21:S:143:LEU:HD12	21:S:145:ASN:N	2.12	0.64
27:Y:193:TYR:HE2	27:Y:197:ARG:NH1	1.95	0.64
27:Y:289:LEU:CB	27:Y:348:VAL:HG11	2.28	0.64
1:1:343:PHE:HE2	1:1:345:ASN:HB2	1.63	0.64
1:1:456:THR:HG22	1:1:457:TYR:N	2.13	0.64
1:1:474:MET:N	1:1:481:GLU:H	1.87	0.64
2:2:307:LYS:CG	3:A:1359:ASP:O	2.45	0.64
3:A:192:GLY:O	22:T:117:DC:OP2	2.16	0.64
4:B:68:THR:HG22	4:B:91:SER:HA	1.80	0.64
14:L:28:LYS:HB2	14:L:39:SER:HA	1.80	0.64
18:P:22:LEU:HD21	18:P:34:ILE:HG21	1.79	0.64
18:P:198:VAL:CG1	18:P:202:GLU:HB3	2.28	0.64
18:P:280:VAL:HG13	18:P:313:TYR:HB2	1.79	0.64
23:U:342:LEU:HD12	23:U:413:MET:CE	2.28	0.64
27:Y:495:MET:SD	27:Y:696:TRP:HE3	2.14	0.64
27:Y:569:ILE:HG21	27:Y:579:THR:OG1	1.98	0.64
1:1:500:ARG:O	1:1:504:THR:HG23	1.97	0.64
2:2:290:ASP:C	4:B:766:ARG:HH21	2.05	0.64
4:B:999:MET:HG3	4:B:1000:PRO:HD2	1.80	0.64
15:M:260:CYS:HB2	15:M:281:VAL:HB	1.78	0.64
18:P:184:GLU:CD	18:P:241:ARG:CA	2.68	0.64
21:S:164:LYS:HD2	21:S:165:LYS:HG2	1.77	0.64
27:Y:648:ILE:CD1	27:Y:652:ASP:OD2	2.46	0.64
2:2:282:TYR:CE1	2:2:296:PHE:HB2	2.33	0.64
3:A:16:GLU:HB3	3:A:1418:LEU:HD11	1.79	0.64
4:B:1111:MET:HB2	18:P:56:LEU:CA	2.03	0.64
4:B:1113:VAL:CG2	18:P:57:VAL:HG23	2.24	0.64
17:O:21:ASP:O	17:O:25:THR:HG23	1.98	0.64
18:P:103:ASP:CB	18:P:107:THR:HB	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:143:PRO:HD3	18:P:185:VAL:HG21	1.80	0.64
18:P:143:PRO:HD3	18:P:185:VAL:CG1	2.28	0.64
18:P:190:LYS:CD	18:P:242:PHE:CZ	2.81	0.64
19:Q:121:MET:HE1	19:Q:139:TYR:HB2	1.80	0.64
21:S:131:ALA:N	21:S:151:LEU:CD1	2.60	0.64
27:Y:170:TYR:HD2	27:Y:176:PHE:CZ	2.15	0.64
27:Y:197:ARG:NH2	27:Y:225:GLU:OE2	2.31	0.64
1:1:410:LEU:HD13	1:1:477:LEU:HD13	1.79	0.64
1:1:596:GLN:HE22	1:1:746:PRO:HD3	1.63	0.64
16:N:38:DT:H2''	16:N:39:DC:H5	1.62	0.64
18:P:22:LEU:HD22	18:P:34:ILE:HD13	1.73	0.64
18:P:108:LYS:HA	18:P:111:ASN:ND2	2.13	0.64
20:R:44:LYS:HD3	20:R:49:ILE:O	1.97	0.64
20:R:152:CYS:SG	20:R:154:GLU:HB2	2.37	0.64
23:U:138:ARG:NH2	24:V:57:LEU:CG	2.60	0.64
27:Y:83:LEU:CD1	27:Y:177:SER:HA	2.27	0.64
27:Y:525:MET:HE3	27:Y:529:PHE:CZ	2.33	0.64
2:2:279:VAL:HG13	2:2:298:THR:O	1.98	0.63
8:F:92:ARG:NE	9:G:63:PRO:C	2.56	0.63
18:P:143:PRO:HD2	18:P:185:VAL:HG11	1.79	0.63
18:P:154:TYR:O	18:P:157:CYS:SG	2.52	0.63
20:R:31:ALA:HB3	20:R:43:LEU:CD1	2.28	0.63
20:R:123:MET:HG3	20:R:130:LYS:HD2	1.76	0.63
21:S:156:ASP:O	21:S:159:VAL:CG1	2.40	0.63
23:U:138:ARG:HH21	24:V:57:LEU:HD13	1.56	0.63
23:U:372:SER:HG	24:V:80:LYS:NZ	0.89	0.63
27:Y:29:LYS:HG3	27:Y:61:MET:SD	2.38	0.63
1:1:403:ILE:HG21	1:1:405:LYS:HG2	1.78	0.63
18:P:55:LYS:O	18:P:56:LEU:HB2	1.98	0.63
18:P:180:CYS:SG	18:P:187:ARG:HG3	2.37	0.63
23:U:138:ARG:HA	24:V:57:LEU:O	1.98	0.63
23:U:342:LEU:HD12	23:U:413:MET:HE1	1.81	0.63
27:Y:569:ILE:HA	27:Y:575:ASP:CB	2.27	0.63
2:2:253:LEU:HD21	3:A:1132:LYS:HB3	1.80	0.63
4:B:773:MET:HE1	4:B:985:GLY:HA2	1.79	0.63
18:P:262:LYS:O	18:P:266:ILE:HG13	1.98	0.63
27:Y:321:ILE:HG23	27:Y:323:GLY:O	1.99	0.63
1:1:400:ALA:HB2	1:1:450:SER:O	1.99	0.63
1:1:563:ALA:HA	25:W:450:ARG:HE	1.62	0.63
4:B:917:PRO:HA	4:B:934:LYS:HB3	1.80	0.63
16:N:17:DT:O5'	16:N:17:DT:H6	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:188:THR:OG1	18:P:245:HIS:CE1	2.50	0.63
18:P:268:GLU:O	18:P:315:ILE:HG21	1.98	0.63
20:R:44:LYS:HE3	20:R:54:LEU:HD22	1.80	0.63
20:R:46:LEU:CD1	20:R:132:THR:HG23	2.28	0.63
27:Y:58:ALA:HB1	27:Y:69:ILE:HD12	1.81	0.63
1:1:575:ARG:NH2	22:T:102:DC:P	2.72	0.63
16:N:58:DC:H2'	16:N:59:DT:H6	1.58	0.63
18:P:140:ALA:C	18:P:141:GLU:HG2	2.23	0.63
18:P:279:VAL:HB	18:P:302:LEU:HD23	1.69	0.63
20:R:46:LEU:CG	20:R:132:THR:HG21	2.29	0.63
20:R:124:CYS:HB3	20:R:129:THR:HG23	1.78	0.63
21:S:156:ASP:HA	21:S:159:VAL:CG1	2.28	0.63
21:S:208:LYS:H	21:S:208:LYS:HD2	1.63	0.63
24:V:89:GLY:O	24:V:90:GLN:CB	2.47	0.63
1:1:378:ARG:H	1:1:381:SER:H	1.46	0.63
1:1:473:VAL:HB	1:1:481:GLU:HG3	1.81	0.63
1:1:484:PHE:HZ	1:1:511:LEU:HB2	1.64	0.63
3:A:1451:VAL:HA	9:G:19:GLY:CA	2.28	0.63
18:P:171:ILE:HD12	18:P:209:ILE:CD1	2.28	0.63
18:P:320:ARG:CZ	18:P:337:ASP:OD2	2.47	0.63
27:Y:234:PHE:HZ	27:Y:449:VAL:HG21	1.62	0.63
27:Y:479:LEU:CD2	27:Y:479:LEU:C	2.72	0.63
1:1:502:VAL:HB	1:1:530:LEU:HD13	1.79	0.63
1:1:680:ARG:NH1	1:1:683:GLU:OE2	2.32	0.63
2:2:266:THR:HG22	3:A:731:ARG:HD3	1.78	0.63
3:A:255:SER:O	18:P:84:ASN:OD1	2.17	0.63
3:A:1444:MET:SD	9:G:60:ARG:NH1	2.72	0.63
18:P:207:LEU:HD11	19:Q:188:GLU:OE2	1.98	0.63
27:Y:76:MET:HA	27:Y:79:ILE:HD12	1.79	0.63
27:Y:495:MET:HB3	27:Y:686:PHE:CE1	2.34	0.63
18:P:145:ILE:HD11	18:P:182:ARG:CG	2.29	0.63
21:S:130:TRP:CE2	24:V:334:ASP:OD1	2.52	0.63
22:T:150:DG:O5'	22:T:150:DG:H8	1.82	0.63
1:1:372:LYS:HB3	1:1:535:LEU:HD23	1.80	0.63
1:1:459:MET:HB2	1:1:464:ARG:NE	2.14	0.63
1:1:474:MET:H	1:1:481:GLU:N	1.89	0.63
18:P:103:ASP:CG	18:P:107:THR:HB	2.23	0.63
20:R:90:LYS:HB3	20:R:93:HIS:HB3	1.81	0.63
27:Y:42:MET:HG3	27:Y:48:LYS:HG3	1.79	0.63
27:Y:374:LEU:HD13	27:Y:374:LEU:C	2.24	0.63
27:Y:479:LEU:HD22	27:Y:479:LEU:C	2.21	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:397:ILE:HD11	1:1:423:GLN:HE21	1.64	0.62
18:P:280:VAL:HG13	18:P:313:TYR:CB	2.29	0.62
18:P:285:ASN:O	18:P:288:LEU:HD12	1.98	0.62
18:P:316:LEU:HD22	18:P:316:LEU:H	1.63	0.62
19:Q:103:ILE:CG2	22:T:144:DT:H5''	2.29	0.62
21:S:128:LEU:HG	24:V:341:LYS:HZ2	1.60	0.62
22:T:138:DA:H2''	22:T:139:DC:C5	2.34	0.62
27:Y:208:TYR:CD1	27:Y:213:LEU:HB2	2.33	0.62
27:Y:646:TYR:CB	27:Y:648:ILE:HG12	2.24	0.62
1:1:409:VAL:HG22	1:1:486:ILE:HD12	1.80	0.62
1:1:491:HIS:O	1:1:494:PRO:HD2	1.99	0.62
2:2:274:CYS:O	2:2:276:GLU:N	2.32	0.62
4:B:343:ILE:HD12	22:T:122:DT:OP1	2.00	0.62
5:C:10:ILE:HD12	13:K:108:GLU:HB3	1.81	0.62
8:F:96:THR:HG23	9:G:66:GLY:N	2.06	0.62
15:M:3:ASN:ND2	15:M:6:ALA:H	1.96	0.62
18:P:310:LYS:NZ	18:P:340:PRO:CA	2.51	0.62
21:S:131:ALA:HB2	21:S:151:LEU:CD1	2.29	0.62
21:S:184:TYR:H	21:S:219:GLU:HB3	1.62	0.62
21:S:237:LYS:HG2	21:S:241:PRO:HG2	1.70	0.62
23:U:396:THR:OG1	23:U:401:TYR:CE2	2.50	0.62
24:V:306:LEU:CD1	24:V:313:TRP:CD2	2.82	0.62
27:Y:193:TYR:HH	27:Y:221:ARG:NH2	1.95	0.62
27:Y:317:LEU:CD1	27:Y:415:GLY:HA3	2.29	0.62
2:2:253:LEU:HD12	3:A:1132:LYS:NZ	2.09	0.62
3:A:64:ASN:HA	18:P:20:ILE:HB	1.81	0.62
16:N:22:DA:H4'	19:Q:158:GLN:CD	2.23	0.62
21:S:137:LYS:HE3	24:V:330:LYS:HZ2	1.64	0.62
22:T:134:DT:C6	24:V:323:ARG:CG	2.83	0.62
1:1:476:PHE:HZ	1:1:493:VAL:CG1	2.12	0.62
4:B:433:GLN:OE1	23:U:326:ARG:NH1	2.32	0.62
21:S:151:LEU:HD22	21:S:153:MET:CE	2.28	0.62
21:S:203:LYS:HZ1	21:S:205:ILE:HB	1.61	0.62
23:U:109:GLU:O	23:U:110:ASP:HB2	1.99	0.62
27:Y:28:ILE:HD11	27:Y:40:LEU:HD22	1.80	0.62
27:Y:110:SER:HB3	27:Y:212:TYR:CD1	2.34	0.62
27:Y:641:PHE:O	27:Y:645:ASN:ND2	2.33	0.62
1:1:405:LYS:HD3	1:1:483:GLY:C	2.24	0.62
1:1:455:SER:HG	1:1:466:ARG:HG3	1.63	0.62
1:1:476:PHE:HA	1:1:485:ILE:CG2	2.30	0.62
1:1:499:ARG:HG3	1:1:530:LEU:HD12	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:22:PHE:N	4:B:1211:ASN:O	2.32	0.62
3:A:95:PHE:C	3:A:97:ALA:N	2.54	0.62
3:A:340:LEU:HD13	3:A:1429:ILE:HG23	1.81	0.62
5:C:67:LEU:HA	5:C:70:ILE:HD12	1.82	0.62
13:K:49:GLU:HG3	13:K:94:ILE:HG13	1.81	0.62
21:S:133:GLU:OE1	24:V:315:LEU:HD11	1.99	0.62
22:T:122:DT:H2"	22:T:123:DT:C7	2.30	0.62
27:Y:653:PHE:CD1	27:Y:654:LEU:N	2.67	0.62
1:1:485:ILE:HD13	1:1:505:ILE:CD1	2.30	0.62
1:1:501:VAL:O	1:1:505:ILE:HG13	2.00	0.62
4:B:269:ILE:HD11	4:B:386:LEU:HD21	1.82	0.62
8:F:92:ARG:HE	9:G:63:PRO:C	2.06	0.62
8:F:132:LEU:HA	9:G:61:ILE:HG12	1.81	0.62
18:P:29:VAL:O	18:P:30:TYR:CG	2.53	0.62
18:P:86:LEU:HD21	18:P:155:LYS:HE3	1.80	0.62
18:P:128:ALA:CB	18:P:132:LYS:HZ1	2.13	0.62
18:P:159:ASP:O	18:P:160:GLU:CB	2.48	0.62
18:P:187:ARG:CG	18:P:189:PHE:HA	2.30	0.62
18:P:188:THR:HG21	18:P:245:HIS:ND1	2.14	0.62
21:S:127:LYS:HD2	21:S:128:LEU:H	1.64	0.62
21:S:130:TRP:CE3	24:V:339:LEU:CD2	2.82	0.62
21:S:130:TRP:CZ2	24:V:333:LEU:C	2.78	0.62
21:S:142:VAL:C	21:S:177:THR:HG1	2.07	0.62
21:S:164:LYS:HZ3	21:S:165:LYS:CG	2.12	0.62
21:S:219:GLU:OE1	21:S:219:GLU:CA	2.47	0.62
24:V:104:ILE:HG21	24:V:122:LEU:HD22	1.80	0.62
24:V:313:TRP:O	24:V:349:TYR:CD1	2.53	0.62
27:Y:190:LEU:CD1	27:Y:195:ILE:HD12	2.20	0.62
27:Y:539:VAL:CG1	27:Y:623:ILE:CG1	2.77	0.62
27:Y:567:LYS:HG2	27:Y:568:LEU:N	2.14	0.62
1:1:436:ALA:CB	1:1:452:LEU:HD21	2.29	0.62
1:1:474:MET:HE3	1:1:482:TRP:O	2.00	0.62
2:2:241:LEU:O	2:2:242:LYS:C	2.43	0.62
4:B:1220:ARG:O	6:D:14:ARG:NH2	2.32	0.62
8:F:132:LEU:CB	9:G:61:ILE:HG21	2.22	0.62
16:N:20:DA:N1	22:T:146:DT:O4	2.32	0.62
18:P:152:GLU:CB	18:P:155:LYS:HE3	2.30	0.62
19:Q:124:THR:HG21	22:T:144:DT:O2	1.99	0.62
20:R:144:ARG:C	20:R:145:THR:OG1	2.41	0.62
21:S:187:HIS:CE1	21:S:226:GLU:H	2.18	0.62
27:Y:167:VAL:CG1	27:Y:195:ILE:HG23	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:199:MET:HA	27:Y:199:MET:HE3	1.81	0.62
27:Y:494:PRO:CD	27:Y:679:MET:O	2.43	0.62
1:1:428:CYS:HB3	1:1:432:PRO:HB2	1.82	0.62
1:1:449:GLU:HB2	1:1:452:LEU:HA	1.81	0.62
3:A:64:ASN:OD1	18:P:18:LEU:CG	2.48	0.62
3:A:89:PRO:CB	3:A:204:THR:HB	2.29	0.62
3:A:344:ARG:CZ	4:B:1120:GLU:CG	2.74	0.62
4:B:843:GLN:HA	4:B:846:ILE:HD12	1.82	0.62
16:N:20:DA:O4'	19:Q:215:THR:HG21	1.98	0.62
21:S:127:LYS:C	21:S:153:MET:HE1	2.24	0.62
21:S:133:GLU:HG3	21:S:137:LYS:HE2	1.82	0.62
1:1:377:GLY:HA2	1:1:381:SER:HB2	1.82	0.62
1:1:448:THR:HG22	1:1:449:GLU:N	2.14	0.62
1:1:561:MET:CA	25:W:450:ARG:NH2	2.63	0.62
3:A:11:LEU:CD1	4:B:1195:HIS:CD2	2.82	0.62
3:A:91:PHE:CB	3:A:96:ILE:HD11	2.30	0.62
16:N:69:DG:C3'	26:X:63:TYR:HE1	2.08	0.62
18:P:189:PHE:H	18:P:241:ARG:CZ	2.09	0.62
18:P:287:LEU:HD12	18:P:338:ASN:CG	2.18	0.62
21:S:125:SER:OG	24:V:342:LYS:CA	2.47	0.62
21:S:133:GLU:CD	24:V:330:LYS:HD2	2.21	0.62
24:V:59:LEU:HD21	24:V:214:ILE:HD11	1.82	0.62
1:1:345:ASN:ND2	1:1:348:ARG:HE	1.97	0.62
1:1:773:ILE:CD1	1:1:775:VAL:CB	2.29	0.62
18:P:187:ARG:HD3	18:P:189:PHE:HB2	1.71	0.62
18:P:226:ASP:OD2	18:P:260:ALA:HB1	1.65	0.62
18:P:322:LYS:H	18:P:322:LYS:HE2	1.65	0.62
20:R:32:ILE:HG22	20:R:89:VAL:HG23	1.80	0.62
21:S:210:LEU:HD22	21:S:214:TRP:CH2	2.33	0.62
1:1:296:VAL:HA	1:1:309:ASP:HB2	1.82	0.61
1:1:326:VAL:HG12	1:1:503:SER:O	1.99	0.61
1:1:458:SER:N	1:1:465:ASN:HB2	2.16	0.61
3:A:66:LYS:HE2	3:A:68:GLN:H	1.65	0.61
4:B:841:MET:HB3	4:B:846:ILE:HD11	1.81	0.61
6:D:176:GLU:OE2	6:D:197:SER:HB2	1.99	0.61
15:M:41:ILE:O	15:M:45:LYS:HG2	2.00	0.61
18:P:124:ASN:O	18:P:125:GLU:HB2	2.00	0.61
18:P:279:VAL:HG21	18:P:302:LEU:CG	1.83	0.61
19:Q:76:LEU:HA	19:Q:151:LYS:O	2.00	0.61
20:R:35:HIS:CG	20:R:36:SER:H	2.18	0.61
22:T:136:DA:H8	22:T:136:DA:O5'	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:493:LEU:HD22	27:Y:696:TRP:HE1	1.53	0.61
27:Y:549:SER:O	27:Y:556:THR:O	2.17	0.61
1:1:446:PHE:O	1:1:453:VAL:HG23	2.00	0.61
1:1:603:ASP:HB3	1:1:669:CYS:SG	2.40	0.61
18:P:42:ASP:O	18:P:43:VAL:CG2	2.47	0.61
18:P:48:CYS:O	18:P:50:LEU:HD12	2.00	0.61
18:P:125:GLU:OE1	18:P:126:VAL:N	2.34	0.61
18:P:313:TYR:HA	18:P:316:LEU:CD2	2.29	0.61
23:U:107:PRO:HA	24:V:90:GLN:CD	2.25	0.61
27:Y:109:THR:HB	27:Y:114:LEU:CD1	2.31	0.61
4:B:430:ARG:HA	23:U:326:ARG:CZ	2.19	0.61
15:M:10:TYR:O	15:M:14:VAL:HG13	2.00	0.61
16:N:59:DT:N1	16:N:60:DA:N7	2.48	0.61
18:P:48:CYS:O	18:P:50:LEU:CD1	2.47	0.61
18:P:187:ARG:HA	18:P:188:THR:CB	2.18	0.61
18:P:202:GLU:HG2	18:P:205:LYS:HE2	1.74	0.61
18:P:208:ASN:CA	18:P:211:LYS:HE3	2.29	0.61
21:S:125:SER:CA	21:S:127:LYS:NZ	2.60	0.61
27:Y:124:ARG:CG	27:Y:373:PRO:O	2.47	0.61
27:Y:639:LEU:CD2	27:Y:649:ARG:CG	2.76	0.61
27:Y:683:ASP:O	27:Y:686:PHE:CE2	2.47	0.61
1:1:475:ASP:C	1:1:485:ILE:HG22	2.25	0.61
1:1:712:ASP:CB	25:W:447:GLU:CD	2.70	0.61
2:2:257:GLN:HA	3:A:1284:MET:H	1.65	0.61
3:A:192:GLY:CA	22:T:116:DG:O3'	2.40	0.61
4:B:350:GLN:CG	23:U:407:ASP:CB	2.74	0.61
5:C:11:ARG:HH21	5:C:229:TYR:HD2	1.48	0.61
8:F:96:THR:HG1	9:G:64:THR:C	1.97	0.61
18:P:142:LEU:HB3	18:P:147:LYS:HD3	1.81	0.61
21:S:157:ASP:C	21:S:162:LEU:HD23	2.25	0.61
27:Y:450:PHE:CZ	27:Y:475:PHE:HA	2.25	0.61
1:1:470:SER:O	1:1:478:THR:HG23	2.00	0.61
1:1:584:ASN:CG	1:1:586:THR:HG22	2.25	0.61
2:2:241:LEU:CD2	3:A:1232:ASN:CG	2.32	0.61
3:A:53:LEU:HD23	3:A:54:ASN:N	2.15	0.61
3:A:419:LYS:HZ1	18:P:47:LEU:CG	2.13	0.61
3:A:946:VAL:HG22	7:E:201:LYS:HD2	1.82	0.61
3:A:1443:VAL:HB	9:G:63:PRO:HA	0.65	0.61
16:N:26:DG:H2''	24:V:291:SER:CB	2.31	0.61
18:P:133:ILE:CG1	18:P:151:LYS:HD3	2.02	0.61
18:P:198:VAL:CG2	18:P:202:GLU:OE1	2.48	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Q:77:GLY:O	19:Q:78:CYS:HB3	2.01	0.61
20:R:40:GLU:CA	20:R:54:LEU:HD23	2.30	0.61
27:Y:523:GLY:O	27:Y:527:VAL:HG23	2.00	0.61
1:1:376:ASN:CB	1:1:380:ARG:HD3	2.27	0.61
1:1:425:LEU:HA	1:1:429:THR:HA	1.83	0.61
3:A:326:ARG:HG3	3:A:1406:VAL:HG21	1.83	0.61
3:A:1130:GLN:HA	3:A:1133:LEU:HD12	1.83	0.61
7:E:202:SER:HB3	7:E:205:SER:H	1.66	0.61
18:P:160:GLU:OE1	18:P:162:THR:HG22	2.00	0.61
19:Q:114:LEU:CD2	22:T:143:DT:C2'	2.77	0.61
20:R:46:LEU:CD2	20:R:132:THR:HG23	2.02	0.61
21:S:148:LEU:CG	21:S:154:LYS:HE3	2.29	0.61
1:1:484:PHE:CD2	1:1:509:ALA:HB3	2.36	0.61
3:A:291:GLU:OE2	18:P:116:LYS:HD2	1.93	0.61
3:A:448:PRO:O	3:A:449:SER:HB2	2.01	0.61
3:A:1111:MET:HG3	3:A:1114:PRO:HG3	1.83	0.61
4:B:911:ILE:HD11	4:B:941:LEU:HD12	1.82	0.61
18:P:174:ALA:HB2	18:P:206:THR:CG2	2.30	0.61
20:R:143:ASP:OD1	20:R:144:ARG:CD	2.49	0.61
21:S:129:LEU:CA	24:V:341:LYS:HE2	2.16	0.61
21:S:143:LEU:HD11	21:S:145:ASN:OD1	2.00	0.61
21:S:164:LYS:NZ	21:S:164:LYS:O	2.33	0.61
24:V:295:PRO:O	24:V:299:ILE:N	2.30	0.61
27:Y:374:LEU:HD13	27:Y:375:ARG:N	2.15	0.61
1:1:478:THR:HG22	1:1:479:GLY:N	2.16	0.61
1:1:484:PHE:CE1	1:1:486:ILE:HG12	2.36	0.61
3:A:1390:ASN:O	3:A:1399:ARG:HG2	2.01	0.61
4:B:350:GLN:HG2	23:U:407:ASP:HB3	1.82	0.61
4:B:486:TYR:HB3	4:B:1096:ARG:CZ	2.31	0.61
8:F:132:LEU:HD22	9:G:66:GLY:O	2.00	0.61
16:N:22:DA:H5'	19:Q:158:GLN:HB3	1.81	0.61
16:N:46:DC:O5'	16:N:46:DC:H6	1.84	0.61
18:P:160:GLU:O	18:P:161:LYS:CG	2.48	0.61
18:P:193:GLN:CD	18:P:199:LYS:HG3	2.26	0.61
22:T:134:DT:H6	24:V:323:ARG:CG	2.14	0.61
22:T:141:DC:O5'	22:T:141:DC:H6	1.83	0.61
23:U:354:ASP:O	23:U:358:TYR:HB3	2.01	0.61
27:Y:190:LEU:HB2	27:Y:195:ILE:HD11	1.83	0.61
1:1:368:LYS:CE	1:1:372:LYS:HE2	2.31	0.61
1:1:407:VAL:HG22	1:1:451:GLY:HA2	1.82	0.61
3:A:372:LYS:HA	3:A:435:HIS:CD2	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:20:GLU:HB2	17:O:43:THR:HG21	1.82	0.61
16:N:71:DG:H2''	16:N:72:DG:OP2	2.01	0.61
18:P:146:VAL:HA	18:P:149:CYS:SG	2.40	0.61
18:P:290:GLN:HB3	18:P:291:ILE:HD13	1.83	0.61
20:R:30:ASP:OD2	20:R:151:LEU:HD11	2.01	0.61
22:T:140:DC:C2	22:T:141:DC:C4	2.88	0.61
27:Y:136:MET:HE3	27:Y:159:HIS:HD2	1.62	0.61
27:Y:171:LEU:HD11	27:Y:195:ILE:HG22	1.83	0.61
1:1:427:TRP:HB2	1:1:449:GLU:OE2	2.01	0.61
3:A:192:GLY:CA	22:T:116:DG:C3'	2.79	0.61
7:E:4:GLU:HB3	7:E:7:ARG:NE	2.16	0.61
18:P:254:THR:O	18:P:257:GLU:OE1	2.19	0.61
18:P:320:ARG:NH2	18:P:337:ASP:CG	2.58	0.61
23:U:387:ILE:HG23	23:U:388:PRO:HD2	1.81	0.61
1:1:370:LEU:HD11	1:1:398:THR:HG21	1.83	0.60
3:A:1193:LEU:HB2	3:A:1260:LEU:HD21	1.81	0.60
18:P:150:ALA:HB1	18:P:178:ILE:HG13	1.52	0.60
20:R:143:ASP:OD1	20:R:144:ARG:NE	2.33	0.60
21:S:164:LYS:HD2	21:S:165:LYS:CG	2.29	0.60
27:Y:242:ASN:HD21	27:Y:660:ARG:HH22	1.49	0.60
27:Y:563:VAL:HG12	27:Y:564:TRP:N	2.16	0.60
27:Y:646:TYR:HB2	27:Y:648:ILE:CG1	2.29	0.60
3:A:419:LYS:HE3	18:P:47:LEU:HA	1.83	0.60
18:P:184:GLU:HB3	18:P:241:ARG:HG3	1.77	0.60
18:P:310:LYS:CE	18:P:340:PRO:CB	2.55	0.60
21:S:154:LYS:CB	21:S:154:LYS:HZ2	1.96	0.60
22:T:140:DC:C2	22:T:141:DC:C5	2.88	0.60
27:Y:176:PHE:N	27:Y:176:PHE:CD1	2.68	0.60
27:Y:237:ALA:HA	27:Y:240:ILE:HG12	1.83	0.60
27:Y:310:PRO:HG2	27:Y:335:LEU:CD2	2.31	0.60
27:Y:389:GLU:C	27:Y:400:LYS:HE2	2.25	0.60
27:Y:493:LEU:CB	27:Y:696:TRP:CD1	2.84	0.60
1:1:375:GLY:HA3	1:1:380:ARG:HG2	1.82	0.60
1:1:460:VAL:CG1	16:N:63:DG:C4'	2.79	0.60
2:2:284:LEU:CB	3:A:1080:THR:CG2	2.48	0.60
4:B:343:ILE:HD12	22:T:121:DG:C3'	2.31	0.60
5:C:184:ASN:HD21	5:C:189:THR:H	1.50	0.60
18:P:143:PRO:HB2	18:P:182:ARG:CD	2.27	0.60
18:P:196:ILE:CG1	18:P:197:HIS:N	2.34	0.60
18:P:298:VAL:HG12	18:P:302:LEU:CD1	2.31	0.60
21:S:160:ILE:C	21:S:160:ILE:CD1	2.73	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:V:340:VAL:CG1	24:V:348:LYS:HB2	2.31	0.60
27:Y:290:VAL:HG22	27:Y:291:GLN:H	1.65	0.60
2:2:298:THR:HG23	2:2:305:ARG:HG2	1.82	0.60
8:F:132:LEU:HD23	9:G:61:ILE:HG12	1.82	0.60
18:P:246:LEU:HD22	18:P:293:ILE:HG21	1.82	0.60
18:P:299:GLY:HA2	18:P:302:LEU:HD13	1.84	0.60
18:P:310:LYS:HE2	18:P:340:PRO:CB	2.24	0.60
18:P:313:TYR:O	18:P:316:LEU:HD21	1.92	0.60
19:Q:205:LEU:HB2	19:Q:213:VAL:HB	1.83	0.60
20:R:33:LEU:HD21	20:R:89:VAL:HG11	1.83	0.60
20:R:49:ILE:HG22	20:R:50:ASN:N	2.15	0.60
21:S:233:LEU:HB3	21:S:247:ASN:ND2	2.16	0.60
27:Y:21:GLN:HA	27:Y:53:LEU:HD21	1.83	0.60
27:Y:109:THR:CG2	27:Y:113:ASN:HD22	2.14	0.60
27:Y:190:LEU:CD1	27:Y:195:ILE:HD11	2.22	0.60
1:1:372:LYS:C	1:1:535:LEU:HD23	2.26	0.60
2:2:257:GLN:HA	3:A:1284:MET:CB	2.32	0.60
2:2:283:GLN:CD	3:A:756:ILE:CG1	2.75	0.60
3:A:1454:MET:HG2	9:G:20:PRO:HD3	1.82	0.60
4:B:205:ILE:HD11	4:B:461:LEU:HD13	1.82	0.60
18:P:202:GLU:CG	18:P:205:LYS:CE	2.54	0.60
18:P:259:THR:O	18:P:264:LYS:NZ	2.33	0.60
18:P:288:LEU:HD22	18:P:330:ALA:HA	1.81	0.60
21:S:128:LEU:HG	24:V:341:LYS:CE	2.32	0.60
21:S:158:LYS:HZ2	21:S:162:LEU:HG	1.64	0.60
21:S:201:THR:OG1	21:S:201:THR:O	2.20	0.60
27:Y:103:PHE:CZ	27:Y:105:GLY:HA3	2.36	0.60
1:1:352:LEU:HD22	1:1:352:LEU:H	1.67	0.60
1:1:356:LEU:HD21	1:1:448:THR:HB	1.83	0.60
3:A:5:GLN:HG3	4:B:1175:LEU:HD11	1.81	0.60
3:A:483:ASP:HB2	4:B:987:LYS:HE3	1.84	0.60
3:A:1063:MET:SD	3:A:1436:ILE:HB	2.42	0.60
3:A:1443:VAL:CB	9:G:63:PRO:N	2.49	0.60
3:A:1445:ILE:O	9:G:68:ALA:HB2	1.96	0.60
3:A:1445:ILE:N	9:G:68:ALA:HB2	2.16	0.60
16:N:58:DC:C2'	16:N:59:DT:H5'	2.26	0.60
18:P:184:GLU:CD	18:P:231:SER:C	2.66	0.60
27:Y:124:ARG:CG	27:Y:374:LEU:HA	2.31	0.60
3:A:132:LYS:NZ	3:A:1415:SER:CB	2.64	0.60
20:R:40:GLU:HA	20:R:54:LEU:CD2	2.31	0.60
20:R:123:MET:CG	20:R:130:LYS:HD3	2.20	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:183:THR:CA	21:S:222:ASN:ND2	2.52	0.60
27:Y:350:HIS:HB2	27:Y:384:LEU:CD1	2.27	0.60
2:2:287:ARG:HD3	2:2:291:GLU:OE1	2.01	0.60
3:A:416:ARG:NH1	18:P:37:ARG:NE	2.48	0.60
16:N:21:DA:C2'	16:N:22:DA:H5'	2.21	0.60
18:P:279:VAL:HG13	18:P:309:ILE:HG23	1.84	0.60
19:Q:75:THR:O	19:Q:153:THR:HB	2.00	0.60
20:R:27:LEU:CD2	20:R:128:LEU:O	2.47	0.60
21:S:125:SER:OG	24:V:342:LYS:N	2.05	0.60
21:S:230:ILE:HG22	21:S:232:VAL:HG12	1.84	0.60
22:T:121:DG:C5	22:T:122:DT:C4	2.89	0.60
24:V:73:LEU:HD23	24:V:73:LEU:H	1.66	0.60
27:Y:28:ILE:CG2	27:Y:57:ILE:HD12	2.28	0.60
27:Y:111:ARG:HD3	27:Y:129:VAL:HG21	1.83	0.60
1:1:487:LEU:HD13	1:1:511:LEU:O	2.01	0.60
3:A:51:GLY:HA2	3:A:56:PRO:HA	1.84	0.60
3:A:1387:HIS:O	3:A:1391:ARG:HG2	2.02	0.60
3:A:1442:ASP:CA	9:G:60:ARG:HH12	2.13	0.60
4:B:976:ILE:O	4:B:990:ILE:HB	2.02	0.60
16:N:29:DT:OP2	24:V:294:MET:CE	2.50	0.60
16:N:66:DG:H2''	16:N:67:DG:OP2	2.01	0.60
18:P:103:ASP:O	18:P:106:PHE:N	2.35	0.60
18:P:277:ILE:C	18:P:277:ILE:HD12	2.26	0.60
18:P:289:PHE:CE1	18:P:291:ILE:HD11	2.31	0.60
20:R:46:LEU:C	20:R:46:LEU:HD13	2.26	0.60
21:S:203:LYS:HZ2	21:S:204:GLY:N	1.95	0.60
22:T:94:DC:H2''	22:T:95:DC:OP2	2.00	0.60
23:U:342:LEU:HD23	23:U:348:TYR:CD1	2.37	0.60
27:Y:263:GLY:O	27:Y:267:LEU:HG	2.02	0.60
27:Y:541:PHE:HE1	27:Y:599:LEU:CD2	2.12	0.60
27:Y:562:GLU:CD	27:Y:599:LEU:HD11	2.27	0.60
3:A:1428:VAL:HG13	4:B:1151:LEU:HD21	1.83	0.60
4:B:249:ARG:HH12	4:B:418:LYS:HD2	1.66	0.60
8:F:92:ARG:CZ	9:G:64:THR:N	2.65	0.60
18:P:279:VAL:HG23	18:P:302:LEU:HD23	0.90	0.60
18:P:325:ASP:HB2	18:P:326:PRO:HD3	1.84	0.60
19:Q:114:LEU:HD22	22:T:143:DT:H2'	1.84	0.60
20:R:62:ARG:N	20:R:67:ILE:HD11	2.17	0.60
21:S:161:GLU:HB3	21:S:162:LEU:HD22	1.83	0.60
22:T:145:DT:C2'	22:T:146:DT:H72	2.32	0.60
27:Y:317:LEU:CD2	27:Y:409:ILE:HG22	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:466:ARG:C	1:1:477:LEU:HD23	2.26	0.59
3:A:22:PHE:CB	4:B:1211:ASN:OD1	2.50	0.59
18:P:37:ARG:NH2	18:P:40:GLU:HG3	2.17	0.59
18:P:107:THR:HG23	18:P:108:LYS:N	2.17	0.59
21:S:195:LEU:O	21:S:246:TYR:OH	2.20	0.59
23:U:374:VAL:O	24:V:73:LEU:CD2	2.48	0.59
27:Y:263:GLY:HA3	27:Y:375:ARG:HH22	1.66	0.59
1:1:386:LEU:HB3	1:1:390:ALA:CB	2.32	0.59
3:A:419:LYS:NZ	18:P:47:LEU:CA	2.66	0.59
18:P:94:THR:HG22	18:P:110:LEU:CD1	2.31	0.59
18:P:313:TYR:C	18:P:316:LEU:HD22	2.23	0.59
20:R:27:LEU:CG	20:R:128:LEU:O	2.49	0.59
21:S:130:TRP:HZ3	24:V:338:THR:N	2.00	0.59
22:T:135:DG:H2'	22:T:136:DA:H8	1.59	0.59
27:Y:185:CYS:SG	27:Y:190:LEU:CD1	2.90	0.59
27:Y:346:MET:HB3	27:Y:384:LEU:CD2	2.28	0.59
27:Y:466:LEU:HG	27:Y:479:LEU:CB	2.32	0.59
27:Y:655:SER:HA	27:Y:689:LYS:HZ1	1.67	0.59
1:1:394:LEU:HD12	1:1:394:LEU:N	2.17	0.59
1:1:424:PHE:O	1:1:427:TRP:HE3	1.84	0.59
1:1:475:ASP:CB	1:1:478:THR:H	2.15	0.59
3:A:257:ARG:O	18:P:83:SER:O	2.19	0.59
3:A:404:TYR:OH	18:P:40:GLU:HB3	2.01	0.59
4:B:363:HIS:O	4:B:364:ILE:HB	2.02	0.59
16:N:60:DA:C2'	16:N:61:DA:H5'	2.19	0.59
18:P:35:VAL:CG1	18:P:37:ARG:H	2.14	0.59
18:P:42:ASP:C	18:P:43:VAL:HG22	2.26	0.59
18:P:206:THR:C	18:P:209:ILE:HG12	2.27	0.59
20:R:34:PHE:HZ	20:R:134:LEU:C	2.05	0.59
20:R:90:LYS:O	20:R:93:HIS:HB3	2.01	0.59
21:S:130:TRP:HZ2	24:V:334:ASP:HA	0.51	0.59
21:S:175:LYS:HA	21:S:175:LYS:HZ1	0.84	0.59
22:T:95:DC:H2''	22:T:96:DC:OP2	2.01	0.59
27:Y:360:LEU:CD1	27:Y:375:ARG:HD2	2.31	0.59
1:1:356:LEU:HD22	1:1:356:LEU:N	2.16	0.59
1:1:370:LEU:CD1	1:1:398:THR:HG21	2.32	0.59
3:A:72:GLU:HB3	3:A:76:GLU:HB3	1.83	0.59
4:B:950:ASP:HB3	4:B:967:ARG:HG2	1.84	0.59
8:F:96:THR:CG2	9:G:66:GLY:HA2	2.33	0.59
18:P:125:GLU:OE2	18:P:158:HIS:CE1	2.56	0.59
18:P:269:ILE:CD1	18:P:315:ILE:HG22	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:289:PHE:CE1	18:P:291:ILE:HD13	2.37	0.59
19:Q:99:PHE:CG	22:T:143:DT:H5'	2.29	0.59
24:V:306:LEU:HD23	24:V:318:LEU:HD23	1.79	0.59
16:N:14:DG:H2''	16:N:15:DC:O5'	2.02	0.59
18:P:269:ILE:HD12	18:P:315:ILE:HG22	1.84	0.59
19:Q:114:LEU:HD22	22:T:143:DT:H1'	1.84	0.59
19:Q:183:SER:HB2	19:Q:193:LEU:HD21	1.84	0.59
1:1:373:MET:HE2	1:1:384:ILE:CD1	2.32	0.59
1:1:754:ARG:C	1:1:754:ARG:HH12	2.11	0.59
3:A:419:LYS:HZ1	18:P:47:LEU:C	2.10	0.59
3:A:566:ILE:HD11	10:H:98:TYR:HB2	1.85	0.59
3:A:1443:VAL:HB	9:G:63:PRO:C	2.21	0.59
14:L:61:THR:HG21	14:L:63:ARG:HG2	1.84	0.59
23:U:377:SER:CA	24:V:70:LEU:HD22	2.33	0.59
24:V:307:PHE:CZ	24:V:349:TYR:CD1	2.82	0.59
27:Y:240:ILE:HG22	27:Y:473:LEU:HD12	1.84	0.59
27:Y:493:LEU:HD21	27:Y:666:LEU:CG	2.29	0.59
1:1:397:ILE:HG12	1:1:427:TRP:HH2	1.67	0.59
3:A:380:VAL:HG13	3:A:385:ILE:HG12	1.83	0.59
4:B:653:VAL:HG22	4:B:689:LEU:HB3	1.84	0.59
4:B:839:MET:HE3	4:B:1010:LEU:HD21	1.83	0.59
4:B:1221:SER:CB	6:D:14:ARG:CZ	2.80	0.59
14:L:47:ARG:HH21	14:L:54:ARG:HH21	1.50	0.59
18:P:116:LYS:CA	18:P:119:MET:HE3	2.27	0.59
18:P:135:MET:HA	18:P:138:ASP:OD2	2.02	0.59
18:P:164:LYS:CG	18:P:166:LYS:HB3	2.04	0.59
18:P:184:GLU:CD	18:P:241:ARG:HG3	2.27	0.59
18:P:279:VAL:HG13	18:P:309:ILE:HG12	1.82	0.59
21:S:214:TRP:CE3	21:S:218:ASP:CG	2.78	0.59
22:T:101:DC:H2''	22:T:102:DC:OP2	2.02	0.59
23:U:138:ARG:CZ	24:V:57:LEU:CB	2.77	0.59
27:Y:653:PHE:CD1	27:Y:653:PHE:C	2.78	0.59
1:1:326:VAL:HG12	1:1:327:LYS:N	2.18	0.59
1:1:328:LYS:HD3	1:1:530:LEU:HD22	1.84	0.59
1:1:373:MET:CA	1:1:381:SER:HA	2.32	0.59
4:B:1215:ARG:HD3	6:D:15:LEU:HD11	1.80	0.59
18:P:37:ARG:NH2	18:P:40:GLU:CB	2.65	0.59
18:P:142:LEU:O	18:P:147:LYS:CD	2.45	0.59
19:Q:114:LEU:HD13	22:T:143:DT:N3	2.18	0.59
21:S:171:PHE:N	21:S:171:PHE:HD1	1.95	0.59
23:U:375:LEU:HD21	24:V:70:LEU:CD1	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:336:PRO:HB3	1:1:341:TYR:HB3	1.85	0.59
3:A:590:ARG:NH2	3:A:621:THR:OG1	2.36	0.59
3:A:857:ARG:HD3	3:A:861:GLY:O	2.03	0.59
3:A:871:ASP:OD1	3:A:1366:ARG:NH2	2.34	0.59
16:N:26:DG:H2''	16:N:27:DG:OP2	2.03	0.59
18:P:42:ASP:H	18:P:55:LYS:HG3	1.66	0.59
18:P:128:ALA:O	18:P:132:LYS:NZ	2.26	0.59
20:R:124:CYS:SG	20:R:154:GLU:HB3	2.43	0.59
23:U:358:TYR:CE2	23:U:359:ASN:HB2	2.38	0.59
24:V:349:TYR:O	24:V:349:TYR:HD1	1.83	0.59
27:Y:167:VAL:HG11	27:Y:195:ILE:CG2	2.33	0.59
27:Y:504:VAL:CG1	27:Y:686:PHE:CZ	2.86	0.59
27:Y:504:VAL:HG13	27:Y:686:PHE:CZ	2.38	0.59
1:1:385:VAL:HA	1:1:514:THR:O	2.03	0.59
3:A:629:LEU:O	3:A:633:VAL:HG23	2.02	0.59
6:D:7:THR:HG21	9:G:5:LYS:HZ1	1.67	0.59
16:N:42:DT:H2''	16:N:43:DA:H8	1.68	0.59
18:P:268:GLU:C	18:P:269:ILE:CD1	2.73	0.59
21:S:129:LEU:CG	24:V:341:LYS:CE	2.81	0.59
22:T:140:DC:N1	22:T:141:DC:C5	2.70	0.59
24:V:306:LEU:HG	24:V:313:TRP:CD1	2.38	0.59
1:1:477:LEU:O	1:1:501:VAL:HA	2.03	0.58
8:F:96:THR:OG1	9:G:64:THR:HA	2.02	0.58
16:N:19:DT:C2'	16:N:20:DA:H5'	2.25	0.58
18:P:225:ILE:CD1	18:P:227:THR:C	2.76	0.58
20:R:130:LYS:CE	20:R:130:LYS:CA	1.94	0.58
21:S:130:TRP:CZ2	24:V:334:ASP:CA	2.29	0.58
22:T:116:DG:C4	22:T:117:DC:C6	2.90	0.58
22:T:141:DC:H2'	22:T:142:DC:C5	2.38	0.58
23:U:119:LEU:HD23	24:V:135:PHE:CE2	2.29	0.58
23:U:365:TYR:CE1	23:U:391:LYS:CD	2.85	0.58
27:Y:383:LEU:C	27:Y:383:LEU:HD23	2.28	0.58
27:Y:492:PHE:CE2	27:Y:494:PRO:HG3	2.38	0.58
1:1:356:LEU:CD2	1:1:448:THR:HG21	2.32	0.58
1:1:378:ARG:N	1:1:381:SER:HB3	2.18	0.58
1:1:411:CYS:O	1:1:456:THR:HG23	2.03	0.58
3:A:89:PRO:HB2	3:A:204:THR:HG21	1.83	0.58
23:U:406:ILE:O	23:U:410:GLU:HG3	2.03	0.58
24:V:69:TRP:HB3	24:V:219:CYS:SG	2.41	0.58
27:Y:110:SER:HB3	27:Y:212:TYR:CE1	2.38	0.58
2:2:257:GLN:C	3:A:1284:MET:H	2.10	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:343:ILE:HD11	22:T:121:DG:H4'	1.85	0.58
16:N:39:DC:H2''	16:N:40:DT:C5'	2.33	0.58
18:P:124:ASN:O	18:P:125:GLU:CB	2.52	0.58
18:P:188:THR:O	18:P:188:THR:CG2	2.48	0.58
18:P:225:ILE:CD1	18:P:226:ASP:N	2.66	0.58
18:P:279:VAL:CG2	18:P:302:LEU:HD21	1.15	0.58
27:Y:57:ILE:HD13	27:Y:57:ILE:C	2.28	0.58
27:Y:586:TYR:CE1	27:Y:616:TYR:CZ	2.91	0.58
27:Y:639:LEU:HD23	27:Y:649:ARG:CD	2.25	0.58
1:1:400:ALA:HB3	1:1:450:SER:HA	1.86	0.58
3:A:68:GLN:O	3:A:70:CYS:N	2.31	0.58
7:E:147:HIS:HB3	7:E:150:VAL:HG23	1.84	0.58
8:F:92:ARG:NH2	9:G:64:THR:H	2.01	0.58
18:P:144:LYS:O	18:P:148:ASP:CG	2.47	0.58
18:P:187:ARG:NH2	18:P:192:ILE:HG21	2.05	0.58
18:P:188:THR:N	18:P:241:ARG:CB	2.67	0.58
18:P:196:ILE:HD11	18:P:197:HIS:CD2	2.38	0.58
18:P:202:GLU:HG3	18:P:205:LYS:HZ1	1.68	0.58
22:T:122:DT:H2''	22:T:123:DT:OP1	2.03	0.58
22:T:130:DA:C8	22:T:131:DC:C6	2.92	0.58
22:T:145:DT:H2'	22:T:146:DT:H72	1.84	0.58
23:U:140:HIS:HB3	24:V:57:LEU:CD2	2.29	0.58
27:Y:42:MET:SD	27:Y:48:LYS:HA	2.43	0.58
27:Y:193:TYR:CE2	27:Y:197:ARG:HD3	2.36	0.58
27:Y:317:LEU:CD1	27:Y:415:GLY:CA	2.81	0.58
1:1:327:LYS:HG3	1:1:506:ALA:CA	2.33	0.58
1:1:352:LEU:HD22	1:1:352:LEU:N	2.18	0.58
1:1:476:PHE:CZ	1:1:487:LEU:HD21	2.38	0.58
3:A:416:ARG:HH22	18:P:40:GLU:HG3	1.68	0.58
3:A:436:ILE:HD11	3:A:491:VAL:HG11	1.85	0.58
18:P:208:ASN:CB	18:P:211:LYS:HE3	2.33	0.58
18:P:279:VAL:HG21	18:P:302:LEU:CD1	2.32	0.58
18:P:291:ILE:H	18:P:291:ILE:CD1	1.90	0.58
20:R:44:LYS:HD2	20:R:50:ASN:O	2.04	0.58
20:R:67:ILE:HD13	20:R:67:ILE:N	2.19	0.58
22:T:130:DA:N7	22:T:131:DC:C2	2.70	0.58
22:T:147:DA:H8	22:T:147:DA:O5'	1.86	0.58
27:Y:386:ARG:O	27:Y:390:VAL:CG2	2.40	0.58
3:A:836:TYR:CE1	3:A:1403:GLU:OE2	2.57	0.58
4:B:810:GLU:HA	4:B:815:ARG:HH12	1.69	0.58
8:F:92:ARG:NH1	9:G:63:PRO:CB	2.65	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:64:ASP:HB2	20:R:66:LEU:CD2	2.34	0.58
24:V:292:ILE:HD12	24:V:328:HIS:NE2	2.18	0.58
1:1:349:ASN:N	1:1:350:PRO:HD3	2.19	0.58
1:1:484:PHE:HE1	1:1:486:ILE:HG12	1.69	0.58
1:1:757:ARG:O	1:1:761:GLN:HG2	2.03	0.58
1:1:785:ARG:O	1:1:785:ARG:CD	2.52	0.58
2:2:284:LEU:HD13	3:A:1080:THR:CG2	2.31	0.58
4:B:885:MET:N	18:P:33:LYS:HZ1	1.96	0.58
17:O:46:LYS:O	17:O:50:GLU:HG3	2.03	0.58
18:P:108:LYS:O	18:P:112:LYS:CG	2.52	0.58
18:P:171:ILE:HD12	18:P:209:ILE:HD11	1.86	0.58
18:P:223:LEU:CG	19:Q:177:PHE:CE2	2.77	0.58
22:T:154:DC:H2''	22:T:155:DC:OP2	2.03	0.58
24:V:83:ASP:CG	24:V:92:LEU:HD22	2.28	0.58
24:V:299:ILE:CD1	24:V:324:GLN:OE1	2.48	0.58
27:Y:218:ILE:HD11	27:Y:221:ARG:HH21	1.68	0.58
27:Y:458:ILE:HD13	27:Y:469:TYR:CE2	2.38	0.58
1:1:373:MET:HG3	1:1:381:SER:OG	2.04	0.58
1:1:408:ILE:CG2	1:1:475:ASP:HA	2.33	0.58
3:A:901:LEU:HD22	3:A:919:ILE:HG23	1.85	0.58
8:F:97:ARG:HH12	9:G:15:PRO:HB2	1.68	0.58
16:N:22:DA:C5'	19:Q:158:GLN:NE2	2.65	0.58
16:N:31:DC:H2''	16:N:32:DA:OP1	2.03	0.58
18:P:26:GLU:OE1	18:P:50:LEU:HD22	2.01	0.58
18:P:225:ILE:O	18:P:228:ASP:HB2	2.04	0.58
19:Q:153:THR:HG22	19:Q:154:ASP:H	1.68	0.58
20:R:120:ASN:OD1	20:R:133:GLN:CB	2.51	0.58
24:V:333:LEU:O	24:V:337:ALA:N	2.36	0.58
27:Y:61:MET:O	27:Y:64:PRO:HD2	2.03	0.58
27:Y:506:ILE:HB	27:Y:522:TYR:CZ	2.39	0.58
27:Y:506:ILE:C	27:Y:522:TYR:OH	2.47	0.58
2:2:295:THR:O	2:2:295:THR:HG22	2.02	0.58
3:A:64:ASN:OD1	18:P:18:LEU:CD2	2.52	0.58
3:A:1450:LEU:C	9:G:18:PHE:C	2.66	0.58
15:M:283:ALA:HA	17:O:64:GLY:O	2.03	0.58
16:N:32:DA:H2'	16:N:33:DA:C8	2.38	0.58
18:P:180:CYS:O	18:P:183:ALA:O	2.21	0.58
18:P:280:VAL:HG12	18:P:316:LEU:HD11	1.86	0.58
20:R:29:LEU:CD1	20:R:66:LEU:HB3	2.33	0.58
21:S:130:TRP:CZ2	24:V:334:ASP:N	2.72	0.58
21:S:134:TYR:CE2	21:S:147:LEU:HD23	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:158:LYS:HD3	21:S:162:LEU:HG	1.85	0.58
21:S:175:LYS:CE	21:S:175:LYS:C	2.72	0.58
21:S:181:LEU:CD2	21:S:183:THR:O	2.51	0.58
23:U:135:LEU:C	23:U:136:PRO:HD3	2.25	0.58
27:Y:132:LYS:HA	27:Y:155:LEU:CD1	2.34	0.58
27:Y:167:VAL:HG11	27:Y:195:ILE:HG23	1.86	0.58
27:Y:263:GLY:HA3	27:Y:375:ARG:NH2	2.18	0.58
27:Y:360:LEU:CG	27:Y:375:ARG:NE	2.64	0.58
27:Y:681:LEU:CD2	27:Y:696:TRP:HZ3	2.10	0.58
2:2:258:GLY:O	2:2:259:ALA:C	2.46	0.58
18:P:58:ASP:CG	18:P:60:ARG:HG2	2.27	0.58
20:R:53:GLU:O	20:R:57:LEU:HG	2.03	0.58
20:R:154:GLU:CD	20:R:155:PRO:N	2.62	0.58
21:S:164:LYS:CD	21:S:165:LYS:HG3	2.34	0.58
22:T:151:DG:C2'	22:T:152:DC:C5	2.86	0.58
23:U:386:MET:HE1	24:V:75:MET:HE1	1.84	0.58
23:U:396:THR:HG1	23:U:401:TYR:HE2	1.43	0.58
1:1:354:ILE:O	1:1:356:LEU:HD22	2.03	0.57
1:1:773:ILE:HD12	1:1:774:GLU:N	2.19	0.57
10:H:47:PHE:HB3	10:H:95:TYR:CD2	2.38	0.57
18:P:150:ALA:HB1	18:P:175:SER:HA	1.86	0.57
20:R:34:PHE:CZ	20:R:134:LEU:C	2.81	0.57
24:V:72:ARG:HH21	24:V:221:GLU:CD	2.12	0.57
27:Y:69:ILE:CD1	27:Y:232:VAL:HB	2.34	0.57
1:1:333:ILE:HD11	1:1:343:PHE:CZ	2.39	0.57
1:1:363:ARG:NH2	1:1:366:GLN:HE22	2.02	0.57
1:1:561:MET:H	25:W:450:ARG:HH12	1.51	0.57
2:2:236:LEU:CA	2:2:242:LYS:HE3	2.34	0.57
2:2:296:PHE:HE2	3:A:1359:ASP:OD1	1.86	0.57
18:P:45:CYS:O	18:P:49:GLY:HA2	2.05	0.57
21:S:136:GLN:C	21:S:137:LYS:HD2	2.21	0.57
21:S:187:HIS:HE1	21:S:225:GLU:CB	2.07	0.57
27:Y:339:ILE:CG2	27:Y:343:LYS:HE3	2.34	0.57
27:Y:405:PHE:CD2	27:Y:437:PHE:CD2	2.92	0.57
27:Y:678:VAL:HG11	27:Y:708:LEU:CG	2.26	0.57
1:1:408:ILE:HG23	1:1:408:ILE:O	2.03	0.57
1:1:425:LEU:CA	1:1:429:THR:HA	2.35	0.57
3:A:839:ARG:NH2	3:A:1401:SER:O	2.35	0.57
3:A:1390:ASN:O	3:A:1399:ARG:HD3	2.04	0.57
4:B:65:GLU:OE1	4:B:247:GLY:HA2	2.04	0.57
16:N:49:DG:H2''	16:N:50:DC:OP1	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:55:DG:H2''	16:N:56:DT:OP1	2.04	0.57
18:P:193:GLN:NE2	18:P:203:PHE:CE1	2.72	0.57
20:R:141:ASN:OD1	20:R:142:PHE:HE1	1.87	0.57
22:T:130:DA:C4	22:T:131:DC:O4'	2.58	0.57
22:T:146:DT:H2''	22:T:147:DA:OP2	2.03	0.57
27:Y:466:LEU:HG	27:Y:479:LEU:HB2	1.85	0.57
27:Y:528:GLU:O	27:Y:532:ILE:HB	2.04	0.57
1:1:485:ILE:HG13	1:1:485:ILE:O	2.03	0.57
1:1:521:ASP:CG	1:1:523:LYS:HG2	2.28	0.57
6:D:159:THR:O	6:D:163:VAL:HG23	2.05	0.57
15:M:277:GLN:HB2	17:O:56:THR:HG23	1.85	0.57
16:N:15:DC:H2''	16:N:16:DC:OP2	2.04	0.57
21:S:134:TYR:OH	21:S:138:LYS:HE2	2.00	0.57
22:T:113:DT:H2''	22:T:114:DA:OP1	2.04	0.57
23:U:372:SER:HG	24:V:80:LYS:CE	2.05	0.57
24:V:63:ARG:HG3	24:V:215:VAL:CG1	2.34	0.57
27:Y:56:THR:CG2	27:Y:60:GLN:NE2	2.67	0.57
27:Y:639:LEU:HD21	27:Y:649:ARG:HD2	0.61	0.57
27:Y:653:PHE:HD1	27:Y:654:LEU:N	2.02	0.57
1:1:303:ARG:HD3	1:1:504:THR:CG2	2.35	0.57
1:1:347:HIS:HD2	1:1:348:ARG:HG3	1.66	0.57
1:1:376:ASN:HB3	1:1:380:ARG:N	2.11	0.57
1:1:436:ALA:HB3	1:1:452:LEU:CD2	2.34	0.57
3:A:192:GLY:HA2	22:T:116:DG:C3'	2.35	0.57
16:N:34:DT:H2''	16:N:35:DG:OP1	2.03	0.57
16:N:44:DA:H2''	16:N:45:DC:OP1	2.03	0.57
18:P:145:ILE:HG13	18:P:146:VAL:N	2.20	0.57
18:P:164:LYS:HG2	18:P:166:LYS:CB	2.34	0.57
20:R:46:LEU:HD13	20:R:46:LEU:O	2.04	0.57
27:Y:293:LEU:HD12	27:Y:345:ARG:HD3	1.84	0.57
27:Y:504:VAL:HG13	27:Y:686:PHE:HZ	1.67	0.57
1:1:372:LYS:HB3	1:1:535:LEU:CD2	2.35	0.57
1:1:415:VAL:HG13	1:1:416:SER:N	2.20	0.57
1:1:424:PHE:HE1	1:1:450:SER:HB3	1.63	0.57
1:1:505:ILE:HD12	1:1:510:LYS:NZ	2.19	0.57
2:2:253:LEU:HB3	3:A:1132:LYS:HZ3	1.70	0.57
3:A:588:LEU:HD23	3:A:607:ILE:HD12	1.86	0.57
4:B:885:MET:C	18:P:33:LYS:HZ1	2.12	0.57
10:H:44:VAL:HG13	10:H:48:PRO:HA	1.87	0.57
18:P:43:VAL:CG1	18:P:55:LYS:NZ	2.65	0.57
18:P:137:CYS:SG	18:P:142:LEU:CG	2.91	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:187:ARG:CZ	18:P:192:ILE:HB	2.35	0.57
18:P:264:LYS:H	18:P:264:LYS:CE	2.17	0.57
23:U:145:ARG:HA	23:U:145:ARG:CZ	2.35	0.57
24:V:318:LEU:CD1	24:V:349:TYR:CD2	2.86	0.57
27:Y:190:LEU:HD12	27:Y:190:LEU:C	2.29	0.57
27:Y:639:LEU:HG	27:Y:653:PHE:CD2	2.34	0.57
1:1:303:ARG:HD3	1:1:504:THR:HG22	1.86	0.57
1:1:460:VAL:CG1	16:N:63:DG:H4'	2.34	0.57
3:A:56:PRO:HD2	3:A:58:LEU:HG	1.86	0.57
4:B:121:ASN:HA	4:B:207:GLY:HA3	1.87	0.57
4:B:519:TRP:HZ2	4:B:705:MET:HE1	1.70	0.57
18:P:137:CYS:SG	18:P:142:LEU:CD2	2.78	0.57
20:R:130:LYS:NZ	20:R:130:LYS:HA	2.15	0.57
21:S:159:VAL:HG22	21:S:160:ILE:CG2	2.28	0.57
27:Y:639:LEU:CD2	27:Y:649:ARG:CB	2.78	0.57
27:Y:648:ILE:HD12	27:Y:652:ASP:OD2	2.04	0.57
1:1:335:TYR:HB3	1:1:336:PRO:HD3	1.86	0.57
1:1:476:PHE:CZ	1:1:502:VAL:HG22	2.40	0.57
2:2:252:ASN:HA	3:A:1204:ASP:O	2.05	0.57
5:C:39:ALA:HA	5:C:164:ALA:HB3	1.87	0.57
16:N:67:DG:H2''	16:N:68:DT:OP2	2.05	0.57
18:P:26:GLU:OE1	18:P:50:LEU:CG	2.51	0.57
18:P:187:ARG:NH2	18:P:192:ILE:HG22	2.18	0.57
18:P:264:LYS:HZ3	18:P:264:LYS:N	2.03	0.57
18:P:316:LEU:CD2	18:P:316:LEU:H	2.16	0.57
19:Q:115:ILE:HD13	19:Q:143:ILE:HD11	1.87	0.57
21:S:187:HIS:HE1	21:S:226:GLU:H	1.52	0.57
22:T:116:DG:N9	22:T:117:DC:C5	2.73	0.57
23:U:358:TYR:CD2	23:U:359:ASN:HB2	2.40	0.57
27:Y:185:CYS:SG	27:Y:192:PRO:CG	2.93	0.57
1:1:344:ARG:HA	1:1:344:ARG:HE	1.70	0.57
1:1:473:VAL:O	1:1:473:VAL:HG23	2.05	0.57
1:1:474:MET:CB	1:1:482:TRP:H	2.03	0.57
1:1:561:MET:C	25:W:450:ARG:NH1	2.58	0.57
2:2:300:GLU:HG3	2:2:300:GLU:O	2.04	0.57
3:A:1442:ASP:HB3	9:G:60:ARG:HH12	0.71	0.57
4:B:74:LEU:H	23:U:313:ALA:N	2.02	0.57
16:N:45:DC:H2'	16:N:46:DC:C6	2.40	0.57
18:P:22:LEU:HA	18:P:52:LEU:CD1	2.34	0.57
20:R:13:LEU:HD22	20:R:13:LEU:N	2.19	0.57
20:R:144:ARG:CB	20:R:146:GLU:CD	2.76	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:142:VAL:HG23	21:S:143:LEU:O	2.05	0.57
21:S:203:LYS:CG	21:S:242:ARG:CG	2.80	0.57
23:U:377:SER:OG	24:V:70:LEU:CD2	2.52	0.57
27:Y:39:ILE:HG12	27:Y:458:ILE:HD12	1.87	0.57
27:Y:109:THR:HG21	27:Y:113:ASN:HD22	1.69	0.57
27:Y:681:LEU:CD2	27:Y:696:TRP:CH2	2.87	0.57
1:1:394:LEU:HD12	1:1:394:LEU:H	1.69	0.57
1:1:473:VAL:HB	1:1:481:GLU:CG	2.35	0.57
3:A:93:VAL:HA	3:A:96:ILE:HD12	1.86	0.57
3:A:419:LYS:NZ	18:P:47:LEU:HA	2.20	0.57
16:N:24:DG:H2''	16:N:25:DG:H5''	1.86	0.57
18:P:191:GLU:OE1	18:P:192:ILE:HD13	2.05	0.57
18:P:289:PHE:CD1	18:P:291:ILE:N	2.72	0.57
20:R:44:LYS:HG2	20:R:54:LEU:HD22	1.87	0.57
20:R:61:LEU:HB3	20:R:66:LEU:HB2	1.86	0.57
20:R:71:LYS:HD2	20:R:71:LYS:C	2.30	0.57
23:U:358:TYR:CG	23:U:359:ASN:N	2.61	0.57
27:Y:39:ILE:CG1	27:Y:458:ILE:HD12	2.35	0.57
27:Y:213:LEU:HD13	27:Y:213:LEU:C	2.30	0.57
2:2:283:GLN:OE1	3:A:756:ILE:HD11	2.03	0.56
17:O:117:ASN:HD22	17:O:118:SER:N	2.03	0.56
18:P:91:ASN:O	18:P:92:LEU:HB3	2.05	0.56
20:R:143:ASP:OD1	20:R:144:ARG:CG	2.53	0.56
21:S:134:TYR:CE1	21:S:138:LYS:CE	2.86	0.56
22:T:100:DC:C4	22:T:101:DC:N4	2.73	0.56
22:T:139:DC:O5'	22:T:139:DC:H6	1.87	0.56
1:1:368:LYS:HD2	1:1:372:LYS:CD	2.35	0.56
3:A:5:GLN:HG3	4:B:1175:LEU:CD1	2.35	0.56
3:A:346:ASP:HB3	4:B:1108:ARG:H	1.70	0.56
3:A:1443:VAL:HG13	9:G:61:ILE:CG2	2.33	0.56
4:B:1215:ARG:NH1	6:D:15:LEU:HD11	2.19	0.56
18:P:22:LEU:CD2	18:P:22:LEU:O	2.46	0.56
18:P:252:VAL:C	18:P:285:ASN:OD1	2.46	0.56
18:P:299:GLY:CA	18:P:309:ILE:HD11	2.35	0.56
21:S:192:LEU:HA	21:S:195:LEU:HD23	1.87	0.56
27:Y:57:ILE:HG23	27:Y:58:ALA:N	2.20	0.56
27:Y:132:LYS:HA	27:Y:155:LEU:HD12	1.87	0.56
27:Y:208:TYR:CZ	27:Y:213:LEU:HG	2.40	0.56
27:Y:462:THR:CG2	27:Y:660:ARG:HG3	2.35	0.56
1:1:305:GLU:CB	1:1:327:LYS:HZ1	2.19	0.56
1:1:487:LEU:HD12	1:1:487:LEU:N	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:773:ILE:HD12	1:1:773:ILE:C	2.31	0.56
2:2:268:ARG:HG3	3:A:734:GLU:CD	2.31	0.56
4:B:343:ILE:HD11	22:T:121:DG:C4'	2.35	0.56
4:B:433:GLN:HB2	23:U:326:ARG:NE	2.20	0.56
4:B:911:ILE:HG22	4:B:912:ILE:HG13	1.87	0.56
6:D:167:LEU:HB3	6:D:177:VAL:HG22	1.87	0.56
18:P:21:VAL:HG22	18:P:22:LEU:N	2.20	0.56
18:P:29:VAL:C	18:P:30:TYR:CD1	2.83	0.56
18:P:160:GLU:CD	18:P:160:GLU:C	2.72	0.56
18:P:279:VAL:HG21	18:P:302:LEU:CB	2.32	0.56
20:R:13:LEU:HG	20:R:91:TYR:HD1	1.71	0.56
20:R:13:LEU:CD2	20:R:91:TYR:HE1	2.18	0.56
20:R:27:LEU:HD11	20:R:128:LEU:CB	2.35	0.56
21:S:128:LEU:CG	24:V:341:LYS:HD2	2.35	0.56
21:S:184:TYR:N	21:S:222:ASN:ND2	2.53	0.56
21:S:203:LYS:CB	21:S:242:ARG:NE	2.66	0.56
24:V:210:LYS:HG2	24:V:210:LYS:O	2.05	0.56
27:Y:443:SER:CB	27:Y:474:ASN:HB2	2.34	0.56
1:1:436:ALA:HB1	1:1:444:GLU:HB2	1.88	0.56
1:1:455:SER:HB3	1:1:466:ARG:CD	2.36	0.56
2:2:257:GLN:HG2	3:A:1284:MET:CB	2.34	0.56
18:P:185:VAL:HG13	18:P:186:ALA:H	1.71	0.56
20:R:28:VAL:CG1	20:R:43:LEU:HD21	2.26	0.56
20:R:44:LYS:HE3	20:R:54:LEU:HB2	1.85	0.56
21:S:210:LEU:CD2	21:S:214:TRP:HH2	2.18	0.56
27:Y:207:ILE:HD12	27:Y:207:ILE:N	2.20	0.56
27:Y:293:LEU:CD1	27:Y:345:ARG:HD3	2.34	0.56
27:Y:441:ASP:HB2	27:Y:641:PHE:CZ	2.41	0.56
27:Y:479:LEU:HD13	27:Y:479:LEU:N	2.21	0.56
2:2:291:GLU:H	2:2:292:PRO:CD	2.14	0.56
3:A:412:ARG:O	18:P:50:LEU:HA	2.06	0.56
21:S:210:LEU:HD22	21:S:214:TRP:HH2	1.71	0.56
22:T:144:DT:H2''	22:T:145:DT:OP2	2.03	0.56
24:V:74:PRO:HD2	24:V:223:GLN:CA	2.31	0.56
1:1:756:ARG:NH1	1:1:756:ARG:CG	2.41	0.56
3:A:22:PHE:CB	4:B:1211:ASN:CG	2.78	0.56
4:B:542:MET:HE1	4:B:743:ILE:HD12	1.86	0.56
15:M:45:LYS:HE3	17:O:21:ASP:HB3	1.88	0.56
18:P:267:LYS:HE3	18:P:269:ILE:H	1.70	0.56
18:P:277:ILE:O	18:P:277:ILE:CD1	2.44	0.56
20:R:130:LYS:HA	20:R:130:LYS:HE2	0.56	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:233:LEU:HD12	21:S:247:ASN:N	2.20	0.56
24:V:306:LEU:HD23	24:V:349:TYR:OH	2.06	0.56
24:V:333:LEU:HB3	24:V:337:ALA:HB3	1.86	0.56
27:Y:639:LEU:HD21	27:Y:649:ARG:HH11	1.70	0.56
27:Y:679:MET:HE2	27:Y:681:LEU:CD1	2.29	0.56
1:1:466:ARG:HB3	1:1:477:LEU:HB2	1.87	0.56
16:N:23:DA:N1	19:Q:116:PHE:CZ	2.70	0.56
18:P:22:LEU:HG	18:P:52:LEU:HD13	0.80	0.56
18:P:152:GLU:O	18:P:155:LYS:CG	2.54	0.56
18:P:208:ASN:O	18:P:211:LYS:CG	2.52	0.56
18:P:326:PRO:CD	18:P:328:LEU:N	2.64	0.56
20:R:13:LEU:HD22	20:R:13:LEU:H	1.70	0.56
21:S:154:LYS:HA	21:S:154:LYS:HZ1	1.14	0.56
22:T:151:DG:H2''	22:T:152:DC:C6	2.41	0.56
23:U:309:LEU:HD23	23:U:337:GLU:HG2	1.87	0.56
1:1:429:THR:N	1:1:432:PRO:HG2	2.20	0.56
4:B:313:MET:HE2	4:B:386:LEU:HD22	1.87	0.56
18:P:103:ASP:O	18:P:104:MET:C	2.47	0.56
18:P:200:THR:CG2	18:P:201:LYS:H	2.02	0.56
1:1:370:LEU:O	1:1:370:LEU:HD23	2.06	0.56
1:1:498:PHE:O	1:1:501:VAL:HG22	2.05	0.56
1:1:619:ALA:HA	1:1:622:MET:HE2	1.87	0.56
3:A:192:GLY:HA3	22:T:116:DG:H3'	1.88	0.56
4:B:54:PHE:HA	4:B:58:THR:HB	1.88	0.56
9:G:34:VAL:O	9:G:37:SER:HB3	2.06	0.56
15:M:279:ALA:HA	17:O:60:LEU:O	2.05	0.56
22:T:141:DC:H2'	22:T:142:DC:C6	2.41	0.56
1:1:475:ASP:O	1:1:505:ILE:HG12	2.06	0.56
1:1:522:ASP:OD1	1:1:524:ILE:HD11	2.06	0.56
2:2:252:ASN:HB3	3:A:1206:ASP:HB2	1.87	0.56
2:2:253:LEU:CB	3:A:1132:LYS:HZ3	2.18	0.56
4:B:952:VAL:HG22	4:B:966:VAL:HG13	1.88	0.56
8:F:96:THR:CG2	9:G:66:GLY:N	2.66	0.56
16:N:29:DT:H2''	16:N:30:DT:OP2	2.05	0.56
18:P:108:LYS:HA	18:P:111:ASN:HD21	1.70	0.56
27:Y:639:LEU:HD11	27:Y:653:PHE:CZ	2.35	0.56
1:1:378:ARG:HH21	1:1:508:HIS:CA	2.16	0.55
1:1:470:SER:HA	1:1:478:THR:CG2	2.36	0.55
2:2:290:ASP:CA	4:B:766:ARG:HH22	2.16	0.55
9:G:111:THR:HG22	9:G:113:HIS:H	1.72	0.55
16:N:28:DT:OP2	24:V:292:ILE:CA	2.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:60:DA:H2'	16:N:61:DA:H8	1.71	0.55
18:P:160:GLU:C	18:P:161:LYS:HG2	2.31	0.55
18:P:298:VAL:CG1	18:P:302:LEU:HD11	2.35	0.55
27:Y:479:LEU:HD13	27:Y:479:LEU:H	1.70	0.55
27:Y:621:LEU:HG	27:Y:680:VAL:CG1	2.36	0.55
27:Y:635:LEU:C	27:Y:635:LEU:HD13	2.31	0.55
1:1:383:ILE:HD13	1:1:383:ILE:H	1.71	0.55
1:1:428:CYS:HB3	1:1:432:PRO:CB	2.37	0.55
3:A:388:LEU:HA	3:A:391:LEU:HD12	1.88	0.55
3:A:1445:ILE:H	9:G:68:ALA:CA	2.19	0.55
4:B:789:MET:HE2	4:B:953:LEU:CD2	2.36	0.55
12:J:3:VAL:HG11	12:J:18:TRP:HB2	1.87	0.55
18:P:94:THR:HG21	18:P:110:LEU:CG	2.08	0.55
22:T:146:DT:C4	22:T:147:DA:N6	2.73	0.55
1:1:333:ILE:HD11	1:1:343:PHE:CE1	2.41	0.55
1:1:421:ARG:CG	1:1:430:LEU:HG	2.21	0.55
1:1:431:GLN:HB2	1:1:432:PRO:CD	2.37	0.55
8:F:79:ARG:HG2	8:F:144:GLU:HB3	1.88	0.55
8:F:106:PRO:HG2	9:G:16:SER:O	1.87	0.55
18:P:243:CYS:CB	18:P:253:THR:CG2	2.83	0.55
21:S:136:GLN:OE1	21:S:137:LYS:NZ	2.31	0.55
21:S:143:LEU:CD1	21:S:145:ASN:OD1	2.54	0.55
21:S:219:GLU:C	21:S:223:GLN:OE1	2.43	0.55
27:Y:495:MET:HG3	27:Y:681:LEU:CB	2.26	0.55
1:1:446:PHE:HB3	1:1:452:LEU:HD11	1.88	0.55
1:1:750:TYR:HB3	1:1:756:ARG:NH1	2.21	0.55
4:B:280:ILE:HD13	4:B:334:ILE:HG12	1.89	0.55
18:P:43:VAL:CG1	18:P:55:LYS:HE3	2.36	0.55
18:P:86:LEU:HD21	18:P:152:GLU:HG3	1.88	0.55
18:P:121:LYS:C	18:P:122:LYS:HG2	2.30	0.55
18:P:130:PHE:CA	18:P:133:ILE:CG2	2.82	0.55
18:P:142:LEU:HD22	18:P:147:LYS:HG3	0.56	0.55
18:P:144:LYS:O	18:P:148:ASP:OD2	2.25	0.55
18:P:289:PHE:CE2	18:P:291:ILE:HG12	2.40	0.55
19:Q:153:THR:CG2	19:Q:154:ASP:N	2.69	0.55
23:U:96:ASN:HD21	24:V:99:LYS:H	1.53	0.55
27:Y:124:ARG:HG2	27:Y:374:LEU:CB	2.36	0.55
27:Y:197:ARG:O	27:Y:200:ILE:HG22	2.07	0.55
27:Y:639:LEU:HA	27:Y:653:PHE:CD2	2.42	0.55
1:1:460:VAL:HG11	16:N:64:DG:OP2	2.00	0.55
1:1:618:TYR:HB3	1:1:622:MET:HE1	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:226:PHE:HA	4:B:395:GLN:HG3	1.87	0.55
18:P:193:GLN:HG2	18:P:199:LYS:HD3	1.85	0.55
18:P:267:LYS:HE3	18:P:269:ILE:N	2.22	0.55
20:R:130:LYS:C	20:R:131:TYR:CG	2.84	0.55
21:S:130:TRP:CZ2	24:V:334:ASP:OD1	2.59	0.55
21:S:183:THR:CB	21:S:222:ASN:HD21	2.20	0.55
21:S:210:LEU:CD2	21:S:214:TRP:CH2	2.90	0.55
27:Y:185:CYS:SG	27:Y:190:LEU:HD12	2.47	0.55
27:Y:586:TYR:CD1	27:Y:616:TYR:CZ	2.94	0.55
1:1:328:LYS:HD3	1:1:530:LEU:HD23	1.84	0.55
1:1:474:MET:HE3	1:1:482:TRP:N	2.22	0.55
1:1:574:ALA:HB1	1:1:774:GLU:OE2	2.05	0.55
3:A:64:ASN:ND2	18:P:18:LEU:HD13	2.20	0.55
3:A:345:VAL:N	4:B:1128:LEU:O	2.39	0.55
10:H:89:LEU:C	10:H:91:ASP:H	2.14	0.55
21:S:187:HIS:CE1	21:S:229:LYS:HZ1	2.25	0.55
22:T:105:DT:H2"	22:T:106:DT:OP1	2.05	0.55
27:Y:129:VAL:CG1	27:Y:194:PHE:HE1	2.19	0.55
1:1:485:ILE:HD13	1:1:505:ILE:HD13	1.87	0.55
1:1:493:VAL:HB	1:1:494:PRO:HD3	1.87	0.55
3:A:10:PRO:HG2	4:B:1192:TYR:HA	1.89	0.55
3:A:67:CYS:SG	3:A:77:CYS:SG	3.04	0.55
18:P:43:VAL:HG13	18:P:55:LYS:HZ3	1.71	0.55
18:P:108:LYS:HA	18:P:111:ASN:CG	2.31	0.55
18:P:188:THR:OG1	18:P:241:ARG:CB	2.55	0.55
18:P:255:SER:N	18:P:257:GLU:OE1	2.40	0.55
18:P:280:VAL:HG13	18:P:313:TYR:N	2.19	0.55
18:P:280:VAL:HG11	18:P:313:TYR:CA	2.30	0.55
23:U:118:LEU:HD12	23:U:392:VAL:HG22	1.89	0.55
27:Y:86:LEU:HD13	27:Y:103:PHE:CZ	2.42	0.55
27:Y:129:VAL:HG11	27:Y:194:PHE:HE1	1.71	0.55
1:1:528:ASN:HA	1:1:532:GLY:C	2.32	0.55
3:A:34:LYS:H	3:A:57:ARG:HH11	1.55	0.55
3:A:768:GLN:HG2	3:A:816:HIS:HA	1.88	0.55
3:A:993:LEU:HD22	3:A:1046:LEU:HD22	1.88	0.55
3:A:1015:VAL:HG13	3:A:1019:CYS:SG	2.47	0.55
6:D:40:HIS:HB3	9:G:73:LYS:CE	2.35	0.55
8:F:96:THR:HG22	9:G:66:GLY:HA2	1.89	0.55
8:F:118:LEU:O	8:F:122:MET:HG3	2.06	0.55
12:J:48:ARG:HE	12:J:49:MET:CE	2.20	0.55
18:P:279:VAL:HG21	18:P:302:LEU:HD22	0.58	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:283:TYR:CZ	18:P:287:LEU:HD11	2.41	0.55
19:Q:98:ARG:CZ	22:T:142:DC:H5''	2.37	0.55
20:R:52:THR:O	20:R:56:PRO:HD2	2.07	0.55
20:R:141:ASN:HB2	20:R:148:LEU:HD12	1.88	0.55
22:T:134:DT:C2'	24:V:323:ARG:O	2.38	0.55
23:U:107:PRO:CA	24:V:90:GLN:OE1	2.55	0.55
23:U:126:LYS:HB2	23:U:126:LYS:NZ	2.21	0.55
27:Y:109:THR:O	27:Y:114:LEU:HD22	2.06	0.55
1:1:310:ILE:CG1	1:1:313:VAL:HG23	2.36	0.55
1:1:515:ALA:C	1:1:681:ARG:CD	2.65	0.55
1:1:717:TYR:CZ	1:1:718:TYR:CD1	2.91	0.55
3:A:64:ASN:H	3:A:74:MET:HE1	1.72	0.55
3:A:253:ASN:O	3:A:255:SER:N	2.38	0.55
3:A:1399:ARG:HB3	3:A:1408:ILE:HD13	1.89	0.55
4:B:217:ARG:NH1	4:B:407:ASP:OD1	2.40	0.55
4:B:356:LEU:HA	4:B:360:PHE:HB3	1.89	0.55
18:P:225:ILE:HD11	18:P:227:THR:CA	2.36	0.55
24:V:69:TRP:CZ3	24:V:220:HIS:CD2	2.92	0.55
24:V:292:ILE:C	24:V:295:PRO:CD	2.54	0.55
27:Y:317:LEU:HD11	27:Y:415:GLY:CA	2.37	0.55
27:Y:490:LYS:HD2	27:Y:676:TYR:CE1	2.42	0.55
27:Y:555:GLN:O	27:Y:555:GLN:CD	2.50	0.55
1:1:365:TYR:CE2	1:1:366:GLN:HG3	2.42	0.55
1:1:455:SER:HB3	1:1:466:ARG:HG3	1.88	0.55
3:A:608:ILE:HD12	3:A:613:ILE:HD13	1.89	0.55
4:B:350:GLN:CB	23:U:407:ASP:OD2	2.54	0.55
8:F:109:VAL:HG23	8:F:127:GLU:OE1	2.07	0.55
16:N:36:DT:C2'	16:N:37:DA:C8	2.86	0.55
21:S:129:LEU:N	24:V:341:LYS:HG3	2.18	0.55
21:S:203:LYS:NZ	21:S:204:GLY:N	2.55	0.55
22:T:116:DG:C4	22:T:117:DC:C5	2.95	0.55
27:Y:111:ARG:HE	27:Y:129:VAL:HG21	1.71	0.55
27:Y:525:MET:HE3	27:Y:529:PHE:HZ	1.71	0.55
27:Y:669:VAL:CG1	27:Y:677:GLY:HA3	2.37	0.55
1:1:524:ILE:HD13	1:1:524:ILE:N	2.21	0.54
2:2:243:GLN:O	2:2:247:GLU:HG3	2.07	0.54
3:A:74:MET:O	4:B:1116:ARG:NH2	2.39	0.54
3:A:344:ARG:CA	4:B:1128:LEU:O	2.55	0.54
3:A:497:THR:HG23	4:B:1146:PHE:HA	1.89	0.54
4:B:486:TYR:HB3	4:B:1096:ARG:NH2	2.22	0.54
4:B:815:ARG:HH11	4:B:815:ARG:HG3	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:89:GLU:O	8:F:93:ILE:HD12	2.06	0.54
16:N:60:DA:C2'	16:N:61:DA:C8	2.86	0.54
17:O:117:ASN:ND2	17:O:119:LYS:HG2	2.22	0.54
20:R:29:LEU:HD13	20:R:66:LEU:HB3	1.88	0.54
20:R:124:CYS:H	20:R:130:LYS:CE	2.18	0.54
22:T:149:DA:H2''	22:T:150:DG:OP2	2.07	0.54
24:V:56:SER:O	24:V:57:LEU:CB	2.50	0.54
24:V:107:LEU:HD11	24:V:119:GLU:CG	2.19	0.54
27:Y:353:SER:OG	27:Y:378:SER:HB2	2.06	0.54
27:Y:458:ILE:HD13	27:Y:469:TYR:HE2	1.73	0.54
1:1:425:LEU:HD23	1:1:425:LEU:C	2.31	0.54
1:1:429:THR:C	1:1:432:PRO:HD2	2.31	0.54
1:1:429:THR:HG22	1:1:430:LEU:N	2.21	0.54
2:2:252:ASN:HA	3:A:1204:ASP:HA	1.89	0.54
3:A:204:THR:HG22	3:A:235:ILE:CG2	2.37	0.54
4:B:338:GLY:CA	4:B:339:THR:HB	2.38	0.54
15:M:231:ILE:HD13	19:Q:90:ARG:HE	1.72	0.54
18:P:320:ARG:NH2	18:P:337:ASP:CB	2.61	0.54
20:R:13:LEU:HD21	20:R:91:TYR:CE1	2.42	0.54
22:T:122:DT:C2'	22:T:123:DT:C7	2.86	0.54
23:U:135:LEU:CA	23:U:136:PRO:CD	2.85	0.54
24:V:128:VAL:O	24:V:130:GLU:N	2.40	0.54
27:Y:69:ILE:HD13	27:Y:232:VAL:HB	1.89	0.54
27:Y:353:SER:HB2	27:Y:375:ARG:HG2	1.90	0.54
1:1:458:SER:HB3	1:1:467:SER:CB	2.37	0.54
1:1:505:ILE:HG21	1:1:507:ALA:CB	2.37	0.54
1:1:561:MET:CA	25:W:450:ARG:HH22	2.06	0.54
3:A:33:ALA:HA	3:A:57:ARG:HD3	1.90	0.54
3:A:192:GLY:C	22:T:117:DC:OP2	2.51	0.54
13:K:57:LEU:HB2	13:K:76:GLN:HG2	1.88	0.54
16:N:24:DG:H2''	16:N:25:DG:C5'	2.37	0.54
19:Q:99:PHE:CG	22:T:143:DT:O5'	2.60	0.54
19:Q:99:PHE:HA	22:T:142:DC:O2	1.90	0.54
20:R:143:ASP:OD1	20:R:144:ARG:HG2	2.07	0.54
20:R:146:GLU:CD	20:R:146:GLU:N	2.64	0.54
21:S:129:LEU:CD2	24:V:347:PHE:CD1	2.89	0.54
23:U:374:VAL:CG2	24:V:73:LEU:CD1	2.84	0.54
27:Y:70:ILE:O	27:Y:70:ILE:HG13	2.07	0.54
27:Y:76:MET:HG2	27:Y:178:PHE:HE1	1.72	0.54
27:Y:128:VAL:HG21	27:Y:372:LYS:CA	2.31	0.54
27:Y:166:GLU:O	27:Y:170:TYR:HD1	1.91	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:289:LEU:HD12	27:Y:298:ILE:HG13	1.89	0.54
27:Y:627:PHE:HD1	27:Y:654:LEU:HD11	1.72	0.54
3:A:257:ARG:HB2	3:A:257:ARG:HH11	1.71	0.54
9:G:45:ILE:HA	9:G:78:VAL:HG12	1.88	0.54
16:N:17:DT:H2'	16:N:18:DA:H8	1.72	0.54
18:P:27:CYS:CB	18:P:47:LEU:CD2	2.49	0.54
18:P:42:ASP:C	18:P:55:LYS:HZ3	2.14	0.54
18:P:142:LEU:CD2	18:P:147:LYS:CD	2.79	0.54
18:P:225:ILE:HD13	18:P:226:ASP:N	2.23	0.54
20:R:127:CYS:SG	20:R:129:THR:HG21	2.46	0.54
21:S:158:LYS:HZ3	21:S:162:LEU:CD2	2.21	0.54
22:T:133:DT:H2'	22:T:134:DT:C6	2.42	0.54
27:Y:32:LEU:CB	27:Y:61:MET:HE2	2.35	0.54
1:1:320:ASN:HD22	1:1:321:GLU:N	2.06	0.54
1:1:354:ILE:HG22	1:1:355:ASP:N	2.23	0.54
1:1:494:PRO:HB2	1:1:519:ARG:HH11	1.72	0.54
3:A:416:ARG:CZ	18:P:37:ARG:HH21	2.21	0.54
4:B:1100:ASP:OD2	13:K:1:MET:HB3	2.08	0.54
18:P:320:ARG:NH2	18:P:337:ASP:OD2	2.41	0.54
20:R:61:LEU:CB	20:R:67:ILE:HD12	2.38	0.54
22:T:96:DC:H2''	22:T:97:DC:OP2	2.06	0.54
23:U:100:GLU:OE2	24:V:96:ARG:HD2	2.08	0.54
1:1:345:ASN:HD21	1:1:348:ARG:HE	1.55	0.54
2:2:231:CYS:CA	2:2:232:ASP:CA	2.85	0.54
2:2:293:LEU:HD23	2:2:293:LEU:N	2.23	0.54
3:A:42:ASP:OD1	3:A:46:THR:N	2.41	0.54
3:A:338:GLY:HA2	4:B:1129:ARG:NH2	2.23	0.54
3:A:1349:TYR:HA	3:A:1372:VAL:HG21	1.90	0.54
3:A:1443:VAL:CA	9:G:63:PRO:N	2.68	0.54
18:P:196:ILE:HG23	18:P:197:HIS:H	1.71	0.54
18:P:279:VAL:HG22	18:P:302:LEU:HD21	0.63	0.54
21:S:130:TRP:CD2	24:V:339:LEU:CG	2.37	0.54
21:S:130:TRP:CZ3	24:V:337:ALA:C	2.85	0.54
27:Y:353:SER:OG	27:Y:378:SER:HA	2.08	0.54
20:R:123:MET:HA	20:R:130:LYS:HD3	1.82	0.54
20:R:140:LEU:HD12	20:R:146:GLU:O	2.08	0.54
27:Y:185:CYS:CB	27:Y:192:PRO:CG	2.81	0.54
27:Y:244:CYS:HB3	27:Y:442:ALA:CB	2.22	0.54
27:Y:369:ILE:O	27:Y:370:GLU:CB	2.54	0.54
6:D:18:VAL:HG22	6:D:19:GLU:HA	1.88	0.54
18:P:208:ASN:O	18:P:212:ASN:ND2	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Q:230:ILE:HG13	19:Q:234:LEU:HD13	1.90	0.54
20:R:129:THR:HG21	20:R:131:TYR:OH	2.07	0.54
21:S:233:LEU:CD1	21:S:246:TYR:C	2.80	0.54
24:V:82:ARG:NE	24:V:108:LEU:CD1	2.61	0.54
27:Y:342:LEU:HD12	27:Y:346:MET:HE2	1.90	0.54
27:Y:360:LEU:HD13	27:Y:364:LYS:HD2	1.89	0.54
1:1:408:ILE:HG12	1:1:466:ARG:NE	2.22	0.54
1:1:410:LEU:HD13	1:1:477:LEU:CD2	2.38	0.54
1:1:467:SER:H	1:1:477:LEU:HD23	1.70	0.54
1:1:519:ARG:HH11	1:1:523:LYS:HB2	1.73	0.54
2:2:290:ASP:C	4:B:766:ARG:HH22	2.14	0.54
4:B:510:LYS:HB2	4:B:513:GLN:OE1	2.08	0.54
8:F:96:THR:HG23	9:G:65:ASP:O	1.63	0.54
9:G:131:GLN:HG2	9:G:136:VAL:HG22	1.90	0.54
12:J:24:LEU:O	12:J:30:LEU:HB2	2.08	0.54
17:O:117:ASN:HD22	17:O:118:SER:H	1.55	0.54
18:P:170:SER:CB	18:P:205:LYS:CE	2.83	0.54
18:P:189:PHE:H	18:P:241:ARG:HH22	1.53	0.54
21:S:130:TRP:CZ3	24:V:338:THR:CA	2.91	0.54
23:U:377:SER:CB	24:V:70:LEU:HD22	2.37	0.54
24:V:306:LEU:HD23	24:V:318:LEU:HD21	1.87	0.54
1:1:357:LYS:HG3	1:1:357:LYS:O	2.08	0.54
1:1:499:ARG:CG	1:1:530:LEU:HD12	2.37	0.54
1:1:505:ILE:HG22	1:1:506:ALA:N	2.22	0.54
3:A:316:GLN:CA	18:P:92:LEU:HD23	2.38	0.54
4:B:343:ILE:CG1	22:T:121:DG:C5'	2.51	0.54
15:M:246:CYS:HB3	15:M:265:GLY:HA3	1.89	0.54
19:Q:103:ILE:HG23	22:T:144:DT:H5''	1.89	0.54
21:S:231:LEU:HA	21:S:232:VAL:HG12	1.90	0.54
22:T:116:DG:H1'	22:T:117:DC:H5'	1.90	0.54
24:V:333:LEU:CB	24:V:337:ALA:CB	2.86	0.54
27:Y:167:VAL:HG22	27:Y:190:LEU:CD2	2.37	0.54
27:Y:405:PHE:CD2	27:Y:437:PHE:CE2	2.96	0.54
27:Y:463:ILE:HD11	27:Y:469:TYR:CG	2.43	0.54
1:1:314:HIS:HB3	1:1:325:VAL:HG11	1.89	0.53
1:1:373:MET:CE	1:1:511:LEU:HD13	2.38	0.53
1:1:466:ARG:HB2	1:1:477:LEU:CB	2.38	0.53
2:2:235:ASP:CA	2:2:242:LYS:HG3	2.39	0.53
3:A:1004:ASN:CG	7:E:167:ARG:HD2	2.33	0.53
4:B:405:ARG:NH2	4:B:629:ASP:OD2	2.40	0.53
18:P:54:ASP:O	18:P:56:LEU:CD1	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:111:ASN:OD1	18:P:112:LYS:N	2.41	0.53
18:P:225:ILE:CD1	18:P:226:ASP:C	2.80	0.53
20:R:30:ASP:OD2	20:R:151:LEU:HD21	2.08	0.53
21:S:179:LYS:HD3	21:S:179:LYS:N	2.20	0.53
22:T:111:DC:H2''	22:T:112:DT:OP1	2.07	0.53
27:Y:635:LEU:HD13	27:Y:635:LEU:O	2.07	0.53
1:1:563:ALA:HA	25:W:450:ARG:NE	2.23	0.53
1:1:627:ILE:HB	1:1:654:LEU:CD2	2.37	0.53
3:A:982:THR:HB	3:A:985:ASP:H	1.73	0.53
7:E:94:LYS:HE2	7:E:98:ILE:HD11	1.89	0.53
16:N:50:DC:H2''	16:N:51:DA:OP1	2.08	0.53
18:P:133:ILE:CG2	18:P:151:LYS:HD2	2.37	0.53
20:R:34:PHE:CE2	20:R:134:LEU:CD2	2.49	0.53
21:S:136:GLN:HB3	21:S:137:LYS:CE	2.37	0.53
27:Y:109:THR:HB	27:Y:114:LEU:HD13	1.89	0.53
1:1:429:THR:H	1:1:432:PRO:HG2	1.74	0.53
1:1:485:ILE:CG1	1:1:510:LYS:HG2	2.39	0.53
2:2:305:ARG:O	3:A:1360:GLY:HA2	2.07	0.53
3:A:666:ILE:HD11	4:B:1030:LEU:HD13	1.90	0.53
4:B:90:ILE:HD11	4:B:134:LYS:HE2	1.91	0.53
8:F:92:ARG:NE	9:G:64:THR:CA	2.60	0.53
12:J:1:MET:HB2	12:J:56:LEU:HB2	1.89	0.53
18:P:37:ARG:CZ	18:P:40:GLU:HB2	2.39	0.53
21:S:143:LEU:HD13	21:S:145:ASN:N	2.20	0.53
22:T:155:DC:H2'	22:T:156:DT:C6	2.43	0.53
23:U:119:LEU:CD1	24:V:135:PHE:CD2	2.91	0.53
24:V:118:HIS:ND1	24:V:120:TYR:CE2	2.77	0.53
27:Y:242:ASN:ND2	27:Y:660:ARG:HH22	2.05	0.53
27:Y:317:LEU:CD2	27:Y:409:ILE:CG2	2.81	0.53
27:Y:353:SER:HB2	27:Y:378:SER:N	2.17	0.53
27:Y:360:LEU:HD11	27:Y:364:LYS:CE	2.38	0.53
3:A:16:GLU:CD	6:D:14:ARG:HH12	2.16	0.53
3:A:193:ASP:N	22:T:117:DC:OP1	2.40	0.53
16:N:38:DT:H2''	16:N:39:DC:OP1	2.07	0.53
18:P:190:LYS:NZ	18:P:303:GLN:N	2.38	0.53
18:P:280:VAL:HG11	18:P:312:GLY:C	2.34	0.53
20:R:130:LYS:O	20:R:131:TYR:CD1	2.62	0.53
22:T:109:DT:H2''	22:T:110:DA:OP1	2.07	0.53
22:T:132:DA:H2''	22:T:133:DT:OP1	2.06	0.53
27:Y:705:ASP:OD1	27:Y:706:LEU:N	2.41	0.53
2:2:290:ASP:HA	4:B:766:ARG:CZ	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:412:ARG:H	18:P:51:VAL:HG12	1.73	0.53
3:A:1376:THR:HG23	7:E:212:ARG:HH22	1.72	0.53
4:B:343:ILE:O	4:B:344:LYS:HB2	2.07	0.53
4:B:350:GLN:NE2	23:U:411:LYS:NZ	2.56	0.53
16:N:55:DG:H2''	16:N:56:DT:H73	1.91	0.53
18:P:196:ILE:CG2	18:P:197:HIS:H	2.22	0.53
18:P:269:ILE:HD12	18:P:315:ILE:CG2	2.38	0.53
21:S:218:ASP:CB	21:S:223:GLN:NE2	2.70	0.53
21:S:221:ILE:O	21:S:225:GLU:HB2	2.08	0.53
27:Y:42:MET:HG3	27:Y:48:LYS:CG	2.34	0.53
27:Y:245:ILE:CG2	27:Y:439:CYS:O	2.48	0.53
1:1:466:ARG:HE	1:1:475:ASP:CB	2.22	0.53
1:1:584:ASN:CG	1:1:586:THR:CG2	2.82	0.53
1:1:695:ARG:HA	1:1:696:ARG:HH22	1.67	0.53
2:2:254:TYR:C	2:2:256:ALA:H	2.17	0.53
3:A:18:GLN:HG2	3:A:1418:LEU:HD13	1.89	0.53
7:E:19:VAL:O	7:E:23:VAL:HG23	2.08	0.53
12:J:48:ARG:HE	12:J:49:MET:HE2	1.74	0.53
20:R:61:LEU:HB2	20:R:67:ILE:HD12	1.89	0.53
20:R:124:CYS:HB3	20:R:129:THR:HG22	1.89	0.53
21:S:148:LEU:C	21:S:154:LYS:HE2	2.34	0.53
21:S:196:LEU:HD12	21:S:197:ARG:N	2.23	0.53
3:A:541:ILE:HG22	3:A:546:VAL:HG23	1.91	0.53
16:N:19:DT:P	19:Q:194:ILE:HD13	2.49	0.53
16:N:20:DA:O4'	19:Q:215:THR:CG2	2.56	0.53
16:N:21:DA:O4'	19:Q:159:ASN:HB2	2.08	0.53
16:N:48:DG:C4	16:N:49:DG:N7	2.77	0.53
16:N:59:DT:H2''	16:N:60:DA:C8	2.44	0.53
18:P:143:PRO:CB	18:P:182:ARG:NH2	2.50	0.53
18:P:252:VAL:HG22	18:P:285:ASN:HD21	1.73	0.53
20:R:13:LEU:HG	20:R:91:TYR:CD1	2.42	0.53
20:R:125:PRO:CD	20:R:155:PRO:O	2.57	0.53
22:T:152:DC:H2'	22:T:153:DG:H8	1.73	0.53
23:U:142:LYS:HB2	23:U:351:VAL:HG23	1.91	0.53
24:V:333:LEU:CA	24:V:337:ALA:HB2	2.38	0.53
27:Y:42:MET:SD	27:Y:53:LEU:CD1	2.93	0.53
27:Y:526:LEU:HD12	27:Y:621:LEU:HD22	1.91	0.53
27:Y:555:GLN:HG3	27:Y:564:TRP:HE1	1.73	0.53
1:1:421:ARG:HD3	1:1:437:VAL:CG2	2.39	0.53
1:1:473:VAL:HG12	1:1:481:GLU:CG	2.39	0.53
1:1:596:GLN:O	1:1:600:ARG:HG3	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:737:THR:O	1:1:738:HIS:HD2	1.92	0.53
4:B:560:GLU:OE1	24:V:226:PRO:HG3	2.08	0.53
18:P:189:PHE:HD1	18:P:241:ARG:HH21	1.55	0.53
18:P:254:THR:CA	18:P:257:GLU:CD	2.81	0.53
18:P:264:LYS:HZ3	18:P:264:LYS:H	1.56	0.53
18:P:303:GLN:NE2	18:P:304:VAL:CG2	2.49	0.53
18:P:313:TYR:CA	18:P:316:LEU:CD2	2.86	0.53
20:R:30:ASP:OD2	20:R:151:LEU:CD1	2.57	0.53
20:R:95:ILE:HG23	20:R:95:ILE:O	2.08	0.53
23:U:341:LYS:HE2	23:U:341:LYS:HA	1.90	0.53
24:V:128:VAL:C	24:V:130:GLU:H	2.16	0.53
3:A:1172:LEU:C	3:A:1174:PHE:H	2.16	0.53
3:A:1390:ASN:O	3:A:1399:ARG:CG	2.57	0.53
4:B:1103:ILE:O	4:B:1122:ARG:NH1	2.42	0.53
5:C:52:GLU:HA	14:L:64:LEU:HD22	1.91	0.53
16:N:68:DT:H2''	16:N:69:DG:OP2	2.09	0.53
18:P:63:TRP:HD1	18:P:82:ALA:H	1.54	0.53
18:P:190:LYS:HE3	18:P:242:PHE:CD1	2.31	0.53
19:Q:173:GLU:H	19:Q:173:GLU:CD	2.15	0.53
21:S:130:TRP:NE1	24:V:334:ASP:OD1	2.41	0.53
21:S:244:VAL:N	21:S:245:TRP:HZ3	2.04	0.53
23:U:355:PHE:O	23:U:356:ASP:CB	2.55	0.53
27:Y:129:VAL:HG11	27:Y:194:PHE:CE1	2.44	0.53
27:Y:389:GLU:O	27:Y:400:LYS:HE2	2.09	0.53
27:Y:400:LYS:HG3	27:Y:437:PHE:CG	2.44	0.53
1:1:446:PHE:HB3	1:1:452:LEU:CD1	2.39	0.53
3:A:54:ASN:HB3	3:A:247:ARG:HH12	1.74	0.53
3:A:658:LEU:HD23	3:A:659:HIS:NE2	2.24	0.53
5:C:164:ALA:HA	5:C:167:HIS:O	2.09	0.53
8:F:96:THR:OG1	9:G:64:THR:CA	2.57	0.53
8:F:134:ILE:HG22	8:F:136:ARG:HG3	1.91	0.53
16:N:19:DT:C2'	16:N:20:DA:C5'	2.86	0.53
19:Q:103:ILE:HG12	22:T:143:DT:H2''	0.60	0.53
21:S:156:ASP:C	21:S:159:VAL:HG13	2.31	0.53
21:S:162:LEU:HD23	21:S:162:LEU:H	1.73	0.53
22:T:117:DC:C2'	22:T:118:DC:H5'	2.27	0.53
23:U:346:GLU:OE1	23:U:346:GLU:N	2.41	0.53
23:U:373:TYR:CD2	24:V:72:ARG:NH1	2.75	0.53
26:X:19:LEU:CD1	26:X:58:LEU:HD11	2.39	0.53
27:Y:350:HIS:N	27:Y:384:LEU:HG	2.24	0.53
1:1:473:VAL:CB	1:1:481:GLU:HG3	2.38	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:621:LYS:HZ2	1:1:621:LYS:HB2	1.72	0.52
3:A:338:GLY:HA2	4:B:1129:ARG:HH22	1.73	0.52
4:B:295:GLY:HA2	4:B:298:LEU:HB2	1.91	0.52
15:M:7:SER:O	15:M:11:GLU:HG3	2.08	0.52
18:P:30:TYR:O	18:P:30:TYR:HD2	1.92	0.52
18:P:289:PHE:HZ	18:P:291:ILE:HD11	1.70	0.52
19:Q:65:PRO:HG2	19:Q:224:TYR:HD1	1.72	0.52
20:R:44:LYS:HE3	20:R:54:LEU:CG	2.39	0.52
21:S:127:LYS:HA	21:S:153:MET:HE2	1.89	0.52
23:U:330:ARG:HG3	23:U:331:GLN:HG2	1.91	0.52
27:Y:46:THR:OG1	27:Y:485:MET:SD	2.61	0.52
1:1:373:MET:HE2	1:1:384:ILE:HD13	1.92	0.52
1:1:487:LEU:HD22	1:1:490:VAL:CG2	2.33	0.52
3:A:320:ARG:HG2	3:A:321:PRO:HD2	1.89	0.52
5:C:37:MET:HE3	5:C:176:ILE:HD13	1.90	0.52
5:C:73:GLN:O	5:C:129:ILE:HA	2.08	0.52
16:N:32:DA:O5'	16:N:32:DA:H8	1.93	0.52
18:P:181:ARG:HG2	18:P:181:ARG:O	2.09	0.52
24:V:333:LEU:HA	24:V:337:ALA:CB	2.37	0.52
27:Y:37:ASN:OD1	27:Y:477:THR:HB	2.10	0.52
27:Y:193:TYR:HH	27:Y:221:ARG:NH1	2.03	0.52
1:1:403:ILE:HD13	1:1:484:PHE:HD2	1.75	0.52
3:A:33:ALA:HB2	3:A:57:ARG:HB2	1.90	0.52
3:A:1397:LEU:HB3	3:A:1429:ILE:HD12	1.90	0.52
18:P:34:ILE:HD11	18:P:43:VAL:HG11	1.92	0.52
18:P:303:GLN:CG	18:P:304:VAL:N	2.70	0.52
19:Q:77:GLY:O	19:Q:151:LYS:HE2	2.09	0.52
27:Y:193:TYR:OH	27:Y:197:ARG:HD2	2.09	0.52
3:A:411:ASP:CG	18:P:51:VAL:CG1	2.67	0.52
4:B:291:ILE:H	4:B:291:ILE:HD12	1.74	0.52
16:N:23:DA:H2	19:Q:116:PHE:CZ	1.96	0.52
18:P:142:LEU:CB	18:P:147:LYS:HD3	2.39	0.52
18:P:167:SER:O	18:P:168:MET:HB3	2.09	0.52
21:S:187:HIS:HE1	21:S:226:GLU:N	2.05	0.52
27:Y:42:MET:CG	27:Y:48:LYS:HG3	2.35	0.52
27:Y:384:LEU:HD13	27:Y:384:LEU:C	2.34	0.52
1:1:458:SER:OG	1:1:467:SER:HB3	2.08	0.52
1:1:476:PHE:O	1:1:501:VAL:HG23	2.08	0.52
1:1:619:ALA:HA	1:1:622:MET:CE	2.39	0.52
3:A:12:ARG:NH1	4:B:1218:THR:OG1	2.43	0.52
3:A:91:PHE:HD2	3:A:179:LEU:O	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:646:PHE:O	3:A:650:GLN:HG2	2.10	0.52
4:B:249:ARG:HH12	4:B:418:LYS:CD	2.22	0.52
13:K:55:LYS:HB3	13:K:81:TYR:CD2	2.45	0.52
17:O:87:VAL:O	17:O:88:GLU:HB2	2.09	0.52
18:P:184:GLU:HG3	18:P:184:GLU:O	2.10	0.52
18:P:303:GLN:CG	18:P:304:VAL:HG23	2.34	0.52
19:Q:106:ILE:HG23	19:Q:139:TYR:CE1	2.45	0.52
20:R:122:TYR:CE2	20:R:136:ALA:HB2	2.44	0.52
20:R:123:MET:HE3	20:R:129:THR:O	2.07	0.52
21:S:134:TYR:CE1	21:S:138:LYS:NZ	2.77	0.52
27:Y:42:MET:HG2	27:Y:48:LYS:HG2	1.91	0.52
27:Y:111:ARG:HH22	27:Y:197:ARG:HH12	1.57	0.52
27:Y:384:LEU:HD13	27:Y:384:LEU:O	2.10	0.52
27:Y:506:ILE:HD13	27:Y:506:ILE:N	2.25	0.52
3:A:340:LEU:HD21	4:B:1199:ALA:HB3	1.91	0.52
4:B:560:GLU:CA	24:V:225:MET:HE1	2.40	0.52
16:N:69:DG:H2''	16:N:70:DG:OP2	2.08	0.52
18:P:94:THR:CG2	18:P:110:LEU:CD1	2.87	0.52
18:P:339:LEU:H	18:P:339:LEU:HD12	1.74	0.52
22:T:97:DC:H2''	22:T:98:DA:OP2	2.09	0.52
23:U:365:TYR:CZ	23:U:391:LYS:HD2	2.44	0.52
27:Y:24:TYR:CE2	27:Y:482:SER:CB	2.79	0.52
27:Y:32:LEU:HD12	27:Y:57:ILE:CD1	2.39	0.52
27:Y:655:SER:O	27:Y:689:LYS:NZ	2.43	0.52
27:Y:697:ILE:HG21	27:Y:699:GLN:NE2	2.25	0.52
1:I:356:LEU:CB	1:I:427:TRP:HD1	2.22	0.52
4:B:438:GLU:HG3	4:B:440:HIS:HB2	1.91	0.52
18:P:142:LEU:CG	18:P:143:PRO:HD2	2.31	0.52
18:P:164:LYS:O	18:P:165:GLY:C	2.52	0.52
18:P:289:PHE:CE1	18:P:291:ILE:N	2.73	0.52
20:R:64:ASP:O	20:R:65:ARG:HB2	2.09	0.52
20:R:139:LEU:HD22	20:R:148:LEU:O	2.10	0.52
20:R:156:LEU:C	20:R:157:VAL:HG23	2.35	0.52
21:S:141:PRO:HB3	21:S:177:THR:HG23	1.92	0.52
21:S:203:LYS:CD	21:S:242:ARG:NE	2.73	0.52
23:U:111:LEU:HB3	24:V:139:ASN:OD1	2.09	0.52
24:V:295:PRO:O	24:V:299:ILE:CG1	2.56	0.52
27:Y:179:GLU:HG2	27:Y:180:LYS:N	2.25	0.52
27:Y:185:CYS:HB3	27:Y:192:PRO:HD3	1.90	0.52
27:Y:412:TYR:N	27:Y:412:TYR:CD1	2.78	0.52
16:N:28:DT:OP2	24:V:295:PRO:HD2	2.07	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:51:VAL:CG2	18:P:52:LEU:N	2.73	0.52
18:P:152:GLU:CG	18:P:155:LYS:CE	2.63	0.52
18:P:320:ARG:CG	18:P:321:ASP:N	2.69	0.52
21:S:136:GLN:HB3	21:S:137:LYS:CD	2.40	0.52
27:Y:176:PHE:N	27:Y:176:PHE:HD1	2.05	0.52
27:Y:253:THR:HG22	27:Y:416:PHE:HB3	1.91	0.52
1:1:476:PHE:HD2	1:1:477:LEU:HD12	1.66	0.52
2:2:284:LEU:CD1	3:A:1080:THR:HG22	2.33	0.52
3:A:22:PHE:HB3	4:B:1211:ASN:OD1	2.08	0.52
3:A:494:SER:HB3	3:A:497:THR:OG1	2.10	0.52
7:E:156:LEU:HD11	7:E:197:LYS:HB2	1.90	0.52
9:G:119:LEU:HD12	9:G:132:SER:HB2	1.91	0.52
18:P:54:ASP:O	18:P:56:LEU:HD12	2.10	0.52
18:P:225:ILE:CD1	18:P:227:THR:CA	2.87	0.52
18:P:252:VAL:CG1	18:P:285:ASN:HD21	2.16	0.52
20:R:38:LEU:O	20:R:87:TYR:HD1	1.93	0.52
21:S:130:TRP:HE3	24:V:338:THR:O	1.88	0.52
24:V:63:ARG:HG3	24:V:215:VAL:HG12	1.92	0.52
27:Y:215:ASP:CB	27:Y:218:ILE:HG22	2.40	0.52
1:1:414:SER:O	1:1:417:VAL:HB	2.10	0.52
1:1:484:PHE:HD2	1:1:509:ALA:HB3	1.74	0.52
1:1:498:PHE:O	1:1:501:VAL:HG13	2.10	0.52
3:A:22:PHE:HB2	4:B:1211:ASN:OD1	2.08	0.52
3:A:227:VAL:CG1	6:D:16:LYS:HE3	2.40	0.52
4:B:174:LEU:HD11	4:B:204:ILE:HG13	1.91	0.52
18:P:143:PRO:C	18:P:147:LYS:HB2	2.28	0.52
20:R:129:THR:OG1	20:R:130:LYS:N	2.41	0.52
20:R:135:GLU:HA	20:R:138:GLN:HG2	1.91	0.52
20:R:151:LEU:HD22	20:R:151:LEU:H	1.73	0.52
22:T:140:DC:C1'	22:T:141:DC:C5	2.92	0.52
24:V:127:LYS:HB3	24:V:221:GLU:HG3	1.92	0.52
24:V:333:LEU:HD13	24:V:349:TYR:HD2	1.75	0.52
27:Y:132:LYS:CA	27:Y:155:LEU:HD12	2.40	0.52
1:1:353:ASP:HA	1:1:447:GLN:CD	2.34	0.51
1:1:446:PHE:O	1:1:452:LEU:HD22	2.09	0.51
3:A:1116:LEU:H	3:A:1308:THR:HB	1.73	0.51
16:N:22:DA:H4'	19:Q:158:GLN:HG3	1.92	0.51
18:P:45:CYS:C	18:P:47:LEU:H	2.17	0.51
18:P:223:LEU:CD2	19:Q:177:PHE:CE1	2.93	0.51
18:P:313:TYR:CD2	18:P:340:PRO:HG2	2.45	0.51
21:S:130:TRP:CH2	24:V:337:ALA:C	2.88	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:T:130:DA:N9	22:T:131:DC:O4'	2.43	0.51
1:1:754:ARG:HH12	1:1:754:ARG:HG2	0.69	0.51
3:A:1149:ALA:HB2	11:I:47:GLU:HA	1.92	0.51
8:F:73:ALA:HB2	8:F:143:PHE:CZ	2.46	0.51
13:K:49:GLU:HG3	13:K:94:ILE:CG1	2.40	0.51
16:N:22:DA:H4'	19:Q:158:GLN:CG	2.40	0.51
18:P:143:PRO:O	18:P:147:LYS:CA	2.56	0.51
18:P:290:GLN:HG2	18:P:331:ASN:CG	2.24	0.51
20:R:154:GLU:OE2	20:R:155:PRO:N	2.43	0.51
21:S:148:LEU:CA	21:S:154:LYS:HE2	2.38	0.51
27:Y:28:ILE:HG22	27:Y:57:ILE:HD11	1.81	0.51
27:Y:252:LEU:HD11	27:Y:383:LEU:HG	1.92	0.51
27:Y:681:LEU:HD21	27:Y:696:TRP:HH2	1.75	0.51
1:1:410:LEU:CD2	1:1:457:TYR:CE2	2.94	0.51
1:1:424:PHE:CE2	1:1:454:VAL:CG2	2.94	0.51
2:2:207:ILE:CA	3:A:1172:LEU:CD2	2.86	0.51
3:A:179:LEU:HD13	3:A:297:GLN:HG3	1.91	0.51
3:A:227:VAL:HG13	6:D:16:LYS:HG2	1.91	0.51
3:A:940:ARG:HB3	3:A:941:LYS:HE2	1.92	0.51
18:P:41:GLY:O	18:P:42:ASP:HB2	2.09	0.51
18:P:224:LYS:NZ	18:P:229:ASN:CG	2.60	0.51
20:R:126:ILE:CB	20:R:154:GLU:CG	2.84	0.51
22:T:121:DG:C2'	22:T:122:DT:C5'	2.86	0.51
23:U:387:ILE:CG2	23:U:388:PRO:HD2	2.40	0.51
24:V:109:ASN:CG	24:V:111:ASN:OD1	2.53	0.51
27:Y:111:ARG:NH2	27:Y:197:ARG:NH1	2.58	0.51
27:Y:619:THR:HG22	27:Y:621:LEU:HD12	1.93	0.51
1:1:420:TRP:HB3	1:1:424:PHE:CE2	2.45	0.51
1:1:489:GLU:HB3	1:1:491:HIS:CE1	2.45	0.51
1:1:659:ASP:CG	1:1:686:ARG:HD3	2.36	0.51
3:A:357:PRO:HD2	4:B:833:TYR:CZ	2.45	0.51
18:P:302:LEU:HB2	18:P:304:VAL:HG23	1.72	0.51
20:R:68:SER:HB3	20:R:90:LYS:HZ3	1.74	0.51
21:S:175:LYS:HA	21:S:175:LYS:HZ3	1.14	0.51
22:T:136:DA:H2'	22:T:137:DA:C8	2.46	0.51
22:T:138:DA:H2''	22:T:139:DC:H5	1.75	0.51
1:1:490:VAL:O	1:1:490:VAL:HG22	2.11	0.51
2:2:260:THR:CA	2:2:260:THR:HB	2.20	0.51
3:A:7:SER:HG	4:B:1161:HIS:CE1	2.24	0.51
3:A:23:SER:HB2	3:A:233:TRP:CE2	2.45	0.51
17:O:71:PHE:HE2	19:Q:95:ASN:HB2	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:290:GLN:HG3	18:P:331:ASN:ND2	2.15	0.51
18:P:299:GLY:HA2	18:P:309:ILE:HD11	1.91	0.51
21:S:166:LEU:C	21:S:166:LEU:HD13	2.33	0.51
1:1:476:PHE:CZ	1:1:487:LEU:CD2	2.93	0.51
1:1:518:VAL:HA	1:1:524:ILE:HG21	1.92	0.51
1:1:596:GLN:NE2	1:1:746:PRO:CD	2.73	0.51
3:A:67:CYS:C	3:A:68:GLN:HG3	2.34	0.51
3:A:1444:MET:HB2	8:F:133:VAL:HG12	1.92	0.51
4:B:530:GLY:O	4:B:532:ALA:N	2.44	0.51
16:N:37:DA:H2''	16:N:38:DT:OP1	2.09	0.51
16:N:52:DT:H2''	16:N:53:DA:OP1	2.09	0.51
16:N:56:DT:C2'	16:N:57:DA:C5'	2.85	0.51
18:P:269:ILE:HD12	18:P:269:ILE:N	2.26	0.51
18:P:279:VAL:HG22	18:P:302:LEU:CD2	1.04	0.51
19:Q:166:VAL:HG11	19:Q:234:LEU:HD23	1.93	0.51
22:T:117:DC:C2'	22:T:118:DC:C5'	2.86	0.51
24:V:69:TRP:HZ3	24:V:71:VAL:CG2	2.24	0.51
27:Y:348:VAL:O	27:Y:352:ILE:HG12	2.10	0.51
1:1:327:LYS:HG3	1:1:506:ALA:N	2.25	0.51
1:1:376:ASN:HB2	1:1:380:ARG:HD2	1.90	0.51
1:1:460:VAL:C	1:1:464:ARG:HE	2.18	0.51
1:1:476:PHE:CZ	1:1:502:VAL:CG2	2.94	0.51
1:1:522:ASP:HA	1:1:524:ILE:HD12	1.93	0.51
3:A:1431:GLY:HA3	4:B:1197:PRO:HD3	1.91	0.51
4:B:238:ALA:HB3	4:B:256:VAL:HB	1.93	0.51
4:B:773:MET:CE	4:B:985:GLY:HA2	2.40	0.51
16:N:23:DA:C4'	19:Q:120:LYS:CD	2.81	0.51
18:P:293:ILE:CD1	18:P:293:ILE:N	2.57	0.51
27:Y:486:THR:HG21	27:Y:670:LEU:CD2	2.40	0.51
1:1:302:GLU:O	1:1:303:ARG:HB2	2.10	0.51
1:1:310:ILE:HG23	1:1:310:ILE:O	2.09	0.51
1:1:446:PHE:CB	1:1:452:LEU:HD11	2.41	0.51
1:1:459:MET:H	1:1:464:ARG:HB3	1.74	0.51
1:1:476:PHE:CE1	1:1:487:LEU:HD11	2.46	0.51
3:A:472:LEU:O	3:A:475:THR:HB	2.10	0.51
3:A:1095:THR:HG21	3:A:1112:LYS:HB2	1.93	0.51
3:A:1348:LEU:O	3:A:1352:VAL:HG23	2.11	0.51
4:B:338:GLY:HA2	4:B:339:THR:HB	1.93	0.51
4:B:1124:ARG:CB	18:P:60:ARG:HH21	2.24	0.51
13:K:5:ASP:HB3	13:K:7:PHE:CE2	2.45	0.51
18:P:81:GLU:OE2	18:P:82:ALA:O	2.29	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:173:ALA:CA	18:P:176:ILE:CD1	2.86	0.51
20:R:144:ARG:HA	20:R:144:ARG:HH11	1.62	0.51
21:S:237:LYS:HZ2	21:S:241:PRO:HG2	1.74	0.51
22:T:134:DT:C2	22:T:135:DG:N7	2.79	0.51
24:V:127:LYS:HD3	24:V:127:LYS:H	1.76	0.51
27:Y:362:HIS:CE1	27:Y:366:LEU:HD11	2.45	0.51
27:Y:495:MET:SD	27:Y:696:TRP:CZ3	3.03	0.51
27:Y:630:THR:O	27:Y:636:LYS:HE3	2.11	0.51
1:1:466:ARG:CB	1:1:477:LEU:CB	2.89	0.51
4:B:1184:GLY:C	6:D:17:LYS:NZ	2.69	0.51
7:E:64:PRO:HB2	7:E:69:ILE:HD11	1.93	0.51
18:P:103:ASP:OD1	18:P:104:MET:N	2.44	0.51
18:P:266:ILE:O	18:P:266:ILE:CG2	2.57	0.51
20:R:17:VAL:HG23	20:R:18:ARG:N	2.25	0.51
20:R:44:LYS:HG2	20:R:54:LEU:CD2	2.41	0.51
21:S:157:ASP:C	21:S:157:ASP:OD1	2.53	0.51
27:Y:111:ARG:HH21	27:Y:129:VAL:HG11	1.76	0.51
27:Y:212:TYR:CZ	27:Y:222:VAL:CG2	2.93	0.51
1:1:406:SER:CB	1:1:482:TRP:CE3	2.94	0.51
1:1:484:PHE:CD2	1:1:509:ALA:CB	2.93	0.51
1:1:484:PHE:CE1	1:1:486:ILE:CG1	2.94	0.51
3:A:55:ASP:HA	3:A:58:LEU:H	1.76	0.51
3:A:313:GLN:HG3	18:P:98:LYS:HE3	1.90	0.51
3:A:919:ILE:HG12	3:A:983:ILE:HD13	1.93	0.51
3:A:1450:LEU:CB	9:G:18:PHE:O	2.46	0.51
4:B:1124:ARG:O	18:P:60:ARG:NH2	2.44	0.51
16:N:33:DA:C2'	16:N:34:DT:H72	2.41	0.51
18:P:108:LYS:HA	18:P:111:ASN:OD1	2.11	0.51
18:P:133:ILE:HD11	18:P:151:LYS:HG2	1.92	0.51
18:P:187:ARG:NE	18:P:189:PHE:HA	2.26	0.51
18:P:286:ILE:CG2	18:P:287:LEU:N	2.74	0.51
21:S:131:ALA:CB	21:S:151:LEU:CD1	2.89	0.51
21:S:151:LEU:C	21:S:152:SER:HG	2.17	0.51
21:S:154:LYS:CE	21:S:154:LYS:N	2.61	0.51
21:S:193:LEU:O	21:S:196:LEU:HG	2.10	0.51
22:T:147:DA:H2'	22:T:148:DT:C6	2.46	0.51
24:V:333:LEU:CD2	24:V:349:TYR:HD2	2.21	0.51
27:Y:185:CYS:SG	27:Y:192:PRO:CB	2.99	0.51
1:1:408:ILE:HG21	1:1:476:PHE:H	1.75	0.50
3:A:446:ARG:HD2	3:A:480:ALA:HB2	1.92	0.50
8:F:100:GLN:OE1	9:G:15:PRO:HG2	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:O:64:GLY:HA3	17:O:83:CYS:HB3	1.92	0.50
18:P:286:ILE:HD13	18:P:292:PRO:HA	1.76	0.50
19:Q:65:PRO:HG2	19:Q:224:TYR:CD1	2.46	0.50
19:Q:224:TYR:O	19:Q:228:GLU:HG2	2.11	0.50
21:S:233:LEU:N	21:S:233:LEU:CD1	2.74	0.50
24:V:126:LYS:HB3	24:V:128:VAL:HG23	1.93	0.50
2:2:252:ASN:ND2	3:A:1206:ASP:HB2	2.26	0.50
3:A:497:THR:CG2	4:B:1146:PHE:HD1	2.23	0.50
4:B:1201:LYS:HD3	4:B:1205:GLN:OE1	2.11	0.50
19:Q:153:THR:CG2	19:Q:154:ASP:H	2.23	0.50
20:R:123:MET:SD	20:R:130:LYS:CD	3.00	0.50
22:T:134:DT:H6	24:V:323:ARG:CD	1.83	0.50
23:U:119:LEU:CD2	23:U:395:PHE:CE1	2.94	0.50
3:A:132:LYS:HZ1	3:A:1415:SER:HB2	1.76	0.50
3:A:312:PRO:CA	18:P:96:ILE:HG21	2.38	0.50
3:A:1436:ILE:HD13	4:B:1139:ILE:HG23	1.93	0.50
4:B:35:SER:HA	4:B:811:TYR:HE1	1.77	0.50
16:N:59:DT:C2	16:N:60:DA:C5	2.99	0.50
17:O:4:PRO:HD3	24:V:357:LYS:C	2.36	0.50
20:R:61:LEU:HB2	20:R:67:ILE:CD1	2.42	0.50
20:R:95:ILE:O	20:R:95:ILE:HG12	2.12	0.50
20:R:127:CYS:C	20:R:128:LEU:HD22	2.36	0.50
21:S:143:LEU:HD13	21:S:143:LEU:C	2.30	0.50
21:S:193:LEU:HD13	21:S:196:LEU:HD21	1.93	0.50
22:T:134:DT:H1'	22:T:135:DG:C8	2.47	0.50
24:V:109:ASN:OD1	24:V:111:ASN:OD1	2.29	0.50
1:1:585:PRO:HG2	1:1:756:ARG:NH1	2.22	0.50
3:A:67:CYS:O	3:A:70:CYS:HB3	2.11	0.50
4:B:701:ILE:HD11	4:B:703:ILE:HD11	1.94	0.50
7:E:15:ALA:O	7:E:19:VAL:HG23	2.10	0.50
11:I:65:ASP:HB3	11:I:68:LEU:HD12	1.93	0.50
15:M:236:GLU:HG3	15:M:237:ASP:N	2.21	0.50
22:T:145:DT:H2''	22:T:146:DT:C6	2.45	0.50
22:T:147:DA:N3	22:T:148:DT:N3	2.60	0.50
24:V:333:LEU:O	24:V:337:ALA:CA	2.60	0.50
27:Y:25:MET:HE3	27:Y:53:LEU:HD23	1.93	0.50
27:Y:218:ILE:CD1	27:Y:221:ARG:HH21	2.24	0.50
2:2:208:SER:CA	3:A:1172:LEU:CD1	2.89	0.50
3:A:89:PRO:HB2	3:A:204:THR:HB	1.93	0.50
3:A:344:ARG:CD	4:B:1118:PRO:O	2.47	0.50
3:A:870:GLU:HB2	7:E:204:THR:CG2	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:574:SER:HB3	4:B:591:ARG:HE	1.77	0.50
4:B:710:LEU:HA	4:B:733:HIS:HB3	1.93	0.50
10:H:17:PRO:HB3	10:H:24:CYS:SG	2.52	0.50
22:T:134:DT:C1'	22:T:135:DG:C8	2.95	0.50
27:Y:21:GLN:CB	27:Y:53:LEU:HD21	2.41	0.50
27:Y:32:LEU:HD12	27:Y:61:MET:HG3	1.93	0.50
27:Y:670:LEU:HD23	27:Y:670:LEU:C	2.37	0.50
27:Y:670:LEU:HD23	27:Y:672:GLY:H	1.76	0.50
1:1:447:GLN:CG	1:1:448:THR:H	2.20	0.50
1:1:474:MET:HB2	1:1:479:GLY:C	2.36	0.50
1:1:534:LYS:HG3	1:1:534:LYS:O	2.11	0.50
2:2:273:LYS:C	2:2:275:LYS:H	2.18	0.50
2:2:296:PHE:HZ	3:A:1080:THR:OG1	1.94	0.50
18:P:54:ASP:CG	18:P:56:LEU:HD13	2.36	0.50
18:P:130:PHE:HA	18:P:133:ILE:HG22	1.81	0.50
21:S:154:LYS:HA	21:S:154:LYS:NZ	0.37	0.50
21:S:166:LEU:HD12	21:S:167:ASP:N	2.25	0.50
21:S:184:TYR:O	21:S:221:ILE:CG2	2.58	0.50
21:S:208:LYS:HD2	21:S:208:LYS:N	2.25	0.50
22:T:134:DT:C2	22:T:135:DG:C8	3.00	0.50
24:V:59:LEU:HG	24:V:214:ILE:HG13	1.92	0.50
24:V:307:PHE:CE2	24:V:349:TYR:OH	2.65	0.50
27:Y:492:PHE:HE2	27:Y:707:ASN:OD1	1.86	0.50
3:A:714:PHE:O	3:A:718:VAL:HG23	2.12	0.50
3:A:1442:ASP:C	9:G:60:ARG:HH12	2.20	0.50
4:B:373:ARG:HG2	4:B:566:LEU:HD23	1.92	0.50
18:P:106:PHE:N	18:P:106:PHE:CD1	2.80	0.50
20:R:144:ARG:NH1	20:R:144:ARG:CA	2.41	0.50
21:S:151:LEU:C	21:S:152:SER:OG	2.54	0.50
27:Y:106:LEU:HD13	27:Y:196:VAL:HG13	1.92	0.50
1:1:485:ILE:HG12	1:1:510:LYS:HG2	1.93	0.50
2:2:269:PHE:HE2	2:2:306:TRP:CZ2	2.30	0.50
18:P:154:TYR:C	18:P:157:CYS:SG	2.95	0.50
18:P:258:TYR:O	18:P:258:TYR:CD1	2.65	0.50
20:R:13:LEU:HD21	20:R:91:TYR:HE1	1.76	0.50
22:T:108:DG:C2'	22:T:109:DT:C5'	2.86	0.50
22:T:140:DC:C5	22:T:141:DC:N4	2.80	0.50
23:U:98:TYR:CE1	24:V:96:ARG:NH1	2.79	0.50
27:Y:37:ASN:ND2	27:Y:477:THR:HG21	2.26	0.50
27:Y:37:ASN:C	27:Y:477:THR:OG1	2.54	0.50
27:Y:339:ILE:HG22	27:Y:343:LYS:HE3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:450:PHE:CE1	27:Y:475:PHE:CD2	3.00	0.50
27:Y:562:GLU:OE2	27:Y:599:LEU:HD11	2.11	0.50
1:1:424:PHE:HA	1:1:427:TRP:CZ3	2.47	0.50
2:2:252:ASN:CG	3:A:1206:ASP:CA	2.85	0.50
2:2:252:ASN:CG	3:A:1206:ASP:HA	2.35	0.50
2:2:284:LEU:CD1	3:A:1080:THR:CG2	2.90	0.50
3:A:343:LYS:HB2	4:B:1117:GLN:OE1	2.11	0.50
3:A:347:PHE:H	4:B:1107:ALA:HA	1.77	0.50
3:A:416:ARG:HH12	18:P:37:ARG:CZ	2.22	0.50
4:B:70:ILE:HG22	4:B:89:GLU:HG2	1.93	0.50
4:B:1008:PRO:HB3	4:B:1087:PHE:HE1	1.77	0.50
18:P:87:LEU:HD13	18:P:126:VAL:HG22	1.85	0.50
18:P:118:VAL:O	18:P:118:VAL:CG2	2.58	0.50
18:P:174:ALA:O	18:P:178:ILE:HG12	2.12	0.50
18:P:269:ILE:HB	18:P:272:LYS:CG	2.41	0.50
20:R:27:LEU:CD2	20:R:129:THR:HB	2.42	0.50
20:R:28:VAL:HG21	20:R:57:LEU:CB	2.42	0.50
21:S:125:SER:C	21:S:127:LYS:NZ	2.67	0.50
21:S:158:LYS:CD	21:S:162:LEU:HG	2.40	0.50
24:V:59:LEU:HD21	24:V:214:ILE:CG1	2.42	0.50
24:V:333:LEU:CB	24:V:337:ALA:HB3	2.42	0.50
27:Y:360:LEU:CB	27:Y:375:ARG:HD3	2.37	0.50
27:Y:464:SER:HA	27:Y:466:LEU:HD22	1.94	0.50
27:Y:467:ASP:CA	27:Y:470:PRO:HD2	2.41	0.50
27:Y:539:VAL:HG12	27:Y:623:ILE:HG12	1.92	0.50
27:Y:563:VAL:CG1	27:Y:564:TRP:N	2.75	0.50
1:1:303:ARG:CZ	1:1:471:GLN:HG3	2.41	0.49
1:1:305:GLU:OE1	1:1:330:CYS:HA	2.11	0.49
1:1:370:LEU:O	1:1:373:MET:HB3	2.11	0.49
1:1:473:VAL:HG12	1:1:481:GLU:HG3	1.94	0.49
15:M:46:LEU:HD21	17:O:15:ILE:HA	1.93	0.49
18:P:106:PHE:N	18:P:106:PHE:HD1	2.09	0.49
27:Y:218:ILE:HG23	27:Y:219:ALA:N	2.27	0.49
27:Y:539:VAL:HG13	27:Y:623:ILE:HG12	1.93	0.49
27:Y:567:LYS:HG2	27:Y:568:LEU:HG	1.94	0.49
1:1:391:GLY:CA	1:1:394:LEU:HD13	2.42	0.49
1:1:403:ILE:CD1	1:1:484:PHE:CD2	2.94	0.49
1:1:723:GLN:O	1:1:727:VAL:HG22	2.13	0.49
4:B:684:LEU:HA	4:B:689:LEU:HD12	1.93	0.49
18:P:196:ILE:CG1	18:P:197:HIS:CD2	2.95	0.49
22:T:108:DG:H2'	22:T:109:DT:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:T:131:DC:H2''	22:T:132:DA:C8	2.46	0.49
22:T:150:DG:H2''	22:T:151:DG:H5'	1.94	0.49
27:Y:252:LEU:CD1	27:Y:383:LEU:HG	2.42	0.49
27:Y:495:MET:CG	27:Y:686:PHE:CB	2.73	0.49
27:Y:540:PHE:HB2	27:Y:622:MET:SD	2.52	0.49
1:1:350:PRO:HA	1:1:481:GLU:O	2.12	0.49
1:1:406:SER:HA	1:1:447:GLN:C	2.37	0.49
1:1:407:VAL:HG13	1:1:451:GLY:CA	2.42	0.49
1:1:476:PHE:CD1	1:1:487:LEU:CD1	2.95	0.49
1:1:490:VAL:CG2	1:1:531:ILE:HD13	2.43	0.49
1:1:494:PRO:HD3	1:1:527:LEU:HD21	1.94	0.49
1:1:712:ASP:OD1	25:W:449:ASP:N	2.43	0.49
2:2:252:ASN:HB3	3:A:1206:ASP:H	1.77	0.49
3:A:216:VAL:O	3:A:220:THR:HB	2.12	0.49
3:A:411:ASP:CG	18:P:51:VAL:N	2.39	0.49
3:A:1193:LEU:HB2	3:A:1260:LEU:CD2	2.42	0.49
3:A:1442:ASP:OD1	9:G:63:PRO:CD	2.60	0.49
4:B:343:ILE:HG12	22:T:121:DG:H5'	1.81	0.49
4:B:433:GLN:CB	23:U:326:ARG:NE	2.76	0.49
5:C:116:LYS:HD3	5:C:140:ASN:HA	1.93	0.49
16:N:16:DC:H2'	16:N:17:DT:C7	2.42	0.49
16:N:28:DT:H72	24:V:292:ILE:CG2	2.43	0.49
18:P:252:VAL:HG23	18:P:289:PHE:CD2	2.47	0.49
22:T:136:DA:OP2	24:V:325:PRO:HG3	2.13	0.49
23:U:138:ARG:NH2	24:V:57:LEU:HB3	2.18	0.49
24:V:292:ILE:HD12	24:V:328:HIS:CE1	2.47	0.49
27:Y:237:ALA:HB1	27:Y:458:ILE:CG2	2.31	0.49
27:Y:666:LEU:HD23	27:Y:679:MET:CB	2.42	0.49
1:1:335:TYR:CB	1:1:336:PRO:HD3	2.42	0.49
1:1:457:TYR:O	1:1:477:LEU:HD21	2.12	0.49
1:1:754:ARG:HH22	1:1:758:GLU:CD	2.15	0.49
3:A:268:ASP:OD1	18:P:91:ASN:ND2	2.31	0.49
4:B:449:ASN:ND2	18:P:138:ASP:OD2	2.33	0.49
16:N:57:DA:C2	16:N:58:DC:C2	3.00	0.49
18:P:173:ALA:O	18:P:176:ILE:HG12	2.12	0.49
18:P:279:VAL:HA	18:P:302:LEU:CD2	2.30	0.49
20:R:147:PHE:HB2	20:R:156:LEU:CG	2.43	0.49
21:S:237:LYS:HZ2	21:S:241:PRO:CG	2.21	0.49
22:T:147:DA:C2	22:T:148:DT:N3	2.81	0.49
24:V:314:SER:CB	24:V:347:PHE:O	2.60	0.49
27:Y:360:LEU:HD11	27:Y:364:LYS:HD2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:699:GLN:OE1	27:Y:707:ASN:CG	2.55	0.49
1:1:299:GLY:C	1:1:347:HIS:HB3	2.38	0.49
1:1:328:LYS:HE3	1:1:329:ARG:HE	1.77	0.49
3:A:404:TYR:HE2	18:P:40:GLU:CD	2.20	0.49
3:A:1095:THR:HG23	3:A:1113:THR:HG23	1.92	0.49
16:N:36:DT:H2''	16:N:37:DA:H8	1.68	0.49
16:N:46:DC:H2''	16:N:47:DA:H5'	1.94	0.49
18:P:126:VAL:HG13	18:P:127:GLN:N	2.27	0.49
18:P:148:ASP:OD1	18:P:149:CYS:N	2.45	0.49
18:P:288:LEU:CD2	18:P:328:LEU:CD1	2.79	0.49
20:R:126:ILE:HB	20:R:154:GLU:CG	2.43	0.49
21:S:134:TYR:CD2	21:S:147:LEU:HD23	2.47	0.49
21:S:203:LYS:CG	21:S:204:GLY:N	2.54	0.49
23:U:374:VAL:HG21	24:V:73:LEU:HD11	1.95	0.49
23:U:374:VAL:HG11	24:V:75:MET:SD	2.53	0.49
27:Y:124:ARG:CD	27:Y:374:LEU:HD23	2.42	0.49
2:2:288:SER:HA	3:A:827:THR:HG21	1.93	0.49
3:A:12:ARG:O	4:B:1194:ILE:HG22	2.12	0.49
4:B:211:VAL:HG13	4:B:495:LEU:HD23	1.93	0.49
4:B:705:MET:HE2	4:B:745:PRO:HB3	1.94	0.49
4:B:1072:MET:HB3	4:B:1081:LEU:HD12	1.94	0.49
8:F:97:ARG:NH1	9:G:15:PRO:CB	2.76	0.49
8:F:100:GLN:CD	9:G:15:PRO:HG2	2.38	0.49
16:N:24:DG:H4'	19:Q:118:SER:OG	2.10	0.49
16:N:61:DA:C2'	16:N:62:DA:C5'	2.86	0.49
18:P:113:ALA:O	18:P:116:LYS:CG	2.56	0.49
18:P:135:MET:O	18:P:138:ASP:OD1	2.30	0.49
18:P:313:TYR:CA	18:P:316:LEU:HD21	2.40	0.49
20:R:13:LEU:CD2	20:R:91:TYR:CE1	2.96	0.49
21:S:210:LEU:HB3	21:S:214:TRP:CZ3	2.47	0.49
23:U:98:TYR:OH	24:V:98:ASN:CG	2.19	0.49
24:V:340:VAL:O	24:V:340:VAL:HG13	2.11	0.49
27:Y:20:GLU:O	27:Y:24:TYR:CG	2.66	0.49
27:Y:342:LEU:HD13	27:Y:346:MET:HE2	1.94	0.49
27:Y:346:MET:CA	27:Y:384:LEU:CD2	2.88	0.49
27:Y:360:LEU:HD12	27:Y:375:ARG:HD2	1.94	0.49
27:Y:450:PHE:CZ	27:Y:475:PHE:CG	3.01	0.49
27:Y:666:LEU:HD13	27:Y:666:LEU:C	2.38	0.49
1:1:476:PHE:N	1:1:485:ILE:HG22	2.28	0.49
2:2:190:THR:CA	7:E:50:MET:SD	3.00	0.49
3:A:192:GLY:HA3	22:T:116:DG:C3'	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:97:ARG:HH12	9:G:15:PRO:CB	2.26	0.49
16:N:24:DG:C3'	19:Q:118:SER:HB3	2.41	0.49
18:P:146:VAL:H	18:P:182:ARG:HD3	1.78	0.49
18:P:157:CYS:SG	18:P:171:ILE:HG12	2.53	0.49
18:P:160:GLU:OE2	18:P:162:THR:HB	2.13	0.49
18:P:174:ALA:HB2	18:P:206:THR:HG23	1.95	0.49
20:R:144:ARG:O	20:R:145:THR:CB	2.61	0.49
20:R:147:PHE:HB2	20:R:156:LEU:HD21	1.94	0.49
21:S:148:LEU:HB2	21:S:154:LYS:CD	2.43	0.49
21:S:161:GLU:O	21:S:164:LYS:HD3	2.11	0.49
22:T:98:DA:H2''	22:T:99:DC:OP2	2.12	0.49
1:1:410:LEU:HD13	1:1:477:LEU:HD11	1.95	0.49
3:A:154:SER:HB3	3:A:162:VAL:HG23	1.95	0.49
3:A:1116:LEU:HG	3:A:1327:ILE:HD11	1.95	0.49
4:B:899:ILE:HD11	4:B:911:ILE:HA	1.94	0.49
16:N:59:DT:H2''	16:N:60:DA:H8	1.76	0.49
16:N:59:DT:C4	16:N:60:DA:C6	3.00	0.49
18:P:150:ALA:HA	18:P:178:ILE:HD11	1.88	0.49
18:P:195:LEU:HD23	18:P:196:ILE:HB	1.94	0.49
18:P:256:ALA:N	18:P:257:GLU:OE1	2.45	0.49
19:Q:175:LEU:HD23	19:Q:175:LEU:O	2.13	0.49
1:1:405:LYS:NZ	1:1:483:GLY:HA3	2.27	0.49
1:1:408:ILE:HG22	1:1:484:PHE:O	2.13	0.49
1:1:436:ALA:HB3	1:1:452:LEU:HD21	1.93	0.49
1:1:508:HIS:CE1	1:1:509:ALA:HB2	2.48	0.49
3:A:343:LYS:HZ2	4:B:1156:ASP:HB2	1.77	0.49
4:B:62:ILE:HG21	4:B:417:PHE:HD2	1.78	0.49
8:F:92:ARG:HH21	9:G:63:PRO:CA	2.24	0.49
17:O:38:MET:HE2	17:O:41:LEU:HD23	1.95	0.49
18:P:190:LYS:HD3	18:P:242:PHE:CZ	2.47	0.49
18:P:209:ILE:HG13	18:P:210:MET:N	2.27	0.49
18:P:254:THR:C	18:P:257:GLU:CD	2.78	0.49
18:P:258:TYR:HH	18:P:262:LYS:HE3	1.74	0.49
18:P:262:LYS:HB3	18:P:323:LEU:HD23	1.94	0.49
20:R:141:ASN:ND2	20:R:142:PHE:CE1	2.73	0.49
21:S:142:VAL:HG22	21:S:147:LEU:CD1	2.43	0.49
23:U:96:ASN:HD22	23:U:96:ASN:C	2.20	0.49
24:V:306:LEU:HD22	24:V:318:LEU:HD23	1.87	0.49
27:Y:129:VAL:CG1	27:Y:194:PHE:CE1	2.96	0.49
1:1:410:LEU:HD21	1:1:457:TYR:CE2	2.48	0.49
4:B:249:ARG:NH1	4:B:418:LYS:CD	2.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:120:ASN:CG	20:R:133:GLN:CG	2.85	0.49
22:T:138:DA:C2'	22:T:139:DC:C5	2.96	0.49
1:1:380:ARG:CB	1:1:535:LEU:HD22	2.43	0.48
1:1:474:MET:HG3	1:1:505:ILE:CG2	2.43	0.48
1:1:516:THR:HG23	1:1:681:ARG:HE	1.77	0.48
1:1:609:SER:OG	1:1:615:LEU:HD13	2.13	0.48
2:2:274:CYS:O	2:2:276:GLU:HG3	2.13	0.48
3:A:1402:PHE:CE1	3:A:1403:GLU:HG3	2.48	0.48
4:B:977:GLY:HA3	4:B:1099:VAL:HB	1.95	0.48
9:G:1:MET:CG	9:G:2:PHE:N	2.76	0.48
9:G:142:ARG:HB3	9:G:171:ILE:HD12	1.95	0.48
18:P:289:PHE:O	18:P:331:ASN:HB3	2.12	0.48
19:Q:136:SER:HB3	19:Q:152:PHE:HE1	1.78	0.48
19:Q:141:ARG:HH12	19:Q:144:GLN:NE2	2.11	0.48
21:S:136:GLN:CG	21:S:137:LYS:HZ3	2.26	0.48
24:V:341:LYS:HB3	24:V:345:TYR:HD1	1.78	0.48
27:Y:353:SER:CB	27:Y:378:SER:HA	2.41	0.48
1:1:408:ILE:HG23	1:1:485:ILE:HA	1.94	0.48
1:1:476:PHE:CE1	1:1:487:LEU:CD2	2.94	0.48
2:2:253:LEU:HB3	3:A:1132:LYS:NZ	2.28	0.48
3:A:929:LEU:HD21	3:A:983:ILE:HG21	1.95	0.48
18:P:88:ASP:CG	18:P:89:GLY:H	2.19	0.48
18:P:91:ASN:CG	18:P:92:LEU:H	2.21	0.48
18:P:263:CYS:C	18:P:264:LYS:HZ3	2.18	0.48
18:P:329:ILE:O	18:P:330:ALA:CB	2.60	0.48
20:R:64:ASP:HB2	20:R:66:LEU:HD23	1.94	0.48
21:S:133:GLU:CD	24:V:330:LYS:HZ3	2.12	0.48
21:S:219:GLU:HB3	21:S:222:ASN:ND2	2.19	0.48
24:V:333:LEU:HD21	24:V:349:TYR:CE2	2.48	0.48
27:Y:290:VAL:CG2	27:Y:291:GLN:N	2.71	0.48
1:1:404:LYS:HA	1:1:448:THR:HG21	1.94	0.48
1:1:474:MET:HG2	1:1:482:TRP:O	2.13	0.48
1:1:516:THR:CG2	1:1:681:ARG:HE	2.26	0.48
2:2:254:TYR:O	2:2:256:ALA:N	2.47	0.48
3:A:245:PRO:O	4:B:1114:LEU:HD12	2.12	0.48
3:A:253:ASN:C	3:A:255:SER:H	2.22	0.48
4:B:60:GLN:OE1	4:B:95:ILE:HG22	2.12	0.48
4:B:441:ASP:O	4:B:443:ASN:N	2.47	0.48
4:B:885:MET:CA	18:P:33:LYS:HZ2	2.18	0.48
5:C:38:ILE:HG13	5:C:176:ILE:HD12	1.95	0.48
5:C:99:LEU:HB2	5:C:157:CYS:HB2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:H:40:LEU:HD13	10:H:123:MET:HG3	1.95	0.48
18:P:94:THR:HG22	18:P:110:LEU:HD11	1.95	0.48
18:P:164:LYS:HG2	18:P:166:LYS:HA	1.94	0.48
18:P:288:LEU:O	18:P:330:ALA:HA	2.13	0.48
20:R:44:LYS:HE3	20:R:54:LEU:CD1	2.42	0.48
20:R:148:LEU:O	20:R:149:CYS:O	2.32	0.48
21:S:181:LEU:HD23	21:S:181:LEU:O	2.14	0.48
23:U:119:LEU:HD11	24:V:135:PHE:CD2	2.48	0.48
23:U:342:LEU:HA	23:U:413:MET:SD	2.52	0.48
23:U:375:LEU:CD1	24:V:134:VAL:HG21	2.42	0.48
27:Y:54:SER:C	27:Y:57:ILE:HG22	2.37	0.48
27:Y:290:VAL:O	27:Y:291:GLN:C	2.56	0.48
27:Y:360:LEU:HD13	27:Y:360:LEU:C	2.38	0.48
27:Y:416:PHE:CD1	27:Y:416:PHE:C	2.91	0.48
5:C:75:MET:HB3	5:C:128:ASN:HB3	1.95	0.48
5:C:114:TYR:HB2	5:C:116:LYS:HG2	1.94	0.48
6:D:195:ILE:HG22	6:D:198:LEU:HG	1.94	0.48
14:L:27:LEU:HD13	14:L:37:LYS:HG2	1.95	0.48
18:P:34:ILE:HG13	18:P:43:VAL:CB	2.32	0.48
19:Q:164:CYS:HB2	19:Q:212:ILE:HB	1.95	0.48
19:Q:183:SER:CB	19:Q:193:LEU:HD21	2.43	0.48
21:S:179:LYS:CD	21:S:179:LYS:C	2.86	0.48
23:U:378:VAL:HG22	23:U:384:PHE:CZ	2.48	0.48
24:V:94:LYS:O	24:V:106:LEU:HD12	2.12	0.48
27:Y:269:GLU:O	27:Y:269:GLU:HG2	2.12	0.48
1:1:436:ALA:HB2	1:1:452:LEU:HD21	1.95	0.48
1:1:466:ARG:HD2	1:1:475:ASP:CG	2.39	0.48
3:A:260:ASP:OD1	3:A:328:ARG:NH2	2.42	0.48
3:A:568:PRO:HG2	10:H:46:LEU:HD12	1.95	0.48
3:A:1279:ILE:HG23	3:A:1308:THR:HG23	1.96	0.48
3:A:1312:ASN:O	3:A:1316:VAL:HG23	2.12	0.48
4:B:948:ILE:HD13	14:L:67:PHE:HE2	1.77	0.48
13:K:63:VAL:HG12	13:K:71:PHE:HB3	1.96	0.48
16:N:29:DT:OP2	24:V:294:MET:HE2	2.14	0.48
16:N:48:DG:C2	16:N:49:DG:C5	3.01	0.48
20:R:138:GLN:HG3	20:R:139:LEU:N	2.28	0.48
21:S:172:ASP:OD2	21:S:179:LYS:CG	2.55	0.48
24:V:63:ARG:HD2	24:V:215:VAL:O	2.14	0.48
27:Y:495:MET:HG2	27:Y:686:PHE:CD1	2.44	0.48
27:Y:529:PHE:CD1	27:Y:529:PHE:N	2.79	0.48
1:1:300:ASP:CG	1:1:480:ARG:HD3	2.37	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:305:GLU:HB2	1:1:327:LYS:CE	2.43	0.48
1:1:352:LEU:H	1:1:352:LEU:CD2	2.25	0.48
4:B:105:SER:CB	18:P:183:ALA:HB1	2.30	0.48
4:B:258:LEU:HB2	4:B:385:LEU:HD21	1.96	0.48
4:B:640:VAL:HG22	4:B:651:LEU:HG	1.95	0.48
4:B:806:THR:HB	4:B:809:MET:HG3	1.94	0.48
10:H:80:ARG:HG2	13:K:57:LEU:HD22	1.95	0.48
14:L:68:GLU:HB2	14:L:70:ARG:HD2	1.96	0.48
18:P:196:ILE:HG13	18:P:197:HIS:CD2	2.48	0.48
20:R:139:LEU:O	20:R:147:PHE:HA	2.14	0.48
21:S:129:LEU:HB3	24:V:347:PHE:CD2	2.49	0.48
21:S:187:HIS:NE2	21:S:225:GLU:CB	2.71	0.48
22:T:143:DT:H2'	22:T:144:DT:H5'	1.95	0.48
24:V:73:LEU:HD23	24:V:73:LEU:N	2.29	0.48
27:Y:86:LEU:HD13	27:Y:103:PHE:HZ	1.78	0.48
27:Y:111:ARG:NH2	27:Y:197:ARG:HH12	2.12	0.48
27:Y:128:VAL:HG22	27:Y:373:PRO:CD	2.24	0.48
27:Y:325:ILE:O	27:Y:408:LEU:HD12	2.13	0.48
27:Y:533:THR:HG21	27:Y:708:LEU:HD22	1.96	0.48
27:Y:567:LYS:HG2	27:Y:568:LEU:H	1.77	0.48
1:1:348:ARG:HB3	1:1:350:PRO:HD3	1.96	0.48
3:A:40:THR:HG21	3:A:259:GLU:OE2	2.12	0.48
4:B:486:TYR:HB3	4:B:1096:ARG:NE	2.28	0.48
10:H:115:TYR:CE1	10:H:124:ARG:HG3	2.49	0.48
16:N:27:DG:H2''	16:N:28:DT:H5'	1.94	0.48
18:P:258:TYR:CD1	18:P:258:TYR:C	2.92	0.48
18:P:339:LEU:HD12	18:P:339:LEU:N	2.29	0.48
19:Q:114:LEU:CD1	22:T:143:DT:O2	2.58	0.48
21:S:179:LYS:HD3	21:S:179:LYS:C	2.38	0.48
27:Y:21:GLN:CA	27:Y:53:LEU:HD21	2.42	0.48
27:Y:49:THR:O	27:Y:55:LEU:HG	2.14	0.48
27:Y:408:LEU:HD22	27:Y:634:ILE:CG1	2.41	0.48
27:Y:639:LEU:HD23	27:Y:639:LEU:C	2.39	0.48
1:1:327:LYS:HB3	1:1:504:THR:C	2.39	0.48
1:1:425:LEU:CB	1:1:429:THR:HA	2.44	0.48
1:1:477:LEU:HD12	1:1:477:LEU:N	2.28	0.48
1:1:656:LYS:CD	1:1:656:LYS:C	2.86	0.48
2:2:305:ARG:C	3:A:1360:GLY:HA2	2.38	0.48
3:A:71:GLN:O	3:A:73:GLY:N	2.47	0.48
3:A:956:LEU:HD21	3:A:1017:LEU:HG	1.96	0.48
4:B:219:ALA:HB2	4:B:405:ARG:HG2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:840:ILE:HG21	4:B:994:TYR:HD2	1.79	0.48
16:N:57:DA:C2'	16:N:58:DC:C5	2.94	0.48
17:O:23:LEU:HD23	17:O:41:LEU:HD13	1.95	0.48
17:O:74:ASP:OD2	17:O:117:ASN:HB2	2.13	0.48
21:S:136:GLN:NE2	21:S:137:LYS:NZ	2.61	0.48
21:S:202:PHE:C	21:S:203:LYS:HZ1	2.22	0.48
27:Y:289:LEU:CD2	27:Y:348:VAL:HG12	2.30	0.48
27:Y:413:GLU:O	27:Y:414:GLU:CB	2.61	0.48
27:Y:708:LEU:HD23	27:Y:708:LEU:C	2.39	0.48
1:1:383:ILE:C	1:1:384:ILE:HD12	2.39	0.48
2:2:236:LEU:CA	2:2:242:LYS:NZ	2.77	0.48
2:2:252:ASN:HA	3:A:1204:ASP:C	2.39	0.48
2:2:268:ARG:HG3	3:A:734:GLU:OE1	2.14	0.48
10:H:23:VAL:HG11	10:H:121:LEU:HD22	1.95	0.48
16:N:19:DT:C4	16:N:20:DA:N6	2.82	0.48
16:N:59:DT:H2''	16:N:60:DA:O5'	2.14	0.48
18:P:143:PRO:CB	18:P:182:ARG:HH21	2.00	0.48
20:R:44:LYS:HE3	20:R:54:LEU:CD2	2.43	0.48
21:S:175:LYS:HA	21:S:175:LYS:NZ	0.27	0.48
22:T:134:DT:N1	22:T:135:DG:N7	2.61	0.48
27:Y:463:ILE:HD11	27:Y:469:TYR:CE1	2.48	0.48
27:Y:493:LEU:HD11	27:Y:666:LEU:HD21	1.94	0.48
27:Y:495:MET:CG	27:Y:686:PHE:CD1	2.93	0.48
27:Y:693:LEU:HG	27:Y:696:TRP:CE2	2.48	0.48
1:1:367:GLU:OE1	1:1:367:GLU:HA	2.14	0.48
2:2:257:GLN:CG	3:A:1284:MET:HB2	2.39	0.48
3:A:261:ASP:HB3	3:A:322:VAL:HG13	1.95	0.48
3:A:280:GLU:HG2	3:A:289:ILE:HD13	1.95	0.48
3:A:875:ALA:HB2	3:A:1366:ARG:HD2	1.95	0.48
4:B:800:GLN:HB2	4:B:821:GLN:HA	1.96	0.48
7:E:176:PRO:O	7:E:212:ARG:HA	2.14	0.48
18:P:42:ASP:H	18:P:55:LYS:HG2	1.78	0.48
18:P:167:SER:CB	18:P:202:GLU:OE2	2.62	0.48
18:P:288:LEU:O	18:P:288:LEU:CG	2.61	0.48
21:S:160:ILE:HD12	21:S:161:GLU:HB2	1.95	0.48
27:Y:37:ASN:C	27:Y:477:THR:HG1	2.21	0.48
27:Y:120:VAL:HG22	27:Y:121:SER:N	2.29	0.48
27:Y:248:LEU:HD12	27:Y:439:CYS:SG	2.54	0.48
1:1:313:VAL:HG12	1:1:314:HIS:CE1	2.48	0.47
1:1:368:LYS:HZ2	1:1:372:LYS:CD	2.23	0.47
1:1:372:LYS:O	1:1:535:LEU:HD23	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:394:LEU:H	1:1:394:LEU:CD1	2.27	0.47
1:1:421:ARG:NE	1:1:430:LEU:HD21	2.29	0.47
1:1:447:GLN:HG3	1:1:448:THR:H	1.78	0.47
1:1:447:GLN:HG3	1:1:448:THR:N	2.28	0.47
1:1:494:PRO:HG3	1:1:527:LEU:HD21	1.94	0.47
3:A:579:SER:HA	3:A:582:ILE:HG13	1.96	0.47
4:B:104:GLU:CD	14:L:54:ARG:NE	2.71	0.47
18:P:81:GLU:CD	18:P:82:ALA:O	2.56	0.47
18:P:225:ILE:HD13	18:P:226:ASP:C	2.39	0.47
18:P:269:ILE:CD1	18:P:269:ILE:N	2.77	0.47
18:P:288:LEU:O	18:P:288:LEU:CD1	2.53	0.47
18:P:288:LEU:CD1	18:P:328:LEU:HD11	2.44	0.47
18:P:294:THR:O	18:P:298:VAL:HG23	2.13	0.47
22:T:142:DC:H2''	22:T:143:DT:H5'	1.89	0.47
24:V:87:LEU:C	24:V:88:HIS:CG	2.92	0.47
24:V:105:THR:HA	24:V:122:LEU:HD13	1.95	0.47
27:Y:237:ALA:O	27:Y:240:ILE:HG12	2.14	0.47
27:Y:495:MET:CB	27:Y:686:PHE:CZ	2.93	0.47
2:2:253:LEU:CD1	3:A:1129:GLU:OE1	2.54	0.47
3:A:89:PRO:HB2	3:A:204:THR:CB	2.44	0.47
3:A:264:PHE:HE2	18:P:90:ASN:O	1.97	0.47
4:B:542:MET:HG3	4:B:747:MET:HB3	1.95	0.47
16:N:42:DT:O4	22:T:124:DA:C6	2.67	0.47
17:O:60:LEU:C	17:O:60:LEU:HD12	2.39	0.47
18:P:104:MET:O	18:P:107:THR:CG2	2.51	0.47
18:P:206:THR:HA	18:P:209:ILE:HG12	1.96	0.47
20:R:135:GLU:O	20:R:138:GLN:HG3	2.14	0.47
21:S:161:GLU:HB3	21:S:162:LEU:CD2	2.44	0.47
21:S:196:LEU:C	21:S:196:LEU:CD1	2.79	0.47
22:T:117:DC:H2'	22:T:118:DC:H6	1.77	0.47
22:T:142:DC:H2''	22:T:143:DT:C5'	2.43	0.47
23:U:105:ALA:HB2	24:V:92:LEU:HD23	1.95	0.47
24:V:116:ILE:HA	24:V:117:PRO:HD3	1.56	0.47
27:Y:253:THR:HG22	27:Y:416:PHE:CB	2.44	0.47
27:Y:359:PHE:CZ	27:Y:363:LEU:HD11	2.48	0.47
1:1:305:GLU:HB2	1:1:327:LYS:HZ1	1.78	0.47
2:2:252:ASN:HD22	3:A:1206:ASP:HB2	1.78	0.47
2:2:269:PHE:CZ	2:2:308:PHE:CE1	3.03	0.47
3:A:11:LEU:HA	4:B:1193:GLN:HG2	1.95	0.47
3:A:91:PHE:CB	3:A:96:ILE:CG1	2.91	0.47
4:B:433:GLN:CD	23:U:326:ARG:NE	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:705:MET:H	4:B:710:LEU:HD12	1.79	0.47
4:B:1135:ARG:HG2	4:B:1139:ILE:HD11	1.94	0.47
4:B:1215:ARG:NH2	6:D:15:LEU:HD21	2.29	0.47
16:N:43:DA:H1'	16:N:44:DA:H5'	1.95	0.47
18:P:142:LEU:HD23	18:P:147:LYS:CG	1.92	0.47
18:P:160:GLU:O	18:P:160:GLU:CG	2.62	0.47
18:P:188:THR:CG2	18:P:245:HIS:CE1	2.97	0.47
18:P:251:GLN:O	18:P:254:THR:HG23	2.14	0.47
21:S:202:PHE:C	21:S:203:LYS:CE	2.80	0.47
27:Y:492:PHE:HB3	27:Y:678:VAL:HG22	1.96	0.47
1:1:466:ARG:NE	1:1:475:ASP:HB3	2.29	0.47
1:1:487:LEU:HD21	1:1:531:ILE:CD1	2.44	0.47
1:1:524:ILE:HD13	1:1:524:ILE:H	1.80	0.47
3:A:285:PRO:O	3:A:287:HIS:N	2.46	0.47
3:A:1345:ARG:HG3	3:A:1376:THR:HG21	1.96	0.47
4:B:72:GLU:CD	23:U:311:ASP:O	2.54	0.47
15:M:250:LYS:HE2	15:M:252:THR:CG2	2.44	0.47
16:N:62:DA:H1'	16:N:63:DG:H5'	1.96	0.47
18:P:134:THR:O	18:P:138:ASP:OD2	2.32	0.47
18:P:185:VAL:CG1	18:P:186:ALA:N	2.76	0.47
20:R:47:LEU:HD22	20:R:130:LYS:HB2	1.96	0.47
21:S:151:LEU:CD2	21:S:153:MET:CE	2.86	0.47
22:T:155:DC:H2''	22:T:156:DT:H5'	1.94	0.47
23:U:94:ASP:N	23:U:95:PRO:HD3	2.28	0.47
24:V:333:LEU:CD2	24:V:349:TYR:CE2	2.96	0.47
27:Y:539:VAL:HG11	27:Y:623:ILE:CG1	2.44	0.47
27:Y:627:PHE:HD1	27:Y:654:LEU:CD1	2.27	0.47
1:1:717:TYR:CD1	1:1:717:TYR:C	2.92	0.47
2:2:260:THR:CB	2:2:260:THR:C	2.80	0.47
3:A:78:PRO:C	4:B:1201:LYS:NZ	2.69	0.47
18:P:43:VAL:CG2	18:P:55:LYS:HZ1	2.26	0.47
20:R:17:VAL:HG23	20:R:26:VAL:HG22	1.97	0.47
21:S:143:LEU:CD1	21:S:144:VAL:H	2.18	0.47
21:S:149:ASP:OD1	21:S:154:LYS:CD	2.63	0.47
22:T:99:DC:H2''	22:T:100:DC:OP2	2.14	0.47
22:T:149:DA:H1'	22:T:150:DG:C8	2.48	0.47
23:U:373:TYR:CZ	24:V:72:ARG:NH1	2.71	0.47
27:Y:54:SER:O	27:Y:57:ILE:CG2	2.57	0.47
27:Y:171:LEU:CD2	27:Y:181:LEU:HD22	2.43	0.47
27:Y:699:GLN:CD	27:Y:707:ASN:CG	2.82	0.47
1:1:384:ILE:HD12	1:1:384:ILE:N	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:411:CYS:HG	1:1:420:TRP:CD1	2.32	0.47
1:1:499:ARG:HG2	1:1:530:LEU:CD1	2.45	0.47
4:B:756:ILE:O	4:B:759:PRO:HD3	2.15	0.47
6:D:8:PHE:HZ	6:D:37:GLN:NE2	2.13	0.47
18:P:63:TRP:CD1	18:P:82:ALA:N	2.79	0.47
19:Q:145:LYS:HA	19:Q:145:LYS:CE	2.36	0.47
20:R:37:VAL:CG1	20:R:88:TYR:HB2	2.44	0.47
20:R:126:ILE:HG23	20:R:154:GLU:HG3	1.89	0.47
20:R:126:ILE:O	20:R:128:LEU:CD2	2.61	0.47
22:T:130:DA:N7	22:T:131:DC:C4	2.82	0.47
27:Y:162:LEU:HD13	27:Y:194:PHE:HB3	1.97	0.47
27:Y:360:LEU:CD1	27:Y:364:LYS:CD	2.90	0.47
27:Y:495:MET:CB	27:Y:686:PHE:CD2	2.74	0.47
1:1:373:MET:HE2	1:1:511:LEU:HD11	1.96	0.47
1:1:420:TRP:HB3	1:1:424:PHE:CZ	2.48	0.47
1:1:424:PHE:CE1	1:1:451:GLY:N	2.82	0.47
1:1:446:PHE:CB	1:1:452:LEU:CD1	2.93	0.47
1:1:446:PHE:CA	1:1:452:LEU:HD22	2.43	0.47
1:1:518:VAL:HG12	1:1:519:ARG:N	2.29	0.47
1:1:528:ASN:ND2	1:1:533:PRO:HA	2.30	0.47
1:1:622:MET:HE2	1:1:622:MET:HB2	1.76	0.47
3:A:66:LYS:H	18:P:18:LEU:HD22	1.00	0.47
3:A:91:PHE:CD2	3:A:179:LEU:O	2.68	0.47
3:A:227:VAL:CG1	6:D:16:LYS:CE	2.92	0.47
3:A:475:THR:HG21	4:B:836:GLU:OE2	2.14	0.47
4:B:693:ILE:HG21	4:B:701:ILE:HD13	1.95	0.47
12:J:9:SER:HB2	12:J:45:CYS:HB2	1.95	0.47
16:N:57:DA:H2"	16:N:58:DC:C6	2.49	0.47
18:P:22:LEU:HD11	18:P:34:ILE:HD13	1.72	0.47
18:P:113:ALA:C	18:P:116:LYS:HG2	2.39	0.47
18:P:117:ASN:C	18:P:119:MET:H	2.23	0.47
18:P:148:ASP:HA	18:P:151:LYS:HE3	1.94	0.47
18:P:173:ALA:O	18:P:176:ILE:CG1	2.62	0.47
18:P:187:ARG:CG	18:P:189:PHE:CA	2.92	0.47
18:P:250:MET:HA	18:P:253:THR:OG1	2.14	0.47
18:P:325:ASP:CB	18:P:326:PRO:HD3	2.45	0.47
23:U:374:VAL:CG2	24:V:75:MET:SD	2.98	0.47
24:V:92:LEU:C	24:V:92:LEU:HD12	2.40	0.47
27:Y:615:GLN:N	27:Y:618:ARG:HE	2.12	0.47
1:1:310:ILE:HG12	1:1:313:VAL:HG23	1.97	0.47
1:1:410:LEU:HD11	1:1:457:TYR:N	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:519:ARG:N	1:1:524:ILE:HG21	2.29	0.47
1:1:716:MET:O	1:1:719:SER:HB2	2.15	0.47
2:2:254:TYR:C	2:2:256:ALA:N	2.73	0.47
3:A:275:SER:O	3:A:279:LEU:HD12	2.14	0.47
3:A:411:ASP:HB3	18:P:50:LEU:CG	2.45	0.47
3:A:457:ALA:HB3	3:A:506:ALA:HA	1.97	0.47
4:B:122:LEU:HD22	4:B:958:GLN:HG2	1.96	0.47
5:C:58:LEU:HD21	12:J:57:ILE:HD12	1.97	0.47
15:M:277:GLN:HA	17:O:56:THR:CG2	2.45	0.47
16:N:27:DG:H2'	16:N:28:DT:C5'	2.44	0.47
17:O:4:PRO:CG	24:V:357:LYS:HB3	2.37	0.47
20:R:13:LEU:CD2	20:R:13:LEU:H	2.27	0.47
20:R:69:ILE:HG22	20:R:70:HIS:N	2.28	0.47
20:R:152:CYS:O	20:R:154:GLU:N	2.48	0.47
21:S:130:TRP:CB	21:S:151:LEU:HD21	2.40	0.47
21:S:131:ALA:CB	21:S:151:LEU:HD12	2.45	0.47
21:S:244:VAL:N	21:S:245:TRP:CE3	2.83	0.47
23:U:376:LEU:HD23	23:U:386:MET:HB3	1.96	0.47
24:V:87:LEU:O	24:V:88:HIS:CG	2.68	0.47
27:Y:473:LEU:O	27:Y:474:ASN:CB	2.62	0.47
27:Y:496:ILE:CG1	27:Y:682:ALA:HA	2.44	0.47
1:1:446:PHE:CB	1:1:452:LEU:CD2	2.92	0.47
2:2:257:GLN:CA	3:A:1284:MET:H	2.27	0.47
3:A:257:ARG:HB2	3:A:257:ARG:NH1	2.29	0.47
3:A:738:LYS:HA	10:H:19:ARG:HH12	1.79	0.47
9:G:85:GLU:HB3	9:G:147:ILE:HD12	1.96	0.47
16:N:21:DA:C2'	16:N:22:DA:C5'	2.86	0.47
18:P:107:THR:CG2	18:P:108:LYS:N	2.78	0.47
18:P:143:PRO:O	18:P:147:LYS:N	2.47	0.47
18:P:327:GLN:O	18:P:327:GLN:CD	2.58	0.47
20:R:135:GLU:O	20:R:138:GLN:CG	2.63	0.47
22:T:145:DT:C2'	22:T:146:DT:C7	2.93	0.47
27:Y:197:ARG:HE	27:Y:225:GLU:CD	2.22	0.47
27:Y:350:HIS:H	27:Y:384:LEU:HG	1.80	0.47
27:Y:532:ILE:O	27:Y:534:PRO:HD2	2.12	0.47
1:1:327:LYS:HG3	1:1:506:ALA:HA	1.97	0.47
1:1:434:ASN:O	1:1:452:LEU:HD12	2.14	0.47
2:2:254:TYR:O	3:A:706:HIS:CB	2.61	0.47
3:A:34:LYS:N	3:A:57:ARG:HH11	2.13	0.47
3:A:93:VAL:HG13	3:A:301:ALA:HB1	1.97	0.47
3:A:399:HIS:O	3:A:401:GLY:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:836:TYR:CE2	3:A:840:ARG:HD2	2.50	0.47
4:B:345:LYS:HA	4:B:348:ARG:HD2	1.96	0.47
8:F:96:THR:CG2	9:G:66:GLY:CA	2.93	0.47
16:N:24:DG:H2''	16:N:25:DG:O5'	2.15	0.47
22:T:148:DT:H3'	22:T:148:DT:H6	1.80	0.47
27:Y:134:ARG:O	27:Y:138:ASN:ND2	2.48	0.47
1:1:310:ILE:HG21	1:1:313:VAL:CG2	2.44	0.46
1:1:410:LEU:CD1	1:1:477:LEU:HD11	2.45	0.46
1:1:484:PHE:CD1	1:1:485:ILE:N	2.83	0.46
2:2:208:SER:CA	3:A:1172:LEU:HD13	2.46	0.46
2:2:292:PRO:HG2	4:B:766:ARG:NE	2.30	0.46
3:A:883:LEU:HD23	3:A:1021:LEU:HB2	1.97	0.46
3:A:1446:ASP:HB3	3:A:1449:SER:OG	2.15	0.46
4:B:291:ILE:HD12	4:B:291:ILE:N	2.30	0.46
4:B:951:GLN:CD	14:L:57:LEU:HD22	2.41	0.46
4:B:1166:CYS:O	4:B:1168:LEU:N	2.42	0.46
6:D:5:THR:HG21	9:G:74:TYR:OH	2.15	0.46
16:N:42:DT:C4	22:T:124:DA:N1	2.82	0.46
18:P:91:ASN:CG	18:P:92:LEU:N	2.73	0.46
18:P:269:ILE:CD1	18:P:315:ILE:CG2	2.94	0.46
20:R:17:VAL:HG12	20:R:66:LEU:HD21	1.96	0.46
22:T:122:DT:H2'	22:T:123:DT:H72	1.93	0.46
24:V:310:TYR:HD2	24:V:312:TYR:O	1.98	0.46
24:V:356:LYS:HG3	24:V:358:LEU:O	2.15	0.46
27:Y:39:ILE:HG12	27:Y:458:ILE:CB	2.39	0.46
27:Y:248:LEU:CD1	27:Y:439:CYS:SG	3.03	0.46
27:Y:321:ILE:CD1	27:Y:409:ILE:HG21	2.42	0.46
27:Y:621:LEU:HG	27:Y:680:VAL:HG12	1.97	0.46
1:1:445:MET:SD	1:1:473:VAL:HG11	2.54	0.46
1:1:478:THR:CG2	1:1:479:GLY:H	2.21	0.46
3:A:132:LYS:HZ1	3:A:1415:SER:CB	2.27	0.46
8:F:92:ARG:HH22	9:G:63:PRO:CB	1.84	0.46
11:I:106:CYS:SG	11:I:108:HIS:HB3	2.55	0.46
16:N:65:DG:H1'	16:N:66:DG:C5'	2.40	0.46
17:O:6:TYR:N	17:O:6:TYR:CD1	2.83	0.46
21:S:207:CYS:CB	21:S:208:LYS:HE2	2.37	0.46
24:V:342:LYS:O	24:V:343:GLY:C	2.56	0.46
27:Y:108:LEU:HD12	27:Y:196:VAL:HG11	1.95	0.46
27:Y:487:LEU:HD23	27:Y:490:LYS:HE3	1.96	0.46
1:1:305:GLU:HA	1:1:327:LYS:NZ	2.30	0.46
1:1:476:PHE:CE1	1:1:502:VAL:CG2	2.94	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:477:LEU:HA	1:1:501:VAL:CG2	2.45	0.46
2:2:281:TYR:C	2:2:281:TYR:CD1	2.93	0.46
3:A:11:LEU:HD13	4:B:1195:HIS:NE2	2.31	0.46
4:B:951:GLN:OE1	14:L:57:LEU:CD2	2.62	0.46
8:F:92:ARG:NH2	9:G:63:PRO:C	2.73	0.46
18:P:26:GLU:OE1	18:P:50:LEU:HD21	1.96	0.46
18:P:86:LEU:HD21	18:P:152:GLU:CG	2.44	0.46
18:P:173:ALA:HA	18:P:176:ILE:HD13	1.94	0.46
18:P:207:LEU:O	18:P:210:MET:CG	2.62	0.46
18:P:312:GLY:O	18:P:316:LEU:HD22	2.16	0.46
20:R:82:VAL:HG22	20:R:83:GLU:N	2.30	0.46
20:R:134:LEU:HG	20:R:135:GLU:N	2.29	0.46
21:S:218:ASP:HB2	21:S:223:GLN:HE22	1.75	0.46
23:U:111:LEU:O	24:V:138:GLN:HA	2.16	0.46
27:Y:108:LEU:HA	27:Y:196:VAL:HG11	1.96	0.46
27:Y:171:LEU:CB	27:Y:172:PRO:CD	2.93	0.46
27:Y:290:VAL:CG2	27:Y:291:GLN:H	2.28	0.46
27:Y:529:PHE:CZ	27:Y:704:ALA:HB3	2.50	0.46
1:1:490:VAL:HG12	1:1:514:THR:HB	1.97	0.46
3:A:1443:VAL:HG23	9:G:63:PRO:CG	2.41	0.46
4:B:64:CYS:HA	4:B:67:SER:HB3	1.98	0.46
4:B:106:ASP:O	18:P:244:SER:OG	2.22	0.46
4:B:901:PRO:HG2	14:L:60:ARG:HA	1.96	0.46
6:D:144:THR:HG21	9:G:46:LEU:HD13	1.97	0.46
8:F:92:ARG:NH1	9:G:63:PRO:HB2	2.13	0.46
15:M:250:LYS:HE2	15:M:252:THR:HG21	1.97	0.46
19:Q:171:ARG:CZ	19:Q:174:GLY:HA3	2.45	0.46
21:S:127:LYS:C	21:S:153:MET:CE	2.88	0.46
23:U:145:ARG:NH1	23:U:147:LEU:O	2.40	0.46
24:V:69:TRP:CZ3	24:V:71:VAL:HG23	2.50	0.46
27:Y:20:GLU:O	27:Y:24:TYR:CD2	2.69	0.46
27:Y:46:THR:O	27:Y:46:THR:HG22	2.15	0.46
27:Y:506:ILE:C	27:Y:522:TYR:CZ	2.94	0.46
1:1:331:GLN:NE2	1:1:378:ARG:HD2	2.22	0.46
1:1:383:ILE:HD13	1:1:533:PRO:C	2.40	0.46
1:1:407:VAL:HG22	1:1:451:GLY:CA	2.44	0.46
1:1:677:TYR:HA	1:1:678:GLY:HA2	1.51	0.46
2:2:236:LEU:CA	2:2:242:LYS:CE	2.93	0.46
3:A:1428:VAL:HG13	4:B:1151:LEU:CD2	2.46	0.46
7:E:88:VAL:HB	7:E:116:ILE:HG12	1.97	0.46
8:F:92:ARG:HE	9:G:64:THR:CB	2.25	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:58:DC:C2'	16:N:59:DT:C5'	2.86	0.46
18:P:143:PRO:CG	18:P:182:ARG:NE	2.60	0.46
18:P:188:THR:HG1	18:P:245:HIS:CE1	2.33	0.46
19:Q:230:ILE:O	19:Q:233:VAL:HG13	2.15	0.46
20:R:30:ASP:OD2	20:R:151:LEU:CD2	2.63	0.46
20:R:44:LYS:CE	20:R:54:LEU:HD13	2.45	0.46
21:S:149:ASP:N	21:S:154:LYS:HD2	2.31	0.46
22:T:147:DA:H2'	22:T:148:DT:C5	2.50	0.46
27:Y:656:PHE:HA	27:Y:659:MET:SD	2.56	0.46
1:1:455:SER:CB	1:1:466:ARG:HD3	2.46	0.46
1:1:474:MET:HE3	1:1:482:TRP:CA	2.45	0.46
1:1:583:MET:O	1:1:584:ASN:C	2.57	0.46
2:2:256:ALA:HA	3:A:706:HIS:NE2	2.30	0.46
3:A:353:ILE:HG21	3:A:487:MET:HE3	1.96	0.46
3:A:448:PRO:O	3:A:449:SER:CB	2.63	0.46
3:A:1345:ARG:HG2	3:A:1372:VAL:CG1	2.45	0.46
4:B:365:THR:HG21	4:B:370:PHE:CG	2.51	0.46
18:P:305:THR:HG22	18:P:308:THR:H	1.81	0.46
27:Y:400:LYS:HB2	27:Y:437:PHE:CZ	2.42	0.46
27:Y:438:THR:HG21	27:Y:634:ILE:HG12	1.98	0.46
27:Y:639:LEU:CD1	27:Y:649:ARG:HH11	2.21	0.46
2:2:253:LEU:O	2:2:256:ALA:HB3	2.14	0.46
2:2:269:PHE:CE2	2:2:297:CYS:CB	2.96	0.46
4:B:296:GLU:OE1	23:U:124:LYS:CD	2.63	0.46
4:B:451:LYS:HZ3	18:P:147:LYS:HZ1	1.62	0.46
4:B:1111:MET:H	18:P:56:LEU:HA	1.80	0.46
11:I:102:VAL:HG22	11:I:109:ILE:HG12	1.97	0.46
16:N:51:DA:H2''	16:N:52:DT:OP1	2.14	0.46
16:N:59:DT:C4	16:N:60:DA:N6	2.84	0.46
18:P:293:ILE:HG22	18:P:297:LYS:HD2	1.98	0.46
20:R:120:ASN:CB	20:R:133:GLN:HB3	2.41	0.46
21:S:133:GLU:CG	24:V:330:LYS:HD2	2.46	0.46
22:T:133:DT:O5'	22:T:133:DT:H6	1.99	0.46
27:Y:218:ILE:O	27:Y:222:VAL:HG23	2.15	0.46
27:Y:639:LEU:CD1	27:Y:653:PHE:HZ	2.12	0.46
1:1:351:ASP:CB	1:1:482:TRP:CZ3	2.93	0.46
1:1:436:ALA:HB1	1:1:444:GLU:CB	2.45	0.46
1:1:528:ASN:CG	1:1:533:PRO:HB3	2.41	0.46
3:A:180:LYS:CE	3:A:294:SER:HB3	2.46	0.46
17:O:44:PHE:CZ	17:O:48:VAL:HG21	2.50	0.46
18:P:152:GLU:C	18:P:155:LYS:HG2	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:184:GLU:CD	18:P:241:ARG:H	2.09	0.46
18:P:250:MET:O	18:P:254:THR:HG23	2.12	0.46
22:T:146:DT:C2	22:T:147:DA:C5	3.04	0.46
23:U:137:VAL:HG11	24:V:59:LEU:HB3	1.85	0.46
24:V:118:HIS:CE1	24:V:120:TYR:CE2	3.03	0.46
24:V:307:PHE:HA	24:V:313:TRP:HE1	1.81	0.46
27:Y:124:ARG:O	27:Y:128:VAL:HG23	2.16	0.46
27:Y:155:LEU:HD13	27:Y:155:LEU:C	2.40	0.46
1:1:426:GLN:NE2	1:1:426:GLN:HA	2.30	0.46
3:A:58:LEU:HD22	3:A:80:HIS:O	2.16	0.46
4:B:803:LEU:HG	12:J:52:THR:HG21	1.98	0.46
5:C:8:VAL:HG11	13:K:105:PHE:HD1	1.81	0.46
16:N:26:DG:H1'	24:V:291:SER:HB3	1.98	0.46
16:N:42:DT:H2''	16:N:43:DA:C8	2.48	0.46
18:P:51:VAL:HG22	18:P:52:LEU:H	1.77	0.46
18:P:173:ALA:CA	18:P:176:ILE:CG1	2.71	0.46
18:P:188:THR:HG22	18:P:191:GLU:HB3	1.97	0.46
20:R:156:LEU:C	20:R:157:VAL:CG2	2.89	0.46
21:S:127:LYS:H	24:V:340:VAL:HA	1.70	0.46
21:S:130:TRP:HZ3	24:V:338:THR:O	1.94	0.46
21:S:181:LEU:C	21:S:181:LEU:CD2	2.88	0.46
22:T:139:DC:H2''	22:T:140:DC:C5'	2.46	0.46
27:Y:353:SER:OG	27:Y:378:SER:CB	2.63	0.46
27:Y:360:LEU:HD11	27:Y:364:LYS:CD	2.45	0.46
27:Y:627:PHE:CD1	27:Y:654:LEU:CD1	2.96	0.46
1:1:303:ARG:NH2	1:1:470:SER:HB2	2.31	0.46
1:1:424:PHE:HE2	1:1:454:VAL:CG2	2.30	0.46
1:1:487:LEU:CD2	1:1:531:ILE:CD1	2.94	0.46
3:A:419:LYS:NZ	18:P:47:LEU:HG	2.21	0.46
3:A:598:LEU:HD23	3:A:598:LEU:HA	1.83	0.46
4:B:193:LYS:NZ	14:L:32:ALA:O	2.48	0.46
4:B:343:ILE:CD1	22:T:121:DG:C4'	2.93	0.46
5:C:100:THR:HG22	5:C:119:VAL:HG22	1.97	0.46
7:E:90:VAL:HG23	7:E:123:LEU:HD11	1.98	0.46
11:I:50:THR:HG22	11:I:52:ILE:H	1.81	0.46
16:N:39:DC:C2'	16:N:40:DT:C6	2.86	0.46
16:N:70:DG:H2''	16:N:71:DG:OP2	2.16	0.46
18:P:286:ILE:HG23	18:P:287:LEU:HD23	1.98	0.46
18:P:288:LEU:HD21	18:P:328:LEU:HD13	1.91	0.46
18:P:316:LEU:CD2	18:P:316:LEU:N	2.76	0.46
22:T:102:DC:H6	22:T:102:DC:O5'	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:T:103:DC:C2'	22:T:104:DT:H71	2.46	0.46
22:T:145:DT:H6	22:T:146:DT:H72	1.68	0.46
27:Y:197:ARG:NE	27:Y:225:GLU:OE2	2.49	0.46
27:Y:360:LEU:HD11	27:Y:364:LYS:HE3	1.97	0.46
1:1:397:ILE:HD11	1:1:423:GLN:HG2	1.97	0.45
1:1:499:ARG:CG	1:1:530:LEU:CD1	2.95	0.45
1:1:656:LYS:HD2	1:1:656:LYS:C	2.39	0.45
2:2:252:ASN:OD1	3:A:1204:ASP:C	2.55	0.45
3:A:132:LYS:NZ	3:A:1415:SER:HB3	2.30	0.45
3:A:337:ARG:NH1	4:B:1132:GLU:OE1	2.49	0.45
3:A:565:ILE:O	3:A:570:PRO:HA	2.16	0.45
3:A:1074:GLU:O	3:A:1077:THR:HB	2.16	0.45
3:A:1443:VAL:HB	9:G:62:LEU:O	2.15	0.45
5:C:18:VAL:HG12	5:C:20:PHE:HD1	1.81	0.45
15:M:253:ARG:CZ	22:T:145:DT:OP1	2.64	0.45
18:P:88:ASP:CG	18:P:89:GLY:N	2.74	0.45
18:P:307:GLY:O	18:P:310:LYS:HB3	2.17	0.45
18:P:315:ILE:HG21	18:P:315:ILE:HD13	1.73	0.45
19:Q:230:ILE:HG23	19:Q:234:LEU:HD22	1.98	0.45
20:R:133:GLN:HG3	20:R:134:LEU:H	1.80	0.45
21:S:136:GLN:NE2	21:S:137:LYS:HZ3	2.13	0.45
21:S:187:HIS:HE2	21:S:225:GLU:HB3	1.75	0.45
22:T:134:DT:O3'	24:V:319:LYS:HE3	2.16	0.45
23:U:394:LYS:CD	23:U:396:THR:HG23	2.45	0.45
24:V:63:ARG:HB2	24:V:215:VAL:HA	1.76	0.45
24:V:306:LEU:HG	24:V:313:TRP:CG	2.50	0.45
25:W:503:ASP:HB3	25:W:507:ARG:NH1	2.31	0.45
27:Y:649:ARG:HG3	27:Y:650:GLU:N	2.31	0.45
1:1:397:ILE:HD11	1:1:423:GLN:CG	2.45	0.45
1:1:571:ARG:N	1:1:571:ARG:HH11	2.13	0.45
2:2:252:ASN:ND2	3:A:1203:ASN:HA	2.23	0.45
2:2:266:THR:CG2	3:A:731:ARG:CD	2.75	0.45
2:2:283:GLN:HG2	2:2:295:THR:OG1	2.17	0.45
3:A:192:GLY:HA3	22:T:117:DC:P	2.33	0.45
3:A:709:THR:HG22	3:A:711:ARG:H	1.80	0.45
3:A:743:VAL:O	3:A:747:VAL:HG23	2.16	0.45
3:A:1151:GLU:HG2	11:I:45:ARG:HG3	1.98	0.45
3:A:1445:ILE:HG12	9:G:67:SER:HA	1.87	0.45
4:B:582:VAL:HG22	4:B:626:ILE:HB	1.97	0.45
8:F:96:THR:OG1	9:G:63:PRO:O	2.33	0.45
12:J:28:ASP:C	12:J:30:LEU:H	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:U:343:ARG:HB3	23:U:347:PHE:CD2	2.50	0.45
27:Y:375:ARG:HH11	27:Y:377:CYS:HB2	1.81	0.45
27:Y:462:THR:HG22	27:Y:462:THR:O	2.17	0.45
1:1:377:GLY:CA	1:1:381:SER:HB2	2.46	0.45
1:1:408:ILE:CG2	1:1:476:PHE:H	2.29	0.45
1:1:455:SER:CB	1:1:466:ARG:CG	2.93	0.45
1:1:476:PHE:CA	1:1:485:ILE:CG2	2.95	0.45
3:A:411:ASP:HA	18:P:51:VAL:HG12	1.97	0.45
4:B:1111:MET:HB2	18:P:56:LEU:HA	1.89	0.45
18:P:52:LEU:O	18:P:53:SER:HB3	2.16	0.45
18:P:202:GLU:O	18:P:205:LYS:CG	2.62	0.45
18:P:296:ALA:O	18:P:300:GLN:HB2	2.16	0.45
20:R:54:LEU:O	20:R:58:ILE:HG12	2.17	0.45
21:S:134:TYR:OH	21:S:150:TYR:CD2	2.64	0.45
22:T:152:DC:O5'	22:T:152:DC:H6	1.99	0.45
23:U:347:PHE:CD1	23:U:416:LYS:HD2	2.51	0.45
23:U:371:ASP:N	24:V:77:LEU:HG	2.32	0.45
27:Y:649:ARG:O	27:Y:653:PHE:CG	2.67	0.45
1:1:356:LEU:HD21	1:1:448:THR:CB	2.45	0.45
1:1:484:PHE:HZ	1:1:511:LEU:CB	2.27	0.45
3:A:56:PRO:O	3:A:57:ARG:HG3	2.16	0.45
3:A:316:GLN:HA	18:P:92:LEU:HD23	1.99	0.45
3:A:923:LEU:O	3:A:927:VAL:HG23	2.16	0.45
3:A:1393:ASN:ND2	3:A:1393:ASN:H	2.15	0.45
4:B:46:GLN:H	4:B:46:GLN:HG3	1.38	0.45
4:B:662:MET:HA	4:B:665:GLU:HB2	1.97	0.45
4:B:885:MET:CG	18:P:33:LYS:HZ2	2.29	0.45
10:H:93:TYR:HA	10:H:145:ARG:HB3	1.99	0.45
16:N:56:DT:O5'	16:N:56:DT:H6	1.98	0.45
18:P:37:ARG:NH2	18:P:40:GLU:CG	2.79	0.45
18:P:38:PHE:CE1	18:P:39:SER:OG	2.66	0.45
18:P:143:PRO:HD3	18:P:185:VAL:CB	2.46	0.45
18:P:266:ILE:HB	18:P:268:GLU:HG3	1.97	0.45
18:P:310:LYS:CE	18:P:340:PRO:CG	2.91	0.45
20:R:64:ASP:CB	20:R:66:LEU:CD2	2.94	0.45
22:T:145:DT:H2'	22:T:146:DT:C7	2.46	0.45
23:U:121:PHE:O	24:V:130:GLU:HB2	2.17	0.45
27:Y:238:HIS:O	27:Y:660:ARG:NH1	2.50	0.45
27:Y:562:GLU:CD	27:Y:599:LEU:CD1	2.89	0.45
27:Y:656:PHE:HA	27:Y:659:MET:HG2	1.99	0.45
1:1:303:ARG:CD	1:1:504:THR:CG2	2.94	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:383:ILE:HD13	1:1:383:ILE:N	2.31	0.45
1:1:466:ARG:HH21	1:1:476:PHE:HB3	1.81	0.45
1:1:467:SER:OG	1:1:497:MET:HG2	2.16	0.45
1:1:474:MET:CB	1:1:481:GLU:N	2.80	0.45
1:1:475:ASP:N	1:1:478:THR:H	2.15	0.45
1:1:476:PHE:CE1	1:1:487:LEU:CG	3.00	0.45
2:2:253:LEU:CB	3:A:1132:LYS:CD	2.87	0.45
3:A:187:LYS:HE3	3:A:198:GLU:HB2	1.99	0.45
3:A:316:GLN:N	18:P:92:LEU:HD23	2.29	0.45
3:A:449:SER:HA	3:A:454:SER:HB3	1.98	0.45
3:A:534:LEU:O	3:A:574:GLY:HA3	2.17	0.45
18:P:142:LEU:CG	18:P:147:LYS:HG3	2.36	0.45
18:P:264:LYS:NZ	18:P:264:LYS:H	2.14	0.45
18:P:284:LEU:HD22	18:P:284:LEU:HA	1.69	0.45
21:S:130:TRP:CZ3	24:V:337:ALA:CB	2.99	0.45
22:T:121:DG:C6	22:T:122:DT:C4	3.04	0.45
27:Y:124:ARG:NE	27:Y:374:LEU:HD22	2.31	0.45
1:1:320:ASN:HD22	1:1:321:GLU:H	1.65	0.45
1:1:407:VAL:HG11	1:1:451:GLY:HA2	1.97	0.45
1:1:424:PHE:HE2	1:1:454:VAL:HG21	1.81	0.45
5:C:70:ILE:HD11	5:C:144:ILE:HG12	1.98	0.45
11:I:72:ASP:O	11:I:81:ARG:HG2	2.16	0.45
16:N:48:DG:H2''	16:N:49:DG:OP1	2.17	0.45
18:P:252:VAL:CG2	18:P:289:PHE:CD2	2.99	0.45
20:R:28:VAL:CG2	20:R:57:LEU:CD1	2.95	0.45
20:R:85:VAL:O	20:R:85:VAL:HG23	2.17	0.45
23:U:139:LEU:HG	23:U:350:TRP:CE3	2.51	0.45
23:U:342:LEU:HA	23:U:413:MET:HE1	1.99	0.45
24:V:343:GLY:C	24:V:345:TYR:H	2.24	0.45
27:Y:132:LYS:CB	27:Y:155:LEU:HD12	2.46	0.45
27:Y:353:SER:OG	27:Y:378:SER:CA	2.64	0.45
27:Y:492:PHE:HZ	27:Y:699:GLN:NE2	2.14	0.45
1:1:408:ILE:CG1	1:1:466:ARG:CZ	2.95	0.45
1:1:424:PHE:HB2	1:1:435:CYS:SG	2.56	0.45
1:1:466:ARG:NH2	1:1:476:PHE:HB3	2.32	0.45
1:1:474:MET:HG3	1:1:479:GLY:O	2.17	0.45
1:1:474:MET:CG	1:1:505:ILE:CG2	2.94	0.45
1:1:484:PHE:CD1	1:1:486:ILE:HG13	2.52	0.45
3:A:1444:MET:HB2	3:A:1444:MET:HE2	1.63	0.45
6:D:31:GLN:O	6:D:34:GLN:HB2	2.17	0.45
9:G:98:GLY:HA3	9:G:110:VAL:O	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:60:DA:C2'	16:N:61:DA:C5'	2.86	0.45
20:R:120:ASN:CG	20:R:133:GLN:HG2	2.42	0.45
21:S:158:LYS:HD3	21:S:158:LYS:HA	1.68	0.45
21:S:184:TYR:O	21:S:221:ILE:HG21	2.15	0.45
24:V:335:LYS:O	24:V:355:TYR:OH	2.35	0.45
27:Y:62:HIS:HB3	27:Y:69:ILE:HD11	1.97	0.45
1:1:307:ASP:HB2	1:1:323:VAL:CB	2.36	0.45
1:1:376:ASN:CB	1:1:379:ALA:HB3	2.46	0.45
1:1:449:GLU:HB3	1:1:451:GLY:C	2.41	0.45
1:1:474:MET:N	1:1:480:ARG:N	2.65	0.45
2:2:253:LEU:HD21	3:A:1132:LYS:CB	2.40	0.45
3:A:353:ILE:HG22	3:A:468:PHE:HB2	1.98	0.45
4:B:563:MET:HE3	4:B:580:VAL:HB	1.99	0.45
5:C:97:VAL:HG21	5:C:129:ILE:HG23	1.99	0.45
7:E:167:ARG:HD3	7:E:167:ARG:HA	1.78	0.45
8:F:92:ARG:CZ	9:G:63:PRO:C	2.90	0.45
8:F:130:ILE:HB	8:F:148:VAL:HG21	1.99	0.45
11:I:83:ASN:HA	11:I:104:LEU:HG	1.98	0.45
17:O:117:ASN:CG	17:O:119:LYS:HG2	2.42	0.45
21:S:127:LYS:HE3	21:S:127:LYS:HB3	1.60	0.45
24:V:92:LEU:HD12	24:V:93:GLY:N	2.32	0.45
27:Y:343:LYS:HA	27:Y:346:MET:HE3	1.98	0.45
27:Y:400:LYS:CB	27:Y:437:PHE:CE1	2.92	0.45
27:Y:416:PHE:CE1	27:Y:436:ARG:HB2	2.51	0.45
1:1:410:LEU:HG	1:1:457:TYR:CE1	2.52	0.45
2:2:307:LYS:CE	3:A:1359:ASP:O	2.65	0.45
4:B:233:PRO:HG2	4:B:234:ILE:HD12	1.99	0.45
4:B:296:GLU:OE1	23:U:124:LYS:HD3	2.17	0.45
5:C:165:LYS:O	13:K:6:ARG:NH1	2.46	0.45
7:E:65:THR:O	7:E:69:ILE:HD12	2.16	0.45
16:N:35:DG:C2	16:N:36:DT:O4	2.70	0.45
18:P:21:VAL:HG22	18:P:23:THR:N	2.20	0.45
18:P:143:PRO:HD3	18:P:185:VAL:CG2	2.46	0.45
19:Q:99:PHE:CA	22:T:142:DC:O2	2.59	0.45
20:R:141:ASN:CA	20:R:142:PHE:HD1	2.29	0.45
21:S:214:TRP:CE3	21:S:218:ASP:OD1	2.69	0.45
1:1:430:LEU:HD23	1:1:430:LEU:C	2.42	0.45
1:1:522:ASP:O	1:1:524:ILE:HD13	2.17	0.45
18:P:94:THR:CG2	18:P:110:LEU:HD11	2.47	0.45
18:P:197:HIS:O	18:P:198:VAL:HB	2.17	0.45
18:P:223:LEU:HD11	19:Q:173:GLU:CA	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:61:LEU:CB	20:R:67:ILE:CD1	2.94	0.45
24:V:128:VAL:C	24:V:130:GLU:N	2.75	0.45
27:Y:307:VAL:CA	27:Y:310:PRO:HD2	2.47	0.45
27:Y:655:SER:HA	27:Y:689:LYS:NZ	2.31	0.45
1:1:366:GLN:HE22	1:1:394:LEU:HD22	1.82	0.44
1:1:370:LEU:HD23	1:1:370:LEU:C	2.42	0.44
1:1:449:GLU:CB	1:1:452:LEU:HA	2.46	0.44
1:1:574:ALA:CB	1:1:774:GLU:OE2	2.65	0.44
2:2:269:PHE:HZ	2:2:308:PHE:CE1	2.35	0.44
3:A:11:LEU:CD1	4:B:1195:HIS:NE2	2.80	0.44
3:A:1436:ILE:O	4:B:1144:ALA:HB2	2.17	0.44
10:H:105:GLU:HB3	10:H:113:ALA:HB3	1.99	0.44
17:O:39:ARG:HD3	17:O:39:ARG:O	2.17	0.44
18:P:129:ALA:O	18:P:133:ILE:HB	2.17	0.44
20:R:44:LYS:HE3	20:R:54:LEU:CB	2.47	0.44
22:T:103:DC:H2''	22:T:104:DT:H5'	1.99	0.44
22:T:140:DC:H2''	22:T:141:DC:C6	2.52	0.44
27:Y:83:LEU:HD13	27:Y:177:SER:HA	1.98	0.44
27:Y:495:MET:CE	27:Y:696:TRP:HE3	2.30	0.44
1:1:457:TYR:CB	1:1:498:PHE:CE1	2.94	0.44
1:1:609:SER:O	1:1:655:SER:HA	2.16	0.44
3:A:1447:GLU:HB2	9:G:70:PHE:HZ	1.83	0.44
4:B:849:GLY:HA2	4:B:852:ARG:CD	2.40	0.44
4:B:1001:PHE:HE2	5:C:178:PHE:HB3	1.81	0.44
18:P:208:ASN:C	18:P:211:LYS:HG2	2.42	0.44
19:Q:76:LEU:HB2	19:Q:119:GLY:O	2.18	0.44
20:R:149:CYS:SG	20:R:151:LEU:CD2	3.00	0.44
22:T:144:DT:C4	22:T:145:DT:O4	2.70	0.44
23:U:343:ARG:HB3	23:U:347:PHE:CG	2.52	0.44
27:Y:307:VAL:O	27:Y:310:PRO:HD2	2.17	0.44
27:Y:496:ILE:O	27:Y:686:PHE:HE2	2.00	0.44
27:Y:686:PHE:CD1	27:Y:687:SER:N	2.85	0.44
1:1:434:ASN:HD22	1:1:434:ASN:N	2.15	0.44
1:1:476:PHE:HA	1:1:485:ILE:HG21	1.98	0.44
1:1:519:ARG:HB2	1:1:521:ASP:OD1	2.17	0.44
9:G:143:ILE:HG22	9:G:145:VAL:HG22	1.99	0.44
12:J:36:LEU:HD11	12:J:51:LEU:HB2	2.00	0.44
16:N:26:DG:H2''	24:V:291:SER:HB3	1.99	0.44
18:P:152:GLU:CG	18:P:155:LYS:NZ	2.75	0.44
20:R:16:VAL:O	20:R:20:PHE:HD1	2.00	0.44
20:R:27:LEU:HD23	20:R:129:THR:HB	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:40:GLU:H	20:R:87:TYR:HE1	1.65	0.44
23:U:107:PRO:CB	24:V:90:GLN:OE1	2.65	0.44
23:U:117:HIS:HD2	23:U:391:LYS:HB2	1.83	0.44
27:Y:185:CYS:CB	27:Y:190:LEU:O	2.63	0.44
27:Y:244:CYS:O	27:Y:248:LEU:HG	2.18	0.44
27:Y:537:MET:HA	27:Y:619:THR:O	2.17	0.44
1:1:356:LEU:CD2	1:1:448:THR:CG2	2.95	0.44
1:1:484:PHE:CD1	1:1:484:PHE:C	2.96	0.44
1:1:487:LEU:CD2	1:1:531:ILE:HD13	2.47	0.44
1:1:502:VAL:HA	1:1:505:ILE:CG1	2.47	0.44
3:A:567:LYS:HA	3:A:568:PRO:C	2.42	0.44
3:A:745:GLN:HA	3:A:748:MET:HE3	1.98	0.44
3:A:994:GLN:HE22	3:A:1023:ARG:HE	1.66	0.44
3:A:1445:ILE:H	9:G:68:ALA:CB	2.30	0.44
4:B:102:VAL:HG23	4:B:112:LEU:HD22	2.00	0.44
4:B:468:GLU:HG2	4:B:469:GLN:HB2	1.99	0.44
8:F:132:LEU:CD2	9:G:61:ILE:HG12	2.46	0.44
18:P:190:LYS:HE2	18:P:242:PHE:CZ	2.42	0.44
19:Q:103:ILE:HD13	22:T:144:DT:C5'	2.45	0.44
20:R:37:VAL:HG12	20:R:88:TYR:CB	2.46	0.44
20:R:44:LYS:HD3	20:R:49:ILE:C	2.42	0.44
21:S:232:VAL:HG22	21:S:233:LEU:N	2.33	0.44
27:Y:493:LEU:HB3	27:Y:696:TRP:NE1	2.33	0.44
1:1:339:GLU:O	1:1:340:GLU:HB2	2.16	0.44
1:1:434:ASN:O	1:1:452:LEU:HG	2.18	0.44
1:1:448:THR:HG22	1:1:449:GLU:H	1.83	0.44
1:1:470:SER:HA	1:1:478:THR:CB	2.48	0.44
1:1:629:GLY:N	1:1:657:VAL:HG11	2.33	0.44
3:A:58:LEU:HB3	3:A:59:GLY:H	1.25	0.44
3:A:589:GLN:HG2	3:A:606:LEU:HD13	1.99	0.44
3:A:869:GLY:O	7:E:204:THR:HG21	2.18	0.44
3:A:875:ALA:HB2	3:A:1366:ARG:CD	2.48	0.44
3:A:1345:ARG:HD2	3:A:1373:ASP:OD1	2.18	0.44
4:B:394:ASP:OD2	11:I:91:ARG:HD2	2.17	0.44
4:B:901:PRO:O	14:L:60:ARG:HA	2.18	0.44
5:C:11:ARG:HE	5:C:21:ILE:HD11	1.82	0.44
8:F:89:GLU:C	8:F:93:ILE:HD12	2.42	0.44
10:H:30:SER:HB3	10:H:36:CYS:HB3	1.98	0.44
17:O:84:GLN:HA	17:O:84:GLN:HE21	1.83	0.44
18:P:21:VAL:CG2	18:P:22:LEU:N	2.80	0.44
18:P:269:ILE:O	18:P:272:LYS:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Q:68:GLN:O	22:T:146:DT:H4'	2.17	0.44
20:R:92:PRO:HA	20:R:95:ILE:HG22	2.00	0.44
20:R:135:GLU:HA	20:R:138:GLN:CG	2.48	0.44
20:R:141:ASN:HA	20:R:142:PHE:CD1	2.52	0.44
20:R:145:THR:C	20:R:146:GLU:CD	2.85	0.44
21:S:184:TYR:C	21:S:221:ILE:CG2	2.53	0.44
23:U:98:TYR:CD1	24:V:98:ASN:CA	3.00	0.44
23:U:375:LEU:HD13	24:V:134:VAL:HG21	1.99	0.44
24:V:69:TRP:HZ3	24:V:71:VAL:HG23	1.80	0.44
27:Y:539:VAL:HB	27:Y:599:LEU:HD23	2.00	0.44
1:1:373:MET:CG	1:1:381:SER:CB	2.95	0.44
1:1:505:ILE:HD12	1:1:510:LYS:HZ2	1.82	0.44
1:1:588:PHE:HZ	1:1:621:LYS:HZ3	1.66	0.44
2:2:293:LEU:N	2:2:293:LEU:CD2	2.81	0.44
3:A:22:PHE:HD2	4:B:1211:ASN:HA	1.83	0.44
4:B:89:GLU:HB2	4:B:135:ARG:HB2	1.99	0.44
13:K:65:HIS:HE1	13:K:67:PHE:CG	2.35	0.44
15:M:228:ASP:CG	15:M:229:TYR:H	2.25	0.44
18:P:34:ILE:O	18:P:35:VAL:CB	2.64	0.44
21:S:133:GLU:OE1	24:V:330:LYS:CD	2.48	0.44
21:S:195:LEU:HD22	21:S:195:LEU:H	1.82	0.44
21:S:199:GLN:HG3	21:S:246:TYR:OH	2.18	0.44
22:T:146:DT:C5	22:T:147:DA:N6	2.85	0.44
23:U:377:SER:CB	24:V:70:LEU:CD2	2.96	0.44
27:Y:124:ARG:HG2	27:Y:374:LEU:HB2	1.99	0.44
27:Y:248:LEU:HD11	27:Y:445:ALA:HB3	1.95	0.44
27:Y:261:THR:HA	27:Y:299:LEU:CD1	2.48	0.44
1:1:310:ILE:HG21	1:1:313:VAL:HG21	2.00	0.44
1:1:408:ILE:CD1	1:1:466:ARG:CD	2.95	0.44
2:2:253:LEU:HD22	3:A:1132:LYS:HD3	0.86	0.44
2:2:257:GLN:NE2	3:A:1284:MET:CE	2.80	0.44
2:2:258:GLY:N	3:A:1283:VAL:CA	2.79	0.44
3:A:70:CYS:O	3:A:72:GLU:HG2	2.17	0.44
3:A:404:TYR:HH	18:P:40:GLU:CB	2.25	0.44
3:A:412:ARG:CB	18:P:51:VAL:HB	2.48	0.44
3:A:446:ARG:HB2	3:A:487:MET:SD	2.57	0.44
3:A:514:PRO:HG2	3:A:1067:LEU:HD11	1.98	0.44
3:A:974:ASP:C	3:A:976:THR:H	2.25	0.44
3:A:1445:ILE:N	9:G:68:ALA:CB	2.80	0.44
16:N:57:DA:C2	16:N:58:DC:O2	2.70	0.44
16:N:59:DT:O2	16:N:60:DA:C8	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:190:LYS:HD3	18:P:242:PHE:HZ	1.83	0.44
19:Q:114:LEU:HD22	22:T:143:DT:C2	2.52	0.44
20:R:152:CYS:O	20:R:153:ASP:C	2.61	0.44
22:T:117:DC:C4	22:T:118:DC:N4	2.85	0.44
22:T:155:DC:H2''	22:T:156:DT:C5'	2.47	0.44
24:V:59:LEU:HD21	24:V:214:ILE:CD1	2.46	0.44
24:V:82:ARG:NH2	24:V:120:TYR:OH	2.51	0.44
27:Y:54:SER:HB2	27:Y:233:ILE:HD13	2.00	0.44
27:Y:569:ILE:HG23	27:Y:579:THR:OG1	2.16	0.44
27:Y:697:ILE:HG22	27:Y:698:ALA:N	2.32	0.44
1:1:299:GLY:HA2	1:1:347:HIS:N	2.32	0.44
1:1:373:MET:CE	1:1:511:LEU:CD1	2.95	0.44
1:1:448:THR:CG2	1:1:449:GLU:N	2.81	0.44
1:1:455:SER:HB3	1:1:466:ARG:CG	2.48	0.44
2:2:289:ALA:HB2	3:A:824:LEU:HD21	2.00	0.44
3:A:63:ARG:C	18:P:20:ILE:HG12	2.38	0.44
3:A:412:ARG:HB2	18:P:51:VAL:HB	1.99	0.44
3:A:451:HIS:CD2	3:A:1074:GLU:HG3	2.52	0.44
4:B:1158:PHE:HE2	4:B:1160:VAL:HG13	1.83	0.44
6:D:7:THR:HG23	9:G:7:LEU:HD23	1.99	0.44
18:P:207:LEU:HA	18:P:210:MET:CE	2.36	0.44
20:R:17:VAL:CG2	20:R:18:ARG:N	2.81	0.44
21:S:153:MET:O	21:S:154:LYS:NZ	2.28	0.44
21:S:210:LEU:HD22	21:S:214:TRP:CZ2	2.52	0.44
24:V:219:CYS:C	24:V:220:HIS:CG	2.96	0.44
24:V:336:VAL:HB	24:V:356:LYS:HZ1	1.82	0.44
27:Y:321:ILE:HG21	27:Y:411:THR:HB	2.00	0.44
27:Y:342:LEU:HD23	27:Y:345:ARG:CZ	2.45	0.44
1:1:397:ILE:HD11	1:1:423:GLN:NE2	2.30	0.44
1:1:501:VAL:CG2	1:1:502:VAL:N	2.80	0.44
3:A:89:PRO:C	3:A:204:THR:HG21	2.43	0.44
3:A:332:LYS:HA	3:A:337:ARG:HB2	2.00	0.44
3:A:875:ALA:HA	3:A:878:ILE:HD12	1.99	0.44
4:B:86:ARG:HG2	4:B:138:GLU:HG3	1.98	0.44
16:N:17:DT:H2'	16:N:18:DA:C8	2.52	0.44
17:O:85:VAL:O	17:O:106:ILE:N	2.44	0.44
18:P:26:GLU:CD	18:P:50:LEU:HD22	2.38	0.44
18:P:134:THR:O	18:P:134:THR:HG22	2.17	0.44
18:P:290:GLN:O	18:P:292:PRO:N	2.51	0.44
20:R:17:VAL:HG13	20:R:66:LEU:HD11	1.95	0.44
20:R:135:GLU:C	20:R:138:GLN:HG2	2.43	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:147:PHE:CB	20:R:156:LEU:HD21	2.44	0.44
20:R:147:PHE:HB2	20:R:156:LEU:HD11	1.97	0.44
21:S:129:LEU:N	24:V:341:LYS:CG	2.81	0.44
22:T:151:DG:C2'	22:T:152:DC:H5	2.31	0.44
23:U:386:MET:HE3	24:V:75:MET:SD	2.57	0.44
24:V:59:LEU:CD2	24:V:214:ILE:CD1	2.91	0.44
27:Y:473:LEU:O	27:Y:474:ASN:HB3	2.18	0.44
27:Y:486:THR:HG21	27:Y:670:LEU:HD21	2.00	0.44
27:Y:526:LEU:HD12	27:Y:621:LEU:CD2	2.48	0.44
1:1:400:ALA:CB	1:1:450:SER:CA	2.93	0.43
1:1:424:PHE:CD1	1:1:450:SER:CB	2.94	0.43
1:1:517:LEU:HD22	1:1:534:LYS:HB3	1.98	0.43
1:1:619:ALA:CA	1:1:622:MET:CE	2.96	0.43
2:2:257:GLN:HA	3:A:1284:MET:N	2.31	0.43
3:A:151:ASP:HA	3:A:163:SER:HA	1.99	0.43
3:A:404:TYR:CE2	18:P:40:GLU:CD	2.96	0.43
3:A:407:ARG:HG2	3:A:430:TRP:CZ2	2.53	0.43
3:A:1441:PHE:CZ	8:F:89:GLU:HA	2.53	0.43
4:B:509:ALA:C	4:B:511:PRO:HD3	2.43	0.43
10:H:15:VAL:HG22	10:H:26:ILE:HG13	2.00	0.43
15:M:231:ILE:CG2	15:M:232:SER:N	2.81	0.43
15:M:277:GLN:HA	17:O:56:THR:HG21	1.98	0.43
18:P:269:ILE:HB	18:P:272:LYS:HG2	2.00	0.43
20:R:44:LYS:HZ1	20:R:54:LEU:HD13	1.83	0.43
20:R:66:LEU:N	20:R:66:LEU:HD22	2.32	0.43
21:S:184:TYR:HA	21:S:221:ILE:N	2.06	0.43
21:S:203:LYS:CG	21:S:242:ARG:HE	2.05	0.43
22:T:122:DT:H2''	22:T:123:DT:H73	1.98	0.43
27:Y:57:ILE:CG2	27:Y:58:ALA:N	2.80	0.43
27:Y:109:THR:HG22	27:Y:110:SER:N	2.32	0.43
27:Y:492:PHE:CD2	27:Y:494:PRO:HD3	2.53	0.43
1:1:378:ARG:NH2	1:1:510:LYS:HE2	2.33	0.43
1:1:562:THR:CG2	1:1:585:PRO:HD2	2.48	0.43
1:1:572:GLU:OE1	1:1:574:ALA:N	2.50	0.43
2:2:259:ALA:HB2	3:A:708:MET:HE2	1.99	0.43
4:B:125:SER:HA	4:B:171:PRO:HA	2.00	0.43
8:F:92:ARG:NH1	9:G:63:PRO:HB3	2.32	0.43
18:P:133:ILE:HG23	18:P:134:THR:N	2.33	0.43
18:P:173:ALA:HB1	18:P:176:ILE:HD11	2.00	0.43
18:P:243:CYS:HB3	18:P:253:THR:CG2	2.48	0.43
18:P:252:VAL:HG12	18:P:285:ASN:OD1	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:314:LYS:HB3	18:P:314:LYS:HE2	1.54	0.43
22:T:122:DT:C6	22:T:123:DT:H72	2.53	0.43
22:T:143:DT:O5'	22:T:143:DT:H6	2.00	0.43
22:T:144:DT:N3	22:T:145:DT:C4	2.86	0.43
27:Y:383:LEU:HD23	27:Y:383:LEU:O	2.19	0.43
27:Y:533:THR:CG2	27:Y:708:LEU:HD22	2.48	0.43
27:Y:653:PHE:CE1	27:Y:654:LEU:HB2	2.53	0.43
1:1:303:ARG:HH21	1:1:470:SER:HB2	1.82	0.43
1:1:386:LEU:CB	1:1:387:PRO:HD2	2.45	0.43
1:1:473:VAL:CB	1:1:481:GLU:CG	2.95	0.43
1:1:675:SER:CB	1:1:722:ARG:HH22	2.31	0.43
2:2:253:LEU:HB3	3:A:1132:LYS:HE2	1.97	0.43
3:A:22:PHE:HB2	4:B:1211:ASN:O	2.18	0.43
3:A:42:ASP:O	3:A:44:THR:N	2.51	0.43
3:A:91:PHE:HB3	3:A:96:ILE:CD1	2.48	0.43
3:A:132:LYS:HZ2	3:A:1415:SER:CB	2.29	0.43
3:A:190:ALA:O	22:T:116:DG:OP2	2.35	0.43
4:B:350:GLN:HE21	23:U:411:LYS:NZ	2.14	0.43
4:B:951:GLN:OE1	14:L:57:LEU:HD22	2.18	0.43
5:C:133:ILE:HG21	5:C:236:GLY:HA3	2.00	0.43
10:H:4:THR:HA	10:H:60:ALA:HB2	2.00	0.43
20:R:13:LEU:HD11	20:R:94:ALA:CB	2.47	0.43
21:S:202:PHE:HB2	21:S:205:ILE:HG21	2.00	0.43
21:S:203:LYS:HZ3	21:S:204:GLY:C	2.01	0.43
21:S:244:VAL:H	21:S:245:TRP:HZ3	1.66	0.43
22:T:117:DC:O5'	22:T:117:DC:H6	2.01	0.43
24:V:304:PHE:O	24:V:308:ASP:CG	2.61	0.43
27:Y:72:CYS:SG	27:Y:210:TYR:CE1	3.03	0.43
27:Y:506:ILE:HG13	27:Y:522:TYR:CD1	2.53	0.43
27:Y:625:ILE:CG2	27:Y:626:PRO:HD2	2.49	0.43
1:1:327:LYS:CG	1:1:506:ALA:N	2.82	0.43
1:1:372:LYS:HE3	1:1:536:TYR:CD2	2.53	0.43
1:1:427:TRP:HE3	1:1:427:TRP:H	1.65	0.43
2:2:258:GLY:N	3:A:1283:VAL:HA	2.34	0.43
3:A:548:ASN:HD21	13:K:47:ARG:HH21	1.65	0.43
3:A:1259:MET:HA	3:A:1262:LYS:HD2	1.99	0.43
4:B:766:ARG:NH2	4:B:1020:ARG:HD3	2.33	0.43
9:G:1:MET:CE	9:G:80:LYS:O	2.45	0.43
15:M:42:TRP:CZ2	17:O:19:LEU:HG	2.53	0.43
18:P:51:VAL:CG2	18:P:52:LEU:H	2.32	0.43
18:P:54:ASP:O	18:P:55:LYS:HB2	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:158:LYS:HA	21:S:162:LEU:HB2	2.01	0.43
27:Y:493:LEU:CD2	27:Y:666:LEU:HG	2.40	0.43
27:Y:708:LEU:HD23	27:Y:708:LEU:O	2.18	0.43
1:1:374:PHE:CD1	1:1:374:PHE:C	2.96	0.43
1:1:457:TYR:O	1:1:458:SER:HB3	2.19	0.43
1:1:466:ARG:HE	1:1:475:ASP:HB3	1.82	0.43
1:1:473:VAL:O	1:1:478:THR:CB	2.63	0.43
1:1:562:THR:OG1	1:1:565:PHE:CD1	2.72	0.43
3:A:132:LYS:HZ2	3:A:1415:SER:HB3	1.82	0.43
3:A:774:ARG:HH21	3:A:797:LYS:HB2	1.83	0.43
4:B:212:LEU:HA	4:B:212:LEU:HD23	1.73	0.43
4:B:935:ARG:H	4:B:935:ARG:HD2	1.84	0.43
4:B:955:THR:HG22	4:B:956:THR:N	2.34	0.43
8:F:106:PRO:HB2	9:G:16:SER:HA	1.89	0.43
15:M:277:GLN:CB	17:O:56:THR:HG23	2.48	0.43
16:N:37:DA:C2'	16:N:38:DT:H71	2.48	0.43
16:N:59:DT:C2'	16:N:60:DA:C8	3.01	0.43
18:P:130:PHE:C	18:P:133:ILE:CG2	2.70	0.43
18:P:171:ILE:O	18:P:171:ILE:HG13	2.18	0.43
19:Q:153:THR:HG22	19:Q:154:ASP:CG	2.44	0.43
20:R:44:LYS:HZ3	20:R:49:ILE:HB	1.83	0.43
21:S:134:TYR:HH	21:S:138:LYS:HE3	1.74	0.43
22:T:130:DA:H5''	23:U:331:GLN:HB3	1.99	0.43
23:U:138:ARG:CZ	24:V:57:LEU:HB3	2.48	0.43
24:V:88:HIS:CD2	24:V:89:GLY:H	2.36	0.43
24:V:105:THR:HG21	24:V:119:GLU:CD	2.44	0.43
27:Y:124:ARG:HG3	27:Y:373:PRO:C	2.40	0.43
27:Y:132:LYS:CB	27:Y:155:LEU:CD1	2.97	0.43
27:Y:212:TYR:O	27:Y:218:ILE:HG21	2.18	0.43
27:Y:267:LEU:C	27:Y:267:LEU:HD12	2.43	0.43
1:1:300:ASP:N	1:1:347:HIS:HA	2.32	0.43
1:1:344:ARG:HA	1:1:344:ARG:NE	2.33	0.43
1:1:373:MET:SD	1:1:511:LEU:HD13	2.59	0.43
1:1:376:ASN:HB3	1:1:379:ALA:N	2.33	0.43
1:1:425:LEU:HD12	1:1:429:THR:HG23	1.95	0.43
1:1:438:PHE:HE1	1:1:469:ASP:CG	2.27	0.43
1:1:453:VAL:CG2	1:1:482:TRP:CZ2	2.97	0.43
3:A:66:LYS:CE	3:A:68:GLN:H	2.31	0.43
3:A:130:ASP:HB3	3:A:133:LYS:HB2	2.00	0.43
3:A:358:ASN:HB2	13:K:65:HIS:HD2	1.84	0.43
3:A:419:LYS:HZ1	18:P:47:LEU:HA	1.80	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:1154:TYR:CE1	11:I:18:GLU:HG3	2.53	0.43
3:A:1356:ILE:HG21	3:A:1363:VAL:HG23	1.99	0.43
4:B:430:ARG:CA	23:U:326:ARG:NH1	2.50	0.43
4:B:617:ARG:HG3	4:B:624:LEU:HD12	2.00	0.43
4:B:802:PRO:HA	4:B:822:ASN:HD21	1.84	0.43
4:B:983:ARG:HD2	4:B:1091:TYR:HD2	1.84	0.43
5:C:55:THR:HB	5:C:151:GLN:HA	1.99	0.43
16:N:70:DG:P	26:X:63:TYR:OH	2.77	0.43
18:P:223:LEU:CD1	19:Q:177:PHE:CZ	2.93	0.43
18:P:311:SER:O	18:P:315:ILE:HG13	2.18	0.43
18:P:317:TYR:O	18:P:320:ARG:HB3	2.19	0.43
20:R:13:LEU:O	20:R:17:VAL:HG13	2.19	0.43
20:R:35:HIS:CG	20:R:36:SER:N	2.85	0.43
21:S:166:LEU:HD13	21:S:167:ASP:H	1.80	0.43
22:T:135:DG:C2'	22:T:136:DA:C5'	2.92	0.43
27:Y:316:LEU:CD2	27:Y:409:ILE:CD1	2.97	0.43
27:Y:697:ILE:CG2	27:Y:699:GLN:NE2	2.82	0.43
1:1:343:PHE:CD2	1:1:343:PHE:C	2.95	0.43
1:1:373:MET:HE2	1:1:384:ILE:HD11	2.01	0.43
1:1:477:LEU:CD1	1:1:477:LEU:N	2.82	0.43
2:2:296:PHE:N	2:2:296:PHE:CD1	2.86	0.43
3:A:1148:ILE:HA	11:I:49:ILE:HD12	2.00	0.43
4:B:343:ILE:HD11	22:T:121:DG:C3'	2.44	0.43
4:B:383:ASN:O	4:B:387:LEU:HB2	2.19	0.43
5:C:251:LEU:O	5:C:255:VAL:HG23	2.19	0.43
16:N:28:DT:H72	24:V:292:ILE:HG22	1.99	0.43
16:N:59:DT:N3	16:N:60:DA:C5	2.86	0.43
18:P:120:ASP:OD1	18:P:121:LYS:N	2.51	0.43
18:P:285:ASN:CG	18:P:286:ILE:N	2.74	0.43
18:P:334:VAL:C	18:P:336:LEU:N	2.76	0.43
19:Q:99:PHE:HB2	22:T:143:DT:P	2.57	0.43
21:S:125:SER:HA	24:V:341:LYS:HB2	0.87	0.43
23:U:414:ASP:O	23:U:417:SER:O	2.37	0.43
27:Y:169:ASP:O	27:Y:173:LYS:HB2	2.19	0.43
27:Y:408:LEU:CD1	27:Y:632:SER:HB3	2.48	0.43
27:Y:670:LEU:HD21	27:Y:672:GLY:O	2.19	0.43
1:1:609:SER:OG	1:1:615:LEU:HB2	2.17	0.43
1:1:677:TYR:CD1	1:1:677:TYR:C	2.95	0.43
2:2:306:TRP:HA	3:A:1360:GLY:C	2.42	0.43
3:A:449:SER:HA	3:A:454:SER:CB	2.49	0.43
3:A:541:ILE:HG21	3:A:549:MET:CE	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:1443:VAL:CB	9:G:62:LEU:C	2.85	0.43
4:B:915:THR:O	4:B:917:PRO:HD3	2.19	0.43
4:B:980:PHE:CD1	4:B:1094:ARG:HA	2.54	0.43
4:B:998:ASP:OD1	5:C:35:ARG:NH2	2.46	0.43
4:B:1220:ARG:C	6:D:14:ARG:HH21	2.10	0.43
16:N:35:DG:C2'	16:N:36:DT:C7	2.86	0.43
18:P:223:LEU:O	18:P:224:LYS:CB	2.67	0.43
18:P:310:LYS:NZ	18:P:340:PRO:HA	2.33	0.43
18:P:320:ARG:HD3	18:P:334:VAL:HG22	1.36	0.43
18:P:322:LYS:N	18:P:322:LYS:HE2	2.23	0.43
18:P:333:VAL:HG23	18:P:335:SER:H	1.84	0.43
20:R:65:ARG:HB3	20:R:90:LYS:HD2	2.01	0.43
21:S:130:TRP:HD1	21:S:151:LEU:HG	1.69	0.43
21:S:156:ASP:CA	21:S:159:VAL:CG1	2.96	0.43
23:U:342:LEU:HB3	23:U:348:TYR:CZ	2.54	0.43
24:V:69:TRP:CE3	24:V:219:CYS:HB2	2.54	0.43
24:V:74:PRO:HD2	24:V:222:CYS:C	2.38	0.43
27:Y:240:ILE:CG2	27:Y:473:LEU:CD1	2.92	0.43
27:Y:289:LEU:CD2	27:Y:352:ILE:HG13	2.45	0.43
27:Y:298:ILE:HD12	27:Y:345:ARG:HD2	1.97	0.43
1:1:435:CYS:HA	1:1:452:LEU:HG	2.01	0.43
1:1:438:PHE:HE1	1:1:469:ASP:OD2	2.01	0.43
1:1:476:PHE:CD2	1:1:477:LEU:CD1	2.93	0.43
1:1:478:THR:CG2	1:1:479:GLY:N	2.81	0.43
1:1:485:ILE:HG23	1:1:507:ALA:HB1	1.98	0.43
1:1:619:ALA:CA	1:1:622:MET:HE2	2.49	0.43
1:1:712:ASP:HB2	25:W:447:GLU:CD	2.42	0.43
2:2:252:ASN:CG	3:A:1206:ASP:HB2	2.43	0.43
3:A:1323:ASP:CG	3:A:1326:ARG:HG3	2.44	0.43
4:B:69:LEU:HD22	4:B:425:THR:HG23	2.00	0.43
5:C:184:ASN:ND2	5:C:189:THR:O	2.52	0.43
9:G:93:SER:OG	9:G:100:GLU:HB2	2.19	0.43
15:M:229:TYR:C	19:Q:90:ARG:HG3	2.44	0.43
16:N:2:DA:H2'	16:N:3:DA:C8	2.53	0.43
16:N:59:DT:C1'	16:N:60:DA:C8	3.02	0.43
18:P:42:ASP:C	18:P:43:VAL:CG2	2.91	0.43
18:P:292:PRO:CA	18:P:293:ILE:HD13	2.46	0.43
18:P:308:THR:CG2	22:T:151:DG:OP1	2.66	0.43
20:R:33:LEU:HD23	20:R:89:VAL:HG21	1.99	0.43
21:S:149:ASP:OD1	21:S:154:LYS:HD2	2.18	0.43
27:Y:75:THR:O	27:Y:79:ILE:HG13	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:Y:127:THR:HG23	27:Y:365:GLN:NE2	2.33	0.43
27:Y:250:LEU:C	27:Y:250:LEU:HD12	2.43	0.43
27:Y:316:LEU:HD23	27:Y:409:ILE:HD12	2.00	0.43
27:Y:316:LEU:HD21	27:Y:409:ILE:CD1	2.49	0.43
27:Y:317:LEU:HD13	27:Y:415:GLY:CA	2.48	0.43
1:1:335:TYR:HB3	1:1:336:PRO:CD	2.47	0.43
1:1:372:LYS:HE3	1:1:536:TYR:HD2	1.83	0.43
1:1:407:VAL:CG2	1:1:408:ILE:N	2.82	0.43
1:1:421:ARG:CZ	1:1:430:LEU:HD21	2.49	0.43
1:1:484:PHE:HE1	1:1:486:ILE:CG1	2.29	0.43
1:1:562:THR:OG1	1:1:565:PHE:HB2	2.19	0.43
3:A:33:ALA:HB1	3:A:56:PRO:HB2	2.00	0.43
3:A:270:LEU:HA	3:A:270:LEU:HD12	1.68	0.43
16:N:39:DC:H2'	16:N:40:DT:H6	1.69	0.43
18:P:38:PHE:CD1	18:P:39:SER:N	2.87	0.43
18:P:334:VAL:HA	18:P:337:ASP:OD2	2.19	0.43
21:S:135:ILE:CD1	21:S:180:TYR:HB2	2.44	0.43
23:U:94:ASP:HB2	23:U:95:PRO:HD3	2.01	0.43
23:U:329:THR:HA	23:U:332:LEU:HG	2.00	0.43
27:Y:184:TYR:CE1	27:Y:190:LEU:HD21	2.54	0.43
27:Y:504:VAL:HG12	27:Y:686:PHE:CZ	2.54	0.43
27:Y:697:ILE:HG22	27:Y:698:ALA:O	2.18	0.43
1:1:303:ARG:NE	1:1:471:GLN:HG3	2.34	0.42
1:1:313:VAL:CG1	1:1:314:HIS:CE1	3.02	0.42
1:1:354:ILE:CG2	1:1:355:ASP:N	2.82	0.42
1:1:456:THR:CG2	1:1:457:TYR:H	2.30	0.42
3:A:343:LYS:NZ	4:B:1156:ASP:HB2	2.33	0.42
3:A:1025:ARG:O	3:A:1035:TYR:HE2	2.01	0.42
3:A:1438:THR:HB	4:B:1142:GLY:O	2.19	0.42
14:L:49:LYS:O	14:L:50:ASP:HB2	2.19	0.42
15:M:267:VAL:HG22	15:M:269:ILE:HG13	2.00	0.42
18:P:20:ILE:HG23	18:P:20:ILE:O	2.19	0.42
18:P:146:VAL:HG12	18:P:182:ARG:HD3	1.52	0.42
18:P:279:VAL:HG13	18:P:309:ILE:CG2	2.49	0.42
18:P:305:THR:HG23	18:P:307:GLY:H	1.84	0.42
20:R:119:PRO:CG	20:R:120:ASN:HD22	2.32	0.42
21:S:129:LEU:N	24:V:341:LYS:CD	2.79	0.42
23:U:376:LEU:CD2	23:U:386:MET:HB3	2.49	0.42
27:Y:374:LEU:C	27:Y:374:LEU:CD1	2.91	0.42
27:Y:492:PHE:HE2	27:Y:494:PRO:HG3	1.81	0.42
1:1:326:VAL:HG12	1:1:327:LYS:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:407:VAL:CB	1:1:451:GLY:HA2	2.48	0.42
1:1:459:MET:HB2	1:1:464:ARG:CZ	2.49	0.42
3:A:11:LEU:HD21	4:B:1195:HIS:HD2	1.84	0.42
3:A:729:ALA:HA	3:A:732:LEU:HD12	2.01	0.42
3:A:1340:GLY:HA2	7:E:183:PRO:HD2	2.01	0.42
5:C:99:LEU:HB3	5:C:118:LEU:HD22	2.01	0.42
8:F:82:THR:HG22	8:F:83:PRO:HD2	2.01	0.42
18:P:34:ILE:HB	18:P:43:VAL:O	2.20	0.42
18:P:94:THR:CB	18:P:110:LEU:CD2	2.97	0.42
19:Q:169:PRO:HB2	19:Q:239:LYS:HB2	2.01	0.42
20:R:154:GLU:OE1	20:R:154:GLU:HA	2.19	0.42
21:S:128:LEU:HB3	24:V:341:LYS:CD	2.37	0.42
21:S:203:LYS:HG3	21:S:242:ARG:HB3	2.00	0.42
27:Y:237:ALA:CA	27:Y:240:ILE:HG12	2.49	0.42
27:Y:697:ILE:CG2	27:Y:699:GLN:HE21	2.31	0.42
1:1:425:LEU:C	1:1:425:LEU:CD2	2.93	0.42
1:1:429:THR:CG2	1:1:430:LEU:N	2.81	0.42
1:1:535:LEU:O	1:1:535:LEU:HG	2.18	0.42
1:1:716:MET:HE3	1:1:716:MET:HB2	1.82	0.42
2:2:241:LEU:HD21	3:A:1232:ASN:CA	2.35	0.42
3:A:34:LYS:H	3:A:57:ARG:NH1	2.17	0.42
3:A:95:PHE:O	3:A:97:ALA:N	2.49	0.42
3:A:709:THR:HB	3:A:712:GLU:H	1.83	0.42
4:B:108:VAL:N	18:P:244:SER:HB3	2.35	0.42
4:B:169:ARG:HB2	4:B:454:THR:HG23	2.01	0.42
4:B:171:PRO:HG2	4:B:461:LEU:HD12	2.01	0.42
16:N:45:DC:O5'	16:N:45:DC:H6	2.03	0.42
17:O:23:LEU:HD12	17:O:23:LEU:HA	1.92	0.42
21:S:179:LYS:HD3	21:S:179:LYS:O	2.19	0.42
22:T:116:DG:C2	22:T:117:DC:C2	3.07	0.42
24:V:333:LEU:HD13	24:V:349:TYR:CD2	2.55	0.42
27:Y:218:ILE:CG2	27:Y:219:ALA:N	2.82	0.42
27:Y:416:PHE:HE1	27:Y:436:ARG:HB2	1.84	0.42
1:1:408:ILE:CG2	1:1:476:PHE:N	2.80	0.42
1:1:680:ARG:HD3	1:1:680:ARG:HA	1.55	0.42
3:A:41:MET:HE2	3:A:257:ARG:CZ	2.49	0.42
3:A:91:PHE:CB	3:A:96:ILE:CD1	2.96	0.42
3:A:270:LEU:O	3:A:274:ILE:HG13	2.19	0.42
3:A:339:ASN:HB3	4:B:1117:GLN:HE22	1.84	0.42
4:B:521:LEU:HD22	4:B:633:VAL:HG12	2.01	0.42
16:N:28:DT:C7	24:V:292:ILE:CG2	2.98	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:313:TYR:CA	18:P:316:LEU:HD22	2.49	0.42
20:R:62:ARG:HA	20:R:67:ILE:HD13	2.01	0.42
20:R:69:ILE:CG2	20:R:70:HIS:N	2.83	0.42
21:S:153:MET:C	21:S:154:LYS:CE	2.92	0.42
21:S:175:LYS:C	21:S:177:THR:H	2.27	0.42
21:S:187:HIS:HE1	21:S:222:ASN:O	1.98	0.42
27:Y:62:HIS:HD2	27:Y:63:TYR:CA	2.31	0.42
27:Y:168:GLU:HG2	27:Y:199:MET:SD	2.59	0.42
27:Y:330:HIS:CE1	27:Y:334:PHE:HE1	2.37	0.42
1:1:420:TRP:O	1:1:424:PHE:CD2	2.73	0.42
1:1:487:LEU:N	1:1:487:LEU:CD1	2.82	0.42
3:A:194:ALA:HA	3:A:195:ASP:C	2.45	0.42
3:A:595:THR:OG1	3:A:603:ASN:HB3	2.19	0.42
4:B:848:ARG:HD2	12:J:8:PHE:O	2.20	0.42
8:F:92:ARG:HH21	9:G:63:PRO:C	2.28	0.42
18:P:29:VAL:C	18:P:30:TYR:CG	2.97	0.42
18:P:230:MET:SD	18:P:282:ILE:HD11	2.60	0.42
19:Q:204:LEU:HA	19:Q:213:VAL:O	2.20	0.42
20:R:21:TYR:CD2	20:R:64:ASP:OD2	2.73	0.42
20:R:40:GLU:N	20:R:87:TYR:CE1	2.88	0.42
22:T:132:DA:H2''	22:T:133:DT:H73	1.98	0.42
22:T:134:DT:H2''	22:T:135:DG:C8	2.54	0.42
23:U:354:ASP:OD2	23:U:358:TYR:CE2	2.72	0.42
24:V:118:HIS:CE1	24:V:120:TYR:HE2	2.38	0.42
27:Y:110:SER:HB3	27:Y:212:TYR:HD1	1.81	0.42
27:Y:182:LEU:CD1	27:Y:192:PRO:HG2	2.45	0.42
27:Y:321:ILE:HD11	27:Y:409:ILE:CB	2.46	0.42
1:1:331:GLN:HE22	1:1:378:ARG:CD	2.26	0.42
1:1:363:ARG:HH21	1:1:366:GLN:NE2	2.08	0.42
1:1:588:PHE:HZ	1:1:621:LYS:NZ	2.09	0.42
3:A:312:PRO:CA	18:P:96:ILE:CG2	2.97	0.42
3:A:332:LYS:O	3:A:333:GLU:HB2	2.19	0.42
3:A:481:ASP:OD1	3:A:485:ASP:OD1	2.37	0.42
3:A:497:THR:HG22	4:B:1146:PHE:CD1	2.42	0.42
4:B:226:PHE:HA	4:B:395:GLN:CG	2.49	0.42
18:P:279:VAL:HG21	18:P:302:LEU:CD2	1.24	0.42
20:R:67:ILE:HG22	20:R:89:VAL:HA	2.02	0.42
23:U:138:ARG:HG2	23:U:138:ARG:HH11	1.85	0.42
27:Y:59:TYR:O	27:Y:62:HIS:CD2	2.72	0.42
27:Y:375:ARG:HB3	27:Y:378:SER:HB3	2.01	0.42
1:1:296:VAL:HG12	1:1:297:ILE:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:1:356:LEU:HB3	1:1:427:TRP:HD1	1.82	0.42
1:1:522:ASP:CA	1:1:524:ILE:CD1	2.95	0.42
3:A:262:LEU:HG	3:A:328:ARG:NH2	2.35	0.42
3:A:413:ILE:HD13	3:A:424:ILE:HD11	2.01	0.42
3:A:562:THR:O	3:A:576:GLN:NE2	2.53	0.42
3:A:873:MET:HB3	3:A:878:ILE:HD11	2.01	0.42
9:G:1:MET:HE1	9:G:80:LYS:C	2.37	0.42
11:I:76:PRO:HD2	11:I:108:HIS:HD2	1.84	0.42
17:O:71:PHE:HB3	19:Q:93:GLU:HB3	2.01	0.42
18:P:22:LEU:CA	18:P:52:LEU:CD1	2.97	0.42
18:P:188:THR:HG21	18:P:245:HIS:CE1	2.55	0.42
20:R:134:LEU:CD1	20:R:135:GLU:HG2	2.41	0.42
21:S:158:LYS:HD3	21:S:162:LEU:HB2	2.00	0.42
27:Y:135:ARG:CB	27:Y:155:LEU:HG	2.49	0.42
27:Y:353:SER:HB2	27:Y:378:SER:H	1.85	0.42
27:Y:639:LEU:CG	27:Y:649:ARG:HB2	2.48	0.42
1:1:349:ASN:O	1:1:481:GLU:HA	2.19	0.42
1:1:356:LEU:HD21	1:1:448:THR:CG2	2.50	0.42
1:1:403:ILE:O	1:1:404:LYS:HD2	2.19	0.42
1:1:473:VAL:CG1	1:1:481:GLU:CG	2.95	0.42
1:1:474:MET:H	1:1:480:ARG:N	2.18	0.42
1:1:474:MET:CA	1:1:479:GLY:C	2.93	0.42
1:1:519:ARG:CG	1:1:524:ILE:CG2	2.95	0.42
3:A:243:PRO:HB2	3:A:245:PRO:HD2	2.02	0.42
3:A:873:MET:C	3:A:1058:VAL:HG22	2.44	0.42
3:A:1348:LEU:HG	3:A:1372:VAL:HG22	2.00	0.42
4:B:65:GLU:HG3	4:B:66:ASP:H	1.85	0.42
4:B:959:ASP:CG	18:P:182:ARG:HH11	2.27	0.42
8:F:131:PRO:CG	9:G:18:PHE:HD2	2.31	0.42
12:J:48:ARG:HH21	12:J:49:MET:HE1	1.85	0.42
18:P:245:HIS:HB2	18:P:301:THR:HG21	2.01	0.42
18:P:321:ASP:OD1	18:P:334:VAL:HG11	2.17	0.42
19:Q:98:ARG:NE	22:T:142:DC:H5"	2.35	0.42
20:R:39:ALA:HA	20:R:87:TYR:CE1	2.55	0.42
20:R:120:ASN:HD22	20:R:120:ASN:N	2.18	0.42
23:U:396:THR:OG1	23:U:401:TYR:CZ	2.72	0.42
24:V:59:LEU:CG	24:V:214:ILE:HG13	2.50	0.42
27:Y:191:CYS:O	27:Y:195:ILE:HG13	2.18	0.42
1:1:326:VAL:CG1	1:1:327:LYS:N	2.83	0.42
1:1:425:LEU:HA	1:1:429:THR:CA	2.49	0.42
1:1:475:ASP:OD1	1:1:482:TRP:CD1	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:11:LEU:HD21	4:B:1195:HIS:CD2	2.55	0.42
3:A:399:HIS:HB3	3:A:400:PRO:HD3	2.02	0.42
3:A:1036:ARG:HG2	3:A:1036:ARG:HH11	1.85	0.42
3:A:1345:ARG:HG2	3:A:1372:VAL:HG12	2.01	0.42
4:B:955:THR:HG22	4:B:956:THR:H	1.85	0.42
16:N:37:DA:H2''	16:N:38:DT:H71	2.01	0.42
18:P:288:LEU:CD2	18:P:328:LEU:HD11	2.44	0.42
22:T:117:DC:N3	22:T:118:DC:C4	2.87	0.42
23:U:343:ARG:HB3	23:U:347:PHE:HB2	2.02	0.42
27:Y:167:VAL:HG13	27:Y:195:ILE:HG21	1.99	0.42
27:Y:342:LEU:HD13	27:Y:342:LEU:C	2.45	0.42
1:1:394:LEU:N	1:1:394:LEU:CD1	2.83	0.42
1:1:415:VAL:CG1	1:1:416:SER:N	2.83	0.42
1:1:426:GLN:CA	1:1:426:GLN:HE21	2.33	0.42
1:1:474:MET:HG3	1:1:505:ILE:HG22	2.01	0.42
1:1:475:ASP:CA	1:1:478:THR:H	2.33	0.42
1:1:524:ILE:CD1	1:1:524:ILE:H	2.33	0.42
2:2:296:PHE:CZ	3:A:1080:THR:HB	2.55	0.42
3:A:306:ASN:O	3:A:313:GLN:HG2	2.19	0.42
3:A:412:ARG:H	18:P:51:VAL:CG1	2.32	0.42
3:A:497:THR:CG2	4:B:1146:PHE:CD1	3.02	0.42
4:B:273:LEU:HD12	4:B:280:ILE:HD12	2.02	0.42
4:B:341:LEU:HD11	4:B:343:ILE:HB	2.02	0.42
4:B:1143:ALA:HB1	4:B:1146:PHE:HB3	2.01	0.42
15:M:243:LEU:HD21	15:M:245:LEU:HD21	2.02	0.42
18:P:145:ILE:CD1	18:P:182:ARG:CD	2.62	0.42
18:P:288:LEU:HD21	18:P:328:LEU:HD12	1.91	0.42
18:P:317:TYR:HB3	18:P:318:GLU:OE2	2.20	0.42
27:Y:556:THR:HA	27:Y:557:MET:C	2.45	0.42
1:1:370:LEU:C	1:1:370:LEU:CD2	2.93	0.41
1:1:393:THR:O	1:1:397:ILE:HG13	2.19	0.41
1:1:424:PHE:CB	1:1:435:CYS:SG	3.07	0.41
3:A:11:LEU:HA	4:B:1193:GLN:O	2.19	0.41
3:A:332:LYS:HA	3:A:337:ARG:CB	2.49	0.41
3:A:469:ARG:NH2	4:B:991:GLY:O	2.53	0.41
4:B:904:ARG:HG3	4:B:948:ILE:HG13	2.02	0.41
4:B:1220:ARG:N	6:D:14:ARG:NH2	2.64	0.41
5:C:148:ARG:HG3	5:C:151:GLN:HG3	2.01	0.41
5:C:149:LYS:C	5:C:151:GLN:H	2.28	0.41
16:N:28:DT:H72	24:V:292:ILE:HA	1.45	0.41
19:Q:99:PHE:HB3	22:T:143:DT:H5'	0.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Q:103:ILE:CG1	22:T:143:DT:C4'	2.86	0.41
20:R:58:ILE:HG21	20:R:87:TYR:CD2	2.55	0.41
20:R:67:ILE:N	20:R:67:ILE:CD1	2.82	0.41
21:S:234:ARG:NH2	21:S:242:ARG:HB2	2.35	0.41
22:T:120:DG:H2''	22:T:121:DG:O5'	2.20	0.41
24:V:127:LYS:HB3	24:V:221:GLU:CD	2.45	0.41
1:1:474:MET:HB2	1:1:481:GLU:N	2.34	0.41
1:1:691:LEU:HD23	1:1:691:LEU:HA	1.90	0.41
3:A:317:LYS:O	4:B:471:LYS:CD	2.68	0.41
4:B:190:TYR:CE2	4:B:196:PRO:HG3	2.55	0.41
4:B:1198:TYR:HE2	4:B:1201:LYS:HE3	1.83	0.41
4:B:1221:SER:N	6:D:14:ARG:CZ	2.83	0.41
7:E:181:ALA:HA	7:E:186:LEU:HD21	2.01	0.41
18:P:189:PHE:N	18:P:241:ARG:CZ	2.68	0.41
18:P:263:CYS:HB2	18:P:264:LYS:CD	2.48	0.41
20:R:27:LEU:HD22	20:R:129:THR:HA	0.44	0.41
21:S:137:LYS:HE3	24:V:330:LYS:NZ	2.31	0.41
22:T:100:DC:C2	22:T:101:DC:C5	3.08	0.41
22:T:121:DG:H2'	22:T:122:DT:C5'	2.50	0.41
22:T:142:DC:O5'	22:T:142:DC:H6	2.02	0.41
22:T:151:DG:H2''	22:T:152:DC:H5	1.79	0.41
27:Y:62:HIS:ND1	27:Y:69:ILE:HG13	2.33	0.41
27:Y:293:LEU:HD13	27:Y:345:ARG:HH11	1.85	0.41
27:Y:567:LYS:CG	27:Y:568:LEU:N	2.78	0.41
1:1:300:ASP:H	1:1:347:HIS:HA	1.85	0.41
1:1:377:GLY:C	1:1:381:SER:CB	2.93	0.41
1:1:476:PHE:CZ	1:1:493:VAL:CG1	2.97	0.41
2:2:252:ASN:HA	3:A:1204:ASP:CA	2.50	0.41
3:A:133:LYS:HE3	3:A:1391:ARG:HH12	1.85	0.41
3:A:1094:VAL:HG22	3:A:1113:THR:HB	2.02	0.41
3:A:1221:LYS:HB3	3:A:1222:ASN:H	1.72	0.41
5:C:99:LEU:HD12	5:C:118:LEU:HB3	2.02	0.41
18:P:142:LEU:HD23	18:P:147:LYS:CD	2.47	0.41
18:P:188:THR:CB	18:P:245:HIS:ND1	2.80	0.41
18:P:241:ARG:O	18:P:242:PHE:C	2.63	0.41
19:Q:202:ILE:CD1	19:Q:217:ALA:HB2	2.50	0.41
20:R:29:LEU:HD13	20:R:61:LEU:HD13	2.02	0.41
21:S:134:TYR:HE2	21:S:147:LEU:HD23	1.83	0.41
1:1:328:LYS:HG3	1:1:329:ARG:N	2.35	0.41
1:1:328:LYS:CD	1:1:530:LEU:HD23	2.50	0.41
2:2:253:LEU:HD23	2:2:253:LEU:HA	1.37	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:258:GLY:O	2:2:259:ALA:O	2.38	0.41
3:A:381:THR:HG22	3:A:384:ASN:CG	2.46	0.41
3:A:1404:GLU:HB3	3:A:1408:ILE:HG13	2.02	0.41
4:B:315:LYS:N	4:B:316:PRO:HD2	2.36	0.41
4:B:986:GLN:OE1	4:B:1016:ALA:HB1	2.20	0.41
12:J:22:LEU:O	12:J:26:GLN:HG2	2.20	0.41
16:N:19:DT:H6	16:N:19:DT:H3'	1.86	0.41
17:O:52:LEU:O	17:O:56:THR:CG2	2.68	0.41
18:P:187:ARG:HA	18:P:188:THR:C	2.44	0.41
20:R:28:VAL:CG2	20:R:57:LEU:HD13	2.50	0.41
21:S:203:LYS:CG	21:S:242:ARG:HB3	2.51	0.41
23:U:371:ASP:OD1	24:V:75:MET:N	2.53	0.41
27:Y:541:PHE:CE1	27:Y:599:LEU:CD2	2.87	0.41
27:Y:625:ILE:HG23	27:Y:626:PRO:HD2	2.02	0.41
1:1:370:LEU:CD1	1:1:398:THR:CG2	2.94	0.41
1:1:430:LEU:C	1:1:430:LEU:CD2	2.94	0.41
1:1:431:GLN:CB	1:1:432:PRO:HD3	2.45	0.41
3:A:291:GLU:OE2	18:P:116:LYS:CE	2.62	0.41
3:A:312:PRO:HG3	18:P:110:LEU:HD22	2.01	0.41
3:A:340:LEU:CD2	4:B:1199:ALA:HB3	2.50	0.41
3:A:411:ASP:HB3	18:P:50:LEU:HG	2.02	0.41
7:E:10:SER:O	7:E:14:ARG:HG3	2.19	0.41
13:K:39:ASP:OD1	13:K:41:THR:HB	2.21	0.41
16:N:15:DC:H2''	16:N:16:DC:C5	2.56	0.41
18:P:128:ALA:CA	18:P:132:LYS:NZ	2.83	0.41
18:P:338:ASN:C	18:P:340:PRO:CD	2.92	0.41
19:Q:211:LYS:HG2	22:T:148:DT:H4'	2.03	0.41
21:S:126:SER:O	24:V:339:LEU:HB2	2.13	0.41
23:U:94:ASP:CB	23:U:95:PRO:HD3	2.49	0.41
23:U:375:LEU:CD2	24:V:70:LEU:HD13	2.44	0.41
24:V:318:LEU:HD13	24:V:349:TYR:CE2	2.49	0.41
27:Y:200:ILE:HG23	27:Y:201:SER:N	2.36	0.41
27:Y:234:PHE:CZ	27:Y:449:VAL:HG21	2.49	0.41
1:1:328:LYS:HA	1:1:505:ILE:O	2.21	0.41
1:1:427:TRP:CZ3	1:1:450:SER:HB2	2.52	0.41
1:1:434:ASN:C	1:1:452:LEU:HD12	2.45	0.41
1:1:456:THR:CG2	1:1:457:TYR:N	2.81	0.41
1:1:670:LEU:HA	1:1:670:LEU:HD12	1.84	0.41
4:B:199:MET:SD	4:B:199:MET:N	2.90	0.41
4:B:841:MET:HG2	4:B:1010:LEU:HD12	2.02	0.41
5:C:125:MET:HB2	5:C:127:ARG:NE	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:H:38:LEU:CD1	10:H:123:MET:HE2	2.46	0.41
10:H:125:LEU:HG	10:H:130:ARG:HH22	1.85	0.41
16:N:59:DT:N1	16:N:60:DA:C8	2.89	0.41
18:P:103:ASP:OD2	18:P:107:THR:HB	2.20	0.41
22:T:104:DT:C2'	22:T:105:DT:C5'	2.93	0.41
23:U:374:VAL:HG21	24:V:73:LEU:CD1	2.50	0.41
1:1:305:GLU:HB2	1:1:327:LYS:HE3	2.03	0.41
1:1:352:LEU:N	1:1:352:LEU:CD2	2.84	0.41
1:1:356:LEU:HD22	1:1:356:LEU:H	1.83	0.41
1:1:383:ILE:CD1	1:1:533:PRO:C	2.93	0.41
1:1:421:ARG:HE	1:1:430:LEU:CD1	2.22	0.41
1:1:474:MET:CB	1:1:479:GLY:C	2.93	0.41
1:1:481:GLU:O	1:1:482:TRP:CE3	2.73	0.41
1:1:726:LEU:HD23	1:1:726:LEU:HA	1.85	0.41
3:A:412:ARG:O	18:P:50:LEU:C	2.63	0.41
4:B:856:PHE:CE2	4:B:969:ARG:HG3	2.55	0.41
4:B:1082:MET:HA	5:C:189:THR:HA	2.03	0.41
7:E:156:LEU:HD23	7:E:160:GLU:HB3	2.03	0.41
9:G:14:HIS:CD2	9:G:15:PRO:HD2	2.56	0.41
10:H:38:LEU:HD13	10:H:125:LEU:HD13	2.02	0.41
18:P:142:LEU:HD11	18:P:179:GLY:C	2.45	0.41
18:P:164:LYS:HD3	18:P:166:LYS:HB3	1.31	0.41
18:P:249:PRO:HG3	18:P:289:PHE:CE2	2.56	0.41
18:P:268:GLU:OE2	18:P:323:LEU:HD11	2.21	0.41
18:P:308:THR:HG23	22:T:151:DG:OP1	2.21	0.41
18:P:338:ASN:HB2	18:P:340:PRO:HD3	2.02	0.41
19:Q:166:VAL:HG22	19:Q:210:GLY:O	2.20	0.41
20:R:148:LEU:O	20:R:149:CYS:C	2.63	0.41
21:S:129:LEU:HB3	24:V:347:PHE:HD2	1.85	0.41
21:S:156:ASP:HA	21:S:159:VAL:HG11	2.00	0.41
21:S:202:PHE:O	21:S:203:LYS:NZ	2.49	0.41
22:T:143:DT:C2'	22:T:144:DT:C5'	2.99	0.41
24:V:333:LEU:HD21	24:V:349:TYR:HE2	1.85	0.41
1:1:335:TYR:HD1	1:1:336:PRO:CD	2.23	0.41
1:1:408:ILE:CG1	1:1:475:ASP:HB3	2.20	0.41
1:1:410:LEU:CD2	1:1:476:PHE:CD2	3.02	0.41
1:1:417:VAL:HG13	1:1:454:VAL:HG12	1.98	0.41
1:1:434:ASN:O	1:1:452:LEU:CG	2.69	0.41
1:1:457:TYR:CE2	1:1:492:VAL:HB	2.56	0.41
1:1:474:MET:O	1:1:482:TRP:CG	2.73	0.41
1:1:518:VAL:CG1	1:1:519:ARG:N	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:2:253:LEU:HD11	3:A:1132:LYS:HD2	1.95	0.41
3:A:626:ASN:O	3:A:631:HIS:ND1	2.53	0.41
4:B:216:GLU:OE2	4:B:404:LYS:HD2	2.20	0.41
5:C:125:MET:HA	5:C:125:MET:HE3	2.02	0.41
16:N:15:DC:H2''	16:N:16:DC:H5	1.84	0.41
18:P:180:CYS:CB	18:P:187:ARG:HG2	2.45	0.41
18:P:250:MET:HE2	18:P:251:GLN:NE2	2.36	0.41
18:P:320:ARG:NH2	18:P:337:ASP:HB2	2.12	0.41
18:P:334:VAL:C	18:P:336:LEU:H	2.28	0.41
21:S:136:GLN:HB3	21:S:137:LYS:HZ3	1.86	0.41
27:Y:342:LEU:HD23	27:Y:345:ARG:HH21	1.80	0.41
27:Y:389:GLU:HB3	27:Y:400:LYS:NZ	2.36	0.41
1:1:403:ILE:O	1:1:404:LYS:HG3	2.21	0.41
1:1:410:LEU:CD1	1:1:456:THR:C	2.93	0.41
1:1:429:THR:HB	1:1:432:PRO:CG	2.51	0.41
1:1:429:THR:HG22	1:1:431:GLN:H	1.85	0.41
1:1:448:THR:C	1:1:452:LEU:HB2	2.46	0.41
1:1:474:MET:CG	1:1:505:ILE:HG22	2.51	0.41
1:1:610:ASP:OD2	1:1:674:SER:OG	2.39	0.41
2:2:269:PHE:CE2	2:2:306:TRP:CZ2	3.08	0.41
3:A:261:ASP:OD1	18:P:81:GLU:CB	2.65	0.41
3:A:1356:ILE:HG23	3:A:1361:SER:HB2	2.03	0.41
4:B:563:MET:CE	4:B:580:VAL:HB	2.51	0.41
4:B:1219:ASP:C	6:D:14:ARG:NH2	2.79	0.41
5:C:148:ARG:N	5:C:151:GLN:HG3	2.23	0.41
5:C:255:VAL:HG21	13:K:94:ILE:HG21	2.03	0.41
8:F:92:ARG:HE	9:G:64:THR:HA	1.73	0.41
12:J:32:GLU:CD	12:J:32:GLU:H	2.29	0.41
14:L:38:LEU:HD21	14:L:48:CYS:HA	2.02	0.41
18:P:36:GLU:O	18:P:37:ARG:HB2	2.20	0.41
18:P:164:LYS:HG2	18:P:166:LYS:N	2.35	0.41
18:P:188:THR:HG22	18:P:191:GLU:CB	2.51	0.41
18:P:190:LYS:CE	18:P:242:PHE:CE2	2.98	0.41
18:P:196:ILE:CD1	18:P:197:HIS:CD2	3.04	0.41
19:Q:114:LEU:HD21	22:T:143:DT:H2'	2.02	0.41
20:R:62:ARG:N	20:R:67:ILE:CD1	2.82	0.41
20:R:123:MET:HE3	20:R:130:LYS:CG	2.48	0.41
21:S:148:LEU:HD13	21:S:154:LYS:HE3	1.99	0.41
21:S:194:LYS:NZ	21:S:210:LEU:HD13	2.32	0.41
21:S:237:LYS:HZ2	21:S:241:PRO:CB	2.10	0.41
23:U:374:VAL:CG2	24:V:73:LEU:HD11	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:U:402:ALA:O	23:U:403:THR:C	2.63	0.41
25:W:488:LYS:HE2	25:W:488:LYS:HB2	1.78	0.41
27:Y:106:LEU:HD12	27:Y:106:LEU:C	2.46	0.41
27:Y:214:LEU:O	27:Y:216:PRO:HD3	2.20	0.41
27:Y:360:LEU:HD13	27:Y:360:LEU:O	2.21	0.41
27:Y:375:ARG:HH11	27:Y:377:CYS:CB	2.33	0.41
27:Y:494:PRO:HA	27:Y:697:ILE:O	2.20	0.41
27:Y:514:ASN:HB3	27:Y:516:PRO:HD2	2.03	0.41
27:Y:639:LEU:CA	27:Y:653:PHE:HD2	2.25	0.41
1:1:474:MET:CE	1:1:482:TRP:N	2.83	0.41
2:2:308:PHE:O	2:2:309:SER:CB	2.69	0.41
3:A:354:SER:O	3:A:469:ARG:HA	2.21	0.41
3:A:369:SER:HB3	13:K:2:ASN:OD1	2.21	0.41
3:A:1317:MET:HE2	7:E:142:VAL:HG11	2.02	0.41
8:F:131:PRO:HG2	9:G:18:PHE:HD2	1.86	0.41
14:L:27:LEU:HD22	14:L:37:LYS:HE3	2.03	0.41
18:P:144:LYS:HA	18:P:147:LYS:HE2	2.02	0.41
18:P:258:TYR:O	18:P:258:TYR:CG	2.74	0.41
19:Q:114:LEU:CG	22:T:143:DT:O2	2.68	0.41
20:R:44:LYS:CE	20:R:44:LYS:CA	2.95	0.41
22:T:143:DT:H2'	22:T:144:DT:C5'	2.51	0.41
24:V:87:LEU:C	24:V:88:HIS:ND1	2.79	0.41
24:V:304:PHE:O	24:V:308:ASP:N	2.54	0.41
27:Y:108:LEU:HD13	27:Y:196:VAL:HG12	2.02	0.41
27:Y:184:TYR:HE1	27:Y:190:LEU:HD21	1.85	0.41
27:Y:238:HIS:ND1	27:Y:660:ARG:HD2	2.36	0.41
27:Y:458:ILE:HG21	27:Y:469:TYR:CZ	2.55	0.41
27:Y:562:GLU:OE1	27:Y:599:LEU:HD11	2.20	0.41
3:A:227:VAL:CB	6:D:16:LYS:HE3	2.47	0.40
3:A:982:THR:H	3:A:985:ASP:HB2	1.86	0.40
3:A:1447:GLU:HB2	9:G:70:PHE:CZ	2.57	0.40
4:B:279:ASP:OD1	4:B:279:ASP:N	2.53	0.40
4:B:1119:VAL:HG23	4:B:1126:GLY:HA2	2.03	0.40
4:B:1219:ASP:O	6:D:14:ARG:NH2	2.54	0.40
6:D:194:LEU:O	6:D:196:PRO:HD3	2.21	0.40
11:I:8:ARG:O	11:I:9:ASP:CB	2.69	0.40
12:J:43:ARG:O	12:J:47:ARG:HG3	2.21	0.40
16:N:37:DA:C5	16:N:38:DT:C4	3.08	0.40
18:P:223:LEU:CD1	19:Q:177:PHE:CE2	3.04	0.40
19:Q:82:LEU:HD21	19:Q:116:PHE:C	2.46	0.40
20:R:133:GLN:HE21	20:R:133:GLN:HB2	1.53	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:203:LYS:CA	21:S:242:ARG:CD	2.55	0.40
22:T:116:DG:N3	22:T:117:DC:C6	2.89	0.40
22:T:140:DC:C4	22:T:141:DC:N4	2.89	0.40
23:U:96:ASN:ND2	23:U:97:GLU:N	2.64	0.40
23:U:127:ILE:O	23:U:127:ILE:HG23	2.21	0.40
23:U:375:LEU:HD22	24:V:134:VAL:CG1	2.47	0.40
27:Y:350:HIS:O	27:Y:353:SER:OG	2.26	0.40
27:Y:405:PHE:CE2	27:Y:439:CYS:HB2	2.56	0.40
27:Y:496:ILE:CG2	27:Y:704:ALA:HB2	2.50	0.40
1:1:316:PHE:HZ	1:1:321:GLU:HG2	1.86	0.40
1:1:519:ARG:N	1:1:524:ILE:CG2	2.84	0.40
1:1:528:ASN:N	1:1:528:ASN:HD22	2.19	0.40
2:2:257:GLN:HA	3:A:1284:MET:HG3	2.04	0.40
3:A:412:ARG:O	18:P:50:LEU:CA	2.69	0.40
3:A:416:ARG:NH2	18:P:40:GLU:HG3	2.36	0.40
4:B:311:LEU:HB3	11:I:4:PHE:HE2	1.85	0.40
4:B:344:LYS:HB3	4:B:347:LYS:HB2	2.04	0.40
4:B:405:ARG:NE	4:B:629:ASP:OD2	2.54	0.40
4:B:519:TRP:CZ2	4:B:705:MET:HE1	2.54	0.40
4:B:758:PHE:CE1	4:B:1044:ALA:HA	2.56	0.40
4:B:854:LEU:HD23	4:B:854:LEU:HA	1.86	0.40
6:D:154:PHE:HB2	6:D:160:VAL:HG22	2.04	0.40
16:N:55:DG:H1'	16:N:56:DT:H5'	2.03	0.40
18:P:57:VAL:O	18:P:57:VAL:CG1	2.59	0.40
18:P:188:THR:N	18:P:241:ARG:HB3	2.35	0.40
18:P:206:THR:CA	18:P:209:ILE:HG12	2.51	0.40
18:P:226:ASP:OD2	18:P:260:ALA:C	2.64	0.40
18:P:320:ARG:NE	18:P:334:VAL:HG22	2.16	0.40
20:R:149:CYS:HB2	20:R:154:GLU:O	2.21	0.40
27:Y:666:LEU:HD13	27:Y:666:LEU:O	2.22	0.40
1:1:757:ARG:NH1	1:1:760:LEU:HB2	2.26	0.40
3:A:34:LYS:HG2	3:A:36:ARG:NH1	2.36	0.40
3:A:239:LEU:HD12	3:A:239:LEU:HA	1.77	0.40
4:B:39:ARG:HE	4:B:665:GLU:HG2	1.86	0.40
4:B:622:LYS:HE3	11:I:59:VAL:HG22	2.02	0.40
4:B:758:PHE:CE2	4:B:1027:ILE:HG22	2.57	0.40
4:B:979:LYS:HD3	4:B:1095:LEU:HD13	2.03	0.40
4:B:986:GLN:NE2	4:B:1022:THR:HG21	2.36	0.40
8:F:92:ARG:NE	9:G:64:THR:CB	2.84	0.40
18:P:143:PRO:C	18:P:147:LYS:CB	2.77	0.40
19:Q:211:LYS:CG	22:T:148:DT:H4'	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:61:LEU:O	20:R:64:ASP:HB2	2.21	0.40
20:R:126:ILE:HG12	20:R:152:CYS:SG	2.61	0.40
21:S:135:ILE:HG12	21:S:180:TYR:CB	2.38	0.40
21:S:175:LYS:CA	21:S:175:LYS:HZ1	1.34	0.40
21:S:210:LEU:HA	21:S:214:TRP:CH2	2.54	0.40
23:U:96:ASN:HB3	23:U:98:TYR:HE2	1.85	0.40
27:Y:124:ARG:CZ	27:Y:374:LEU:HD22	2.51	0.40
27:Y:213:LEU:O	27:Y:219:ALA:HB2	2.21	0.40
1:1:316:PHE:CE2	1:1:317:GLU:O	2.74	0.40
1:1:387:PRO:HD2	1:1:390:ALA:HB2	2.03	0.40
1:1:436:ALA:CB	1:1:452:LEU:CD2	2.96	0.40
1:1:447:GLN:C	1:1:452:LEU:CB	2.90	0.40
1:1:474:MET:SD	1:1:507:ALA:N	2.95	0.40
1:1:485:ILE:CG1	1:1:510:LYS:HA	2.50	0.40
1:1:588:PHE:CZ	1:1:622:MET:SD	3.15	0.40
2:2:282:TYR:O	2:2:282:TYR:CG	2.73	0.40
3:A:227:VAL:HG11	6:D:16:LYS:HE3	2.03	0.40
3:A:346:ASP:OD1	4:B:1106:ARG:NH2	2.54	0.40
4:B:350:GLN:HB2	23:U:407:ASP:OD2	2.20	0.40
4:B:789:MET:HE2	4:B:953:LEU:HD23	2.03	0.40
4:B:789:MET:HG3	4:B:953:LEU:HD21	2.02	0.40
5:C:75:MET:HE1	5:C:239:PRO:HG3	2.03	0.40
11:I:111:THR:HG21	11:I:118:ARG:HD2	2.03	0.40
15:M:286:VAL:OXT	15:M:286:VAL:HG12	2.21	0.40
16:N:23:DA:O3'	19:Q:120:LYS:CE	2.62	0.40
18:P:22:LEU:HD13	18:P:34:ILE:CD1	2.42	0.40
19:Q:98:ARG:HH11	19:Q:98:ARG:HG2	1.87	0.40
20:R:88:TYR:CE2	20:R:89:VAL:O	2.74	0.40
22:T:104:DT:H72	22:T:105:DT:H72	2.02	0.40
22:T:131:DC:H2''	22:T:132:DA:H8	1.86	0.40
24:V:306:LEU:HD11	24:V:313:TRP:CE2	2.47	0.40
27:Y:342:LEU:HD13	27:Y:346:MET:HG3	2.04	0.40
27:Y:506:ILE:CG1	27:Y:522:TYR:CE1	3.04	0.40
27:Y:616:TYR:CD1	27:Y:616:TYR:C	2.99	0.40
1:1:475:ASP:H	1:1:478:THR:H	1.69	0.40
1:1:584:ASN:HA	1:1:585:PRO:HD3	1.89	0.40
3:A:7:SER:HB2	4:B:1175:LEU:HD22	2.03	0.40
3:A:1196:GLU:HA	3:A:1236:LEU:O	2.21	0.40
4:B:969:ARG:HD2	5:C:61:GLU:OE2	2.21	0.40
6:D:175:PHE:HZ	9:G:85:GLU:HG3	1.86	0.40
18:P:30:TYR:HA	18:P:31:PRO:HB3	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:86:LEU:HD21	18:P:152:GLU:CB	2.52	0.40
18:P:184:GLU:OE1	18:P:231:SER:C	2.62	0.40
18:P:200:THR:HG23	18:P:201:LYS:HG2	2.04	0.40
19:Q:84:THR:HG23	19:Q:88:HIS:CD2	2.56	0.40
19:Q:141:ARG:HD3	19:Q:141:ARG:C	2.45	0.40
20:R:25:PHE:CD1	20:R:25:PHE:N	2.90	0.40
20:R:66:LEU:HD13	20:R:66:LEU:HA	1.84	0.40
20:R:129:THR:HG21	20:R:149:CYS:SG	2.61	0.40
23:U:135:LEU:HB2	23:U:136:PRO:HD3	1.83	0.40
24:V:344:PRO:O	24:V:345:TYR:HB2	2.22	0.40
27:Y:133:CYS:SG	27:Y:159:HIS:CE1	3.15	0.40
27:Y:135:ARG:HB2	27:Y:155:LEU:HG	2.03	0.40
27:Y:564:TRP:HE1	27:Y:599:LEU:HD12	1.82	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	1	467/492 (95%)	436 (93%)	26 (6%)	5 (1%)	11	46
2	2	68/174 (39%)	51 (75%)	10 (15%)	7 (10%)	0	6
3	A	1414/1733 (82%)	1250 (88%)	113 (8%)	51 (4%)	2	20
4	B	1140/1224 (93%)	1018 (89%)	86 (8%)	36 (3%)	3	21
5	C	264/266 (99%)	242 (92%)	20 (8%)	2 (1%)	16	54
6	D	174/178 (98%)	148 (85%)	18 (10%)	8 (5%)	2	16
7	E	212/214 (99%)	195 (92%)	13 (6%)	4 (2%)	6	32
8	F	82/84 (98%)	75 (92%)	7 (8%)	0	100	100
9	G	169/171 (99%)	158 (94%)	8 (5%)	3 (2%)	6	34
10	H	129/146 (88%)	106 (82%)	14 (11%)	9 (7%)	1	11

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
11	I	117/119 (98%)	98 (84%)	16 (14%)	3 (3%)	4	25
12	J	63/65 (97%)	51 (81%)	9 (14%)	3 (5%)	2	16
13	K	113/115 (98%)	109 (96%)	4 (4%)	0	100	100
14	L	44/46 (96%)	27 (61%)	9 (20%)	8 (18%)	0	2
15	M	110/116 (95%)	103 (94%)	7 (6%)	0	100	100
17	O	97/122 (80%)	93 (96%)	4 (4%)	0	100	100
18	P	287/345 (83%)	235 (82%)	33 (12%)	19 (7%)	1	12
19	Q	178/180 (99%)	170 (96%)	5 (3%)	3 (2%)	7	36
20	R	112/160 (70%)	100 (89%)	10 (9%)	2 (2%)	6	34
21	S	105/123 (85%)	94 (90%)	7 (7%)	4 (4%)	2	19
23	U	142/150 (95%)	131 (92%)	6 (4%)	5 (4%)	3	20
24	V	166/174 (95%)	145 (87%)	16 (10%)	5 (3%)	3	22
25	W	60/62 (97%)	60 (100%)	0	0	100	100
26	X	61/63 (97%)	58 (95%)	3 (5%)	0	100	100
27	Y	558/778 (72%)	515 (92%)	35 (6%)	8 (1%)	9	40
All	All	6332/7300 (87%)	5668 (90%)	479 (8%)	185 (3%)	5	23

All (185) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	1	447	GLN
1	1	458	SER
2	2	275	LYS
2	2	292	PRO
3	A	74	MET
3	A	96	ILE
3	A	189	ARG
3	A	195	ASP
3	A	286	HIS
3	A	317	LYS
3	A	399	HIS
3	A	449	SER
3	A	628	GLY
3	A	1377	THR
3	A	1405	THR
4	B	229	ALA
4	B	307	ASP

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Mol	Chain	Res	Type
4	B	344	LYS
4	B	442	PHE
4	B	466	TRP
4	B	473	MET
4	B	531	GLN
4	B	772	ALA
4	B	1046	PRO
4	B	1181	GLU
6	D	18	VAL
6	D	53	SER
6	D	199	ASN
11	I	9	ASP
11	I	95	THR
14	L	50	ASP
14	L	53	HIS
18	P	25	PRO
18	P	31	PRO
18	P	32	PRO
18	P	35	VAL
18	P	104	MET
18	P	125	GLU
18	P	200	THR
18	P	326	PRO
18	P	329	ILE
18	P	330	ALA
19	Q	154	ASP
20	R	149	CYS
21	S	203	LYS
21	S	205	ILE
23	U	95	PRO
23	U	136	PRO
24	V	129	VAL
24	V	210	LYS
27	Y	268	ASP
27	Y	494	PRO
27	Y	534	PRO
27	Y	567	LYS
1	1	378	ARG
1	1	449	GLU
2	2	259	ALA
3	A	40	THR
3	A	44	THR

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Mol	Chain	Res	Type
3	A	51	GLY
3	A	52	GLY
3	A	57	ARG
3	A	66	LYS
3	A	68	GLN
3	A	167	CYS
3	A	178	GLY
3	A	193	ASP
3	A	224	PHE
3	A	252	PHE
3	A	254	GLU
3	A	330	LYS
3	A	672	ASP
3	A	1175	SER
3	A	1281	ARG
4	B	262	GLU
4	B	282	ILE
4	B	339	THR
4	B	341	LEU
4	B	707	PRO
4	B	731	VAL
4	B	792	MET
4	B	1175	LEU
4	B	1176	ASN
6	D	16	LYS
6	D	52	LEU
6	D	169	SER
7	E	36	GLU
9	G	2	PHE
10	H	17	PRO
10	H	81	PRO
10	H	82	PRO
10	H	83	GLN
10	H	90	ALA
12	J	6	ARG
14	L	45	ALA
14	L	56	LEU
18	P	223	LEU
19	Q	78	CYS
20	R	153	ASP
24	V	118	HIS
27	Y	575	ASP

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Mol	Chain	Res	Type
2	2	295	THR
3	A	54	ASN
3	A	975	HIS
3	A	1173	HIS
4	B	340	ALA
4	B	343	ILE
4	B	711	GLU
4	B	1156	ASP
4	B	1157	ALA
4	B	1167	GLY
6	D	22	GLU
7	E	45	LYS
7	E	48	ASP
9	G	154	VAL
10	H	18	GLY
14	L	59	ALA
18	P	160	GLU
23	U	110	ASP
23	U	135	LEU
27	Y	483	TYR
2	2	288	SER
3	A	69	THR
3	A	72	GLU
3	A	465	TYR
3	A	569	LYS
3	A	846	GLU
3	A	958	VAL
3	A	1255	GLU
3	A	1438	THR
4	B	441	ASP
4	B	648	HIS
4	B	1108	ARG
4	B	1155	SER
5	C	88	CYS
11	I	91	ARG
12	J	29	GLU
14	L	26	THR
14	L	55	ILE
14	L	64	LEU
18	P	196	ILE
18	P	270	ALA
18	P	291	ILE

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Mol	Chain	Res	Type
19	Q	110	LYS
21	S	161	GLU
24	V	60	ASP
2	2	277	LYS
2	2	293	LEU
3	A	156	ASP
3	A	567	LYS
3	A	1171	GLN
3	A	1366	ARG
4	B	251	ILE
4	B	462	ALA
4	B	469	GLN
4	B	1223	ASP
6	D	21	GLU
10	H	60	ALA
10	H	128	ASN
12	J	2	ILE
18	P	118	VAL
18	P	224	LYS
23	U	126	LYS
24	V	343	GLY
27	Y	290	VAL
27	Y	370	GLU
3	A	35	ILE
3	A	155	GLU
3	A	885	THR
5	C	214	ASN
18	P	92	LEU
18	P	198	VAL
1	1	746	PRO
3	A	196	GLU
3	A	1388	GLY
3	A	1437	GLY
7	E	90	VAL
9	G	63	PRO
4	B	364	ILE
21	S	214	TRP
3	A	192	GLY
3	A	448	PRO
4	B	1121	GLY
4	B	1214	PRO
10	H	59	ILE

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	1	415/431 (96%)	369 (89%)	46 (11%)	6	20
2	2	62/151 (41%)	52 (84%)	10 (16%)	2	11
3	A	1240/1520 (82%)	1045 (84%)	195 (16%)	2	12
4	B	985/1061 (93%)	855 (87%)	130 (13%)	4	15
5	C	234/234 (100%)	204 (87%)	30 (13%)	4	15
6	D	160/160 (100%)	123 (77%)	37 (23%)	1	5
7	E	196/196 (100%)	172 (88%)	24 (12%)	5	17
8	F	74/74 (100%)	65 (88%)	9 (12%)	5	17
9	G	152/152 (100%)	134 (88%)	18 (12%)	5	18
10	H	117/128 (91%)	101 (86%)	16 (14%)	3	14
11	I	113/113 (100%)	105 (93%)	8 (7%)	13	35
12	J	60/60 (100%)	48 (80%)	12 (20%)	1	7
13	K	99/99 (100%)	86 (87%)	13 (13%)	4	15
14	L	40/40 (100%)	26 (65%)	14 (35%)	0	1
15	M	107/107 (100%)	104 (97%)	3 (3%)	38	60
17	O	91/108 (84%)	86 (94%)	5 (6%)	19	41
18	P	256/299 (86%)	212 (83%)	44 (17%)	2	10
19	Q	152/152 (100%)	143 (94%)	9 (6%)	18	39
20	R	108/149 (72%)	87 (81%)	21 (19%)	1	7
21	S	116/118 (98%)	67 (58%)	49 (42%)	0	0
23	U	136/136 (100%)	134 (98%)	2 (2%)	57	72
24	V	163/163 (100%)	160 (98%)	3 (2%)	51	68
25	W	57/57 (100%)	57 (100%)	0	100	100
26	X	57/57 (100%)	57 (100%)	0	100	100
27	Y	521/707 (74%)	503 (96%)	18 (4%)	32	53
All	All	5711/6472 (88%)	4995 (88%)	716 (12%)	7	16

All (716) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	1	327	LYS
1	1	333	ILE
1	1	349	ASN
1	1	352	LEU
1	1	356	LEU
1	1	383	ILE
1	1	405	LYS
1	1	407	VAL
1	1	442	ASN
1	1	487	LEU
1	1	524	ILE
1	1	549	ILE
1	1	570	LEU
1	1	571	ARG
1	1	572	GLU
1	1	573	THR
1	1	578	MET
1	1	582	ILE
1	1	621	LYS
1	1	622	MET
1	1	630	SER
1	1	634	GLN
1	1	638	ASN
1	1	647	ASP
1	1	656	LYS
1	1	660	THR
1	1	664	LEU
1	1	668	THR
1	1	669	CYS
1	1	674	SER
1	1	677	TYR
1	1	680	ARG
1	1	681	ARG
1	1	690	ILE
1	1	696	ARG
1	1	711	LYS
1	1	714	GLN
1	1	717	TYR
1	1	720	THR
1	1	746	PRO
1	1	753	PRO
1	1	754	ARG

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Mol	Chain	Res	Type
1	1	756	ARG
1	1	757	ARG
1	1	775	VAL
1	1	785	ARG
2	2	263	ARG
2	2	264	SER
2	2	265	VAL
2	2	266	THR
2	2	267	ASP
2	2	283	GLN
2	2	288	SER
2	2	292	PRO
2	2	293	LEU
2	2	296	PHE
3	A	13	THR
3	A	15	LYS
3	A	22	PHE
3	A	41	MET
3	A	42	ASP
3	A	53	LEU
3	A	54	ASN
3	A	57	ARG
3	A	61	ILE
3	A	64	ASN
3	A	66	LYS
3	A	68	GLN
3	A	74	MET
3	A	80	HIS
3	A	84	ILE
3	A	93	VAL
3	A	106	VAL
3	A	131	SER
3	A	134	ARG
3	A	145	LYS
3	A	147	VAL
3	A	152	VAL
3	A	157	ASP
3	A	173	THR
3	A	174	ILE
3	A	182	VAL
3	A	199	LEU
3	A	204	THR

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Mol	Chain	Res	Type
3	A	205	GLU
3	A	208	LEU
3	A	219	PHE
3	A	220	THR
3	A	222	LEU
3	A	227	VAL
3	A	249	SER
3	A	257	ARG
3	A	265	LYS
3	A	277	GLU
3	A	279	LEU
3	A	307	ASP
3	A	311	GLN
3	A	323	LYS
3	A	335	ARG
3	A	337	ARG
3	A	344	ARG
3	A	353	ILE
3	A	375	THR
3	A	381	THR
3	A	385	ILE
3	A	386	ASP
3	A	393	ARG
3	A	398	GLU
3	A	408	ASP
3	A	412	ARG
3	A	424	ILE
3	A	425	GLN
3	A	427	GLN
3	A	434	ARG
3	A	436	ILE
3	A	443	LEU
3	A	445	ASN
3	A	450	LEU
3	A	451	HIS
3	A	454	SER
3	A	461	LYS
3	A	469	ARG
3	A	470	LEU
3	A	472	LEU
3	A	474	VAL
3	A	475	THR

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Mol	Chain	Res	Type
3	A	476	SER
3	A	489	LEU
3	A	500	GLU
3	A	505	CYS
3	A	512	VAL
3	A	513	SER
3	A	524	VAL
3	A	532	ARG
3	A	566	ILE
3	A	571	LEU
3	A	582	ILE
3	A	593	GLU
3	A	596	THR
3	A	603	ASN
3	A	613	ILE
3	A	618	GLU
3	A	629	LEU
3	A	630	ILE
3	A	634	THR
3	A	652	VAL
3	A	664	THR
3	A	666	ILE
3	A	672	ASP
3	A	691	LEU
3	A	702	LEU
3	A	719	VAL
3	A	738	LYS
3	A	740	LEU
3	A	768	GLN
3	A	769	SER
3	A	773	LYS
3	A	782	ARG
3	A	788	SER
3	A	795	GLU
3	A	797	LYS
3	A	801	GLU
3	A	805	LEU
3	A	806	ARG
3	A	821	ARG
3	A	826	ASP
3	A	827	THR
3	A	831	THR

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Mol	Chain	Res	Type
3	A	834	THR
3	A	837	ILE
3	A	839	ARG
3	A	848	ILE
3	A	849	MET
3	A	854	ASN
3	A	864	ILE
3	A	867	ILE
3	A	886	ILE
3	A	896	ARG
3	A	919	ILE
3	A	920	LEU
3	A	926	GLN
3	A	929	LEU
3	A	948	VAL
3	A	949	ASP
3	A	964	ILE
3	A	973	ILE
3	A	976	THR
3	A	983	ILE
3	A	998	LEU
3	A	999	VAL
3	A	1009	ASN
3	A	1015	VAL
3	A	1029	ARG
3	A	1030	ARG
3	A	1047	SER
3	A	1058	VAL
3	A	1062	GLU
3	A	1067	LEU
3	A	1078	GLN
3	A	1094	VAL
3	A	1116	LEU
3	A	1118	VAL
3	A	1120	LEU
3	A	1121	GLU
3	A	1124	HIS
3	A	1135	ARG
3	A	1142	THR
3	A	1172	LEU
3	A	1173	HIS
3	A	1176	LEU

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Mol	Chain	Res	Type
3	A	1195	LEU
3	A	1208	THR
3	A	1218	GLN
3	A	1223	ASP
3	A	1226	VAL
3	A	1237	ILE
3	A	1238	ILE
3	A	1242	VAL
3	A	1255	GLU
3	A	1257	ASP
3	A	1260	LEU
3	A	1265	ASN
3	A	1273	LEU
3	A	1291	VAL
3	A	1295	THR
3	A	1297	GLU
3	A	1309	ASP
3	A	1315	GLU
3	A	1317	MET
3	A	1325	THR
3	A	1327	ILE
3	A	1336	MET
3	A	1341	ILE
3	A	1355	VAL
3	A	1376	THR
3	A	1382	THR
3	A	1386	ARG
3	A	1391	ARG
3	A	1393	ASN
3	A	1400	CYS
3	A	1405	THR
3	A	1406	VAL
3	A	1424	VAL
3	A	1426	GLU
3	A	1436	ILE
3	A	1438	THR
3	A	1442	ASP
3	A	1444	MET
3	A	1445	ILE
3	A	1453	TYR
3	A	1454	MET
4	B	25	ILE

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Mol	Chain	Res	Type
4	B	41	LYS
4	B	46	GLN
4	B	63	ILE
4	B	69	LEU
4	B	72	GLU
4	B	73	GLN
4	B	102	VAL
4	B	103	ASN
4	B	104	GLU
4	B	128	LEU
4	B	164	LYS
4	B	169	ARG
4	B	178	ASN
4	B	183	GLU
4	B	211	VAL
4	B	240	ILE
4	B	251	ILE
4	B	261	ARG
4	B	267	ARG
4	B	272	THR
4	B	278	GLN
4	B	279	ASP
4	B	287	ARG
4	B	294	ASP
4	B	313	MET
4	B	324	ILE
4	B	325	GLN
4	B	337	ARG
4	B	341	LEU
4	B	343	ILE
4	B	344	LYS
4	B	348	ARG
4	B	357	GLN
4	B	365	THR
4	B	393	LYS
4	B	408	LEU
4	B	419	THR
4	B	425	THR
4	B	440	HIS
4	B	442	PHE
4	B	470	LYS
4	B	476	ARG

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Mol	Chain	Res	Type
4	B	482	VAL
4	B	485	ARG
4	B	487	THR
4	B	502	ILE
4	B	513	GLN
4	B	529	GLU
4	B	531	GLN
4	B	537	LYS
4	B	542	MET
4	B	547	VAL
4	B	549	THR
4	B	552	MET
4	B	554	ILE
4	B	563	MET
4	B	570	VAL
4	B	574	SER
4	B	595	ARG
4	B	596	LEU
4	B	601	ARG
4	B	603	LEU
4	B	609	ILE
4	B	612	GLU
4	B	615	MET
4	B	616	ILE
4	B	620	ARG
4	B	644	GLU
4	B	651	LEU
4	B	653	VAL
4	B	658	ILE
4	B	680	THR
4	B	708	GLU
4	B	734	HIS
4	B	737	THR
4	B	766	ARG
4	B	771	SER
4	B	776	GLN
4	B	786	ASN
4	B	790	ASP
4	B	791	THR
4	B	795	ILE
4	B	831	SER
4	B	835	GLN

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Mol	Chain	Res	Type
4	B	839	MET
4	B	841	MET
4	B	844	SER
4	B	860	MET
4	B	933	SER
4	B	934	LYS
4	B	939	THR
4	B	942	ARG
4	B	944	THR
4	B	955	THR
4	B	956	THR
4	B	967	ARG
4	B	975	GLN
4	B	979	LYS
4	B	986	GLN
4	B	997	GLU
4	B	999	MET
4	B	1007	VAL
4	B	1028	GLU
4	B	1045	SER
4	B	1060	ARG
4	B	1065	GLN
4	B	1072	MET
4	B	1084	GLN
4	B	1094	ARG
4	B	1106	ARG
4	B	1123	SER
4	B	1128	LEU
4	B	1138	MET
4	B	1145	SER
4	B	1147	LEU
4	B	1151	LEU
4	B	1156	ASP
4	B	1159	ARG
4	B	1160	VAL
4	B	1165	ILE
4	B	1175	LEU
4	B	1179	GLN
4	B	1183	LYS
4	B	1188	LYS
4	B	1189	ILE
4	B	1193	GLN

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Mol	Chain	Res	Type
4	B	1201	LYS
4	B	1202	LEU
4	B	1220	ARG
5	C	3	GLU
5	C	11	ARG
5	C	12	GLU
5	C	22	LEU
5	C	25	VAL
5	C	26	ASP
5	C	52	GLU
5	C	53	THR
5	C	54	ASN
5	C	55	THR
5	C	56	THR
5	C	81	GLU
5	C	100	THR
5	C	101	LEU
5	C	119	VAL
5	C	121	VAL
5	C	124	LEU
5	C	125	MET
5	C	127	ARG
5	C	129	ILE
5	C	133	ILE
5	C	147	LEU
5	C	151	GLN
5	C	215	GLU
5	C	224	GLN
5	C	238	ILE
5	C	240	VAL
5	C	259	LEU
5	C	265	MET
5	C	268	ASP
6	D	5	THR
6	D	7	THR
6	D	9	GLN
6	D	10	THR
6	D	12	ARG
6	D	13	ARG
6	D	18	VAL
6	D	27	LEU
6	D	32	GLU

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Mol	Chain	Res	Type
6	D	34	GLN
6	D	35	LEU
6	D	40	HIS
6	D	47	LEU
6	D	52	LEU
6	D	53	SER
6	D	64	VAL
6	D	65	GLU
6	D	67	ARG
6	D	118	THR
6	D	126	ILE
6	D	128	VAL
6	D	134	THR
6	D	139	LYS
6	D	153	ARG
6	D	156	ASP
6	D	166	LEU
6	D	177	VAL
6	D	182	SER
6	D	187	THR
6	D	193	THR
6	D	197	SER
6	D	201	LYS
6	D	213	GLU
6	D	214	LEU
6	D	215	SER
6	D	219	THR
6	D	221	TYR
7	E	3	GLN
7	E	9	ILE
7	E	20	LYS
7	E	26	ARG
7	E	31	THR
7	E	45	LYS
7	E	57	MET
7	E	67	GLU
7	E	92	THR
7	E	100	ILE
7	E	104	ASN
7	E	127	ILE
7	E	131	THR
7	E	140	LEU

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Mol	Chain	Res	Type
7	E	144	ILE
7	E	166	LYS
7	E	173	SER
7	E	177	ARG
7	E	178	ILE
7	E	191	LYS
7	E	192	ARG
7	E	196	VAL
7	E	202	SER
7	E	204	THR
8	F	72	LYS
8	F	78	GLN
8	F	79	ARG
8	F	82	THR
8	F	86	THR
8	F	90	ARG
8	F	110	ASP
8	F	129	LYS
8	F	133	VAL
9	G	13	LEU
9	G	24	GLN
9	G	26	LEU
9	G	34	VAL
9	G	60	ARG
9	G	61	ILE
9	G	64	THR
9	G	96	GLN
9	G	106	MET
9	G	133	SER
9	G	138	THR
9	G	143	ILE
9	G	145	VAL
9	G	151	ILE
9	G	155	SER
9	G	162	SER
9	G	163	ILE
9	G	171	ILE
10	H	13	SER
10	H	14	GLU
10	H	23	VAL
10	H	26	ILE
10	H	31	THR

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Mol	Chain	Res	Type
10	H	34	ASP
10	H	76	THR
10	H	77	ARG
10	H	83	GLN
10	H	89	LEU
10	H	92	ASP
10	H	103	LYS
10	H	128	ASN
10	H	130	ARG
10	H	135	LEU
10	H	138	GLU
11	I	8	ARG
11	I	31	THR
11	I	35	VAL
11	I	74	GLU
11	I	82	GLU
11	I	84	VAL
11	I	94	ASP
11	I	111	THR
12	J	1	MET
12	J	2	ILE
12	J	3	VAL
12	J	7	CYS
12	J	12	LYS
12	J	13	VAL
12	J	14	VAL
12	J	22	LEU
12	J	29	GLU
12	J	42	LYS
12	J	48	ARG
12	J	52	THR
13	K	14	GLU
13	K	18	LYS
13	K	20	LYS
13	K	25	THR
13	K	29	ASN
13	K	31	VAL
13	K	37	LYS
13	K	42	LEU
13	K	47	ARG
13	K	51	LEU
13	K	101	LEU

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Mol	Chain	Res	Type
13	K	107	THR
13	K	114	LEU
14	L	27	LEU
14	L	33	GLU
14	L	35	SER
14	L	38	LEU
14	L	42	ARG
14	L	50	ASP
14	L	54	ARG
14	L	55	ILE
14	L	56	LEU
14	L	58	LYS
14	L	60	ARG
14	L	61	THR
14	L	65	VAL
14	L	68	GLU
15	M	14	VAL
15	M	247	LEU
15	M	262	LEU
17	O	19	LEU
17	O	23	LEU
17	O	41	LEU
17	O	66	LEU
17	O	111	LEU
18	P	223	LEU
18	P	224	LYS
18	P	225	ILE
18	P	228	ASP
18	P	254	THR
18	P	255	SER
18	P	257	GLU
18	P	261	LYS
18	P	262	LYS
18	P	264	LYS
18	P	267	LYS
18	P	276	THR
18	P	277	ILE
18	P	279	VAL
18	P	281	SER
18	P	284	LEU
18	P	285	ASN
18	P	286	ILE

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Mol	Chain	Res	Type
18	P	287	LEU
18	P	288	LEU
18	P	289	PHE
18	P	290	GLN
18	P	291	ILE
18	P	292	PRO
18	P	293	ILE
18	P	300	GLN
18	P	302	LEU
18	P	303	GLN
18	P	304	VAL
18	P	305	THR
18	P	310	LYS
18	P	314	LYS
18	P	316	LEU
18	P	318	GLU
18	P	320	ARG
18	P	321	ASP
18	P	322	LYS
18	P	325	ASP
18	P	326	PRO
18	P	328	LEU
18	P	329	ILE
18	P	333	VAL
18	P	338	ASN
18	P	340	PRO
19	Q	78	CYS
19	Q	83	LYS
19	Q	87	LEU
19	Q	141	ARG
19	Q	145	LYS
19	Q	151	LYS
19	Q	173	GLU
19	Q	233	VAL
19	Q	234	LEU
20	R	13	LEU
20	R	67	ILE
20	R	71	LYS
20	R	119	PRO
20	R	123	MET
20	R	126	ILE
20	R	129	THR

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Mol	Chain	Res	Type
20	R	130	LYS
20	R	132	THR
20	R	133	GLN
20	R	142	PHE
20	R	144	ARG
20	R	145	THR
20	R	146	GLU
20	R	148	LEU
20	R	150	SER
20	R	151	LEU
20	R	152	CYS
20	R	154	GLU
20	R	155	PRO
20	R	156	LEU
21	S	127	LYS
21	S	133	GLU
21	S	135	ILE
21	S	136	GLN
21	S	137	LYS
21	S	138	LYS
21	S	140	LYS
21	S	142	VAL
21	S	152	SER
21	S	153	MET
21	S	154	LYS
21	S	159	VAL
21	S	161	GLU
21	S	162	LEU
21	S	164	LYS
21	S	165	LYS
21	S	166	LEU
21	S	167	ASP
21	S	171	PHE
21	S	175	LYS
21	S	179	LYS
21	S	183	THR
21	S	187	HIS
21	S	189	PRO
21	S	193	LEU
21	S	196	LEU
21	S	201	THR
21	S	203	LYS

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Mol	Chain	Res	Type
21	S	205	ILE
21	S	206	SER
21	S	207	CYS
21	S	208	LYS
21	S	211	LYS
21	S	218	ASP
21	S	219	GLU
21	S	220	THR
21	S	221	ILE
21	S	224	LEU
21	S	225	GLU
21	S	228	SER
21	S	233	LEU
21	S	234	ARG
21	S	237	LYS
21	S	238	ASP
21	S	239	LYS
21	S	242	ARG
21	S	244	VAL
21	S	245	TRP
21	S	247	ASN
23	U	96	ASN
23	U	341	LYS
24	V	55	GLU
24	V	349	TYR
24	V	356	LYS
27	Y	49	THR
27	Y	57	ILE
27	Y	62	HIS
27	Y	176	PHE
27	Y	179	GLU
27	Y	207	ILE
27	Y	226	VAL
27	Y	231	ILE
27	Y	336	LYS
27	Y	479	LEU
27	Y	506	ILE
27	Y	520	ARG
27	Y	569	ILE
27	Y	575	ASP
27	Y	578	GLU
27	Y	587	ARG

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Mol	Chain	Res	Type
27	Y	597	ILE
27	Y	653	PHE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (149) such sidechains are listed below:

Mol	Chain	Res	Type
1	1	320	ASN
1	1	331	GLN
1	1	349	ASN
1	1	361	GLN
1	1	366	GLN
1	1	423	GLN
1	1	426	GLN
1	1	434	ASN
1	1	447	GLN
1	1	471	GLN
1	1	491	HIS
1	1	508	HIS
1	1	528	ASN
1	1	596	GLN
1	1	638	ASN
1	1	648	GLN
1	1	676	HIS
1	1	738	HIS
1	1	740	HIS
1	1	744	ASN
1	1	747	ASN
1	1	761	GLN
1	1	781	ASN
2	2	251	GLN
3	A	5	GLN
3	A	256	GLN
3	A	390	GLN
3	A	394	ASN
3	A	399	HIS
3	A	425	GLN
3	A	451	HIS
3	A	471	ASN
3	A	479	ASN
3	A	517	ASN
3	A	545	GLN
3	A	548	ASN

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Mol	Chain	Res	Type
3	A	603	ASN
3	A	760	GLN
3	A	811	GLN
3	A	838	GLN
3	A	965	GLN
3	A	966	ASN
3	A	969	GLN
3	A	994	GLN
3	A	1106	ASN
3	A	1128	GLN
3	A	1140	HIS
3	A	1173	HIS
3	A	1203	ASN
3	A	1232	ASN
3	A	1270	ASN
3	A	1393	ASN
4	B	278	GLN
4	B	300	HIS
4	B	325	GLN
4	B	350	GLN
4	B	357	GLN
4	B	449	ASN
4	B	538	ASN
4	B	686	ASN
4	B	786	ASN
4	B	842	ASN
4	B	881	ASN
4	B	887	HIS
4	B	1025	HIS
4	B	1117	GLN
4	B	1176	ASN
4	B	1177	HIS
4	B	1195	HIS
5	C	112	ASN
5	C	131	HIS
5	C	135	GLN
5	C	184	ASN
5	C	203	GLN
5	C	214	ASN
5	C	231	ASN
6	D	37	GLN
6	D	132	GLN

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Mol	Chain	Res	Type
7	E	3	GLN
7	E	5	ASN
7	E	54	GLN
7	E	115	ASN
7	E	146	HIS
7	E	179	GLN
9	G	53	ASN
9	G	71	ASN
10	H	35	GLN
10	H	52	GLN
10	H	83	GLN
10	H	131	ASN
11	I	83	ASN
11	I	89	GLN
11	I	108	HIS
12	J	26	GLN
12	J	64	ASN
13	K	44	ASN
13	K	76	GLN
15	M	3	ASN
15	M	36	GLN
15	M	40	ASN
15	M	43	GLN
15	M	59	GLN
15	M	61	ASN
15	M	270	ASN
15	M	272	ASN
17	O	57	GLN
17	O	84	GLN
17	O	117	ASN
18	P	84	ASN
18	P	158	HIS
18	P	197	HIS
18	P	251	GLN
18	P	300	GLN
18	P	331	ASN
19	Q	68	GLN
19	Q	88	HIS
19	Q	144	GLN
19	Q	158	GLN
19	Q	219	GLN
20	R	72	GLN

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Mol	Chain	Res	Type
20	R	120	ASN
20	R	133	GLN
20	R	141	ASN
21	S	187	HIS
21	S	199	GLN
21	S	216	GLN
21	S	222	ASN
21	S	247	ASN
23	U	96	ASN
23	U	117	HIS
23	U	128	ASN
23	U	148	GLN
24	V	86	ASN
24	V	113	ASN
24	V	131	ASN
24	V	220	HIS
26	X	11	GLN
26	X	52	HIS
27	Y	21	GLN
27	Y	60	GLN
27	Y	113	ASN
27	Y	138	ASN
27	Y	152	ASN
27	Y	159	HIS
27	Y	242	ASN
27	Y	265	ASN
27	Y	365	GLN
27	Y	628	GLN
27	Y	707	ASN

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 [i](#)

Of 11 ligands modelled in this entry, 11 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
21	S	7
27	Y	7
24	V	3
23	U	3
15	M	2
3	A	2
6	D	1
1	1	1
4	B	1
2	2	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	V	227:SER	C	291:SER	N	84.31
1	M	61:ASN	C	228:ASP	N	43.11
1	D	76:LYS	C	118:THR	N	35.68
1	S	184:TYR	C	185:ASP	N	14.79
1	U	313:ALA	C	323:GLY	N	13.13
1	Y	115:CYS	C	116:LEU	N	12.53
1	V	114:ASP	C	115:SER	N	11.28

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	M	232:SER	C	236:GLU	N	8.84
1	S	154:LYS	C	155:LYS	N	8.75
1	V	101:GLY	C	102:SER	N	6.62
1	S	201:THR	C	202:PHE	N	6.44
1	S	238:ASP	C	239:LYS	N	6.38
1	U	370:SER	C	371:ASP	N	6.17
1	Y	225:GLU	C	226:VAL	N	5.68
1	Y	335:LEU	C	336:LYS	N	5.53
1	S	231:LEU	C	232:VAL	N	5.27
1	S	215:PRO	C	216:GLN	N	5.21
1	S	138:LYS	C	139:GLY	N	5.07
1	Y	326:ARG	C	327:ARG	N	4.62
1	Y	321:ILE	C	322:PRO	N	4.40
1	1	695:ARG	C	696:ARG	N	4.11
1	Y	232:VAL	C	233:ILE	N	4.06
1	U	356:ASP	C	357:GLY	N	3.77
1	B	351:TYR	C	352:ALA	N	3.29
1	Y	160:GLU	C	161:ASN	N	3.13
1	A	234:MET	C	235:ILE	N	1.07
1	A	95:PHE	C	96:ILE	N	1.00
1	2	269:PHE	C	270:THR	N	0.95

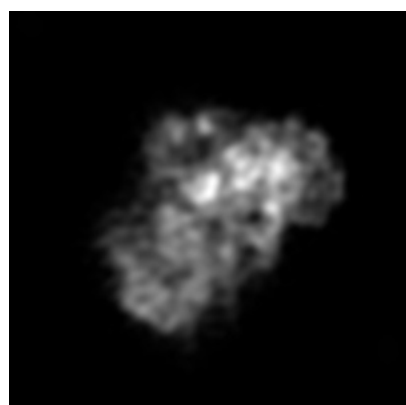
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-3114. These allow visual inspection of the internal detail of the map and identification of artifacts.

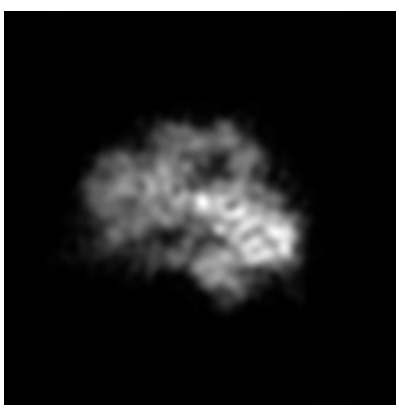
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

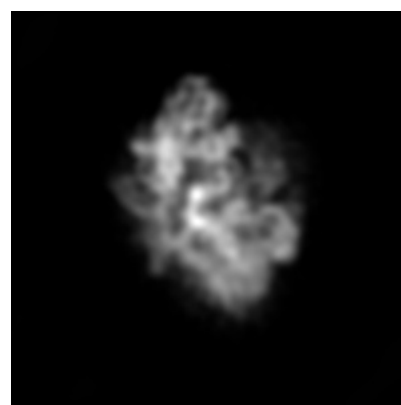
6.1.1 Primary map



X



Y

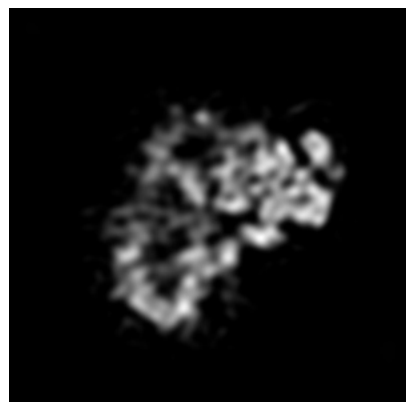


Z

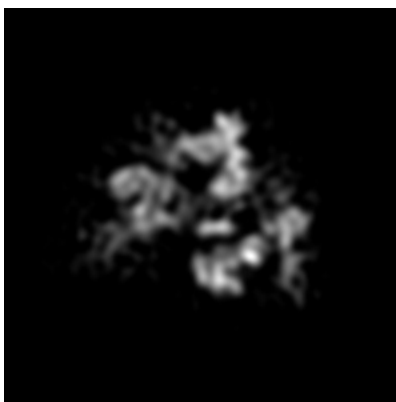
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

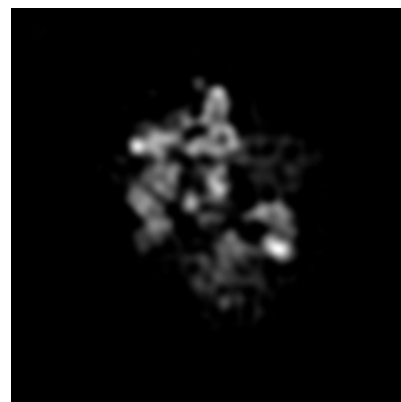
6.2.1 Primary map



X Index: 76



Y Index: 76



Z Index: 76

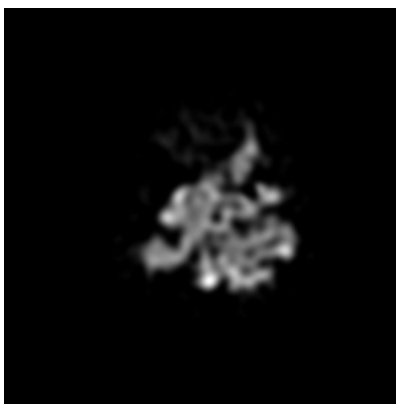
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

6.3.1 Primary map



X Index: 69



Y Index: 99

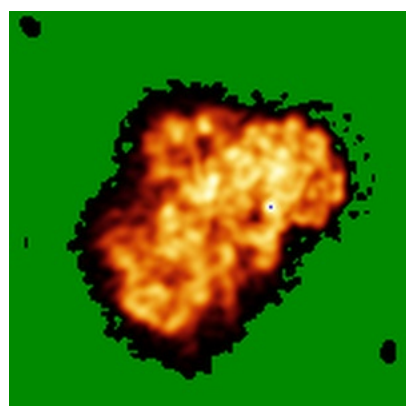


Z Index: 88

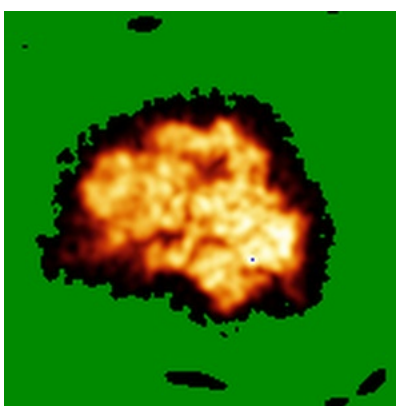
The images above show the largest variance slices of the map in three orthogonal directions.

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

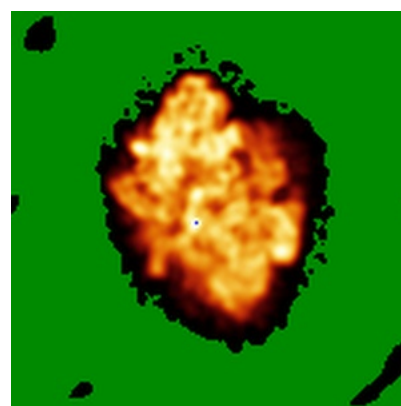
6.4.1 Primary map



X



Y

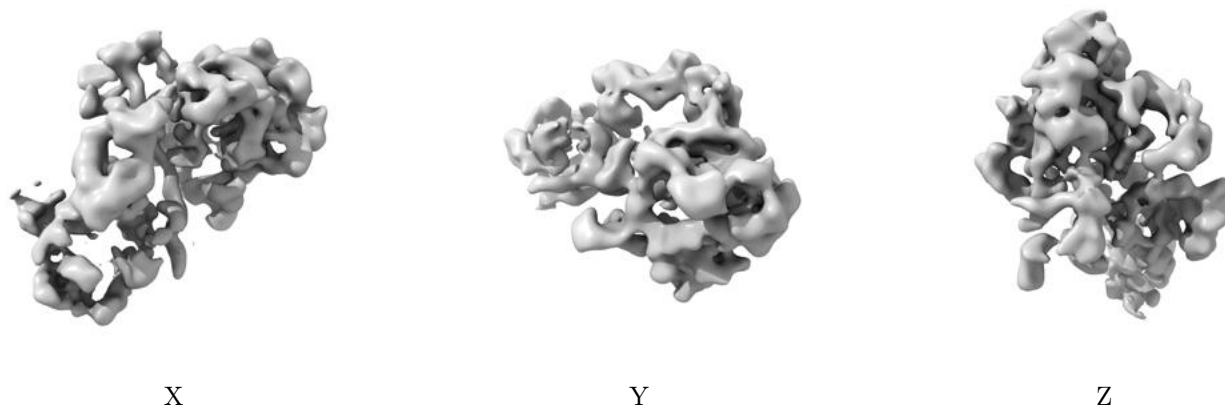


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 3.99. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

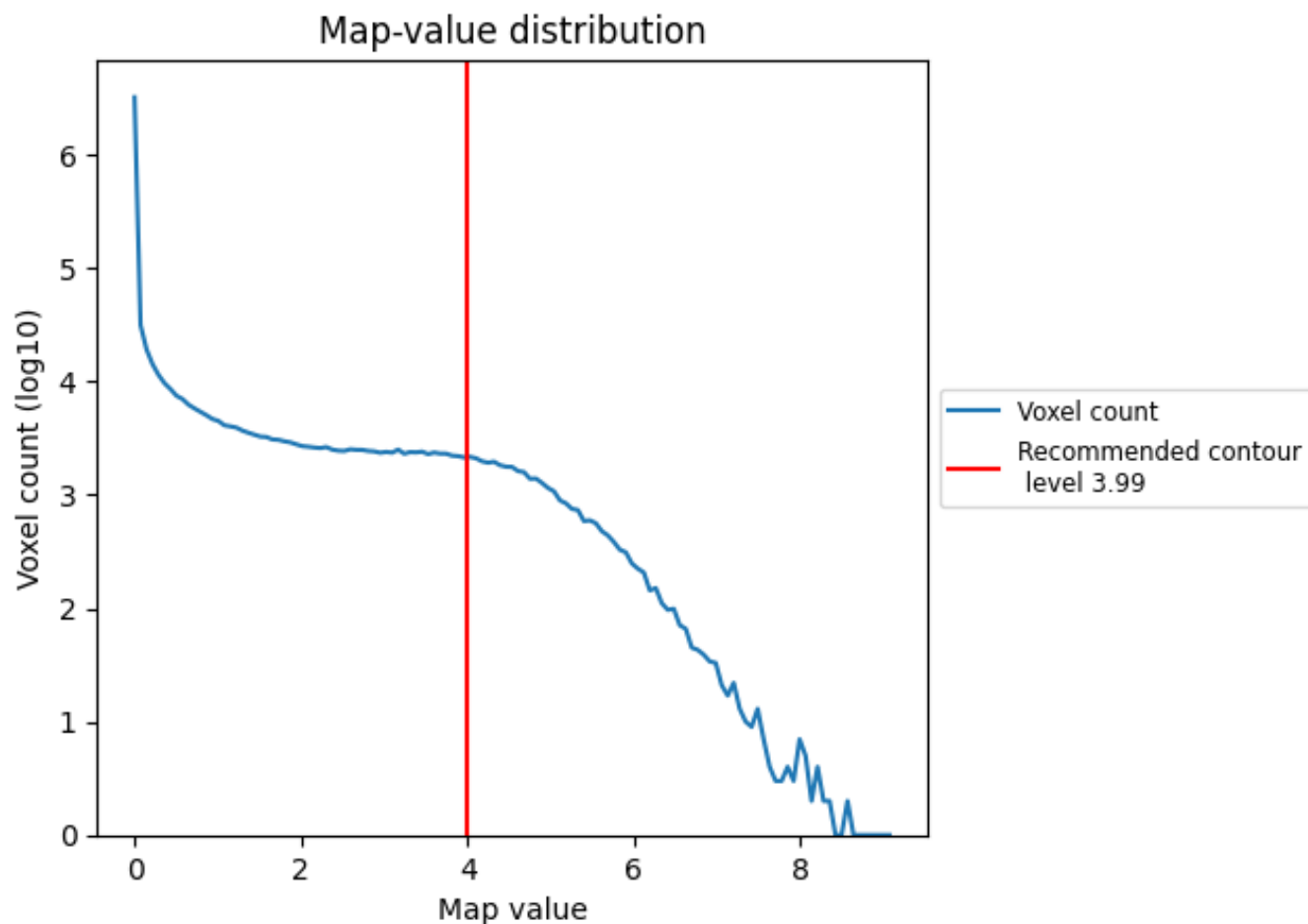
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

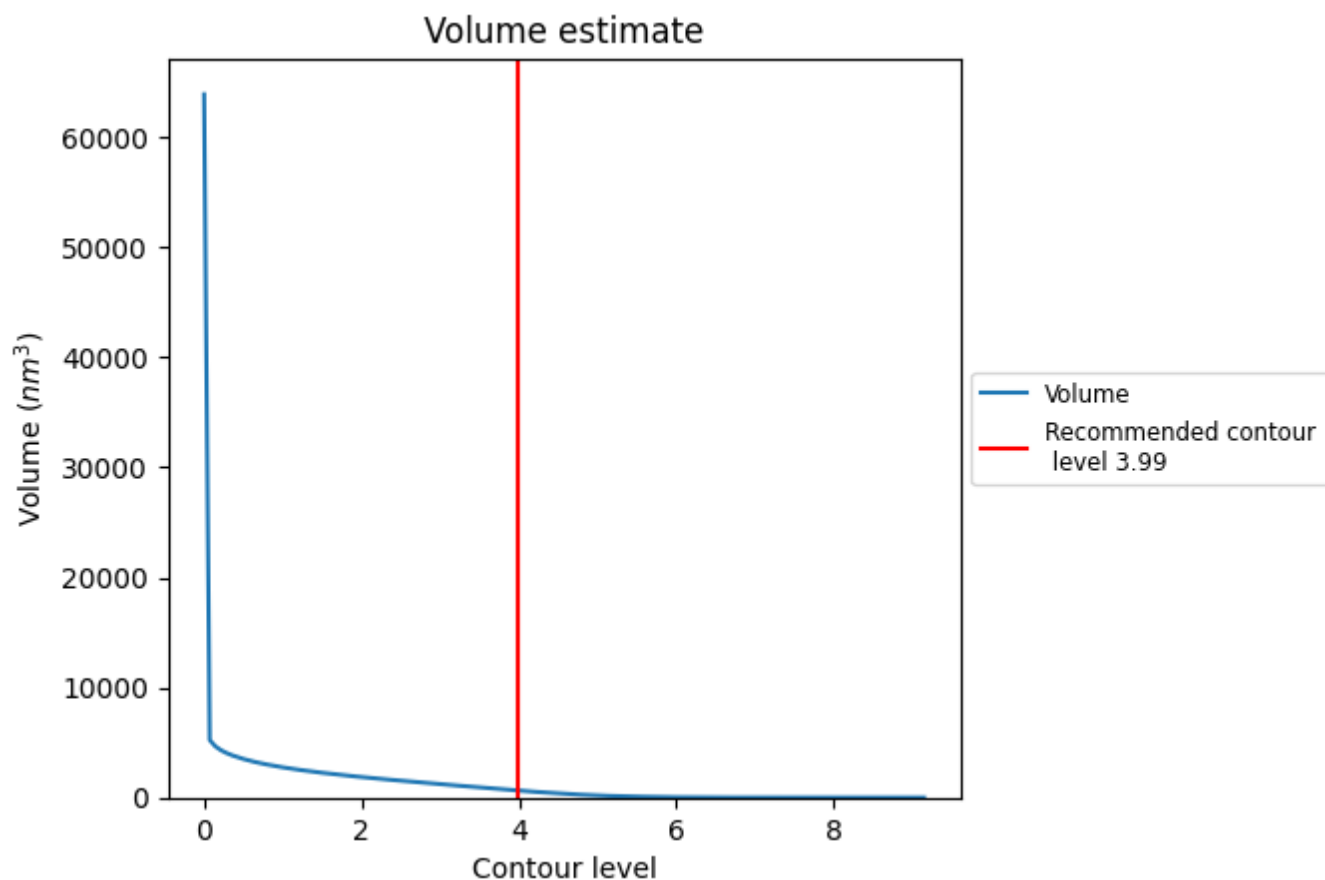
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

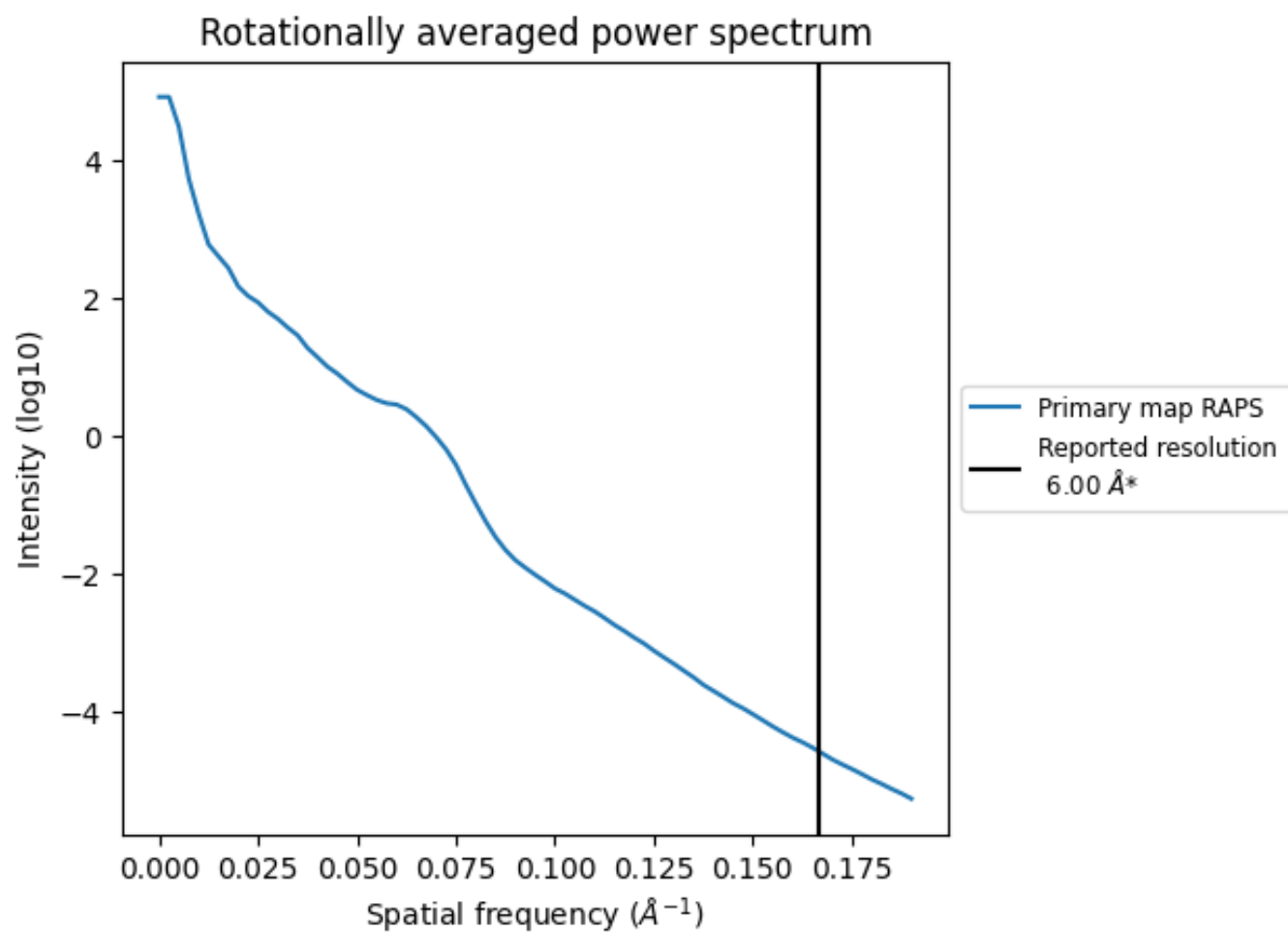
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 637 nm³; this corresponds to an approximate mass of 575 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.167 Å⁻¹

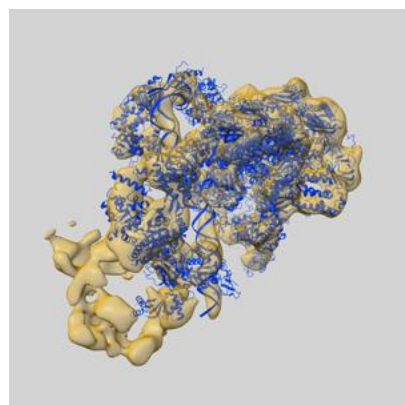
8 Fourier-Shell correlation

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

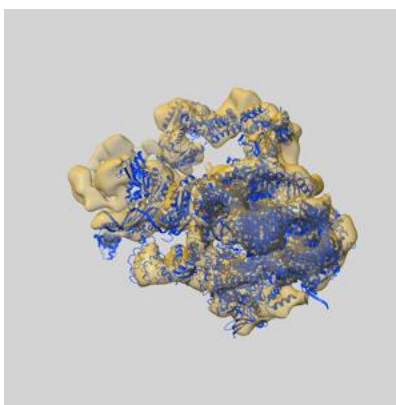
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-3114 and PDB model 5FMF. Per-residue inclusion information can be found in section [3](#) on page [9](#).

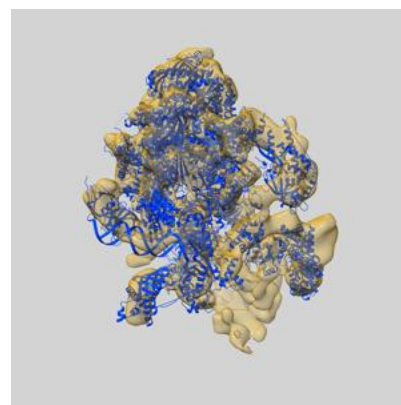
9.1 Map-model overlay [i](#)



X



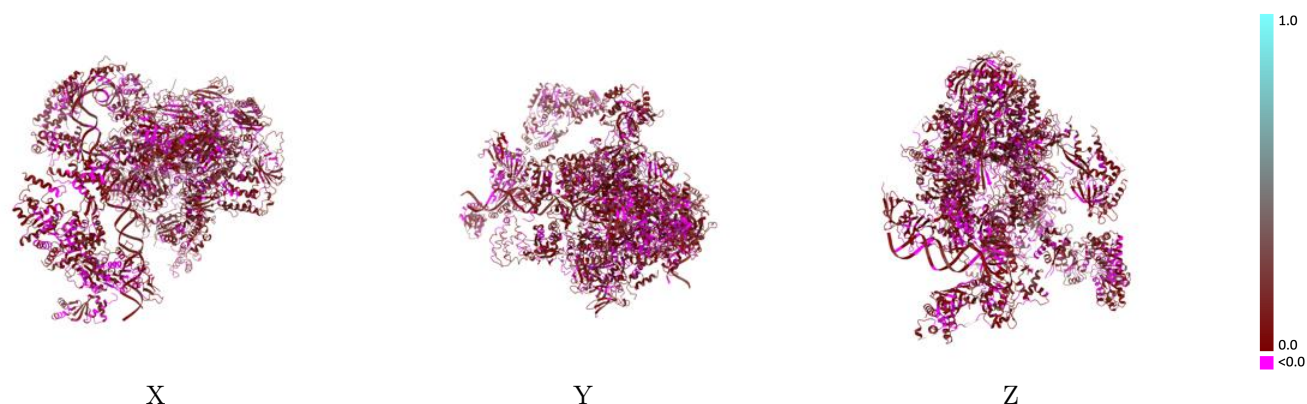
Y



Z

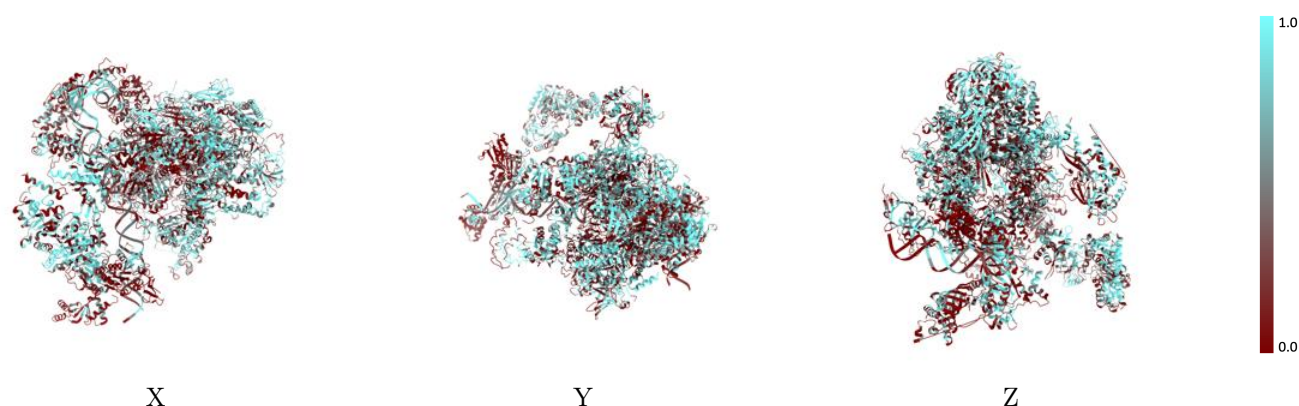
The images above show the 3D surface view of the map at the recommended contour level 3.99 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



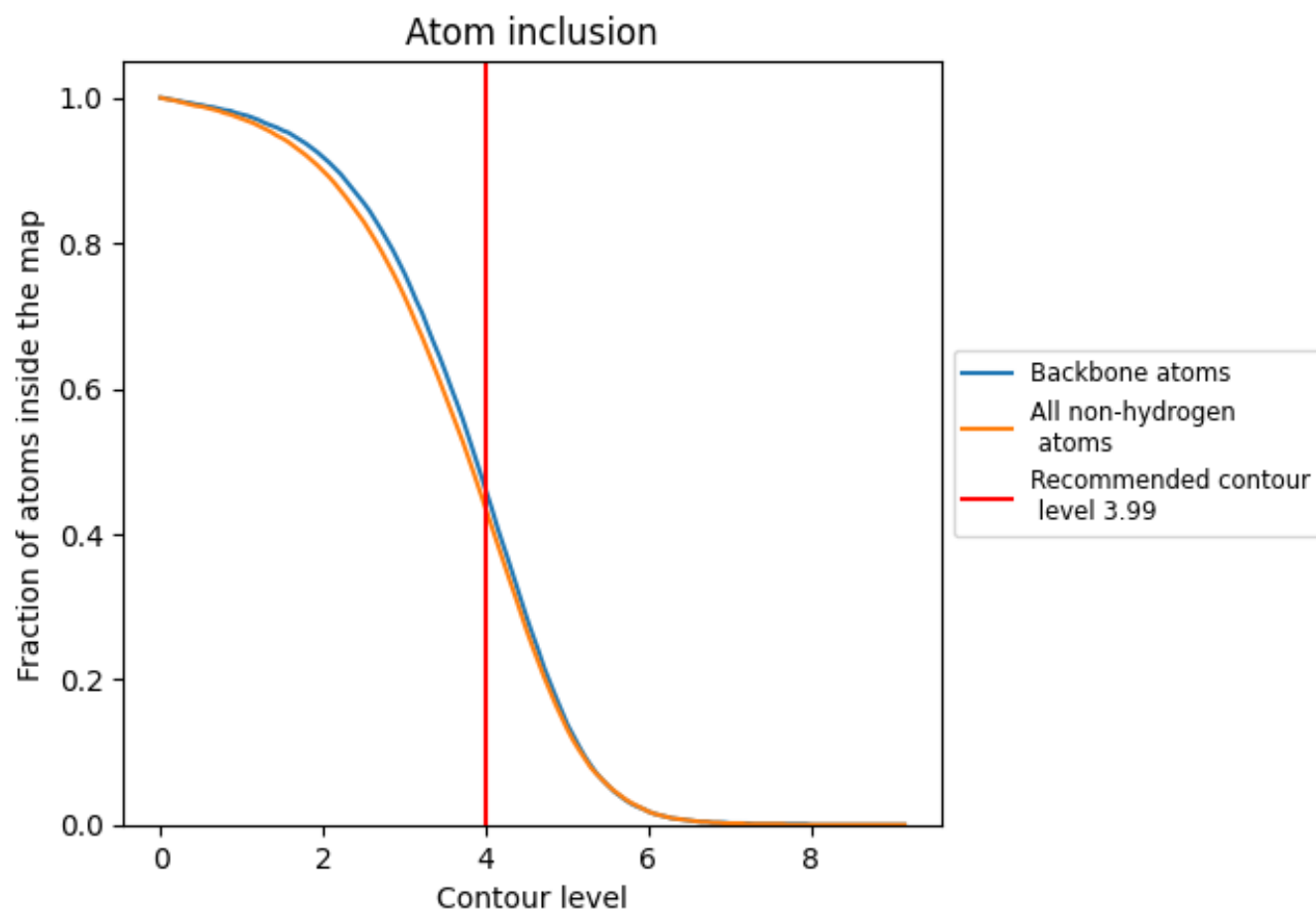
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (3.99).

9.4 Atom inclusion [i](#)



At the recommended contour level, 46% of all backbone atoms, 44% 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 (3.99) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.4370	 0.0620
1	 0.2960	 0.0410
2	 0.2870	 0.0410
A	 0.5000	 0.0770
B	 0.4000	 0.0490
C	 0.6130	 0.0640
D	 0.3740	 0.0700
E	 0.5310	 0.0900
F	 0.6780	 0.0690
G	 0.4180	 0.0690
H	 0.5760	 0.0720
I	 0.4410	 0.0600
J	 0.5840	 0.0660
K	 0.5140	 0.0540
L	 0.6550	 0.0600
M	 0.3350	 0.0730
N	 0.3930	 0.0730
O	 0.2420	 0.0580
P	 0.1210	 0.0240
Q	 0.4330	 0.0640
R	 0.4710	 0.0730
S	 0.5090	 0.1020
T	 0.5020	 0.1110
U	 0.3740	 0.0320
V	 0.3860	 0.0590
W	 0.0920	 0.0590
X	 0.1870	 0.0240
Y	 0.5870	 0.0570

