



Full wwPDB EM Validation Report ⓘ

Mar 6, 2026 – 04:59 PM UTC

PDB ID : 8TOC / pdb_00008toc
EMDB ID : EMD-41443
Title : Acinetobacter phage AP205
Authors : Meng, R.; Xing, Z.; Chang, J.; Zhang, J.
Deposited on : 2023-08-03
Resolution : 3.11 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:

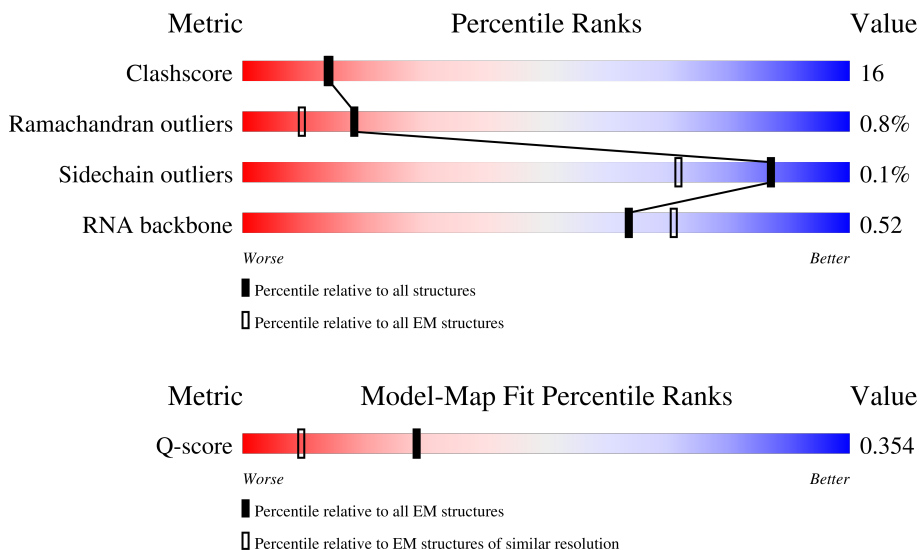
EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & 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 3.11 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	-
RNA backbone	8273	3508	-
Q-score	-	25397	14465 (2.61 - 3.61)

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	R	4269	
2	a	534	
2	b	534	

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Mol	Chain	Length	Quality of chain
3	AB	129	61% 39%
3	AC	129	62% 37% .
3	AE	129	71% 27% .
3	AF	129	74% 26% .
3	AG	129	66% 34%
3	AH	129	69% 31%
3	AI	129	66% 34%
3	AJ	129	71% 28% .
3	AK	129	78% 22%
3	AL	129	65% 35%
3	AM	129	73% 26% .
3	AN	129	66% 34%
3	AO	129	64% 36%
3	AP	129	64% 36% .
3	AQ	129	73% 26% .
3	AS	129	68% 31% .
3	AT	129	70% 29% .
3	AU	129	69% 31%
3	AV	129	68% 31% .
3	AW	129	71% 29%
3	AX	129	63% 37%
3	AY	129	74% 26% .
3	AZ	129	68% 28% ..
3	Ac	129	65% 35%
3	BA	129	67% 33%

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Mol	Chain	Length	Quality of chain	
3	BB	129	78%	22%
3	BC	129	73%	26%
3	BD	129	68%	31%
3	BE	129	70%	29%
3	BF	129	71%	29%
3	BG	129	64%	36%
3	BH	129	70%	29%
3	BI	129	70%	30%
3	BJ	129	68%	32%
3	BK	129	66%	34%
3	BL	129	72%	28%
3	BM	129	67%	33%
3	BN	129	63%	34%
3	BO	129	70%	29%
3	BP	129	74%	25%
3	BQ	129	67%	33%
3	BS	129	66%	34%
3	BT	129	67%	32%
3	BU	129	62%	37%
3	BV	129	71%	27%
3	BW	129	58%	42%
3	BX	129	71%	29%
3	BY	129	73%	27%
3	BZ	129	72%	28%
3	Bc	129	71%	29%

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Mol	Chain	Length	Quality of chain	
3	CA	129	71%	29%
3	CB	129	72%	28%
3	CC	129	66%	33%
3	CD	129	83%	17%
3	CE	129	66%	33%
3	CF	129	74%	26%
3	CG	129	71%	28%
3	CH	129	71%	29%
3	CI	129	67%	33%
3	CJ	129	75%	25%
3	CK	129	64%	36%
3	CL	129	73%	27%
3	CM	129	55%	44%
3	CN	129	56%	43%
3	CO	129	57%	43%
3	CP	129	71%	29%
3	CQ	129	73%	26%
3	CS	129	69%	31%
3	CT	129	78%	22%
3	CU	129	73%	27%
3	CV	129	64%	35%
3	CW	129	72%	27%
3	CX	129	67%	33%
3	CY	129	73%	27%
3	CZ	129	67%	33%

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Mol	Chain	Length	Quality of chain	
3	Cc	129	63%	37%
3	DA	129	71%	29%
3	DB	129	70%	30%
3	DC	129	69%	31%
3	DD	129	69%	30%
3	DE	129	74%	26%
3	DF	129	70%	30%
3	DG	129	74%	26%
3	DH	129	64%	36%
3	DI	129	70%	30%
3	DJ	129	64%	36%
3	DK	129	67%	33%
3	DL	129	66%	34%
3	DM	129	76%	23%
3	DN	129	58%	42%
3	DO	129	57%	43%
3	DQ	129	74%	26%
3	DS	129	71%	29%
3	DT	129	77%	22%
3	DU	129	69%	31%
3	DV	129	67%	32%
3	DW	129	77%	23%
3	DX	129	77%	23%
3	DY	129	72%	28%
3	DZ	129	67%	33%

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Mol	Chain	Length	Quality of chain	
3	Dc	129	64%	36%
3	EA	129	71%	29%
3	EB	129	83%	17%
3	EC	129	74%	26%
3	ED	129	64%	36%
3	EE	129	62%	35%
3	EF	129	67%	33%
3	EG	129	67%	31%
3	EH	129	63%	37%
3	EI	129	70%	30%
3	EJ	129	64%	36%
3	EK	129	67%	33%
3	EL	129	67%	33%
3	EM	129	70%	30%
3	EN	129	73%	26%
3	EO	129	67%	33%
3	EP	129	72%	26%
3	EQ	129	71%	29%
3	ES	129	74%	26%
3	ET	129	64%	34%
3	EU	129	63%	37%
3	EV	129	63%	37%
3	EW	129	67%	33%
3	EX	129	71%	28%
3	EY	129	73%	27%

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Mol	Chain	Length	Quality of chain	
3	EZ	129	71%	29%
3	Ec	129	60%	40%
3	FA	129	64%	36%
3	FB	129	60%	39%
3	FC	129	71%	28%
3	FD	129	64%	36%
3	FE	129	76%	24%
3	FF	129	67%	33%
3	FG	129	64%	36%
3	FH	129	74%	26%
3	FI	129	57%	43%
3	FJ	129	72%	28%
3	FK	129	68%	32%
3	FL	129	73%	27%
3	FM	129	69%	31%
3	FN	129	67%	33%
3	FO	129	71%	29%
3	FP	129	71%	29%
3	FQ	129	70%	30%
3	FS	129	72%	28%
3	FT	129	74%	26%
3	FU	129	68%	32%
3	FV	129	77%	23%
3	FW	129	65%	32%
3	FX	129	59%	40%




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Mol	Chain	Length	Quality of chain
3	FY	129	71% 29%
3	FZ	129	64% 34% 2%
3	Fc	129	74% 26% 1%
3	GA	129	50% 50% 1%
3	GB	129	74% 26%
3	GC	129	61% 34% 5%
3	GD	129	71% 29%
3	GE	129	58% 40% 2%
3	GF	129	68% 31% 1%
3	GG	129	78% 22% 1%
3	GH	129	64% 36%
3	GI	129	73% 26% 1%
3	GJ	129	70% 30%
3	GK	129	81% 19%
3	GL	129	69% 31%
3	GM	129	73% 27%
3	GN	129	69% 30% 1%
3	GO	129	82% 17% 1%
3	GP	129	69% 31%
3	GQ	129	72% 28%
3	GS	129	73% 27%
3	GT	129	71% 28% 1%
3	GU	129	70% 29% 1%
3	GV	129	62% 37% 1%
3	GW	129	77% 23%

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Mol	Chain	Length	Quality of chain
3	GX	129	 62% 32% 5%
3	GY	129	 67% 32%
3	Gc	129	 67% 33%

2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 271353 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called RNA (4269-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	P		
1	R	4269	90441	40490	15694	29988	4269	0	0

- Molecule 2 is a protein called Maturation protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	a	534	4304	2746	765	776	17	0	0
2	b	534	4304	2746	765	776	17	0	0

- Molecule 3 is a protein called Coat protein.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	AB	129	968	602	171	191	4	0	0
3	AC	129	968	602	171	191	4	0	0
3	AE	129	968	602	171	191	4	0	0
3	AF	129	968	602	171	191	4	0	0
3	AG	129	968	602	171	191	4	0	0
3	AH	129	968	602	171	191	4	0	0
3	AI	129	968	602	171	191	4	0	0
3	AJ	129	968	602	171	191	4	0	0
3	AK	129	968	602	171	191	4	0	0
3	AL	129	968	602	171	191	4	0	0

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Mol	Chain	Residues	Atoms				AltConf	Trace
			Total	C	N	O	S	
3	AM	129	968	602	171	191	4	0
3	AN	129	968	602	171	191	4	0
3	AO	129	968	602	171	191	4	0
3	AP	129	968	602	171	191	4	0
3	AQ	129	968	602	171	191	4	0
3	Ac	129	968	602	171	191	4	0
3	AS	129	968	602	171	191	4	0
3	AT	129	968	602	171	191	4	0
3	AU	129	968	602	171	191	4	0
3	AV	129	968	602	171	191	4	0
3	AW	129	968	602	171	191	4	0
3	AX	129	968	602	171	191	4	0
3	AY	129	968	602	171	191	4	0
3	AZ	129	968	602	171	191	4	0
3	BA	129	968	602	171	191	4	0
3	BB	129	968	602	171	191	4	0
3	BC	129	968	602	171	191	4	0
3	BD	129	968	602	171	191	4	0
3	BE	129	968	602	171	191	4	0
3	BF	129	968	602	171	191	4	0
3	BG	129	968	602	171	191	4	0

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Mol	Chain	Residues	Atoms				AltConf	Trace	
3	BH	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BI	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BJ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BK	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BL	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BM	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BN	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BO	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BP	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BQ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	Bc	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BS	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BT	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BU	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BV	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BW	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BX	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BY	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	BZ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	CA	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	CB	129	Total 968	C 602	N 171	O 191	S 4	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	CC	129	968	602	171	191	4	0	0
3	CD	129	968	602	171	191	4	0	0
3	CE	129	968	602	171	191	4	0	0
3	CF	129	968	602	171	191	4	0	0
3	CG	129	968	602	171	191	4	0	0
3	CH	129	968	602	171	191	4	0	0
3	CI	129	968	602	171	191	4	0	0
3	CJ	129	968	602	171	191	4	0	0
3	CK	129	968	602	171	191	4	0	0
3	CL	129	968	602	171	191	4	0	0
3	CM	129	968	602	171	191	4	0	0
3	CN	129	968	602	171	191	4	0	0
3	CO	129	968	602	171	191	4	0	0
3	CP	129	968	602	171	191	4	0	0
3	CQ	129	968	602	171	191	4	0	0
3	Cc	129	968	602	171	191	4	0	0
3	CS	129	968	602	171	191	4	0	0
3	CT	129	968	602	171	191	4	0	0
3	CU	129	968	602	171	191	4	0	0
3	CV	129	968	602	171	191	4	0	0
3	CW	129	968	602	171	191	4	0	0

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Mol	Chain	Residues	Atoms				AltConf	Trace	
3	CX	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	CY	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	CZ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DA	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DB	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DC	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DD	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DE	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DF	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DG	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DH	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DI	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DJ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DK	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DL	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DM	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DN	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DO	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DQ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	Dc	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DS	129	Total 968	C 602	N 171	O 191	S 4	0	0

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Mol	Chain	Residues	Atoms				AltConf	Trace	
3	DT	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DU	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DV	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DW	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DX	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DY	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	DZ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EA	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EB	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EC	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	ED	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EE	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EF	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EG	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EH	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EI	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EJ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EK	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EL	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EM	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EN	129	Total 968	C 602	N 171	O 191	S 4	0	0

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Mol	Chain	Residues	Atoms				AltConf	Trace	
3	EO	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EP	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EQ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	Ec	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	ES	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	ET	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EU	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EV	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EW	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EX	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EY	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	EZ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FA	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FB	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FC	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FD	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FE	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FF	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FG	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FH	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FI	129	Total 968	C 602	N 171	O 191	S 4	0	0

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Mol	Chain	Residues	Atoms				AltConf	Trace	
3	FJ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FK	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FL	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FM	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FN	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FO	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FP	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FQ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	Fc	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FS	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FT	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FU	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FV	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FW	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FX	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FY	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	FZ	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	GA	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	GB	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	GC	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	GD	129	Total 968	C 602	N 171	O 191	S 4	0	0

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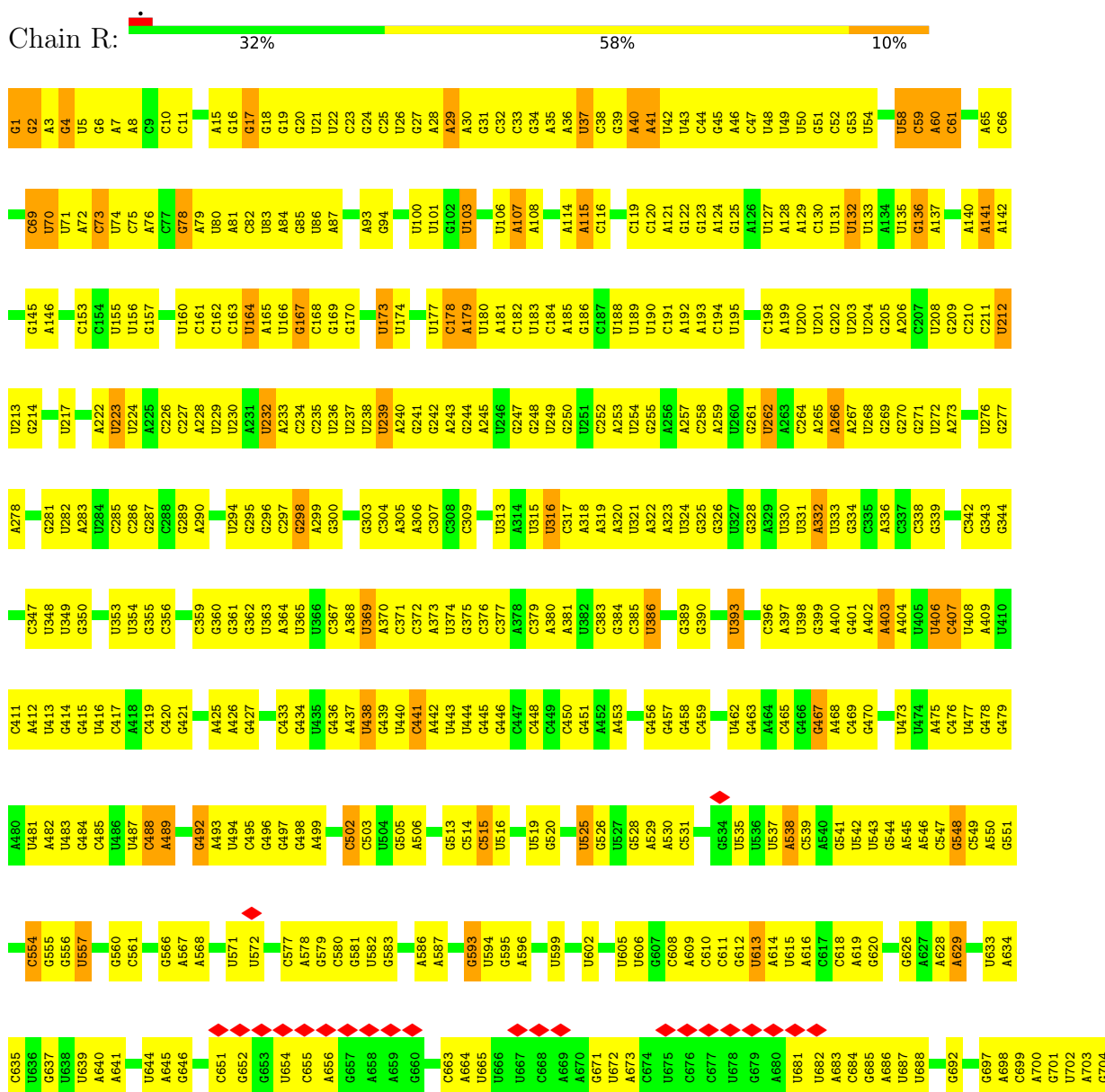
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Mol	Chain	Residues	Atoms				AltConf	Trace	
3	GE	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	GF	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	GG	129	Total 968	C 602	N 171	O 191	S 4	0	0
3	GH	129	Total 968	C 602	N 171	O 191	S 4	0	0
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3 Residue-property plots i

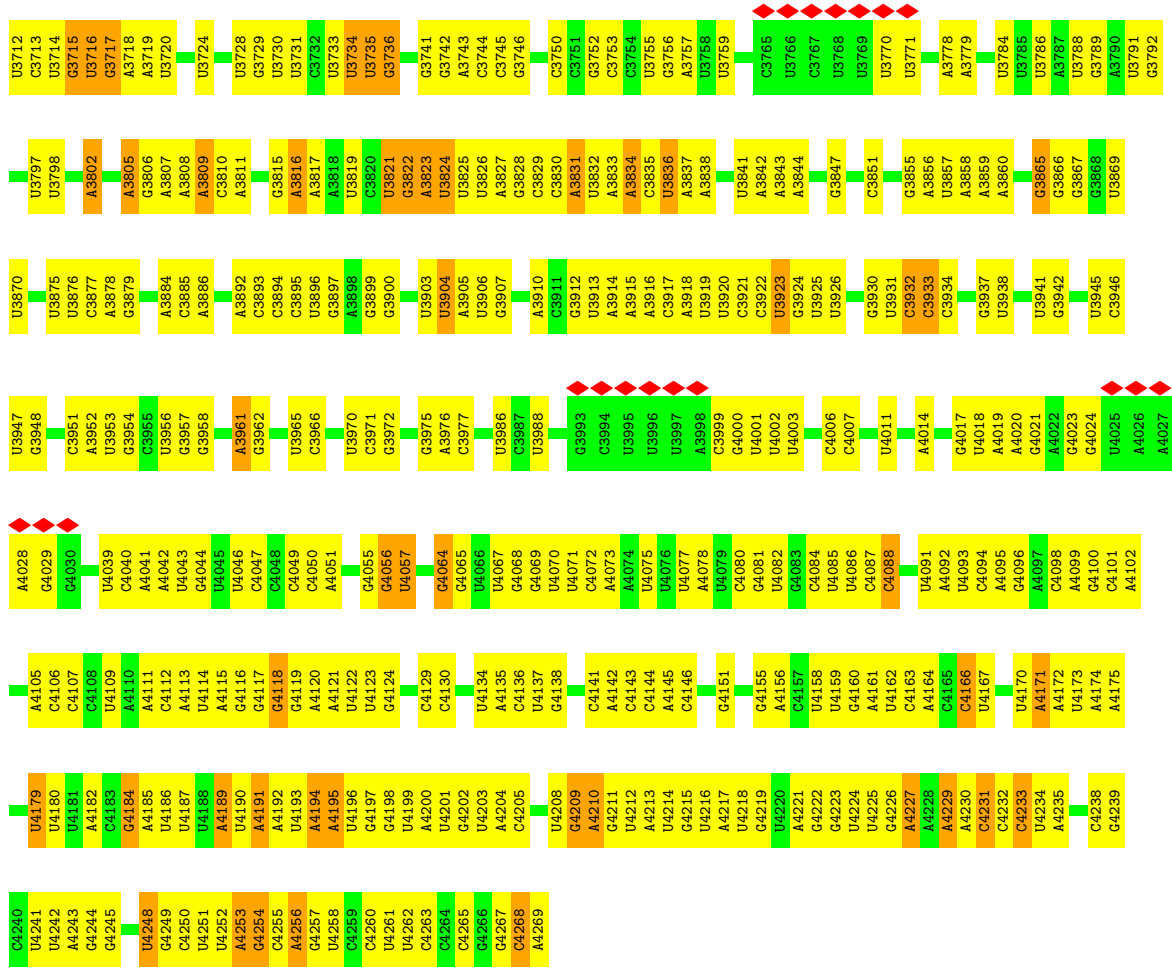
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

- Molecule 1: RNA (4269-MER)

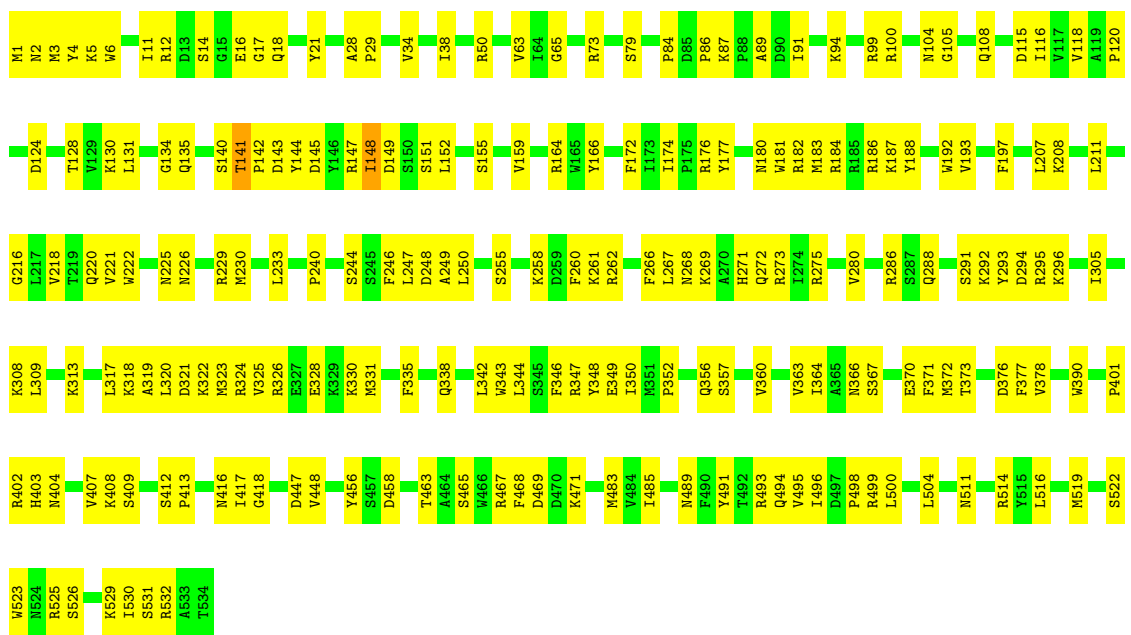


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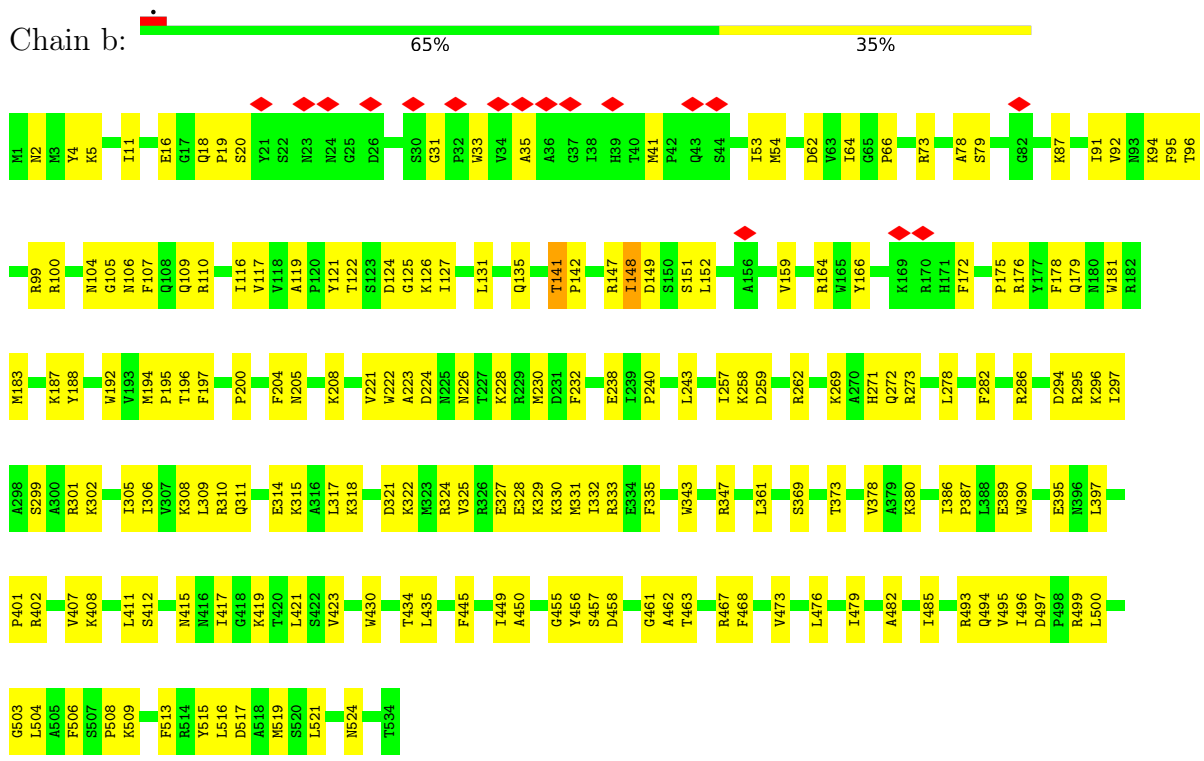
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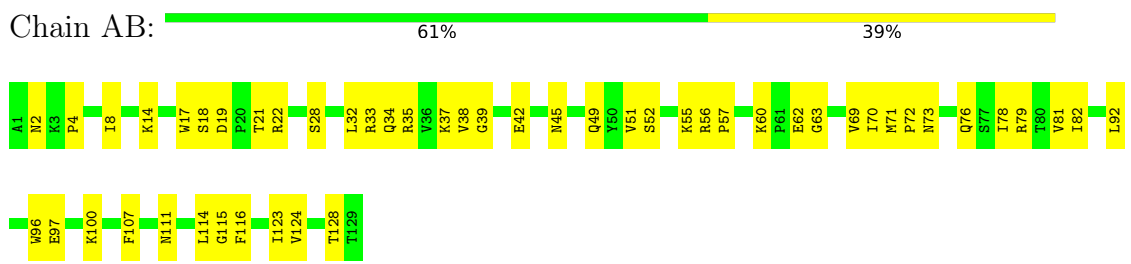
• Molecule 2: Maturation protein



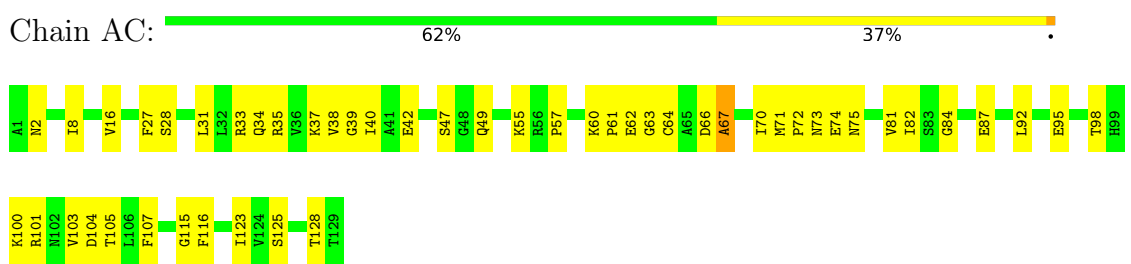
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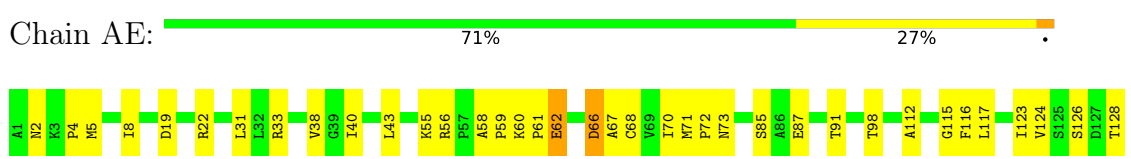
• Molecule 3: Coat protein



• Molecule 3: Coat protein

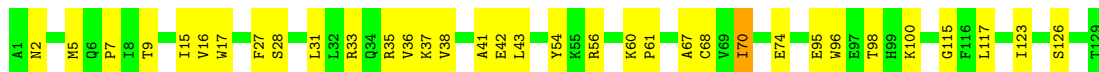
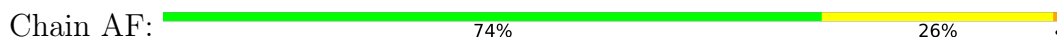


• Molecule 3: Coat protein



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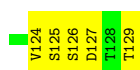
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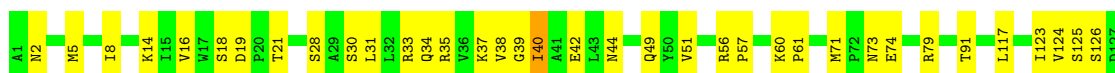
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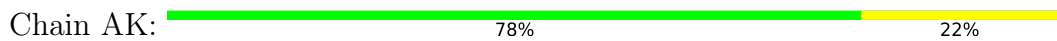
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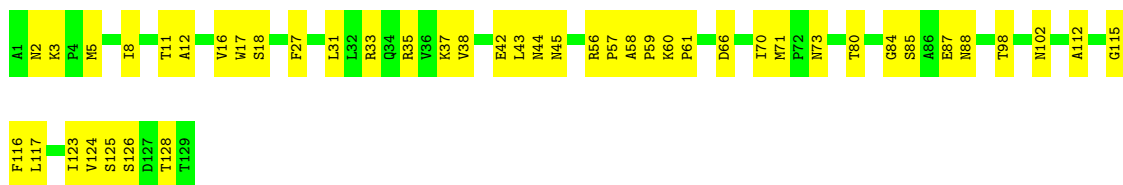
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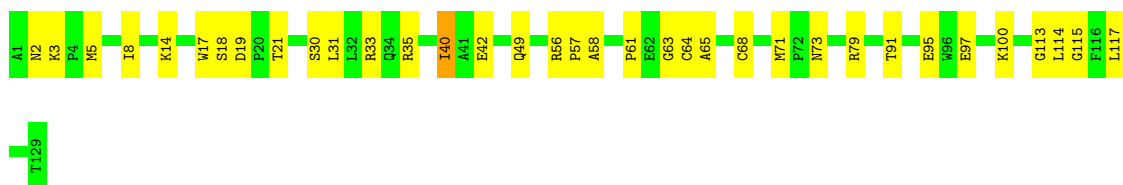
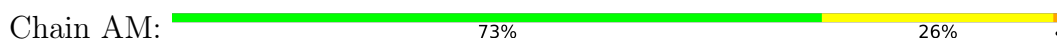
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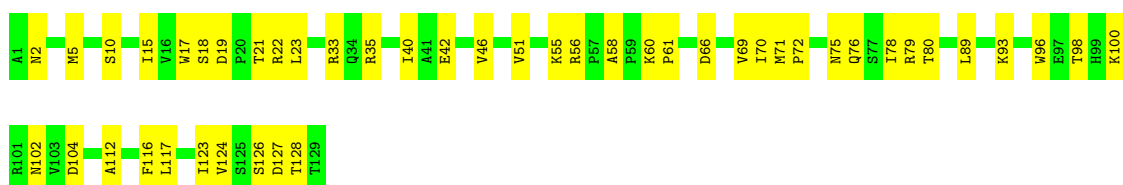
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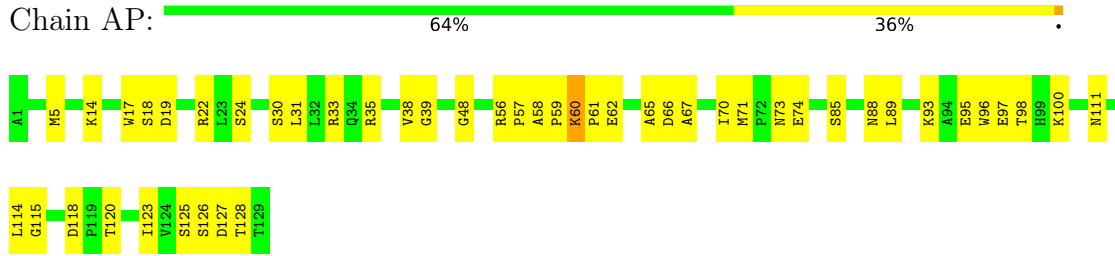
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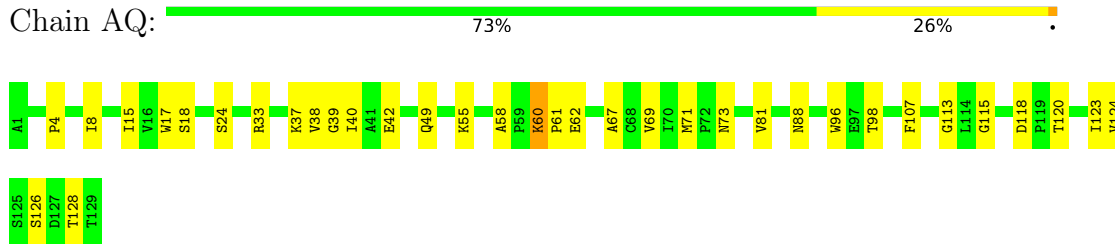
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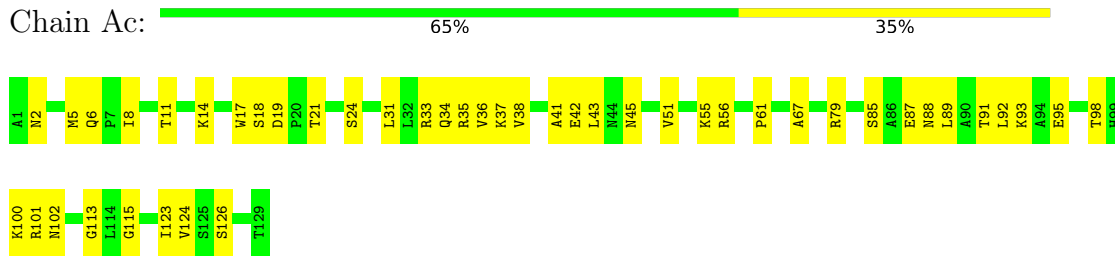
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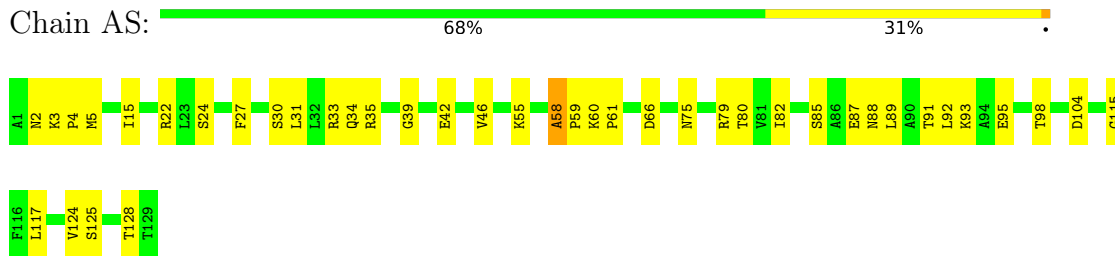
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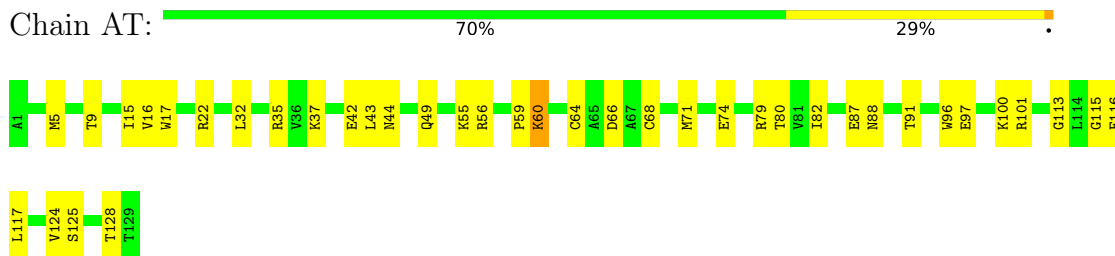
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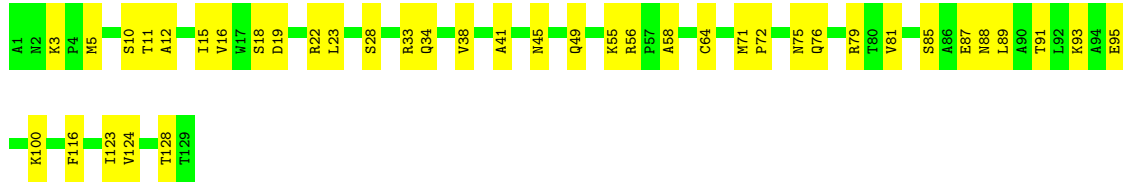
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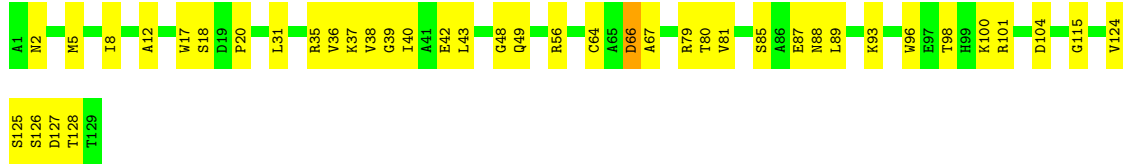
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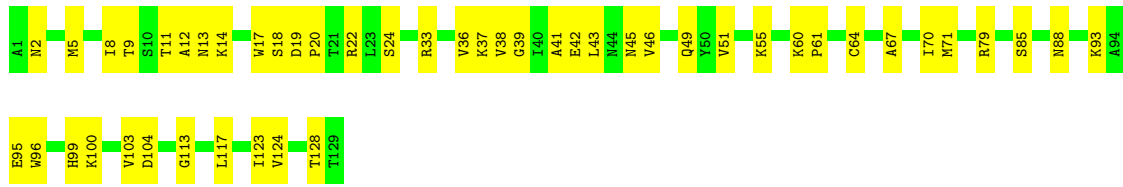
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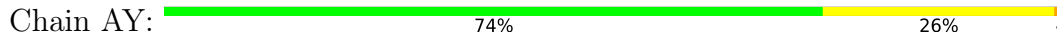
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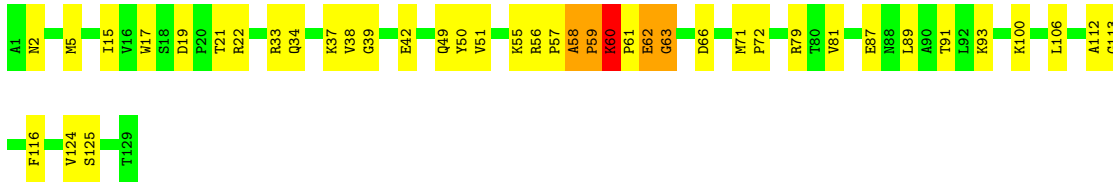


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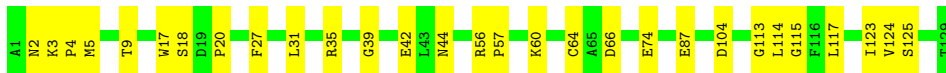
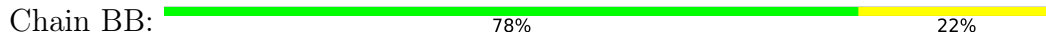




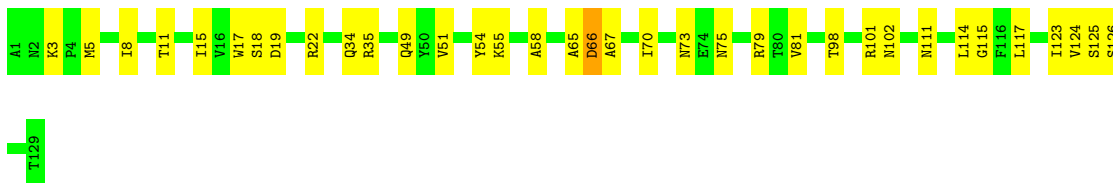
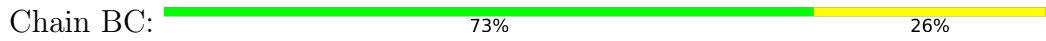
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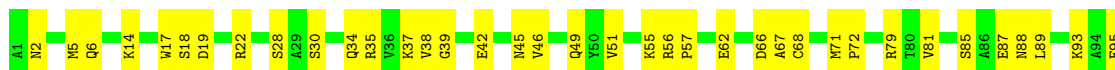




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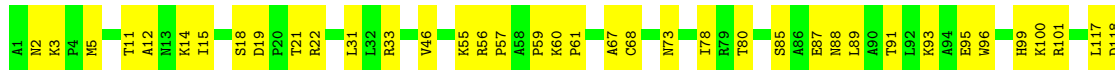
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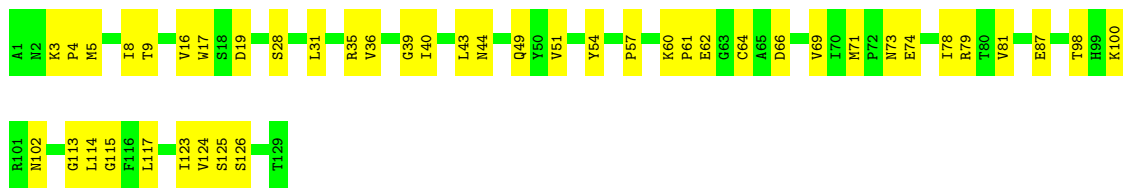
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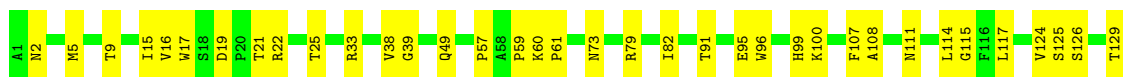
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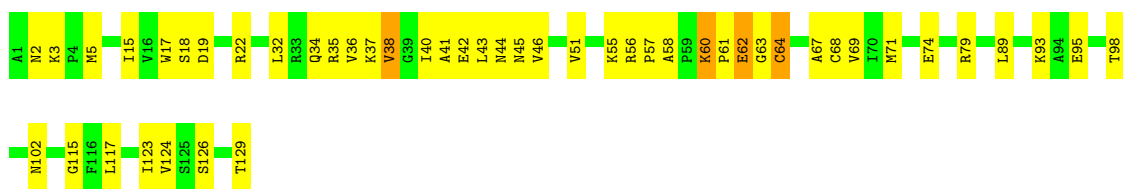
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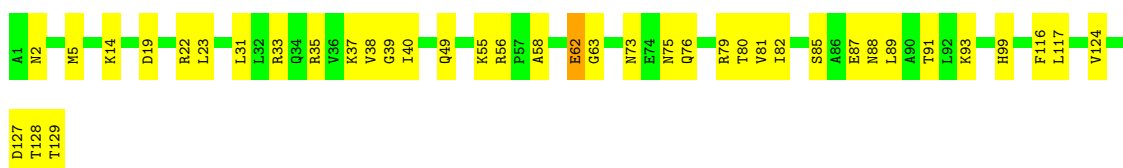
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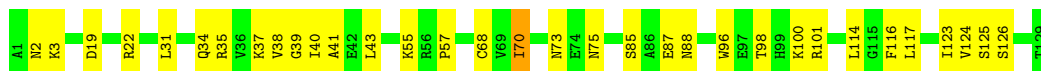


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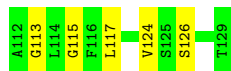
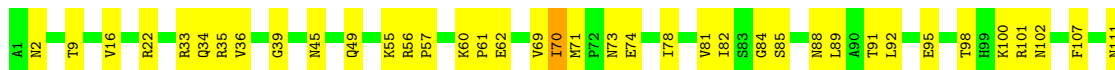


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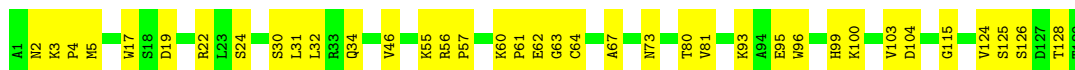




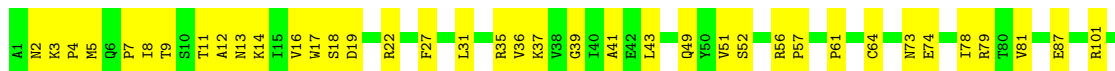
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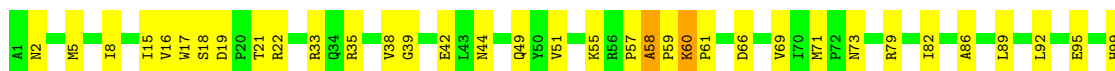
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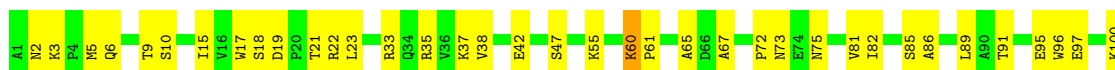
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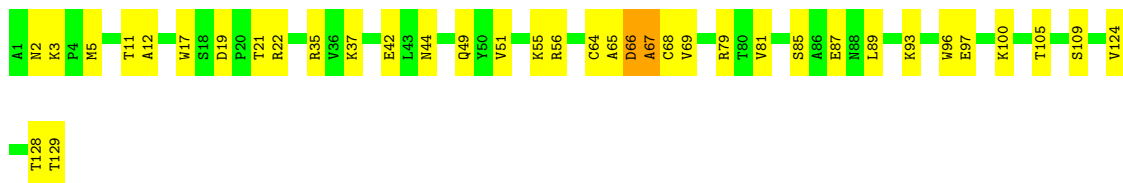
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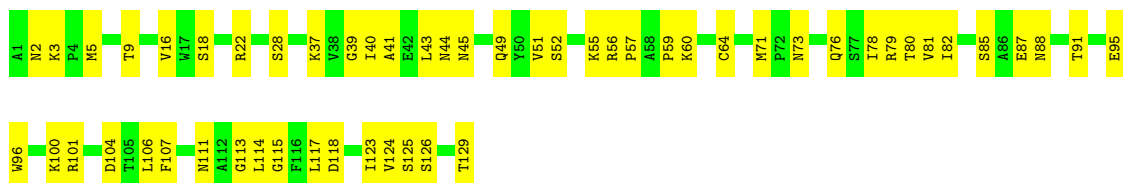
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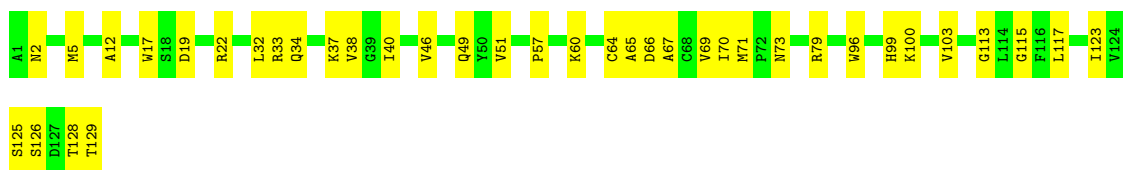
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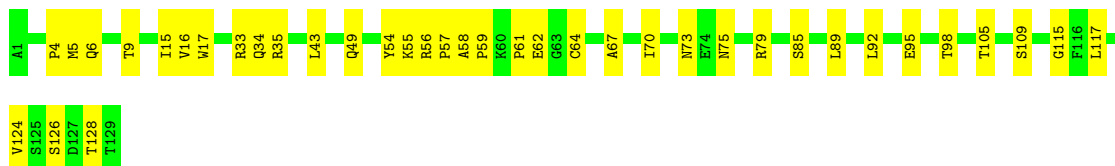


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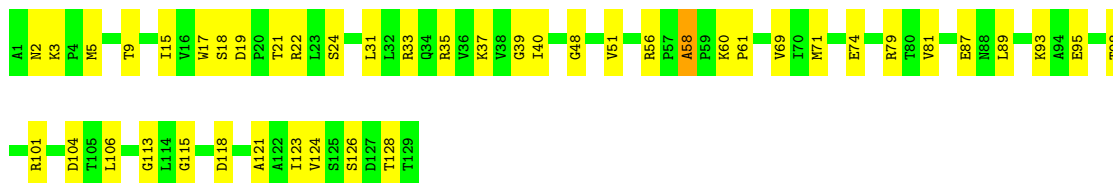




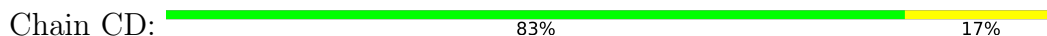
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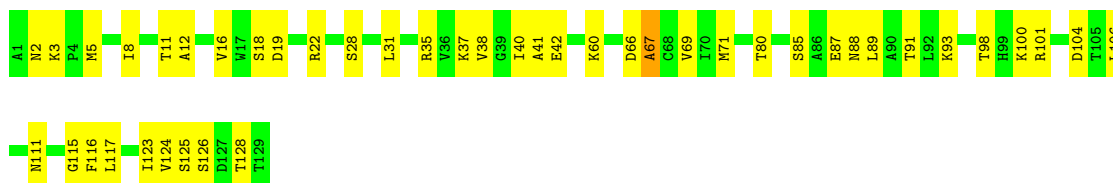
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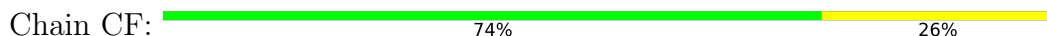
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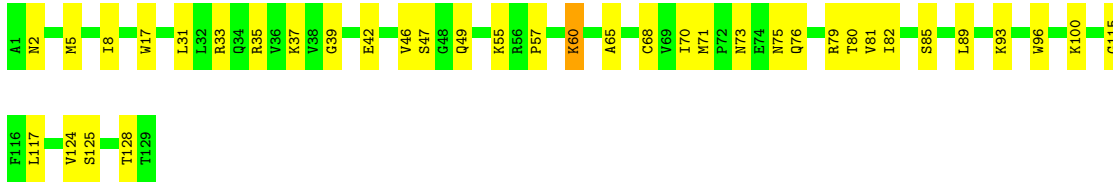


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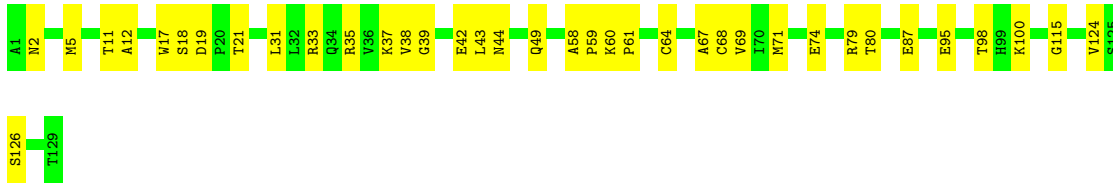
● Molecule 3: Coat protein

Chain CG:  71% 28%



- Molecule 3: Coat protein

Chain CH:  71% 29%



- Molecule 3: Coat protein

Chain CI:  67% 33%



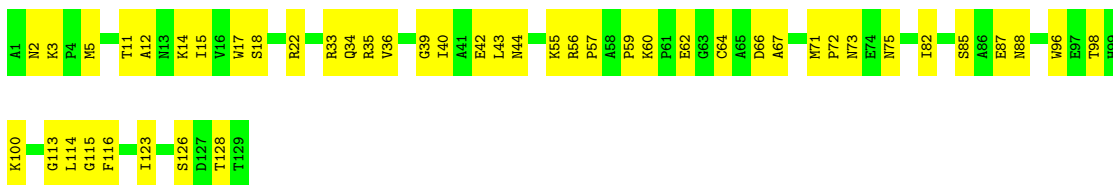
- Molecule 3: Coat protein

Chain CJ:  75% 25%



- Molecule 3: Coat protein

Chain CK:  64% 36%

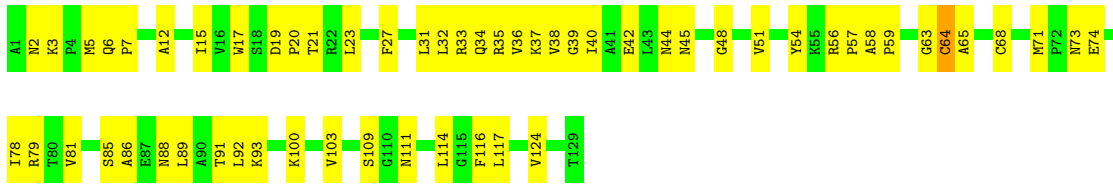


- Molecule 3: Coat protein

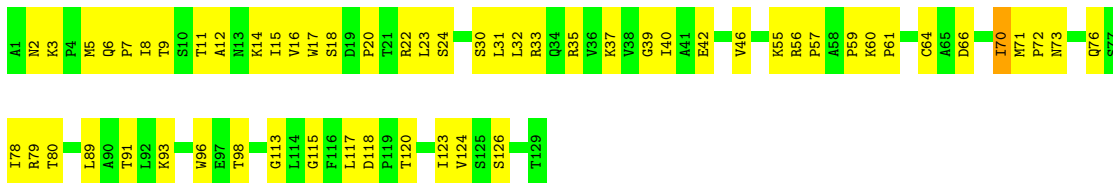
Chain CL:  73% 27%



• Molecule 3: Coat protein



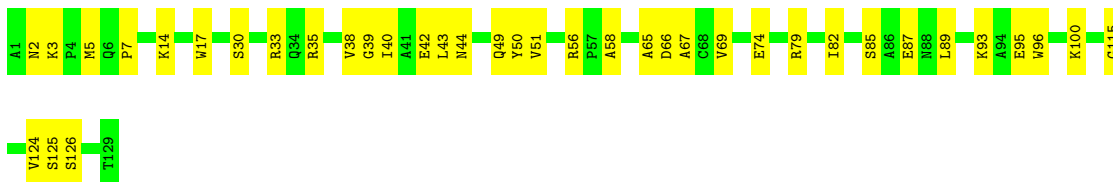
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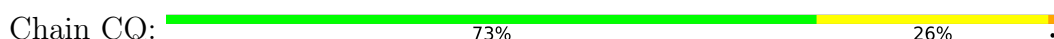
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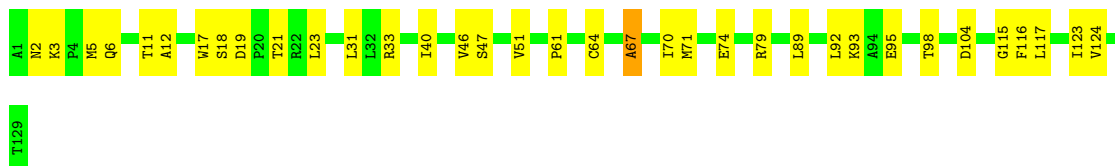


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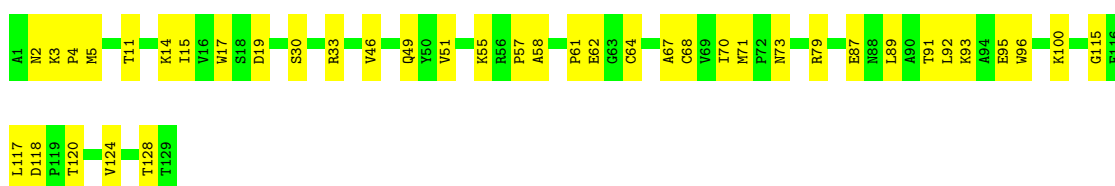




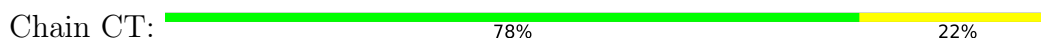
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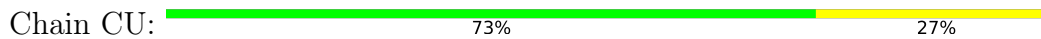
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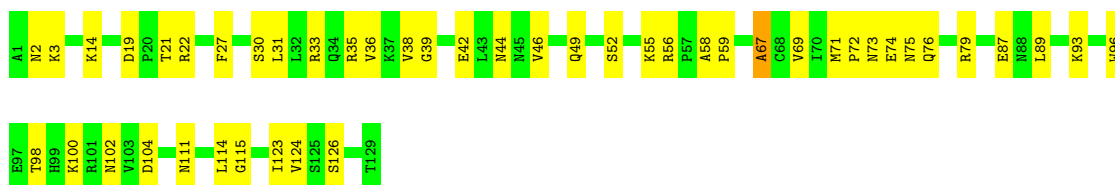
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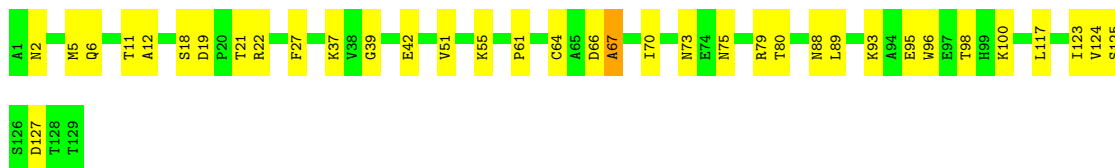
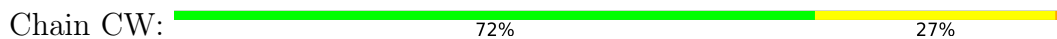
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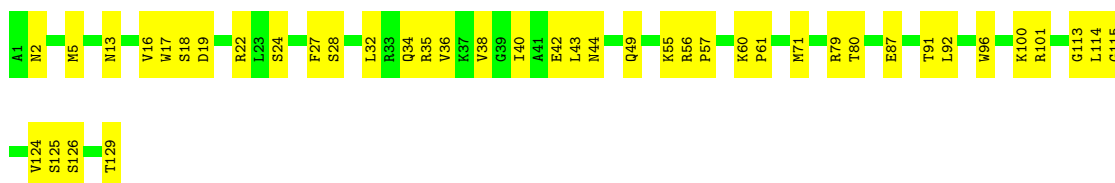
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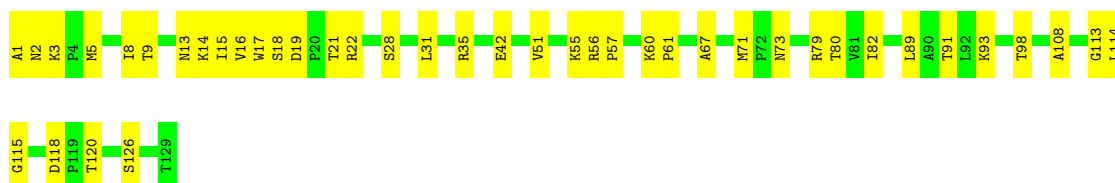
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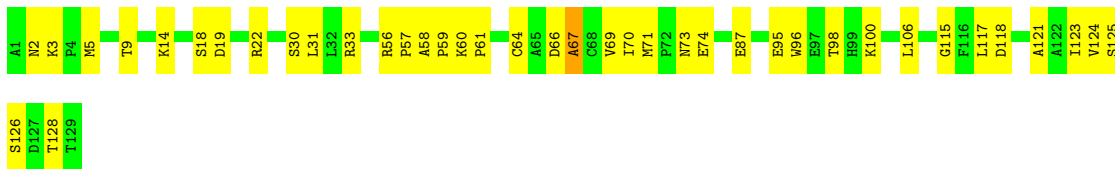




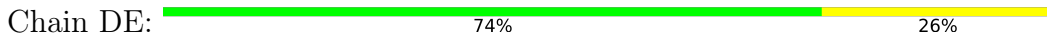
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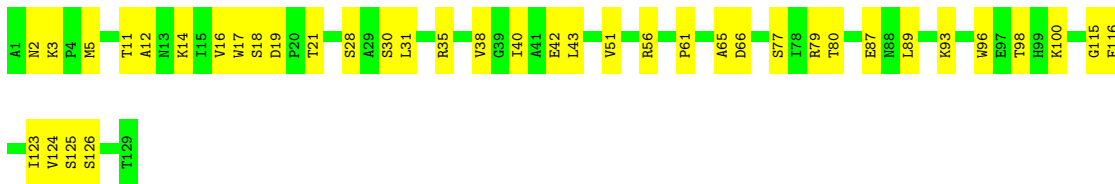
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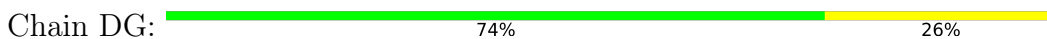
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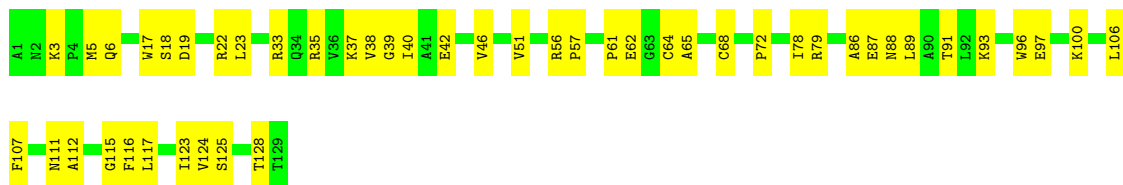
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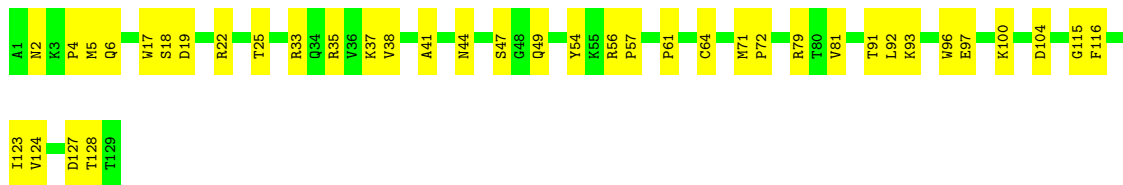
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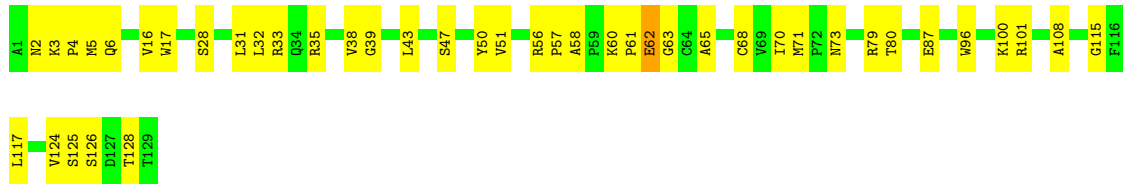
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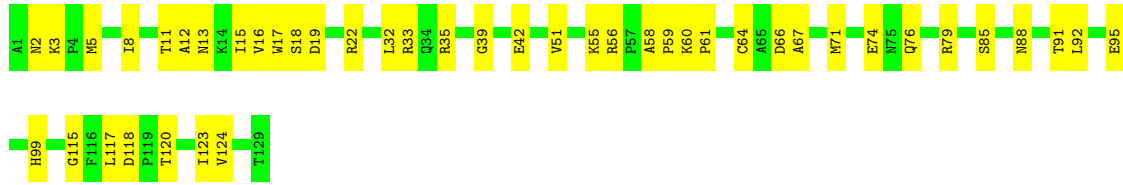
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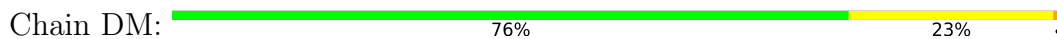
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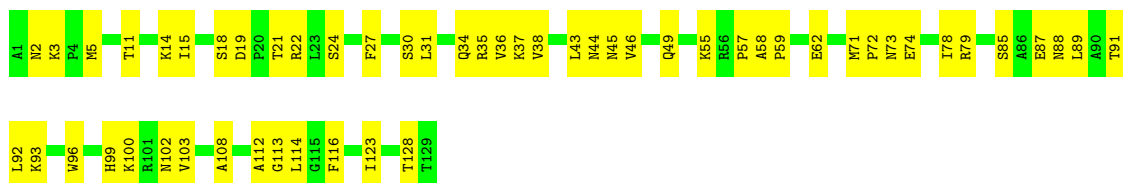
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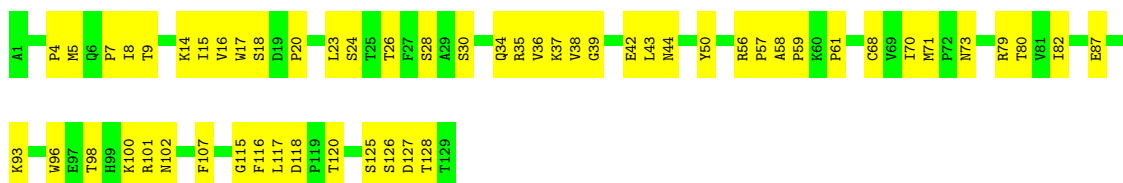
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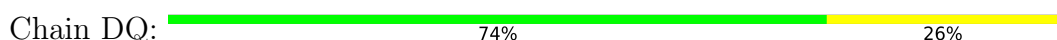
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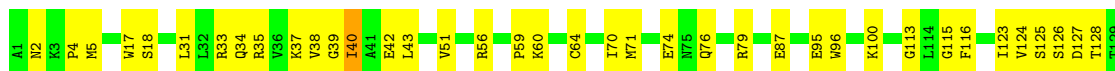


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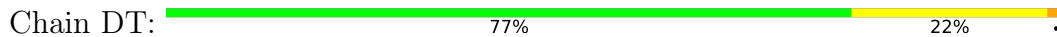


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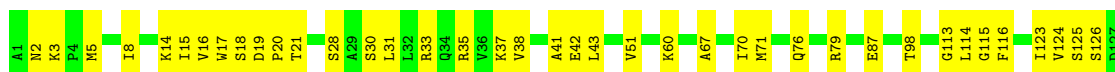




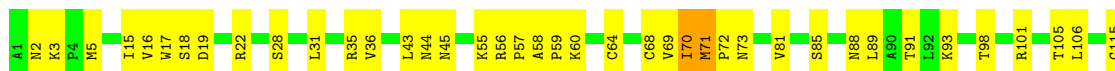
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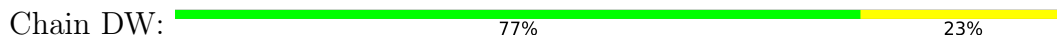
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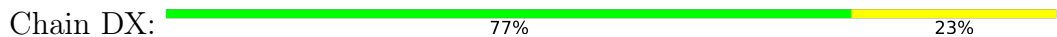
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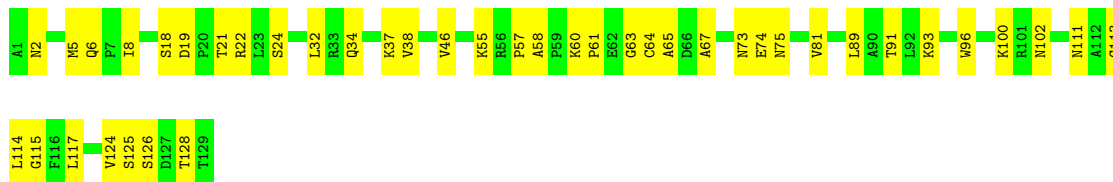


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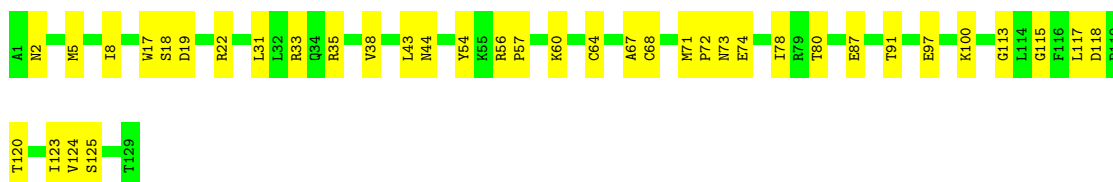




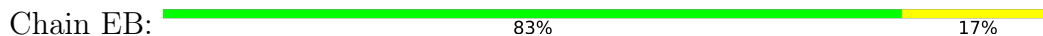
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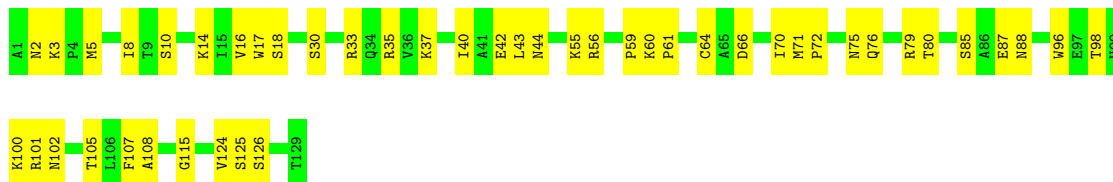
• Molecule 3: Coat protein



• Molecule 3: Coat protein

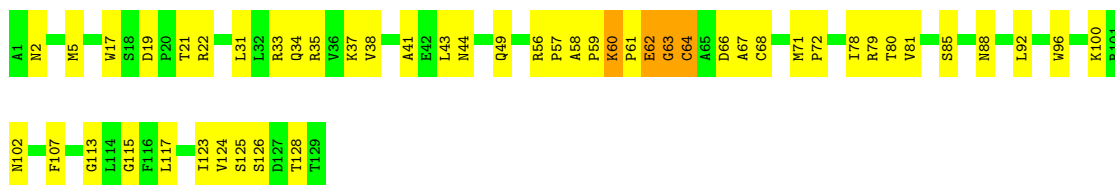


• Molecule 3: Coat protein



• Molecule 3: Coat protein

Chain EE:  62% 35%



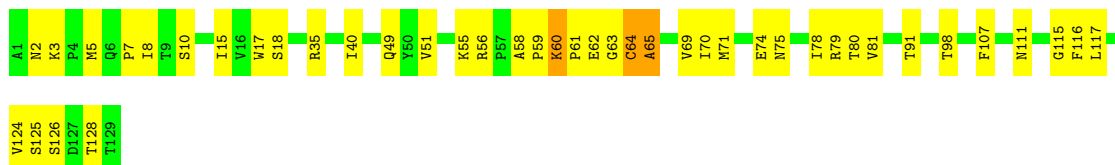
• Molecule 3: Coat protein

Chain EF:  67% 33%



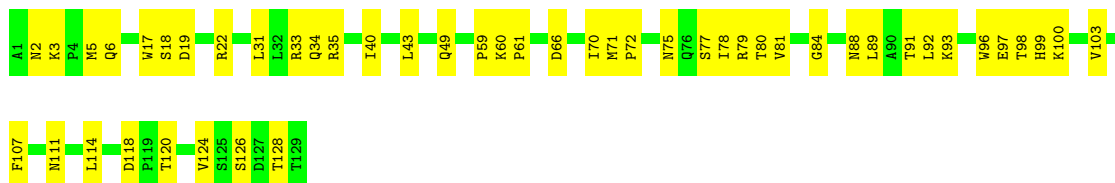
• Molecule 3: Coat protein

Chain EG:  67% 31%



• Molecule 3: Coat protein

Chain EH:  63% 37%

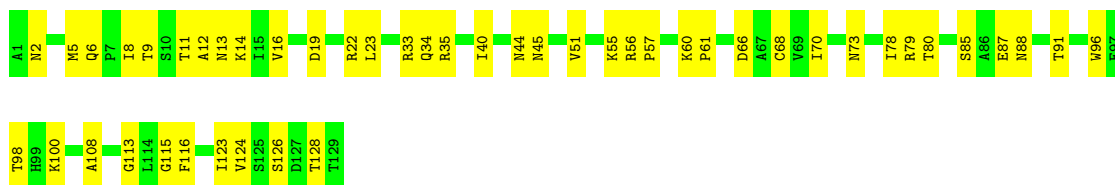


• Molecule 3: Coat protein

Chain EI:  70% 30%



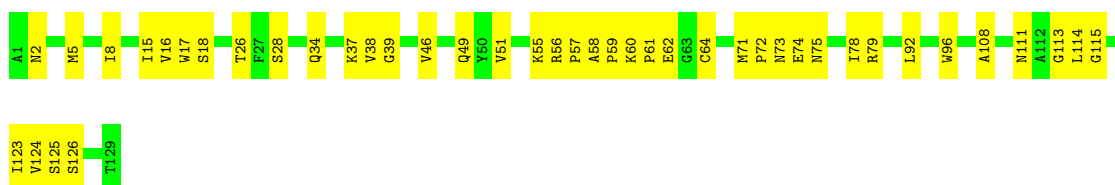
• Molecule 3: Coat protein



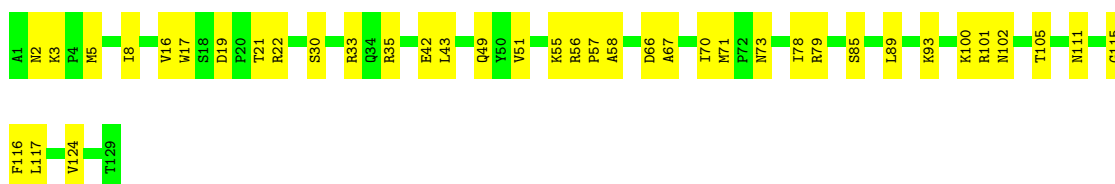
• Molecule 3: Coat protein



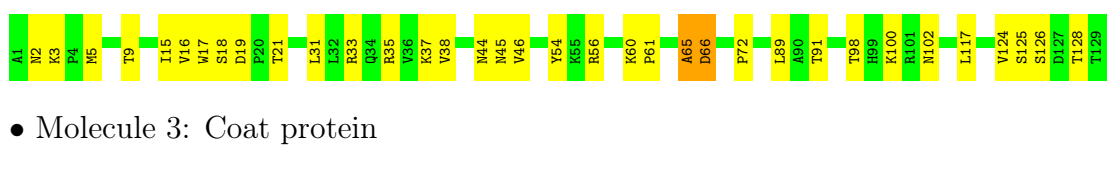
• Molecule 3: Coat protein



• Molecule 3: Coat protein

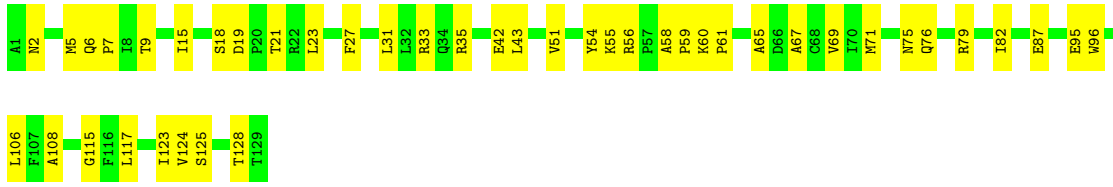


• Molecule 3: Coat protein



• Molecule 3: Coat protein





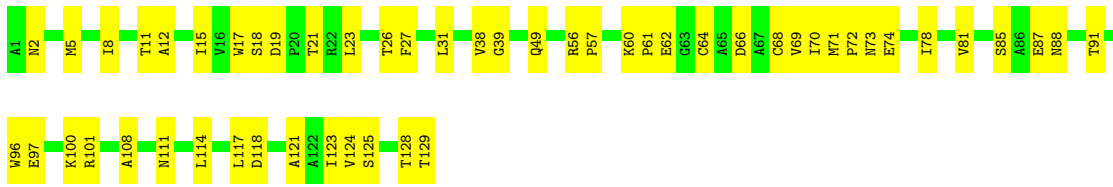
• Molecule 3: Coat protein



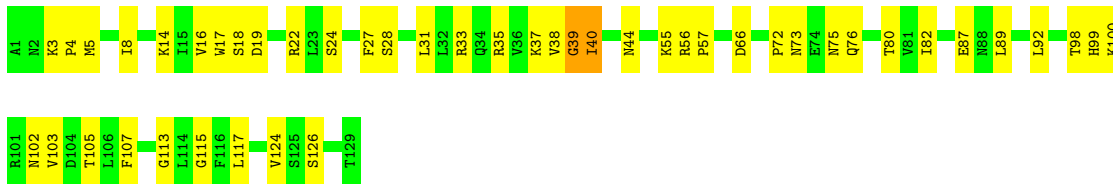
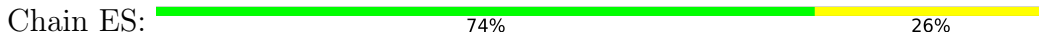
• Molecule 3: Coat protein



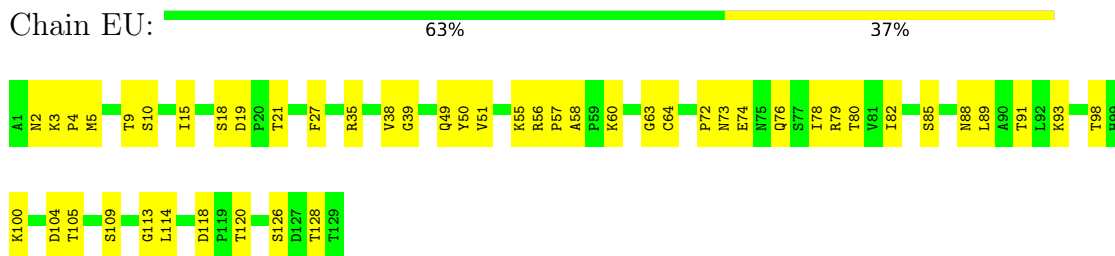
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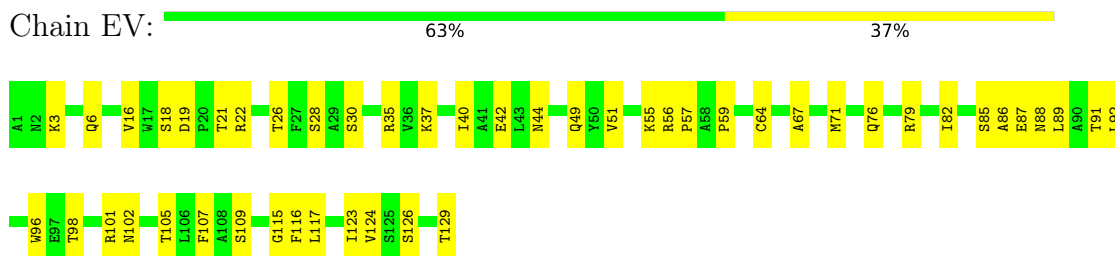
• Molecule 3: Coat protein



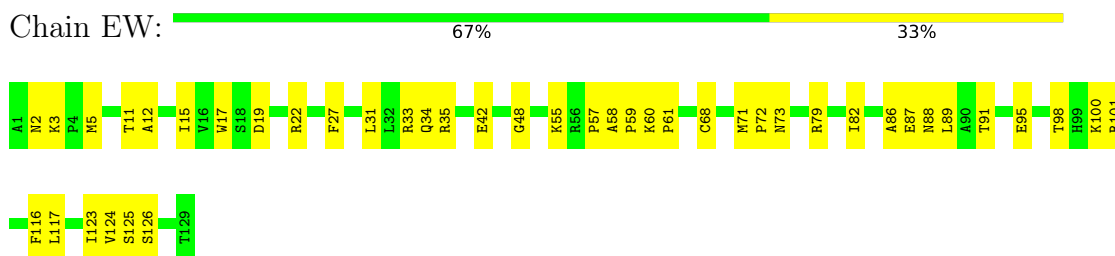
• Molecule 3: Coat protein



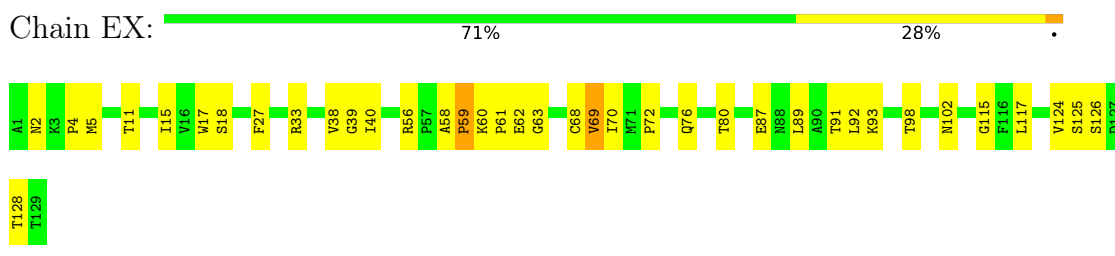
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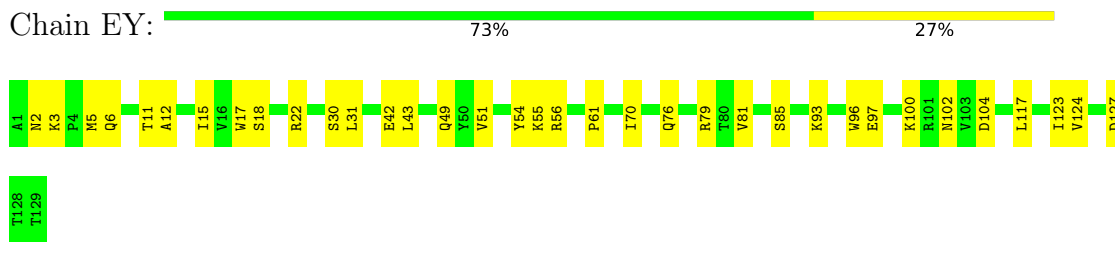
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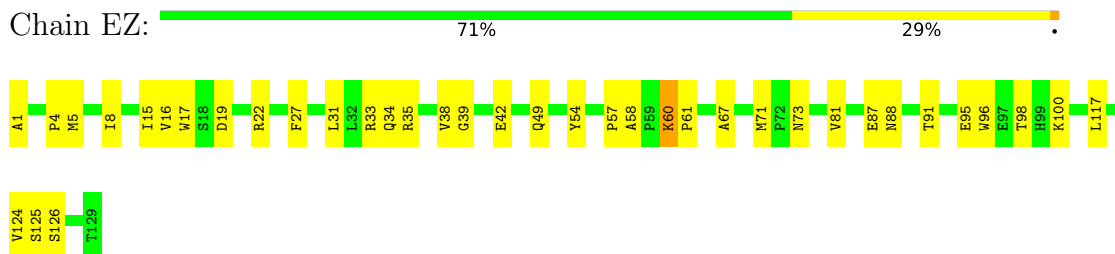
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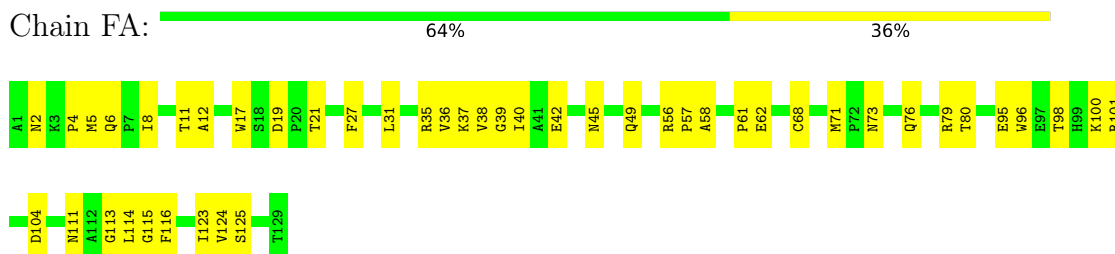
• Molecule 3: Coat protein



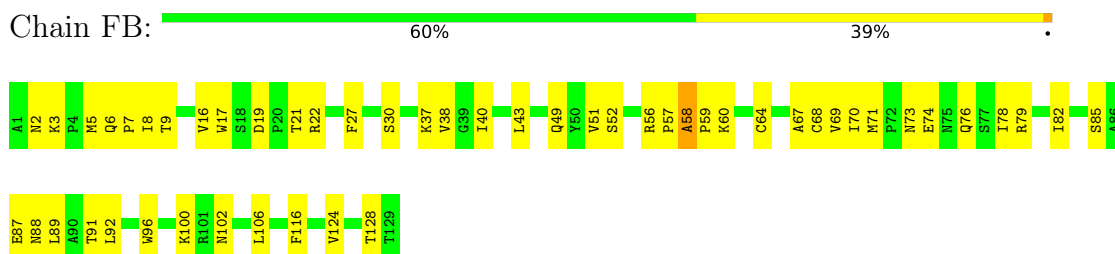
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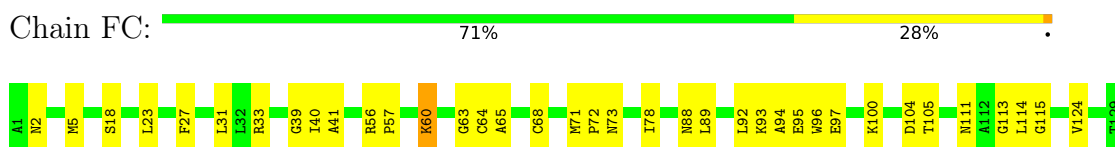
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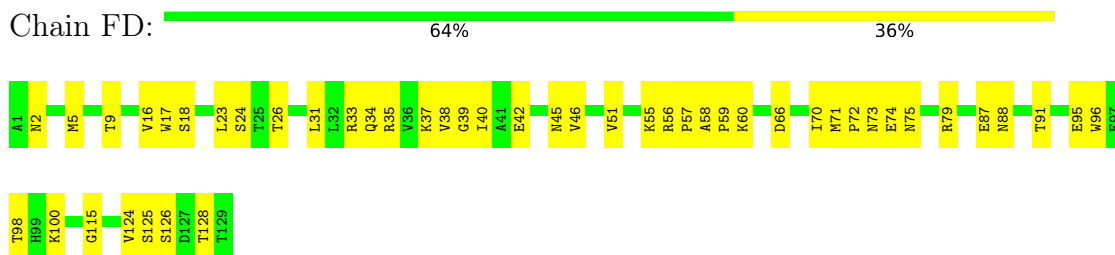
• Molecule 3: Coat protein




• Molecule 3: Coat protein



• Molecule 3: Coat protein



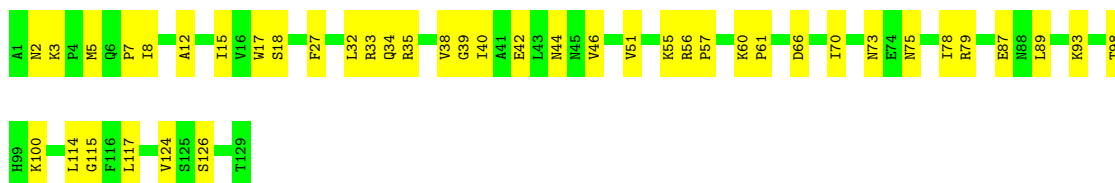
• Molecule 3: Coat protein

Chain FE:  76% 24%



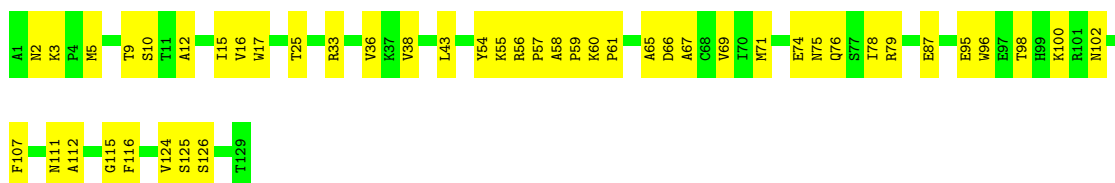
• Molecule 3: Coat protein

Chain FF:  67% 33%




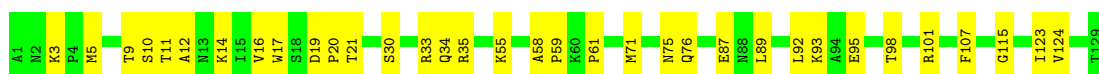
• Molecule 3: Coat protein

Chain FG:  64% 36%



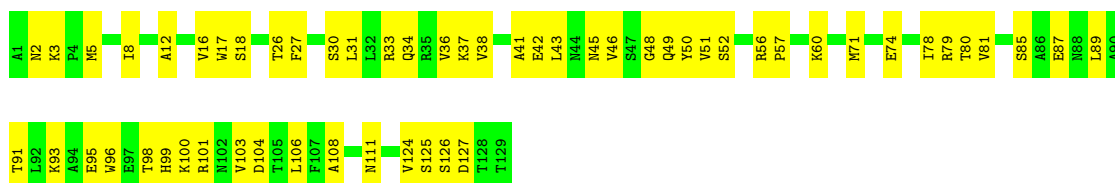
• Molecule 3: Coat protein

Chain FH:  74% 26%



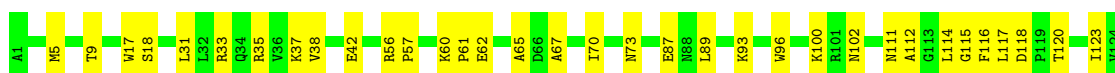
• Molecule 3: Coat protein

Chain FI:  57% 43%



• Molecule 3: Coat protein

Chain FJ:  72% 28%





• Molecule 3: Coat protein



• Molecule 3: Coat protein



• Molecule 3: Coat protein



• Molecule 3: Coat protein

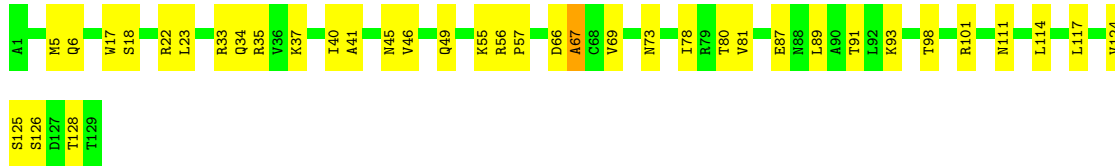


• Molecule 3: Coat protein

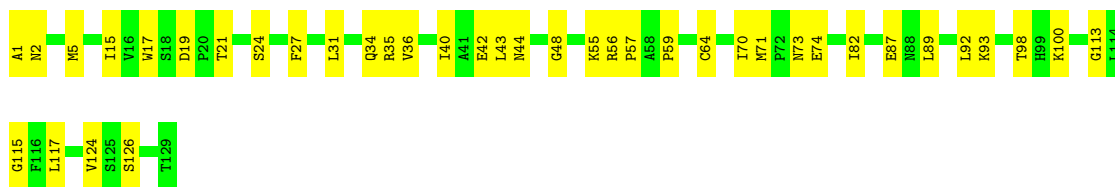
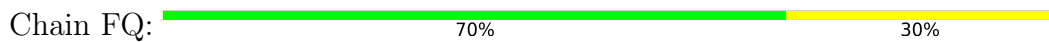


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• Molecule 3: Coat protein



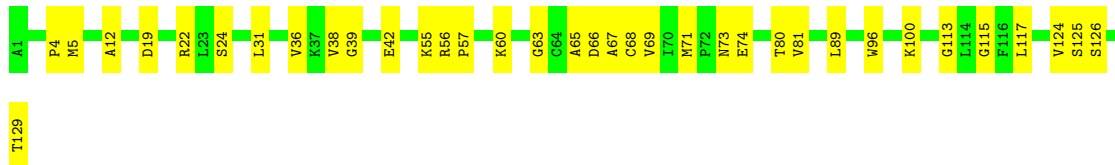
• Molecule 3: Coat protein



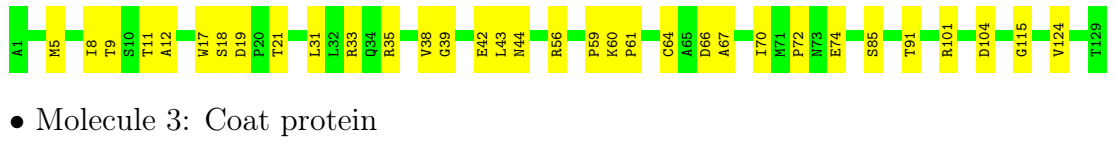
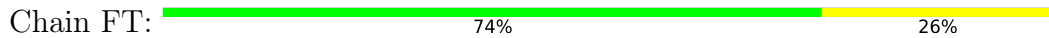
• Molecule 3: Coat protein



• Molecule 3: Coat protein

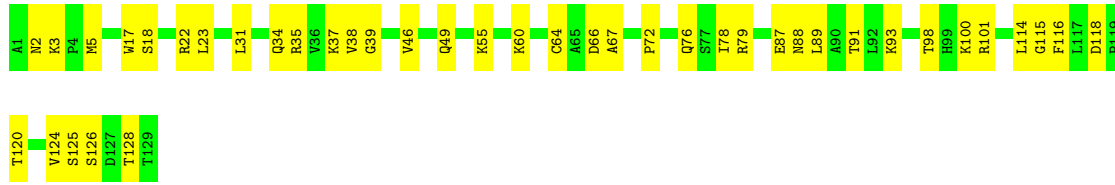


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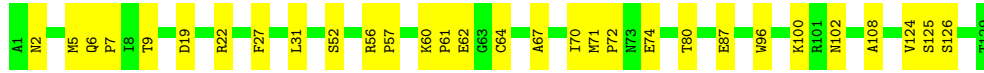
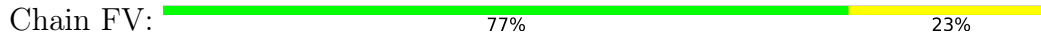


• Molecule 3: Coat protein





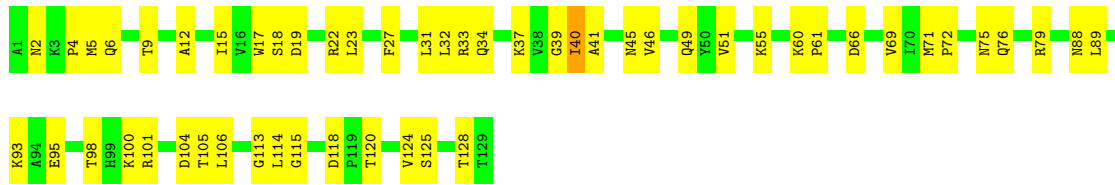
• Molecule 3: Coat protein



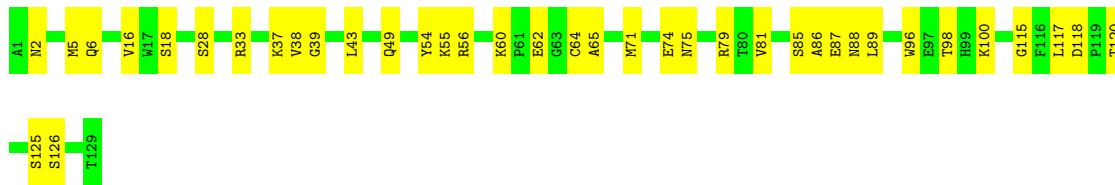
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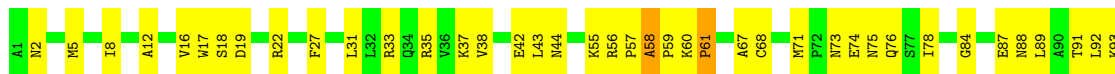
• Molecule 3: Coat protein



• Molecule 3: Coat protein



• Molecule 3: Coat protein

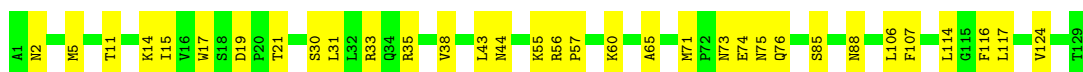
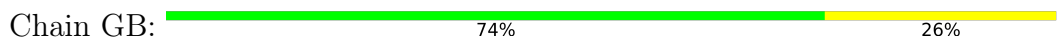




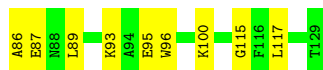
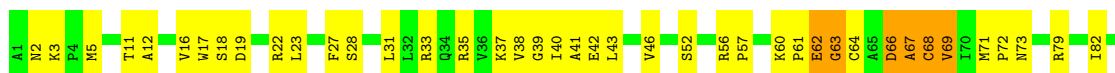
• Molecule 3: Coat protein



• Molecule 3: Coat protein



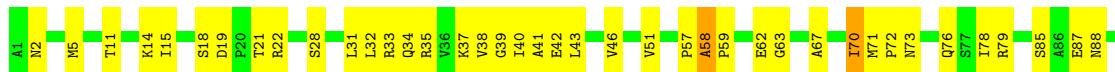
• Molecule 3: Coat protein



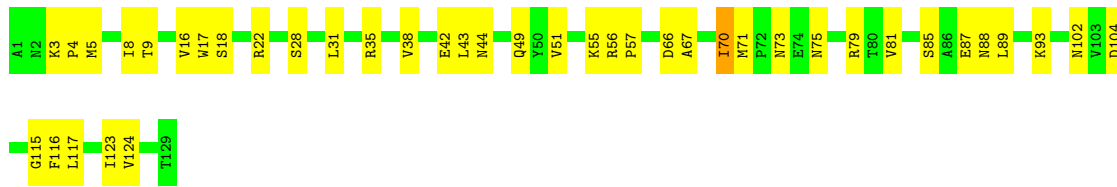
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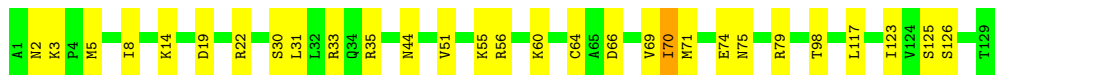
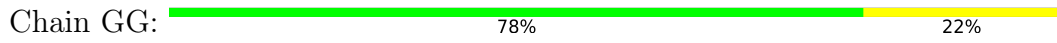
• Molecule 3: Coat protein



• Molecule 3: Coat protein



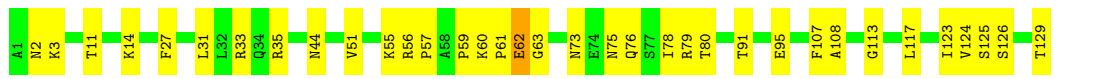
• Molecule 3: Coat protein



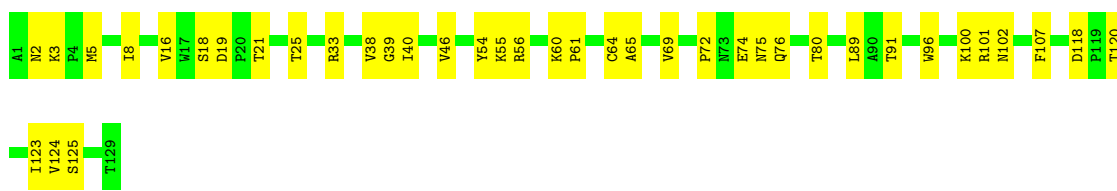
• Molecule 3: Coat protein



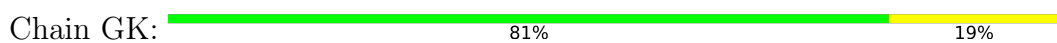
• Molecule 3: Coat protein



• Molecule 3: Coat protein

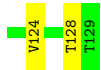
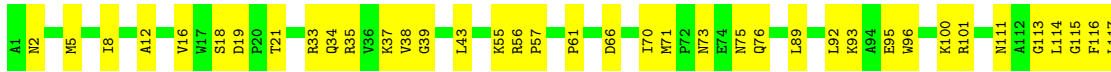


• Molecule 3: Coat protein

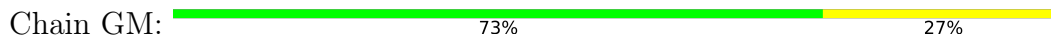




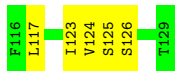
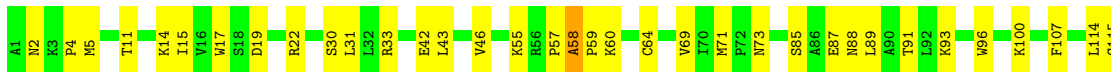
• Molecule 3: Coat protein



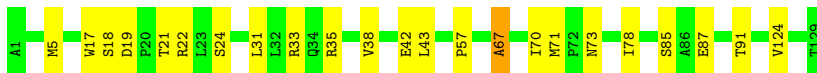
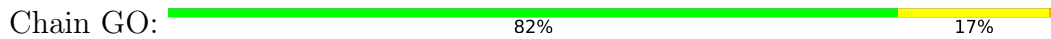
• Molecule 3: Coat protein



• Molecule 3: Coat protein



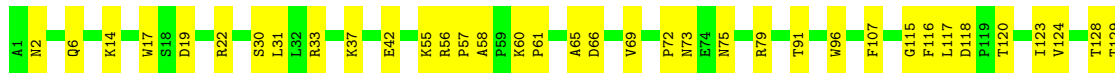
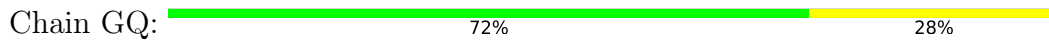
• Molecule 3: Coat protein



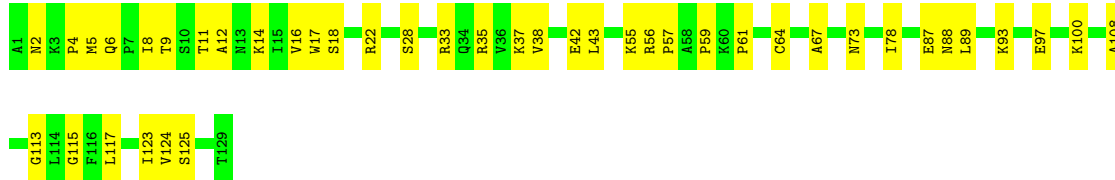
• Molecule 3: Coat protein



• Molecule 3: Coat protein



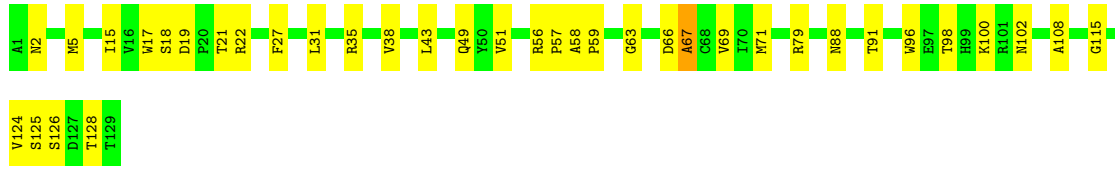
• Molecule 3: Coat protein



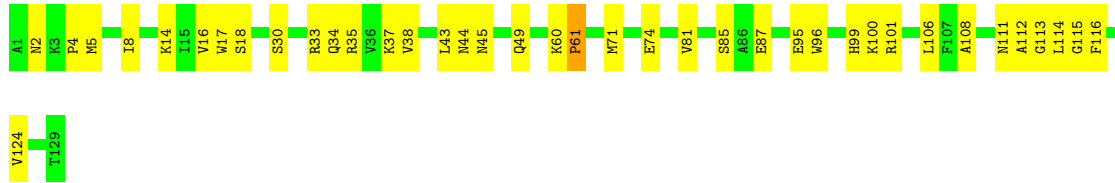
• Molecule 3: Coat protein



• Molecule 3: Coat protein

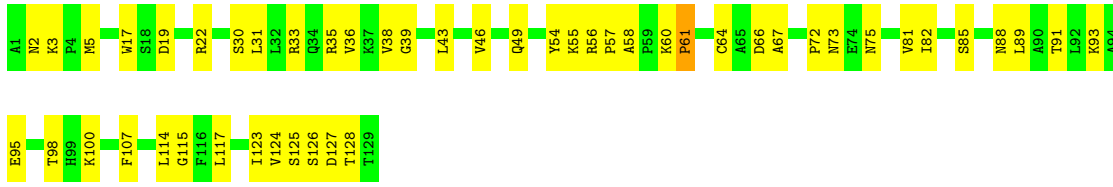


• Molecule 3: Coat protein

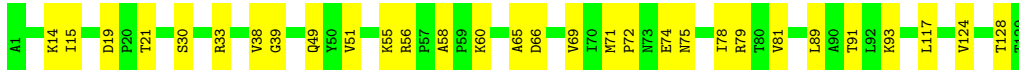
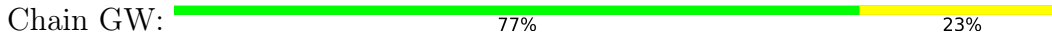


• Molecule 3: Coat protein

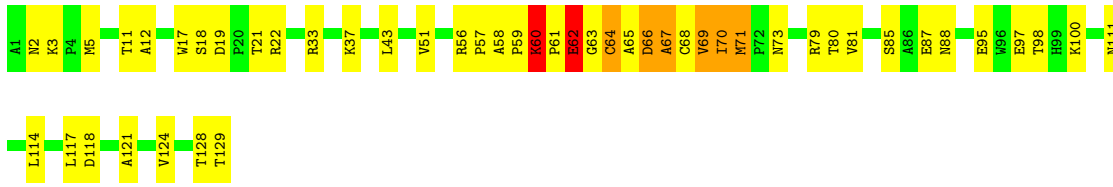




• Molecule 3: Coat protein



• Molecule 3: Coat protein



• Molecule 3: Coat protein



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	150000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	NONE	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	50	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	3500	Depositor
Magnification	130000	Depositor
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	1.710	Depositor
Minimum map value	-0.308	Depositor
Average map value	0.021	Depositor
Map value standard deviation	0.121	Depositor
Recommended contour level	0.128	Depositor
Map size (\AA)	487.59998, 487.59998, 487.59998	wwPDB
Map dimensions	460, 460, 460	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (\AA)	1.06, 1.06, 1.06	Depositor

5 Model quality

5.1 Standard geometry

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	R	0.09	0/101047	0.20	0/157333
2	a	0.15	0/4409	0.38	0/5964
2	b	0.13	0/4409	0.37	0/5964
3	AB	0.18	0/985	0.41	1/1342 (0.1%)
3	AC	0.17	0/985	0.41	1/1342 (0.1%)
3	AE	0.21	0/985	0.47	1/1342 (0.1%)
3	AF	0.20	0/985	0.44	0/1342
3	AG	0.20	0/985	0.40	0/1342
3	AH	0.19	0/985	0.35	0/1342
3	AI	0.21	0/985	0.40	0/1342
3	AJ	0.20	0/985	0.35	0/1342
3	AK	0.21	0/985	0.38	0/1342
3	AL	0.19	0/985	0.35	0/1342
3	AM	0.19	0/985	0.36	0/1342
3	AN	0.20	0/985	0.38	0/1342
3	AO	0.19	0/985	0.36	0/1342
3	AP	0.26	0/985	0.45	0/1342
3	AQ	0.22	0/985	0.41	0/1342
3	AS	0.21	0/985	0.39	0/1342
3	AT	0.19	0/985	0.42	0/1342
3	AU	0.21	0/985	0.41	0/1342
3	AV	0.21	0/985	0.43	0/1342
3	AW	0.21	0/985	0.39	0/1342
3	AX	0.20	0/985	0.41	0/1342
3	AY	0.19	0/985	0.41	0/1342
3	AZ	0.31	0/985	0.49	1/1342 (0.1%)
3	Ac	0.20	0/985	0.37	0/1342
3	BA	0.20	0/985	0.41	0/1342
3	BB	0.20	0/985	0.43	0/1342
3	BC	0.22	0/985	0.46	0/1342
3	BD	0.19	0/985	0.36	0/1342
3	BE	0.20	0/985	0.38	0/1342
3	BF	0.20	0/985	0.39	0/1342
3	BG	0.22	0/985	0.41	1/1342 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
3	BH	0.20	0/985	0.37	0/1342
3	BI	0.20	0/985	0.41	0/1342
3	BJ	0.19	0/985	0.38	0/1342
3	BK	0.19	0/985	0.41	0/1342
3	BL	0.20	0/985	0.40	0/1342
3	BM	0.21	0/985	0.40	0/1342
3	BN	0.41	0/985	0.52	0/1342
3	BO	0.20	0/985	0.42	0/1342
3	BP	0.20	0/985	0.38	0/1342
3	BQ	0.19	0/985	0.40	0/1342
3	BS	0.20	0/985	0.39	0/1342
3	BT	0.21	0/985	0.41	0/1342
3	BU	0.21	0/985	0.42	0/1342
3	BV	0.33	1/985 (0.1%)	0.50	1/1342 (0.1%)
3	BW	0.20	0/985	0.41	0/1342
3	BX	0.20	0/985	0.40	0/1342
3	BY	0.20	0/985	0.34	0/1342
3	BZ	0.21	0/985	0.44	0/1342
3	Bc	0.20	0/985	0.43	0/1342
3	CA	0.22	0/985	0.47	0/1342
3	CB	0.20	0/985	0.38	0/1342
3	CC	0.21	0/985	0.39	0/1342
3	CD	0.20	0/985	0.43	0/1342
3	CE	0.21	0/985	0.44	0/1342
3	CF	0.19	0/985	0.40	0/1342
3	CG	0.19	0/985	0.35	0/1342
3	CH	0.19	0/985	0.35	0/1342
3	CI	0.21	0/985	0.42	0/1342
3	CJ	0.21	0/985	0.42	0/1342
3	CK	0.19	0/985	0.41	0/1342
3	CL	0.19	0/985	0.38	0/1342
3	CM	0.18	0/985	0.43	0/1342
3	CN	0.21	0/985	0.45	0/1342
3	CO	0.19	0/985	0.42	0/1342
3	CP	0.21	0/985	0.44	0/1342
3	CQ	0.19	0/985	0.36	0/1342
3	CS	0.20	0/985	0.40	0/1342
3	CT	0.19	0/985	0.38	0/1342
3	CU	0.21	0/985	0.39	0/1342
3	CV	0.20	0/985	0.41	0/1342
3	CW	0.19	0/985	0.35	0/1342
3	CX	0.19	0/985	0.34	0/1342
3	CY	0.19	0/985	0.42	0/1342

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
3	CZ	0.19	0/985	0.37	0/1342
3	Cc	0.21	0/985	0.36	0/1342
3	DA	0.20	0/985	0.39	0/1342
3	DB	0.20	0/985	0.38	0/1342
3	DC	0.19	0/985	0.46	0/1342
3	DD	0.21	0/985	0.39	0/1342
3	DE	0.20	0/985	0.40	0/1342
3	DF	0.21	0/985	0.41	0/1342
3	DG	0.21	0/985	0.39	0/1342
3	DH	0.19	0/985	0.38	0/1342
3	DI	0.17	0/985	0.36	0/1342
3	DJ	0.18	0/985	0.39	0/1342
3	DK	0.20	0/985	0.39	0/1342
3	DL	0.21	0/985	0.42	0/1342
3	DM	0.20	0/985	0.38	0/1342
3	DN	0.21	0/985	0.45	0/1342
3	DO	0.19	0/985	0.45	0/1342
3	DQ	0.20	0/985	0.41	0/1342
3	DS	0.20	0/985	0.43	0/1342
3	DT	0.22	0/985	0.45	1/1342 (0.1%)
3	DU	0.19	0/985	0.36	0/1342
3	DV	0.23	0/985	0.41	0/1342
3	DW	0.19	0/985	0.41	0/1342
3	DX	0.20	0/985	0.39	0/1342
3	DY	0.21	0/985	0.41	0/1342
3	DZ	0.20	0/985	0.40	0/1342
3	Dc	0.19	0/985	0.35	0/1342
3	EA	0.20	0/985	0.37	0/1342
3	EB	0.20	0/985	0.38	0/1342
3	EC	0.20	0/985	0.40	0/1342
3	ED	0.20	0/985	0.40	0/1342
3	EE	0.29	0/985	0.43	0/1342
3	EF	0.21	0/985	0.41	0/1342
3	EG	0.35	0/985	0.44	1/1342 (0.1%)
3	EH	0.22	0/985	0.41	0/1342
3	EI	0.20	0/985	0.40	0/1342
3	EJ	0.20	0/985	0.39	0/1342
3	EK	0.19	0/985	0.39	0/1342
3	EL	0.21	0/985	0.41	0/1342
3	EM	0.19	0/985	0.40	0/1342
3	EN	0.20	0/985	0.42	2/1342 (0.1%)
3	EO	0.21	0/985	0.43	0/1342
3	EP	0.20	0/985	0.39	0/1342

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
3	EQ	0.21	0/985	0.40	0/1342
3	ES	0.19	0/985	0.38	0/1342
3	ET	0.21	0/985	0.42	2/1342 (0.1%)
3	EU	0.19	0/985	0.43	0/1342
3	EV	0.19	0/985	0.42	0/1342
3	EW	0.20	0/985	0.37	0/1342
3	EX	0.27	0/985	0.41	0/1342
3	EY	0.20	0/985	0.40	0/1342
3	EZ	0.22	0/985	0.44	0/1342
3	Ec	0.21	0/985	0.42	0/1342
3	FA	0.18	0/985	0.40	0/1342
3	FB	0.21	0/985	0.47	1/1342 (0.1%)
3	FC	0.18	0/985	0.38	0/1342
3	FD	0.20	0/985	0.40	0/1342
3	FE	0.20	0/985	0.42	0/1342
3	FF	0.20	0/985	0.49	1/1342 (0.1%)
3	FG	0.18	0/985	0.39	0/1342
3	FH	0.21	0/985	0.42	0/1342
3	FI	0.20	0/985	0.37	0/1342
3	FJ	0.20	0/985	0.40	1/1342 (0.1%)
3	FK	0.21	0/985	0.39	0/1342
3	FL	0.20	0/985	0.39	0/1342
3	FM	0.19	0/985	0.40	0/1342
3	FN	0.21	0/985	0.43	1/1342 (0.1%)
3	FO	0.22	0/985	0.44	0/1342
3	FP	0.20	0/985	0.38	0/1342
3	FQ	0.19	0/985	0.37	0/1342
3	FS	0.20	0/985	0.38	0/1342
3	FT	0.20	0/985	0.41	0/1342
3	FU	0.20	0/985	0.36	0/1342
3	FV	0.19	0/985	0.39	0/1342
3	FW	0.25	0/985	0.47	1/1342 (0.1%)
3	FX	0.22	0/985	0.43	0/1342
3	FY	0.19	0/985	0.37	0/1342
3	FZ	0.22	0/985	0.44	0/1342
3	Fc	0.21	0/985	0.41	0/1342
3	GA	0.21	0/985	0.43	0/1342
3	GB	0.21	0/985	0.41	0/1342
3	GC	0.56	1/985 (0.1%)	0.58	1/1342 (0.1%)
3	GD	0.20	0/985	0.35	0/1342
3	GE	0.20	0/985	0.41	0/1342
3	GF	0.19	0/985	0.43	0/1342
3	GG	0.20	0/985	0.37	0/1342

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
3	GH	0.21	0/985	0.43	0/1342
3	GI	0.19	0/985	0.38	0/1342
3	GJ	0.20	0/985	0.38	0/1342
3	GK	0.21	0/985	0.39	0/1342
3	GL	0.19	0/985	0.38	0/1342
3	GM	0.19	0/985	0.40	0/1342
3	GN	0.21	0/985	0.39	0/1342
3	GO	0.19	0/985	0.36	0/1342
3	GP	0.19	0/985	0.35	0/1342
3	GQ	0.19	0/985	0.41	0/1342
3	GS	0.20	0/985	0.40	0/1342
3	GT	0.19	0/985	0.35	0/1342
3	GU	0.20	0/985	0.39	0/1342
3	GV	0.21	0/985	0.43	0/1342
3	GW	0.20	0/985	0.40	0/1342
3	GX	0.49	0/985	0.54	1/1342 (0.1%)
3	GY	0.20	0/985	0.43	0/1342
3	Gc	0.20	0/985	0.40	0/1342
All	All	0.18	2/285195 (0.0%)	0.34	19/408137 (0.0%)

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	GC	66	ASP	CA-C	-8.71	1.48	1.53
3	BV	67	ALA	CA-C	-5.00	1.47	1.52

All (19) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	GC	66	ASP	N-CA-C	-11.12	99.66	108.78
3	BV	67	ALA	N-CA-C	-9.49	100.05	112.68
3	FF	66	ASP	CB-CA-C	-7.57	107.83	116.54
3	AZ	63	GLY	N-CA-C	-6.99	103.61	115.08
3	DT	66	ASP	CB-CA-C	-6.78	108.77	116.63
3	EG	65	ALA	N-CA-C	-6.10	105.01	112.88
3	GX	67	ALA	N-CA-C	-5.98	103.37	112.99
3	AB	69	VAL	N-CA-C	-5.50	107.62	112.90
3	BG	68	CYS	CA-CB-SG	5.40	126.83	114.40
3	AE	62	GLU	CB-CA-C	-5.38	109.39	115.79
3	FN	69	VAL	N-CA-C	-5.37	107.61	112.12
3	ET	39	GLY	CA-C-N	5.33	131.56	121.97
3	ET	39	GLY	C-N-CA	5.33	131.56	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	AC	66	ASP	CB-CA-C	-5.30	110.45	116.54
3	FW	64	CYS	N-CA-C	5.29	117.92	110.14
3	FB	69	VAL	N-CA-C	-5.20	107.51	111.62
3	FJ	67	ALA	CB-CA-C	-5.18	110.58	116.54
3	EN	65	ALA	CA-C-N	5.14	131.36	121.54
3	EN	65	ALA	C-N-CA	5.14	131.36	121.54

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	R	90441	0	45709	2519	0
2	a	4304	0	4314	175	0
2	b	4304	0	4315	148	0
3	AB	968	0	974	55	0
3	AC	968	0	973	46	0
3	AE	968	0	973	35	0
3	AF	968	0	973	31	0
3	AG	968	0	973	37	0
3	AH	968	0	973	33	0
3	AI	968	0	973	39	0
3	AJ	968	0	973	30	0
3	AK	968	0	973	22	0
3	AL	968	0	973	44	0
3	AM	968	0	973	31	0
3	AN	968	0	973	43	0
3	AO	968	0	973	39	0
3	AP	968	0	973	40	0
3	AQ	968	0	973	28	0
3	AS	968	0	973	37	0
3	AT	968	0	973	40	0
3	AU	968	0	973	43	0
3	AV	968	0	973	43	0
3	AW	968	0	973	36	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	AX	968	0	973	40	0
3	AY	968	0	973	30	0
3	AZ	968	0	973	34	0
3	Ac	968	0	973	40	0
3	BA	968	0	973	36	0
3	BB	968	0	973	28	0
3	BC	968	0	973	27	0
3	BD	968	0	973	41	0
3	BE	968	0	973	37	0
3	BF	968	0	973	31	0
3	BG	968	0	973	43	0
3	BH	968	0	973	38	0
3	BI	968	0	973	36	0
3	BJ	968	0	974	39	0
3	BK	968	0	973	41	0
3	BL	968	0	973	30	0
3	BM	968	0	973	32	0
3	BN	968	0	973	48	0
3	BO	968	0	973	40	0
3	BP	968	0	974	34	0
3	BQ	968	0	973	35	0
3	BS	968	0	973	46	0
3	BT	968	0	973	37	0
3	BU	968	0	973	47	0
3	BV	968	0	974	38	0
3	BW	968	0	973	51	0
3	BX	968	0	973	34	0
3	BY	968	0	973	33	0
3	BZ	968	0	973	34	0
3	Bc	968	0	973	36	0
3	CA	968	0	973	31	0
3	CB	968	0	973	34	0
3	CC	968	0	973	40	0
3	CD	968	0	973	18	0
3	CE	968	0	973	40	0
3	CF	968	0	973	33	0
3	CG	968	0	973	35	0
3	CH	968	0	973	35	0
3	CI	968	0	973	40	0
3	CJ	968	0	973	29	0
3	CK	968	0	973	43	0
3	CL	968	0	973	32	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	CM	968	0	974	53	0
3	CN	968	0	973	58	0
3	CO	968	0	973	65	0
3	CP	968	0	973	32	0
3	CQ	968	0	973	34	0
3	CS	968	0	974	36	0
3	CT	968	0	973	27	0
3	CU	968	0	973	34	0
3	CV	968	0	973	37	0
3	CW	968	0	973	33	0
3	CX	968	0	973	44	0
3	CY	968	0	973	28	0
3	CZ	968	0	973	33	0
3	Cc	968	0	973	42	0
3	DA	968	0	973	31	0
3	DB	968	0	973	43	0
3	DC	968	0	973	34	0
3	DD	968	0	973	35	0
3	DE	968	0	973	30	0
3	DF	968	0	973	39	0
3	DG	968	0	973	29	0
3	DH	968	0	973	46	0
3	DI	968	0	973	40	0
3	DJ	968	0	973	49	0
3	DK	968	0	973	38	0
3	DL	968	0	973	37	0
3	DM	968	0	973	34	0
3	DN	968	0	973	48	0
3	DO	968	0	973	58	0
3	DQ	968	0	973	27	0
3	DS	968	0	973	38	0
3	DT	968	0	973	31	0
3	DU	968	0	973	36	0
3	DV	968	0	974	37	0
3	DW	968	0	973	26	0
3	DX	968	0	973	24	0
3	DY	968	0	973	31	0
3	DZ	968	0	973	37	0
3	Dc	968	0	973	40	0
3	EA	968	0	973	40	0
3	EB	968	0	973	18	0
3	EC	968	0	973	27	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	ED	968	0	973	38	0
3	EE	968	0	973	56	0
3	EF	968	0	973	40	0
3	EG	968	0	974	46	0
3	EH	968	0	973	44	0
3	EI	968	0	973	38	0
3	EJ	968	0	973	42	0
3	EK	968	0	973	38	0
3	EL	968	0	973	36	0
3	EM	968	0	973	39	0
3	EN	968	0	973	31	0
3	EO	968	0	973	38	0
3	EP	968	0	973	35	0
3	EQ	968	0	973	34	0
3	ES	968	0	973	31	0
3	ET	968	0	973	40	0
3	EU	968	0	973	40	0
3	EV	968	0	973	45	0
3	EW	968	0	973	42	0
3	EX	968	0	973	32	0
3	EY	968	0	973	37	0
3	EZ	968	0	973	30	0
3	Ec	968	0	973	50	0
3	FA	968	0	973	42	0
3	FB	968	0	973	49	0
3	FC	968	0	973	27	0
3	FD	968	0	973	46	0
3	FE	968	0	973	34	0
3	FF	968	0	973	35	0
3	FG	968	0	974	46	0
3	FH	968	0	973	29	0
3	FI	968	0	973	56	0
3	FJ	968	0	973	29	0
3	FK	968	0	973	36	0
3	FL	968	0	973	35	0
3	FM	968	0	973	36	0
3	FN	968	0	973	41	0
3	FO	968	0	973	38	0
3	FP	968	0	973	36	0
3	FQ	968	0	973	41	0
3	FS	968	0	973	30	0
3	FT	968	0	973	32	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	FU	968	0	973	41	0
3	FV	968	0	973	23	0
3	FW	968	0	974	45	0
3	FX	968	0	973	44	0
3	FY	968	0	973	32	0
3	FZ	968	0	973	44	0
3	Fc	968	0	973	31	0
3	GA	968	0	973	68	0
3	GB	968	0	973	30	0
3	GC	968	0	974	42	0
3	GD	968	0	973	36	0
3	GE	968	0	973	49	0
3	GF	968	0	973	42	0
3	GG	968	0	973	26	0
3	GH	968	0	973	37	0
3	GI	968	0	973	34	0
3	GJ	968	0	973	33	0
3	GK	968	0	973	23	0
3	GL	968	0	974	37	0
3	GM	968	0	973	36	0
3	GN	968	0	973	35	0
3	GO	968	0	973	19	0
3	GP	968	0	973	41	0
3	GQ	968	0	973	28	0
3	GS	968	0	973	38	0
3	GT	968	0	973	36	0
3	GU	968	0	973	35	0
3	GV	968	0	973	49	0
3	GW	968	0	973	25	0
3	GX	968	0	974	44	0
3	GY	968	0	973	33	0
3	Gc	968	0	973	46	0
All	All	271353	0	227545	7666	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 16.

All (7666) 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)
3:BP:68:CYS:SG	3:EG:64:CYS:SG	1.31	1.31

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CS:64:CYS:SG	3:DV:68:CYS:SG	1.30	1.29
3:BP:68:CYS:CB	3:EG:64:CYS:SG	2.27	1.22
1:R:3429:G:H1	1:R:3449:A:N6	1.48	1.10
1:R:2499:A:N6	1:R:2542:G:H1	1.50	1.09
3:GC:64:CYS:SG	3:GX:67:ALA:O	2.13	1.06
1:R:401:G:H21	1:R:409:A:H62	1.05	1.00
1:R:1910:G:H21	1:R:1922:A:H62	1.08	0.98
1:R:183:U:H3	1:R:270:G:H1	1.12	0.98
1:R:1577:U:H3	1:R:1704:G:H1	1.11	0.97
1:R:401:G:H21	1:R:409:A:N6	1.63	0.96
1:R:2845:U:H3	1:R:2874:G:H1	1.07	0.96
1:R:401:G:N2	1:R:409:A:H62	1.63	0.95
1:R:1013:G:H1	1:R:1085:U:H3	1.15	0.95
1:R:4065:G:H1	1:R:4162:U:H3	1.08	0.94
1:R:2457:G:H1	1:R:2468:U:H3	1.06	0.94
1:R:3425:U:H3	1:R:3453:G:H1	1.05	0.94
1:R:1621:U:H3	1:R:1634:G:H1	0.96	0.94
1:R:1615:G:H1	1:R:1641:U:H3	1.16	0.94
1:R:778:C:H42	1:R:822:U:H3	1.09	0.93
1:R:560:G:H1	1:R:605:U:H3	1.15	0.93
1:R:1327:G:H1	1:R:1357:U:H3	1.07	0.93
1:R:2893:U:H3	1:R:3008:G:H1	1.06	0.93
1:R:3519:U:H3	1:R:3527:G:H1	1.09	0.93
1:R:2667:G:H1	1:R:2742:U:H3	1.08	0.92
3:FW:64:CYS:SG	3:GC:67:ALA:HB3	2.09	0.92
3:FW:65:ALA:O	3:FW:66:ASP:O	1.88	0.92
1:R:2859:G:H1	1:R:2870:U:H3	1.18	0.91
1:R:1232:A:N6	1:R:1293:G:H1	1.67	0.91
1:R:4075:U:H3	1:R:4151:G:H1	1.09	0.90
3:EE:60:LYS:HD2	3:EE:71:MET:HE3	1.52	0.89
1:R:1910:G:N2	1:R:1922:A:H62	1.70	0.89
1:R:2204:U:H3	1:R:2253:G:H1	1.15	0.89
1:R:1940:U:H3	1:R:1960:G:H1	0.95	0.89
3:FQ:35:ARG:HH22	3:FQ:42:GLU:HG3	1.38	0.89
2:b:148:ILE:HG13	2:b:149:ASP:H	1.38	0.88
3:CO:35:ARG:HH22	3:CO:37:LYS:HB2	1.38	0.88
3:BP:70:ILE:HD11	3:EG:61:PRO:HG2	1.56	0.87
1:R:1575:G:H1	1:R:1706:U:H3	1.21	0.86
1:R:566:G:H1	1:R:599:U:H3	1.22	0.86
3:AI:35:ARG:HH22	3:AI:42:GLU:HG3	1.37	0.86
3:BP:68:CYS:SG	3:EG:61:PRO:HB2	2.15	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:b:329:LYS:HB2	2:b:333:ARG:HH12	1.40	0.85
1:R:3066:G:H1	1:R:3077:U:H3	1.20	0.85
1:R:3429:G:N2	1:R:3449:A:N1	2.24	0.85
1:R:1232:A:H61	1:R:1293:G:H1	1.25	0.85
3:DT:62:GLU:HG2	3:DT:63:GLY:H	1.43	0.84
3:CZ:98:THR:HG21	3:CZ:126:SER:HA	1.59	0.84
1:R:343:G:H1	1:R:354:U:H3	0.84	0.83
1:R:3058:G:H1	1:R:3085:U:H3	1.25	0.83
3:BJ:67:ALA:HB1	3:BV:64:CYS:HB2	1.60	0.83
1:R:334:G:H1	1:R:363:U:H3	0.84	0.83
1:R:2484:G:H1	1:R:2597:U:H3	1.27	0.83
3:DT:55:LYS:NZ	3:DT:75:ASN:OD1	2.09	0.83
3:AT:87:GLU:HG3	3:BJ:59:PRO:HG3	1.61	0.83
1:R:3660:G:N2	1:R:3668:C:O2	2.11	0.83
3:AE:55:LYS:HB3	3:AE:73:ASN:HD21	1.44	0.83
3:GG:35:ARG:HH12	3:GG:44:ASN:HA	1.44	0.82
3:GY:55:LYS:NZ	3:GY:75:ASN:OD1	2.13	0.82
3:FZ:33:ARG:HH12	3:GT:115:GLY:HA3	1.44	0.82
1:R:2:G:O6	1:R:27:G:N2	2.12	0.82
1:R:1606:U:H3	1:R:1650:G:H1	1.26	0.82
1:R:1065:U:H3'	1:R:1066:C:H4'	1.61	0.82
1:R:2319:C:H42	1:R:2348:A:H61	1.28	0.82
3:AM:64:CYS:SG	3:DW:68:CYS:N	2.52	0.82
1:R:1431:U:H3	1:R:1444:G:H1	0.82	0.82
1:R:2499:A:N1	1:R:2542:G:N2	2.26	0.82
1:R:639:U:H3	1:R:697:G:H1	1.24	0.82
1:R:2477:C:O2	1:R:2629:A:N6	2.13	0.82
1:R:1066:C:O2'	1:R:1068:A:N6	2.11	0.81
3:AP:31:LEU:HD21	3:EB:117:LEU:HD21	1.61	0.81
1:R:646:G:H1	1:R:687:U:H3	1.24	0.81
1:R:1146:A:H5''	1:R:1147:U:H5'	1.62	0.81
3:FU:60:LYS:NZ	3:FU:64:CYS:O	2.14	0.81
1:R:2484:G:N2	1:R:2597:U:O2	2.12	0.81
1:R:990:U:H3	1:R:1102:G:H1	1.27	0.81
1:R:4002:U:H3	1:R:4021:G:H1	1.29	0.81
3:CC:15:ILE:HG12	3:FO:117:LEU:HD23	1.63	0.81
3:Ec:60:LYS:HE2	3:Ec:66:ASP:HB2	1.62	0.81
3:FB:5:MET:HG3	3:FB:17:TRP:HB3	1.63	0.81
3:EE:61:PRO:HD3	3:EE:71:MET:HE2	1.62	0.81
3:EO:55:LYS:NZ	3:EO:75:ASN:OD1	2.13	0.81
1:R:515:C:OP2	1:R:611:C:N4	2.15	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BP:68:CYS:HB3	3:EG:64:CYS:SG	2.19	0.80
1:R:2882:A:OP2	1:R:2884:A:N6	2.15	0.80
3:EJ:98:THR:HG21	3:EJ:126:SER:HA	1.63	0.80
3:AJ:117:LEU:HD21	3:DV:31:LEU:HD13	1.62	0.80
3:DJ:55:LYS:NZ	3:DJ:75:ASN:OD1	2.15	0.80
3:BI:60:LYS:NZ	3:BI:64:CYS:O	2.15	0.80
3:GB:35:ARG:NH1	3:GB:44:ASN:OD1	2.15	0.80
1:R:1201:U:O2	1:R:1205:A:N7	2.15	0.79
3:FI:56:ARG:HD3	3:FI:57:PRO:HD2	1.63	0.79
3:GK:62:GLU:HG3	3:GK:63:GLY:H	1.48	0.79
1:R:3429:G:H1	1:R:3449:A:H61	0.83	0.79
3:BN:37:LYS:HZ1	3:BN:41:ALA:H	1.31	0.79
3:GC:72:PRO:HG2	3:GW:39:GLY:HA2	1.63	0.79
1:R:2110:C:N4	1:R:2178:G:OP1	2.16	0.79
3:DO:14:LYS:HE2	3:DO:30:SER:HB3	1.64	0.79
3:Fc:55:LYS:NZ	3:Fc:75:ASN:OD1	2.15	0.79
1:R:3119:G:H1	1:R:3143:U:H3	1.30	0.78
3:Bc:56:ARG:HD3	3:Bc:57:PRO:HD2	1.65	0.78
3:Bc:60:LYS:HD3	3:Bc:61:PRO:HD2	1.66	0.78
3:CO:33:ARG:NH2	3:GA:115:GLY:O	2.16	0.78
3:DU:98:THR:HG21	3:DU:126:SER:HA	1.65	0.78
3:FG:55:LYS:NZ	3:FG:75:ASN:OD1	2.14	0.78
1:R:2158:C:OP2	1:R:2177:G:N2	2.16	0.78
2:a:496:ILE:HG13	2:a:498:PRO:HD3	1.63	0.78
3:DW:64:CYS:HB3	3:FL:67:ALA:HB3	1.65	0.78
3:FZ:12:ALA:HB2	3:GA:10:SER:H	1.46	0.78
1:R:2995:A:OP2	1:R:2997:A:N6	2.16	0.78
3:CK:98:THR:HG21	3:CK:126:SER:HA	1.65	0.78
3:EU:98:THR:HG21	3:EU:126:SER:HA	1.65	0.78
3:AF:100:LYS:HD3	3:FJ:100:LYS:HD3	1.64	0.78
3:BP:35:ARG:NH2	3:BP:43:LEU:O	2.15	0.78
1:R:1850:C:H1'	3:BO:35:ARG:HH22	1.48	0.78
3:ED:70:ILE:HD11	3:FH:61:PRO:HG3	1.65	0.78
1:R:4190:U:H5''	1:R:4191:A:H5'	1.64	0.78
1:R:1171:G:H5''	3:GM:14:LYS:HE2	1.66	0.78
3:AF:117:LEU:HD21	3:FJ:31:LEU:HD13	1.65	0.78
1:R:2957:A:H4'	2:b:273:ARG:HH22	1.47	0.77
3:BG:66:ASP:OD2	3:BG:67:ALA:N	2.15	0.77
1:R:406:U:OP2	1:R:3072:A:N6	2.17	0.77
3:BT:60:LYS:HG3	3:BT:61:PRO:HD2	1.67	0.77
3:GA:39:GLY:O	3:GA:41:ALA:N	2.16	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Ac:35:ARG:NH1	3:Ac:43:LEU:O	2.18	0.77
1:R:497:G:O2'	1:R:2788:C:N3	2.18	0.77
2:b:240:PRO:HB2	2:b:515:TYR:HE2	1.49	0.77
3:CZ:56:ARG:HD3	3:CZ:57:PRO:HD2	1.65	0.77
3:EE:56:ARG:HD3	3:EE:57:PRO:HD2	1.67	0.77
3:BS:51:VAL:HG12	3:BS:79:ARG:HG2	1.66	0.77
3:EJ:51:VAL:HG22	3:EJ:79:ARG:HG2	1.66	0.77
3:FY:55:LYS:NZ	3:FY:75:ASN:OD1	2.13	0.77
3:FW:66:ASP:O	3:FW:67:ALA:C	2.27	0.76
2:a:413:PRO:HA	2:a:456:TYR:HA	1.66	0.76
3:AT:91:THR:OG1	3:BJ:56:ARG:NH1	2.18	0.76
3:AY:56:ARG:HD3	3:AY:57:PRO:HD2	1.66	0.76
3:FP:5:MET:HG3	3:FP:17:TRP:HB3	1.68	0.76
3:FT:59:PRO:HG3	3:FY:87:GLU:HG3	1.67	0.76
1:R:778:C:N4	1:R:822:U:H3	1.82	0.76
3:BS:11:THR:HG22	3:BS:12:ALA:H	1.50	0.76
3:BW:51:VAL:HG22	3:BW:79:ARG:HE	1.51	0.76
3:CH:59:PRO:HG3	3:DE:87:GLU:HG3	1.68	0.76
3:FH:58:ALA:HB3	3:FH:71:MET:HB3	1.68	0.76
1:R:2078:U:O2'	1:R:2161:G:N2	2.18	0.76
3:FP:66:ASP:HB2	3:FP:69:VAL:HG13	1.68	0.76
3:AG:22:ARG:HH12	3:AG:55:LYS:HB2	1.51	0.76
3:AZ:51:VAL:HG22	3:AZ:79:ARG:HG2	1.68	0.76
1:R:4071:U:H3	1:R:4155:G:H1	1.34	0.76
1:R:4075:U:O2	1:R:4151:G:N2	2.18	0.76
3:DC:2:ASN:HB2	3:FS:124:VAL:HB	1.67	0.76
3:FK:34:GLN:HE22	3:FK:36:VAL:HB	1.51	0.76
3:AE:62:GLU:HB2	3:DM:67:ALA:HB1	1.68	0.75
1:R:1417:G:H1	1:R:1516:U:H3	1.34	0.75
1:R:2760:G:N2	1:R:2814:G:O2'	2.18	0.75
1:R:3550:G:N2	1:R:3677:A:N7	2.33	0.75
1:R:1837:A:N6	1:R:1841:U:O4	2.19	0.75
1:R:2760:G:H1	1:R:2813:U:H3	1.32	0.75
3:EG:98:THR:HG21	3:EG:126:SER:HA	1.66	0.75
1:R:528:G:H1	1:R:537:U:H3	1.31	0.75
3:DB:60:LYS:HG2	3:DB:65:ALA:HB2	1.68	0.75
3:ET:55:LYS:NZ	3:ET:75:ASN:OD1	2.15	0.75
3:AO:98:THR:HG21	3:AO:126:SER:HA	1.66	0.75
3:BS:35:ARG:NH2	3:BS:41:ALA:O	2.19	0.75
3:FN:56:ARG:HD3	3:FN:57:PRO:HD2	1.68	0.75
1:R:385:C:H5''	1:R:386:U:H5'	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1414:U:H3	1:R:1519:G:H1	1.35	0.75
3:BQ:101:ARG:HH21	3:BQ:124:VAL:HG21	1.51	0.75
3:CC:39:GLY:HA2	3:FO:72:PRO:HG2	1.66	0.75
1:R:529:A:O2'	1:R:1765:G:OP1	2.04	0.75
1:R:3420:C:N3	1:R:3458:A:N6	2.35	0.75
3:GH:56:ARG:HD3	3:GH:57:PRO:HD2	1.69	0.75
3:CH:98:THR:HG21	3:CH:126:SER:HA	1.67	0.75
3:DN:35:ARG:HH12	3:DO:24:SER:HA	1.52	0.75
3:EO:60:LYS:HD3	3:EO:61:PRO:HD2	1.69	0.75
3:AB:128:THR:HA	3:DI:2:ASN:HA	1.68	0.74
3:BI:97:GLU:HA	3:BI:100:LYS:HD3	1.67	0.74
3:DT:59:PRO:HG2	3:DT:61:PRO:HD3	1.68	0.74
3:EJ:13:ASN:OD1	3:EJ:14:LYS:N	2.19	0.74
3:GK:91:THR:OG1	3:GX:56:ARG:NH1	2.20	0.74
3:CE:35:ARG:HH22	3:CE:42:GLU:HG3	1.51	0.74
1:R:328:G:H1	1:R:369:U:H3	1.33	0.74
3:AS:128:THR:HA	3:EE:2:ASN:HA	1.70	0.74
3:CS:115:GLY:O	3:DU:33:ARG:NH2	2.20	0.74
3:FZ:33:ARG:HH21	3:GA:8:ILE:HG23	1.52	0.74
3:CG:55:LYS:NZ	3:CG:75:ASN:OD1	2.21	0.74
3:FQ:98:THR:HG21	3:FQ:126:SER:HA	1.69	0.74
1:R:2763:C:O2	1:R:2811:A:N6	2.20	0.74
1:R:3058:G:N2	1:R:3085:U:O2	2.19	0.74
1:R:2431:C:H2'	1:R:2432:G:H8	1.52	0.74
3:CP:74:GLU:OE2	3:Dc:88:ASN:ND2	2.21	0.74
3:FW:66:ASP:O	3:FW:66:ASP:OD1	2.05	0.74
1:R:3244:A:N1	1:R:3262:A:N6	2.36	0.74
1:R:3274:U:O2	1:R:3701:G:N1	2.16	0.74
3:AM:56:ARG:HD3	3:AM:57:PRO:HD2	1.68	0.74
3:GQ:66:ASP:HB3	3:GQ:69:VAL:HG22	1.70	0.74
3:BH:98:THR:HG21	3:BH:126:SER:HA	1.68	0.74
1:R:2607:C:N4	1:R:2626:G:O6	2.20	0.74
3:AW:62:GLU:CD	3:AW:63:GLY:H	1.96	0.74
3:CA:98:THR:HG21	3:CA:126:SER:HA	1.70	0.74
1:R:2483:U:H3	1:R:2598:G:H1	0.81	0.73
1:R:2635:G:H1	1:R:2647:U:H3	1.36	0.73
1:R:3393:A:H3'	1:R:3394:U:H4'	1.68	0.73
3:DD:60:LYS:NZ	3:DD:64:CYS:O	2.21	0.73
1:R:1256:U:H3	1:R:1270:G:H1	0.78	0.73
2:b:73:ARG:HE	2:b:176:ARG:HE	1.33	0.73
1:R:1868:C:H41	1:R:1884:G:H1	1.36	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:FI:98:THR:HG21	3:FI:126:SER:HA	1.70	0.73
1:R:303:G:N2	1:R:306:A:OP2	2.21	0.73
1:R:1837:A:OP2	1:R:1838:A:N6	2.21	0.73
1:R:2008:G:H1	1:R:2027:U:H3	1.33	0.73
3:CV:98:THR:HG21	3:CV:126:SER:HA	1.70	0.73
3:EU:56:ARG:HD3	3:EU:57:PRO:HD2	1.71	0.73
3:GO:35:ARG:NH1	3:GO:42:GLU:OE2	2.20	0.73
1:R:1607:U:O2	1:R:1649:G:N2	2.17	0.73
3:BV:35:ARG:NE	3:BV:42:GLU:OE2	2.22	0.73
3:GL:38:VAL:HG12	3:GL:39:GLY:H	1.52	0.73
1:R:1555:U:O2	1:R:1564:G:O6	2.07	0.73
3:BM:98:THR:HG21	3:BM:126:SER:HA	1.70	0.73
3:BN:61:PRO:HD3	3:BN:71:MET:HE1	1.70	0.73
3:DJ:100:LYS:HD2	3:GV:100:LYS:HG3	1.69	0.73
3:DY:98:THR:HG21	3:DY:126:SER:HA	1.70	0.73
3:BL:60:LYS:HD3	3:BL:61:PRO:HD2	1.71	0.73
3:GH:55:LYS:NZ	3:GH:75:ASN:OD1	2.21	0.73
3:GM:60:LYS:HA	3:GM:71:MET:HE2	1.69	0.73
1:R:1615:G:N2	1:R:1641:U:O2	2.20	0.73
1:R:2554:G:H1'	1:R:2557:A:H4'	1.70	0.73
3:GX:56:ARG:HD3	3:GX:57:PRO:HD2	1.71	0.73
3:BJ:56:ARG:HD3	3:BJ:57:PRO:HD2	1.70	0.72
3:ES:98:THR:HG21	3:ES:126:SER:HA	1.71	0.72
1:R:1245:G:H2'	1:R:1246:A:C8	2.23	0.72
1:R:3496:U:OP2	1:R:3497:C:N4	2.22	0.72
3:AV:98:THR:HG21	3:AV:126:SER:HA	1.70	0.72
3:FQ:64:CYS:HB3	3:GF:67:ALA:HB1	1.71	0.72
3:GV:98:THR:HG21	3:GV:126:SER:HA	1.69	0.72
3:BC:55:LYS:NZ	3:BC:75:ASN:OD1	2.20	0.72
3:DY:35:ARG:HH22	3:DY:44:ASN:HD22	1.35	0.72
3:FH:95:GLU:HA	3:FH:98:THR:HG22	1.71	0.72
3:CF:56:ARG:HD3	3:CF:57:PRO:HD2	1.69	0.72
3:CQ:5:MET:HE3	3:CQ:6:GLN:H	1.54	0.72
1:R:2566:U:H3	1:R:2586:G:H22	1.36	0.72
1:R:2823:G:O6	1:R:2829:G:N2	2.22	0.72
3:DU:35:ARG:NH1	3:DU:43:LEU:O	2.22	0.72
3:DZ:22:ARG:NH2	3:DZ:55:LYS:O	2.23	0.72
1:R:726:U:H2'	1:R:727:G:C8	2.25	0.72
2:b:329:LYS:HB2	2:b:333:ARG:NH1	2.05	0.72
2:b:462:ALA:HB3	2:b:496:ILE:HD13	1.70	0.72
3:AJ:56:ARG:HD3	3:AJ:57:PRO:HD2	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CJ:93:LYS:NZ	3:ED:107:PHE:O	2.23	0.72
1:R:1040:G:N1	1:R:1067:A:OP2	2.23	0.72
1:R:2031:G:N2	1:R:2031:G:OP2	2.21	0.72
1:R:3733:U:O2	2:a:493:ARG:NH2	2.22	0.72
1:R:4116:G:H2'	1:R:4117:G:H8	1.55	0.72
3:AH:98:THR:HG21	3:AH:126:SER:HA	1.71	0.72
3:DD:128:THR:HA	3:GP:2:ASN:HA	1.69	0.72
3:AE:56:ARG:NH1	3:DL:91:THR:OG1	2.21	0.72
3:BL:5:MET:HG3	3:BL:17:TRP:HB3	1.72	0.72
3:DB:89:LEU:HD21	3:DB:93:LYS:HE2	1.71	0.72
3:DH:97:GLU:HA	3:DH:100:LYS:HD3	1.70	0.72
1:R:939:G:N2	1:R:940:A:N7	2.36	0.72
3:BS:35:ARG:NH1	3:BS:43:LEU:O	2.23	0.72
3:DB:115:GLY:O	3:GI:33:ARG:NH2	2.23	0.72
3:DX:98:THR:HG21	3:DX:126:SER:HA	1.72	0.72
3:FD:56:ARG:HD3	3:FD:57:PRO:HD2	1.71	0.72
1:R:720:C:H2'	1:R:721:G:C8	2.25	0.71
3:AU:55:LYS:HE3	3:AU:75:ASN:HB3	1.70	0.71
3:FY:98:THR:HG21	3:FY:126:SER:HA	1.72	0.71
3:EE:37:LYS:HZ2	3:EE:41:ALA:H	1.37	0.71
3:AN:55:LYS:HB3	3:AN:73:ASN:HD22	1.55	0.71
3:DH:37:LYS:HE2	3:DH:40:ILE:HA	1.72	0.71
3:DN:93:LYS:NZ	3:EV:107:PHE:O	2.21	0.71
3:AB:60:LYS:H	3:AB:71:MET:HE1	1.56	0.71
3:CE:98:THR:HG21	3:CE:126:SER:HA	1.72	0.71
3:FX:51:VAL:HG12	3:FX:79:ARG:HG2	1.72	0.71
3:AF:67:ALA:HB1	3:DL:64:CYS:HA	1.71	0.71
3:AI:89:LEU:HD13	3:FM:114:LEU:HD22	1.73	0.71
3:BW:91:THR:OG1	3:FI:56:ARG:NH1	2.20	0.71
3:GK:87:GLU:HG3	3:GX:59:PRO:HG3	1.71	0.71
1:R:1331:U:H3	1:R:1351:U:H3	1.39	0.71
1:R:1822:A:H5''	1:R:1823:A:H5'	1.70	0.71
3:AK:60:LYS:HD3	3:AK:61:PRO:HD2	1.72	0.71
3:AP:57:PRO:HA	3:AP:73:ASN:HA	1.72	0.71
1:R:1607:U:H3	1:R:1649:G:H1	0.78	0.71
3:CI:96:TRP:HE3	3:FU:78:ILE:HD13	1.54	0.71
3:CK:100:LYS:HE3	3:DH:100:LYS:HG2	1.72	0.71
3:Ec:2:ASN:HB2	3:EY:124:VAL:HB	1.72	0.71
3:GB:5:MET:HG2	3:GB:17:TRP:HB3	1.71	0.71
1:R:2925:G:N1	3:EU:72:PRO:O	2.22	0.71
3:BN:35:ARG:HD2	3:BN:44:ASN:HB3	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BS:35:ARG:CZ	3:BS:43:LEU:H	2.03	0.71
3:GK:3:LYS:NZ	3:GX:128:THR:O	2.23	0.71
3:BG:35:ARG:NH1	3:BG:42:GLU:OE1	2.24	0.71
3:Cc:56:ARG:HD3	3:Cc:57:PRO:HD2	1.73	0.71
3:DC:64:CYS:HB3	3:FT:67:ALA:HB1	1.73	0.71
1:R:499:A:N7	1:R:2785:U:O2	2.24	0.70
2:a:240:PRO:HB2	2:a:516:LEU:HD22	1.72	0.70
3:Fc:98:THR:HG21	3:Fc:126:SER:HA	1.72	0.70
1:R:613:U:O2'	1:R:614:A:N7	2.24	0.70
3:AP:98:THR:HG21	3:AP:126:SER:HA	1.73	0.70
1:R:162:C:O2'	1:R:164:U:O4	2.09	0.70
1:R:1311:U:O2'	1:R:1371:A:O2'	2.09	0.70
1:R:4067:U:O2	1:R:4160:G:O6	2.10	0.70
2:b:104:ASN:O	2:b:110:ARG:NH2	2.24	0.70
1:R:2755:C:H42	1:R:2758:C:H2'	1.56	0.70
1:R:3896:U:H3	1:R:3937:G:H1	0.77	0.70
3:AV:96:TRP:HE3	3:EH:78:ILE:HD11	1.57	0.70
3:CM:35:ARG:NH1	3:CM:44:ASN:OD1	2.15	0.70
1:R:223:U:OP2	1:R:226:C:N4	2.22	0.70
1:R:483:U:OP2	1:R:485:C:N4	2.24	0.70
1:R:3034:C:O2'	1:R:3205:U:O2	2.09	0.70
2:a:87:LYS:O	2:b:499:ARG:NH2	2.23	0.70
2:a:328:GLU:HA	2:a:331:MET:SD	2.32	0.70
3:GH:33:ARG:NH2	3:GU:115:GLY:O	2.23	0.70
3:GN:59:PRO:HG3	3:Gc:87:GLU:HG3	1.73	0.70
1:R:2474:U:O2	1:R:2630:G:N2	2.25	0.70
1:R:3563:U:H3	1:R:3594:G:H1	1.38	0.70
3:Dc:35:ARG:NH1	3:Dc:44:ASN:OD1	2.20	0.70
3:EK:8:ILE:HG22	3:EK:9:THR:HG23	1.74	0.70
3:GN:91:THR:OG1	3:Gc:56:ARG:NH1	2.25	0.70
1:R:1491:C:H5	1:R:1499:A:H5'	1.56	0.70
1:R:2014:G:N2	1:R:2022:G:N7	2.40	0.70
3:FD:70:ILE:HD11	3:FF:40:ILE:HG13	1.74	0.70
3:GA:60:LYS:HA	3:GA:71:MET:HE3	1.74	0.70
1:R:3012:C:H2'	1:R:3013:G:C8	2.25	0.70
3:CT:101:ARG:HH21	3:CT:124:VAL:HG21	1.57	0.70
3:FT:35:ARG:NH1	3:FT:42:GLU:OE2	2.24	0.70
3:BB:31:LEU:HD13	3:EN:117:LEU:HD21	1.74	0.70
3:BU:10:SER:HA	3:BU:15:ILE:HG22	1.74	0.70
3:GA:60:LYS:HE3	3:GA:69:VAL:HG11	1.74	0.70
3:BQ:84:GLY:HA3	3:BQ:92:LEU:HD21	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:EH:98:THR:HG21	3:EH:126:SER:HA	1.72	0.69
3:GS:56:ARG:HD3	3:GS:57:PRO:HD2	1.73	0.69
1:R:4190:U:H4'	1:R:4191:A:H2'	1.73	0.69
3:AC:60:LYS:HA	3:AC:71:MET:HE1	1.74	0.69
3:AC:72:PRO:HB2	3:FG:38:VAL:HG12	1.73	0.69
3:AG:117:LEU:HD11	3:DS:31:LEU:HD13	1.73	0.69
3:BB:115:GLY:O	3:EN:33:ARG:NH2	2.25	0.69
3:CD:60:LYS:NZ	3:CD:64:CYS:O	2.19	0.69
3:CO:107:PHE:O	3:GA:93:LYS:NZ	2.25	0.69
3:CO:128:THR:HA	3:GA:2:ASN:HA	1.74	0.69
1:R:1575:G:N2	1:R:1706:U:O2	2.25	0.69
1:R:2611:A:H2'	1:R:2612:G:H8	1.57	0.69
1:R:3320:U:H3'	1:R:3321:A:H8	1.58	0.69
3:BC:98:THR:HG21	3:BC:126:SER:HA	1.72	0.69
3:BN:98:THR:HG21	3:BN:126:SER:HA	1.73	0.69
3:BY:32:LEU:HB3	3:BY:34:GLN:HE22	1.56	0.69
3:DA:115:GLY:O	3:GM:33:ARG:NH2	2.25	0.69
3:DV:89:LEU:HD21	3:DV:93:LYS:HE3	1.72	0.69
3:EE:35:ARG:NH1	3:EE:44:ASN:OD1	2.25	0.69
3:Fc:56:ARG:HD3	3:Fc:57:PRO:HD2	1.74	0.69
2:b:151:SER:OG	2:b:176:ARG:NH2	2.26	0.69
3:BI:70:ILE:HD11	3:BK:40:ILE:HG23	1.74	0.69
3:BS:56:ARG:HD3	3:BS:57:PRO:HD2	1.74	0.69
1:R:1020:U:O4	1:R:1021:A:N6	2.25	0.69
3:CZ:5:MET:HB3	3:CZ:17:TRP:HB3	1.74	0.69
1:R:2938:G:H5''	3:EU:35:ARG:HH21	1.57	0.69
3:CX:56:ARG:NH1	3:GJ:91:THR:OG1	2.26	0.69
3:FH:14:LYS:HZ3	3:FH:30:SER:HB3	1.57	0.69
3:FQ:5:MET:HG2	3:FQ:17:TRP:HB3	1.74	0.69
1:R:644:U:H2'	1:R:645:A:H8	1.56	0.69
1:R:3896:U:O2	1:R:3937:G:N2	2.18	0.69
3:AX:37:LYS:NZ	3:AX:42:GLU:OE1	2.25	0.69
3:CM:36:VAL:HG21	3:CM:45:ASN:HD22	1.58	0.69
3:GY:60:LYS:HD2	3:GY:69:VAL:HG23	1.74	0.69
1:R:469:C:H2'	1:R:470:G:C8	2.28	0.69
1:R:608:C:H2'	1:R:609:A:H8	1.57	0.69
1:R:1808:U:O2'	3:CC:35:ARG:NH2	2.25	0.69
1:R:3024:G:OP2	1:R:3817:A:N6	2.26	0.69
2:b:106:ASN:HB3	2:b:109:GLN:HB3	1.73	0.69
3:BQ:33:ARG:NH2	3:FC:115:GLY:O	2.26	0.69
3:BT:57:PRO:HA	3:BT:73:ASN:HA	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CE:60:LYS:HA	3:CE:71:MET:HE1	1.75	0.69
3:CG:49:GLN:HG2	3:CG:81:VAL:HG12	1.75	0.69
3:CV:55:LYS:HZ2	3:CV:75:ASN:HB2	1.57	0.69
3:DD:56:ARG:HD3	3:DD:57:PRO:HD2	1.73	0.69
3:DD:61:PRO:HD2	3:DD:71:MET:HE2	1.74	0.69
3:DO:17:TRP:O	3:DO:26:THR:OG1	2.10	0.69
3:DZ:124:VAL:HB	3:FN:2:ASN:HB2	1.75	0.69
3:Gc:56:ARG:HD3	3:Gc:57:PRO:HD2	1.75	0.69
2:a:182:ARG:HG2	2:a:184:ARG:HH12	1.58	0.69
1:R:4040:C:H2'	1:R:4041:A:H8	1.57	0.69
3:GG:98:THR:HG21	3:GG:126:SER:HA	1.73	0.69
3:GQ:57:PRO:HA	3:GQ:73:ASN:HA	1.75	0.69
1:R:1930:C:N4	1:R:1970:A:N3	2.41	0.68
1:R:2038:U:H4'	1:R:2276:U:H4'	1.75	0.68
1:R:3734:U:O2'	2:a:467:ARG:NH1	2.26	0.68
3:AK:32:LEU:HB3	3:AK:34:GLN:HE22	1.58	0.68
3:BH:60:LYS:NZ	3:BH:64:CYS:SG	2.64	0.68
3:CU:115:GLY:O	3:GG:33:ARG:NH2	2.26	0.68
3:GK:124:VAL:HB	3:GX:2:ASN:HB2	1.75	0.68
1:R:1557:G:OP2	3:DT:49:GLN:NE2	2.26	0.68
1:R:2008:G:N2	1:R:2027:U:O2	2.26	0.68
1:R:955:G:N1	1:R:958:A:OP2	2.26	0.68
3:CG:31:LEU:HD13	3:EA:117:LEU:HD21	1.74	0.68
3:CQ:5:MET:HE2	3:CQ:17:TRP:HB3	1.74	0.68
1:R:262:U:O2	1:R:265:A:N6	2.25	0.68
1:R:1592:A:H4'	1:R:1593:C:H5'	1.75	0.68
3:AG:100:LYS:HD2	3:DS:100:LYS:HD3	1.76	0.68
3:BS:115:GLY:O	3:BU:33:ARG:NH2	2.25	0.68
3:BV:89:LEU:HD11	3:BV:93:LYS:HZ3	1.58	0.68
3:CA:55:LYS:HB3	3:CA:73:ASN:HD21	1.59	0.68
3:GA:60:LYS:NZ	3:GA:64:CYS:SG	2.65	0.68
1:R:465:C:OP2	1:R:713:C:N4	2.26	0.68
1:R:2992:C:H2'	1:R:2993:G:C8	2.28	0.68
1:R:3025:U:OP2	1:R:3815:G:N2	2.27	0.68
3:BM:60:LYS:HG2	3:BM:71:MET:HE1	1.75	0.68
3:Cc:115:GLY:O	3:GD:33:ARG:NH1	2.27	0.68
3:DE:22:ARG:NH2	3:DE:55:LYS:O	2.25	0.68
3:CK:39:GLY:HA2	3:DH:72:PRO:HG2	1.74	0.68
3:GS:60:LYS:HE3	3:GS:61:PRO:HD2	1.75	0.68
1:R:343:G:N2	1:R:354:U:O2	2.24	0.68
1:R:2625:U:H2'	1:R:2626:G:H8	1.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3038:C:H2'	1:R:3039:A:C8	2.28	0.68
3:AN:87:GLU:HG3	3:CN:59:PRO:HG3	1.74	0.68
3:EC:87:GLU:HG3	3:FH:59:PRO:HG3	1.74	0.68
3:EP:35:ARG:NH1	3:EP:36:VAL:O	2.27	0.68
1:R:2616:A:H61	3:AN:35:ARG:HB3	1.59	0.68
1:R:3576:A:N6	1:R:3579:C:OP2	2.26	0.68
1:R:3906:U:O2'	3:AI:75:ASN:ND2	2.27	0.68
2:a:346:PHE:HB2	2:a:350:ILE:HD13	1.76	0.68
3:AH:4:PRO:HA	3:DF:124:VAL:HA	1.76	0.68
3:CU:56:ARG:HD3	3:CU:57:PRO:HD2	1.75	0.68
3:Dc:37:LYS:NZ	3:Dc:38:VAL:O	2.27	0.68
3:ED:98:THR:HG21	3:ED:126:SER:HA	1.76	0.68
1:R:2328:C:H2'	1:R:2329:A:H8	1.59	0.68
1:R:3866:G:H2'	1:R:3867:G:C8	2.29	0.68
3:CZ:57:PRO:HA	3:CZ:73:ASN:HA	1.76	0.68
3:FW:66:ASP:OD1	3:FW:68:CYS:N	2.26	0.68
1:R:499:A:OP2	1:R:2784:C:N4	2.26	0.68
1:R:651:C:H2'	1:R:652:G:H8	1.58	0.68
3:BE:128:THR:O	3:EQ:3:LYS:NZ	2.27	0.68
3:BH:78:ILE:HG23	3:ET:82:ILE:HG12	1.74	0.68
3:DB:3:LYS:HZ3	3:GI:129:THR:HA	1.56	0.68
3:ED:35:ARG:HH11	3:ED:42:GLU:HG2	1.57	0.68
3:EU:82:ILE:HD13	3:FB:78:ILE:HD13	1.76	0.68
1:R:766:U:O2'	1:R:768:C:N4	2.26	0.67
1:R:1611:U:O2'	3:FL:75:ASN:ND2	2.27	0.67
1:R:3391:C:H2'	1:R:3392:G:C8	2.29	0.67
3:AM:64:CYS:N	3:DW:68:CYS:SG	2.66	0.67
3:ES:35:ARG:NE	3:ES:42:GLU:OE2	2.25	0.67
3:FG:25:THR:HB	3:FG:54:TYR:HD1	1.59	0.67
3:FN:51:VAL:HG22	3:FN:79:ARG:HG3	1.77	0.67
1:R:2863:U:H2'	1:R:2864:A:H4'	1.77	0.67
1:R:3822:G:H4'	1:R:3823:A:H5'	1.76	0.67
1:R:4190:U:O2'	1:R:4223:G:N2	2.26	0.67
3:DD:117:LEU:HD21	3:GP:31:LEU:HD13	1.75	0.67
1:R:529:A:H2'	1:R:530:A:C8	2.30	0.67
1:R:1256:U:O2	1:R:1270:G:N2	2.20	0.67
1:R:2038:U:H2'	1:R:2039:G:H8	1.59	0.67
1:R:2160:G:OP2	1:R:2176:U:O2'	2.09	0.67
1:R:2382:A:H62	3:AT:32:LEU:HD13	1.59	0.67
1:R:3391:C:H2'	1:R:3392:G:H8	1.59	0.67
3:CM:7:PRO:HA	3:CM:17:TRP:HA	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CU:95:GLU:OE2	3:GG:56:ARG:NH2	2.28	0.67
3:DA:33:ARG:NH2	3:GM:115:GLY:O	2.27	0.67
1:R:2723:C:H2'	1:R:2724:G:H8	1.60	0.67
1:R:3091:U:H4'	1:R:3092:A:H4'	1.77	0.67
2:a:63:VAL:HG13	2:a:65:GLY:H	1.58	0.67
2:a:159:VAL:HB	2:a:166:TYR:HB2	1.77	0.67
2:b:402:ARG:HB3	2:b:467:ARG:HB3	1.75	0.67
3:Ac:115:GLY:O	3:FD:33:ARG:NH2	2.26	0.67
3:BA:115:GLY:O	3:EF:33:ARG:NH2	2.26	0.67
3:CF:71:MET:SD	3:CF:71:MET:N	2.67	0.67
3:CO:96:TRP:HE3	3:GA:78:ILE:HD11	1.60	0.67
3:GH:60:LYS:NZ	3:GH:65:ALA:O	2.23	0.67
1:R:2457:G:N2	1:R:2468:U:O2	2.23	0.67
1:R:4242:U:H3	1:R:4262:U:H3	1.41	0.67
3:AF:70:ILE:HD13	3:DL:61:PRO:HG3	1.76	0.67
3:BW:82:ILE:HG13	3:FI:78:ILE:HG12	1.76	0.67
3:DN:58:ALA:HB3	3:DN:59:PRO:HD3	1.77	0.67
3:EO:128:THR:O	3:FE:3:LYS:NZ	2.26	0.67
3:GN:33:ARG:NH2	3:Gc:115:GLY:O	2.27	0.67
1:R:2474:U:H3	1:R:2630:G:H1	1.39	0.67
1:R:4065:G:N2	1:R:4162:U:O2	2.24	0.67
2:b:347:ARG:HB2	2:b:430:TRP:CE2	2.28	0.67
3:AB:38:VAL:HG23	3:AB:39:GLY:H	1.60	0.67
3:CK:114:LEU:HD22	3:DH:89:LEU:HD13	1.77	0.67
3:CV:33:ARG:NH2	3:GL:115:GLY:O	2.27	0.67
3:CX:115:GLY:O	3:GJ:33:ARG:NH2	2.27	0.67
3:EW:55:LYS:HB3	3:EW:73:ASN:HD21	1.59	0.67
1:R:2169:G:H2'	1:R:2170:A:C8	2.30	0.67
1:R:2754:G:H22	1:R:2758:C:H42	1.42	0.67
3:AY:57:PRO:HA	3:AY:73:ASN:HA	1.76	0.67
3:BQ:107:PHE:O	3:FC:93:LYS:NZ	2.27	0.67
1:R:629:A:H62	1:R:980:U:H2'	1.59	0.67
1:R:1016:C:N4	1:R:1079:A:N7	2.38	0.67
1:R:3736:G:OP2	2:a:491:TYR:OH	2.11	0.67
3:AC:67:ALA:HB1	3:DI:64:CYS:HB3	1.76	0.67
3:AE:98:THR:HG21	3:AE:126:SER:HA	1.76	0.67
3:AV:43:LEU:HD11	3:AV:85:SER:HB2	1.77	0.67
3:DJ:39:GLY:HA2	3:GV:72:PRO:HG2	1.76	0.67
1:R:2551:U:H2'	1:R:2552:C:H5	1.60	0.67
2:a:104:ASN:HA	3:AC:35:ARG:HB3	1.77	0.67
3:AE:128:THR:O	3:DL:3:LYS:NZ	2.28	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AN:78:ILE:HD11	3:CN:96:TRP:HE3	1.58	0.67
3:BN:56:ARG:HD3	3:BN:57:PRO:HD2	1.76	0.67
3:GU:8:ILE:HB	3:GU:16:VAL:HG23	1.74	0.67
1:R:1002:G:H22	1:R:1093:U:H3	1.42	0.67
1:R:1600:G:H1	1:R:1656:U:H3	0.76	0.67
1:R:2578:A:H2'	1:R:2579:A:C8	2.30	0.67
1:R:2845:U:O2	1:R:2874:G:N2	2.28	0.67
1:R:3408:G:H2'	1:R:3409:A:H8	1.60	0.67
1:R:4085:U:H3	1:R:4141:C:H42	1.43	0.67
3:AB:8:ILE:HG13	3:AB:18:SER:HB3	1.76	0.67
3:BZ:56:ARG:HD3	3:BZ:57:PRO:HD2	1.75	0.67
3:CK:35:ARG:NH1	3:CK:44:ASN:OD1	2.23	0.67
3:Cc:107:PHE:O	3:GD:93:LYS:NZ	2.28	0.67
3:Ec:66:ASP:OD1	3:Ec:69:VAL:N	2.24	0.67
3:Gc:35:ARG:HH12	3:Gc:42:GLU:HG3	1.60	0.67
1:R:1905:C:OP1	3:AZ:34:GLN:NE2	2.27	0.66
1:R:3295:C:N4	1:R:3296:G:O6	2.29	0.66
3:AV:115:GLY:O	3:EH:33:ARG:NH2	2.17	0.66
3:BP:114:LEU:HD22	3:CA:89:LEU:HD13	1.78	0.66
3:CA:55:LYS:NZ	3:CA:75:ASN:OD1	2.25	0.66
3:CP:65:ALA:O	3:CP:67:ALA:N	2.29	0.66
3:Cc:60:LYS:HE2	3:Cc:65:ALA:HA	1.76	0.66
3:CY:111:ASN:HB3	3:CY:116:PHE:HD2	1.61	0.66
1:R:1550:U:H2'	1:R:1551:G:H8	1.60	0.66
1:R:1606:U:O2	1:R:1650:G:N2	2.25	0.66
3:BF:35:ARG:NH1	3:BF:44:ASN:OD1	2.27	0.66
3:DJ:22:ARG:NH2	3:DJ:55:LYS:O	2.28	0.66
1:R:2851:A:O2'	3:BK:79:ARG:NH2	2.28	0.66
2:b:232:PHE:HD2	2:b:411:LEU:HD22	1.60	0.66
3:CH:115:GLY:O	3:DE:33:ARG:NH2	2.26	0.66
3:CJ:115:GLY:O	3:ED:33:ARG:NH2	2.27	0.66
3:CW:61:PRO:HG3	3:FW:70:ILE:HD11	1.76	0.66
3:CY:49:GLN:OE1	3:CY:79:ARG:NH2	2.28	0.66
3:FZ:31:LEU:HD11	3:GT:115:GLY:HA2	1.77	0.66
3:GA:56:ARG:HD3	3:GA:57:PRO:HD2	1.78	0.66
3:AJ:49:GLN:OE1	3:AJ:79:ARG:NH2	2.28	0.66
3:AM:91:THR:OG1	3:DY:56:ARG:NH1	2.27	0.66
3:BA:106:LEU:HD11	3:EF:50:TYR:HE1	1.60	0.66
3:BC:49:GLN:OE1	3:BC:79:ARG:NH2	2.29	0.66
3:BQ:2:ASN:HB2	3:FC:124:VAL:HB	1.76	0.66
3:CN:98:THR:HG21	3:CN:126:SER:HA	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DI:97:GLU:OE1	3:DI:100:LYS:NZ	2.27	0.66
3:FQ:35:ARG:NH2	3:FQ:42:GLU:HG3	2.10	0.66
3:GW:89:LEU:HD21	3:GW:93:LYS:HE3	1.76	0.66
1:R:201:U:H2'	1:R:202:G:C8	2.31	0.66
1:R:1065:U:H2'	1:R:1067:A:H5'	1.78	0.66
3:AW:33:ARG:NH2	3:BD:115:GLY:O	2.27	0.66
3:EM:56:ARG:HD3	3:EM:57:PRO:HD2	1.77	0.66
3:FF:98:THR:HG21	3:FF:126:SER:HA	1.78	0.66
1:R:469:C:H2'	1:R:470:G:H8	1.60	0.66
1:R:993:C:O2'	1:R:994:G:O4'	2.12	0.66
1:R:3857:U:H2'	1:R:3858:A:H8	1.58	0.66
1:R:3986:U:O2	1:R:3988:U:O2'	2.14	0.66
1:R:4116:G:H2'	1:R:4117:G:C8	2.29	0.66
3:AM:31:LEU:HD13	3:DY:117:LEU:HD21	1.78	0.66
3:BK:44:ASN:ND2	3:BK:87:GLU:OE2	2.27	0.66
3:BL:49:GLN:OE1	3:BL:79:ARG:NH2	2.28	0.66
3:BQ:61:PRO:HB2	3:FA:68:CYS:HB3	1.78	0.66
3:Cc:88:ASN:ND2	3:GD:74:GLU:OE2	2.29	0.66
3:DN:87:GLU:HG3	3:EV:59:PRO:HG3	1.76	0.66
3:DQ:98:THR:HG21	3:DQ:126:SER:HA	1.78	0.66
3:EP:35:ARG:NH1	3:EP:43:LEU:O	2.29	0.66
1:R:2761:G:H2'	1:R:2762:G:H8	1.60	0.66
3:AS:3:LYS:NZ	3:EE:128:THR:O	2.29	0.66
3:BL:107:PHE:O	3:EM:93:LYS:NZ	2.27	0.66
3:CH:60:LYS:HZ3	3:CH:61:PRO:HG2	1.58	0.66
3:Cc:33:ARG:NH2	3:GD:115:GLY:O	2.27	0.66
3:FB:51:VAL:HG22	3:FB:79:ARG:HG3	1.77	0.66
3:GT:98:THR:HG21	3:GT:126:SER:HA	1.77	0.66
3:GV:55:LYS:HE3	3:GV:75:ASN:HB3	1.75	0.66
1:R:1069:C:H2'	1:R:1070:G:H8	1.61	0.66
1:R:1937:A:H2'	1:R:1938:U:C6	2.31	0.66
1:R:2002:U:H2'	1:R:2003:G:C8	2.30	0.66
3:CC:95:GLU:OE2	3:FO:56:ARG:NH2	2.29	0.66
3:CG:115:GLY:O	3:EA:33:ARG:NH2	2.29	0.66
3:DF:98:THR:HG21	3:DF:126:SER:HA	1.77	0.66
1:R:438:U:H2'	1:R:439:G:C8	2.31	0.66
1:R:1252:G:H2'	1:R:1253:A:H8	1.61	0.66
3:AU:124:VAL:HA	3:EI:4:PRO:HA	1.78	0.66
3:CE:35:ARG:HH22	3:CE:42:GLU:CG	2.08	0.66
3:CX:56:ARG:HD3	3:CX:57:PRO:HD2	1.78	0.66
3:FZ:87:GLU:HG3	3:GT:59:PRO:HB3	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:180:U:H2'	1:R:181:A:H8	1.61	0.66
1:R:1460:A:N6	1:R:1499:A:OP1	2.28	0.66
1:R:1592:A:N6	1:R:1663:A:O2'	2.29	0.66
2:a:267:LEU:HD13	2:a:342:LEU:HD22	1.77	0.66
3:BS:114:LEU:HD22	3:BU:89:LEU:HD13	1.78	0.66
3:CG:70:ILE:HD11	3:CI:40:ILE:HG13	1.77	0.66
1:R:2237:C:H2'	1:R:2238:G:H8	1.59	0.65
1:R:2925:G:H22	3:EU:72:PRO:HG2	1.61	0.65
3:CJ:87:GLU:HG3	3:ED:59:PRO:HG3	1.78	0.65
3:CO:115:GLY:O	3:GA:33:ARG:NH2	2.29	0.65
3:DE:60:LYS:HD3	3:DE:61:PRO:HD2	1.78	0.65
3:FB:43:LEU:HD22	3:FB:87:GLU:HG2	1.78	0.65
3:GD:37:LYS:NZ	3:GD:38:VAL:O	2.29	0.65
1:R:781:U:O4	1:R:782:A:N6	2.29	0.65
1:R:2344:U:O2'	1:R:2346:A:N6	2.29	0.65
3:AJ:128:THR:O	3:DV:3:LYS:NZ	2.29	0.65
3:BA:34:GLN:NE2	3:BA:35:ARG:O	2.28	0.65
3:BF:58:ALA:HB3	3:BF:71:MET:HE1	1.78	0.65
3:BH:2:ASN:HB2	3:ET:124:VAL:HB	1.77	0.65
3:CF:91:THR:OG1	3:Fc:56:ARG:NH1	2.29	0.65
3:DD:33:ARG:NH2	3:GP:115:GLY:O	2.29	0.65
3:DQ:124:VAL:HB	3:EP:2:ASN:HB2	1.77	0.65
3:EX:98:THR:HG21	3:EX:126:SER:HA	1.78	0.65
3:FC:56:ARG:HD3	3:FC:57:PRO:HD2	1.78	0.65
3:FG:65:ALA:HB1	3:FG:69:VAL:HG21	1.78	0.65
3:FP:98:THR:HG21	3:FP:126:SER:HA	1.76	0.65
3:AS:33:ARG:NH2	3:EE:115:GLY:O	2.26	0.65
3:BZ:43:LEU:HD12	3:BZ:85:SER:HB2	1.78	0.65
3:CO:37:LYS:HZ3	3:CO:40:ILE:HA	1.60	0.65
3:CS:57:PRO:HA	3:CS:73:ASN:HA	1.78	0.65
3:DQ:60:LYS:NZ	3:DQ:64:CYS:O	2.22	0.65
3:FW:95:GLU:HA	3:FW:98:THR:HG22	1.78	0.65
3:GM:56:ARG:HD3	3:GM:57:PRO:HD2	1.77	0.65
1:R:106:U:O4	1:R:107:A:N6	2.29	0.65
1:R:3329:G:H2'	1:R:3330:A:H8	1.62	0.65
3:AT:22:ARG:NH2	3:AT:55:LYS:O	2.30	0.65
3:AY:117:LEU:HD21	3:EK:31:LEU:HG	1.78	0.65
3:AZ:124:VAL:HB	3:BG:2:ASN:HB2	1.77	0.65
3:BN:22:ARG:NH2	3:BN:55:LYS:O	2.29	0.65
3:EE:71:MET:N	3:EE:71:MET:SD	2.68	0.65
1:R:208:U:H2'	1:R:209:G:C8	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1723:U:H3	1:R:1754:G:H1	1.42	0.65
1:R:1906:A:O2'	1:R:1908:A:OP1	2.14	0.65
1:R:3296:G:H2'	1:R:3297:A:C8	2.32	0.65
1:R:3831:A:H1'	1:R:3836:U:H1'	1.78	0.65
3:BK:60:LYS:HA	3:BK:71:MET:HE1	1.79	0.65
3:CS:89:LEU:HD13	3:DU:114:LEU:HD22	1.79	0.65
3:EN:60:LYS:HD3	3:EN:61:PRO:HD2	1.76	0.65
3:FW:15:ILE:HD13	3:GB:117:LEU:HG	1.78	0.65
1:R:1054:A:H2'	1:R:1055:A:C8	2.32	0.65
1:R:3660:G:H22	1:R:3670:A:H61	1.43	0.65
2:a:147:ARG:HE	2:a:182:ARG:HA	1.61	0.65
3:AT:128:THR:O	3:BJ:3:LYS:NZ	2.30	0.65
3:CI:124:VAL:HG22	3:FU:2:ASN:HB2	1.78	0.65
3:CX:38:VAL:HG12	3:GJ:72:PRO:HG2	1.79	0.65
3:FC:64:CYS:SG	3:FC:65:ALA:N	2.70	0.65
1:R:2781:A:H2'	1:R:2782:A:C8	2.32	0.65
3:AI:115:GLY:O	3:FM:33:ARG:NH2	2.29	0.65
3:AX:64:CYS:HB2	3:EM:67:ALA:HB1	1.78	0.65
3:BH:85:SER:OG	3:BH:88:ASN:OD1	2.15	0.65
3:CC:87:GLU:HG3	3:FO:59:PRO:HG3	1.77	0.65
3:CX:60:LYS:HD2	3:CX:71:MET:HE1	1.79	0.65
3:EE:60:LYS:O	3:EE:61:PRO:C	2.40	0.65
3:FB:89:LEU:HA	3:FB:92:LEU:HD23	1.78	0.65
3:FU:49:GLN:OE1	3:FU:79:ARG:NH2	2.29	0.65
1:R:2042:U:H4'	1:R:2043:A:H5'	1.77	0.65
3:AB:39:GLY:HA3	3:DI:72:PRO:HG3	1.78	0.65
3:BX:32:LEU:HB3	3:BX:34:GLN:HE22	1.61	0.65
3:CP:33:ARG:NH2	3:Dc:115:GLY:O	2.30	0.65
3:DM:115:GLY:O	3:GY:33:ARG:NH2	2.30	0.65
3:FJ:56:ARG:HD3	3:FJ:57:PRO:HD2	1.79	0.65
3:GL:57:PRO:HA	3:GL:73:ASN:HA	1.78	0.65
3:AK:57:PRO:HA	3:AK:73:ASN:HA	1.79	0.65
3:BF:2:ASN:ND2	3:CB:125:SER:O	2.30	0.65
3:CK:115:GLY:O	3:DH:33:ARG:NH1	2.30	0.65
3:CO:71:MET:N	3:CO:71:MET:SD	2.67	0.65
3:CP:3:LYS:NZ	3:Dc:128:THR:O	2.30	0.65
3:DB:81:VAL:HG22	3:GI:79:ARG:HG2	1.79	0.65
3:GH:2:ASN:HB2	3:GU:124:VAL:HB	1.79	0.65
1:R:2399:A:OP1	3:BJ:14:LYS:NZ	2.30	0.65
3:AB:55:LYS:HB3	3:AB:73:ASN:HD21	1.62	0.65
3:AO:128:THR:HA	3:FA:2:ASN:HA	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AP:128:THR:O	3:EB:3:LYS:NZ	2.30	0.65
3:AT:60:LYS:NZ	3:AT:64:CYS:O	2.26	0.65
3:CN:60:LYS:HA	3:CN:71:MET:HE3	1.79	0.65
3:DI:56:ARG:HD3	3:DI:57:PRO:HD2	1.79	0.65
3:DT:2:ASN:HB2	3:ES:124:VAL:HB	1.79	0.65
3:Ec:60:LYS:HE3	3:Ec:64:CYS:HB2	1.78	0.65
3:FC:111:ASN:HB2	3:FC:114:LEU:HD12	1.79	0.65
1:R:932:C:OP2	1:R:934:A:N6	2.24	0.64
1:R:2159:A:OP1	1:R:2169:G:N2	2.30	0.64
2:a:352:PRO:O	2:a:356:GLN:NE2	2.29	0.64
3:DJ:2:ASN:HB2	3:GV:124:VAL:HB	1.78	0.64
3:DJ:93:LYS:NZ	3:GV:107:PHE:O	2.30	0.64
3:DO:36:VAL:HG23	3:DO:43:LEU:HB3	1.78	0.64
3:DS:59:PRO:HG2	3:DS:71:MET:HG2	1.79	0.64
3:FB:60:LYS:NZ	3:FB:64:CYS:O	2.30	0.64
3:GL:38:VAL:HG21	3:GL:43:LEU:HD12	1.78	0.64
1:R:549:C:H2'	1:R:550:A:H8	1.62	0.64
1:R:1839:G:H2'	1:R:1840:A:C8	2.32	0.64
1:R:2952:G:H1	2:b:262:ARG:HG3	1.62	0.64
1:R:4227:A:H61	1:R:4231:C:H1'	1.62	0.64
2:a:86:PRO:HB3	2:b:500:LEU:HD12	1.79	0.64
2:b:197:PHE:HA	2:b:390:TRP:HE1	1.60	0.64
3:AM:33:ARG:NH2	3:DY:115:GLY:O	2.31	0.64
3:AX:61:PRO:HB3	3:EM:70:ILE:HD11	1.79	0.64
3:BN:115:GLY:O	3:EZ:33:ARG:NH2	2.29	0.64
3:BV:22:ARG:NH2	3:BV:55:LYS:O	2.30	0.64
3:BW:57:PRO:HB3	3:BW:73:ASN:HA	1.78	0.64
3:CI:24:SER:HB2	3:CI:55:LYS:HG2	1.79	0.64
3:CI:98:THR:HG21	3:CI:126:SER:HA	1.77	0.64
3:CU:31:LEU:HD13	3:GG:117:LEU:HD21	1.79	0.64
3:GB:19:ASP:OD2	3:GB:21:THR:OG1	2.14	0.64
1:R:212:U:O2'	1:R:214:G:OP1	2.15	0.64
1:R:1043:G:N1	1:R:1062:G:O6	2.31	0.64
1:R:3597:U:H2'	1:R:3598:G:H8	1.62	0.64
1:R:4256:A:O2'	1:R:4257:G:O4'	2.10	0.64
3:BO:22:ARG:NH2	3:BO:55:LYS:O	2.31	0.64
3:CC:60:LYS:HD3	3:CC:61:PRO:HD2	1.79	0.64
3:DM:88:ASN:ND2	3:GY:74:GLU:OE2	2.27	0.64
3:EE:34:GLN:NE2	3:EE:35:ARG:O	2.30	0.64
3:EN:98:THR:HG21	3:EN:126:SER:HA	1.78	0.64
1:R:1230:A:O2'	1:R:1231:G:N2	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:b:271:HIS:CE1	2:b:335:PHE:HB2	2.32	0.64
3:AS:60:LYS:HD2	3:AS:61:PRO:HD2	1.79	0.64
3:BF:55:LYS:NZ	3:BF:75:ASN:OD1	2.31	0.64
3:BG:67:ALA:HB1	3:CB:64:CYS:HB3	1.78	0.64
3:DH:35:ARG:HD2	3:DH:42:GLU:HG3	1.79	0.64
3:DT:115:GLY:O	3:ES:33:ARG:NH2	2.29	0.64
3:EG:61:PRO:HD3	3:EG:71:MET:HE3	1.79	0.64
3:FA:37:LYS:HE2	3:FA:40:ILE:HA	1.80	0.64
3:GA:58:ALA:HB3	3:GA:71:MET:HG3	1.77	0.64
1:R:180:U:H2'	1:R:181:A:C8	2.33	0.64
1:R:1619:A:N1	1:R:1637:C:N4	2.37	0.64
3:AC:60:LYS:HD3	3:AC:61:PRO:HD2	1.78	0.64
3:AE:124:VAL:HB	3:DL:2:ASN:HB2	1.78	0.64
3:AG:124:VAL:HB	3:DS:2:ASN:HB2	1.80	0.64
3:BK:60:LYS:HE3	3:BK:69:VAL:HG21	1.79	0.64
3:CQ:67:ALA:HB1	3:Dc:64:CYS:HB2	1.79	0.64
3:CT:11:THR:HG22	3:CT:12:ALA:H	1.63	0.64
3:DO:35:ARG:NE	3:DO:42:GLU:OE2	2.29	0.64
3:DZ:37:LYS:NZ	3:DZ:38:VAL:O	2.30	0.64
1:R:19:G:O2'	1:R:70:U:O2	2.14	0.64
1:R:2180:U:C2	3:Bc:32:LEU:HD22	2.33	0.64
1:R:2317:U:H2'	1:R:2318:G:H8	1.62	0.64
3:AH:65:ALA:O	3:AH:67:ALA:N	2.30	0.64
3:AL:35:ARG:HH12	3:AL:44:ASN:HA	1.62	0.64
3:AO:100:LYS:NZ	3:FA:104:ASP:OD2	2.30	0.64
3:BT:19:ASP:OD2	3:BT:21:THR:OG1	2.13	0.64
3:BT:58:ALA:HB3	3:BT:71:MET:HG3	1.79	0.64
3:CE:128:THR:O	3:DK:3:LYS:NZ	2.30	0.64
3:CK:33:ARG:NH2	3:DH:115:GLY:O	2.28	0.64
3:DM:117:LEU:HD21	3:GY:31:LEU:HD13	1.79	0.64
3:EX:56:ARG:NH1	3:EX:76:GLN:OE1	2.30	0.64
1:R:665:U:O2'	1:R:4041:A:O2'	2.15	0.64
1:R:2214:A:OP2	1:R:2242:A:N6	2.28	0.64
3:AO:89:LEU:HD13	3:FA:114:LEU:HD22	1.78	0.64
3:DI:35:ARG:NH1	3:DI:44:ASN:OD1	2.30	0.64
3:DT:58:ALA:HB1	3:DT:60:LYS:HZ2	1.63	0.64
3:EA:71:MET:N	3:EA:71:MET:SD	2.70	0.64
3:EP:98:THR:HG21	3:EP:126:SER:HA	1.78	0.64
3:FM:95:GLU:HA	3:FM:98:THR:HG22	1.78	0.64
3:GF:104:ASP:OD1	3:GQ:96:TRP:NE1	2.28	0.64
1:R:1699:A:N6	3:EY:30:SER:OG	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:4114:U:H2'	1:R:4115:A:C8	2.32	0.64
1:R:4241:U:H3	1:R:4263:C:H42	1.44	0.64
3:AK:56:ARG:HD3	3:AK:57:PRO:HD2	1.80	0.64
3:AM:115:GLY:O	3:DY:33:ARG:NH2	2.30	0.64
3:AP:115:GLY:O	3:EB:33:ARG:NH1	2.30	0.64
3:BW:56:ARG:NH1	3:BW:76:GLN:OE1	2.30	0.64
3:BW:79:ARG:HB3	3:FI:81:VAL:HG22	1.78	0.64
3:DJ:107:PHE:O	3:GV:93:LYS:NZ	2.30	0.64
3:EK:85:SER:OG	3:EK:88:ASN:OD1	2.15	0.64
3:FM:5:MET:HG2	3:FM:17:TRP:HB3	1.80	0.64
1:R:448:C:O2'	1:R:450:C:N4	2.31	0.64
1:R:2338:G:H2'	1:R:2339:A:C8	2.32	0.64
3:AE:33:ARG:NH2	3:DL:115:GLY:O	2.29	0.64
3:AJ:31:LEU:HG	3:DV:117:LEU:HD11	1.80	0.64
3:BG:35:ARG:HH12	3:BG:42:GLU:HB3	1.61	0.64
1:R:972:A:N6	1:R:991:C:O2'	2.31	0.64
1:R:2475:U:H2'	1:R:2476:C:C5	2.33	0.64
1:R:2870:U:H2'	1:R:2871:G:H8	1.62	0.64
1:R:2992:C:H2'	1:R:2993:G:H8	1.62	0.64
1:R:3791:U:H2'	1:R:3792:G:H8	1.63	0.64
3:AP:60:LYS:HB3	3:AP:71:MET:HE1	1.79	0.64
3:Ac:2:ASN:HA	3:FD:128:THR:HA	1.79	0.64
3:BH:60:LYS:HD2	3:BH:61:PRO:HD2	1.79	0.64
3:CZ:56:ARG:NH1	3:FP:91:THR:OG1	2.29	0.64
3:EM:35:ARG:NH1	3:EM:42:GLU:OE2	2.31	0.64
3:FZ:8:ILE:HB	3:FZ:16:VAL:HG23	1.79	0.64
3:FZ:22:ARG:NH2	3:FZ:55:LYS:O	2.31	0.64
3:GV:85:SER:OG	3:GV:88:ASN:ND2	2.24	0.64
1:R:2602:G:O2'	1:R:2627:G:N2	2.31	0.63
1:R:2611:A:H2'	1:R:2612:G:C8	2.33	0.63
1:R:2781:A:H2'	1:R:2782:A:H8	1.63	0.63
1:R:3041:U:O4	1:R:3042:A:N6	2.30	0.63
3:AV:101:ARG:HH21	3:AV:124:VAL:HG11	1.61	0.63
3:BP:31:LEU:HD13	3:CA:117:LEU:HD21	1.79	0.63
3:CH:74:GLU:OE2	3:DE:88:ASN:ND2	2.31	0.63
3:Cc:124:VAL:HB	3:GD:2:ASN:HB2	1.79	0.63
3:DA:87:GLU:HG3	3:GM:59:PRO:HG3	1.79	0.63
3:FS:66:ASP:HB2	3:FS:69:VAL:HB	1.79	0.63
3:FW:115:GLY:O	3:GB:33:ARG:NH2	2.31	0.63
3:GP:111:ASN:HB2	3:GP:114:LEU:HD12	1.78	0.63
1:R:2771:G:H1	1:R:2802:U:H3	1.44	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:4252:U:H1'	2:b:467:ARG:HH12	1.62	0.63
3:AZ:22:ARG:NH2	3:AZ:55:LYS:O	2.31	0.63
3:BD:22:ARG:NH2	3:BD:55:LYS:O	2.29	0.63
3:BW:60:LYS:NZ	3:BW:64:CYS:O	2.31	0.63
3:CG:8:ILE:HA	3:FU:116:PHE:HB2	1.80	0.63
3:CI:128:THR:O	3:FU:3:LYS:NZ	2.30	0.63
3:DT:3:LYS:HZ1	3:ES:129:THR:HG23	1.62	0.63
3:EO:35:ARG:HG3	3:EO:42:GLU:OE2	1.97	0.63
3:FQ:34:GLN:HE22	3:FQ:36:VAL:HB	1.63	0.63
3:Gc:89:LEU:HD21	3:Gc:93:LYS:HE2	1.80	0.63
1:R:141:A:O2'	1:R:142:A:N7	2.25	0.63
1:R:1071:U:H5''	1:R:1072:A:H5'	1.79	0.63
3:AO:35:ARG:NH1	3:AO:42:GLU:OE2	2.30	0.63
3:Ac:19:ASP:OD2	3:Ac:21:THR:OG1	2.15	0.63
3:BZ:115:GLY:O	3:FL:33:ARG:NH2	2.29	0.63
3:CF:3:LYS:NZ	3:Fc:128:THR:O	2.31	0.63
3:CK:96:TRP:HD1	3:DH:78:ILE:HD13	1.62	0.63
3:CO:35:ARG:HH11	3:CO:42:GLU:HG2	1.62	0.63
3:CV:35:ARG:NH1	3:CV:44:ASN:OD1	2.23	0.63
3:EI:35:ARG:NH1	3:EI:44:ASN:OD1	2.26	0.63
1:R:876:G:H2'	1:R:877:G:H8	1.62	0.63
1:R:1589:G:N2	1:R:1693:U:O2	2.30	0.63
1:R:1817:C:H2'	1:R:1818:A:H8	1.63	0.63
3:AB:107:PHE:O	3:DI:93:LYS:NZ	2.31	0.63
3:AV:128:THR:O	3:EH:3:LYS:NZ	2.28	0.63
3:BH:39:GLY:HA2	3:ET:72:PRO:HG2	1.80	0.63
3:CM:2:ASN:HA	3:DO:128:THR:HA	1.79	0.63
3:EV:30:SER:OG	3:EV:49:GLN:OE1	2.16	0.63
1:R:1313:A:O2'	1:R:1541:G:N2	2.31	0.63
1:R:1821:G:OP2	3:CA:79:ARG:NH2	2.32	0.63
1:R:1910:G:H21	1:R:1922:A:N6	1.90	0.63
1:R:2452:C:H2'	1:R:2453:A:H8	1.64	0.63
1:R:2925:G:N7	3:FB:38:VAL:HG13	2.13	0.63
3:AN:57:PRO:HA	3:AN:73:ASN:HA	1.81	0.63
3:BI:81:VAL:HB	3:BV:79:ARG:HB2	1.81	0.63
3:CF:56:ARG:NH1	3:Fc:91:THR:OG1	2.31	0.63
3:CN:60:LYS:NZ	3:CN:64:CYS:SG	2.71	0.63
3:CX:2:ASN:HB2	3:GJ:124:VAL:HG13	1.81	0.63
3:DC:33:ARG:NH2	3:FS:115:GLY:O	2.31	0.63
3:DQ:88:ASN:ND2	3:EP:74:GLU:OE2	2.31	0.63
3:EU:3:LYS:NZ	3:FB:128:THR:O	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:FD:51:VAL:HG22	3:FD:79:ARG:HG3	1.80	0.63
1:R:3024:G:N2	1:R:3851:C:O2	2.31	0.63
2:a:148:ILE:HG22	2:a:149:ASP:H	1.63	0.63
2:b:386:ILE:N	2:b:395:GLU:O	2.32	0.63
3:AI:2:ASN:HB2	3:FM:124:VAL:HB	1.79	0.63
3:AM:57:PRO:HA	3:AM:73:ASN:HA	1.81	0.63
3:BA:55:LYS:NZ	3:BA:75:ASN:OD1	2.27	0.63
3:DN:58:ALA:HB1	3:EV:88:ASN:HD21	1.62	0.63
1:R:1431:U:O2	1:R:1444:G:N2	2.32	0.63
1:R:2168:C:O2'	3:BS:13:ASN:OD1	2.17	0.63
1:R:3895:C:H42	1:R:3938:U:H3	1.46	0.63
1:R:4043:U:H2'	1:R:4044:G:C8	2.34	0.63
2:a:222:TRP:HE1	2:a:504:LEU:HA	1.63	0.63
3:AH:107:PHE:O	3:DF:93:LYS:NZ	2.32	0.63
3:AJ:19:ASP:OD2	3:AJ:21:THR:OG1	2.14	0.63
3:BJ:60:LYS:HD3	3:BJ:61:PRO:HD2	1.81	0.63
3:CI:2:ASN:HB2	3:FU:124:VAL:HG22	1.80	0.63
3:CM:93:LYS:NZ	3:DO:107:PHE:O	2.30	0.63
3:DB:128:THR:O	3:GI:3:LYS:NZ	2.31	0.63
3:DJ:115:GLY:O	3:GV:33:ARG:NH1	2.32	0.63
3:EV:22:ARG:NH2	3:EV:55:LYS:O	2.26	0.63
3:GL:89:LEU:HD21	3:GL:93:LYS:HE3	1.81	0.63
1:R:1165:A:OP1	3:GM:75:ASN:ND2	2.32	0.63
1:R:1291:C:N4	1:R:1292:G:O6	2.32	0.63
1:R:2519:U:OP1	1:R:2523:A:O2'	2.16	0.63
3:BM:57:PRO:HA	3:BM:73:ASN:HA	1.79	0.63
3:CF:35:ARG:NH2	3:CF:44:ASN:OD1	2.32	0.63
3:CG:124:VAL:HB	3:EA:2:ASN:HB2	1.81	0.63
3:CL:115:GLY:O	3:FX:33:ARG:NH2	2.32	0.63
1:R:179:A:H2'	1:R:180:U:C6	2.34	0.63
1:R:3240:G:H1	1:R:3267:U:H3	1.46	0.63
1:R:4115:A:H2'	1:R:4116:G:C8	2.34	0.63
3:BQ:74:GLU:OE1	3:FC:88:ASN:ND2	2.30	0.63
3:DE:57:PRO:HA	3:DE:73:ASN:HA	1.81	0.63
3:DJ:124:VAL:HG12	3:GV:2:ASN:HB2	1.81	0.63
3:ED:14:LYS:HD2	3:ED:30:SER:HB2	1.81	0.63
3:Ec:97:GLU:HA	3:Ec:100:LYS:HD3	1.81	0.63
3:GM:37:LYS:NZ	3:GM:38:VAL:O	2.28	0.63
1:R:354:U:H2'	1:R:355:G:C8	2.34	0.62
2:a:118:VAL:HG12	2:a:495:VAL:HG22	1.79	0.62
3:AF:33:ARG:NH2	3:FJ:115:GLY:O	2.31	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BF:66:ASP:OD2	3:BF:67:ALA:N	2.32	0.62
3:CP:115:GLY:O	3:Dc:33:ARG:NH2	2.29	0.62
3:DD:2:ASN:HB2	3:GP:124:VAL:HB	1.81	0.62
3:FU:22:ARG:NH2	3:FU:55:LYS:O	2.32	0.62
3:FW:66:ASP:OD1	3:FW:66:ASP:C	2.41	0.62
3:GF:38:VAL:HG22	3:GQ:72:PRO:HG2	1.81	0.62
1:R:3460:C:H2'	1:R:3461:C:C6	2.33	0.62
3:AB:79:ARG:HH21	3:DI:81:VAL:HG13	1.64	0.62
3:AL:3:LYS:NZ	3:EX:128:THR:O	2.32	0.62
3:AV:38:VAL:HG22	3:EH:72:PRO:HG2	1.81	0.62
3:BO:33:ARG:NH2	3:EG:115:GLY:O	2.29	0.62
3:CB:56:ARG:HD3	3:CB:57:PRO:HD2	1.80	0.62
3:CC:31:LEU:HD13	3:FO:115:GLY:HA2	1.80	0.62
3:CF:44:ASN:ND2	3:CF:87:GLU:OE2	2.21	0.62
3:CN:5:MET:HG2	3:CN:17:TRP:HB3	1.80	0.62
3:DE:98:THR:HG21	3:DE:126:SER:HA	1.82	0.62
3:GF:3:LYS:NZ	3:GQ:128:THR:O	2.32	0.62
3:GM:35:ARG:NH1	3:GM:42:GLU:HG3	2.15	0.62
1:R:244:G:H2'	1:R:245:A:H8	1.64	0.62
1:R:721:G:H2'	1:R:722:G:H8	1.64	0.62
1:R:2613:A:OP1	3:AO:75:ASN:ND2	2.30	0.62
3:BI:5:MET:HG2	3:BI:17:TRP:HB3	1.81	0.62
3:DD:74:GLU:OE2	3:GP:88:ASN:ND2	2.29	0.62
3:DJ:56:ARG:NH2	3:GV:95:GLU:OE2	2.26	0.62
3:DL:5:MET:HB3	3:DL:17:TRP:HB3	1.82	0.62
3:EC:128:THR:O	3:FH:3:LYS:NZ	2.27	0.62
3:EO:56:ARG:NH1	3:EO:76:GLN:OE1	2.32	0.62
3:EU:128:THR:HA	3:FB:2:ASN:HA	1.80	0.62
3:FG:60:LYS:HE3	3:FG:61:PRO:HD2	1.81	0.62
1:R:441:C:H2'	1:R:442:A:C8	2.34	0.62
1:R:467:G:H2'	1:R:468:A:C8	2.35	0.62
1:R:1307:C:N4	1:R:1308:G:O6	2.33	0.62
1:R:2038:U:H2'	1:R:2039:G:C8	2.33	0.62
2:b:73:ARG:NH2	2:b:176:ARG:O	2.32	0.62
3:AQ:98:THR:HG21	3:AQ:126:SER:HB2	1.80	0.62
3:BT:128:THR:O	3:FF:3:LYS:NZ	2.33	0.62
3:CM:78:ILE:HG23	3:DO:82:ILE:HG12	1.79	0.62
3:FG:56:ARG:HD3	3:FG:57:PRO:HD2	1.81	0.62
3:FM:37:LYS:HZ1	3:FM:41:ALA:H	1.47	0.62
1:R:528:G:N2	1:R:537:U:O2	2.27	0.62
1:R:928:A:H2'	1:R:929:A:C8	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2761:G:H2'	1:R:2762:G:C8	2.34	0.62
3:BN:56:ARG:NH2	3:EZ:95:GLU:OE2	2.32	0.62
3:BZ:2:ASN:HB2	3:FL:124:VAL:HG22	1.82	0.62
3:CJ:91:THR:HG21	3:ED:56:ARG:HD2	1.80	0.62
3:CU:128:THR:O	3:GG:3:LYS:NZ	2.32	0.62
3:DM:128:THR:O	3:GY:3:LYS:NZ	2.32	0.62
3:EH:34:GLN:NE2	3:EH:35:ARG:O	2.33	0.62
3:EI:38:VAL:HG23	3:EI:39:GLY:H	1.65	0.62
3:FT:91:THR:OG1	3:FY:56:ARG:NH1	2.33	0.62
1:R:1547:U:H2'	1:R:1548:G:H8	1.64	0.62
1:R:2285:G:N2	1:R:2287:C:OP1	2.33	0.62
1:R:2951:U:H2'	1:R:2952:G:H8	1.64	0.62
3:CO:31:LEU:HD22	3:GA:117:LEU:HD11	1.81	0.62
3:DB:80:THR:HG22	3:GI:80:THR:HG22	1.82	0.62
3:ET:24:SER:HB2	3:ET:55:LYS:HG3	1.81	0.62
3:ET:39:GLY:O	3:ET:40:ILE:HG22	2.00	0.62
1:R:1938:U:H2'	1:R:1939:C:C6	2.35	0.62
1:R:2276:U:H3	1:R:2297:U:H3	1.47	0.62
1:R:2555:C:H4'	1:R:2556:G:H5'	1.80	0.62
1:R:3250:U:N3	1:R:3257:G:N1	2.47	0.62
1:R:4174:A:N1	1:R:4189:A:N6	2.48	0.62
2:a:28:ALA:O	2:a:164:ARG:NH1	2.32	0.62
3:AV:124:VAL:HG13	3:EH:2:ASN:HB2	1.80	0.62
3:BH:115:GLY:O	3:ET:33:ARG:NH2	2.28	0.62
3:BS:56:ARG:NH1	3:BU:91:THR:OG1	2.33	0.62
3:EJ:57:PRO:HA	3:EJ:73:ASN:HA	1.81	0.62
3:GU:35:ARG:NH2	3:GU:44:ASN:OD1	2.32	0.62
1:R:15:A:N1	1:R:75:C:N4	2.47	0.62
1:R:644:U:H2'	1:R:645:A:C8	2.34	0.62
1:R:1550:U:H2'	1:R:1551:G:C8	2.35	0.62
1:R:3972:G:H1	1:R:4043:U:H3	1.47	0.62
3:BG:49:GLN:HG3	3:BG:81:VAL:HG12	1.81	0.62
3:BH:128:THR:O	3:ET:3:LYS:NZ	2.33	0.62
3:CC:31:LEU:HD23	3:CC:48:GLY:HA2	1.82	0.62
3:CN:89:LEU:HD21	3:CN:93:LYS:HE2	1.80	0.62
3:DB:49:GLN:HG2	3:DB:81:VAL:HG12	1.81	0.62
3:EJ:22:ARG:NH2	3:EJ:55:LYS:O	2.33	0.62
3:Ec:85:SER:OG	3:Ec:88:ASN:OD1	2.18	0.62
3:EU:2:ASN:HB2	3:FB:124:VAL:HB	1.82	0.62
3:Gc:35:ARG:NH1	3:Gc:42:GLU:OE2	2.32	0.62
1:R:549:C:H2'	1:R:550:A:C8	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1188:G:H2'	1:R:1189:A:H8	1.65	0.62
3:AJ:124:VAL:HB	3:DV:2:ASN:HB2	1.80	0.62
3:AY:51:VAL:HG12	3:AY:79:ARG:HG3	1.82	0.62
3:BS:57:PRO:HA	3:BS:73:ASN:HA	1.80	0.62
3:Dc:98:THR:HG21	3:Dc:126:SER:HA	1.82	0.62
3:EM:22:ARG:NH2	3:EM:55:LYS:O	2.31	0.62
3:GW:49:GLN:OE1	3:GW:79:ARG:NH2	2.33	0.62
1:R:342:C:H2'	1:R:343:G:H8	1.64	0.62
1:R:401:G:H1	1:R:408:U:H3	1.48	0.62
1:R:633:U:H2'	1:R:634:A:C8	2.34	0.62
1:R:1233:G:N2	1:R:1233:G:OP2	2.31	0.62
1:R:2749:C:H2'	1:R:2750:C:H5	1.64	0.62
3:BH:93:LYS:NZ	3:ET:107:PHE:O	2.33	0.62
3:BP:85:SER:OG	3:BP:88:ASN:OD1	2.17	0.62
3:CG:57:PRO:HA	3:CG:73:ASN:HA	1.80	0.62
3:CK:36:VAL:HG23	3:CK:43:LEU:HB3	1.82	0.62
3:CS:67:ALA:HB1	3:GG:64:CYS:HA	1.82	0.62
3:DV:35:ARG:NH2	3:DV:44:ASN:OD1	2.33	0.62
3:EO:82:ILE:HG22	3:FE:78:ILE:HG23	1.81	0.62
1:R:580:C:H2'	1:R:581:G:C8	2.34	0.61
1:R:2169:G:H1	1:R:2176:U:H3	1.47	0.61
1:R:2309:G:H2'	1:R:2310:A:C8	2.35	0.61
3:AL:98:THR:HG21	3:AL:126:SER:HB3	1.82	0.61
3:AO:89:LEU:HD21	3:AO:93:LYS:HE3	1.82	0.61
3:BK:117:LEU:HD13	3:EW:15:ILE:HG12	1.82	0.61
3:BT:33:ARG:NH1	3:FF:115:GLY:O	2.33	0.61
3:CT:6:GLN:HB2	3:DU:116:PHE:HE2	1.65	0.61
3:CW:93:LYS:NZ	3:FV:108:ALA:O	2.33	0.61
3:DL:51:VAL:HG22	3:DL:79:ARG:HG2	1.81	0.61
3:DV:68:CYS:O	3:DV:69:VAL:C	2.43	0.61
1:R:2471:U:H2'	1:R:2472:C:C6	2.34	0.61
1:R:2925:G:O2'	1:R:2926:A:O4'	2.18	0.61
3:AX:96:TRP:HE3	3:EL:78:ILE:HD11	1.65	0.61
3:BN:51:VAL:HG22	3:BN:79:ARG:HG2	1.82	0.61
3:BW:95:GLU:OE2	3:FI:56:ARG:NH2	2.33	0.61
3:CF:31:LEU:HD21	3:Fc:117:LEU:HD21	1.82	0.61
3:DZ:57:PRO:HA	3:DZ:73:ASN:HA	1.82	0.61
3:EO:33:ARG:NH2	3:FE:115:GLY:O	2.30	0.61
3:EV:85:SER:OG	3:EV:88:ASN:OD1	2.18	0.61
3:AM:2:ASN:HB2	3:DY:124:VAL:HB	1.82	0.61
3:AN:114:LEU:HD12	3:CN:89:LEU:HD13	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AV:79:ARG:HB2	3:EH:81:VAL:HG22	1.81	0.61
3:CN:37:LYS:NZ	3:CN:40:ILE:HA	2.15	0.61
3:CP:5:MET:HG2	3:CP:17:TRP:HB3	1.82	0.61
3:DT:124:VAL:HB	3:ES:2:ASN:HB2	1.81	0.61
3:FJ:87:GLU:N	3:FJ:87:GLU:OE1	2.33	0.61
3:GC:5:MET:HB3	3:GC:17:TRP:HB3	1.82	0.61
3:GL:19:ASP:OD2	3:GL:21:THR:OG1	2.15	0.61
1:R:124:A:H2'	1:R:125:G:H8	1.65	0.61
1:R:1149:U:H2'	1:R:1150:G:H8	1.66	0.61
1:R:2451:U:HO2'	1:R:2649:U:H3	1.47	0.61
1:R:2546:G:O2'	1:R:2548:G:N7	2.32	0.61
3:AE:87:GLU:OE1	3:AE:87:GLU:N	2.33	0.61
3:AS:115:GLY:O	3:EE:33:ARG:NH1	2.33	0.61
3:AY:82:ILE:HG12	3:EK:78:ILE:HG23	1.82	0.61
3:Be:95:GLU:OE2	3:EJ:56:ARG:NH2	2.32	0.61
3:CH:60:LYS:HD2	3:CH:61:PRO:HD2	1.80	0.61
3:DS:35:ARG:NE	3:DS:42:GLU:OE2	2.33	0.61
3:GA:44:ASN:ND2	3:GA:87:GLU:OE2	2.33	0.61
1:R:969:C:OP2	1:R:993:C:N4	2.23	0.61
1:R:2253:G:H2'	1:R:2254:G:H8	1.66	0.61
3:AL:35:ARG:HH21	3:AL:42:GLU:HB3	1.64	0.61
3:AX:124:VAL:HG13	3:EL:2:ASN:HB2	1.83	0.61
3:AY:22:ARG:NH2	3:AY:55:LYS:O	2.33	0.61
3:BQ:89:LEU:HD11	3:FC:113:GLY:HA3	1.83	0.61
3:BW:59:PRO:HD2	3:BW:71:MET:HG3	1.82	0.61
3:DO:96:TRP:NE1	3:DO:100:LYS:HE2	2.15	0.61
3:DW:56:ARG:NH1	3:FK:91:THR:OG1	2.33	0.61
3:EO:59:PRO:HG3	3:FE:87:GLU:HG3	1.80	0.61
1:R:1375:C:H2'	1:R:1376:G:H8	1.66	0.61
1:R:4171:A:N7	1:R:4221:A:O2'	2.33	0.61
3:AY:79:ARG:HB3	3:EK:81:VAL:HG22	1.81	0.61
3:AZ:100:LYS:HD2	3:BG:100:LYS:HD3	1.83	0.61
3:CE:123:ILE:HG22	3:DK:5:MET:HE2	1.83	0.61
3:CI:55:LYS:HE3	3:CI:75:ASN:HB3	1.83	0.61
3:DY:66:ASP:OD1	3:DY:67:ALA:N	2.29	0.61
3:EU:104:ASP:OD1	3:FB:96:TRP:NE1	2.30	0.61
3:EV:98:THR:HG21	3:EV:126:SER:HA	1.82	0.61
3:FA:101:ARG:HH21	3:FA:124:VAL:HG11	1.66	0.61
3:GA:96:TRP:CE2	3:GA:100:LYS:HD3	2.35	0.61
1:R:167:G:H2'	1:R:168:C:C6	2.36	0.61
1:R:525:U:H2'	1:R:526:G:C8	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:735:U:H2'	1:R:736:G:C8	2.35	0.61
1:R:950:U:H2'	1:R:951:C:C6	2.36	0.61
1:R:3273:G:O2'	1:R:3277:U:OP1	2.19	0.61
1:R:3385:U:H2'	1:R:3386:A:C8	2.36	0.61
3:AN:34:GLN:O	3:AN:45:ASN:N	2.32	0.61
3:AP:14:LYS:HG3	3:AP:30:SER:HB2	1.82	0.61
3:BF:91:THR:OG1	3:CB:56:ARG:NH1	2.34	0.61
3:BS:78:ILE:HG22	3:BU:82:ILE:HA	1.83	0.61
1:R:2653:U:H2'	1:R:2654:G:C8	2.35	0.61
1:R:2913:G:H2'	1:R:2914:A:H8	1.66	0.61
1:R:3730:U:H4'	1:R:3731:U:H3'	1.82	0.61
2:b:62:ASP:OD2	2:b:135:GLN:NE2	2.33	0.61
3:AL:85:SER:OG	3:AL:88:ASN:OD1	2.19	0.61
3:AV:93:LYS:NZ	3:EH:107:PHE:O	2.34	0.61
3:BN:15:ILE:HD12	3:EZ:117:LEU:HG	1.82	0.61
3:DM:71:MET:N	3:DM:71:MET:SD	2.73	0.61
3:EY:43:LEU:HD11	3:EY:85:SER:HB2	1.83	0.61
3:FQ:59:PRO:HD3	3:GE:88:ASN:HD21	1.65	0.61
3:FW:89:LEU:HD13	3:GB:114:LEU:HD22	1.82	0.61
2:b:116:ILE:HD11	2:b:461:GLY:H	1.65	0.61
3:AQ:88:ASN:ND2	3:CQ:74:GLU:OE2	2.34	0.61
3:Ac:87:GLU:HG2	3:Ac:88:ASN:N	2.16	0.61
3:AU:56:ARG:NH2	3:EI:95:GLU:OE2	2.34	0.61
3:AX:51:VAL:HG22	3:AX:79:ARG:HG2	1.82	0.61
3:BM:31:LEU:HD13	3:BX:117:LEU:HD21	1.82	0.61
3:EE:63:GLY:O	3:EE:64:CYS:C	2.44	0.61
1:R:1072:A:H2'	1:R:1073:U:C6	2.36	0.61
1:R:1282:C:H2'	1:R:1283:U:H6	1.66	0.61
1:R:2048:U:O2'	1:R:2050:C:N4	2.34	0.61
1:R:2281:U:O4	1:R:2282:A:N6	2.34	0.61
1:R:2859:G:N2	1:R:2870:U:O2	2.23	0.61
1:R:3349:G:O2'	1:R:3351:A:OP1	2.19	0.61
3:AN:33:ARG:NH2	3:CN:115:GLY:O	2.27	0.61
3:CS:14:LYS:HD3	3:CS:30:SER:HB3	1.82	0.61
3:CW:2:ASN:HB2	3:FV:124:VAL:HG12	1.83	0.61
3:CW:95:GLU:HA	3:CW:98:THR:HG22	1.82	0.61
3:DQ:55:LYS:NZ	3:DQ:75:ASN:OD1	2.27	0.61
3:Ec:18:SER:HB3	3:Ec:26:THR:HG22	1.81	0.61
3:FE:5:MET:HB3	3:FE:17:TRP:HB3	1.82	0.61
3:FM:60:LYS:HD2	3:FM:65:ALA:HA	1.82	0.61
3:GC:66:ASP:CG	3:GC:67:ALA:H	2.09	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GL:56:ARG:NH1	3:GL:76:GLN:OE1	2.32	0.61
3:GW:58:ALA:HB3	3:GW:71:MET:HG3	1.83	0.61
1:R:328:G:N2	1:R:369:U:O2	2.34	0.60
1:R:1256:U:O4	1:R:1270:G:O6	2.19	0.60
1:R:2441:U:O2'	1:R:2442:G:N7	2.30	0.60
2:a:221:VAL:HG22	2:a:407:VAL:HG12	1.82	0.60
3:AJ:91:THR:HG21	3:DV:56:ARG:HD2	1.83	0.60
3:BJ:22:ARG:NH2	3:BJ:55:LYS:O	2.34	0.60
3:BT:71:MET:SD	3:BT:71:MET:N	2.70	0.60
3:CV:111:ASN:HB2	3:CV:114:LEU:HD12	1.82	0.60
3:DW:124:VAL:HB	3:FK:2:ASN:HB2	1.83	0.60
3:EH:111:ASN:HB3	3:EH:114:LEU:HD12	1.84	0.60
1:R:942:G:H2'	1:R:943:G:H8	1.65	0.60
1:R:1600:G:N2	1:R:1656:U:O2	2.23	0.60
1:R:2373:A:O2'	1:R:2375:U:OP2	2.18	0.60
3:AG:3:LYS:NZ	3:DS:128:THR:O	2.32	0.60
3:AP:114:LEU:HD13	3:DZ:6:GLN:HE21	1.65	0.60
3:AQ:15:ILE:HG13	3:CQ:117:LEU:HD13	1.84	0.60
3:BS:101:ARG:HH12	3:BS:124:VAL:HG21	1.66	0.60
3:BU:35:ARG:HG2	3:BU:42:GLU:OE2	2.01	0.60
3:DG:33:ARG:NH1	3:GS:115:GLY:O	2.34	0.60
3:DJ:3:LYS:NZ	3:GV:128:THR:O	2.33	0.60
3:DM:60:LYS:HB2	3:DM:71:MET:HE2	1.82	0.60
3:EP:49:GLN:HG3	3:EP:81:VAL:HG12	1.81	0.60
3:FO:89:LEU:HD21	3:FO:93:LYS:HE3	1.82	0.60
3:FS:19:ASP:OD2	3:FS:22:ARG:N	2.34	0.60
1:R:1027:G:H5''	3:DW:9:THR:HG21	1.83	0.60
1:R:1569:C:N4	1:R:1570:G:O6	2.35	0.60
1:R:2499:A:H61	1:R:2542:G:H1	0.71	0.60
1:R:2669:U:H2'	1:R:2670:A:H8	1.66	0.60
1:R:3755:U:OP2	1:R:3802:A:N6	2.34	0.60
3:AO:70:ILE:HD11	3:CN:61:PRO:HG3	1.84	0.60
3:BN:56:ARG:NH1	3:EZ:91:THR:OG1	2.34	0.60
3:CO:128:THR:O	3:GA:3:LYS:NZ	2.33	0.60
3:CS:124:VAL:HB	3:DU:2:ASN:HB2	1.83	0.60
3:DI:37:LYS:NZ	3:DI:38:VAL:O	2.27	0.60
3:FL:44:ASN:ND2	3:FL:87:GLU:OE2	2.31	0.60
3:GV:49:GLN:HG2	3:GV:81:VAL:HG12	1.83	0.60
1:R:994:G:O2'	1:R:1098:C:OP2	2.19	0.60
1:R:1776:C:OP2	1:R:1779:A:N6	2.34	0.60
1:R:2298:G:H2'	1:R:2299:C:C6	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2483:U:O4	1:R:2598:G:O6	2.20	0.60
3:AB:14:LYS:HZ1	3:AB:28:SER:HB2	1.65	0.60
3:AB:82:ILE:HD11	3:AB:92:LEU:HD21	1.83	0.60
3:AI:128:THR:O	3:FM:3:LYS:NZ	2.35	0.60
3:BS:128:THR:O	3:BU:3:LYS:NZ	2.32	0.60
3:CX:129:THR:HB	3:GJ:3:LYS:HE3	1.83	0.60
3:DM:74:GLU:OE2	3:GY:88:ASN:ND2	2.32	0.60
3:DN:43:LEU:HD11	3:DN:85:SER:HB2	1.82	0.60
3:DQ:56:ARG:NH1	3:EP:91:THR:OG1	2.34	0.60
3:DU:51:VAL:HG12	3:DU:79:ARG:HG3	1.82	0.60
3:FQ:87:GLU:HG3	3:GE:59:PRO:HB3	1.83	0.60
3:GC:56:ARG:NH1	3:GW:91:THR:OG1	2.34	0.60
3:GE:14:LYS:NZ	3:GE:28:SER:OG	2.35	0.60
1:R:735:U:H2'	1:R:736:G:H8	1.66	0.60
1:R:1059:A:H2'	1:R:1060:G:C8	2.36	0.60
1:R:2077:G:O6	1:R:2108:U:O4	2.19	0.60
1:R:2478:C:H2'	1:R:2480:C:C6	2.36	0.60
2:b:222:TRP:O	2:b:226:ASN:ND2	2.34	0.60
3:AY:19:ASP:OD2	3:AY:21:THR:OG1	2.16	0.60
3:CA:92:LEU:HD12	3:CA:95:GLU:OE2	2.01	0.60
3:DC:71:MET:N	3:DC:71:MET:SD	2.74	0.60
3:DS:37:LYS:HZ1	3:DS:40:ILE:HG22	1.66	0.60
3:EF:73:ASN:OD1	3:EF:74:GLU:N	2.34	0.60
3:FB:38:VAL:HG21	3:FB:43:LEU:HB2	1.84	0.60
3:FF:56:ARG:HD3	3:FF:57:PRO:HD2	1.83	0.60
3:FL:19:ASP:OD2	3:FL:21:THR:OG1	2.14	0.60
3:FV:60:LYS:NZ	3:FV:64:CYS:O	2.27	0.60
1:R:1821:G:H2'	1:R:1822:A:C8	2.37	0.60
1:R:3728:U:O5'	2:a:108:GLN:NE2	2.35	0.60
3:AC:70:ILE:HD11	3:DI:61:PRO:HG3	1.84	0.60
3:AC:128:THR:HA	3:FG:2:ASN:HB2	1.83	0.60
3:BB:3:LYS:NZ	3:EN:128:THR:O	2.34	0.60
3:CH:11:THR:HG22	3:CH:12:ALA:H	1.66	0.60
3:CO:22:ARG:NH2	3:CO:55:LYS:O	2.34	0.60
3:DS:60:LYS:H	3:DS:71:MET:HE3	1.65	0.60
3:FG:54:TYR:HE2	3:FG:56:ARG:HE	1.48	0.60
1:R:775:C:H2'	1:R:776:C:H4'	1.82	0.60
1:R:998:C:H2'	1:R:999:G:C8	2.37	0.60
1:R:1473:U:H2'	1:R:1474:A:C8	2.37	0.60
1:R:1563:C:H2'	1:R:1564:G:H8	1.67	0.60
1:R:3038:C:H2'	1:R:3039:A:H8	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:4064:G:H2'	1:R:4065:G:C8	2.37	0.60
2:a:91:ILE:HD11	2:a:131:LEU:HD12	1.82	0.60
2:a:526:SER:O	2:a:530:ILE:HG12	2.02	0.60
3:AL:116:PHE:HE2	3:EY:6:GLN:HB2	1.66	0.60
3:AX:123:ILE:HG22	3:EL:5:MET:HE2	1.83	0.60
3:BT:2:ASN:HB2	3:FF:124:VAL:HB	1.84	0.60
3:CK:3:LYS:NZ	3:DH:128:THR:O	2.34	0.60
3:Cc:55:LYS:HZ3	3:Cc:75:ASN:HB2	1.67	0.60
3:DF:11:THR:HG22	3:DF:12:ALA:H	1.67	0.60
3:DT:88:ASN:ND2	3:ES:74:GLU:OE2	2.35	0.60
3:DV:57:PRO:HA	3:DV:73:ASN:HA	1.82	0.60
3:Ec:70:ILE:HD11	3:ET:40:ILE:HG23	1.83	0.60
3:EV:16:VAL:HG12	3:EV:28:SER:HB3	1.82	0.60
3:FJ:37:LYS:NZ	3:FJ:38:VAL:O	2.26	0.60
3:FK:85:SER:OG	3:FK:88:ASN:OD1	2.19	0.60
3:GA:56:ARG:NH1	3:GA:76:GLN:OE1	2.35	0.60
3:GH:5:MET:HG2	3:GH:18:SER:C	2.27	0.60
1:R:3885:C:H2'	1:R:3886:A:C8	2.36	0.60
1:R:4242:U:O4	1:R:4243:A:N6	2.35	0.60
3:AQ:4:PRO:HA	3:CQ:124:VAL:HA	1.82	0.60
3:Ac:5:MET:HG2	3:Ac:18:SER:C	2.26	0.60
3:BF:33:ARG:NH1	3:CB:115:GLY:O	2.35	0.60
3:BN:35:ARG:HA	3:BN:44:ASN:HA	1.81	0.60
3:BW:22:ARG:NH1	3:BW:55:LYS:O	2.33	0.60
3:CE:66:ASP:OD1	3:CE:67:ALA:N	2.35	0.60
3:DN:27:PHE:HD2	3:EV:123:ILE:HD11	1.66	0.60
3:Dc:57:PRO:HA	3:Dc:73:ASN:HA	1.84	0.60
3:EY:22:ARG:NH2	3:EY:55:LYS:O	2.35	0.60
3:FQ:56:ARG:HD3	3:FQ:57:PRO:HD2	1.82	0.60
3:GF:115:GLY:O	3:GQ:33:ARG:NH2	2.35	0.60
1:R:1063:C:H2'	1:R:1064:A:C5	2.36	0.60
1:R:1830:U:N3	1:R:1832:G:O6	2.35	0.60
1:R:2452:C:H2'	1:R:2453:A:C8	2.37	0.60
1:R:2782:A:H2'	1:R:2783:G:C8	2.37	0.60
1:R:2822:C:H2'	1:R:2823:G:N7	2.17	0.60
1:R:4170:U:N3	1:R:4223:G:OP1	2.35	0.60
3:BA:71:MET:N	3:BA:71:MET:SD	2.75	0.60
3:BS:35:ARG:NH1	3:BS:36:VAL:O	2.35	0.60
3:BY:14:LYS:HG2	3:BY:30:SER:HB3	1.83	0.60
3:CQ:95:GLU:HA	3:CQ:98:THR:HG22	1.82	0.60
3:DM:37:LYS:HZ3	3:DM:41:ALA:H	1.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:FG:9:THR:HG23	3:FI:12:ALA:HB1	1.84	0.60
3:FQ:31:LEU:HD13	3:GE:115:GLY:HA2	1.83	0.60
3:FW:66:ASP:O	3:FW:68:CYS:N	2.34	0.60
3:GN:115:GLY:O	3:Gc:33:ARG:NH2	2.32	0.60
1:R:1371:A:N6	1:R:1543:G:O4'	2.35	0.60
1:R:2324:A:N7	1:R:2343:A:N6	2.45	0.60
1:R:3241:U:H2'	1:R:3242:A:C8	2.37	0.60
1:R:3576:A:H61	1:R:3579:C:H5	1.49	0.60
1:R:4144:C:H2'	1:R:4145:A:C8	2.36	0.60
1:R:4218:U:O2'	1:R:4268:C:O4'	2.20	0.60
3:AF:36:VAL:HG23	3:AF:43:LEU:HB3	1.83	0.60
3:BQ:98:THR:HG21	3:BQ:126:SER:HA	1.81	0.60
3:BW:124:VAL:HG22	3:FI:2:ASN:HB2	1.84	0.60
3:CC:2:ASN:HB2	3:FO:124:VAL:HB	1.82	0.60
3:CM:5:MET:HG2	3:CM:17:TRP:HB3	1.84	0.60
3:CM:64:CYS:SG	3:CM:65:ALA:N	2.75	0.60
3:CT:35:ARG:HH21	3:CT:44:ASN:HA	1.66	0.60
3:CU:95:GLU:HA	3:CU:98:THR:HG22	1.84	0.60
3:EG:49:GLN:HB3	3:EG:81:VAL:HG22	1.84	0.60
3:EU:85:SER:OG	3:EU:88:ASN:OD1	2.15	0.60
3:GL:111:ASN:HB2	3:GL:114:LEU:HD12	1.83	0.60
1:R:1629:U:H2'	1:R:1630:U:C6	2.36	0.59
1:R:2925:G:N7	3:EU:74:GLU:HB3	2.16	0.59
1:R:4248:U:O2'	2:b:105:GLY:O	2.17	0.59
3:AJ:56:ARG:NH1	3:DV:91:THR:OG1	2.35	0.59
3:BG:19:ASP:OD2	3:BG:22:ARG:N	2.35	0.59
3:BO:128:THR:O	3:EG:3:LYS:NZ	2.33	0.59
3:CM:32:LEU:HG	3:CM:34:GLN:HE22	1.67	0.59
3:CZ:5:MET:HG2	3:CZ:18:SER:C	2.27	0.59
3:DJ:128:THR:HA	3:GV:2:ASN:HA	1.84	0.59
3:DU:14:LYS:HD3	3:DU:30:SER:HB3	1.83	0.59
3:GC:31:LEU:HD13	3:GW:117:LEU:HD21	1.84	0.59
1:R:947:U:O4	1:R:967:A:N6	2.35	0.59
1:R:1707:C:H2'	1:R:1708:G:C8	2.37	0.59
1:R:3359:U:H2'	1:R:3360:A:H8	1.66	0.59
1:R:4011:U:N3	1:R:4014:A:OP2	2.32	0.59
3:BK:36:VAL:HG23	3:BK:43:LEU:HB3	1.83	0.59
3:BW:115:GLY:O	3:FI:33:ARG:NH1	2.35	0.59
3:CM:2:ASN:HD22	3:DO:101:ARG:HH12	1.49	0.59
3:CV:22:ARG:NH2	3:CV:55:LYS:O	2.34	0.59
3:DV:55:LYS:HB3	3:DV:73:ASN:ND2	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:EU:49:GLN:OE1	3:EU:79:ARG:NH2	2.34	0.59
3:GA:30:SER:OG	3:GA:49:GLN:NE2	2.25	0.59
1:R:162:C:OP1	1:R:163:C:N4	2.34	0.59
1:R:328:G:N1	1:R:369:U:N3	2.42	0.59
1:R:700:A:H2'	1:R:701:G:C8	2.37	0.59
1:R:942:G:H2'	1:R:943:G:C8	2.37	0.59
1:R:2320:C:OP1	3:EI:79:ARG:NH1	2.32	0.59
1:R:2884:A:OP2	2:b:296:LYS:NZ	2.34	0.59
1:R:3559:A:H2'	1:R:3560:A:C8	2.37	0.59
3:BK:125:SER:OG	3:BK:126:SER:N	2.35	0.59
3:BS:19:ASP:OD2	3:BS:22:ARG:N	2.30	0.59
3:CL:33:ARG:NH2	3:FX:115:GLY:O	2.33	0.59
3:CO:87:GLU:HG3	3:GA:59:PRO:HG3	1.84	0.59
3:FM:101:ARG:HH21	3:FM:124:VAL:HG21	1.67	0.59
1:R:2253:G:H2'	1:R:2254:G:C8	2.37	0.59
1:R:3359:U:H2'	1:R:3360:A:C8	2.37	0.59
3:AZ:56:ARG:HD3	3:AZ:57:PRO:HD2	1.84	0.59
3:BK:100:LYS:HD2	3:EW:100:LYS:HD3	1.84	0.59
3:BL:115:GLY:O	3:EM:33:ARG:NH1	2.35	0.59
3:CF:38:VAL:HG23	3:CF:39:GLY:H	1.68	0.59
3:FQ:89:LEU:HD21	3:FQ:93:LYS:HE3	1.84	0.59
3:FU:66:ASP:OD1	3:FU:67:ALA:N	2.36	0.59
1:R:17:G:O2'	1:R:72:A:N6	2.34	0.59
1:R:844:U:O2	1:R:852:G:N2	2.33	0.59
1:R:3308:C:N4	1:R:3309:G:O6	2.35	0.59
3:AV:87:GLU:HG3	3:EH:59:PRO:HG3	1.84	0.59
3:BD:11:THR:HG22	3:BD:12:ALA:H	1.67	0.59
3:BN:74:GLU:OE2	3:EZ:88:ASN:ND2	2.29	0.59
3:BO:37:LYS:HE2	3:BO:40:ILE:HA	1.84	0.59
3:BP:55:LYS:NZ	3:BP:75:ASN:OD1	2.35	0.59
3:DN:91:THR:HG21	3:EV:56:ARG:HD2	1.85	0.59
3:DW:51:VAL:HG22	3:DW:79:ARG:HG2	1.85	0.59
3:EO:19:ASP:OD2	3:EO:21:THR:OG1	2.19	0.59
3:FI:37:LYS:NZ	3:FI:38:VAL:O	2.30	0.59
3:FL:98:THR:HG21	3:FL:126:SER:HA	1.84	0.59
3:FW:31:LEU:HD13	3:GB:117:LEU:HD21	1.84	0.59
3:GN:107:PHE:O	3:Gc:93:LYS:NZ	2.34	0.59
1:R:145:G:O6	1:R:146:A:N6	2.35	0.59
1:R:1334:U:H2'	1:R:1335:G:C8	2.38	0.59
1:R:3707:C:H2'	1:R:3708:G:H8	1.67	0.59
1:R:3750:C:H41	1:R:3808:A:H61	1.49	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:4092:A:OP2	3:CG:79:ARG:NH2	2.36	0.59
1:R:4238:C:H2'	1:R:4239:G:H8	1.67	0.59
3:AW:6:GLN:HE21	3:EK:114:LEU:HD11	1.66	0.59
3:BS:31:LEU:HD13	3:BU:117:LEU:HD11	1.85	0.59
3:CI:3:LYS:NZ	3:FU:128:THR:O	2.35	0.59
3:CO:31:LEU:HA	3:CO:48:GLY:HA2	1.84	0.59
3:CZ:31:LEU:HD13	3:FP:117:LEU:HD21	1.85	0.59
3:Dc:11:THR:HG22	3:Dc:12:ALA:H	1.66	0.59
3:EA:19:ASP:OD2	3:EA:22:ARG:N	2.28	0.59
3:ES:5:MET:HG2	3:ES:18:SER:C	2.27	0.59
3:EW:98:THR:HG21	3:EW:126:SER:HA	1.85	0.59
3:GI:56:ARG:HD3	3:GI:57:PRO:HD2	1.85	0.59
1:R:1064:A:H2'	1:R:1065:U:C6	2.38	0.59
1:R:2913:G:H2'	1:R:2914:A:C8	2.37	0.59
1:R:3408:G:H2'	1:R:3409:A:C8	2.38	0.59
3:AP:33:ARG:NH2	3:EB:115:GLY:O	2.36	0.59
3:BE:114:LEU:HD12	3:EO:6:GLN:HG2	1.85	0.59
3:BG:14:LYS:NZ	3:BG:28:SER:OG	2.35	0.59
3:BV:65:ALA:O	3:BV:66:ASP:C	2.44	0.59
3:BY:8:ILE:HB	3:BY:16:VAL:HG23	1.85	0.59
3:CL:92:LEU:HD12	3:FX:76:GLN:HG2	1.84	0.59
3:CL:98:THR:HG21	3:CL:126:SER:HA	1.84	0.59
3:CQ:5:MET:HE1	3:CQ:18:SER:C	2.27	0.59
3:DB:98:THR:HG21	3:DB:126:SER:HA	1.85	0.59
3:DI:49:GLN:OE1	3:DI:79:ARG:NH2	2.36	0.59
3:EK:55:LYS:NZ	3:EK:75:ASN:HB3	2.18	0.59
3:GC:62:GLU:O	3:GC:63:GLY:C	2.46	0.59
3:GX:51:VAL:HG22	3:GX:79:ARG:HG2	1.84	0.59
1:R:2002:U:H2'	1:R:2003:G:H8	1.68	0.59
1:R:2052:G:H2'	1:R:2053:G:H8	1.68	0.59
1:R:2677:G:O2'	1:R:2691:A:N7	2.32	0.59
1:R:3288:C:H2'	1:R:3289:G:C8	2.37	0.59
1:R:3324:G:H2'	1:R:3325:A:H8	1.68	0.59
2:a:230:MET:HA	2:a:230:MET:HE3	1.84	0.59
3:AC:57:PRO:HA	3:AC:73:ASN:HA	1.83	0.59
3:AU:76:GLN:HE21	3:EI:92:LEU:HD13	1.67	0.59
3:BW:117:LEU:HD21	3:FI:31:LEU:HG	1.84	0.59
3:BZ:60:LYS:NZ	3:BZ:64:CYS:O	2.32	0.59
3:CP:38:VAL:HG21	3:CP:43:LEU:HD23	1.84	0.59
3:DJ:78:ILE:HG22	3:GV:82:ILE:HA	1.83	0.59
3:EC:55:LYS:NZ	3:EC:75:ASN:OD1	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:EK:5:MET:HG2	3:EK:18:SER:C	2.28	0.59
3:GE:33:ARG:HG3	3:GE:46:VAL:HG12	1.84	0.59
3:GX:64:CYS:SG	3:GX:65:ALA:N	2.75	0.59
1:R:325:G:H2'	1:R:326:G:C8	2.38	0.59
2:a:145:ASP:HB2	2:a:147:ARG:HH22	1.66	0.59
3:AW:60:LYS:O	3:AW:62:GLU:N	2.36	0.59
3:BE:5:MET:HG2	3:BE:18:SER:C	2.28	0.59
3:BF:107:PHE:O	3:CB:93:LYS:NZ	2.36	0.59
3:CG:85:SER:N	3:EA:74:GLU:OE1	2.36	0.59
3:DJ:92:LEU:HA	3:GV:56:ARG:HH22	1.68	0.59
3:DJ:127:ASP:OD2	3:GV:54:TYR:OH	2.19	0.59
3:EA:54:TYR:CD2	3:EA:56:ARG:HG2	2.38	0.59
3:EI:85:SER:OG	3:EI:88:ASN:OD1	2.19	0.59
3:Ec:117:LEU:HD13	3:EY:15:ILE:HG12	1.85	0.59
3:FH:55:LYS:HZ3	3:FH:75:ASN:HB2	1.68	0.59
3:FI:8:ILE:HB	3:FI:16:VAL:HG13	1.83	0.59
3:FQ:124:VAL:HG13	3:GE:2:ASN:HB2	1.85	0.59
1:R:45:G:H2'	1:R:46:A:H8	1.68	0.59
1:R:1348:A:H2'	1:R:1349:A:C8	2.37	0.59
1:R:3472:U:O2	1:R:3476:C:N4	2.36	0.59
3:AB:56:ARG:HH21	3:AB:76:GLN:HE22	1.50	0.59
3:AI:66:ASP:CG	3:AI:67:ALA:H	2.11	0.59
3:Ac:5:MET:HB3	3:Ac:17:TRP:HB3	1.83	0.59
3:BB:2:ASN:HA	3:EN:128:THR:HA	1.85	0.59
3:BG:51:VAL:HG12	3:BG:79:ARG:HG2	1.85	0.59
3:BO:80:THR:HG23	3:EG:80:THR:HG22	1.84	0.59
3:CJ:49:GLN:OE1	3:CJ:79:ARG:NH2	2.35	0.59
3:ET:37:LYS:NZ	3:ET:38:VAL:O	2.35	0.59
3:GQ:14:LYS:HD3	3:GQ:30:SER:HB3	1.83	0.59
1:R:232:U:O2'	1:R:234:C:N4	2.36	0.58
1:R:1586:U:H2'	1:R:1587:U:C6	2.38	0.58
1:R:2585:C:H2'	1:R:2586:G:H8	1.66	0.58
2:b:20:SER:HB3	2:b:33:TRP:HB2	1.84	0.58
3:AE:115:GLY:O	3:DL:33:ARG:NH2	2.29	0.58
3:AL:11:THR:HG22	3:AL:12:ALA:H	1.67	0.58
3:AL:124:VAL:HG22	3:EX:2:ASN:HB2	1.85	0.58
3:AP:19:ASP:OD2	3:AP:22:ARG:N	2.36	0.58
3:BC:5:MET:HB3	3:BY:123:ILE:HB	1.84	0.58
3:BO:56:ARG:NH1	3:BO:76:GLN:OE1	2.36	0.58
3:BQ:56:ARG:O	3:BQ:74:GLU:N	2.36	0.58
3:BS:3:LYS:NZ	3:BU:127:ASP:O	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GA:85:SER:OG	3:GA:87:GLU:OE1	2.21	0.58
3:GM:111:ASN:HB2	3:GM:114:LEU:HD12	1.84	0.58
3:GU:60:LYS:HB3	3:GU:61:PRO:HD2	1.85	0.58
1:R:549:C:N4	1:R:608:C:OP1	2.36	0.58
1:R:555:G:H2'	1:R:556:G:C8	2.38	0.58
1:R:945:U:H2'	1:R:967:A:H5'	1.84	0.58
1:R:1058:A:H2'	1:R:1059:A:C8	2.38	0.58
1:R:1092:G:N2	1:R:1092:G:OP2	2.36	0.58
1:R:2077:G:H1	1:R:2108:U:H3	1.51	0.58
3:AG:115:GLY:O	3:DS:33:ARG:NH2	2.36	0.58
3:AS:34:GLN:NE2	3:AS:35:ARG:O	2.37	0.58
3:CC:19:ASP:OD2	3:CC:21:THR:OG1	2.17	0.58
3:CM:33:ARG:NH1	3:DO:115:GLY:O	2.34	0.58
3:EE:60:LYS:O	3:EE:62:GLU:HG3	2.03	0.58
3:EJ:85:SER:OG	3:EJ:88:ASN:OD1	2.21	0.58
3:EN:37:LYS:NZ	3:EN:38:VAL:O	2.35	0.58
3:FY:85:SER:OG	3:FY:88:ASN:OD1	2.20	0.58
3:GE:106:LEU:HD11	3:GE:123:ILE:HD11	1.86	0.58
3:GF:5:MET:HB3	3:GF:17:TRP:HB3	1.84	0.58
3:GF:51:VAL:HG12	3:GF:79:ARG:HG2	1.85	0.58
3:GG:19:ASP:OD2	3:GG:22:ARG:N	2.34	0.58
1:R:1129:U:H2'	1:R:1130:A:H8	1.68	0.58
1:R:2317:U:H2'	1:R:2318:G:C8	2.38	0.58
1:R:2521:C:H5'	3:GA:79:ARG:NH2	2.17	0.58
2:a:142:PRO:HD2	2:a:187:LYS:HB3	1.85	0.58
2:a:366:ASN:OD1	2:a:367:SER:N	2.35	0.58
3:AG:95:GLU:HG3	3:DS:56:ARG:HH22	1.67	0.58
3:AJ:34:GLN:NE2	3:AJ:35:ARG:O	2.36	0.58
3:AO:10:SER:HA	3:AO:15:ILE:HG22	1.84	0.58
3:AP:60:LYS:CB	3:AP:71:MET:HE1	2.33	0.58
3:BH:60:LYS:NZ	3:BH:61:PRO:O	2.35	0.58
3:BQ:78:ILE:HD11	3:FC:96:TRP:HE3	1.68	0.58
3:BW:107:PHE:O	3:FI:93:LYS:NZ	2.36	0.58
3:DB:5:MET:HG3	3:DB:17:TRP:HB3	1.85	0.58
3:DC:104:ASP:OD1	3:FS:96:TRP:NE1	2.33	0.58
3:GX:60:LYS:O	3:GX:61:PRO:C	2.46	0.58
1:R:379:C:H2'	1:R:380:A:C8	2.38	0.58
1:R:505:G:H2'	1:R:506:A:C8	2.38	0.58
1:R:1182:G:H2'	1:R:1183:C:C6	2.37	0.58
1:R:3919:U:H2'	1:R:3920:U:H2'	1.84	0.58
2:b:11:ILE:HD13	2:b:54:MET:HE1	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AT:59:PRO:O	3:AT:60:LYS:HG3	2.02	0.58
3:BF:114:LEU:HD22	3:CB:89:LEU:HD13	1.85	0.58
3:BQ:115:GLY:O	3:FC:33:ARG:NH1	2.33	0.58
3:CA:54:TYR:HE1	3:CA:56:ARG:HB3	1.67	0.58
3:DO:98:THR:HA	3:DO:101:ARG:HE	1.68	0.58
3:EZ:34:GLN:NE2	3:EZ:35:ARG:O	2.37	0.58
3:FB:9:THR:HB	3:FB:16:VAL:HG22	1.85	0.58
3:FZ:93:LYS:NZ	3:GT:108:ALA:O	2.34	0.58
3:GQ:55:LYS:NZ	3:GQ:75:ASN:OD1	2.36	0.58
3:Gc:8:ILE:HG22	3:Gc:9:THR:HG23	1.85	0.58
1:R:321:U:H2'	1:R:322:A:C8	2.39	0.58
1:R:1015:U:O2'	1:R:1082:A:N6	2.37	0.58
1:R:1143:C:H2'	1:R:1144:G:H8	1.68	0.58
1:R:1852:A:OP1	3:BO:37:LYS:NZ	2.33	0.58
1:R:2235:A:H2'	1:R:2236:G:C8	2.38	0.58
1:R:2848:A:N7	1:R:2856:C:O2'	2.35	0.58
1:R:4199:U:H2'	1:R:4200:A:C8	2.38	0.58
3:Ac:100:LYS:HD3	3:FD:100:LYS:HD2	1.85	0.58
3:AU:116:PHE:CE2	3:EJ:6:GLN:HB2	2.38	0.58
3:BA:8:ILE:HB	3:BA:16:VAL:HG23	1.86	0.58
3:BZ:5:MET:HG2	3:BZ:18:SER:C	2.28	0.58
3:CQ:89:LEU:HD21	3:CQ:93:LYS:HE3	1.86	0.58
3:CT:57:PRO:HA	3:CT:73:ASN:HA	1.85	0.58
3:DG:5:MET:HG2	3:DG:18:SER:C	2.29	0.58
3:DJ:91:THR:HG23	3:GV:56:ARG:CZ	2.33	0.58
3:DN:5:MET:HE3	3:EV:123:ILE:HG23	1.85	0.58
3:DZ:32:LEU:HG	3:DZ:34:GLN:HE22	1.67	0.58
3:FZ:91:THR:OG1	3:GT:56:ARG:NH1	2.35	0.58
3:GE:32:LEU:HD21	3:GE:34:GLN:HE22	1.69	0.58
1:R:445:G:H2'	1:R:446:G:C8	2.38	0.58
1:R:1927:A:N6	1:R:1932:A:O2'	2.36	0.58
1:R:2562:G:H1	1:R:2590:A:H2	1.52	0.58
3:AH:124:VAL:HB	3:DF:2:ASN:HB2	1.85	0.58
3:AM:49:GLN:OE1	3:AM:79:ARG:NH2	2.33	0.58
3:AN:62:GLU:HG2	3:CO:68:CYS:HB3	1.85	0.58
3:BM:35:ARG:NH2	3:BM:42:GLU:HG3	2.19	0.58
3:CB:19:ASP:OD2	3:CB:21:THR:OG1	2.18	0.58
3:Dc:19:ASP:OD2	3:Dc:21:THR:OG1	2.19	0.58
3:FT:5:MET:HB3	3:FT:17:TRP:HB3	1.85	0.58
3:FU:89:LEU:HD21	3:FU:93:LYS:HE3	1.86	0.58
1:R:1200:C:N3	1:R:1206:A:N6	2.51	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:4252:U:H1'	2:b:467:ARG:NH1	2.19	0.58
3:AN:116:PHE:CD1	3:CO:8:ILE:HD13	2.39	0.58
3:BN:58:ALA:HB3	3:BN:71:MET:HG3	1.86	0.58
3:Bc:115:GLY:HA3	3:EJ:33:ARG:HH12	1.69	0.58
3:BZ:33:ARG:NH2	3:FL:115:GLY:O	2.31	0.58
3:CK:15:ILE:HG12	3:DH:117:LEU:HD13	1.84	0.58
3:DD:31:LEU:HD13	3:GP:117:LEU:HD21	1.86	0.58
3:DJ:117:LEU:HD11	3:GV:31:LEU:HD22	1.85	0.58
3:DO:57:PRO:HB3	3:DO:73:ASN:HA	1.84	0.58
3:EO:124:VAL:HG13	3:FE:2:ASN:HB2	1.86	0.58
3:FY:60:LYS:NZ	3:FY:64:CYS:O	2.36	0.58
3:GF:87:GLU:OE1	3:GF:87:GLU:N	2.35	0.58
1:R:120:C:H2'	1:R:121:A:C8	2.39	0.58
1:R:1178:U:H2'	1:R:1179:G:C8	2.38	0.58
1:R:1621:U:O4	1:R:1634:G:O6	2.21	0.58
1:R:3885:C:H2'	1:R:3886:A:H8	1.67	0.58
2:b:4:TYR:HB2	2:b:79:SER:HB2	1.85	0.58
3:AH:125:SER:O	3:DF:2:ASN:ND2	2.37	0.58
3:AM:64:CYS:SG	3:AM:65:ALA:N	2.76	0.58
3:BC:5:MET:HG3	3:BC:17:TRP:HB3	1.86	0.58
3:BQ:57:PRO:HA	3:BQ:73:ASN:HA	1.86	0.58
3:BW:71:MET:SD	3:BW:71:MET:N	2.73	0.58
3:CY:60:LYS:HZ3	3:CY:65:ALA:HA	1.68	0.58
3:DL:58:ALA:HB3	3:DL:71:MET:HG3	1.86	0.58
3:EO:31:LEU:HD13	3:FE:117:LEU:HD21	1.84	0.58
3:FT:101:ARG:HH21	3:FT:124:VAL:HG21	1.68	0.58
3:GL:37:LYS:NZ	3:GL:38:VAL:O	2.37	0.58
3:GP:5:MET:HG2	3:GP:18:SER:C	2.28	0.58
1:R:244:G:H2'	1:R:245:A:C8	2.39	0.58
1:R:334:G:O6	1:R:363:U:O4	2.22	0.58
1:R:481:U:O4	1:R:482:A:N6	2.37	0.58
1:R:1222:C:H2'	1:R:1223:G:H8	1.68	0.58
1:R:1312:U:H5''	1:R:1313:A:H5''	1.86	0.58
1:R:1877:C:H5''	1:R:1878:C:H5''	1.84	0.58
3:AB:115:GLY:O	3:DI:33:ARG:NH2	2.30	0.58
3:AG:102:ASN:O	3:AG:105:THR:OG1	2.22	0.58
3:AM:19:ASP:OD2	3:AM:21:THR:OG1	2.20	0.58
3:BM:72:PRO:HG2	3:BX:38:VAL:HG12	1.86	0.58
3:BQ:117:LEU:HD21	3:FC:31:LEU:HD13	1.85	0.58
3:CZ:5:MET:HE2	3:FP:125:SER:HB2	1.85	0.58
3:DU:125:SER:OG	3:DU:126:SER:N	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:EA:87:GLU:OE1	3:EA:87:GLU:N	2.36	0.58
3:EB:22:ARG:NH2	3:EB:55:LYS:O	2.36	0.58
3:EG:61:PRO:HD3	3:EG:71:MET:CE	2.33	0.58
3:EN:5:MET:HB3	3:EN:17:TRP:HB3	1.85	0.58
3:FK:56:ARG:HD3	3:FK:57:PRO:HD2	1.83	0.58
3:FL:9:THR:HB	3:FL:16:VAL:HG22	1.85	0.58
3:Fc:60:LYS:HD2	3:Fc:60:LYS:O	2.03	0.58
3:FX:22:ARG:NH2	3:FX:55:LYS:O	2.31	0.58
3:GN:4:PRO:HA	3:Gc:124:VAL:HA	1.85	0.58
1:R:496:G:H21	1:R:2787:U:H3	1.52	0.58
1:R:773:U:H2'	1:R:774:C:C6	2.38	0.58
1:R:1069:C:H2'	1:R:1070:G:C8	2.37	0.58
1:R:2000:U:H2'	1:R:2001:C:C6	2.39	0.58
1:R:2370:A:H2'	1:R:2371:A:C8	2.39	0.58
1:R:3153:C:H2'	1:R:3154:A:H8	1.68	0.58
1:R:3702:C:O3'	2:a:318:LYS:NZ	2.37	0.58
2:a:141:THR:HA	2:a:186:ARG:HH21	1.69	0.58
3:AI:19:ASP:OD2	3:AI:22:ARG:N	2.36	0.58
3:AX:5:MET:HE1	3:EL:124:VAL:C	2.29	0.58
3:AX:38:VAL:HG23	3:AX:41:ALA:HB3	1.86	0.58
3:BP:2:ASN:HB2	3:CA:124:VAL:HG13	1.84	0.58
3:CH:38:VAL:HG13	3:CH:39:GLY:H	1.69	0.58
3:CL:113:GLY:HA3	3:FX:89:LEU:HD11	1.86	0.58
3:CZ:91:THR:OG1	3:FP:56:ARG:NH1	2.37	0.58
3:DL:60:LYS:HA	3:DL:71:MET:HE2	1.86	0.58
3:EG:111:ASN:HB3	3:EG:116:PHE:HD2	1.69	0.58
3:GA:16:VAL:HG22	3:GA:28:SER:HB2	1.86	0.58
3:GY:58:ALA:HB3	3:GY:71:MET:HE1	1.86	0.58
1:R:633:U:H2'	1:R:634:A:H8	1.67	0.57
1:R:2260:U:H2'	1:R:2261:U:H6	1.69	0.57
3:AC:84:GLY:HA3	3:AC:92:LEU:HD11	1.86	0.57
3:AI:87:GLU:HG3	3:FM:59:PRO:HB3	1.85	0.57
3:Ac:51:VAL:HG22	3:Ac:79:ARG:HG3	1.85	0.57
3:BL:91:THR:OG1	3:EM:56:ARG:NH1	2.36	0.57
3:BN:36:VAL:N	3:BN:43:LEU:O	2.37	0.57
3:Bc:80:THR:HG22	3:EJ:80:THR:HG23	1.86	0.57
3:CI:71:MET:SD	3:CI:71:MET:N	2.77	0.57
3:CK:66:ASP:OD1	3:CK:67:ALA:N	2.36	0.57
3:DF:14:LYS:HZ3	3:DF:30:SER:HB2	1.68	0.57
3:DN:113:GLY:HA3	3:EV:89:LEU:HD21	1.86	0.57
3:EO:6:GLN:NE2	3:EO:7:PRO:O	2.29	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:EP:34:GLN:NE2	3:EP:35:ARG:O	2.37	0.57
3:GP:60:LYS:NZ	3:GP:64:CYS:O	2.36	0.57
1:R:724:U:O2'	1:R:726:U:O4	2.16	0.57
1:R:2241:A:H2'	1:R:2242:A:C8	2.39	0.57
1:R:3810:C:O2'	1:R:3811:A:O4'	2.22	0.57
1:R:3822:G:OP2	2:a:288:GLN:NE2	2.37	0.57
3:AE:71:MET:SD	3:AE:72:PRO:HD2	2.44	0.57
3:AL:115:GLY:O	3:EX:33:ARG:NH2	2.37	0.57
3:AX:5:MET:HG3	3:AX:18:SER:C	2.28	0.57
3:BE:78:ILE:HD11	3:EQ:96:TRP:HE3	1.68	0.57
3:BW:2:ASN:ND2	3:FI:125:SER:O	2.35	0.57
3:CJ:33:ARG:NH2	3:ED:115:GLY:O	2.37	0.57
3:CJ:98:THR:HG21	3:CJ:126:SER:HA	1.85	0.57
3:CO:91:THR:HG23	3:GA:76:GLN:HE22	1.69	0.57
3:DU:38:VAL:HG23	3:DU:41:ALA:HB3	1.86	0.57
3:EV:56:ARG:NH1	3:EV:76:GLN:OE1	2.37	0.57
3:GM:89:LEU:HD21	3:GM:93:LYS:HE2	1.86	0.57
1:R:254:U:H2'	1:R:255:G:H8	1.69	0.57
1:R:1049:U:H3	1:R:1057:A:H2	1.52	0.57
1:R:1401:C:N3	1:R:1402:A:N6	2.52	0.57
2:b:64:ILE:O	2:b:66:PRO:HD3	2.03	0.57
3:AB:22:ARG:NH2	3:AB:55:LYS:O	2.34	0.57
3:BA:78:ILE:HD11	3:EF:96:TRP:HE3	1.68	0.57
3:BG:5:MET:HG2	3:BG:18:SER:C	2.29	0.57
3:CN:33:ARG:HH12	3:CO:8:ILE:HD11	1.69	0.57
3:CO:2:ASN:HB2	3:GA:128:THR:HA	1.85	0.57
3:CU:61:PRO:HG3	3:GE:70:ILE:HD13	1.85	0.57
3:CX:91:THR:OG1	3:GJ:56:ARG:NH2	2.38	0.57
3:EJ:35:ARG:HG2	3:EJ:44:ASN:HD22	1.69	0.57
3:EX:89:LEU:HD21	3:EX:93:LYS:HE2	1.87	0.57
3:FZ:84:GLY:HA3	3:FZ:92:LEU:HD11	1.86	0.57
1:R:547:C:H2'	1:R:548:G:H8	1.69	0.57
1:R:1972:C:H4'	1:R:2358:U:H4'	1.85	0.57
1:R:4113:A:H2'	1:R:4114:U:C6	2.40	0.57
2:a:360:VAL:HA	2:a:363:VAL:HG12	1.86	0.57
3:AP:38:VAL:HG23	3:AP:39:GLY:H	1.70	0.57
3:AU:22:ARG:NH2	3:AU:55:LYS:O	2.35	0.57
3:AZ:19:ASP:OD2	3:AZ:21:THR:OG1	2.17	0.57
3:BI:49:GLN:HG3	3:BI:81:VAL:HG22	1.86	0.57
3:CE:104:ASP:OD1	3:DK:96:TRP:NE1	2.29	0.57
3:CM:51:VAL:HG22	3:CM:79:ARG:HG3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DH:64:CYS:SG	3:DH:65:ALA:N	2.77	0.57
3:DJ:2:ASN:HA	3:GV:128:THR:HA	1.85	0.57
3:DU:5:MET:HG2	3:DU:18:SER:C	2.28	0.57
3:FV:61:PRO:O	3:FV:62:GLU:HG3	2.04	0.57
3:GP:5:MET:HB3	3:GP:17:TRP:HB3	1.87	0.57
1:R:2132:A:H2'	1:R:2133:A:H8	1.70	0.57
1:R:2907:G:H2'	1:R:2908:A:H8	1.67	0.57
1:R:2935:C:H2'	1:R:2936:U:C6	2.39	0.57
1:R:4174:A:H2'	1:R:4175:A:H8	1.67	0.57
3:BJ:68:CYS:SG	3:BV:64:CYS:SG	3.02	0.57
3:CM:3:LYS:NZ	3:DO:127:ASP:HB2	2.19	0.57
3:CP:2:ASN:HA	3:Dc:128:THR:HA	1.86	0.57
3:CT:60:LYS:HA	3:CT:71:MET:HE1	1.86	0.57
3:DD:100:LYS:HD3	3:GP:100:LYS:HD2	1.86	0.57
3:DJ:125:SER:OG	3:DJ:126:SER:N	2.35	0.57
3:Dc:89:LEU:HD21	3:Dc:93:LYS:HE3	1.84	0.57
3:FE:34:GLN:HE22	3:FE:36:VAL:HB	1.69	0.57
3:GF:16:VAL:HG22	3:GF:28:SER:HB2	1.86	0.57
1:R:727:G:H2'	1:R:728:U:C6	2.40	0.57
1:R:1357:U:H2'	1:R:1358:C:H6	1.70	0.57
1:R:2808:U:H2'	1:R:2809:G:C8	2.39	0.57
1:R:3401:A:H2'	1:R:3402:A:C8	2.40	0.57
1:R:4222:G:C6	1:R:4223:G:O6	2.56	0.57
3:AH:49:GLN:OE1	3:AH:79:ARG:NH2	2.38	0.57
3:AV:125:SER:OG	3:AV:127:ASP:OD2	2.21	0.57
3:AY:113:GLY:HA3	3:EK:89:LEU:HD11	1.87	0.57
3:BE:33:ARG:NH2	3:EQ:115:GLY:O	2.32	0.57
3:BP:125:SER:OG	3:CA:5:MET:SD	2.55	0.57
3:CO:31:LEU:HD11	3:CO:33:ARG:HE	1.69	0.57
3:DA:5:MET:HG2	3:DA:18:SER:C	2.29	0.57
3:DN:19:ASP:OD2	3:DN:21:THR:OG1	2.18	0.57
3:ED:60:LYS:HA	3:ED:71:MET:HE1	1.87	0.57
3:EL:8:ILE:HD11	3:EL:18:SER:HB3	1.85	0.57
3:FK:61:PRO:HG2	3:FK:64:CYS:SG	2.44	0.57
3:FZ:5:MET:HE2	3:GT:125:SER:HB2	1.86	0.57
3:GX:59:PRO:O	3:GX:60:LYS:HB3	2.03	0.57
1:R:1075:C:H2'	1:R:1077:U:H4'	1.86	0.57
1:R:1570:G:H2'	1:R:1571:A:H8	1.69	0.57
1:R:1636:G:H2'	1:R:1637:C:C6	2.39	0.57
1:R:1651:C:H3'	1:R:1652:G:H21	1.68	0.57
1:R:2765:C:H2'	1:R:2766:G:H8	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2870:U:H2'	1:R:2871:G:C8	2.39	0.57
1:R:3099:A:H2'	1:R:3100:A:H8	1.70	0.57
1:R:3250:U:O4	1:R:3257:G:O6	2.21	0.57
2:a:12:ARG:HG3	2:a:182:ARG:HB3	1.86	0.57
2:a:21:TYR:N	2:a:34:VAL:O	2.28	0.57
3:Ac:38:VAL:HG12	3:FD:72:PRO:HB2	1.85	0.57
3:AT:115:GLY:HA2	3:BJ:31:LEU:HD13	1.86	0.57
3:BA:15:ILE:HG13	3:EF:117:LEU:HD13	1.87	0.57
3:BA:49:GLN:OE1	3:BA:79:ARG:NH2	2.38	0.57
3:CK:57:PRO:HA	3:CK:73:ASN:HA	1.85	0.57
3:CN:11:THR:HB	3:CN:14:LYS:HB2	1.86	0.57
3:DX:89:LEU:HD21	3:DX:93:LYS:HE3	1.85	0.57
3:ED:5:MET:HB3	3:ED:17:TRP:HB3	1.85	0.57
3:FA:49:GLN:OE1	3:FA:79:ARG:NH1	2.32	0.57
3:FM:55:LYS:NZ	3:FM:75:ASN:OD1	2.27	0.57
3:GC:19:ASP:OD2	3:GC:22:ARG:N	2.34	0.57
1:R:1119:U:OP2	1:R:1218:A:O2'	2.23	0.57
1:R:1188:G:H2'	1:R:1189:A:C8	2.40	0.57
1:R:1340:U:H2'	1:R:1341:A:H2'	1.86	0.57
1:R:1484:U:H2'	1:R:1485:G:C8	2.40	0.57
1:R:2667:G:N2	1:R:2742:U:O2	2.38	0.57
1:R:3270:U:H2'	1:R:3271:A:C8	2.40	0.57
2:a:147:ARG:HH21	2:a:183:MET:H	1.52	0.57
3:BE:2:ASN:HB2	3:EQ:124:VAL:HB	1.85	0.57
3:BM:14:LYS:HZ3	3:BM:30:SER:HB3	1.70	0.57
3:Bc:55:LYS:NZ	3:Bc:73:ASN:HB2	2.20	0.57
3:BS:9:THR:HB	3:BS:16:VAL:HB	1.87	0.57
3:CH:33:ARG:NH2	3:DE:115:GLY:O	2.35	0.57
3:CI:4:PRO:HA	3:FU:124:VAL:HA	1.87	0.57
3:CL:81:VAL:HG22	3:FX:79:ARG:HB2	1.87	0.57
3:DZ:115:GLY:O	3:FN:33:ARG:NH1	2.38	0.57
3:EB:19:ASP:OD2	3:EB:22:ARG:N	2.30	0.57
3:FT:115:GLY:O	3:FY:33:ARG:NH2	2.34	0.57
1:R:2483:U:O2	1:R:2598:G:N2	2.24	0.57
1:R:2506:A:H2'	1:R:2507:G:H8	1.69	0.57
2:a:29:PRO:HA	2:a:164:ARG:HD2	1.86	0.57
2:b:96:THR:OG1	2:b:126:LYS:NZ	2.35	0.57
3:AB:62:GLU:CD	3:AB:63:GLY:H	2.13	0.57
3:AH:95:GLU:OE2	3:DF:56:ARG:NH2	2.38	0.57
3:AP:85:SER:OG	3:AP:88:ASN:OD1	2.23	0.57
3:BW:5:MET:HG2	3:BW:18:SER:C	2.30	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CI:91:THR:HG23	3:FU:76:GLN:HE22	1.69	0.57
3:CJ:34:GLN:HE21	3:CJ:45:ASN:HB3	1.70	0.57
3:CU:49:GLN:OE1	3:CU:79:ARG:NH2	2.35	0.57
3:DI:19:ASP:OD2	3:DI:22:ARG:N	2.29	0.57
3:FQ:74:GLU:OE2	3:GE:88:ASN:ND2	2.36	0.57
1:R:1232:A:N1	1:R:1293:G:N2	2.49	0.57
1:R:2740:A:H2'	1:R:2741:G:H8	1.70	0.57
1:R:3197:U:H2'	1:R:3198:A:H8	1.70	0.57
1:R:3745:C:H2'	1:R:3746:G:H8	1.69	0.57
3:AB:62:GLU:OE1	3:AB:63:GLY:N	2.29	0.57
3:AS:104:ASP:OD2	3:EE:100:LYS:NZ	2.30	0.57
3:BA:85:SER:OG	3:BA:88:ASN:OD1	2.22	0.57
3:BO:87:GLU:OE1	3:BO:87:GLU:N	2.37	0.57
3:BU:55:LYS:HB3	3:BU:73:ASN:ND2	2.20	0.57
3:CC:104:ASP:OD1	3:FO:96:TRP:NE1	2.34	0.57
3:CE:37:LYS:NZ	3:CE:38:VAL:O	2.32	0.57
3:DG:74:GLU:OE1	3:GS:88:ASN:ND2	2.37	0.57
3:DV:5:MET:HG2	3:DV:18:SER:C	2.30	0.57
3:ET:35:ARG:NH1	3:ET:44:ASN:OD1	2.38	0.57
3:EU:114:LEU:HD22	3:FB:89:LEU:HD13	1.87	0.57
3:FH:34:GLN:NE2	3:FH:35:ARG:O	2.38	0.57
3:FW:87:GLU:OE1	3:FW:87:GLU:N	2.35	0.57
3:GS:87:GLU:OE1	3:GS:87:GLU:N	2.35	0.57
1:R:498:G:O2'	1:R:2791:A:OP2	2.21	0.56
1:R:3008:G:H2'	1:R:3009:G:C8	2.40	0.56
1:R:3603:G:H2'	1:R:3604:A:C8	2.40	0.56
1:R:3673:A:H2'	1:R:3674:A:C8	2.40	0.56
2:a:11:ILE:HG13	2:a:50:ARG:HH21	1.68	0.56
2:b:243:LEU:HD13	2:b:361:LEU:HD11	1.86	0.56
2:b:373:THR:HB	2:b:408:LYS:HD2	1.86	0.56
3:AB:124:VAL:HA	3:DI:4:PRO:HA	1.86	0.56
3:AL:70:ILE:HD13	3:CT:61:PRO:HB3	1.86	0.56
3:AQ:128:THR:HA	3:CQ:2:ASN:HA	1.87	0.56
3:AS:60:LYS:HZ1	3:AS:66:ASP:H	1.52	0.56
3:BE:35:ARG:HH22	3:BE:42:GLU:HG2	1.69	0.56
3:BL:95:GLU:OE2	3:EM:56:ARG:NH2	2.37	0.56
3:BS:39:GLY:HA2	3:BU:72:PRO:HG2	1.86	0.56
3:CM:100:LYS:HB3	3:DO:100:LYS:HZ2	1.70	0.56
3:CZ:80:THR:HG23	3:FP:80:THR:HG22	1.86	0.56
3:DA:5:MET:HB3	3:DA:17:TRP:HB3	1.87	0.56
3:DQ:85:SER:OG	3:DQ:88:ASN:OD1	2.23	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:FB:19:ASP:OD2	3:FB:22:ARG:N	2.38	0.56
3:GF:93:LYS:NZ	3:GQ:107:PHE:O	2.37	0.56
1:R:252:C:H2'	1:R:253:A:H8	1.70	0.56
1:R:720:C:H2'	1:R:721:G:H8	1.69	0.56
1:R:3059:G:H1	1:R:3084:U:H3	1.51	0.56
1:R:3399:A:H2'	1:R:3400:G:H8	1.69	0.56
1:R:3717:G:H5'	1:R:3809:A:H5''	1.87	0.56
1:R:4049:C:H2'	1:R:4050:C:C6	2.40	0.56
2:b:299:SER:HB2	2:b:301:ARG:HH12	1.70	0.56
3:AL:60:LYS:HZ1	3:AL:66:ASP:H	1.52	0.56
3:AO:80:THR:HG23	3:FA:80:THR:HG22	1.86	0.56
3:BG:5:MET:HB3	3:BG:17:TRP:HB3	1.87	0.56
3:BK:115:GLY:O	3:EW:33:ARG:NH2	2.36	0.56
3:BZ:61:PRO:O	3:BZ:62:GLU:HG3	2.05	0.56
3:CD:19:ASP:OD2	3:CD:21:THR:OG1	2.23	0.56
3:CI:6:GLN:HB2	3:DE:116:PHE:HD2	1.69	0.56
3:CP:124:VAL:HB	3:Dc:2:ASN:HB2	1.87	0.56
3:EO:60:LYS:HG2	3:EO:65:ALA:HB2	1.88	0.56
3:GP:60:LYS:HA	3:GP:71:MET:HE2	1.87	0.56
1:R:40:A:C8	1:R:1626:U:H5''	2.41	0.56
1:R:663:C:H2'	1:R:664:A:C8	2.39	0.56
1:R:916:U:H2'	1:R:917:G:H8	1.69	0.56
1:R:980:U:O4	1:R:1108:A:N6	2.38	0.56
1:R:2456:C:H2'	1:R:2457:G:H8	1.71	0.56
1:R:3263:U:H2'	1:R:3264:G:C8	2.40	0.56
1:R:3275:U:HO2'	1:R:3486:U:H3	1.51	0.56
1:R:3552:G:H2'	1:R:3553:C:C6	2.40	0.56
3:AE:38:VAL:HG21	3:AE:43:LEU:HD23	1.88	0.56
3:AI:129:THR:HG22	3:FM:3:LYS:HD3	1.88	0.56
3:AS:82:ILE:HG23	3:EE:78:ILE:HG12	1.86	0.56
3:AT:96:TRP:HD1	3:BJ:78:ILE:HD13	1.68	0.56
3:AU:58:ALA:HB3	3:AU:71:MET:HG3	1.87	0.56
3:BA:2:ASN:HA	3:EF:128:THR:HA	1.86	0.56
3:BH:60:LYS:NZ	3:BH:64:CYS:O	2.33	0.56
3:BP:57:PRO:HA	3:BP:73:ASN:HA	1.87	0.56
3:CC:74:GLU:OE2	3:FO:88:ASN:ND2	2.30	0.56
3:CF:115:GLY:O	3:Fc:33:ARG:NH2	2.35	0.56
3:CG:35:ARG:HG2	3:CG:42:GLU:OE2	2.04	0.56
3:CH:37:LYS:NZ	3:CH:42:GLU:OE1	2.39	0.56
3:CO:57:PRO:HA	3:CO:73:ASN:HA	1.88	0.56
3:Cc:19:ASP:OD2	3:Cc:22:ARG:N	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Cc:49:GLN:HG3	3:Cc:81:VAL:HG22	1.86	0.56
3:CV:19:ASP:OD2	3:CV:22:ARG:N	2.37	0.56
3:CZ:15:ILE:HG12	3:FP:117:LEU:HD13	1.88	0.56
3:CZ:28:SER:HB2	3:CZ:51:VAL:HG22	1.86	0.56
3:DD:115:GLY:O	3:GP:33:ARG:NH2	2.32	0.56
3:EK:56:ARG:HD3	3:EK:57:PRO:HD2	1.87	0.56
3:Ec:56:ARG:HD3	3:Ec:57:PRO:HD2	1.86	0.56
3:Ec:96:TRP:NE1	3:EY:104:ASP:OD1	2.29	0.56
3:ES:58:ALA:HB3	3:ES:71:MET:HG3	1.87	0.56
3:EU:100:LYS:HD2	3:FB:100:LYS:HD2	1.87	0.56
3:EV:101:ARG:HH22	3:EV:124:VAL:HG21	1.70	0.56
3:EW:55:LYS:HB3	3:EW:73:ASN:ND2	2.20	0.56
3:FN:5:MET:HG2	3:FN:18:SER:C	2.31	0.56
3:GB:85:SER:OG	3:GB:88:ASN:OD1	2.24	0.56
3:GH:115:GLY:O	3:GU:33:ARG:NH2	2.37	0.56
1:R:298:G:H2'	1:R:299:A:C8	2.40	0.56
1:R:1338:C:N4	1:R:1340:U:O4	2.38	0.56
1:R:2451:U:O2'	1:R:2649:U:N3	2.37	0.56
1:R:2678:U:H2'	1:R:2679:A:H8	1.71	0.56
1:R:2893:U:O2	1:R:3008:G:N2	2.30	0.56
1:R:2953:U:C4	2:b:258:LYS:HG2	2.41	0.56
1:R:3297:A:H2'	1:R:3298:C:C5	2.41	0.56
2:b:515:TYR:CE2	2:b:516:LEU:HG	2.40	0.56
3:BQ:22:ARG:NH2	3:BQ:55:LYS:O	2.36	0.56
3:BQ:39:GLY:HA3	3:FC:72:PRO:HG3	1.87	0.56
3:BW:106:LEU:HD11	3:FI:50:TYR:HE1	1.68	0.56
3:CE:38:VAL:HG23	3:CE:41:ALA:HB3	1.87	0.56
3:CL:117:LEU:HD21	3:FX:31:LEU:HD13	1.87	0.56
3:CM:5:MET:HE3	3:DO:125:SER:HB2	1.86	0.56
3:CV:31:LEU:HD13	3:GL:117:LEU:HD21	1.87	0.56
3:CY:5:MET:HG2	3:CY:18:SER:C	2.30	0.56
3:DL:66:ASP:OD1	3:DL:67:ALA:N	2.38	0.56
3:EO:51:VAL:HG22	3:EO:79:ARG:HG2	1.87	0.56
3:FF:32:LEU:HB3	3:FF:34:GLN:NE2	2.21	0.56
3:FI:51:VAL:HG23	3:FI:79:ARG:HB3	1.87	0.56
3:FZ:71:MET:N	3:FZ:71:MET:SD	2.79	0.56
3:GS:5:MET:HG2	3:GS:18:SER:C	2.31	0.56
1:R:1349:A:H2'	1:R:1350:C:H6	1.71	0.56
1:R:2599:G:O6	1:R:2600:G:N2	2.38	0.56
1:R:2605:U:OP2	1:R:2627:G:N1	2.38	0.56
1:R:2735:A:H2'	1:R:2736:G:H8	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:4184:G:H2'	1:R:4185:A:H8	1.70	0.56
3:AC:98:THR:HA	3:AC:101:ARG:HG2	1.88	0.56
3:AZ:49:GLN:OE1	3:AZ:79:ARG:NH2	2.38	0.56
3:BX:67:ALA:HB1	3:FL:64:CYS:HA	1.86	0.56
3:CD:2:ASN:HB2	3:DX:124:VAL:HG13	1.86	0.56
3:CD:70:ILE:HD11	3:CF:40:ILE:HG13	1.87	0.56
3:DB:7:PRO:HA	3:DB:17:TRP:HA	1.87	0.56
3:DH:96:TRP:CE2	3:DH:100:LYS:HD2	2.40	0.56
3:DK:38:VAL:HG23	3:DK:39:GLY:H	1.71	0.56
3:DU:5:MET:HB3	3:DU:17:TRP:HB3	1.87	0.56
3:DU:19:ASP:OD2	3:DU:21:THR:OG1	2.21	0.56
3:EZ:57:PRO:HA	3:EZ:73:ASN:HA	1.87	0.56
3:FU:38:VAL:HG23	3:FU:39:GLY:H	1.71	0.56
3:GH:6:GLN:HE22	3:GH:20:PRO:HB3	1.70	0.56
3:GN:14:LYS:HZ3	3:GN:30:SER:HB3	1.70	0.56
1:R:75:C:H2'	1:R:76:A:C8	2.41	0.56
1:R:334:G:N2	1:R:363:U:O2	2.26	0.56
1:R:593:G:N7	1:R:1350:C:O2'	2.37	0.56
1:R:1327:G:N2	1:R:1357:U:O2	2.25	0.56
1:R:1587:U:H2'	1:R:1588:G:C8	2.41	0.56
1:R:1806:C:H2'	1:R:1807:A:H8	1.70	0.56
1:R:3555:U:H2'	1:R:3656:C:H5''	1.88	0.56
2:a:372:MET:SD	2:a:409:SER:OG	2.64	0.56
3:AN:39:GLY:HA3	3:CN:72:PRO:HG2	1.87	0.56
3:AV:96:TRP:CE3	3:EH:78:ILE:HD11	2.40	0.56
3:CO:85:SER:OG	3:CO:88:ASN:OD1	2.23	0.56
3:DH:87:GLU:OE1	3:DH:87:GLU:N	2.34	0.56
3:Dc:49:GLN:HG3	3:Dc:81:VAL:HG12	1.87	0.56
3:DT:62:GLU:HG2	3:DT:63:GLY:N	2.17	0.56
3:Ec:108:ALA:HA	3:EY:93:LYS:HE2	1.86	0.56
3:FM:71:MET:HA	3:FM:71:MET:HE3	1.86	0.56
3:FZ:123:ILE:HD12	3:GT:27:PHE:HD2	1.71	0.56
3:GD:56:ARG:HD3	3:GD:57:PRO:HD2	1.87	0.56
1:R:2470:U:H2'	1:R:2471:U:C6	2.41	0.56
1:R:3050:C:OP1	1:R:3092:A:N6	2.32	0.56
1:R:3229:U:H2'	1:R:3230:G:H8	1.71	0.56
1:R:3325:A:H2'	1:R:3326:A:C8	2.40	0.56
1:R:3422:G:O6	1:R:3455:A:O2'	2.22	0.56
3:AT:124:VAL:HB	3:BJ:2:ASN:HB2	1.87	0.56
3:AU:116:PHE:HE2	3:EJ:6:GLN:HB2	1.70	0.56
3:AV:66:ASP:OD1	3:AV:67:ALA:N	2.31	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CP:56:ARG:HG2	3:Dc:88:ASN:HD22	1.70	0.56
3:DI:5:MET:HB3	3:DI:17:TRP:HB3	1.86	0.56
3:DI:5:MET:HG2	3:DI:18:SER:C	2.31	0.56
3:Dc:44:ASN:ND2	3:Dc:87:GLU:OE2	2.39	0.56
3:DS:95:GLU:OE1	3:DS:126:SER:OG	2.16	0.56
3:EC:56:ARG:NH2	3:EC:76:GLN:OE1	2.38	0.56
3:EH:89:LEU:HA	3:EH:92:LEU:HB2	1.88	0.56
3:FQ:100:LYS:HD2	3:GE:100:LYS:HD2	1.88	0.56
3:Fc:38:VAL:HG13	3:Fc:39:GLY:H	1.71	0.56
3:GF:56:ARG:HD2	3:GQ:91:THR:HG21	1.86	0.56
1:R:1497:C:H2'	1:R:1498:A:O4'	2.06	0.56
1:R:1982:A:H2'	1:R:2266:C:H5	1.70	0.56
1:R:2052:G:H2'	1:R:2053:G:C8	2.40	0.56
1:R:2102:U:H2'	1:R:2103:G:C8	2.41	0.56
1:R:2252:G:H2'	1:R:2253:G:H8	1.69	0.56
1:R:2314:C:H2'	1:R:2315:U:H6	1.71	0.56
1:R:2388:U:H2'	1:R:2389:G:C8	2.41	0.56
1:R:2820:G:H1	1:R:2831:U:H3	1.53	0.56
1:R:2959:C:H2'	1:R:2960:C:C6	2.40	0.56
1:R:3857:U:H2'	1:R:3858:A:C8	2.40	0.56
3:AC:125:SER:HA	3:FG:5:MET:HE1	1.87	0.56
3:AN:72:PRO:HG2	3:CN:39:GLY:HA2	1.88	0.56
3:AS:2:ASN:HB2	3:EE:124:VAL:HG22	1.88	0.56
3:BB:117:LEU:HD11	3:EN:31:LEU:HD13	1.87	0.56
3:BS:74:GLU:OE2	3:BU:85:SER:N	2.38	0.56
3:CI:43:LEU:HD12	3:CI:85:SER:HB2	1.87	0.56
3:Dc:8:ILE:HB	3:Dc:16:VAL:HG23	1.87	0.56
3:EE:58:ALA:C	3:EE:60:LYS:H	2.13	0.56
3:EK:49:GLN:HE22	3:EK:79:ARG:HH21	1.53	0.56
3:FG:74:GLU:OE2	3:FG:76:GLN:NE2	2.32	0.56
3:FO:55:LYS:NZ	3:FO:73:ASN:HB3	2.21	0.56
1:R:1556:U:O4'	1:R:1559:C:N4	2.38	0.56
1:R:1563:C:H2'	1:R:1564:G:C8	2.40	0.56
1:R:1960:G:H2'	1:R:1961:G:C8	2.41	0.56
3:AB:2:ASN:HA	3:DI:128:THR:HA	1.88	0.56
3:AC:87:GLU:HG3	3:FG:59:PRO:HG3	1.86	0.56
3:BF:124:VAL:HB	3:CB:2:ASN:HB2	1.88	0.56
3:BJ:67:ALA:HB3	3:BV:64:CYS:SG	2.46	0.56
3:BQ:69:VAL:HG23	3:BQ:70:ILE:H	1.71	0.56
3:CC:124:VAL:HG22	3:FO:2:ASN:HB2	1.86	0.56
3:CI:113:GLY:HA3	3:FU:89:LEU:HD11	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CK:114:LEU:HD13	3:DH:86:ALA:HB1	1.87	0.56
3:DF:5:MET:HG2	3:DF:18:SER:C	2.31	0.56
3:DJ:8:ILE:N	3:DJ:16:VAL:O	2.36	0.56
3:DW:5:MET:HG2	3:DW:18:SER:C	2.31	0.56
3:EF:37:LYS:NZ	3:EF:38:VAL:O	2.34	0.56
3:EP:5:MET:HG2	3:EP:18:SER:C	2.31	0.56
3:EZ:35:ARG:HG2	3:EZ:42:GLU:CD	2.31	0.56
3:FF:60:LYS:HD3	3:FF:61:PRO:HD2	1.88	0.56
3:GA:70:ILE:O	3:GA:70:ILE:HG13	2.05	0.56
1:R:2474:U:H4'	1:R:2642:G:H1	1.70	0.56
1:R:2585:C:H2'	1:R:2586:G:C8	2.41	0.56
1:R:3139:U:H2'	1:R:3140:A:C8	2.41	0.56
1:R:3232:U:O2'	1:R:3233:G:N7	2.36	0.56
1:R:3263:U:H2'	1:R:3264:G:H8	1.71	0.56
1:R:3298:C:H2'	1:R:3299:U:O4'	2.06	0.56
1:R:3923:U:H2'	1:R:3924:G:C8	2.41	0.56
1:R:4120:A:H1'	1:R:4121:A:C8	2.41	0.56
3:BT:92:LEU:HD12	3:BT:95:GLU:OE2	2.06	0.56
3:DD:5:MET:HG2	3:DD:18:SER:C	2.31	0.56
3:DL:5:MET:HG2	3:DL:18:SER:C	2.31	0.56
3:FA:56:ARG:NH1	3:FA:76:GLN:OE1	2.38	0.56
3:FW:60:LYS:HD3	3:FW:61:PRO:HD2	1.88	0.56
1:R:537:U:H4'	1:R:1767:U:H4'	1.87	0.55
1:R:1660:G:H2'	1:R:1661:A:C8	2.40	0.55
1:R:2267:U:H2'	1:R:2268:A:C8	2.40	0.55
1:R:2374:A:H5'	3:AV:39:GLY:HA2	1.88	0.55
1:R:4155:G:H2'	1:R:4156:A:C8	2.40	0.55
1:R:4260:C:H2'	1:R:4261:U:C6	2.41	0.55
2:a:447:ASP:OD1	2:a:448:VAL:N	2.39	0.55
2:b:412:SER:OG	2:b:456:TYR:O	2.15	0.55
3:CC:33:ARG:NH2	3:FO:115:GLY:O	2.40	0.55
3:CE:124:VAL:HA	3:DK:4:PRO:HA	1.87	0.55
3:CI:117:LEU:HD21	3:FU:31:LEU:HD13	1.88	0.55
3:Cc:5:MET:HG2	3:Cc:18:SER:C	2.31	0.55
3:DA:58:ALA:HB3	3:DA:71:MET:HG3	1.89	0.55
3:DQ:15:ILE:HG13	3:EP:117:LEU:HD13	1.87	0.55
3:EF:98:THR:HG21	3:EF:126:SER:HB3	1.88	0.55
3:GN:57:PRO:HA	3:GN:73:ASN:HA	1.88	0.55
1:R:502:C:H2'	1:R:503:C:C6	2.41	0.55
1:R:700:A:H2'	1:R:701:G:H8	1.70	0.55
1:R:742:C:O2'	1:R:886:G:OP2	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2222:C:O2'	1:R:2224:C:N4	2.38	0.55
1:R:3379:U:H2'	1:R:3380:C:C6	2.42	0.55
2:a:140:SER:O	2:a:186:ARG:NH2	2.39	0.55
3:AB:37:LYS:HZ1	3:AB:42:GLU:HB2	1.71	0.55
3:AO:33:ARG:NH2	3:FA:115:GLY:O	2.39	0.55
3:AS:39:GLY:HA2	3:EE:72:PRO:HG2	1.88	0.55
3:AW:96:TRP:NE1	3:BD:104:ASP:OD1	2.34	0.55
3:BC:117:LEU:HD21	3:BY:31:LEU:HD13	1.87	0.55
3:BI:95:GLU:OE2	3:BV:56:ARG:NH2	2.39	0.55
3:BN:89:LEU:HD21	3:BN:93:LYS:HE2	1.88	0.55
3:BO:55:LYS:HG3	3:BO:73:ASN:CG	2.31	0.55
3:CL:19:ASP:OD2	3:CL:21:THR:OG1	2.18	0.55
3:CP:125:SER:OG	3:CP:126:SER:N	2.39	0.55
3:EP:67:ALA:HB1	3:FE:64:CYS:SG	2.46	0.55
3:FT:5:MET:HG2	3:FT:18:SER:C	2.31	0.55
3:GU:37:LYS:NZ	3:GU:38:VAL:O	2.34	0.55
1:R:1600:G:O6	1:R:1656:U:O4	2.24	0.55
1:R:2924:U:H2'	1:R:2925:G:H2'	1.88	0.55
1:R:3616:A:H2'	1:R:3617:C:C6	2.41	0.55
1:R:4225:U:H2'	1:R:4226:G:O4'	2.06	0.55
2:a:286:ARG:HD3	2:a:324:ARG:HH22	1.70	0.55
2:a:412:SER:H	2:a:458:ASP:HB2	1.71	0.55
3:AL:57:PRO:HA	3:AL:73:ASN:HA	1.89	0.55
3:AS:5:MET:HE2	3:EE:123:ILE:HG22	1.88	0.55
3:DW:87:GLU:OE1	3:DW:87:GLU:N	2.36	0.55
3:EP:55:LYS:HE3	3:EP:75:ASN:HB3	1.89	0.55
3:FA:57:PRO:HA	3:FA:73:ASN:HA	1.88	0.55
3:FO:51:VAL:HG22	3:FO:79:ARG:HG2	1.87	0.55
3:GF:116:PHE:HE2	3:Gc:6:GLN:HB2	1.72	0.55
3:Gc:35:ARG:HH12	3:Gc:42:GLU:CG	2.20	0.55
1:R:851:C:O2'	1:R:854:A:O3'	2.24	0.55
1:R:1559:C:H1'	1:R:1562:U:C4	2.41	0.55
1:R:3008:G:H2'	1:R:3009:G:H8	1.72	0.55
3:AL:35:ARG:NH1	3:AL:35:ARG:HA	2.22	0.55
3:AM:61:PRO:HG2	3:DW:68:CYS:HB3	1.89	0.55
3:BE:3:LYS:HE3	3:EQ:129:THR:HG22	1.89	0.55
3:BE:56:ARG:NH1	3:EQ:95:GLU:OE2	2.40	0.55
3:CH:49:GLN:OE1	3:CH:79:ARG:NH2	2.39	0.55
3:CM:63:GLY:O	3:CM:65:ALA:N	2.39	0.55
3:FK:45:ASN:HA	3:FK:85:SER:HA	1.89	0.55
3:GG:66:ASP:HB3	3:GG:69:VAL:HG13	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GM:35:ARG:HH12	3:GM:42:GLU:HG3	1.71	0.55
3:GW:60:LYS:NZ	3:GW:65:ALA:HA	2.21	0.55
1:R:15:A:H2'	1:R:16:G:C8	2.42	0.55
1:R:46:A:OP1	3:DS:34:GLN:NE2	2.31	0.55
1:R:47:C:O2'	3:AG:75:ASN:ND2	2.39	0.55
1:R:629:A:C4	1:R:981:C:H4'	2.41	0.55
1:R:1282:C:H2'	1:R:1283:U:C6	2.41	0.55
1:R:1826:G:H2'	1:R:1827:A:H8	1.70	0.55
1:R:1979:A:H2'	1:R:1980:U:C6	2.41	0.55
1:R:1987:C:H2'	1:R:1988:A:C8	2.41	0.55
1:R:2102:U:H2'	1:R:2103:G:H8	1.70	0.55
1:R:3023:C:H2'	1:R:3024:G:C8	2.41	0.55
1:R:3243:C:H2'	1:R:3244:A:H8	1.71	0.55
1:R:3310:G:H2'	1:R:3311:U:H6	1.72	0.55
1:R:3896:U:H2'	1:R:3897:G:C8	2.41	0.55
1:R:4262:U:H2'	1:R:4263:C:H6	1.72	0.55
3:AL:33:ARG:NH2	3:EX:115:GLY:O	2.38	0.55
3:BG:85:SER:OG	3:BG:88:ASN:OD1	2.24	0.55
3:CD:6:GLN:NE2	3:CD:7:PRO:O	2.39	0.55
3:CH:60:LYS:HE2	3:CH:69:VAL:HG21	1.88	0.55
3:CM:31:LEU:HD12	3:DO:117:LEU:HG	1.89	0.55
3:CS:33:ARG:NH2	3:DU:115:GLY:O	2.38	0.55
3:DC:124:VAL:HA	3:FS:4:PRO:HA	1.88	0.55
3:DF:35:ARG:NH1	3:DF:42:GLU:OE2	2.37	0.55
3:EA:68:CYS:SG	3:FN:61:PRO:HB2	2.47	0.55
3:EC:17:TRP:CG	3:FH:123:ILE:HD11	2.42	0.55
3:EZ:19:ASP:OD2	3:EZ:22:ARG:N	2.39	0.55
3:FQ:57:PRO:HA	3:FQ:73:ASN:HA	1.88	0.55
3:GB:55:LYS:NZ	3:GB:75:ASN:OD1	2.30	0.55
1:R:715:U:H2'	1:R:716:C:C6	2.41	0.55
1:R:2132:A:H2'	1:R:2133:A:C8	2.42	0.55
1:R:2207:C:O2	1:R:2208:A:N6	2.38	0.55
1:R:3310:G:H2'	1:R:3311:U:C6	2.41	0.55
1:R:3484:C:H2'	1:R:3485:A:H8	1.71	0.55
1:R:3524:G:H3'	1:R:3525:A:H8	1.70	0.55
1:R:4101:C:H2'	1:R:4102:A:H8	1.72	0.55
2:b:343:TRP:NE1	2:b:430:TRP:O	2.38	0.55
3:AQ:96:TRP:NE1	3:CQ:104:ASP:OD1	2.31	0.55
3:AQ:128:THR:O	3:CQ:3:LYS:NZ	2.38	0.55
3:AW:115:GLY:HA2	3:BD:31:LEU:HD23	1.89	0.55
3:BA:107:PHE:O	3:EF:93:LYS:NZ	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BM:115:GLY:O	3:BX:33:ARG:NH2	2.38	0.55
3:BU:97:GLU:HA	3:BU:100:LYS:HE3	1.88	0.55
3:CC:5:MET:HG2	3:CC:18:SER:C	2.32	0.55
3:CK:85:SER:OG	3:CK:88:ASN:OD1	2.24	0.55
3:CP:7:PRO:HA	3:CP:17:TRP:HA	1.88	0.55
3:DJ:35:ARG:NH1	3:DJ:44:ASN:OD1	2.27	0.55
3:DM:3:LYS:NZ	3:GY:128:THR:O	2.40	0.55
3:FK:14:LYS:HD3	3:FK:30:SER:HB3	1.88	0.55
3:GN:125:SER:HB2	3:Gc:5:MET:HE2	1.89	0.55
3:GN:125:SER:OG	3:GN:126:SER:N	2.39	0.55
3:GO:57:PRO:HA	3:GO:73:ASN:HA	1.87	0.55
1:R:325:G:H2'	1:R:326:G:H8	1.71	0.55
1:R:629:A:N3	1:R:982:U:H5''	2.22	0.55
1:R:762:U:O2	1:R:888:A:N6	2.36	0.55
1:R:1710:C:H2'	1:R:1711:G:C8	2.42	0.55
1:R:2634:G:H2'	1:R:2635:G:H8	1.72	0.55
1:R:3018:A:H2'	1:R:3019:U:C6	2.41	0.55
1:R:4067:U:O2	1:R:4160:G:C6	2.60	0.55
1:R:4241:U:H3	1:R:4263:C:N4	2.04	0.55
2:a:268:ASN:OD1	2:a:269:LYS:N	2.40	0.55
3:AC:2:ASN:HB2	3:FG:124:VAL:HB	1.88	0.55
3:AH:85:SER:OG	3:AH:87:GLU:OE1	2.24	0.55
3:AV:2:ASN:HB2	3:EH:124:VAL:HG22	1.87	0.55
3:AY:17:TRP:CG	3:EK:123:ILE:HD11	2.42	0.55
3:BC:8:ILE:HD13	3:BC:18:SER:HB2	1.88	0.55
3:BU:125:SER:OG	3:BU:126:SER:N	2.40	0.55
3:BW:37:LYS:NZ	3:BW:39:GLY:O	2.29	0.55
3:CC:22:ARG:NH2	3:CC:24:SER:OG	2.40	0.55
3:CJ:80:THR:HG22	3:ED:80:THR:HG23	1.89	0.55
3:GA:101:ARG:HH22	3:GA:124:VAL:HG11	1.71	0.55
3:GF:49:GLN:HG3	3:GF:81:VAL:HG12	1.87	0.55
3:GO:22:ARG:NH1	3:GO:24:SER:OG	2.39	0.55
3:GP:49:GLN:OE1	3:GP:79:ARG:NH2	2.39	0.55
1:R:1:G:H21	1:R:28:A:H62	1.55	0.55
1:R:1503:C:H2'	1:R:1504:G:C8	2.41	0.55
1:R:1577:U:O4	1:R:1704:G:O6	2.25	0.55
1:R:2029:U:H2'	1:R:2030:A:C8	2.42	0.55
1:R:2271:G:H22	1:R:2301:U:H2'	1.71	0.55
1:R:3662:U:N3	1:R:3666:U:OP2	2.40	0.55
2:a:1:MET:HE1	2:a:3:MET:HB2	1.89	0.55
3:AI:56:ARG:HD3	3:AI:57:PRO:HD2	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BB:5:MET:HG2	3:BB:18:SER:C	2.32	0.55
3:BF:5:MET:HE1	3:CB:124:VAL:C	2.31	0.55
3:BS:124:VAL:HB	3:BU:2:ASN:HB2	1.88	0.55
3:BW:87:GLU:N	3:BW:87:GLU:OE1	2.39	0.55
3:BW:129:THR:HG22	3:FI:3:LYS:HG3	1.89	0.55
3:CD:55:LYS:NZ	3:CD:75:ASN:OD1	2.33	0.55
3:DD:95:GLU:HA	3:DD:98:THR:HG22	1.89	0.55
3:DO:68:CYS:N	3:EV:64:CYS:SG	2.80	0.55
3:FF:33:ARG:HG3	3:FF:46:VAL:HG22	1.89	0.55
3:GV:30:SER:O	3:GV:49:GLN:N	2.37	0.55
1:R:86:U:H3'	1:R:87:A:H8	1.71	0.55
1:R:162:C:H5''	1:R:163:C:H5	1.71	0.55
1:R:1314:U:H3	1:R:1370:C:N4	2.04	0.55
1:R:1928:A:OP1	1:R:1969:C:O2'	2.24	0.55
1:R:1931:G:H2'	1:R:1932:A:H8	1.72	0.55
1:R:2075:G:N2	1:R:2183:C:O2'	2.39	0.55
1:R:2313:A:H2'	1:R:2314:C:H6	1.71	0.55
1:R:2603:C:H5''	1:R:2604:A:H5''	1.88	0.55
1:R:3136:U:H2'	1:R:3137:U:C6	2.42	0.55
1:R:3309:G:H2'	1:R:3310:G:C8	2.41	0.55
1:R:3805:A:H2'	1:R:3806:G:C8	2.41	0.55
1:R:4192:A:OP2	1:R:4231:C:N4	2.34	0.55
1:R:4261:U:H2'	1:R:4262:U:C6	2.42	0.55
3:AK:32:LEU:HB3	3:AK:34:GLN:NE2	2.20	0.55
3:AL:80:THR:HG23	3:EX:80:THR:HG22	1.89	0.55
3:BG:71:MET:SD	3:BG:71:MET:N	2.80	0.55
3:BI:96:TRP:CE2	3:BI:100:LYS:HD2	2.42	0.55
3:CI:5:MET:HG2	3:CI:18:SER:C	2.32	0.55
3:EJ:11:THR:HG22	3:EJ:12:ALA:H	1.71	0.55
3:GF:5:MET:HG2	3:GF:18:SER:C	2.32	0.55
3:Gc:97:GLU:HA	3:Gc:100:LYS:HE2	1.87	0.55
1:R:1820:G:OP1	3:CA:79:ARG:NH1	2.40	0.55
1:R:1841:U:H2'	1:R:1842:C:C6	2.42	0.55
1:R:1883:U:H3'	1:R:1884:G:H4'	1.89	0.55
1:R:2315:U:H2'	1:R:2316:G:C8	2.41	0.55
1:R:2557:A:H5'	1:R:2558:C:H5''	1.89	0.55
1:R:2899:U:N3	1:R:2957:A:OP2	2.32	0.55
1:R:3324:G:H2'	1:R:3325:A:C8	2.42	0.55
1:R:3555:U:H4'	1:R:3556:U:H4'	1.89	0.55
1:R:4002:U:O4	1:R:4021:G:O6	2.25	0.55
1:R:4084:C:H42	1:R:4142:A:H61	1.54	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AO:19:ASP:OD2	3:AO:21:THR:OG1	2.20	0.55
3:BO:2:ASN:HB2	3:EG:124:VAL:HB	1.89	0.55
3:CM:38:VAL:HG23	3:CM:39:GLY:H	1.72	0.55
3:DA:16:VAL:HG13	3:DA:28:SER:HB3	1.87	0.55
3:DG:2:ASN:HB2	3:GS:124:VAL:HB	1.89	0.55
3:DY:57:PRO:HA	3:DY:73:ASN:HA	1.89	0.55
3:EK:48:GLY:O	3:EK:81:VAL:HA	2.07	0.55
3:EW:57:PRO:HA	3:EW:73:ASN:HA	1.89	0.55
3:EX:68:CYS:O	3:EX:69:VAL:HB	2.05	0.55
3:FQ:24:SER:HB2	3:FQ:55:LYS:HG2	1.88	0.55
3:FW:58:ALA:HB1	3:GB:43:LEU:HD11	1.88	0.55
3:GG:51:VAL:HG22	3:GG:79:ARG:HG2	1.88	0.55
3:Gc:22:ARG:NH2	3:Gc:55:LYS:O	2.40	0.55
3:GU:14:LYS:HD3	3:GU:30:SER:HB3	1.89	0.55
1:R:727:G:H2'	1:R:728:U:H6	1.71	0.54
1:R:776:C:H2'	1:R:777:U:C6	2.41	0.54
1:R:1579:G:H1	1:R:1702:G:H22	1.56	0.54
1:R:1751:U:H2'	1:R:1752:G:C8	2.42	0.54
1:R:2279:C:H2'	1:R:2280:G:C8	2.43	0.54
1:R:2493:G:H2'	1:R:2494:A:H8	1.72	0.54
1:R:2996:G:N2	1:R:4057:U:H3	2.05	0.54
2:b:495:VAL:HG23	2:b:497:ASP:H	1.72	0.54
3:AP:114:LEU:HD13	3:DZ:6:GLN:NE2	2.22	0.54
3:BI:8:ILE:HA	3:EW:116:PHE:HB2	1.88	0.54
3:BY:16:VAL:HG12	3:BY:28:SER:HB3	1.88	0.54
3:CH:5:MET:HG2	3:CH:18:SER:C	2.32	0.54
3:DA:91:THR:OG1	3:GM:56:ARG:NH1	2.40	0.54
3:EG:51:VAL:HG22	3:EG:79:ARG:HG2	1.88	0.54
3:EI:9:THR:HG23	3:EK:12:ALA:HB1	1.88	0.54
3:EO:108:ALA:HA	3:FE:93:LYS:HE2	1.89	0.54
3:EP:56:ARG:HD3	3:EP:57:PRO:HD2	1.89	0.54
3:GI:62:GLU:OE1	3:GI:63:GLY:N	2.39	0.54
3:GY:66:ASP:OD2	3:GY:69:VAL:HG13	2.07	0.54
1:R:37:U:H2'	1:R:38:C:O4'	2.06	0.54
1:R:60:A:H4'	1:R:1051:U:N3	2.23	0.54
1:R:128:A:H2'	1:R:129:A:H8	1.73	0.54
1:R:130:C:H2'	1:R:131:U:C6	2.42	0.54
1:R:468:A:H2'	1:R:469:C:C6	2.42	0.54
1:R:2235:A:H2'	1:R:2236:G:H8	1.71	0.54
1:R:2453:A:H2'	1:R:2454:A:C8	2.42	0.54
1:R:4105:A:H2'	1:R:4106:C:C6	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AQ:17:TRP:CG	3:CQ:123:ILE:HD11	2.42	0.54
3:BK:124:VAL:HG22	3:EW:2:ASN:HB2	1.89	0.54
3:BT:5:MET:HG2	3:BT:18:SER:C	2.32	0.54
3:DE:19:ASP:OD2	3:DE:22:ARG:N	2.34	0.54
3:DS:56:ARG:NH2	3:DS:76:GLN:OE1	2.40	0.54
3:ED:5:MET:HG2	3:ED:18:SER:C	2.33	0.54
3:Gc:5:MET:HG2	3:Gc:18:SER:C	2.32	0.54
1:R:420:C:H2'	1:R:421:G:C8	2.41	0.54
1:R:537:U:O2'	1:R:1766:C:O2'	2.22	0.54
1:R:543:U:O5'	1:R:545:A:N6	2.39	0.54
1:R:1268:C:H2'	1:R:1269:A:C8	2.42	0.54
1:R:1322:C:H2'	1:R:1323:U:C6	2.42	0.54
1:R:1441:U:H5''	1:R:1507:A:C8	2.43	0.54
1:R:2147:C:H2'	1:R:2148:A:C8	2.42	0.54
1:R:2314:C:H2'	1:R:2315:U:C6	2.42	0.54
1:R:3481:U:H2'	1:R:3482:G:H8	1.71	0.54
2:a:349:GLU:HG2	2:a:350:ILE:HD12	1.89	0.54
3:AF:17:TRP:CG	3:FJ:123:ILE:HD11	2.42	0.54
3:AP:22:ARG:NH1	3:AP:24:SER:OG	2.37	0.54
3:AV:49:GLN:HG2	3:AV:81:VAL:HG12	1.90	0.54
3:BJ:5:MET:HG2	3:BJ:18:SER:C	2.32	0.54
3:BW:56:ARG:NH1	3:FI:95:GLU:OE2	2.40	0.54
3:Dc:22:ARG:NH2	3:Dc:55:LYS:O	2.40	0.54
3:DW:2:ASN:ND2	3:FK:125:SER:O	2.40	0.54
3:DY:19:ASP:OD2	3:DY:21:THR:OG1	2.20	0.54
3:EW:19:ASP:OD2	3:EW:22:ARG:N	2.41	0.54
3:GA:61:PRO:HD2	3:GA:71:MET:HE3	1.88	0.54
3:GB:44:ASN:ND2	3:GC:23:LEU:HB2	2.22	0.54
3:GL:66:ASP:N	3:GL:66:ASP:OD2	2.39	0.54
3:GU:5:MET:HG2	3:GU:18:SER:C	2.32	0.54
1:R:348:U:O2'	1:R:350:G:N7	2.39	0.54
1:R:364:A:H2'	1:R:365:U:C6	2.41	0.54
1:R:420:C:H2'	1:R:421:G:H8	1.70	0.54
1:R:1257:U:H2'	1:R:1258:G:C8	2.43	0.54
1:R:2534:G:H21	3:CN:32:LEU:HD21	1.71	0.54
1:R:2553:C:H2'	1:R:2554:G:C8	2.43	0.54
1:R:2917:C:H2'	1:R:2918:U:C6	2.41	0.54
1:R:3878:A:H2'	1:R:3879:G:H8	1.73	0.54
3:AF:16:VAL:HG22	3:AF:28:SER:HB2	1.88	0.54
3:AX:67:ALA:HB1	3:BD:64:CYS:HA	1.89	0.54
3:AX:95:GLU:OE1	3:EL:56:ARG:NH2	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AY:78:ILE:HD11	3:EK:96:TRP:HE3	1.72	0.54
3:BB:4:PRO:HA	3:EN:124:VAL:HA	1.88	0.54
3:BQ:49:GLN:OE1	3:BQ:49:GLN:N	2.40	0.54
3:BV:85:SER:OG	3:BV:87:GLU:OE1	2.26	0.54
3:DL:8:ILE:N	3:DL:16:VAL:O	2.38	0.54
3:EM:58:ALA:HB3	3:EM:71:MET:HB3	1.89	0.54
3:GS:14:LYS:NZ	3:GS:30:SER:HB2	2.23	0.54
3:GU:44:ASN:ND2	3:GU:87:GLU:OE2	2.41	0.54
1:R:42:U:H2'	1:R:43:U:C6	2.43	0.54
1:R:1077:U:H2'	1:R:1078:A:C8	2.42	0.54
1:R:2298:G:H2'	1:R:2299:C:H6	1.71	0.54
1:R:2385:G:H2'	1:R:2386:C:C6	2.43	0.54
1:R:2833:U:H2'	1:R:2834:U:C2	2.42	0.54
1:R:3711:A:H2'	1:R:3712:U:C6	2.43	0.54
3:AG:33:ARG:NH2	3:DS:115:GLY:O	2.34	0.54
3:AI:5:MET:HG2	3:AI:18:SER:C	2.33	0.54
3:AK:125:SER:OG	3:AK:126:SER:N	2.39	0.54
3:AN:91:THR:HG21	3:CN:56:ARG:HD2	1.89	0.54
3:AX:123:ILE:HG13	3:EL:17:TRP:CE2	2.42	0.54
3:EU:55:LYS:HD3	3:EU:73:ASN:HD22	1.72	0.54
3:FL:60:LYS:HA	3:FL:71:MET:HE2	1.90	0.54
1:R:276:U:H2'	1:R:277:G:H8	1.73	0.54
1:R:479:G:OP2	1:R:612:G:H5''	2.08	0.54
1:R:492:G:O6	1:R:493:A:N6	2.41	0.54
1:R:702:U:H5''	1:R:981:C:C4	2.43	0.54
1:R:1040:G:H2'	1:R:1041:U:C6	2.43	0.54
1:R:1638:A:H2'	1:R:1639:A:C8	2.43	0.54
1:R:1964:U:H2'	1:R:1965:G:C8	2.43	0.54
1:R:2063:A:H4'	1:R:2064:U:H5'	1.90	0.54
1:R:2505:A:H2'	1:R:2506:A:C8	2.43	0.54
1:R:2960:C:H2'	1:R:2961:A:C8	2.43	0.54
1:R:3124:U:O2	1:R:3138:G:O6	2.26	0.54
1:R:4019:A:H2'	1:R:4020:A:C8	2.42	0.54
3:BH:117:LEU:HD21	3:ET:31:LEU:HD22	1.89	0.54
3:BP:70:ILE:CD1	3:EG:61:PRO:HG2	2.32	0.54
3:BT:82:ILE:HA	3:FF:78:ILE:HG22	1.90	0.54
3:CN:33:ARG:NH1	3:CO:8:ILE:HD11	2.22	0.54
3:DC:5:MET:HG2	3:DC:18:SER:C	2.32	0.54
3:DX:5:MET:HG2	3:DX:18:SER:C	2.33	0.54
3:EM:35:ARG:NH2	3:EM:43:LEU:O	2.40	0.54
3:FB:85:SER:OG	3:FB:88:ASN:OD1	2.24	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:FC:60:LYS:HB2	3:FC:71:MET:SD	2.46	0.54
3:GD:13:ASN:OD1	3:GD:33:ARG:NH2	2.41	0.54
3:GP:89:LEU:HD21	3:GP:93:LYS:HE3	1.90	0.54
1:R:1061:C:H2'	1:R:1062:G:C8	2.42	0.54
1:R:2667:G:O6	1:R:2742:U:O4	2.26	0.54
1:R:3264:G:H2'	1:R:3265:U:C6	2.43	0.54
1:R:3744:C:H2'	1:R:3745:C:C6	2.42	0.54
2:a:275:ARG:HD2	2:a:331:MET:HE3	1.89	0.54
3:Ac:91:THR:OG1	3:FD:56:ARG:NH1	2.41	0.54
3:Bc:96:TRP:HE3	3:EJ:78:ILE:HD11	1.72	0.54
3:BU:19:ASP:OD2	3:BU:22:ARG:N	2.31	0.54
3:DJ:33:ARG:NH2	3:GV:115:GLY:O	2.41	0.54
3:EQ:60:LYS:HA	3:EQ:71:MET:HE3	1.88	0.54
3:EU:74:GLU:OE1	3:EU:74:GLU:N	2.41	0.54
3:FB:57:PRO:HA	3:FB:73:ASN:HA	1.88	0.54
3:FW:66:ASP:OD1	3:FW:68:CYS:C	2.50	0.54
3:GA:89:LEU:HD21	3:GA:93:LYS:HE2	1.88	0.54
3:GB:60:LYS:HE3	3:GB:65:ALA:HA	1.90	0.54
3:GY:62:GLU:OE1	3:GY:62:GLU:N	2.40	0.54
1:R:252:C:H2'	1:R:253:A:C8	2.42	0.54
1:R:319:A:H2	3:DK:35:ARG:HH21	1.53	0.54
1:R:438:U:O4'	1:R:714:A:N6	2.40	0.54
1:R:1570:G:H2'	1:R:1571:A:C8	2.43	0.54
1:R:1869:G:O6	1:R:1884:G:N2	2.41	0.54
1:R:2769:U:H3	1:R:2804:G:H1	1.55	0.54
1:R:3691:U:H2'	1:R:3692:A:C8	2.42	0.54
1:R:4101:C:H2'	1:R:4102:A:C8	2.43	0.54
2:a:147:ARG:NH2	2:a:182:ARG:HG3	2.23	0.54
2:a:222:TRP:O	2:a:226:ASN:ND2	2.40	0.54
3:AC:33:ARG:HE	3:FG:115:GLY:HA3	1.73	0.54
3:AG:81:VAL:HG22	3:DS:79:ARG:HG2	1.89	0.54
3:AT:60:LYS:HG2	3:AT:71:MET:HE2	1.90	0.54
3:BA:5:MET:HG2	3:BA:18:SER:C	2.33	0.54
3:BD:54:TYR:CD1	3:BD:56:ARG:HG2	2.43	0.54
3:BK:123:ILE:HD11	3:EW:17:TRP:CG	2.43	0.54
3:Bc:62:GLU:HG2	3:Bc:63:GLY:N	2.23	0.54
3:CA:55:LYS:HB3	3:CA:73:ASN:ND2	2.23	0.54
3:CQ:19:ASP:OD2	3:CQ:21:THR:OG1	2.21	0.54
3:CT:8:ILE:HG13	3:CT:18:SER:HB2	1.87	0.54
3:EW:87:GLU:OE1	3:EW:87:GLU:N	2.39	0.54
3:FT:124:VAL:HB	3:FY:2:ASN:HB2	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GE:57:PRO:HA	3:GE:73:ASN:HA	1.89	0.54
3:Gc:37:LYS:NZ	3:Gc:38:VAL:O	2.35	0.54
3:GY:19:ASP:OD2	3:GY:21:THR:OG1	2.22	0.54
1:R:107:A:H2'	1:R:108:A:C8	2.42	0.54
1:R:1230:A:H61	1:R:1297:G:HI'	1.71	0.54
1:R:1667:A:H3'	1:R:1668:G:C8	2.43	0.54
1:R:1686:U:H2'	1:R:1687:A:C8	2.43	0.54
1:R:2643:U:H2'	1:R:2644:U:H6	1.73	0.54
1:R:3265:U:H2'	1:R:3266:A:C8	2.43	0.54
3:AB:17:TRP:CG	3:DI:123:ILE:HD11	2.43	0.54
3:BE:123:ILE:HD11	3:EQ:17:TRP:CG	2.43	0.54
3:BS:49:GLN:HA	3:BS:81:VAL:HG12	1.88	0.54
3:CX:124:VAL:HB	3:GJ:2:ASN:HB2	1.89	0.54
3:DQ:58:ALA:HB3	3:DQ:71:MET:HG3	1.90	0.54
3:DZ:5:MET:HE1	3:FN:124:VAL:C	2.33	0.54
3:FH:98:THR:HA	3:FH:101:ARG:HG2	1.90	0.54
3:FK:5:MET:HB3	3:FK:17:TRP:HB3	1.90	0.54
3:Fc:51:VAL:HG22	3:Fc:79:ARG:HG3	1.90	0.54
3:FS:38:VAL:HG23	3:FS:39:GLY:H	1.72	0.54
3:GG:55:LYS:NZ	3:GG:75:ASN:OD1	2.19	0.54
3:GK:115:GLY:O	3:GX:33:ARG:NH2	2.31	0.54
1:R:495:C:H2'	1:R:496:G:C8	2.42	0.54
1:R:546:A:OP2	1:R:608:C:O2'	2.24	0.54
1:R:827:G:H2'	1:R:828:G:C8	2.43	0.54
1:R:1000:U:OP2	1:R:1092:G:N2	2.29	0.54
1:R:1103:A:H2'	1:R:1104:A:H8	1.72	0.54
1:R:2402:G:H2'	1:R:2403:C:C6	2.43	0.54
1:R:2612:G:H4'	3:FA:45:ASN:HD21	1.71	0.54
1:R:2842:U:H2'	1:R:2843:A:C8	2.43	0.54
1:R:2852:U:O5'	3:BK:79:ARG:NH2	2.41	0.54
1:R:3481:U:H2'	1:R:3482:G:C8	2.43	0.54
1:R:3597:U:H2'	1:R:3598:G:C8	2.43	0.54
1:R:3710:C:H2'	1:R:3711:A:C8	2.42	0.54
2:a:319:ALA:O	2:a:323:MET:HG2	2.08	0.54
2:b:457:SER:HB3	2:b:509:LYS:HD2	1.89	0.54
3:AP:5:MET:HG2	3:AP:18:SER:C	2.32	0.54
3:AT:68:CYS:SG	3:EH:66:ASP:HB3	2.47	0.54
3:AV:36:VAL:O	3:AV:43:LEU:HB3	2.08	0.54
3:AV:104:ASP:OD2	3:EH:96:TRP:NE1	2.39	0.54
3:BF:5:MET:SD	3:CB:125:SER:HB2	2.48	0.54
3:BN:61:PRO:O	3:BN:62:GLU:C	2.50	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BZ:19:ASP:OD2	3:BZ:22:ARG:N	2.31	0.54
3:CF:19:ASP:OD2	3:CF:21:THR:OG1	2.25	0.54
3:CX:5:MET:HE2	3:GJ:123:ILE:HG22	1.89	0.54
3:DD:57:PRO:HA	3:DD:73:ASN:HA	1.88	0.54
3:DK:16:VAL:HG13	3:DK:28:SER:HB3	1.90	0.54
3:DK:51:VAL:HG23	3:DK:79:ARG:HG2	1.88	0.54
3:DZ:111:ASN:HB2	3:DZ:114:LEU:HD12	1.88	0.54
3:EA:5:MET:HB3	3:EA:17:TRP:HB3	1.89	0.54
3:EI:44:ASN:ND2	3:EJ:23:LEU:HB2	2.23	0.54
3:GT:38:VAL:HG21	3:GT:43:LEU:HD12	1.90	0.54
1:R:566:G:O6	1:R:599:U:O4	2.26	0.53
1:R:891:A:H2'	1:R:892:G:H8	1.73	0.53
1:R:1622:C:H2'	1:R:1623:A:H8	1.73	0.53
1:R:1817:C:H2'	1:R:1818:A:C8	2.42	0.53
1:R:3402:A:H2'	1:R:3403:U:C6	2.43	0.53
1:R:3550:G:H2'	1:R:3551:U:H4'	1.90	0.53
1:R:4080:C:H2'	1:R:4081:G:C8	2.42	0.53
3:AT:56:ARG:NH1	3:BJ:91:THR:OG1	2.41	0.53
3:AU:79:ARG:HB3	3:EI:81:VAL:HG22	1.88	0.53
3:AX:117:LEU:HD13	3:EL:15:ILE:HG13	1.90	0.53
3:BH:88:ASN:HD22	3:ET:56:ARG:HG2	1.71	0.53
3:BK:31:LEU:HD21	3:EW:117:LEU:HD22	1.89	0.53
3:BN:124:VAL:HA	3:EZ:4:PRO:HA	1.90	0.53
3:CK:96:TRP:CZ2	3:CK:100:LYS:HD3	2.43	0.53
3:CM:59:PRO:HB3	3:DO:87:GLU:HG3	1.89	0.53
3:CN:71:MET:N	3:CN:71:MET:SD	2.81	0.53
3:CW:61:PRO:HG2	3:FW:68:CYS:SG	2.48	0.53
3:DH:68:CYS:SG	3:GV:64:CYS:N	2.80	0.53
3:DM:107:PHE:O	3:GY:93:LYS:NZ	2.41	0.53
3:EL:51:VAL:HG22	3:EL:79:ARG:HG2	1.89	0.53
3:FD:55:LYS:HB3	3:FD:73:ASN:ND2	2.23	0.53
3:FE:5:MET:HG2	3:FE:18:SER:C	2.32	0.53
3:FJ:5:MET:HG2	3:FJ:18:SER:C	2.34	0.53
3:FM:38:VAL:HG23	3:FM:39:GLY:H	1.71	0.53
3:FX:105:THR:HG23	3:FX:106:LEU:HD12	1.90	0.53
3:GN:100:LYS:HG2	3:Gc:100:LYS:HD2	1.90	0.53
1:R:323:A:H2'	1:R:324:U:C6	2.42	0.53
1:R:556:G:H5''	1:R:602:U:OP1	2.08	0.53
1:R:1491:C:C5	1:R:1499:A:H5'	2.40	0.53
1:R:1621:U:O2	1:R:1634:G:N2	2.34	0.53
1:R:1826:G:H2'	1:R:1827:A:C8	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2640:G:N2	1:R:2642:G:OP1	2.40	0.53
1:R:3476:C:H5'	2:a:280:VAL:HA	1.90	0.53
1:R:3632:C:H2'	1:R:3633:A:C8	2.42	0.53
1:R:3917:C:H2'	1:R:3918:A:C8	2.43	0.53
1:R:4145:A:H2'	1:R:4146:C:C6	2.43	0.53
2:b:513:PHE:HA	2:b:517:ASP:OD2	2.08	0.53
3:AL:117:LEU:HD13	3:EX:15:ILE:HG12	1.89	0.53
3:AX:85:SER:OG	3:AX:88:ASN:OD1	2.26	0.53
3:BB:56:ARG:HG3	3:BB:57:PRO:HD2	1.90	0.53
3:BC:3:LYS:NZ	3:BY:128:THR:O	2.40	0.53
3:BE:124:VAL:HB	3:EQ:2:ASN:HB2	1.90	0.53
3:Cc:96:TRP:NE1	3:GD:104:ASP:OD1	2.37	0.53
3:CS:117:LEU:HD13	3:DU:15:ILE:HG22	1.91	0.53
3:DA:60:LYS:NZ	3:DA:64:CYS:O	2.31	0.53
3:DB:56:ARG:HD3	3:DB:57:PRO:HD2	1.90	0.53
3:DL:11:THR:HG22	3:DL:12:ALA:H	1.73	0.53
3:DM:38:VAL:HG13	3:DM:39:GLY:H	1.73	0.53
3:DS:5:MET:HG2	3:DS:18:SER:C	2.32	0.53
3:EA:54:TYR:HD2	3:EA:56:ARG:HG2	1.73	0.53
3:EB:58:ALA:O	3:EB:60:LYS:N	2.37	0.53
3:ET:5:MET:HG2	3:ET:18:SER:C	2.33	0.53
3:FG:12:ALA:HB2	3:FH:10:SER:H	1.73	0.53
3:GK:57:PRO:HA	3:GK:73:ASN:HA	1.89	0.53
3:GL:34:GLN:NE2	3:GL:35:ARG:O	2.41	0.53
3:GL:71:MET:N	3:GL:71:MET:SD	2.82	0.53
3:GN:87:GLU:HG3	3:Gc:59:PRO:HG3	1.89	0.53
1:R:214:G:N2	3:GD:34:GLN:OE1	2.41	0.53
1:R:1272:C:H2'	1:R:1273:U:C6	2.43	0.53
2:a:286:ARG:HG3	2:a:320:LEU:HD13	1.90	0.53
2:b:407:VAL:HG23	2:b:462:ALA:HB2	1.90	0.53
3:AM:5:MET:HG2	3:AM:18:SER:C	2.33	0.53
3:AM:14:LYS:HZ3	3:AM:30:SER:HB3	1.73	0.53
3:BG:89:LEU:HD21	3:BG:93:LYS:HE3	1.91	0.53
3:CC:98:THR:HG21	3:CC:126:SER:HB3	1.91	0.53
3:CK:22:ARG:NH2	3:CK:55:LYS:O	2.39	0.53
3:CW:11:THR:HG22	3:CW:12:ALA:H	1.73	0.53
3:DC:57:PRO:HA	3:DC:73:ASN:HA	1.91	0.53
3:EB:71:MET:HA	3:EB:71:MET:HE3	1.90	0.53
3:ES:87:GLU:OE1	3:ES:87:GLU:N	2.40	0.53
3:FT:72:PRO:HG2	3:FY:38:VAL:HG12	1.89	0.53
3:GA:51:VAL:HG23	3:GA:79:ARG:HB3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GK:2:ASN:HB2	3:GX:124:VAL:HB	1.90	0.53
1:R:1021:A:N1	1:R:1081:A:N6	2.56	0.53
1:R:1174:A:O2'	1:R:1176:A:N7	2.32	0.53
1:R:1866:U:H4'	3:BH:35:ARG:HH12	1.73	0.53
1:R:2370:A:H2'	1:R:2371:A:H8	1.73	0.53
2:b:402:ARG:NH1	2:b:467:ARG:HG2	2.23	0.53
3:AS:87:GLU:OE1	3:AS:87:GLU:N	2.40	0.53
3:BY:35:ARG:NH1	3:BY:44:ASN:OD1	2.42	0.53
3:DB:82:ILE:HA	3:GI:78:ILE:HG22	1.89	0.53
3:DM:104:ASP:OD1	3:GY:96:TRP:NE1	2.34	0.53
3:DT:58:ALA:HB1	3:DT:60:LYS:NZ	2.24	0.53
3:EM:30:SER:HB3	3:EM:49:GLN:HB3	1.89	0.53
3:FI:30:SER:HB3	3:FI:49:GLN:HB3	1.91	0.53
3:FI:89:LEU:HD21	3:FI:93:LYS:HE2	1.91	0.53
3:FT:19:ASP:OD2	3:FT:21:THR:OG1	2.21	0.53
3:FV:56:ARG:HD3	3:FV:57:PRO:HD2	1.90	0.53
3:GH:56:ARG:NH1	3:GH:76:GLN:OE1	2.42	0.53
1:R:167:G:H2'	1:R:168:C:H6	1.74	0.53
1:R:344:G:H1	1:R:353:U:H3	1.56	0.53
1:R:1572:C:H2'	1:R:1574:G:C8	2.43	0.53
1:R:1575:G:H2'	1:R:1576:U:C6	2.44	0.53
1:R:1902:A:H2'	1:R:1903:A:C8	2.43	0.53
1:R:2339:A:H2'	1:R:2340:C:C6	2.44	0.53
1:R:3941:U:H2'	1:R:3942:G:C8	2.44	0.53
1:R:4174:A:H2'	1:R:4175:A:C8	2.42	0.53
1:R:4229:A:O3'	1:R:4268:C:N4	2.42	0.53
2:a:498:PRO:O	2:a:499:ARG:HD3	2.09	0.53
3:AJ:57:PRO:HA	3:AJ:73:ASN:HA	1.90	0.53
3:AN:123:ILE:HG21	3:CN:17:TRP:CD1	2.43	0.53
3:AO:124:VAL:HA	3:FA:4:PRO:HA	1.90	0.53
3:AT:5:MET:HG3	3:AT:17:TRP:HB3	1.91	0.53
3:BG:87:GLU:OE1	3:BG:87:GLU:N	2.40	0.53
3:BM:33:ARG:NH2	3:BX:115:GLY:O	2.37	0.53
3:BO:62:GLU:OE1	3:BO:63:GLY:N	2.42	0.53
3:CK:128:THR:O	3:DH:3:LYS:NZ	2.42	0.53
3:DB:8:ILE:HA	3:GP:116:PHE:HB2	1.90	0.53
3:EG:55:LYS:HE3	3:EG:75:ASN:OD1	2.08	0.53
3:FN:57:PRO:HA	3:FN:73:ASN:HA	1.91	0.53
3:FU:87:GLU:OE1	3:FU:87:GLU:N	2.41	0.53
3:GP:6:GLN:N	3:GP:6:GLN:OE1	2.41	0.53
1:R:481:U:H5''	1:R:513:G:OP2	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1257:U:H2'	1:R:1258:G:H8	1.73	0.53
1:R:1479:A:H2'	1:R:1480:A:C8	2.44	0.53
1:R:2820:G:N2	1:R:2831:U:O2	2.42	0.53
1:R:3143:U:H2'	1:R:3144:C:C6	2.43	0.53
1:R:4238:C:H2'	1:R:4239:G:C8	2.43	0.53
2:a:373:THR:HG22	2:a:408:LYS:HE2	1.91	0.53
3:AF:37:LYS:NZ	3:AF:38:VAL:O	2.36	0.53
3:AI:11:THR:HG22	3:AI:12:ALA:H	1.74	0.53
3:AN:98:THR:HG21	3:AN:126:SER:HA	1.89	0.53
3:BC:66:ASP:OD1	3:BC:67:ALA:N	2.40	0.53
3:BF:95:GLU:O	3:BF:99:HIS:N	2.29	0.53
3:CE:8:ILE:HB	3:CE:16:VAL:HG23	1.90	0.53
3:CO:30:SER:O	3:CO:49:GLN:N	2.38	0.53
3:CU:57:PRO:HA	3:CU:73:ASN:HA	1.90	0.53
3:CV:36:VAL:N	3:CV:42:GLU:OE2	2.41	0.53
3:CX:19:ASP:OD2	3:CX:22:ARG:N	2.31	0.53
3:DA:55:LYS:NZ	3:DA:75:ASN:OD1	2.27	0.53
3:DB:17:TRP:CE2	3:GI:123:ILE:HD12	2.44	0.53
3:Dc:5:MET:HG2	3:Dc:18:SER:C	2.34	0.53
3:EH:84:GLY:HA3	3:EH:92:LEU:HD11	1.91	0.53
3:EL:18:SER:HB2	3:EL:26:THR:HG22	1.91	0.53
3:EX:62:GLU:OE1	3:EX:63:GLY:N	2.41	0.53
3:FA:36:VAL:N	3:FA:42:GLU:OE2	2.41	0.53
3:FG:12:ALA:HB1	3:FH:9:THR:HA	1.89	0.53
3:FY:56:ARG:O	3:FY:74:GLU:N	2.40	0.53
1:R:514:C:H4'	1:R:515:C:H4'	1.90	0.53
1:R:615:U:H2'	1:R:616:A:H8	1.72	0.53
1:R:1466:U:H2'	1:R:1467:G:C8	2.44	0.53
1:R:2453:A:H2'	1:R:2454:A:H8	1.73	0.53
1:R:2745:U:H2'	1:R:2746:A:H8	1.73	0.53
1:R:3296:G:H2'	1:R:3297:A:H8	1.71	0.53
1:R:4155:G:H2'	1:R:4156:A:H8	1.72	0.53
3:AB:4:PRO:HA	3:DI:124:VAL:HA	1.91	0.53
3:Ac:87:GLU:HG3	3:FD:59:PRO:HG3	1.91	0.53
3:AU:10:SER:HA	3:AU:15:ILE:HG22	1.89	0.53
3:AU:56:ARG:HD2	3:EI:91:THR:HG21	1.91	0.53
3:AX:93:LYS:HD2	3:EL:108:ALA:HA	1.91	0.53
3:BC:111:ASN:HB2	3:BC:114:LEU:HD12	1.90	0.53
3:CJ:2:ASN:OD1	3:ED:101:ARG:NH2	2.41	0.53
3:CU:124:VAL:HG22	3:GG:2:ASN:HB2	1.91	0.53
3:CV:3:LYS:NZ	3:GL:128:THR:O	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DB:27:PHE:HD1	3:DB:52:SER:HB3	1.74	0.53
3:FW:2:ASN:HB2	3:GB:124:VAL:HB	1.91	0.53
3:FW:44:ASN:ND2	3:FW:87:GLU:OE2	2.42	0.53
3:GC:5:MET:HG2	3:GC:18:SER:C	2.33	0.53
3:GC:66:ASP:HB3	3:GC:69:VAL:HG12	1.89	0.53
1:R:120:C:H2'	1:R:121:A:H8	1.71	0.53
1:R:413:U:H2'	1:R:414:G:C8	2.43	0.53
1:R:440:U:H2'	1:R:441:C:C5	2.44	0.53
1:R:973:C:OP2	1:R:1103:A:O2'	2.22	0.53
1:R:1252:G:H2'	1:R:1253:A:C8	2.41	0.53
1:R:1940:U:O4	1:R:1941:A:N6	2.42	0.53
1:R:1993:C:H2'	1:R:1994:A:C8	2.43	0.53
1:R:2260:U:H2'	1:R:2261:U:C6	2.43	0.53
1:R:2363:U:OP2	3:AV:79:ARG:NH2	2.42	0.53
1:R:2842:U:H2'	1:R:2843:A:H8	1.73	0.53
1:R:2852:U:H2'	1:R:2854:A:H2'	1.89	0.53
1:R:2916:U:H2'	1:R:2917:C:C6	2.44	0.53
2:b:232:PHE:HE2	2:b:369:SER:H	1.56	0.53
3:AB:111:ASN:HB2	3:AB:114:LEU:HD12	1.89	0.53
3:AO:5:MET:HE2	3:FA:125:SER:HB2	1.90	0.53
3:CH:67:ALA:HB3	3:EA:64:CYS:HB2	1.89	0.53
3:DJ:5:MET:HE2	3:GV:123:ILE:HG22	1.90	0.53
3:FZ:2:ASN:HB2	3:GT:124:VAL:HG22	1.91	0.53
3:GK:3:LYS:HD3	3:GX:129:THR:HG22	1.91	0.53
1:R:7:A:H2'	1:R:8:A:H8	1.74	0.53
1:R:1013:G:O6	1:R:1085:U:O4	2.26	0.53
1:R:1559:C:H2'	1:R:1560:C:H4'	1.90	0.53
1:R:2166:G:H21	3:Bc:34:GLN:N	2.06	0.53
1:R:2953:U:H3	2:b:262:ARG:HB2	1.72	0.53
1:R:3406:U:O2'	1:R:3407:U:O4'	2.24	0.53
1:R:3611:U:H2'	1:R:3612:A:H8	1.73	0.53
2:b:294:ASP:HA	2:b:297:ILE:HB	1.90	0.53
3:AS:117:LEU:HD21	3:EE:31:LEU:HD13	1.90	0.53
3:AW:38:VAL:HG13	3:AW:39:GLY:H	1.73	0.53
3:BH:33:ARG:NH2	3:ET:115:GLY:O	2.35	0.53
3:BK:39:GLY:HA2	3:EW:72:PRO:HG2	1.91	0.53
3:Bc:31:LEU:HD23	3:EJ:115:GLY:HA2	1.89	0.53
3:CE:98:THR:HA	3:CE:101:ARG:HG2	1.89	0.53
3:CI:49:GLN:OE1	3:CI:79:ARG:NH2	2.42	0.53
3:CO:17:TRP:CE2	3:GA:123:ILE:HG13	2.44	0.53
3:CU:56:ARG:NH1	3:CU:76:GLN:OE1	2.42	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DH:5:MET:HG2	3:DH:17:TRP:HB3	1.91	0.53
3:DJ:128:THR:O	3:GV:3:LYS:NZ	2.42	0.53
3:FQ:31:LEU:HD23	3:FQ:48:GLY:HA2	1.91	0.53
3:FT:72:PRO:HG3	3:FY:39:GLY:HA3	1.91	0.53
3:FX:37:LYS:HZ1	3:FX:40:ILE:N	2.07	0.53
3:GJ:60:LYS:HD3	3:GJ:61:PRO:HD2	1.91	0.53
1:R:949:C:H2'	1:R:950:U:H4'	1.91	0.53
1:R:1268:C:H2'	1:R:1269:A:H8	1.74	0.53
1:R:1604:G:H2'	1:R:1605:G:H8	1.73	0.53
1:R:1842:C:H3'	1:R:1843:A:H5''	1.90	0.53
1:R:2008:G:H2'	1:R:2009:C:C6	2.44	0.53
1:R:2136:C:O2'	1:R:2138:A:N7	2.41	0.53
1:R:2191:C:H2'	1:R:2192:A:C8	2.42	0.53
1:R:2192:A:H2'	1:R:2193:G:C8	2.44	0.53
1:R:2425:A:H2'	1:R:2426:G:C8	2.43	0.53
1:R:2769:U:H2'	1:R:2770:C:C6	2.44	0.53
1:R:2952:G:N7	2:b:258:LYS:NZ	2.57	0.53
1:R:2961:A:H2'	1:R:2962:U:C6	2.44	0.53
1:R:4002:U:H2'	1:R:4003:U:C6	2.44	0.53
2:b:282:PHE:CE2	2:b:324:ARG:HG3	2.44	0.53
3:AB:51:VAL:HG22	3:AB:79:ARG:HG3	1.91	0.53
3:AE:117:LEU:HD13	3:DL:15:ILE:HG12	1.90	0.53
3:AJ:74:GLU:OE2	3:DV:88:ASN:ND2	2.34	0.53
3:AL:8:ILE:N	3:AL:16:VAL:O	2.41	0.53
3:AL:58:ALA:HB3	3:AL:71:MET:HG3	1.90	0.53
3:AU:15:ILE:HG12	3:EI:117:LEU:HD13	1.90	0.53
3:BC:115:GLY:HA2	3:BY:31:LEU:HD23	1.91	0.53
3:Bc:96:TRP:NE1	3:Bc:100:LYS:HD2	2.24	0.53
3:BW:49:GLN:HA	3:BW:81:VAL:HA	1.91	0.53
3:CW:6:GLN:HB2	3:GL:116:PHE:CE2	2.44	0.53
3:EE:60:LYS:CB	3:EE:71:MET:HB3	2.40	0.53
3:EX:5:MET:HG2	3:EX:18:SER:C	2.34	0.53
3:GF:35:ARG:HE	3:GF:44:ASN:HA	1.73	0.53
1:R:571:U:O2	1:R:596:A:N6	2.42	0.52
1:R:825:U:O2'	1:R:827:G:O6	2.23	0.52
1:R:1102:G:H2'	1:R:1103:A:H8	1.74	0.52
1:R:1324:C:H2'	1:R:1325:A:H8	1.73	0.52
1:R:1656:U:H2'	1:R:1657:G:H8	1.75	0.52
1:R:1948:A:H2'	1:R:1949:U:H4'	1.91	0.52
1:R:1984:C:N4	1:R:2266:C:OP1	2.43	0.52
1:R:2118:A:N6	1:R:2153:G:O6	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2241:A:H2'	1:R:2242:A:H8	1.74	0.52
1:R:2506:A:H2'	1:R:2507:G:C8	2.44	0.52
1:R:2769:U:O2	1:R:2804:G:N2	2.41	0.52
1:R:2897:G:H2'	1:R:2898:G:C8	2.44	0.52
1:R:3519:U:O4	1:R:3527:G:O6	2.27	0.52
1:R:4143:C:H2'	1:R:4144:C:C6	2.44	0.52
1:R:4232:C:C4	1:R:4233:C:N4	2.77	0.52
2:a:5:LYS:HB2	2:a:188:TYR:CD1	2.44	0.52
2:b:238:GLU:HG2	3:CM:116:PHE:HB3	1.91	0.52
3:AH:64:CYS:SG	3:AH:65:ALA:N	2.83	0.52
3:AV:56:ARG:HD2	3:EH:91:THR:HG21	1.91	0.52
3:BE:105:THR:HG23	3:BE:106:LEU:HD12	1.92	0.52
3:BN:61:PRO:HB2	3:EX:68:CYS:SG	2.50	0.52
3:CS:58:ALA:HB3	3:CS:71:MET:HG3	1.91	0.52
3:DN:62:GLU:CD	3:EW:68:CYS:H	2.17	0.52
3:EV:105:THR:O	3:EV:109:SER:OG	2.25	0.52
3:FO:60:LYS:HZ3	3:FO:65:ALA:HB2	1.74	0.52
3:FU:5:MET:HG2	3:FU:18:SER:C	2.34	0.52
3:FY:5:MET:HG2	3:FY:18:SER:C	2.34	0.52
3:FZ:58:ALA:HB1	3:FZ:59:PRO:HD2	1.91	0.52
3:GX:97:GLU:HA	3:GX:100:LYS:HB2	1.91	0.52
1:R:629:A:C5	1:R:982:U:H5	2.27	0.52
1:R:733:G:O6	1:R:925:A:N6	2.43	0.52
1:R:868:C:H2'	1:R:869:G:O4'	2.09	0.52
1:R:1006:U:H2'	1:R:1007:A:C8	2.44	0.52
1:R:1587:U:H2'	1:R:1588:G:H8	1.73	0.52
1:R:2068:U:H3	1:R:2190:G:H1	1.56	0.52
1:R:2261:U:H2'	1:R:2262:G:H8	1.74	0.52
1:R:2315:U:H2'	1:R:2316:G:H8	1.74	0.52
1:R:2369:C:H2'	1:R:2370:A:C8	2.45	0.52
1:R:2933:U:H2'	1:R:2934:U:H6	1.74	0.52
2:a:135:GLN:HA	2:a:192:TRP:HA	1.90	0.52
2:a:248:ASP:OD1	2:a:249:ALA:N	2.42	0.52
2:a:292:LYS:HG3	2:a:295:ARG:HH21	1.75	0.52
3:AQ:49:GLN:HG3	3:AQ:81:VAL:HG12	1.90	0.52
3:AQ:115:GLY:O	3:CQ:33:ARG:NH2	2.42	0.52
3:Ac:6:GLN:HB2	3:CQ:116:PHE:HE2	1.74	0.52
3:AU:128:THR:O	3:EI:3:LYS:NZ	2.41	0.52
3:BM:15:ILE:HG12	3:BX:117:LEU:HD13	1.90	0.52
3:CI:87:GLU:OE1	3:CI:87:GLU:N	2.34	0.52
3:CV:73:ASN:OD1	3:CV:74:GLU:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DO:70:ILE:O	3:DO:71:MET:HE2	2.10	0.52
3:EM:19:ASP:OD2	3:EM:22:ARG:N	2.36	0.52
3:EZ:49:GLN:HG3	3:EZ:81:VAL:HG12	1.90	0.52
3:FK:8:ILE:HB	3:FK:16:VAL:HG23	1.90	0.52
3:FQ:71:MET:SD	3:FQ:71:MET:N	2.82	0.52
3:FT:66:ASP:OD2	3:FT:67:ALA:N	2.38	0.52
3:FZ:102:ASN:HB3	3:GT:27:PHE:CE2	2.45	0.52
3:GC:37:LYS:HZ2	3:GC:41:ALA:H	1.58	0.52
3:GK:125:SER:O	3:GX:2:ASN:ND2	2.40	0.52
1:R:272:U:H2'	1:R:273:A:C8	2.43	0.52
1:R:854:A:H2'	1:R:855:A:C8	2.44	0.52
1:R:1178:U:H2'	1:R:1179:G:H8	1.74	0.52
1:R:1238:A:H2'	1:R:1239:G:C8	2.44	0.52
1:R:1515:U:H2'	1:R:1516:U:C6	2.44	0.52
1:R:2412:U:O2'	3:EH:75:ASN:ND2	2.42	0.52
1:R:3020:C:H2'	1:R:3021:G:H8	1.74	0.52
1:R:4018:U:H2'	1:R:4019:A:C8	2.44	0.52
2:a:11:ILE:O	2:a:50:ARG:NH2	2.42	0.52
3:AV:127:ASP:OD2	3:AV:127:ASP:N	2.41	0.52
3:AW:5:MET:HG2	3:AW:18:SER:C	2.34	0.52
3:BA:1:ALA:O	3:EF:129:THR:OG1	2.24	0.52
3:BM:37:LYS:NZ	3:BM:38:VAL:O	2.35	0.52
3:CG:5:MET:SD	3:EA:125:SER:HB2	2.49	0.52
3:CJ:43:LEU:HD22	3:CJ:87:GLU:OE2	2.10	0.52
3:CX:35:ARG:HH21	3:CX:44:ASN:HA	1.73	0.52
3:DQ:56:ARG:HD3	3:DQ:57:PRO:HD2	1.90	0.52
3:EL:38:VAL:HG22	3:EL:39:GLY:H	1.74	0.52
3:EO:23:LEU:HB2	3:EQ:44:ASN:ND2	2.24	0.52
3:FI:27:PHE:HD1	3:FI:52:SER:HB2	1.73	0.52
3:FU:101:ARG:HH11	3:FU:101:ARG:HG3	1.74	0.52
3:FV:125:SER:OG	3:FV:126:SER:N	2.43	0.52
1:R:192:A:H2'	1:R:193:A:C8	2.44	0.52
1:R:436:G:OP2	1:R:942:G:O2'	2.26	0.52
1:R:967:A:C2	1:R:993:C:H2'	2.45	0.52
1:R:1072:A:H2'	1:R:1073:U:H6	1.72	0.52
1:R:1255:U:H2'	1:R:1256:U:C6	2.44	0.52
1:R:1359:U:H2'	1:R:1360:G:C8	2.45	0.52
1:R:2145:C:H2'	1:R:2146:G:H8	1.74	0.52
1:R:2375:U:H5''	1:R:2376:A:H5'	1.92	0.52
1:R:2570:C:H2'	1:R:2571:A:C8	2.44	0.52
1:R:4179:U:H2'	1:R:4180:U:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:a:401:PRO:HB3	2:a:468:PHE:CE2	2.44	0.52
3:AC:82:ILE:HD13	3:FG:78:ILE:HG23	1.91	0.52
3:AH:129:THR:HA	3:DF:3:LYS:HE3	1.90	0.52
3:AP:60:LYS:HZ3	3:AP:65:ALA:HA	1.75	0.52
3:BA:82:ILE:HG22	3:EF:78:ILE:HG23	1.92	0.52
3:BK:102:ASN:HB3	3:EW:27:PHE:CE2	2.44	0.52
3:BZ:31:LEU:HD13	3:FL:117:LEU:HD21	1.90	0.52
3:CC:71:MET:SD	3:CC:71:MET:N	2.72	0.52
3:CD:61:PRO:O	3:CD:62:GLU:HG3	2.10	0.52
3:CE:100:LYS:HD2	3:DK:100:LYS:HG2	1.90	0.52
3:CF:124:VAL:HB	3:Fc:2:ASN:HB2	1.91	0.52
3:CI:59:PRO:O	3:CI:60:LYS:HG2	2.09	0.52
3:CJ:95:GLU:OE1	3:ED:56:ARG:NH2	2.43	0.52
3:CM:81:VAL:HG22	3:DO:79:ARG:HB3	1.90	0.52
3:CP:2:ASN:HB2	3:Dc:124:VAL:HG12	1.90	0.52
3:DH:51:VAL:HG13	3:DH:79:ARG:HB3	1.90	0.52
3:DJ:44:ASN:ND2	3:DJ:87:GLU:OE2	2.43	0.52
3:EF:19:ASP:OD2	3:EF:22:ARG:N	2.38	0.52
3:FB:37:LYS:HE2	3:FB:40:ILE:HA	1.92	0.52
3:GM:55:LYS:HE2	3:GM:55:LYS:HA	1.91	0.52
3:GY:101:ARG:HH12	3:GY:124:VAL:HG21	1.74	0.52
1:R:1289:U:H2'	1:R:1290:U:C6	2.45	0.52
1:R:1310:U:O2	1:R:1373:C:N4	2.42	0.52
1:R:1630:U:H2'	1:R:1631:C:C6	2.45	0.52
1:R:2850:U:H3	1:R:2855:U:H3	1.57	0.52
1:R:3250:U:N3	1:R:3257:G:C6	2.76	0.52
1:R:3282:C:H2'	1:R:3283:A:C8	2.44	0.52
1:R:3411:C:H2'	1:R:3412:C:C6	2.44	0.52
1:R:4249:G:H2'	1:R:4250:C:C6	2.43	0.52
2:b:127:ILE:HD12	2:b:204:PHE:HB2	1.92	0.52
3:AV:85:SER:OG	3:AV:88:ASN:OD1	2.21	0.52
3:BM:35:ARG:HH22	3:BM:42:GLU:HG3	1.74	0.52
3:BO:31:LEU:HD13	3:EG:117:LEU:HD21	1.90	0.52
3:BQ:124:VAL:HB	3:FC:2:ASN:HB2	1.91	0.52
3:BT:38:VAL:HG22	3:BT:39:GLY:H	1.75	0.52
3:BU:60:LYS:HD2	3:BU:61:PRO:HD2	1.90	0.52
3:BV:96:TRP:NE1	3:BV:100:LYS:HE2	2.25	0.52
3:BW:111:ASN:HB2	3:BW:114:LEU:HD13	1.91	0.52
3:CB:71:MET:HA	3:CB:71:MET:HE3	1.91	0.52
3:CC:51:VAL:HG22	3:CC:79:ARG:HG3	1.91	0.52
3:CF:5:MET:HG2	3:CF:18:SER:C	2.34	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CG:80:THR:HG22	3:EA:80:THR:HG23	1.91	0.52
3:CH:80:THR:HG22	3:DE:80:THR:HG23	1.92	0.52
3:DS:125:SER:OG	3:DS:127:ASP:OD1	2.25	0.52
3:FG:95:GLU:HA	3:FG:98:THR:HG22	1.92	0.52
3:FZ:61:PRO:HD2	3:FZ:71:MET:HE2	1.91	0.52
3:GC:39:GLY:HA3	3:GW:72:PRO:HG3	1.92	0.52
3:GM:59:PRO:O	3:GM:60:LYS:HG2	2.09	0.52
3:GQ:60:LYS:HD2	3:GQ:61:PRO:HD2	1.92	0.52
1:R:131:U:H2'	1:R:132:U:O4'	2.10	0.52
1:R:168:C:H2'	1:R:169:G:H8	1.75	0.52
1:R:401:G:C4	1:R:403:A:H4'	2.45	0.52
1:R:537:U:H2'	1:R:538:A:N7	2.25	0.52
1:R:895:A:H2'	1:R:896:C:C6	2.45	0.52
1:R:1856:G:C2	1:R:1897:A:H5''	2.45	0.52
1:R:2368:A:H2'	1:R:2369:C:C6	2.44	0.52
1:R:2752:C:O2'	1:R:2810:C:OP1	2.22	0.52
2:a:2:ASN:HD21	2:a:187:LYS:HG3	1.75	0.52
2:a:222:TRP:CD1	2:a:504:LEU:HD23	2.43	0.52
3:AS:24:SER:HB3	3:AS:55:LYS:HG2	1.91	0.52
3:AX:11:THR:HG22	3:AX:12:ALA:H	1.75	0.52
3:BN:61:PRO:HD3	3:BN:71:MET:CE	2.40	0.52
3:CL:3:LYS:HZ2	3:FX:128:THR:C	2.18	0.52
3:CZ:19:ASP:OD1	3:CZ:22:ARG:N	2.34	0.52
3:DC:127:ASP:N	3:DC:127:ASP:OD1	2.42	0.52
3:EL:111:ASN:HB2	3:EL:114:LEU:HD12	1.92	0.52
3:ET:55:LYS:HB3	3:ET:73:ASN:ND2	2.23	0.52
3:FD:55:LYS:HB3	3:FD:73:ASN:HD21	1.74	0.52
3:FU:34:GLN:NE2	3:FU:35:ARG:O	2.42	0.52
3:GC:79:ARG:HB2	3:GW:81:VAL:HG22	1.92	0.52
3:GF:57:PRO:HA	3:GF:73:ASN:HA	1.91	0.52
1:R:124:A:H2'	1:R:125:G:C8	2.44	0.52
1:R:487:U:O4	1:R:489:A:N6	2.42	0.52
1:R:1910:G:H2'	1:R:1911:G:C8	2.45	0.52
1:R:1983:A:N7	1:R:2265:C:H2'	2.25	0.52
1:R:2652:U:H2'	1:R:2653:U:C6	2.45	0.52
1:R:3102:C:H2'	1:R:3103:A:C8	2.44	0.52
1:R:3672:G:H2'	1:R:3673:A:C8	2.45	0.52
3:AM:114:LEU:HD22	3:DW:6:GLN:NE2	2.24	0.52
3:AU:85:SER:OG	3:AU:88:ASN:OD1	2.26	0.52
3:BC:65:ALA:O	3:BC:67:ALA:N	2.43	0.52
3:BL:33:ARG:NH2	3:EM:115:GLY:O	2.36	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CF:111:ASN:HD22	3:FP:6:GLN:HG2	1.74	0.52
3:CO:34:GLN:NE2	3:CO:35:ARG:O	2.43	0.52
3:Cc:89:LEU:HD21	3:Cc:93:LYS:HE3	1.91	0.52
3:CX:24:SER:HB2	3:CX:55:LYS:HG2	1.92	0.52
3:DC:58:ALA:HB3	3:DC:71:MET:HG2	1.90	0.52
3:DQ:61:PRO:O	3:DQ:62:GLU:HG3	2.10	0.52
3:DY:125:SER:OG	3:DY:126:SER:N	2.41	0.52
3:Ec:38:VAL:HG23	3:Ec:39:GLY:H	1.73	0.52
3:ES:19:ASP:OD2	3:ES:22:ARG:N	2.34	0.52
3:FA:12:ALA:HB1	3:FB:9:THR:HG23	1.91	0.52
3:FW:19:ASP:OD2	3:FW:22:ARG:N	2.43	0.52
3:GF:35:ARG:HH21	3:GF:44:ASN:HA	1.75	0.52
3:GF:71:MET:SD	3:GF:71:MET:N	2.79	0.52
1:R:324:U:H2'	1:R:325:G:C8	2.44	0.52
1:R:380:A:H2'	1:R:381:A:C8	2.45	0.52
1:R:922:G:N2	1:R:923:A:H62	2.08	0.52
1:R:2762:G:H2'	1:R:2763:C:C6	2.44	0.52
1:R:3323:C:H2'	1:R:3324:G:H8	1.74	0.52
1:R:3368:A:H2'	1:R:3369:G:C8	2.45	0.52
1:R:3899:G:H2'	1:R:3900:G:C8	2.45	0.52
1:R:3907:G:O6	1:R:4113:A:N6	2.43	0.52
1:R:4210:A:H1'	1:R:4211:G:C8	2.45	0.52
2:b:94:LYS:HB3	2:b:126:LYS:HE3	1.90	0.52
3:AO:123:ILE:HD11	3:FA:17:TRP:CG	2.45	0.52
3:AS:89:LEU:HD11	3:EE:113:GLY:HA3	1.90	0.52
3:AW:2:ASN:HB2	3:BD:124:VAL:HB	1.92	0.52
3:BH:31:LEU:HD13	3:ET:117:LEU:HD21	1.92	0.52
3:BM:124:VAL:HB	3:BX:2:ASN:HB2	1.91	0.52
3:BP:116:PHE:HE2	3:CB:6:GLN:HB2	1.74	0.52
3:BX:49:GLN:OE1	3:BX:79:ARG:NH2	2.42	0.52
3:CA:57:PRO:HB3	3:CA:73:ASN:HA	1.90	0.52
3:CS:96:TRP:CE2	3:CS:100:LYS:HD2	2.45	0.52
3:Dc:111:ASN:HB2	3:Dc:114:LEU:HD12	1.92	0.52
3:EH:5:MET:HG2	3:EH:18:SER:C	2.35	0.52
3:EO:117:LEU:HD21	3:FE:31:LEU:HD13	1.92	0.52
3:FG:38:VAL:HG21	3:FG:43:LEU:HD12	1.91	0.52
3:GW:60:LYS:HZ3	3:GW:65:ALA:HA	1.75	0.52
1:R:73:C:H2'	1:R:74:U:C6	2.45	0.52
1:R:1039:C:O2'	1:R:1067:A:N6	2.42	0.52
1:R:1327:G:H2'	1:R:1328:A:C8	2.45	0.52
1:R:1838:A:H2'	1:R:1839:G:C8	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2187:A:C6	1:R:2189:A:H5'	2.45	0.52
1:R:3399:A:H2'	1:R:3400:G:C8	2.45	0.52
1:R:3445:U:H2'	1:R:3446:C:C6	2.45	0.52
1:R:4194:A:N1	1:R:4195:A:N6	2.51	0.52
3:AT:97:GLU:HA	3:AT:100:LYS:HB2	1.91	0.52
3:AZ:113:GLY:O	3:BG:46:VAL:HG21	2.10	0.52
3:BL:59:PRO:HB3	3:EM:43:LEU:HD21	1.92	0.52
3:BN:5:MET:HG2	3:BN:18:SER:C	2.35	0.52
3:BN:37:LYS:NZ	3:BN:41:ALA:H	2.05	0.52
3:Bc:104:ASP:OD1	3:EJ:96:TRP:NE1	2.40	0.52
3:BT:51:VAL:HG22	3:BT:79:ARG:HG2	1.91	0.52
3:BU:37:LYS:NZ	3:BU:38:VAL:O	2.36	0.52
3:CK:96:TRP:CD1	3:DH:78:ILE:HD13	2.44	0.52
3:CO:78:ILE:HG22	3:GA:82:ILE:HA	1.91	0.52
3:CV:19:ASP:OD2	3:CV:21:THR:OG1	2.23	0.52
3:DW:57:PRO:HA	3:DW:73:ASN:HA	1.90	0.52
3:EE:38:VAL:HG12	3:EE:43:LEU:HD13	1.92	0.52
3:EM:8:ILE:N	3:EM:16:VAL:O	2.40	0.52
3:FD:18:SER:HB3	3:FD:26:THR:HG22	1.92	0.52
3:FN:19:ASP:OD2	3:FN:21:THR:OG1	2.25	0.52
1:R:354:U:H2'	1:R:355:G:H8	1.73	0.52
1:R:1902:A:H2'	1:R:1903:A:H8	1.74	0.52
1:R:2413:G:OP1	3:EH:77:SER:OG	2.28	0.52
1:R:2958:U:OP1	2:b:273:ARG:NH2	2.43	0.52
1:R:3140:A:H2'	1:R:3141:U:C6	2.45	0.52
1:R:3913:U:H2'	1:R:3914:A:C8	2.45	0.52
1:R:3913:U:H2'	1:R:3914:A:H8	1.74	0.52
2:a:130:LYS:HB2	2:a:485:ILE:HB	1.92	0.52
2:a:326:ARG:O	2:a:330:LYS:HG2	2.09	0.52
3:AC:37:LYS:HD3	3:AC:42:GLU:OE2	2.10	0.52
3:Ac:11:THR:HB	3:Ac:14:LYS:HB3	1.92	0.52
3:AX:20:PRO:HB3	3:BD:116:PHE:HE2	1.75	0.52
3:AZ:2:ASN:HB2	3:BG:124:VAL:HB	1.92	0.52
3:BA:91:THR:OG1	3:EF:56:ARG:NH1	2.43	0.52
3:BB:39:GLY:HA2	3:EN:72:PRO:HG2	1.91	0.52
3:BI:128:THR:O	3:BV:3:LYS:NZ	2.43	0.52
3:Bc:93:LYS:HD2	3:EJ:108:ALA:HA	1.90	0.52
3:BW:64:CYS:SG	3:FG:67:ALA:HB1	2.50	0.52
3:CG:33:ARG:NH2	3:EA:115:GLY:O	2.37	0.52
3:CM:56:ARG:O	3:CM:74:GLU:HG2	2.10	0.52
3:CU:37:LYS:NZ	3:CU:38:VAL:O	2.28	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DN:78:ILE:HG23	3:EV:82:ILE:HG12	1.92	0.52
3:DZ:61:PRO:HB2	3:DZ:64:CYS:HB3	1.91	0.52
3:EC:96:TRP:NE1	3:EC:100:LYS:HE3	2.25	0.52
3:EY:51:VAL:HG22	3:EY:79:ARG:HG2	1.92	0.52
3:FC:5:MET:HG2	3:FC:18:SER:C	2.35	0.52
3:FH:5:MET:HG3	3:FH:17:TRP:HB3	1.91	0.52
3:FK:66:ASP:OD1	3:FK:67:ALA:N	2.41	0.52
3:Fc:39:GLY:O	3:Fc:41:ALA:N	2.42	0.52
3:GA:55:LYS:NZ	3:GA:75:ASN:OD1	2.31	0.52
3:GA:67:ALA:HB1	3:GT:63:GLY:HA3	1.91	0.52
3:GS:40:ILE:O	3:GS:40:ILE:HG13	2.10	0.52
3:GX:66:ASP:OD1	3:GX:69:VAL:HG22	2.10	0.52
1:R:299:A:H2'	1:R:300:G:C8	2.45	0.51
1:R:477:U:H2'	1:R:478:G:H8	1.75	0.51
1:R:537:U:HO2'	1:R:1766:C:HO2'	1.55	0.51
1:R:1093:U:O2	1:R:1094:C:N4	2.42	0.51
1:R:1576:U:H2'	1:R:1577:U:C6	2.45	0.51
1:R:2216:C:N4	1:R:2217:G:O6	2.43	0.51
1:R:2338:G:H2'	1:R:2339:A:H8	1.73	0.51
1:R:2523:A:H1'	1:R:2525:A:C8	2.44	0.51
1:R:2819:C:N4	1:R:2820:G:O6	2.43	0.51
1:R:3425:U:O2	1:R:3453:G:N2	2.42	0.51
2:a:531:SER:OG	2:a:532:ARG:NH1	2.43	0.51
2:b:327:GLU:HA	2:b:330:LYS:HG2	1.90	0.51
2:b:347:ARG:HB2	2:b:430:TRP:NE1	2.24	0.51
3:AE:59:PRO:HG2	3:AE:71:MET:HG3	1.92	0.51
3:AF:31:LEU:HD13	3:FJ:117:LEU:HD21	1.91	0.51
3:BN:117:LEU:HD13	3:EZ:15:ILE:HG13	1.92	0.51
3:CB:101:ARG:HH12	3:CB:124:VAL:HG21	1.73	0.51
3:CO:96:TRP:CE2	3:CO:100:LYS:HE3	2.45	0.51
3:CU:5:MET:HG2	3:CU:18:SER:C	2.35	0.51
3:CY:115:GLY:HA2	3:GO:31:LEU:HD23	1.92	0.51
3:DT:87:GLU:OE1	3:DT:87:GLU:N	2.41	0.51
3:EE:61:PRO:HD3	3:EE:71:MET:CE	2.38	0.51
3:ET:5:MET:HB3	3:ET:17:TRP:HB3	1.92	0.51
3:FD:98:THR:HG21	3:FD:126:SER:HB3	1.91	0.51
3:FK:5:MET:HG2	3:FK:18:SER:C	2.35	0.51
3:GF:17:TRP:CG	3:GQ:123:ILE:HD11	2.45	0.51
3:GK:62:GLU:HG3	3:GK:63:GLY:N	2.22	0.51
3:GS:57:PRO:HA	3:GS:73:ASN:HA	1.91	0.51
3:GY:49:GLN:OE1	3:GY:79:ARG:NH2	2.34	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GY:58:ALA:O	3:GY:60:LYS:N	2.43	0.51
1:R:1058:A:H2'	1:R:1059:A:H8	1.73	0.51
1:R:1765:G:O6	1:R:1770:C:O2'	2.27	0.51
1:R:1910:G:H2'	1:R:1911:G:H8	1.74	0.51
1:R:2081:U:H2'	1:R:2082:G:C8	2.45	0.51
1:R:3661:C:N3	1:R:3668:C:N4	2.58	0.51
2:a:317:LEU:HA	2:a:320:LEU:HD12	1.93	0.51
2:b:257:ILE:HD11	2:b:435:LEU:HD12	1.92	0.51
3:AP:59:PRO:HG2	3:EB:87:GLU:HG3	1.91	0.51
3:AS:124:VAL:HG22	3:EE:2:ASN:HB2	1.92	0.51
3:BS:125:SER:O	3:BU:2:ASN:ND2	2.38	0.51
3:BW:56:ARG:HD2	3:FI:91:THR:HG21	1.91	0.51
3:CJ:2:ASN:HB2	3:ED:124:VAL:HB	1.92	0.51
3:CM:27:PHE:CE2	3:DO:102:ASN:HB3	2.45	0.51
3:DC:14:LYS:HD3	3:DC:30:SER:HB3	1.92	0.51
3:DC:31:LEU:HD13	3:FS:117:LEU:HD21	1.92	0.51
3:EH:89:LEU:HD13	3:EH:93:LYS:HE3	1.91	0.51
3:FD:96:TRP:NE1	3:FD:100:LYS:HE2	2.25	0.51
1:R:793:U:H2'	1:R:794:G:C8	2.45	0.51
1:R:1375:C:H2'	1:R:1376:G:C8	2.45	0.51
1:R:1414:U:H2'	1:R:1415:U:C6	2.45	0.51
1:R:1442:U:H2'	1:R:1443:G:C8	2.44	0.51
1:R:1827:A:H2'	1:R:1828:U:C6	2.45	0.51
1:R:2264:C:H2'	1:R:2265:C:C6	2.46	0.51
1:R:3309:G:H2'	1:R:3310:G:H8	1.75	0.51
1:R:3869:U:H5'	1:R:3870:U:H5''	1.92	0.51
2:a:99:ARG:O	2:a:100:ARG:NE	2.42	0.51
3:AI:19:ASP:OD2	3:AI:21:THR:OG1	2.19	0.51
3:AP:56:ARG:HD3	3:AP:57:PRO:HD2	1.93	0.51
3:BA:51:VAL:HG13	3:BA:79:ARG:HG2	1.91	0.51
3:BD:20:PRO:HB3	3:BY:116:PHE:HE2	1.76	0.51
3:BI:125:SER:HB2	3:BV:5:MET:SD	2.50	0.51
3:CI:66:ASP:OD1	3:CI:67:ALA:N	2.43	0.51
3:DN:44:ASN:HD22	3:DO:23:LEU:HB2	1.76	0.51
3:DQ:2:ASN:HB2	3:EP:124:VAL:HB	1.91	0.51
3:EE:59:PRO:O	3:EE:60:LYS:C	2.52	0.51
3:FA:38:VAL:HG23	3:FA:39:GLY:H	1.74	0.51
3:FI:99:HIS:O	3:FI:103:VAL:HG12	2.10	0.51
3:FS:5:MET:SD	3:FS:5:MET:N	2.83	0.51
3:GO:67:ALA:HB1	3:Gc:64:CYS:HB3	1.92	0.51
1:R:115:A:H2'	1:R:116:C:H6	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:494:U:H2'	1:R:495:C:C6	2.45	0.51
1:R:1186:C:H2'	1:R:1187:G:H8	1.75	0.51
1:R:1187:G:H2'	1:R:1188:G:C8	2.45	0.51
1:R:1471:G:H2'	1:R:1472:U:O4'	2.09	0.51
1:R:1503:C:H2'	1:R:1504:G:H8	1.74	0.51
1:R:2493:G:H2'	1:R:2494:A:C8	2.46	0.51
1:R:2907:G:H2'	1:R:2908:A:C8	2.44	0.51
1:R:3380:C:H2'	1:R:3381:C:C6	2.45	0.51
1:R:3703:A:H2'	1:R:3704:U:C6	2.45	0.51
1:R:4114:U:H2'	1:R:4115:A:H8	1.73	0.51
3:AC:123:ILE:HG13	3:FG:5:MET:SD	2.50	0.51
3:AH:115:GLY:HA2	3:DF:31:LEU:HD23	1.91	0.51
3:AX:2:ASN:HB2	3:EL:124:VAL:HG22	1.92	0.51
3:AX:128:THR:HA	3:EL:2:ASN:HD22	1.76	0.51
3:BB:35:ARG:HG2	3:BB:44:ASN:HD22	1.74	0.51
3:BN:60:LYS:HD2	3:BN:71:MET:HE1	1.93	0.51
3:BQ:82:ILE:HG13	3:FC:78:ILE:HG12	1.92	0.51
3:BX:12:ALA:HB1	3:BY:9:THR:HA	1.91	0.51
3:CH:60:LYS:HA	3:CH:71:MET:HE3	1.92	0.51
3:CJ:74:GLU:OE2	3:ED:88:ASN:ND2	2.34	0.51
3:CP:14:LYS:HD3	3:CP:30:SER:HB2	1.91	0.51
3:Cc:74:GLU:OE2	3:GD:85:SER:OG	2.27	0.51
3:CS:71:MET:N	3:CS:71:MET:SD	2.84	0.51
3:CV:75:ASN:OD1	3:CV:76:GLN:N	2.44	0.51
3:DQ:96:TRP:NE1	3:DQ:100:LYS:HE2	2.26	0.51
3:DU:60:LYS:HA	3:DU:71:MET:SD	2.50	0.51
3:DW:2:ASN:HB2	3:FK:124:VAL:HB	1.93	0.51
3:EI:49:GLN:HB3	3:EI:81:VAL:HG12	1.91	0.51
3:ET:98:THR:HG21	3:ET:126:SER:HA	1.91	0.51
3:FT:33:ARG:NH2	3:FY:115:GLY:O	2.37	0.51
3:GA:7:PRO:HA	3:GA:17:TRP:HA	1.93	0.51
3:GF:89:LEU:HD21	3:GF:93:LYS:HE2	1.92	0.51
3:GJ:19:ASP:OD2	3:GJ:21:THR:OG1	2.20	0.51
3:GW:14:LYS:HZ3	3:GW:30:SER:HB3	1.74	0.51
1:R:1034:A:N3	3:FK:32:LEU:HG	2.26	0.51
1:R:1290:U:H2'	1:R:1291:C:C6	2.45	0.51
1:R:2192:A:H2'	1:R:2193:G:H8	1.76	0.51
1:R:2299:C:H2'	1:R:2300:U:C6	2.45	0.51
1:R:2932:U:H2'	1:R:2933:U:C6	2.46	0.51
1:R:3361:C:H2'	1:R:3362:U:C6	2.46	0.51
1:R:3896:U:H2'	1:R:3897:G:H8	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AB:96:TRP:CE2	3:AB:100:LYS:HD3	2.45	0.51
3:AO:61:PRO:HB2	3:FB:68:CYS:SG	2.50	0.51
3:AS:95:GLU:HA	3:AS:98:THR:HG22	1.93	0.51
3:AZ:89:LEU:HD21	3:AZ:93:LYS:HE3	1.92	0.51
3:BA:111:ASN:HB3	3:BA:116:PHE:HD2	1.75	0.51
3:CF:111:ASN:ND2	3:FP:6:GLN:HG2	2.25	0.51
3:CH:58:ALA:HB3	3:CH:71:MET:HB3	1.92	0.51
3:CL:58:ALA:HB3	3:CL:71:MET:HE3	1.92	0.51
3:CO:89:LEU:HD11	3:GA:113:GLY:HA3	1.93	0.51
3:CV:67:ALA:HB1	3:GJ:65:ALA:H	1.74	0.51
3:DO:35:ARG:NH2	3:DO:44:ASN:OD1	2.36	0.51
3:FN:5:MET:HB3	3:FN:17:TRP:HB3	1.93	0.51
3:FW:36:VAL:HG21	3:FW:45:ASN:HB2	1.92	0.51
3:GA:19:ASP:OD2	3:GA:22:ARG:N	2.43	0.51
3:GH:93:LYS:NZ	3:GU:108:ALA:O	2.38	0.51
3:GU:101:ARG:HH12	3:GU:124:VAL:HG21	1.75	0.51
1:R:319:A:H2'	1:R:320:A:O4'	2.11	0.51
1:R:468:A:H2'	1:R:469:C:H6	1.75	0.51
1:R:1357:U:H2'	1:R:1358:C:C6	2.45	0.51
1:R:2031:G:H2'	1:R:2032:C:C6	2.44	0.51
1:R:2388:U:H2'	1:R:2389:G:H8	1.75	0.51
1:R:3484:C:H2'	1:R:3485:A:C8	2.45	0.51
1:R:4190:U:HO2'	1:R:4223:G:N2	2.09	0.51
2:a:155:SER:HG	3:CM:109:SER:HG	1.59	0.51
2:b:95:PHE:HB3	2:b:200:PRO:HB2	1.92	0.51
3:AW:123:ILE:HG13	3:BD:5:MET:HE2	1.93	0.51
3:BZ:125:SER:HB2	3:FL:5:MET:HE2	1.93	0.51
3:CL:128:THR:HA	3:FX:2:ASN:HA	1.92	0.51
3:CN:37:LYS:HZ3	3:CN:40:ILE:HA	1.76	0.51
3:DD:3:LYS:HZ1	3:GP:129:THR:HB	1.75	0.51
3:DV:36:VAL:HG13	3:DV:43:LEU:HB2	1.93	0.51
3:EE:49:GLN:OE1	3:EE:79:ARG:NH2	2.43	0.51
3:Ec:19:ASP:OD2	3:Ec:21:THR:OG1	2.22	0.51
3:EV:44:ASN:O	3:EV:86:ALA:N	2.44	0.51
3:GC:61:PRO:HD3	3:GC:71:MET:SD	2.50	0.51
1:R:179:A:P	1:R:179:A:H8	2.34	0.51
1:R:544:G:OP2	1:R:545:A:N6	2.44	0.51
1:R:867:U:H2'	1:R:868:C:C6	2.46	0.51
1:R:1359:U:H2'	1:R:1360:G:H8	1.76	0.51
1:R:1601:C:H2'	1:R:1602:A:H8	1.75	0.51
1:R:1659:U:H2'	1:R:1660:G:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1806:C:H2'	1:R:1807:A:C8	2.46	0.51
1:R:2549:C:H2'	1:R:2550:C:C6	2.46	0.51
1:R:3691:U:H2'	1:R:3692:A:H8	1.74	0.51
1:R:3791:U:H2'	1:R:3792:G:C8	2.43	0.51
2:a:471:LYS:NZ	2:b:450:ALA:O	2.44	0.51
2:b:148:ILE:HG13	2:b:149:ASP:N	2.16	0.51
3:AL:102:ASN:HB3	3:EX:27:PHE:CE2	2.45	0.51
3:AY:2:ASN:HB2	3:EK:124:VAL:HB	1.93	0.51
3:BI:124:VAL:HG13	3:BV:2:ASN:HB2	1.93	0.51
3:BO:91:THR:HG21	3:EG:56:ARG:HD2	1.91	0.51
3:BO:93:LYS:NZ	3:EG:107:PHE:O	2.44	0.51
3:CP:44:ASN:HD21	3:CQ:23:LEU:HB2	1.75	0.51
3:Cc:57:PRO:HA	3:Cc:73:ASN:HA	1.93	0.51
3:Cc:58:ALA:HB3	3:Cc:71:MET:HG3	1.93	0.51
3:CY:2:ASN:HB2	3:GO:124:VAL:HB	1.92	0.51
3:DZ:117:LEU:HD13	3:FN:15:ILE:HG12	1.93	0.51
3:Ec:87:GLU:OE1	3:Ec:87:GLU:N	2.39	0.51
3:EU:5:MET:HG2	3:EU:18:SER:C	2.35	0.51
3:FC:23:LEU:HD23	3:FC:23:LEU:H	1.76	0.51
3:GE:62:GLU:HG3	3:GE:63:GLY:H	1.76	0.51
3:GL:101:ARG:HH21	3:GL:124:VAL:HG21	1.75	0.51
1:R:39:G:N3	1:R:41:A:N7	2.59	0.51
1:R:332:A:H8	1:R:359:C:C5	2.29	0.51
1:R:338:C:H2'	1:R:339:G:C8	2.46	0.51
1:R:972:A:H61	1:R:991:C:H1'	1.76	0.51
1:R:1213:G:H2'	1:R:1214:A:H8	1.76	0.51
1:R:1246:A:H2'	1:R:1247:U:H6	1.76	0.51
1:R:1716:U:O2'	1:R:1718:A:OP2	2.28	0.51
1:R:1892:A:H2'	1:R:1893:A:H8	1.76	0.51
1:R:2166:G:H22	3:Bc:32:LEU:HD12	1.75	0.51
1:R:2204:U:O2	1:R:2253:G:N2	2.35	0.51
1:R:2419:A:H2'	1:R:2420:A:H8	1.76	0.51
1:R:3287:U:H2'	1:R:3288:C:C6	2.45	0.51
1:R:3381:C:O3'	3:AB:35:ARG:NH1	2.40	0.51
1:R:3859:A:H2'	1:R:3860:A:C8	2.46	0.51
2:b:221:VAL:HG12	2:b:407:VAL:HG12	1.92	0.51
3:AI:95:GLU:O	3:AI:99:HIS:N	2.31	0.51
3:AN:38:VAL:HG22	3:AN:39:GLY:H	1.76	0.51
3:AN:51:VAL:HG22	3:AN:79:ARG:HG3	1.93	0.51
3:AX:49:GLN:OE1	3:AX:79:ARG:NH2	2.38	0.51
3:BS:79:ARG:HB2	3:BU:81:VAL:HG22	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CV:2:ASN:HB2	3:GL:124:VAL:HB	1.92	0.51
3:CZ:51:VAL:HG12	3:CZ:79:ARG:HG3	1.93	0.51
3:DB:56:ARG:NH1	3:GI:91:THR:OG1	2.44	0.51
3:DN:15:ILE:HD12	3:EV:117:LEU:HD12	1.93	0.51
3:DW:95:GLU:O	3:DW:99:HIS:N	2.35	0.51
3:EB:51:VAL:HG22	3:EB:79:ARG:HG3	1.93	0.51
3:FQ:17:TRP:CE2	3:GE:123:ILE:HD12	2.45	0.51
3:FX:5:MET:HG2	3:FX:18:SER:C	2.36	0.51
3:GM:101:ARG:NH2	3:GM:124:VAL:HG21	2.26	0.51
1:R:247:G:H2'	1:R:248:G:H8	1.76	0.51
1:R:258:C:H2'	1:R:259:A:C8	2.46	0.51
1:R:734:C:H2'	1:R:735:U:C6	2.46	0.51
1:R:1457:G:H2'	1:R:1458:A:C8	2.46	0.51
1:R:1656:U:H2'	1:R:1657:G:C8	2.44	0.51
1:R:1667:A:H3'	1:R:1668:G:H8	1.76	0.51
1:R:2087:U:H2'	1:R:2088:A:C8	2.46	0.51
1:R:2807:A:H2'	1:R:2808:U:C6	2.46	0.51
1:R:2971:G:N2	1:R:2973:G:H1	2.09	0.51
1:R:3241:U:H2'	1:R:3242:A:H8	1.75	0.51
1:R:3400:G:H2'	1:R:3401:A:C8	2.46	0.51
1:R:3435:G:H2'	1:R:3436:A:C8	2.46	0.51
1:R:3435:G:H2'	1:R:3436:A:H8	1.76	0.51
1:R:4028:A:H2'	1:R:4029:G:C8	2.46	0.51
1:R:4191:A:H1'	1:R:4192:A:N7	2.26	0.51
1:R:4253:A:O2'	1:R:4254:G:O4'	2.29	0.51
2:a:292:LYS:O	2:a:295:ARG:HG3	2.10	0.51
3:BL:19:ASP:OD2	3:BL:22:ARG:N	2.44	0.51
3:BS:13:ASN:OD1	3:BS:14:LYS:N	2.44	0.51
3:BS:43:LEU:HG	3:BS:87:GLU:OE2	2.11	0.51
3:CE:2:ASN:HB2	3:DK:124:VAL:HB	1.93	0.51
3:CF:33:ARG:NH2	3:Fc:115:GLY:O	2.43	0.51
3:CH:5:MET:HB3	3:CH:17:TRP:HB3	1.92	0.51
3:Cc:8:ILE:HB	3:Cc:16:VAL:HG23	1.91	0.51
3:CY:60:LYS:HD2	3:CY:61:PRO:HD2	1.93	0.51
3:CZ:79:ARG:HB3	3:FP:81:VAL:HG22	1.93	0.51
3:DB:6:GLN:NE2	3:DB:7:PRO:O	2.44	0.51
3:EN:35:ARG:HH21	3:EN:44:ASN:HA	1.75	0.51
3:EO:125:SER:HB2	3:FE:5:MET:HE2	1.93	0.51
3:GF:49:GLN:OE1	3:GF:49:GLN:N	2.44	0.51
3:GF:85:SER:OG	3:GF:88:ASN:OD1	2.28	0.51
3:GK:31:LEU:HD13	3:GX:117:LEU:HD21	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1374:G:H2'	1:R:1375:C:C6	2.45	0.51
1:R:2179:C:H5'	1:R:2180:U:O5'	2.11	0.51
1:R:2578:A:H4'	3:FN:79:ARG:HE	1.75	0.51
1:R:2859:G:H2'	1:R:2860:G:H8	1.76	0.51
1:R:3410:U:H2'	1:R:3411:C:C6	2.46	0.51
1:R:3475:A:H5'	2:a:280:VAL:HG21	1.92	0.51
3:AY:8:ILE:HB	3:AY:16:VAL:HG23	1.92	0.51
3:BL:38:VAL:HG23	3:BL:39:GLY:H	1.76	0.51
3:BS:35:ARG:NH2	3:BS:37:LYS:HA	2.26	0.51
3:CH:31:LEU:HD13	3:DE:117:LEU:HD21	1.91	0.51
3:CX:114:LEU:HD22	3:GH:6:GLN:NE2	2.25	0.51
3:CX:114:LEU:HD22	3:GH:6:GLN:HE21	1.75	0.51
3:DL:85:SER:OG	3:DL:88:ASN:OD1	2.29	0.51
3:DT:128:THR:O	3:ES:3:LYS:NZ	2.44	0.51
3:Ec:60:LYS:CE	3:Ec:66:ASP:HB2	2.38	0.51
3:ET:57:PRO:HA	3:ET:73:ASN:HA	1.93	0.51
3:GA:106:LEU:HD11	3:GA:123:ILE:HD11	1.93	0.51
3:GN:60:LYS:HZ3	3:GN:71:MET:HE1	1.76	0.51
1:R:1238:A:H2'	1:R:1239:G:H8	1.76	0.50
1:R:2321:U:OP2	3:EI:79:ARG:NH2	2.45	0.50
1:R:3197:U:H2'	1:R:3198:A:C8	2.45	0.50
1:R:3562:U:H2'	1:R:3563:U:H6	1.76	0.50
1:R:3593:C:H2'	1:R:3594:G:C8	2.46	0.50
1:R:3656:C:O2'	1:R:3657:G:N3	2.43	0.50
1:R:3816:A:OP1	2:a:326:ARG:NH1	2.44	0.50
3:AI:5:MET:HB3	3:AI:17:TRP:HB3	1.93	0.50
3:AN:17:TRP:CE2	3:CN:123:ILE:HD12	2.46	0.50
3:AS:27:PHE:CE2	3:EE:102:ASN:HB3	2.46	0.50
3:AZ:59:PRO:O	3:AZ:60:LYS:HB3	2.10	0.50
3:BE:49:GLN:OE1	3:BE:49:GLN:N	2.43	0.50
3:BE:117:LEU:HD13	3:EQ:15:ILE:HG22	1.93	0.50
3:BP:31:LEU:HD23	3:CA:115:GLY:HA2	1.93	0.50
3:BV:64:CYS:SG	3:BV:65:ALA:N	2.84	0.50
3:BW:100:LYS:NZ	3:FI:104:ASP:OD1	2.36	0.50
3:CO:102:ASN:HB3	3:GA:27:PHE:CE2	2.47	0.50
3:CO:115:GLY:HA2	3:GA:31:LEU:HD11	1.93	0.50
3:CS:91:THR:HG23	3:DU:76:GLN:HE22	1.77	0.50
3:DG:56:ARG:HD3	3:DG:57:PRO:HD2	1.93	0.50
3:EC:58:ALA:HB3	3:EC:71:MET:HE2	1.93	0.50
3:EE:49:GLN:HG2	3:EE:81:VAL:HG22	1.92	0.50
3:EE:60:LYS:HB2	3:EE:71:MET:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:EN:19:ASP:OD2	3:EN:21:THR:OG1	2.19	0.50
3:FX:23:LEU:HD21	3:GB:114:LEU:HD12	1.93	0.50
1:R:7:A:H2'	1:R:8:A:C8	2.46	0.50
1:R:51:G:C2	1:R:69:C:H1'	2.46	0.50
1:R:379:C:H2'	1:R:380:A:H8	1.75	0.50
1:R:1150:G:H1	1:R:1190:A:H2	1.58	0.50
1:R:1612:G:H5'	3:FL:79:ARG:HH22	1.77	0.50
1:R:1868:C:N4	1:R:1884:G:H1	2.04	0.50
1:R:2991:C:H2'	1:R:2992:C:C6	2.45	0.50
1:R:3878:A:H2'	1:R:3879:G:C8	2.45	0.50
2:b:269:LYS:O	2:b:272:GLN:HG2	2.10	0.50
3:AB:79:ARG:HH11	3:AB:81:VAL:HG23	1.76	0.50
3:AV:89:LEU:HG	3:AV:93:LYS:HE2	1.92	0.50
3:Bc:5:MET:HE2	3:EJ:123:ILE:HG13	1.93	0.50
3:CA:5:MET:HB3	3:CA:17:TRP:HB3	1.94	0.50
3:CK:34:GLN:N	3:CK:34:GLN:OE1	2.44	0.50
3:CO:74:GLU:OE2	3:GA:88:ASN:ND2	2.42	0.50
3:CX:87:GLU:OE1	3:CX:87:GLU:N	2.38	0.50
3:DZ:19:ASP:OD2	3:DZ:21:THR:OG1	2.29	0.50
3:EJ:9:THR:HG22	3:EJ:16:VAL:HG22	1.94	0.50
3:EX:38:VAL:HG13	3:EX:39:GLY:H	1.76	0.50
3:FI:5:MET:HB3	3:FI:17:TRP:HB3	1.93	0.50
3:FI:5:MET:HG2	3:FI:18:SER:C	2.36	0.50
3:FO:22:ARG:NH1	3:FO:24:SER:OG	2.37	0.50
3:GD:5:MET:HG2	3:GD:18:SER:C	2.36	0.50
3:GO:5:MET:HG2	3:GO:18:SER:C	2.36	0.50
1:R:1:G:N2	1:R:28:A:H62	2.09	0.50
1:R:168:C:H2'	1:R:169:G:C8	2.46	0.50
1:R:931:A:H2'	1:R:932:C:C6	2.46	0.50
1:R:2367:U:H2'	1:R:2368:A:C8	2.47	0.50
1:R:2605:U:C4	1:R:2607:C:H1'	2.46	0.50
1:R:2802:U:H2'	1:R:2803:G:C8	2.45	0.50
1:R:2867:G:H2'	1:R:2868:G:C8	2.47	0.50
1:R:3821:U:OP1	2:a:292:LYS:NZ	2.35	0.50
1:R:3832:U:H1'	1:R:3835:C:H5	1.77	0.50
1:R:3843:A:H2'	1:R:3844:A:C8	2.46	0.50
1:R:4142:A:H2'	1:R:4143:C:C6	2.45	0.50
2:a:246:PHE:HA	2:a:249:ALA:HB3	1.93	0.50
2:b:179:GLN:NE2	2:b:181:TRP:O	2.35	0.50
3:AG:5:MET:HG2	3:AG:18:SER:C	2.36	0.50
3:AJ:51:VAL:HG13	3:AJ:79:ARG:HG2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AL:116:PHE:CE2	3:EY:6:GLN:HB2	2.46	0.50
3:AX:17:TRP:CG	3:EL:123:ILE:HD11	2.46	0.50
3:AZ:125:SER:HB2	3:BG:5:MET:HE2	1.94	0.50
3:BH:88:ASN:ND2	3:ET:56:ARG:HG2	2.27	0.50
3:BW:88:ASN:ND2	3:FI:74:GLU:OE2	2.45	0.50
3:CW:70:ILE:HD11	3:GL:61:PRO:HG3	1.93	0.50
3:CY:14:LYS:HZ3	3:CY:30:SER:HB2	1.76	0.50
3:DD:123:ILE:HD11	3:GP:17:TRP:CG	2.46	0.50
3:DF:96:TRP:CE2	3:DF:100:LYS:HD2	2.46	0.50
3:DX:23:LEU:HD21	3:FK:114:LEU:HD12	1.93	0.50
3:EE:19:ASP:OD2	3:EE:21:THR:OG1	2.24	0.50
3:EG:60:LYS:HE3	3:EG:69:VAL:HG22	1.93	0.50
3:FD:5:MET:HG2	3:FD:18:SER:C	2.36	0.50
3:FG:9:THR:HB	3:FG:16:VAL:HG22	1.93	0.50
3:GF:123:ILE:HG13	3:GQ:17:TRP:CE2	2.47	0.50
3:GX:5:MET:HB3	3:GX:17:TRP:HB3	1.93	0.50
3:GY:5:MET:HG2	3:GY:18:SER:C	2.36	0.50
1:R:115:A:H2'	1:R:116:C:C6	2.46	0.50
1:R:1186:C:H2'	1:R:1187:G:C8	2.46	0.50
1:R:2149:C:H2'	1:R:2150:A:C8	2.46	0.50
1:R:2531:C:H3'	1:R:2532:G:H8	1.75	0.50
1:R:2575:A:H2'	1:R:2576:U:C6	2.46	0.50
1:R:3051:C:C4	3:CX:55:LYS:HE3	2.46	0.50
1:R:3155:A:H2'	1:R:3156:G:H8	1.77	0.50
1:R:3875:U:H2'	1:R:3876:U:C6	2.46	0.50
1:R:4137:U:O3'	3:CI:35:ARG:NH2	2.44	0.50
2:a:246:PHE:HZ	2:a:356:GLN:HB3	1.75	0.50
2:a:511:ASN:O	2:a:514:ARG:NE	2.39	0.50
3:AC:31:LEU:HD11	3:FG:115:GLY:HA2	1.94	0.50
3:AJ:37:LYS:HZ1	3:AJ:40:ILE:N	2.09	0.50
3:AL:35:ARG:NH1	3:AL:44:ASN:HA	2.26	0.50
3:AN:55:LYS:HB3	3:AN:73:ASN:ND2	2.22	0.50
3:BI:5:MET:HE1	3:BV:124:VAL:C	2.37	0.50
3:BL:2:ASN:HB2	3:EM:124:VAL:HG13	1.94	0.50
3:BM:123:ILE:HG13	3:BX:5:MET:HE2	1.92	0.50
3:BX:19:ASP:OD2	3:BX:22:ARG:N	2.42	0.50
3:CV:46:VAL:HG11	3:GL:113:GLY:O	2.12	0.50
3:CX:49:GLN:OE1	3:CX:79:ARG:NH2	2.44	0.50
3:DA:58:ALA:HB1	3:DA:59:PRO:HD2	1.94	0.50
3:DB:60:LYS:NZ	3:DB:61:PRO:HD2	2.27	0.50
3:DD:87:GLU:OE1	3:DD:87:GLU:N	2.39	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:EJ:34:GLN:OE1	3:EJ:35:ARG:N	2.41	0.50
3:EJ:87:GLU:OE1	3:EJ:87:GLU:N	2.42	0.50
3:EQ:101:ARG:CZ	3:EQ:124:VAL:HG21	2.41	0.50
3:EU:38:VAL:HG23	3:EU:39:GLY:H	1.76	0.50
3:EU:105:THR:O	3:EU:109:SER:OG	2.30	0.50
3:FZ:78:ILE:HD13	3:GT:96:TRP:HE3	1.76	0.50
3:GA:105:THR:HG23	3:GA:106:LEU:HD12	1.93	0.50
3:GB:73:ASN:OD1	3:GB:74:GLU:N	2.44	0.50
3:GG:60:LYS:HA	3:GG:71:MET:SD	2.51	0.50
1:R:974:A:H2'	1:R:975:G:H8	1.77	0.50
1:R:1899:G:H2'	1:R:1900:A:H8	1.77	0.50
1:R:1936:C:H2'	1:R:1937:A:C8	2.46	0.50
1:R:2840:U:H2'	1:R:2841:C:C6	2.47	0.50
1:R:3153:C:H2'	1:R:3154:A:C8	2.46	0.50
1:R:3340:C:C4	3:FG:36:VAL:HG12	2.47	0.50
1:R:3614:U:H2'	1:R:3615:G:C8	2.47	0.50
1:R:4106:C:H2'	1:R:4107:C:C6	2.46	0.50
2:b:19:PRO:HG3	2:b:41:MET:HE2	1.93	0.50
3:AE:70:ILE:HD12	3:AG:40:ILE:HG23	1.92	0.50
3:AG:51:VAL:HG22	3:AG:79:ARG:HG2	1.93	0.50
3:AH:87:GLU:OE1	3:AH:87:GLU:N	2.40	0.50
3:AP:123:ILE:HD12	3:EB:17:TRP:CD2	2.46	0.50
3:BV:51:VAL:HG12	3:BV:79:ARG:HD2	1.94	0.50
3:CA:61:PRO:O	3:CA:64:CYS:N	2.43	0.50
3:CC:128:THR:O	3:FO:3:LYS:NZ	2.45	0.50
3:CG:5:MET:HE1	3:EA:124:VAL:C	2.36	0.50
3:CG:82:ILE:HA	3:EA:78:ILE:HG22	1.93	0.50
3:CS:3:LYS:NZ	3:DU:128:THR:O	2.45	0.50
3:CV:89:LEU:HD21	3:CV:93:LYS:HE3	1.91	0.50
3:DN:14:LYS:HE2	3:DN:14:LYS:HA	1.92	0.50
3:DN:44:ASN:ND2	3:DO:23:LEU:HB2	2.27	0.50
3:EC:19:ASP:OD2	3:EC:22:ARG:N	2.36	0.50
3:Ec:125:SER:HB3	3:EY:5:MET:HE2	1.94	0.50
3:EU:118:ASP:OD1	3:EU:120:THR:HG22	2.11	0.50
3:Fc:5:MET:HG2	3:Fc:18:SER:C	2.36	0.50
3:FW:5:MET:HB3	3:FW:17:TRP:HB3	1.94	0.50
3:FY:16:VAL:HG22	3:FY:28:SER:HB3	1.94	0.50
3:GB:5:MET:CG	3:GB:17:TRP:HB3	2.40	0.50
3:GT:19:ASP:OD2	3:GT:21:THR:OG1	2.17	0.50
3:GX:19:ASP:OD2	3:GX:22:ARG:N	2.38	0.50
1:R:497:G:H2'	1:R:498:G:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:833:U:H2'	1:R:834:G:C8	2.46	0.50
1:R:1089:G:H2'	1:R:1090:G:C8	2.47	0.50
1:R:1098:C:N4	1:R:1099:G:O6	2.45	0.50
1:R:1151:C:H2'	1:R:1152:C:C6	2.47	0.50
1:R:1542:G:OP2	1:R:1544:A:N6	2.44	0.50
1:R:1975:G:N1	1:R:2429:C:OP1	2.34	0.50
1:R:2459:C:H2'	1:R:2460:C:C6	2.46	0.50
1:R:2736:G:H2'	1:R:2737:G:H8	1.76	0.50
1:R:2794:U:H2'	1:R:2795:A:C8	2.46	0.50
1:R:2845:U:O4	1:R:2874:G:O6	2.30	0.50
1:R:2953:U:C5	2:b:258:LYS:HG2	2.47	0.50
1:R:3956:U:H2'	1:R:3957:G:C8	2.47	0.50
3:AC:125:SER:O	3:FG:2:ASN:ND2	2.36	0.50
3:Ac:2:ASN:HB2	3:FD:124:VAL:HG22	1.92	0.50
3:AY:5:MET:HG2	3:AY:18:SER:C	2.36	0.50
3:BG:95:GLU:O	3:BG:99:HIS:N	2.31	0.50
3:BJ:118:ASP:OD1	3:BJ:120:THR:HG22	2.12	0.50
3:BK:57:PRO:HA	3:BK:73:ASN:HA	1.93	0.50
3:BM:3:LYS:NZ	3:BX:128:THR:O	2.44	0.50
3:BY:49:GLN:HA	3:BY:81:VAL:HG12	1.92	0.50
3:CG:76:GLN:HE22	3:EA:91:THR:HG23	1.76	0.50
3:Cc:66:ASP:OD1	3:Cc:67:ALA:N	2.44	0.50
3:CW:6:GLN:HB2	3:GL:116:PHE:HE2	1.77	0.50
3:DL:19:ASP:OD2	3:DL:22:ARG:N	2.36	0.50
3:DZ:91:THR:OG1	3:FN:56:ARG:NH1	2.44	0.50
3:EF:55:LYS:HG3	3:EF:73:ASN:ND2	2.27	0.50
3:EH:61:PRO:HD3	3:EH:71:MET:CE	2.41	0.50
3:EQ:59:PRO:HG2	3:EQ:71:MET:HB3	1.94	0.50
3:EU:128:THR:O	3:FB:3:LYS:NZ	2.44	0.50
3:FM:7:PRO:HA	3:FM:17:TRP:HA	1.94	0.50
3:FX:60:LYS:HB3	3:FX:61:PRO:HD3	1.93	0.50
3:FZ:100:LYS:HD2	3:GT:100:LYS:HD2	1.91	0.50
3:Gc:12:ALA:HB1	3:GS:9:THR:HG23	1.94	0.50
3:GU:101:ARG:NH1	3:GU:124:VAL:HG21	2.26	0.50
1:R:645:A:H2'	1:R:646:G:H8	1.75	0.50
1:R:771:U:O4	1:R:772:A:N6	2.45	0.50
1:R:1719:C:H5''	1:R:1720:U:H5	1.76	0.50
1:R:2039:G:H2'	1:R:2040:A:C8	2.47	0.50
1:R:2850:U:N3	1:R:2855:U:O4	2.45	0.50
1:R:3841:U:H2'	1:R:3842:A:C8	2.47	0.50
1:R:4064:G:H2'	1:R:4065:G:H8	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:a:87:LYS:HD2	2:b:503:GLY:HA3	1.94	0.50
2:a:225:ASN:O	2:a:229:ARG:HG2	2.12	0.50
3:AE:91:THR:HG23	3:DL:76:GLN:HE22	1.77	0.50
3:AF:7:PRO:HA	3:AF:17:TRP:HA	1.92	0.50
3:BH:5:MET:HG2	3:BH:18:SER:C	2.36	0.50
3:BO:88:ASN:ND2	3:EG:74:GLU:OE2	2.40	0.50
3:CE:117:LEU:HD21	3:DK:31:LEU:HD13	1.94	0.50
3:CK:5:MET:HG2	3:CK:18:SER:C	2.36	0.50
3:DG:3:LYS:NZ	3:GS:128:THR:O	2.45	0.50
3:DG:124:VAL:HA	3:GS:4:PRO:HA	1.94	0.50
3:FP:49:GLN:HG3	3:FP:81:VAL:HG12	1.93	0.50
3:Gc:57:PRO:HA	3:Gc:73:ASN:HA	1.93	0.50
1:R:1329:C:H2'	1:R:1330:G:C8	2.47	0.50
1:R:1349:A:H2'	1:R:1350:C:C6	2.47	0.50
1:R:1441:U:H2'	1:R:1442:U:C6	2.47	0.50
1:R:1536:A:H2'	1:R:1537:G:C8	2.47	0.50
1:R:1604:G:H2'	1:R:1605:G:C8	2.47	0.50
1:R:1959:U:H2'	1:R:1960:G:C8	2.47	0.50
1:R:2367:U:H2'	1:R:2368:A:H8	1.77	0.50
1:R:2407:A:H2'	1:R:2408:C:C6	2.47	0.50
1:R:2792:C:H2'	1:R:2793:U:C6	2.47	0.50
3:Ac:85:SER:OG	3:Ac:88:ASN:OD1	2.27	0.50
3:AU:124:VAL:HB	3:EI:2:ASN:HB2	1.94	0.50
3:BB:125:SER:HB3	3:EN:3:LYS:HB2	1.94	0.50
3:BN:35:ARG:CD	3:BN:44:ASN:HB3	2.39	0.50
3:CE:5:MET:HG2	3:CE:18:SER:C	2.37	0.50
3:CS:89:LEU:HD21	3:CS:93:LYS:HE3	1.94	0.50
3:CS:128:THR:O	3:DU:3:LYS:NZ	2.45	0.50
3:DC:117:LEU:HD11	3:FS:31:LEU:HD13	1.94	0.50
3:DF:51:VAL:HG23	3:DF:79:ARG:HG2	1.94	0.50
3:DG:36:VAL:HG22	3:DG:38:VAL:HG13	1.94	0.50
3:DK:70:ILE:HG13	3:DK:70:ILE:O	2.11	0.50
3:EO:123:ILE:HD12	3:FE:17:TRP:CD2	2.47	0.50
3:ET:19:ASP:OD2	3:ET:22:ARG:N	2.44	0.50
3:FN:37:LYS:NZ	3:FN:38:VAL:O	2.44	0.50
3:FZ:57:PRO:HA	3:FZ:73:ASN:HA	1.94	0.50
3:GH:98:THR:HG21	3:GH:126:SER:HA	1.94	0.50
3:GM:51:VAL:HG22	3:GM:79:ARG:HG2	1.92	0.50
3:GN:89:LEU:HD21	3:GN:93:LYS:HE3	1.94	0.50
1:R:898:G:H2'	1:R:899:G:C8	2.47	0.50
1:R:1043:G:H2'	1:R:1044:C:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1120:G:H3'	1:R:1121:U:H4'	1.93	0.50
1:R:1190:A:H2'	1:R:1191:A:H8	1.76	0.50
1:R:2166:G:N2	3:Bc:34:GLN:OE1	2.45	0.50
1:R:3102:C:H2'	1:R:3103:A:H8	1.77	0.50
1:R:3830:C:N4	1:R:3837:A:N3	2.59	0.50
3:AB:34:GLN:O	3:AB:45:ASN:N	2.42	0.50
3:AB:123:ILE:HD13	3:DI:17:TRP:CE2	2.46	0.50
3:AG:38:VAL:HG23	3:AG:41:ALA:HB3	1.94	0.50
3:AS:91:THR:OG1	3:EE:56:ARG:NH1	2.44	0.50
3:AU:16:VAL:HG13	3:AU:28:SER:HB3	1.93	0.50
3:AX:104:ASP:OD1	3:EL:96:TRP:NE1	2.41	0.50
3:BA:125:SER:HB2	3:EF:5:MET:SD	2.52	0.50
3:BD:12:ALA:HB1	3:BE:9:THR:HG23	1.93	0.50
3:BS:104:ASP:OD1	3:BU:96:TRP:NE1	2.37	0.50
3:BW:123:ILE:HD11	3:FI:17:TRP:CG	2.46	0.50
3:CL:6:GLN:HB2	3:DH:116:PHE:CD2	2.47	0.50
3:CU:125:SER:OG	3:CU:126:SER:N	2.45	0.50
3:CY:66:ASP:HB3	3:CY:69:VAL:HG12	1.93	0.50
3:DC:19:ASP:OD2	3:DC:22:ARG:N	2.45	0.50
3:DU:20:PRO:HG3	3:ES:116:PHE:HE2	1.77	0.50
3:DX:19:ASP:OD2	3:DX:21:THR:OG1	2.28	0.50
3:ED:87:GLU:OE1	3:ED:87:GLU:N	2.45	0.50
3:GF:3:LYS:HG3	3:GQ:129:THR:HG22	1.94	0.50
3:GL:55:LYS:HE3	3:GL:75:ASN:HD22	1.77	0.50
1:R:451:G:H1'	1:R:453:A:C8	2.47	0.49
1:R:493:A:H2'	1:R:494:U:C6	2.47	0.49
1:R:611:C:H2'	1:R:612:G:C8	2.47	0.49
1:R:1383:U:H2'	1:R:1384:G:C8	2.46	0.49
1:R:2040:A:H2'	1:R:2041:A:C8	2.46	0.49
1:R:2583:U:H2'	1:R:2584:U:C6	2.47	0.49
1:R:2744:U:H2'	1:R:2745:U:C6	2.47	0.49
1:R:2951:U:H2'	1:R:2952:G:C8	2.46	0.49
1:R:3036:U:N3	1:R:3037:U:O4	2.45	0.49
1:R:3229:U:H2'	1:R:3230:G:C8	2.46	0.49
1:R:3368:A:H2'	1:R:3369:G:H8	1.77	0.49
1:R:3695:C:H2'	1:R:3696:A:H8	1.77	0.49
1:R:3809:A:O2'	1:R:3810:C:OP2	2.29	0.49
1:R:3923:U:H2'	1:R:3924:G:H8	1.77	0.49
1:R:4137:U:H2'	1:R:4138:G:C8	2.46	0.49
2:a:468:PHE:O	2:a:489:ASN:HA	2.12	0.49
3:AB:19:ASP:OD2	3:AB:21:THR:OG1	2.21	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AK:35:ARG:HH21	3:AK:44:ASN:HA	1.77	0.49
3:AZ:5:MET:HE2	3:BG:123:ILE:HG13	1.94	0.49
3:BB:124:VAL:CG1	3:EN:2:ASN:HB2	2.42	0.49
3:BM:3:LYS:HD3	3:BX:129:THR:HG22	1.92	0.49
3:BN:37:LYS:HB2	3:BN:42:GLU:OE1	2.11	0.49
3:Bc:4:PRO:HA	3:EJ:124:VAL:HA	1.92	0.49
3:BY:32:LEU:HB3	3:BY:34:GLN:NE2	2.26	0.49
3:DY:19:ASP:OD2	3:DY:22:ARG:N	2.39	0.49
3:EC:12:ALA:HB2	3:ED:10:SER:H	1.76	0.49
3:EV:88:ASN:O	3:EV:92:LEU:N	2.34	0.49
3:FP:5:MET:HB2	3:FP:18:SER:O	2.12	0.49
3:FZ:56:ARG:HD2	3:GT:91:THR:HG21	1.94	0.49
3:GH:14:LYS:HZ3	3:GH:30:SER:HB2	1.77	0.49
3:GI:56:ARG:NH1	3:GI:76:GLN:OE1	2.44	0.49
3:Gc:43:LEU:HD22	3:Gc:87:GLU:OE2	2.12	0.49
3:GX:71:MET:N	3:GX:71:MET:SD	2.83	0.49
1:R:15:A:H2'	1:R:16:G:H8	1.77	0.49
1:R:1044:C:H2'	1:R:1045:U:C6	2.47	0.49
1:R:1119:U:H4'	1:R:1219:A:C5	2.48	0.49
1:R:1296:C:H2'	1:R:1297:G:C8	2.47	0.49
1:R:1434:A:H2'	1:R:1435:G:H8	1.76	0.49
1:R:2222:C:H4'	1:R:2223:A:C8	2.47	0.49
1:R:2435:U:H2'	1:R:2436:A:C8	2.47	0.49
1:R:2456:C:H2'	1:R:2457:G:C8	2.47	0.49
1:R:3104:U:H2'	1:R:3105:C:H6	1.77	0.49
1:R:3561:U:H2'	1:R:3562:U:H6	1.77	0.49
3:Ac:31:LEU:HD23	3:FD:115:GLY:HA2	1.94	0.49
3:BG:6:GLN:HB2	3:CB:116:PHE:CE2	2.46	0.49
3:BI:3:LYS:HD2	3:BV:129:THR:HG23	1.93	0.49
3:BL:125:SER:OG	3:BL:126:SER:N	2.44	0.49
3:BO:55:LYS:HG3	3:BO:73:ASN:ND2	2.27	0.49
3:CF:31:LEU:CD2	3:Fc:117:LEU:HD21	2.42	0.49
3:CG:5:MET:HB3	3:CG:17:TRP:HB3	1.94	0.49
3:Cc:5:MET:HB3	3:Cc:17:TRP:HB3	1.94	0.49
3:CS:11:THR:H	3:CS:15:ILE:HD13	1.78	0.49
3:DH:23:LEU:HB2	3:DJ:44:ASN:ND2	2.27	0.49
3:EF:44:ASN:ND2	3:EF:87:GLU:OE2	2.45	0.49
3:FG:111:ASN:OD1	3:FG:116:PHE:HB2	2.12	0.49
3:FN:35:ARG:NH2	3:FN:42:GLU:HG3	2.27	0.49
3:GC:57:PRO:HA	3:GC:73:ASN:HA	1.95	0.49
3:GC:89:LEU:HD21	3:GC:93:LYS:HE3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:235:C:H2'	1:R:236:U:C6	2.48	0.49
1:R:586:A:H2'	1:R:587:A:C8	2.48	0.49
1:R:903:A:H2'	1:R:904:G:H5''	1.95	0.49
1:R:1149:U:H2'	1:R:1150:G:C8	2.47	0.49
1:R:1209:C:H2'	1:R:1210:C:C6	2.48	0.49
1:R:1940:U:O4	1:R:1960:G:O6	2.30	0.49
1:R:1991:U:H2'	1:R:1992:U:C6	2.48	0.49
1:R:2121:A:H61	1:R:2149:C:H42	1.60	0.49
1:R:2678:U:H2'	1:R:2679:A:C8	2.47	0.49
1:R:3606:A:H2'	1:R:3607:A:C8	2.47	0.49
1:R:3741:G:H2'	1:R:3742:G:C8	2.47	0.49
2:a:247:LEU:HD13	2:a:519:MET:SD	2.52	0.49
2:b:205:ASN:HA	2:b:208:LYS:HE3	1.93	0.49
3:Ac:98:THR:HG21	3:Ac:126:SER:HB3	1.93	0.49
3:BP:19:ASP:OD2	3:BP:22:ARG:N	2.46	0.49
3:BX:60:LYS:HD3	3:BX:71:MET:HE2	1.94	0.49
3:BY:87:GLU:OE1	3:BY:87:GLU:N	2.42	0.49
3:CI:6:GLN:HB2	3:DE:116:PHE:CD2	2.47	0.49
3:CM:36:VAL:N	3:CM:42:GLU:OE2	2.45	0.49
3:CP:44:ASN:ND2	3:CQ:23:LEU:HB2	2.27	0.49
3:DH:111:ASN:HB2	3:DH:116:PHE:HB2	1.94	0.49
3:EB:43:LEU:HD22	3:EB:87:GLU:OE2	2.12	0.49
3:EC:2:ASN:HB2	3:FH:124:VAL:HB	1.94	0.49
3:Ec:100:LYS:HG2	3:EY:100:LYS:HD2	1.94	0.49
3:EV:87:GLU:OE1	3:EV:87:GLU:N	2.45	0.49
3:GT:35:ARG:NH1	3:GT:35:ARG:HB2	2.25	0.49
1:R:295:G:H2'	1:R:296:G:C8	2.47	0.49
1:R:881:C:H2'	1:R:882:G:C8	2.47	0.49
1:R:1460:A:N7	1:R:1498:A:H5'	2.27	0.49
1:R:1622:C:H2'	1:R:1623:A:C8	2.47	0.49
1:R:3135:G:H2'	1:R:3136:U:C6	2.47	0.49
1:R:3224:C:H2'	1:R:3225:G:C8	2.47	0.49
1:R:3372:A:H61	3:DI:47:SER:C	2.20	0.49
2:a:260:PHE:HZ	2:a:343:TRP:HA	1.77	0.49
2:b:166:TYR:CD1	2:b:172:PHE:HB3	2.48	0.49
2:b:473:VAL:HG13	2:b:485:ILE:HG13	1.93	0.49
3:AF:61:PRO:HG3	3:FK:70:ILE:HD11	1.94	0.49
3:AG:19:ASP:OD2	3:AG:21:THR:OG1	2.22	0.49
3:AG:101:ARG:HH12	3:AG:124:VAL:HG21	1.76	0.49
3:AP:70:ILE:HD11	3:FA:61:PRO:HB3	1.94	0.49
3:BB:27:PHE:CE2	3:EN:102:ASN:HB3	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Cc:2:ASN:HB2	3:GD:124:VAL:HG13	1.94	0.49
3:DG:60:LYS:HA	3:DG:71:MET:HE3	1.94	0.49
3:DX:5:MET:HB3	3:DX:17:TRP:HB3	1.94	0.49
3:EW:5:MET:HB3	3:EW:17:TRP:HB3	1.93	0.49
3:FF:35:ARG:HG2	3:FF:35:ARG:HH11	1.76	0.49
3:FM:37:LYS:NZ	3:FM:41:ALA:H	2.10	0.49
3:FM:44:ASN:ND2	3:FM:87:GLU:OE1	2.45	0.49
3:FT:31:LEU:HD13	3:FY:117:LEU:HD21	1.93	0.49
3:FT:38:VAL:HG13	3:FT:39:GLY:H	1.77	0.49
3:GH:124:VAL:HA	3:GU:4:PRO:HA	1.94	0.49
3:GV:38:VAL:HG23	3:GV:39:GLY:H	1.78	0.49
1:R:328:G:O6	1:R:369:U:O4	2.30	0.49
1:R:538:A:H2'	1:R:539:C:C6	2.47	0.49
1:R:618:C:H2'	1:R:619:A:C8	2.47	0.49
1:R:1457:G:H2'	1:R:1458:A:H8	1.78	0.49
1:R:1669:G:H1	1:R:1688:U:H3	1.60	0.49
1:R:1866:U:H4'	3:BH:35:ARG:NH1	2.27	0.49
1:R:2413:G:P	3:EH:79:ARG:HH22	2.36	0.49
1:R:2444:U:H2'	1:R:2445:U:C6	2.47	0.49
1:R:2600:G:H4'	1:R:2601:A:H5'	1.94	0.49
1:R:2607:C:N3	1:R:2608:C:N4	2.60	0.49
1:R:2982:G:H1	1:R:2989:U:H3	1.58	0.49
1:R:3404:C:H2'	1:R:3405:U:O4'	2.12	0.49
1:R:3438:G:O2'	3:CK:14:LYS:NZ	2.44	0.49
1:R:3611:U:H2'	1:R:3612:A:C8	2.48	0.49
2:a:6:TRP:NE1	2:a:183:MET:HE2	2.27	0.49
2:a:240:PRO:HD2	2:a:516:LEU:HD13	1.94	0.49
2:a:269:LYS:O	2:a:272:GLN:HG3	2.12	0.49
3:AC:62:GLU:OE1	3:AC:63:GLY:N	2.34	0.49
3:AX:33:ARG:NH2	3:EL:115:GLY:O	2.44	0.49
3:AZ:60:LYS:O	3:AZ:61:PRO:C	2.55	0.49
3:BH:51:VAL:HG22	3:BH:79:ARG:HB2	1.94	0.49
3:Bc:55:LYS:HZ2	3:Bc:73:ASN:HB2	1.78	0.49
3:CE:85:SER:OG	3:CE:88:ASN:OD1	2.28	0.49
3:CO:37:LYS:NZ	3:CO:40:ILE:HA	2.26	0.49
3:CU:85:SER:HB3	3:GG:74:GLU:OE2	2.12	0.49
3:CV:102:ASN:OD1	3:CV:123:ILE:HG23	2.12	0.49
3:CW:39:GLY:HA3	3:FV:72:PRO:HG3	1.94	0.49
3:DA:114:LEU:H	3:DA:114:LEU:HD12	1.78	0.49
3:DC:5:MET:HB3	3:DC:17:TRP:HB3	1.95	0.49
3:DG:114:LEU:HD13	3:GQ:6:GLN:NE2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DJ:4:PRO:HA	3:GV:124:VAL:HA	1.95	0.49
3:DO:20:PRO:HB3	3:EV:116:PHE:HE2	1.77	0.49
3:DY:87:GLU:OE1	3:DY:87:GLU:N	2.38	0.49
3:DZ:46:VAL:HG11	3:FN:113:GLY:O	2.13	0.49
3:EA:5:MET:HG2	3:EA:18:SER:C	2.38	0.49
3:ED:61:PRO:HB2	3:ED:64:CYS:SG	2.53	0.49
3:Ec:5:MET:HG2	3:Ec:19:ASP:N	2.28	0.49
3:ET:66:ASP:OD1	3:ET:66:ASP:N	2.43	0.49
3:FD:87:GLU:OE1	3:FD:87:GLU:N	2.41	0.49
3:FI:96:TRP:CZ2	3:FI:100:LYS:HE3	2.48	0.49
3:FW:34:GLN:NE2	3:FW:35:ARG:O	2.45	0.49
3:FX:95:GLU:HA	3:FX:98:THR:HG22	1.95	0.49
3:GE:97:GLU:HA	3:GE:100:LYS:HE2	1.95	0.49
1:R:916:U:H2'	1:R:917:G:C8	2.48	0.49
1:R:1141:A:H2'	1:R:1142:U:C6	2.48	0.49
1:R:1575:G:H2'	1:R:1576:U:H6	1.78	0.49
1:R:2033:C:H2'	1:R:2034:G:C5	2.47	0.49
1:R:2900:C:H2'	1:R:2901:C:C6	2.48	0.49
1:R:3081:U:H2'	1:R:3082:G:C8	2.48	0.49
1:R:3104:U:H2'	1:R:3105:C:C6	2.47	0.49
1:R:3896:U:O4	1:R:3937:G:O6	2.31	0.49
1:R:3915:A:H2'	1:R:3916:A:H8	1.77	0.49
1:R:4219:G:H8	1:R:4267:G:H2'	1.78	0.49
3:AB:96:TRP:NE1	3:DI:104:ASP:OD1	2.38	0.49
3:AC:16:VAL:HG13	3:AC:28:SER:HB3	1.94	0.49
3:AK:19:ASP:OD2	3:AK:21:THR:OG1	2.22	0.49
3:AX:36:VAL:HG13	3:AX:43:LEU:HB3	1.93	0.49
3:BB:60:LYS:HE2	3:BB:64:CYS:O	2.13	0.49
3:BQ:85:SER:OG	3:BQ:88:ASN:OD1	2.31	0.49
3:BU:105:THR:HG23	3:BU:106:LEU:HD12	1.95	0.49
3:CB:97:GLU:HA	3:CB:100:LYS:HE2	1.94	0.49
3:CI:39:GLY:HA3	3:FU:72:PRO:HG2	1.93	0.49
3:CL:14:LYS:HZ3	3:CL:30:SER:HB3	1.77	0.49
3:CO:27:PHE:CE2	3:GA:102:ASN:HB3	2.47	0.49
3:CS:49:GLN:OE1	3:CS:79:ARG:NH2	2.41	0.49
3:CS:92:LEU:HD13	3:DU:76:GLN:HG2	1.95	0.49
3:DF:11:THR:HG22	3:DF:12:ALA:N	2.28	0.49
3:FB:60:LYS:HA	3:FB:71:MET:HE2	1.94	0.49
3:FL:43:LEU:HD12	3:FL:85:SER:HB2	1.94	0.49
3:FX:71:MET:HB2	3:FX:72:PRO:HD2	1.95	0.49
3:GA:49:GLN:HA	3:GA:81:VAL:HA	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GM:5:MET:HG2	3:GM:18:SER:C	2.38	0.49
3:GN:46:VAL:HG11	3:Gc:113:GLY:O	2.11	0.49
3:GN:123:ILE:HD12	3:Gc:17:TRP:CE2	2.47	0.49
1:R:60:A:O2'	1:R:61:C:OP1	2.29	0.49
1:R:438:U:H2'	1:R:439:G:H8	1.74	0.49
1:R:1729:C:H2'	1:R:1730:G:C8	2.48	0.49
1:R:3155:A:H2'	1:R:3156:G:C8	2.47	0.49
1:R:3191:U:H2'	1:R:3192:G:C8	2.48	0.49
1:R:3251:U:O4	1:R:3253:U:O2'	2.26	0.49
1:R:3445:U:H2'	1:R:3446:C:H6	1.76	0.49
1:R:3710:C:H2'	1:R:3711:A:H8	1.77	0.49
2:a:246:PHE:CZ	2:a:356:GLN:HB3	2.47	0.49
2:b:463:THR:OG1	2:b:494:GLN:O	2.26	0.49
3:AI:92:LEU:HD12	3:AI:95:GLU:OE2	2.13	0.49
3:AP:60:LYS:NZ	3:AP:65:ALA:HA	2.28	0.49
3:AP:96:TRP:NE1	3:AP:100:LYS:HE2	2.27	0.49
3:AU:89:LEU:HD21	3:AU:93:LYS:HE3	1.95	0.49
3:BN:63:GLY:O	3:BN:64:CYS:C	2.55	0.49
3:BO:116:PHE:CD1	3:EH:6:GLN:HB2	2.48	0.49
3:BS:3:LYS:NZ	3:BU:128:THR:O	2.45	0.49
3:CG:46:VAL:HG11	3:EA:113:GLY:O	2.12	0.49
3:CN:70:ILE:HG21	3:DO:61:PRO:HB3	1.93	0.49
3:CU:128:THR:HA	3:GG:2:ASN:HA	1.95	0.49
3:CX:27:PHE:CE2	3:GJ:102:ASN:HB3	2.48	0.49
3:CX:32:LEU:HB3	3:CX:34:GLN:NE2	2.27	0.49
3:DB:87:GLU:HG3	3:GI:59:PRO:HG3	1.95	0.49
3:DG:50:TYR:HE2	3:GS:106:LEU:HD22	1.78	0.49
3:Ec:12:ALA:HB2	3:ES:10:SER:H	1.76	0.49
3:GB:57:PRO:HB2	3:GB:71:MET:SD	2.52	0.49
3:GP:38:VAL:HG13	3:GP:39:GLY:H	1.78	0.49
1:R:372:C:H2'	1:R:373:A:C8	2.48	0.49
1:R:400:A:H2'	1:R:401:G:H8	1.78	0.49
1:R:1562:U:H2'	1:R:1563:C:H6	1.77	0.49
1:R:1589:G:N1	1:R:1693:U:N3	2.61	0.49
1:R:2572:A:H2'	1:R:2573:U:C5	2.48	0.49
1:R:2613:A:P	3:AO:75:ASN:HD22	2.36	0.49
1:R:2912:A:H2'	1:R:2913:G:H8	1.77	0.49
1:R:3286:A:H2'	1:R:3287:U:C6	2.48	0.49
1:R:3403:U:H2'	1:R:3404:C:C6	2.47	0.49
1:R:3566:C:H2'	1:R:3567:A:H8	1.78	0.49
1:R:3617:C:OP2	1:R:3636:A:N6	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3957:G:H2'	1:R:3958:G:H8	1.77	0.49
1:R:4081:G:H2'	1:R:4082:U:C6	2.48	0.49
3:AB:56:ARG:CZ	3:DI:91:THR:HG23	2.42	0.49
3:AH:68:CYS:HB3	3:DV:64:CYS:HB3	1.76	0.49
3:AL:5:MET:HG2	3:AL:18:SER:C	2.37	0.49
3:AQ:55:LYS:HB3	3:AQ:73:ASN:ND2	2.28	0.49
3:AT:9:THR:HB	3:AT:16:VAL:HG22	1.95	0.49
3:AU:123:ILE:HD11	3:EI:17:TRP:CG	2.48	0.49
3:AW:124:VAL:HB	3:BD:2:ASN:HB2	1.95	0.49
3:BB:2:ASN:OD1	3:EN:124:VAL:HG11	2.12	0.49
3:BC:19:ASP:OD2	3:BC:22:ARG:N	2.46	0.49
3:BI:51:VAL:HG22	3:BI:79:ARG:HB2	1.94	0.49
3:BZ:101:ARG:NH2	3:BZ:124:VAL:HG21	2.28	0.49
3:CG:2:ASN:HB2	3:EA:124:VAL:CG1	2.43	0.49
3:CH:100:LYS:HD2	3:DE:100:LYS:HG2	1.95	0.49
3:CJ:5:MET:HG2	3:CJ:18:SER:C	2.37	0.49
3:CK:71:MET:N	3:CK:71:MET:SD	2.86	0.49
3:CO:96:TRP:CE3	3:GA:78:ILE:HD11	2.43	0.49
3:CZ:8:ILE:HG22	3:CZ:9:THR:HG23	1.94	0.49
3:DE:58:ALA:H	3:DE:71:MET:HE1	1.77	0.49
3:DE:66:ASP:OD1	3:DE:67:ALA:N	2.44	0.49
3:DK:70:ILE:HD11	3:DM:40:ILE:O	2.12	0.49
3:EJ:88:ASN:O	3:EJ:91:THR:HG22	2.13	0.49
3:EP:11:THR:HG22	3:EP:12:ALA:H	1.77	0.49
3:EP:70:ILE:HG21	3:FE:61:PRO:HG3	1.94	0.49
3:FG:10:SER:HA	3:FG:15:ILE:HG12	1.94	0.49
3:FI:18:SER:HB2	3:FI:26:THR:HG22	1.95	0.49
3:FP:49:GLN:OE1	3:FP:49:GLN:N	2.46	0.49
3:GF:4:PRO:HA	3:GQ:124:VAL:HA	1.93	0.49
3:GG:14:LYS:HZ3	3:GG:30:SER:HB2	1.77	0.49
3:GJ:8:ILE:N	3:GJ:16:VAL:O	2.39	0.49
1:R:578:A:H2'	1:R:579:G:H8	1.77	0.49
1:R:1043:G:H2'	1:R:1044:C:H6	1.78	0.49
1:R:1734:G:H2'	1:R:1735:G:C8	2.48	0.49
1:R:2153:G:H2'	1:R:2154:A:C8	2.47	0.49
1:R:2308:U:H2'	1:R:2309:G:C8	2.47	0.49
1:R:2511:C:H2'	1:R:2512:G:H8	1.77	0.49
1:R:3023:C:H2'	1:R:3024:G:H8	1.78	0.49
1:R:3915:A:H2'	1:R:3916:A:C8	2.48	0.49
1:R:4094:C:H2'	1:R:4095:A:H8	1.77	0.49
2:a:347:ARG:HH12	2:b:318:LYS:HB2	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AK:6:GLN:OE1	3:DY:111:ASN:ND2	2.41	0.49
3:AW:39:GLY:HA3	3:BD:72:PRO:HG3	1.94	0.49
3:BC:81:VAL:HG22	3:BY:79:ARG:HB2	1.95	0.49
3:BD:61:PRO:HD3	3:BD:71:MET:HE3	1.94	0.49
3:BI:5:MET:CG	3:BI:17:TRP:HB3	2.43	0.49
3:BU:5:MET:HG2	3:BU:19:ASP:N	2.27	0.49
3:BZ:3:LYS:NZ	3:FL:128:THR:O	2.45	0.49
3:CE:80:THR:HG23	3:DK:80:THR:HG22	1.95	0.49
3:CG:37:LYS:HD3	3:CG:42:GLU:OE1	2.12	0.49
3:CI:57:PRO:HA	3:CI:73:ASN:HA	1.95	0.49
3:CM:2:ASN:ND2	3:DO:101:ARG:HH22	2.11	0.49
3:CO:19:ASP:OD2	3:CO:21:THR:OG1	2.21	0.49
3:DG:79:ARG:HB2	3:GS:81:VAL:HG22	1.95	0.49
3:EM:51:VAL:HG22	3:EM:79:ARG:HG2	1.95	0.49
3:EO:27:PHE:CE2	3:FE:102:ASN:HB3	2.48	0.49
3:EU:51:VAL:HG23	3:EU:79:ARG:HG2	1.95	0.49
3:EU:76:GLN:OE1	3:FB:92:LEU:HD22	2.13	0.49
3:FI:48:GLY:O	3:FI:81:VAL:HA	2.12	0.49
3:FP:66:ASP:OD1	3:FP:67:ALA:N	2.45	0.49
3:FS:125:SER:OG	3:FS:126:SER:N	2.46	0.49
3:GX:19:ASP:OD2	3:GX:21:THR:OG1	2.23	0.49
1:R:39:G:N2	1:R:40:A:C4	2.81	0.49
1:R:86:U:H3'	1:R:87:A:C8	2.48	0.49
1:R:268:U:O2'	1:R:269:G:N7	2.45	0.49
1:R:389:G:H2'	1:R:390:G:H8	1.77	0.49
1:R:542:U:H2'	1:R:543:U:C6	2.47	0.49
1:R:936:A:H3'	1:R:937:C:C6	2.48	0.49
1:R:1076:G:H5'	1:R:1463:A:H1'	1.95	0.49
1:R:2518:U:H2'	1:R:2520:U:H1'	1.95	0.49
1:R:3099:A:H2'	1:R:3100:A:C8	2.48	0.49
1:R:3199:U:H2'	1:R:3200:U:C6	2.48	0.49
1:R:3245:G:C2	1:R:3262:A:N6	2.80	0.49
1:R:3400:G:H2'	1:R:3401:A:H8	1.77	0.49
1:R:3728:U:H3'	2:a:108:GLN:NE2	2.28	0.49
1:R:3953:U:H2'	1:R:3954:G:C8	2.48	0.49
1:R:4182:A:H4'	3:GV:35:ARG:HH12	1.77	0.49
1:R:4199:U:H2'	1:R:4200:A:H8	1.76	0.49
3:AG:124:VAL:HA	3:DS:4:PRO:HA	1.95	0.49
3:AK:27:PHE:CE2	3:CT:102:ASN:HB3	2.48	0.49
3:BA:39:GLY:HA3	3:EF:72:PRO:HG3	1.94	0.49
3:BE:89:LEU:HD13	3:EQ:114:LEU:HD22	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BF:113:GLY:HA3	3:CB:89:LEU:HD11	1.95	0.49
3:BG:6:GLN:HB2	3:CB:116:PHE:HE2	1.78	0.49
3:BK:35:ARG:HH21	3:BK:44:ASN:HA	1.77	0.49
3:BL:82:ILE:HG22	3:EM:78:ILE:HG23	1.95	0.49
3:BQ:9:THR:HB	3:BQ:16:VAL:HG22	1.94	0.49
3:CA:6:GLN:HE22	3:FO:114:LEU:HD11	1.77	0.49
3:CC:128:THR:HA	3:FO:2:ASN:HA	1.95	0.49
3:CS:4:PRO:HA	3:DU:124:VAL:HA	1.95	0.49
3:CT:37:LYS:NZ	3:CT:42:GLU:HB2	2.28	0.49
3:CW:61:PRO:HG2	3:CW:64:CYS:SG	2.53	0.49
3:DE:125:SER:OG	3:DE:126:SER:N	2.45	0.49
3:DL:92:LEU:HD12	3:DL:95:GLU:OE2	2.13	0.49
3:DN:5:MET:HG2	3:DN:18:SER:C	2.38	0.49
3:FF:51:VAL:HG13	3:FF:79:ARG:HG2	1.94	0.49
3:GC:38:VAL:HG12	3:GC:43:LEU:HD13	1.94	0.49
3:GH:123:ILE:HD12	3:GU:17:TRP:CE2	2.48	0.49
1:R:338:C:H2'	1:R:339:G:H8	1.78	0.48
1:R:1911:G:H2'	1:R:1912:C:C6	2.48	0.48
1:R:2215:A:H61	1:R:2245:C:H42	1.61	0.48
1:R:3369:G:H2'	1:R:3370:U:C6	2.48	0.48
1:R:4118:G:H2'	1:R:4119:G:C8	2.47	0.48
2:a:498:PRO:HB2	2:a:500:LEU:CD1	2.43	0.48
2:b:73:ARG:HG3	2:b:176:ARG:HH21	1.77	0.48
3:AO:5:MET:HG2	3:AO:18:SER:C	2.38	0.48
3:AQ:67:ALA:O	3:AQ:69:VAL:N	2.44	0.48
3:AV:87:GLU:HG2	3:AV:88:ASN:N	2.28	0.48
3:BB:104:ASP:OD2	3:EN:100:LYS:NZ	2.34	0.48
3:BN:19:ASP:OD2	3:BN:22:ARG:N	2.33	0.48
3:BO:124:VAL:HB	3:EG:2:ASN:HB2	1.94	0.48
3:BQ:60:LYS:HG2	3:BQ:71:MET:HE1	1.95	0.48
3:DB:61:PRO:O	3:DB:62:GLU:HG3	2.13	0.48
3:DC:80:THR:HG23	3:FS:80:THR:HG22	1.95	0.48
3:DU:8:ILE:HB	3:DU:16:VAL:HG13	1.94	0.48
3:DX:111:ASN:HB2	3:DX:114:LEU:HD12	1.95	0.48
3:DZ:8:ILE:HG13	3:DZ:18:SER:HB2	1.94	0.48
3:EA:57:PRO:HA	3:EA:73:ASN:HA	1.94	0.48
3:EH:60:LYS:HA	3:EH:71:MET:HE1	1.95	0.48
3:EI:89:LEU:HA	3:EI:92:LEU:HB3	1.94	0.48
3:FY:54:TYR:CD1	3:FY:56:ARG:HG3	2.48	0.48
3:FZ:35:ARG:HH22	3:FZ:42:GLU:HB3	1.77	0.48
3:GC:35:ARG:HH21	3:GC:43:LEU:C	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GL:5:MET:HG2	3:GL:18:SER:C	2.38	0.48
1:R:1278:A:H2'	1:R:1279:U:C6	2.48	0.48
1:R:2003:G:H2'	1:R:2004:U:H6	1.77	0.48
1:R:2039:G:H2'	1:R:2040:A:H8	1.78	0.48
1:R:2802:U:H2'	1:R:2803:G:H8	1.77	0.48
1:R:2957:A:H1'	1:R:2958:U:C5	2.47	0.48
1:R:3191:U:H2'	1:R:3192:G:H8	1.77	0.48
1:R:3961:A:H2'	1:R:3962:G:H8	1.78	0.48
2:a:255:SER:O	2:a:258:LYS:HG3	2.13	0.48
3:AN:128:THR:O	3:CN:3:LYS:NZ	2.46	0.48
3:Ac:124:VAL:HB	3:FD:2:ASN:HB2	1.95	0.48
3:AW:71:MET:N	3:AW:71:MET:SD	2.85	0.48
3:AX:60:LYS:HA	3:AX:71:MET:HE1	1.95	0.48
3:BV:66:ASP:CG	3:BV:67:ALA:N	2.71	0.48
3:CG:60:LYS:HG3	3:CG:65:ALA:HB3	1.95	0.48
3:CH:38:VAL:HG13	3:CH:39:GLY:N	2.28	0.48
3:DB:68:CYS:SG	3:GP:61:PRO:HB2	2.53	0.48
3:EI:36:VAL:HG23	3:EI:43:LEU:HB3	1.95	0.48
3:Fc:19:ASP:OD2	3:Fc:21:THR:OG1	2.23	0.48
3:FS:60:LYS:NZ	3:FS:65:ALA:HA	2.28	0.48
3:FT:11:THR:HG22	3:FT:12:ALA:H	1.77	0.48
3:GB:38:VAL:HG21	3:GB:43:LEU:HD12	1.95	0.48
1:R:247:G:H2'	1:R:248:G:C8	2.48	0.48
1:R:941:U:H2'	1:R:942:G:C8	2.48	0.48
1:R:1086:C:H2'	1:R:1087:G:C8	2.48	0.48
1:R:1284:U:H2'	1:R:1285:U:H6	1.77	0.48
1:R:1505:G:H2'	1:R:1506:G:C8	2.48	0.48
1:R:1747:C:H2'	1:R:1748:G:C8	2.47	0.48
1:R:1843:A:H3'	1:R:1844:G:H4'	1.94	0.48
1:R:1849:G:H2'	1:R:1850:C:C6	2.48	0.48
1:R:1931:G:H2'	1:R:1932:A:C8	2.48	0.48
1:R:1986:A:H2'	1:R:1987:C:C6	2.47	0.48
1:R:3866:G:H2'	1:R:3867:G:H8	1.78	0.48
1:R:4067:U:H2'	1:R:4068:G:C8	2.49	0.48
2:a:293:TYR:CD1	2:a:296:LYS:HE3	2.48	0.48
2:b:11:ILE:HG13	2:b:183:MET:HA	1.96	0.48
2:b:107:PHE:HE1	2:b:117:VAL:HG21	1.77	0.48
3:AT:115:GLY:O	3:BJ:33:ARG:NH2	2.45	0.48
3:BG:22:ARG:NH2	3:BG:55:LYS:O	2.47	0.48
3:BK:4:PRO:HA	3:EW:124:VAL:HA	1.94	0.48
3:BQ:34:GLN:O	3:BQ:45:ASN:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BQ:111:ASN:ND2	3:FA:6:GLN:OE1	2.46	0.48
3:BQ:113:GLY:HA3	3:FC:89:LEU:HD21	1.95	0.48
3:BS:4:PRO:HA	3:BU:124:VAL:HA	1.95	0.48
3:CH:60:LYS:NZ	3:CH:64:CYS:HB3	2.27	0.48
3:CY:35:ARG:CZ	3:CY:42:GLU:HB3	2.43	0.48
3:DJ:56:ARG:HD2	3:GV:91:THR:HG21	1.95	0.48
3:DK:71:MET:SD	3:DK:71:MET:N	2.83	0.48
3:DN:37:LYS:NZ	3:DN:38:VAL:O	2.28	0.48
3:DO:96:TRP:HE1	3:DO:100:LYS:HE2	1.78	0.48
3:EE:60:LYS:HB3	3:EE:61:PRO:HD3	1.95	0.48
3:EO:15:ILE:HG13	3:FE:117:LEU:HD13	1.95	0.48
3:EW:60:LYS:HD3	3:EW:61:PRO:HD2	1.94	0.48
1:R:119:C:H2'	1:R:120:C:C6	2.47	0.48
1:R:202:G:H2'	1:R:203:U:H6	1.79	0.48
1:R:639:U:H2'	1:R:640:A:C8	2.48	0.48
1:R:977:C:H1'	1:R:1105:A:O3'	2.12	0.48
1:R:990:U:H2'	1:R:991:C:O4'	2.14	0.48
1:R:1007:A:H2'	1:R:1008:C:H6	1.78	0.48
1:R:1140:G:H2'	1:R:1141:A:H8	1.78	0.48
1:R:1468:A:OP2	1:R:1472:U:N3	2.41	0.48
1:R:2184:U:H2'	1:R:2185:U:C6	2.49	0.48
1:R:2263:A:H2'	1:R:2264:C:C6	2.48	0.48
1:R:2391:A:N6	1:R:2394:G:N3	2.61	0.48
1:R:2474:U:HO2'	1:R:2642:G:H1	1.58	0.48
1:R:2567:U:H2'	1:R:2568:A:H8	1.78	0.48
1:R:2610:C:H2'	1:R:2611:A:C8	2.48	0.48
1:R:2873:C:H2'	1:R:2874:G:H8	1.78	0.48
1:R:3117:C:N4	1:R:3137:U:OP2	2.46	0.48
1:R:3235:G:H2'	1:R:3236:G:C8	2.49	0.48
1:R:3281:A:H2'	1:R:3282:C:C6	2.48	0.48
1:R:3369:G:H2'	1:R:3370:U:H6	1.78	0.48
1:R:3566:C:H2'	1:R:3567:A:C8	2.48	0.48
1:R:3741:G:H2'	1:R:3742:G:H8	1.77	0.48
1:R:3975:G:H2'	1:R:3976:A:C8	2.49	0.48
1:R:4122:U:H2'	1:R:4123:U:C6	2.48	0.48
3:AB:49:GLN:OE1	3:AB:49:GLN:N	2.46	0.48
3:AC:62:GLU:CD	3:AC:63:GLY:H	2.19	0.48
3:AE:2:ASN:HB2	3:DL:124:VAL:HB	1.95	0.48
3:AI:61:PRO:HG3	3:FN:70:ILE:HD13	1.95	0.48
3:AT:9:THR:HG23	3:AV:12:ALA:HB1	1.95	0.48
3:BN:68:CYS:N	3:BX:64:CYS:SG	2.86	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BT:123:ILE:HD11	3:FF:17:TRP:CG	2.49	0.48
3:BU:55:LYS:HB3	3:BU:73:ASN:HD21	1.77	0.48
3:BW:45:ASN:HA	3:BW:85:SER:HA	1.95	0.48
3:CA:105:THR:HA	3:CA:109:SER:HB2	1.95	0.48
3:CH:2:ASN:HB2	3:DE:124:VAL:HB	1.93	0.48
3:CJ:14:LYS:HG3	3:CJ:30:SER:HB3	1.96	0.48
3:CP:51:VAL:HG13	3:CP:79:ARG:HG2	1.95	0.48
3:DA:2:ASN:HB2	3:GM:124:VAL:HB	1.94	0.48
3:DG:49:GLN:OE1	3:DG:79:ARG:NH2	2.46	0.48
3:DS:35:ARG:HH21	3:DS:43:LEU:C	2.22	0.48
3:DV:35:ARG:CZ	3:DV:35:ARG:HA	2.43	0.48
3:EN:5:MET:HG2	3:EN:18:SER:C	2.39	0.48
3:EV:6:GLN:HB2	3:FB:116:PHE:HE2	1.78	0.48
3:EV:102:ASN:O	3:EV:105:THR:OG1	2.30	0.48
3:FF:35:ARG:NH1	3:FF:44:ASN:HD21	2.12	0.48
3:FY:60:LYS:HZ3	3:FY:65:ALA:HA	1.79	0.48
3:GD:60:LYS:HD2	3:GD:61:PRO:HD2	1.96	0.48
1:R:294:U:H2'	1:R:295:G:C8	2.49	0.48
1:R:304:C:N4	3:DL:32:LEU:HD11	2.29	0.48
1:R:626:G:H5''	1:R:1110:A:H1'	1.95	0.48
1:R:1463:A:H2'	1:R:1464:U:C6	2.49	0.48
1:R:1509:G:H2'	1:R:1510:A:C8	2.49	0.48
1:R:1713:C:N4	1:R:1715:U:O2	2.47	0.48
1:R:1857:A:H3'	1:R:1896:G:N2	2.29	0.48
1:R:2058:U:N3	1:R:2189:A:OP2	2.31	0.48
1:R:2733:C:H2'	1:R:2734:C:C6	2.49	0.48
1:R:2823:G:H2'	1:R:2824:U:O4'	2.14	0.48
1:R:2825:U:H3'	1:R:2826:G:H5''	1.95	0.48
1:R:3375:A:H2'	1:R:3376:C:H6	1.78	0.48
1:R:3434:U:H2'	1:R:3435:G:C8	2.48	0.48
2:a:4:TYR:HE1	2:a:187:LYS:HD3	1.79	0.48
2:a:269:LYS:HD2	2:a:272:GLN:HE21	1.78	0.48
3:AC:74:GLU:OE1	3:AC:74:GLU:N	2.46	0.48
3:AE:22:ARG:NH2	3:AE:55:LYS:O	2.47	0.48
3:BM:111:ASN:HB2	3:BM:114:LEU:HD12	1.95	0.48
3:CC:40:ILE:HG12	3:FO:72:PRO:HG3	1.94	0.48
3:CG:125:SER:HB2	3:EA:5:MET:HE2	1.96	0.48
3:CN:6:GLN:NE2	3:CN:20:PRO:HG3	2.28	0.48
3:CV:115:GLY:O	3:GL:33:ARG:NH2	2.34	0.48
3:CW:27:PHE:CE2	3:FV:102:ASN:HB3	2.49	0.48
3:DM:38:VAL:HG13	3:DM:39:GLY:N	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Dc:20:PRO:HG3	3:EP:116:PHE:HE2	1.77	0.48
3:DT:34:GLN:NE2	3:DT:35:ARG:O	2.47	0.48
3:FN:118:ASP:OD1	3:FN:120:THR:HG22	2.13	0.48
3:FQ:17:TRP:CD2	3:GE:123:ILE:HD12	2.48	0.48
3:FX:71:MET:SD	3:FX:71:MET:N	2.85	0.48
3:GD:8:ILE:N	3:GD:16:VAL:O	2.43	0.48
3:GK:62:GLU:CG	3:GK:63:GLY:H	2.24	0.48
3:GY:89:LEU:HD21	3:GY:93:LYS:HE2	1.95	0.48
1:R:192:A:H2'	1:R:193:A:H8	1.77	0.48
1:R:619:A:H2'	1:R:620:G:C8	2.49	0.48
1:R:684:C:H2'	1:R:685:G:H8	1.79	0.48
1:R:687:U:H2'	1:R:688:U:C6	2.49	0.48
1:R:836:C:H2'	1:R:837:A:H8	1.79	0.48
1:R:854:A:H2'	1:R:855:A:H8	1.78	0.48
1:R:1607:U:O4	1:R:1649:G:O6	2.32	0.48
1:R:1979:A:H2'	1:R:1980:U:H6	1.77	0.48
1:R:2045:U:H2'	1:R:2046:G:C8	2.49	0.48
1:R:3292:C:H2'	1:R:3293:G:C8	2.49	0.48
2:a:525:ARG:O	2:a:529:LYS:HG2	2.14	0.48
3:AF:15:ILE:HG12	3:FJ:117:LEU:HD13	1.96	0.48
3:AF:115:GLY:O	3:FJ:33:ARG:NH2	2.41	0.48
3:AI:6:GLN:HB2	3:DF:116:PHE:HE2	1.77	0.48
3:BN:67:ALA:HB1	3:BX:64:CYS:SG	2.53	0.48
3:BP:124:VAL:HA	3:CA:4:PRO:HA	1.95	0.48
3:CG:89:LEU:HD21	3:CG:93:LYS:HE3	1.95	0.48
3:CL:102:ASN:HB3	3:FX:27:PHE:CE2	2.49	0.48
3:CV:14:LYS:HZ3	3:CV:30:SER:HB3	1.78	0.48
3:DG:91:THR:OG1	3:GS:56:ARG:NH1	2.46	0.48
3:DN:27:PHE:CE2	3:EV:102:ASN:HB3	2.47	0.48
3:DN:31:LEU:HD23	3:EV:115:GLY:HA2	1.95	0.48
3:DO:38:VAL:HG13	3:DO:39:GLY:H	1.78	0.48
3:DQ:117:LEU:HD21	3:EP:31:LEU:HD13	1.95	0.48
3:ED:44:ASN:ND2	3:ED:87:GLU:OE2	2.47	0.48
3:ET:89:LEU:HA	3:ET:92:LEU:HB3	1.95	0.48
3:EZ:8:ILE:HB	3:EZ:16:VAL:HG23	1.95	0.48
3:FT:5:MET:HE2	3:FY:125:SER:HB2	1.94	0.48
3:FV:19:ASP:OD2	3:FV:22:ARG:N	2.37	0.48
3:FW:124:VAL:HB	3:GB:2:ASN:HB2	1.94	0.48
3:GO:38:VAL:HG21	3:GO:43:LEU:HD23	1.95	0.48
3:GV:57:PRO:HA	3:GV:73:ASN:HA	1.96	0.48
3:GX:95:GLU:HA	3:GX:98:THR:HB	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1420:U:H4'	1:R:1421:G:O4'	2.14	0.48
1:R:1511:C:H2'	1:R:1512:U:H5	1.79	0.48
1:R:1644:U:H2'	1:R:1645:A:H8	1.79	0.48
1:R:1703:U:H2'	1:R:1704:G:C8	2.49	0.48
1:R:1719:C:H5''	1:R:1720:U:C5	2.49	0.48
1:R:1996:C:OP2	1:R:1997:A:O2'	2.32	0.48
1:R:2032:C:H2'	1:R:2033:C:C6	2.49	0.48
1:R:2262:G:H2'	1:R:2263:A:H8	1.78	0.48
1:R:2626:G:H3'	1:R:2627:G:H8	1.79	0.48
1:R:2957:A:H4'	2:b:273:ARG:NH2	2.21	0.48
1:R:3009:G:H2'	1:R:3010:A:H8	1.79	0.48
1:R:3201:G:H2'	1:R:3202:A:C4	2.49	0.48
1:R:3454:A:H3'	1:R:3455:A:H8	1.79	0.48
1:R:3469:U:H3	1:R:3472:U:P	2.36	0.48
1:R:4134:U:H2'	1:R:4135:A:C8	2.48	0.48
3:AE:68:CYS:N	3:DS:64:CYS:SG	2.87	0.48
3:AH:33:ARG:NH2	3:DF:115:GLY:O	2.45	0.48
3:AM:35:ARG:HG2	3:AM:42:GLU:OE2	2.14	0.48
3:AN:49:GLN:HB3	3:AN:81:VAL:HG22	1.95	0.48
3:AN:56:ARG:NH1	3:CN:91:THR:HG23	2.28	0.48
3:AN:115:GLY:HA2	3:CN:31:LEU:HD13	1.95	0.48
3:Ac:34:GLN:O	3:Ac:45:ASN:N	2.32	0.48
3:AW:124:VAL:C	3:BD:5:MET:HE1	2.39	0.48
3:AW:128:THR:HA	3:BD:2:ASN:HA	1.94	0.48
3:BJ:95:GLU:O	3:BJ:99:HIS:N	2.27	0.48
3:BS:17:TRP:CG	3:BU:123:ILE:HD11	2.49	0.48
3:BY:43:LEU:HD12	3:BY:85:SER:HB2	1.96	0.48
3:CY:38:VAL:HG23	3:CY:39:GLY:N	2.29	0.48
3:CZ:19:ASP:OD1	3:CZ:21:THR:OG1	2.25	0.48
3:DO:14:LYS:NZ	3:DO:28:SER:OG	2.42	0.48
3:EX:58:ALA:N	3:EX:59:PRO:HD2	2.29	0.48
3:FF:57:PRO:HA	3:FF:73:ASN:HA	1.96	0.48
3:FI:38:VAL:HG23	3:FI:41:ALA:HB3	1.96	0.48
3:FQ:56:ARG:NH1	3:GE:91:THR:OG1	2.46	0.48
3:Fc:19:ASP:OD2	3:Fc:22:ARG:N	2.42	0.48
3:FX:19:ASP:OD2	3:FX:22:ARG:N	2.42	0.48
3:GC:117:LEU:HB3	3:GW:15:ILE:HD11	1.95	0.48
3:GS:60:LYS:HD2	3:GS:71:MET:HE1	1.95	0.48
3:GW:55:LYS:HZ1	3:GW:75:ASN:HB2	1.79	0.48
1:R:303:G:H21	1:R:305:A:H3'	1.78	0.48
1:R:734:C:H2'	1:R:735:U:H6	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:877:G:H2'	1:R:878:A:H8	1.79	0.48
1:R:1024:A:H5''	3:DY:35:ARG:HG3	1.95	0.48
1:R:1034:A:H61	3:FK:34:GLN:HG3	1.78	0.48
1:R:1277:U:H1'	3:GP:34:GLN:HE21	1.77	0.48
1:R:1386:U:H2'	1:R:1387:G:C8	2.49	0.48
1:R:1942:C:H2'	1:R:1943:A:C8	2.49	0.48
1:R:2333:U:OP2	1:R:2334:A:O2'	2.31	0.48
1:R:2935:C:H2'	1:R:2936:U:H6	1.79	0.48
1:R:3061:U:H2'	1:R:3062:A:C8	2.49	0.48
1:R:3343:G:N7	1:R:3388:U:N3	2.61	0.48
1:R:3380:C:H2'	1:R:3381:C:H6	1.79	0.48
1:R:3407:U:H1'	1:R:3408:G:C8	2.48	0.48
1:R:3418:G:H2'	1:R:3419:C:C6	2.48	0.48
1:R:3441:A:H2'	1:R:3442:U:C6	2.48	0.48
1:R:3832:U:N3	1:R:3835:C:OP2	2.46	0.48
2:a:296:LYS:HG3	2:a:309:LEU:HD13	1.96	0.48
2:b:131:LEU:HD13	2:b:196:THR:HA	1.94	0.48
3:AG:85:SER:OG	3:AG:88:ASN:OD1	2.30	0.48
3:AL:60:LYS:HA	3:AL:71:MET:HE2	1.95	0.48
3:AS:4:PRO:HA	3:EE:124:VAL:HA	1.94	0.48
3:AY:5:MET:HB3	3:AY:17:TRP:HB3	1.95	0.48
3:BC:11:THR:H	3:BC:15:ILE:HD13	1.79	0.48
3:BS:114:LEU:HD13	3:BU:86:ALA:HB1	1.96	0.48
3:BX:12:ALA:HB2	3:BY:10:SER:H	1.79	0.48
3:CC:106:LEU:HD11	3:FO:50:TYR:HE2	1.78	0.48
3:CD:92:LEU:HD22	3:DX:107:PHE:HZ	1.79	0.48
3:DC:125:SER:OG	3:DC:127:ASP:OD1	2.24	0.48
3:DN:45:ASN:OD1	3:DN:46:VAL:N	2.47	0.48
3:DN:57:PRO:C	3:DN:71:MET:HE3	2.38	0.48
3:DN:128:THR:C	3:EV:3:LYS:HZ2	2.22	0.48
3:EO:54:TYR:HB2	3:FE:95:GLU:OE1	2.13	0.48
3:EO:96:TRP:NE1	3:FE:104:ASP:OD1	2.43	0.48
3:Ec:38:VAL:HG23	3:Ec:39:GLY:N	2.29	0.48
3:FK:34:GLN:NE2	3:FK:36:VAL:HB	2.23	0.48
3:FZ:56:ARG:NE	3:FZ:76:GLN:OE1	2.44	0.48
3:GD:71:MET:SD	3:GD:71:MET:N	2.87	0.48
3:GE:87:GLU:OE1	3:GE:87:GLU:N	2.46	0.48
3:GH:57:PRO:HA	3:GH:73:ASN:HA	1.94	0.48
3:GY:60:LYS:HE2	3:GY:61:PRO:HD3	1.95	0.48
1:R:190:U:H2'	1:R:191:C:C6	2.49	0.48
1:R:204:U:H2'	1:R:205:G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:228:A:H2'	1:R:229:U:C6	2.49	0.48
1:R:343:G:O6	1:R:354:U:O4	2.32	0.48
1:R:582:U:H2'	1:R:583:G:O4'	2.14	0.48
1:R:722:G:O6	1:R:935:A:O2'	2.25	0.48
1:R:1346:C:H2'	1:R:1347:C:C6	2.49	0.48
1:R:2257:U:H2'	1:R:2258:C:C6	2.49	0.48
1:R:2277:A:H2'	1:R:2278:U:C6	2.49	0.48
1:R:2925:G:C5	3:FB:38:VAL:HG13	2.49	0.48
1:R:3081:U:H2'	1:R:3082:G:H8	1.78	0.48
2:b:142:PRO:HD2	2:b:187:LYS:HB3	1.95	0.48
3:AH:64:CYS:HB2	3:DG:68:CYS:H	1.79	0.48
3:AH:118:ASP:OD1	3:AH:120:THR:HG22	2.12	0.48
3:BN:123:ILE:HD12	3:EZ:17:TRP:CE2	2.49	0.48
3:CF:55:LYS:NZ	3:CF:75:ASN:OD1	2.27	0.48
3:CL:89:LEU:HD13	3:FX:114:LEU:HD22	1.95	0.48
3:CN:8:ILE:HD12	3:DO:116:PHE:CD1	2.49	0.48
3:CN:55:LYS:HE2	3:CN:55:LYS:HA	1.95	0.48
3:CN:57:PRO:HA	3:CN:73:ASN:HA	1.95	0.48
3:CU:115:GLY:HA2	3:GG:31:LEU:HD23	1.95	0.48
3:CX:5:MET:SD	3:GJ:125:SER:HB2	2.53	0.48
3:CY:6:GLN:NE2	3:GM:114:LEU:HD13	2.28	0.48
3:CZ:115:GLY:O	3:FP:33:ARG:NH2	2.44	0.48
3:DG:117:LEU:HD21	3:GS:31:LEU:HB2	1.96	0.48
3:DT:70:ILE:H	3:DT:70:ILE:HD12	1.78	0.48
3:ED:102:ASN:O	3:ED:105:THR:OG1	2.29	0.48
3:EE:96:TRP:NE1	3:EE:100:LYS:HE3	2.29	0.48
3:Ec:124:VAL:CG1	3:EY:2:ASN:HB2	2.44	0.48
3:EV:71:MET:N	3:EV:71:MET:SD	2.87	0.48
3:FB:58:ALA:HB1	3:FB:59:PRO:HD2	1.95	0.48
3:FE:89:LEU:HD21	3:FE:93:LYS:HE3	1.94	0.48
3:FG:60:LYS:HE2	3:FG:66:ASP:HA	1.96	0.48
3:FH:92:LEU:HD13	3:FH:95:GLU:OE2	2.13	0.48
3:FO:61:PRO:HB2	3:FO:62:GLU:OE1	2.13	0.48
3:FV:87:GLU:OE1	3:FV:87:GLU:N	2.41	0.48
3:GH:101:ARG:NH2	3:GU:2:ASN:HD21	2.12	0.48
3:GV:5:MET:HB3	3:GV:17:TRP:HB3	1.96	0.48
1:R:5:U:H2'	1:R:6:G:C8	2.48	0.48
1:R:193:A:H2'	1:R:194:C:C6	2.49	0.48
1:R:555:G:C2	1:R:612:G:C2	3.02	0.48
1:R:1260:C:H2'	1:R:1261:A:O4'	2.14	0.48
1:R:1272:C:H2'	1:R:1273:U:H6	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1737:C:H2'	1:R:1738:A:H2'	1.96	0.48
1:R:1938:U:H2'	1:R:1939:C:H6	1.75	0.48
1:R:2024:U:H2'	1:R:2025:G:C8	2.49	0.48
1:R:2419:A:H2'	1:R:2420:A:C8	2.49	0.48
1:R:3401:A:H2'	1:R:3402:A:H8	1.79	0.48
2:a:14:SER:N	2:a:180:ASN:O	2.44	0.48
2:a:143:ASP:OD1	2:a:144:TYR:N	2.47	0.48
2:a:322:LYS:O	2:a:326:ARG:HG2	2.13	0.48
3:AI:31:LEU:HD13	3:FM:117:LEU:HD11	1.96	0.48
3:AN:4:PRO:HA	3:CN:124:VAL:HA	1.96	0.48
3:AQ:33:ARG:NH2	3:CQ:115:GLY:O	2.43	0.48
3:AQ:60:LYS:HD2	3:AQ:61:PRO:HD2	1.94	0.48
3:AU:72:PRO:HG3	3:EI:39:GLY:CA	2.44	0.48
3:AY:71:MET:SD	3:AY:71:MET:N	2.75	0.48
3:BM:113:GLY:O	3:BX:46:VAL:HG21	2.13	0.48
3:BO:2:ASN:HA	3:EG:128:THR:HA	1.96	0.48
3:BW:124:VAL:CG2	3:FI:2:ASN:HB2	2.43	0.48
3:CI:113:GLY:O	3:FU:46:VAL:HG11	2.14	0.48
3:CL:14:LYS:NZ	3:CL:30:SER:HB3	2.28	0.48
3:Cc:113:GLY:HA3	3:GD:89:LEU:HD11	1.96	0.48
3:CW:19:ASP:OD2	3:CW:22:ARG:N	2.40	0.48
3:CW:117:LEU:HD21	3:FV:31:LEU:HD13	1.96	0.48
3:CY:57:PRO:HA	3:CY:73:ASN:HA	1.95	0.48
3:CY:82:ILE:HG23	3:GO:78:ILE:HG12	1.96	0.48
3:CZ:108:ALA:O	3:FP:93:LYS:NZ	2.41	0.48
3:DJ:62:GLU:OE1	3:DJ:63:GLY:N	2.45	0.48
3:DL:56:ARG:O	3:DL:74:GLU:N	2.40	0.48
3:DW:117:LEU:HG	3:FK:31:LEU:HD21	1.96	0.48
3:Ec:5:MET:HG2	3:Ec:18:SER:C	2.39	0.48
3:Ec:49:GLN:N	3:Ec:49:GLN:OE1	2.47	0.48
3:EU:27:PHE:CE2	3:FB:102:ASN:HB3	2.48	0.48
3:FH:87:GLU:OE1	3:FH:87:GLU:N	2.42	0.48
3:GA:101:ARG:HH12	3:GA:124:VAL:HG21	1.79	0.48
3:GP:71:MET:SD	3:GP:71:MET:N	2.80	0.48
1:R:289:G:H2'	1:R:290:A:H8	1.78	0.47
1:R:1704:G:H2'	1:R:1705:A:C8	2.49	0.47
1:R:1901:A:H2'	1:R:1902:A:H8	1.79	0.47
1:R:1992:U:H2'	1:R:1993:C:C6	2.48	0.47
1:R:2444:U:H2'	1:R:2445:U:H6	1.78	0.47
1:R:3448:A:H3'	1:R:3449:A:H8	1.78	0.47
1:R:3834:A:H2'	1:R:3835:C:C6	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:4111:A:H2'	1:R:4112:C:C6	2.49	0.47
2:a:376:ASP:OD1	2:a:377:PHE:N	2.47	0.47
2:a:416:ASN:C	2:a:418:GLY:H	2.22	0.47
3:AE:61:PRO:HB2	3:AE:62:GLU:OE1	2.14	0.47
3:AF:5:MET:HB3	3:FJ:123:ILE:HG13	1.95	0.47
3:AK:14:LYS:HE2	3:AK:30:SER:HB2	1.96	0.47
3:Ac:89:LEU:HA	3:Ac:92:LEU:HB3	1.95	0.47
3:AS:125:SER:HB2	3:EE:5:MET:SD	2.54	0.47
3:AV:100:LYS:HD2	3:EH:100:LYS:HD2	1.96	0.47
3:BK:113:GLY:HA3	3:EW:89:LEU:HD11	1.96	0.47
3:BV:12:ALA:HB1	3:BW:9:THR:HA	1.96	0.47
3:BZ:43:LEU:HD12	3:BZ:85:SER:CB	2.43	0.47
3:CE:89:LEU:HD21	3:CE:93:LYS:HE3	1.96	0.47
3:CI:104:ASP:OD2	3:FU:100:LYS:NZ	2.46	0.47
3:CO:35:ARG:NH2	3:CO:37:LYS:HB2	2.17	0.47
3:CO:95:GLU:OE1	3:CO:95:GLU:HA	2.14	0.47
3:CO:111:ASN:HB2	3:CO:114:LEU:HD13	1.95	0.47
3:Cc:95:GLU:OE2	3:GD:56:ARG:NH2	2.47	0.47
3:DI:127:ASP:N	3:DI:127:ASP:OD1	2.47	0.47
3:EF:61:PRO:O	3:EF:62:GLU:HG3	2.14	0.47
3:EY:5:MET:HB3	3:EY:17:TRP:HB3	1.96	0.47
3:FU:37:LYS:C	3:FU:37:LYS:HD3	2.39	0.47
3:FU:125:SER:OG	3:FU:126:SER:N	2.47	0.47
3:GD:5:MET:HB3	3:GD:17:TRP:HB3	1.96	0.47
3:GE:58:ALA:HB1	3:GE:59:PRO:HD2	1.96	0.47
3:Gc:37:LYS:HD3	3:Gc:42:GLU:OE1	2.14	0.47
1:R:634:A:H2'	1:R:635:C:C6	2.50	0.47
1:R:637:G:O6	1:R:700:A:N6	2.47	0.47
1:R:1151:C:H2'	1:R:1152:C:H6	1.79	0.47
1:R:1177:U:H2'	1:R:1178:U:C6	2.49	0.47
1:R:1571:A:H2'	1:R:1572:C:C6	2.49	0.47
1:R:2570:C:H2'	1:R:2571:A:H8	1.79	0.47
1:R:3077:U:H2'	1:R:3078:C:C6	2.48	0.47
1:R:3125:U:O2	1:R:3127:A:N6	2.47	0.47
1:R:3477:A:H2'	1:R:3478:C:O4'	2.14	0.47
3:AE:58:ALA:N	3:AE:59:PRO:HD2	2.30	0.47
3:AG:62:GLU:OE2	3:AG:64:CYS:HB2	2.13	0.47
3:AH:2:ASN:HB2	3:DF:124:VAL:HG22	1.95	0.47
3:AQ:17:TRP:CD2	3:CQ:123:ILE:HD11	2.48	0.47
3:BG:95:GLU:HA	3:BG:98:THR:HB	1.96	0.47
3:BI:19:ASP:OD2	3:BI:21:THR:OG1	2.24	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BJ:19:ASP:OD2	3:BJ:21:THR:OG1	2.23	0.47
3:BO:82:ILE:HA	3:EG:78:ILE:HG22	1.96	0.47
3:Bc:30:SER:C	3:Bc:31:LEU:HD12	2.39	0.47
3:BS:5:MET:HB3	3:BS:17:TRP:HB3	1.96	0.47
3:CI:38:VAL:HG22	3:CI:39:GLY:H	1.80	0.47
3:CY:38:VAL:HG23	3:CY:39:GLY:H	1.79	0.47
3:CZ:8:ILE:HB	3:CZ:16:VAL:HG23	1.95	0.47
3:DN:11:THR:HB	3:DN:14:LYS:HB3	1.97	0.47
3:EB:5:MET:HG2	3:EB:18:SER:C	2.39	0.47
3:Ec:91:THR:HG23	3:EY:76:GLN:HE22	1.78	0.47
3:Ec:118:ASP:OD2	3:Ec:121:ALA:N	2.48	0.47
3:Ec:128:THR:HA	3:EY:2:ASN:HA	1.97	0.47
3:FC:57:PRO:HA	3:FC:73:ASN:HA	1.96	0.47
3:FD:38:VAL:HG23	3:FD:39:GLY:N	2.29	0.47
3:FP:56:ARG:HG3	3:FP:57:PRO:HD2	1.95	0.47
3:FT:11:THR:HG22	3:FT:12:ALA:N	2.29	0.47
3:FW:38:VAL:HG13	3:FW:39:GLY:H	1.79	0.47
3:GA:50:TYR:HE1	3:GA:82:ILE:HD12	1.80	0.47
3:GO:71:MET:N	3:GO:71:MET:SD	2.87	0.47
1:R:628:A:H2'	1:R:982:U:H1'	1.96	0.47
1:R:924:C:H2'	1:R:925:A:C8	2.49	0.47
1:R:1015:U:O2'	1:R:1083:G:O6	2.27	0.47
1:R:1025:A:H4'	1:R:1026:A:C8	2.50	0.47
1:R:1456:A:H2'	1:R:1457:G:H8	1.80	0.47
1:R:1562:U:H2'	1:R:1563:C:C6	2.50	0.47
1:R:1999:G:N1	1:R:2000:U:O4	2.47	0.47
1:R:2422:U:H2'	1:R:2423:G:C8	2.49	0.47
1:R:2458:U:H2'	1:R:2459:C:C6	2.50	0.47
1:R:2571:A:H2'	1:R:2572:A:C8	2.48	0.47
1:R:2833:U:H2'	1:R:2834:U:N3	2.28	0.47
1:R:3154:A:H2'	1:R:3155:A:H8	1.79	0.47
1:R:3286:A:H2'	1:R:3287:U:H6	1.79	0.47
1:R:3454:A:H2'	1:R:3455:A:O4'	2.14	0.47
1:R:3564:G:H2'	1:R:3565:A:H8	1.79	0.47
1:R:3975:G:H2'	1:R:3976:A:H8	1.80	0.47
1:R:4194:A:N6	1:R:4231:C:H4'	2.29	0.47
2:a:525:ARG:NH1	2:a:526:SER:HB3	2.30	0.47
2:b:11:ILE:HB	2:b:54:MET:HE1	1.97	0.47
3:AC:104:ASP:OD1	3:AC:105:THR:N	2.47	0.47
3:AO:56:ARG:NH1	3:AO:76:GLN:OE1	2.47	0.47
3:AV:5:MET:HG2	3:AV:17:TRP:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AW:56:ARG:O	3:AW:74:GLU:HG3	2.15	0.47
3:BP:116:PHE:CE2	3:CB:6:GLN:HB2	2.49	0.47
3:BQ:62:GLU:CD	3:BQ:62:GLU:H	2.22	0.47
3:Be:17:TRP:CG	3:EJ:123:ILE:HD11	2.50	0.47
3:BW:9:THR:H	3:BW:16:VAL:HG22	1.79	0.47
3:BY:5:MET:HB3	3:BY:17:TRP:HB3	1.96	0.47
3:BZ:102:ASN:HB3	3:FL:27:PHE:CE2	2.49	0.47
3:CA:43:LEU:HD12	3:CA:85:SER:HB2	1.96	0.47
3:CJ:125:SER:HB3	3:ED:3:LYS:HB2	1.96	0.47
3:CL:2:ASN:ND2	3:FX:125:SER:O	2.42	0.47
3:CW:5:MET:HG2	3:CW:18:SER:C	2.39	0.47
3:CY:71:MET:SD	3:CY:71:MET:N	2.70	0.47
3:DD:125:SER:OG	3:DD:126:SER:N	2.46	0.47
3:DK:60:LYS:HD3	3:DK:61:PRO:HD2	1.96	0.47
3:DN:2:ASN:HB2	3:EV:124:VAL:HG13	1.97	0.47
3:DN:89:LEU:HA	3:DN:92:LEU:HB3	1.95	0.47
3:DT:64:CYS:HB3	3:DT:66:ASP:CG	2.40	0.47
3:EQ:5:MET:HG2	3:EQ:18:SER:C	2.39	0.47
3:FJ:57:PRO:HA	3:FJ:73:ASN:HA	1.96	0.47
1:R:19:G:H2'	1:R:20:G:H8	1.79	0.47
1:R:127:U:H2'	1:R:128:A:C8	2.50	0.47
1:R:227:C:H2'	1:R:228:A:C8	2.50	0.47
1:R:828:G:H2'	1:R:829:G:C8	2.50	0.47
1:R:836:C:H2'	1:R:837:A:C8	2.48	0.47
1:R:941:U:H2'	1:R:942:G:H8	1.79	0.47
1:R:1022:U:H2'	1:R:1023:U:C6	2.50	0.47
1:R:2130:G:H2'	1:R:2131:A:C8	2.49	0.47
1:R:2369:C:H2'	1:R:2370:A:H8	1.78	0.47
1:R:2477:C:O2'	1:R:2478:C:O4'	2.17	0.47
1:R:3032:C:H2'	1:R:3033:A:C8	2.49	0.47
1:R:3832:U:O2'	1:R:3835:C:N4	2.43	0.47
1:R:4230:A:H4'	1:R:4231:C:H5'	1.95	0.47
1:R:4234:U:H2'	1:R:4235:A:H8	1.78	0.47
2:a:271:HIS:CG	2:a:338:GLN:HE22	2.32	0.47
3:AJ:123:ILE:HD12	3:DV:17:TRP:CE2	2.49	0.47
3:AK:2:ASN:HB2	3:CT:124:VAL:HB	1.96	0.47
3:AV:66:ASP:CG	3:AV:67:ALA:H	2.20	0.47
3:AY:33:ARG:NH2	3:EK:115:GLY:O	2.40	0.47
3:BJ:11:THR:HB	3:BJ:14:LYS:HB3	1.95	0.47
3:BU:19:ASP:OD2	3:BU:21:THR:OG1	2.30	0.47
3:CA:34:GLN:OE1	3:CA:35:ARG:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:37:LYS:NZ	3:CC:40:ILE:HA	2.28	0.47
3:CJ:124:VAL:HB	3:ED:2:ASN:HB2	1.95	0.47
3:CO:59:PRO:O	3:CO:60:LYS:HG2	2.14	0.47
3:CP:87:GLU:OE1	3:CP:87:GLU:N	2.39	0.47
3:CS:96:TRP:NE1	3:CS:100:LYS:HD2	2.29	0.47
3:CX:38:VAL:HG21	3:CX:43:LEU:HD12	1.96	0.47
3:CY:35:ARG:HH21	3:CY:43:LEU:C	2.22	0.47
3:DC:88:ASN:ND2	3:FS:74:GLU:OE2	2.42	0.47
3:DI:96:TRP:CZ2	3:DI:100:LYS:HE3	2.50	0.47
3:DV:98:THR:HG21	3:DV:126:SER:HB3	1.96	0.47
3:EF:70:ILE:HD11	3:EH:40:ILE:HG13	1.96	0.47
3:EG:60:LYS:O	3:EG:61:PRO:C	2.58	0.47
3:FG:87:GLU:OE1	3:FG:87:GLU:N	2.47	0.47
3:FP:101:ARG:NH2	3:FP:124:VAL:HG11	2.30	0.47
3:FY:60:LYS:NZ	3:FY:65:ALA:HA	2.29	0.47
3:GA:8:ILE:HD11	3:GA:18:SER:HB2	1.96	0.47
3:GC:33:ARG:HH12	3:GD:8:ILE:HG23	1.79	0.47
1:R:93:A:H2'	1:R:94:G:H8	1.79	0.47
1:R:605:U:H2'	1:R:606:U:C6	2.50	0.47
1:R:1432:C:H2'	1:R:1433:A:H8	1.79	0.47
1:R:1838:A:H2'	1:R:1839:G:H8	1.78	0.47
1:R:1929:C:HO2'	1:R:2437:U:H3	1.63	0.47
1:R:2824:U:H2'	1:R:2825:U:C6	2.49	0.47
1:R:2832:G:H2'	1:R:2833:U:C6	2.50	0.47
1:R:4071:U:H2'	1:R:4072:C:C6	2.49	0.47
3:AH:19:ASP:OD2	3:AH:22:ARG:N	2.40	0.47
3:AL:123:ILE:HD11	3:EX:17:TRP:CG	2.48	0.47
3:AO:60:LYS:HZ1	3:AO:69:VAL:H	1.62	0.47
3:AV:2:ASN:HA	3:EH:128:THR:HA	1.97	0.47
3:BN:5:MET:HB3	3:BN:17:TRP:HB3	1.97	0.47
3:BN:45:ASN:OD1	3:BN:46:VAL:N	2.48	0.47
3:BV:66:ASP:CG	3:BV:69:VAL:HG23	2.40	0.47
3:CK:123:ILE:HG22	3:DH:5:MET:SD	2.54	0.47
3:CM:57:PRO:HA	3:CM:73:ASN:HA	1.96	0.47
3:DB:60:LYS:HZ1	3:DB:64:CYS:HB3	1.78	0.47
3:DJ:57:PRO:HB3	3:DJ:73:ASN:HA	1.96	0.47
3:DW:54:TYR:HB2	3:FK:95:GLU:OE2	2.15	0.47
3:FE:96:TRP:CE2	3:FE:100:LYS:HE3	2.50	0.47
3:FH:9:THR:H	3:FH:16:VAL:HG22	1.79	0.47
3:GB:11:THR:H	3:GB:15:ILE:HD13	1.79	0.47
3:GN:19:ASP:OD2	3:GN:22:ARG:N	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GT:51:VAL:HG22	3:GT:79:ARG:HG2	1.97	0.47
3:GU:5:MET:HB3	3:GU:17:TRP:HB3	1.96	0.47
1:R:32:C:H2'	1:R:33:C:C6	2.50	0.47
1:R:52:C:H2'	1:R:53:G:C8	2.49	0.47
1:R:132:U:H2'	1:R:133:U:C6	2.49	0.47
1:R:376:C:H2'	1:R:377:C:C6	2.49	0.47
1:R:456:G:H2'	1:R:457:G:C8	2.49	0.47
1:R:618:C:H2'	1:R:619:A:H8	1.79	0.47
1:R:699:C:H2'	1:R:700:A:C8	2.50	0.47
1:R:772:A:H2'	1:R:773:U:C6	2.49	0.47
1:R:1395:A:H2'	1:R:1396:A:C8	2.50	0.47
1:R:1900:A:H2'	1:R:1901:A:H8	1.79	0.47
1:R:2793:U:H2'	1:R:2794:U:C6	2.49	0.47
1:R:2900:C:H2'	1:R:2901:C:H6	1.79	0.47
1:R:3248:U:H2'	1:R:3249:C:C6	2.49	0.47
1:R:3698:U:H2'	1:R:3699:G:C8	2.50	0.47
1:R:3827:A:H2'	1:R:3828:G:H8	1.80	0.47
1:R:3941:U:H2'	1:R:3942:G:H8	1.78	0.47
1:R:4214:U:H2'	1:R:4215:G:H8	1.80	0.47
3:AB:72:PRO:HG2	3:DI:38:VAL:HB	1.97	0.47
3:AC:49:GLN:OE1	3:AC:49:GLN:N	2.47	0.47
3:AF:74:GLU:OE1	3:AF:74:GLU:N	2.48	0.47
3:AJ:60:LYS:HD3	3:AJ:61:PRO:HD2	1.96	0.47
3:AN:116:PHE:HD1	3:CO:8:ILE:HD13	1.77	0.47
3:AS:55:LYS:HE3	3:AS:75:ASN:OD1	2.15	0.47
3:AT:17:TRP:CD2	3:BJ:123:ILE:HG13	2.49	0.47
3:BF:38:VAL:HG22	3:CB:72:PRO:HB2	1.97	0.47
3:BO:55:LYS:HE2	3:BO:75:ASN:OD1	2.15	0.47
3:CE:93:LYS:HE2	3:DK:108:ALA:HA	1.97	0.47
3:CZ:60:LYS:HA	3:CZ:71:MET:SD	2.54	0.47
3:DA:56:ARG:HG3	3:DA:57:PRO:HD2	1.95	0.47
3:Dc:125:SER:OG	3:Dc:126:SER:N	2.48	0.47
3:DU:37:LYS:NZ	3:DU:42:GLU:OE2	2.28	0.47
3:DX:61:PRO:HG2	3:DX:64:CYS:SG	2.55	0.47
3:EC:115:GLY:O	3:FH:33:ARG:NH2	2.38	0.47
3:ES:5:MET:HB3	3:ES:17:TRP:HB3	1.97	0.47
3:FS:71:MET:N	3:FS:71:MET:SD	2.87	0.47
3:GK:79:ARG:HB3	3:GX:81:VAL:HG22	1.96	0.47
1:R:1:G:O2'	1:R:2:G:OP1	2.28	0.47
1:R:93:A:H2'	1:R:94:G:C8	2.50	0.47
1:R:173:U:H2'	1:R:174:U:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:462:U:H2'	1:R:463:G:C8	2.49	0.47
1:R:496:G:O6	1:R:505:G:N1	2.48	0.47
1:R:547:C:H2'	1:R:548:G:C8	2.48	0.47
1:R:791:A:H61	1:R:808:C:H42	1.62	0.47
1:R:802:C:H2'	1:R:803:G:C8	2.50	0.47
1:R:894:U:H2'	1:R:895:A:C8	2.50	0.47
1:R:1246:A:H2'	1:R:1247:U:C6	2.49	0.47
1:R:1283:U:H2'	1:R:1284:U:H6	1.80	0.47
1:R:1319:A:H2'	1:R:1320:A:C8	2.49	0.47
1:R:1428:U:H2'	1:R:1429:G:H5'	1.96	0.47
1:R:1477:U:H2'	1:R:1478:C:C6	2.50	0.47
1:R:1601:C:H2'	1:R:1602:A:C8	2.49	0.47
1:R:1686:U:H2'	1:R:1687:A:H8	1.78	0.47
1:R:1873:C:H2'	1:R:1874:C:C6	2.49	0.47
1:R:2009:C:H2'	1:R:2010:C:C6	2.50	0.47
1:R:2289:G:H2'	1:R:2290:A:C8	2.49	0.47
1:R:2317:U:H4'	3:AU:34:GLN:NE2	2.29	0.47
1:R:2371:A:H2'	1:R:2372:G:H8	1.79	0.47
1:R:2544:U:H2'	1:R:2545:C:C6	2.49	0.47
1:R:2782:A:H2'	1:R:2783:G:H8	1.77	0.47
1:R:2867:G:H2'	1:R:2868:G:H8	1.78	0.47
1:R:3149:U:H2'	1:R:3150:G:C8	2.49	0.47
1:R:3300:G:N2	1:R:3389:G:OP1	2.32	0.47
1:R:3423:G:O6	1:R:3455:A:H1'	2.14	0.47
1:R:3608:U:H2'	1:R:3609:U:C6	2.50	0.47
1:R:4069:G:H2'	1:R:4070:U:H6	1.79	0.47
1:R:4094:C:H2'	1:R:4095:A:C8	2.50	0.47
1:R:4186:U:H2'	1:R:4187:U:C6	2.50	0.47
1:R:4192:A:H2'	1:R:4193:U:C6	2.49	0.47
1:R:4192:A:OP1	1:R:4224:U:O2'	2.31	0.47
1:R:4251:U:H3	2:b:493:ARG:HH22	1.62	0.47
2:a:17:GLY:N	2:a:180:ASN:HB3	2.30	0.47
2:a:216:GLY:O	2:a:220:GLN:HG2	2.15	0.47
2:a:218:VAL:O	2:a:222:TRP:HB2	2.15	0.47
2:a:262:ARG:HE	2:a:266:PHE:HE2	1.62	0.47
3:AB:123:ILE:HG22	3:DI:5:MET:HE3	1.97	0.47
3:AC:95:GLU:HA	3:AC:98:THR:HG22	1.96	0.47
3:AF:96:TRP:CZ2	3:AF:100:LYS:HE3	2.49	0.47
3:AF:98:THR:HG21	3:AF:126:SER:HB3	1.96	0.47
3:AK:128:THR:OG1	3:CT:1:ALA:O	2.26	0.47
3:AM:5:MET:HB3	3:AM:17:TRP:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AN:113:GLY:O	3:CN:46:VAL:HG21	2.15	0.47
3:AQ:71:MET:SD	3:AQ:71:MET:N	2.86	0.47
3:Ac:34:GLN:HG3	3:Ac:36:VAL:HG13	1.95	0.47
3:AS:35:ARG:HH22	3:AS:42:GLU:HG2	1.80	0.47
3:AY:59:PRO:HG2	3:EK:87:GLU:HG3	1.97	0.47
3:AZ:58:ALA:HB1	3:AZ:59:PRO:CD	2.44	0.47
3:BA:17:TRP:CD2	3:EF:123:ILE:HG13	2.50	0.47
3:BF:5:MET:SD	3:BF:5:MET:N	2.88	0.47
3:BJ:87:GLU:CD	3:BJ:87:GLU:H	2.23	0.47
3:BK:74:GLU:CD	3:EW:88:ASN:HD21	2.23	0.47
3:BM:2:ASN:ND2	3:BX:125:SER:O	2.42	0.47
3:BT:22:ARG:NH2	3:BT:55:LYS:O	2.48	0.47
3:BT:59:PRO:HG3	3:FF:87:GLU:HB3	1.97	0.47
3:BY:19:ASP:OD2	3:BY:22:ARG:N	2.38	0.47
3:CA:49:GLN:OE1	3:CA:49:GLN:N	2.47	0.47
3:CF:35:ARG:HE	3:CF:42:GLU:CD	2.22	0.47
3:CF:38:VAL:HG23	3:CF:39:GLY:N	2.28	0.47
3:CG:5:MET:HE2	3:EA:123:ILE:HG13	1.97	0.47
3:CO:2:ASN:HA	3:GA:129:THR:H	1.80	0.47
3:Cc:49:GLN:OE1	3:Cc:49:GLN:N	2.48	0.47
3:CS:115:GLY:HA2	3:DU:31:LEU:HD13	1.97	0.47
3:CT:19:ASP:OD2	3:CT:21:THR:OG1	2.19	0.47
3:CZ:118:ASP:OD1	3:CZ:120:THR:HG22	2.14	0.47
3:DD:56:ARG:NH1	3:GP:91:THR:OG1	2.47	0.47
3:DE:37:LYS:NZ	3:DE:38:VAL:O	2.33	0.47
3:DK:60:LYS:HG2	3:DK:65:ALA:HA	1.96	0.47
3:DM:39:GLY:O	3:DM:41:ALA:N	2.48	0.47
3:DN:14:LYS:NZ	3:DN:30:SER:HB2	2.30	0.47
3:DN:89:LEU:O	3:DN:93:LYS:HG2	2.14	0.47
3:Dc:28:SER:HB3	3:Dc:51:VAL:HG22	1.95	0.47
3:DS:35:ARG:NH2	3:DS:42:GLU:HG3	2.30	0.47
3:DW:95:GLU:HA	3:DW:98:THR:HB	1.97	0.47
3:DZ:24:SER:HB2	3:DZ:55:LYS:HB3	1.96	0.47
3:EJ:34:GLN:O	3:EJ:45:ASN:N	2.38	0.47
3:EL:125:SER:OG	3:EL:126:SER:N	2.47	0.47
3:EM:101:ARG:HH22	3:EM:124:VAL:HG11	1.80	0.47
3:EU:4:PRO:HA	3:FB:124:VAL:HA	1.96	0.47
3:EV:16:VAL:HG12	3:EV:28:SER:CB	2.44	0.47
3:EY:5:MET:HG2	3:EY:18:SER:C	2.39	0.47
3:FJ:60:LYS:HD3	3:FJ:65:ALA:HA	1.97	0.47
3:FO:66:ASP:OD1	3:FO:67:ALA:N	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:FS:57:PRO:HA	3:FS:73:ASN:HA	1.96	0.47
3:FW:49:GLN:OE1	3:FW:49:GLN:N	2.48	0.47
3:FZ:33:ARG:NH1	3:GT:115:GLY:HA3	2.23	0.47
3:FZ:124:VAL:HB	3:GT:2:ASN:HB2	1.95	0.47
3:GA:22:ARG:NH1	3:GA:24:SER:OG	2.42	0.47
3:GC:2:ASN:HB2	3:GW:124:VAL:HB	1.96	0.47
3:GI:51:VAL:HG12	3:GI:79:ARG:HB2	1.97	0.47
3:GL:35:ARG:HH11	3:GL:35:ARG:HG3	1.80	0.47
3:GO:19:ASP:OD2	3:GO:21:THR:OG1	2.22	0.47
3:GS:35:ARG:HG2	3:GS:42:GLU:OE2	2.14	0.47
3:GS:60:LYS:HA	3:GS:71:MET:HE1	1.95	0.47
1:R:475:A:H2'	1:R:476:C:C6	2.50	0.47
1:R:654:U:H2'	1:R:655:C:C6	2.49	0.47
1:R:1009:C:N3	1:R:1090:G:N1	2.63	0.47
1:R:1152:C:H2'	1:R:1153:C:C6	2.50	0.47
1:R:1833:U:H4'	1:R:1834:U:H5''	1.96	0.47
1:R:2172:A:O2'	1:R:2173:A:N7	2.41	0.47
1:R:2634:G:H2'	1:R:2635:G:C8	2.49	0.47
1:R:4229:A:O2'	1:R:4269:A:N6	2.47	0.47
2:b:230:MET:HE1	2:b:506:PHE:CG	2.50	0.47
3:AE:8:ILE:HA	3:DS:116:PHE:HB2	1.97	0.47
3:AL:71:MET:N	3:AL:71:MET:SD	2.88	0.47
3:AT:87:GLU:HG2	3:AT:88:ASN:N	2.29	0.47
3:AZ:60:LYS:CG	3:AZ:63:GLY:H	2.28	0.47
3:BC:124:VAL:HA	3:BY:4:PRO:HA	1.97	0.47
3:BE:8:ILE:HB	3:BE:16:VAL:HG23	1.97	0.47
3:Bc:100:LYS:NZ	3:EJ:100:LYS:HB3	2.30	0.47
3:BT:125:SER:OG	3:BT:126:SER:N	2.47	0.47
3:BW:3:LYS:HD3	3:FI:127:ASP:OD2	2.15	0.47
3:BZ:39:GLY:O	3:BZ:40:ILE:HG22	2.14	0.47
3:CM:23:LEU:HD23	3:CM:23:LEU:H	1.80	0.47
3:CX:36:VAL:N	3:CX:42:GLU:OE2	2.48	0.47
3:CY:117:LEU:HD21	3:GO:31:LEU:HD13	1.97	0.47
3:CZ:114:LEU:HD22	3:FP:89:LEU:HD13	1.95	0.47
3:DB:62:GLU:OE2	3:DB:64:CYS:HB2	2.14	0.47
3:DH:89:LEU:HD21	3:DH:93:LYS:HE2	1.97	0.47
3:DZ:113:GLY:O	3:FN:46:VAL:HG21	2.15	0.47
3:ED:35:ARG:HH22	3:ED:37:LYS:HB2	1.80	0.47
3:FB:56:ARG:N	3:FB:73:ASN:OD1	2.47	0.47
3:FF:55:LYS:NZ	3:FF:75:ASN:HB3	2.30	0.47
3:FM:112:ALA:HA	3:FM:116:PHE:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:FO:19:ASP:OD2	3:FO:22:ARG:N	2.36	0.47
3:FP:87:GLU:OE1	3:FP:87:GLU:N	2.38	0.47
3:FW:58:ALA:HB3	3:FW:59:PRO:HD3	1.96	0.47
3:GB:57:PRO:HA	3:GB:73:ASN:HA	1.96	0.47
1:R:122:G:N2	1:R:123:G:O6	2.48	0.47
1:R:946:U:H2'	1:R:1095:U:H4'	1.97	0.47
1:R:1075:C:OP1	1:R:1463:A:O2'	2.22	0.47
1:R:1181:G:H2'	1:R:1182:G:H8	1.80	0.47
1:R:1356:U:C4	1:R:1357:U:O4	2.68	0.47
1:R:2859:G:H2'	1:R:2860:G:C8	2.50	0.47
1:R:3544:C:H2'	1:R:3545:A:H8	1.79	0.47
1:R:3826:U:H2'	1:R:3827:A:C8	2.50	0.47
2:b:311:GLN:HG3	2:b:315:LYS:HE2	1.97	0.47
3:AI:35:ARG:NH2	3:AI:43:LEU:O	2.45	0.47
3:BA:87:GLU:OE1	3:BA:87:GLU:N	2.45	0.47
3:BA:104:ASP:OD1	3:EF:96:TRP:NE1	2.41	0.47
3:BA:124:VAL:CG1	3:EF:2:ASN:HB2	2.45	0.47
3:BS:8:ILE:HD12	3:EJ:116:PHE:CD1	2.50	0.47
3:BW:118:ASP:OD1	3:BW:118:ASP:N	2.43	0.47
3:CL:124:VAL:HA	3:FX:4:PRO:HA	1.97	0.47
3:CT:8:ILE:HD11	3:DU:116:PHE:CZ	2.50	0.47
3:CV:71:MET:HB2	3:CV:72:PRO:HD2	1.95	0.47
3:CX:96:TRP:CE2	3:CX:100:LYS:HD2	2.50	0.47
3:CX:113:GLY:O	3:GJ:46:VAL:HG21	2.15	0.47
3:CZ:2:ASN:HB2	3:FP:124:VAL:HG13	1.97	0.47
3:DG:2:ASN:HA	3:GS:128:THR:HA	1.96	0.47
3:DT:15:ILE:HD11	3:ES:117:LEU:HB3	1.97	0.47
3:DX:11:THR:HG22	3:DX:12:ALA:H	1.80	0.47
3:DZ:5:MET:SD	3:FN:125:SER:HB2	2.55	0.47
3:EE:66:ASP:O	3:EE:68:CYS:N	2.48	0.47
3:EM:101:ARG:HH12	3:EM:124:VAL:HG21	1.80	0.47
3:FA:37:LYS:HD3	3:FA:37:LYS:C	2.40	0.47
3:FM:70:ILE:HD13	3:FO:40:ILE:HG13	1.97	0.47
3:FT:38:VAL:HG13	3:FT:39:GLY:N	2.30	0.47
3:FT:60:LYS:HD3	3:FT:64:CYS:O	2.15	0.47
3:GE:35:ARG:HG2	3:GE:42:GLU:OE2	2.15	0.47
3:GI:55:LYS:HE3	3:GI:75:ASN:OD1	2.15	0.47
3:GS:5:MET:HB3	3:GS:17:TRP:HB3	1.96	0.47
3:GX:43:LEU:HD12	3:GX:85:SER:HB2	1.97	0.47
1:R:81:A:H2'	1:R:82:C:C6	2.50	0.47
1:R:383:C:H2'	1:R:384:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:685:G:H2'	1:R:686:A:H8	1.77	0.47
1:R:818:U:H2'	1:R:819:A:H8	1.79	0.47
1:R:1190:A:H2'	1:R:1191:A:C8	2.50	0.47
1:R:1222:C:H2'	1:R:1223:G:C8	2.49	0.47
1:R:1259:C:H2'	1:R:1260:C:C6	2.50	0.47
1:R:1499:A:H2'	1:R:1500:C:C6	2.49	0.47
1:R:2001:C:H42	1:R:2036:A:H2	1.63	0.47
1:R:2147:C:H2'	1:R:2148:A:H8	1.80	0.47
1:R:2227:U:P	1:R:2230:U:H3	2.37	0.47
1:R:2568:A:H2'	1:R:2569:A:C8	2.50	0.47
1:R:3451:C:H2'	1:R:3452:A:C8	2.50	0.47
1:R:3651:A:H2'	1:R:3652:U:C6	2.50	0.47
1:R:3717:G:H5'	1:R:3809:A:C5'	2.45	0.47
2:b:321:ASP:OD1	2:b:322:LYS:N	2.48	0.47
3:AH:112:ALA:HA	3:AH:116:PHE:O	2.15	0.47
3:AO:102:ASN:HB3	3:FA:27:PHE:CE2	2.49	0.47
3:AP:127:ASP:OD1	3:AP:127:ASP:N	2.47	0.47
3:AY:5:MET:HE2	3:EK:125:SER:HB2	1.97	0.47
3:CL:68:CYS:HA	3:CL:70:ILE:HG23	1.97	0.47
3:Cc:51:VAL:HG22	3:Cc:79:ARG:HG2	1.97	0.47
3:CS:55:LYS:HB3	3:CS:73:ASN:ND2	2.30	0.47
3:DA:117:LEU:HD11	3:GM:31:LEU:HD13	1.97	0.47
3:DK:87:GLU:H	3:DK:87:GLU:CD	2.23	0.47
3:DY:102:ASN:O	3:DY:105:THR:HG22	2.15	0.47
3:DZ:74:GLU:OE2	3:FN:88:ASN:ND2	2.48	0.47
3:EL:49:GLN:N	3:EL:49:GLN:OE1	2.47	0.47
3:Ec:73:ASN:OD1	3:Ec:74:GLU:N	2.48	0.47
3:EU:19:ASP:OD2	3:EU:21:THR:OG1	2.25	0.47
3:FL:71:MET:SD	3:FL:71:MET:N	2.75	0.47
3:FM:38:VAL:HG23	3:FM:39:GLY:N	2.30	0.47
3:FP:111:ASN:HB2	3:FP:114:LEU:HD12	1.97	0.47
3:GO:70:ILE:HD13	3:Gc:61:PRO:HG3	1.97	0.47
3:GX:5:MET:HG2	3:GX:18:SER:C	2.40	0.47
1:R:440:U:H2'	1:R:441:C:C6	2.50	0.46
1:R:515:C:H2'	1:R:516:U:C6	2.50	0.46
1:R:550:A:H2'	1:R:551:G:C8	2.50	0.46
1:R:766:U:O2'	1:R:834:G:O6	2.20	0.46
1:R:897:U:H2'	1:R:898:G:H8	1.79	0.46
1:R:1007:A:H2'	1:R:1008:C:C6	2.50	0.46
1:R:1432:C:H2'	1:R:1433:A:C8	2.50	0.46
1:R:1621:U:H2'	1:R:1622:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1728:C:H2'	1:R:1729:C:C6	2.51	0.46
1:R:1744:C:H2'	1:R:1745:C:C6	2.50	0.46
1:R:2998:A:H2'	1:R:2998:A:N3	2.29	0.46
1:R:3090:U:O2'	1:R:3093:G:N7	2.47	0.46
1:R:3415:C:H2'	1:R:3416:C:C6	2.50	0.46
1:R:3580:A:N6	3:CQ:47:SER:O	2.47	0.46
1:R:4254:G:HO2'	1:R:4255:C:P	2.38	0.46
2:b:31:GLY:O	2:b:164:ARG:NH2	2.49	0.46
3:AI:35:ARG:NE	3:AI:44:ASN:OD1	2.49	0.46
3:AO:60:LYS:NZ	3:AO:69:VAL:H	2.13	0.46
3:AP:66:ASP:OD1	3:AP:67:ALA:N	2.48	0.46
3:Ac:35:ARG:NH2	3:Ac:42:GLU:HA	2.30	0.46
3:AW:102:ASN:HB3	3:BD:27:PHE:CE2	2.50	0.46
3:BA:35:ARG:NH1	3:BA:44:ASN:OD1	2.47	0.46
3:BF:56:ARG:NH1	3:CB:95:GLU:OE1	2.48	0.46
3:BI:5:MET:HB2	3:BI:18:SER:O	2.14	0.46
3:BO:127:ASP:OD1	3:BO:127:ASP:N	2.48	0.46
3:BW:52:SER:HB3	3:BW:78:ILE:HG23	1.96	0.46
3:BW:125:SER:HB2	3:FI:5:MET:HE2	1.97	0.46
3:CD:57:PRO:HA	3:CD:73:ASN:HA	1.97	0.46
3:CI:54:TYR:CD2	3:CI:56:ARG:HD3	2.50	0.46
3:DF:19:ASP:OD2	3:DF:21:THR:OG1	2.32	0.46
3:DH:38:VAL:HG13	3:DH:39:GLY:N	2.29	0.46
3:DO:20:PRO:HB3	3:EV:116:PHE:CE2	2.50	0.46
3:Dc:5:MET:HB2	3:Dc:17:TRP:HB3	1.97	0.46
3:DT:59:PRO:HB3	3:DT:71:MET:HE3	1.97	0.46
3:DV:35:ARG:NH2	3:DV:44:ASN:HA	2.29	0.46
3:EE:60:LYS:HD2	3:EE:71:MET:HB3	1.96	0.46
3:EV:18:SER:HB2	3:EV:26:THR:HG22	1.97	0.46
3:FA:96:TRP:CZ2	3:FA:100:LYS:HE3	2.51	0.46
3:FA:111:ASN:HB3	3:FA:116:PHE:HB2	1.97	0.46
3:FZ:2:ASN:HA	3:GT:128:THR:HA	1.97	0.46
3:GA:60:LYS:NZ	3:GA:64:CYS:O	2.47	0.46
3:GP:96:TRP:NE1	3:GP:100:LYS:HE2	2.30	0.46
3:Gc:5:MET:CB	3:Gc:17:TRP:HB3	2.45	0.46
3:GY:57:PRO:HA	3:GY:73:ASN:HA	1.97	0.46
1:R:29:A:H2'	1:R:30:A:C8	2.50	0.46
1:R:270:G:H2'	1:R:271:G:C8	2.51	0.46
1:R:285:C:H2'	1:R:286:C:H6	1.80	0.46
1:R:706:U:H5''	1:R:707:U:H2'	1.98	0.46
1:R:1256:U:H2'	1:R:1257:U:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1556:U:O2'	1:R:1558:U:OP2	2.26	0.46
1:R:1972:C:HO2'	1:R:2358:U:HO2'	1.51	0.46
1:R:2193:G:H2'	1:R:2194:A:C8	2.50	0.46
1:R:2310:A:H2'	1:R:2311:U:C6	2.50	0.46
1:R:2847:U:H6	1:R:2857:G:H5'	1.80	0.46
1:R:3390:U:H2'	1:R:3391:C:C6	2.50	0.46
1:R:3961:A:H2'	1:R:3962:G:C8	2.50	0.46
1:R:4208:U:O4	3:DN:35:ARG:NH1	2.48	0.46
1:R:4209:G:O2'	1:R:4210:A:O4'	2.33	0.46
2:a:174:ILE:HG22	2:a:176:ARG:HD3	1.97	0.46
2:b:18:GLN:HB3	2:b:35:ALA:HB1	1.96	0.46
3:AB:97:GLU:HA	3:AB:100:LYS:HG2	1.97	0.46
3:AL:2:ASN:HB2	3:EX:124:VAL:HB	1.96	0.46
3:AU:100:LYS:HD2	3:EI:100:LYS:HD2	1.95	0.46
3:BK:114:LEU:HD13	3:EW:86:ALA:HB1	1.97	0.46
3:BY:30:SER:OG	3:BY:49:GLN:HB2	2.15	0.46
3:CM:81:VAL:CG2	3:DO:79:ARG:HB3	2.46	0.46
3:CX:22:ARG:NH2	3:CX:55:LYS:O	2.47	0.46
3:CX:80:THR:HG22	3:GJ:80:THR:HG23	1.97	0.46
3:CY:115:GLY:O	3:GO:33:ARG:NH1	2.49	0.46
3:DV:35:ARG:HA	3:DV:35:ARG:NE	2.30	0.46
3:EL:61:PRO:O	3:EL:62:GLU:HG3	2.16	0.46
3:EO:123:ILE:HD12	3:FE:17:TRP:CE2	2.51	0.46
3:FY:37:LYS:NZ	3:FY:38:VAL:O	2.36	0.46
3:FZ:125:SER:O	3:GT:2:ASN:ND2	2.49	0.46
3:GA:40:ILE:HG13	3:GA:41:ALA:N	2.30	0.46
3:GC:67:ALA:O	3:GC:68:CYS:C	2.55	0.46
3:GL:5:MET:HG2	3:GL:19:ASP:N	2.30	0.46
3:GQ:56:ARG:HD3	3:GQ:57:PRO:HD2	1.98	0.46
1:R:34:G:H2'	1:R:35:A:C8	2.50	0.46
1:R:227:C:H2'	1:R:228:A:H8	1.79	0.46
1:R:515:C:H2'	1:R:516:U:H6	1.80	0.46
1:R:776:C:H2'	1:R:777:U:H6	1.79	0.46
1:R:870:C:H1'	1:R:871:C:H5	1.79	0.46
1:R:1139:A:H2'	1:R:1140:G:O4'	2.15	0.46
1:R:1140:G:H2'	1:R:1141:A:C8	2.50	0.46
1:R:1715:U:H2'	1:R:1716:U:O4'	2.16	0.46
1:R:1756:G:H2'	1:R:1757:G:H8	1.80	0.46
1:R:1872:C:H2'	1:R:1873:C:H6	1.80	0.46
1:R:1872:C:H2'	1:R:1873:C:C6	2.50	0.46
1:R:1873:C:H2'	1:R:1874:C:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3242:A:H2'	1:R:3243:C:C6	2.50	0.46
1:R:3246:C:H2'	1:R:3247:U:H6	1.81	0.46
1:R:3823:A:N1	1:R:3847:G:H1'	2.31	0.46
2:a:305:ILE:O	2:a:309:LEU:HG	2.15	0.46
3:AB:96:TRP:O	3:AB:100:LYS:HG2	2.15	0.46
3:Ac:8:ILE:HD11	3:CQ:116:PHE:CZ	2.50	0.46
3:AV:64:CYS:SG	3:EF:68:CYS:N	2.89	0.46
3:AW:38:VAL:HG22	3:BD:72:PRO:HG2	1.96	0.46
3:BC:35:ARG:HH11	3:BC:35:ARG:HG3	1.81	0.46
3:BF:27:PHE:CE2	3:CB:102:ASN:HB3	2.50	0.46
3:BF:101:ARG:CZ	3:BF:124:VAL:HG21	2.45	0.46
3:BJ:57:PRO:HA	3:BJ:73:ASN:HA	1.97	0.46
3:Bc:124:VAL:HG22	3:EJ:2:ASN:HB2	1.96	0.46
3:BY:5:MET:HG2	3:BY:18:SER:C	2.41	0.46
3:BZ:2:ASN:HA	3:FL:128:THR:HA	1.96	0.46
3:CC:81:VAL:HG11	3:FO:79:ARG:HH11	1.79	0.46
3:CK:5:MET:HE2	3:DH:125:SER:HB2	1.97	0.46
3:DD:95:GLU:OE2	3:GP:56:ARG:NH1	2.48	0.46
3:DI:96:TRP:CE2	3:DI:100:LYS:HE3	2.49	0.46
3:DL:58:ALA:HB1	3:DL:59:PRO:HD2	1.96	0.46
3:DN:114:LEU:HD22	3:EV:89:LEU:HD22	1.98	0.46
3:EC:38:VAL:HG13	3:EC:39:GLY:N	2.31	0.46
3:EW:35:ARG:HG2	3:EW:42:GLU:OE2	2.15	0.46
3:FQ:115:GLY:O	3:GE:33:ARG:NH1	2.48	0.46
3:FT:61:PRO:HB2	3:FZ:68:CYS:SG	2.55	0.46
3:GM:66:ASP:OD2	3:GM:69:VAL:HG13	2.15	0.46
3:Gc:5:MET:HB3	3:Gc:17:TRP:HB3	1.96	0.46
3:Gc:16:VAL:HG12	3:Gc:28:SER:HB2	1.96	0.46
3:GV:38:VAL:HG23	3:GV:39:GLY:N	2.29	0.46
1:R:805:C:H2'	1:R:806:G:H8	1.81	0.46
1:R:997:G:H2'	1:R:998:C:C6	2.49	0.46
1:R:1964:U:H2'	1:R:1965:G:H8	1.80	0.46
1:R:2060:U:O2	1:R:2194:A:N6	2.48	0.46
1:R:2578:A:H4'	3:FN:79:ARG:HH21	1.81	0.46
1:R:3415:C:H2'	1:R:3416:C:H6	1.81	0.46
1:R:3560:A:H2'	1:R:3561:U:C6	2.50	0.46
1:R:3623:U:H2'	1:R:3624:G:C8	2.50	0.46
1:R:4268:C:O2'	1:R:4269:A:O4'	2.23	0.46
2:a:522:SER:HA	2:a:525:ARG:CD	2.46	0.46
3:AE:55:LYS:HB3	3:AE:73:ASN:ND2	2.23	0.46
3:AH:31:LEU:HD23	3:AH:48:GLY:HA2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AJ:117:LEU:HD13	3:DV:15:ILE:HG13	1.97	0.46
3:AO:23:LEU:HD23	3:AO:23:LEU:H	1.80	0.46
3:AO:58:ALA:HB3	3:AO:71:MET:HB3	1.97	0.46
3:AP:125:SER:HB2	3:EB:5:MET:HE2	1.97	0.46
3:AT:82:ILE:HG13	3:BJ:78:ILE:HG12	1.97	0.46
3:AW:2:ASN:ND2	3:BD:125:SER:O	2.44	0.46
3:AX:46:VAL:HG11	3:EL:113:GLY:O	2.16	0.46
3:BF:113:GLY:O	3:CB:46:VAL:HG21	2.15	0.46
3:BO:99:HIS:HB2	3:EG:78:ILE:HD11	1.98	0.46
3:CF:89:LEU:HD13	3:Fc:114:LEU:HD22	1.97	0.46
3:CI:1:ALA:O	3:FU:128:THR:OG1	2.33	0.46
3:CK:2:ASN:HB2	3:DH:124:VAL:HG13	1.98	0.46
3:CS:46:VAL:HG21	3:DU:113:GLY:O	2.15	0.46
3:DG:61:PRO:HD2	3:DG:71:MET:HE1	1.97	0.46
3:DO:7:PRO:HD3	3:DO:17:TRP:CZ3	2.50	0.46
3:DV:19:ASP:OD2	3:DV:22:ARG:N	2.49	0.46
3:EA:56:ARG:O	3:EA:74:GLU:N	2.44	0.46
3:EG:60:LYS:HA	3:EG:71:MET:CE	2.45	0.46
3:EL:55:LYS:HZ3	3:EL:75:ASN:HB2	1.79	0.46
3:Ec:71:MET:HB2	3:Ec:72:PRO:HD2	1.96	0.46
3:Ec:129:THR:HA	3:EY:3:LYS:HE3	1.97	0.46
3:FB:87:GLU:CD	3:FB:87:GLU:H	2.23	0.46
3:FD:56:ARG:O	3:FD:74:GLU:HG3	2.16	0.46
3:FP:66:ASP:HB2	3:FP:69:VAL:CG1	2.42	0.46
3:FQ:82:ILE:HD12	3:GE:78:ILE:HD12	1.98	0.46
3:GC:27:PHE:HD2	3:GC:52:SER:HB2	1.81	0.46
1:R:1:G:H21	1:R:28:A:N6	2.13	0.46
1:R:100:U:H2'	1:R:101:U:H6	1.79	0.46
1:R:235:C:H2'	1:R:236:U:H6	1.81	0.46
1:R:372:C:H2'	1:R:373:A:H8	1.80	0.46
1:R:401:G:N2	1:R:409:A:N6	2.37	0.46
1:R:701:G:H2'	1:R:702:U:C6	2.51	0.46
1:R:823:G:N2	1:R:827:G:O4'	2.48	0.46
1:R:1496:A:O2'	1:R:1497:C:O4'	2.31	0.46
1:R:1549:U:H2'	1:R:1550:U:H6	1.80	0.46
1:R:3413:U:H2'	1:R:3414:A:H8	1.81	0.46
1:R:4243:A:O2'	1:R:4244:G:H5''	2.15	0.46
2:a:115:ASP:OD1	2:a:116:ILE:N	2.48	0.46
2:a:124:ASP:OD1	2:a:124:ASP:N	2.46	0.46
2:a:244:SER:O	2:a:247:LEU:HB3	2.16	0.46
2:a:305:ILE:HA	2:a:308:LYS:HG2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AF:35:ARG:HH12	3:AF:42:GLU:HG3	1.79	0.46
3:AG:8:ILE:N	3:AG:16:VAL:O	2.40	0.46
3:AL:31:LEU:HD13	3:EX:117:LEU:HD21	1.97	0.46
3:AZ:91:THR:HG21	3:BG:56:ARG:HD3	1.97	0.46
3:BJ:55:LYS:HG3	3:BJ:73:ASN:HB3	1.96	0.46
3:BK:49:GLN:HG3	3:BK:81:VAL:HG13	1.98	0.46
3:BL:100:LYS:HD2	3:EM:100:LYS:HD2	1.98	0.46
3:Bc:128:THR:HA	3:EJ:2:ASN:HA	1.98	0.46
3:BZ:5:MET:HB3	3:BZ:17:TRP:HB3	1.96	0.46
3:BZ:87:GLU:OE1	3:BZ:87:GLU:N	2.37	0.46
3:CM:37:LYS:HE2	3:CM:40:ILE:HA	1.96	0.46
3:CW:124:VAL:CG1	3:FV:2:ASN:HB2	2.46	0.46
3:DB:2:ASN:HB2	3:GI:124:VAL:HG22	1.97	0.46
3:DC:100:LYS:HD2	3:FS:100:LYS:HD2	1.97	0.46
3:DG:123:ILE:HD11	3:GS:17:TRP:CG	2.51	0.46
3:DH:19:ASP:HB3	3:DH:22:ARG:O	2.16	0.46
3:DJ:31:LEU:HD23	3:GV:115:GLY:HA2	1.96	0.46
3:DM:39:GLY:C	3:DM:41:ALA:N	2.73	0.46
3:DN:49:GLN:HE22	3:DN:79:ARG:HD2	1.81	0.46
3:EE:5:MET:HB3	3:EE:17:TRP:HB3	1.96	0.46
3:EG:10:SER:HA	3:EG:15:ILE:HD13	1.97	0.46
3:FI:36:VAL:O	3:FI:43:LEU:HD23	2.15	0.46
3:FO:62:GLU:OE1	3:FO:62:GLU:N	2.49	0.46
3:GH:16:VAL:HG22	3:GH:28:SER:HB2	1.97	0.46
3:GI:11:THR:HB	3:GI:14:LYS:HG2	1.98	0.46
3:GK:24:SER:HB3	3:GK:55:LYS:HG2	1.98	0.46
3:GX:58:ALA:HB1	3:GX:59:PRO:HD2	1.97	0.46
1:R:155:U:H2'	1:R:156:U:C6	2.51	0.46
1:R:202:G:H2'	1:R:203:U:C6	2.50	0.46
1:R:879:U:H2'	1:R:880:U:C6	2.51	0.46
1:R:924:C:H2'	1:R:925:A:H8	1.80	0.46
1:R:995:A:OP1	1:R:1098:C:N4	2.49	0.46
1:R:1725:C:H2'	1:R:1726:A:H8	1.80	0.46
1:R:1929:C:C5	1:R:1930:C:H1'	2.51	0.46
1:R:2217:G:H2'	1:R:2218:U:C6	2.51	0.46
1:R:2247:G:H2'	1:R:2248:G:H8	1.80	0.46
1:R:2974:C:H2'	1:R:2975:C:C5	2.50	0.46
1:R:3842:A:H2'	1:R:3843:A:C8	2.51	0.46
2:a:378:VAL:HG23	2:a:403:HIS:HB3	1.98	0.46
2:b:386:ILE:HD11	2:b:397:LEU:HB2	1.98	0.46
3:AB:57:PRO:HG3	3:AB:73:ASN:CG	2.40	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AJ:5:MET:HE1	3:DV:124:VAL:C	2.40	0.46
3:AO:17:TRP:CE2	3:FA:123:ILE:HG13	2.50	0.46
3:AU:123:ILE:HG13	3:EI:5:MET:HE2	1.97	0.46
3:AW:113:GLY:HA3	3:BD:89:LEU:HD11	1.97	0.46
3:AZ:58:ALA:HB1	3:AZ:59:PRO:HD2	1.98	0.46
3:BF:19:ASP:OD2	3:BF:21:THR:OG1	2.22	0.46
3:BM:49:GLN:OE1	3:BM:49:GLN:N	2.48	0.46
3:BN:5:MET:HE2	3:EZ:125:SER:HB2	1.97	0.46
3:BQ:102:ASN:HB3	3:FC:27:PHE:CE2	2.51	0.46
3:BZ:113:GLY:HA3	3:FL:89:LEU:HD11	1.98	0.46
3:CH:87:GLU:OE1	3:CH:87:GLU:N	2.43	0.46
3:CK:96:TRP:O	3:CK:100:LYS:HG2	2.16	0.46
3:CM:91:THR:HG21	3:DO:56:ARG:HD2	1.96	0.46
3:CO:100:LYS:HD3	3:GA:100:LYS:NZ	2.31	0.46
3:CP:43:LEU:HD12	3:CP:85:SER:HB2	1.98	0.46
3:CP:49:GLN:OE1	3:CP:79:ARG:NH2	2.39	0.46
3:CS:87:GLU:OE1	3:CS:87:GLU:N	2.46	0.46
3:CV:67:ALA:C	3:GJ:64:CYS:HB2	2.41	0.46
3:DE:101:ARG:HH22	3:DE:124:VAL:HG21	1.80	0.46
3:DX:37:LYS:HD2	3:DX:41:ALA:O	2.16	0.46
3:EG:5:MET:HG3	3:EG:18:SER:C	2.41	0.46
3:EI:19:ASP:OD2	3:EI:22:ARG:N	2.44	0.46
3:EM:43:LEU:HD12	3:EM:85:SER:HB2	1.98	0.46
3:EP:18:SER:HB3	3:EP:26:THR:HG22	1.98	0.46
3:EP:35:ARG:NH2	3:EP:42:GLU:HA	2.31	0.46
3:EU:91:THR:OG1	3:FB:56:ARG:NH1	2.48	0.46
3:FB:56:ARG:HG3	3:FB:76:GLN:NE2	2.31	0.46
3:FZ:5:MET:HG2	3:FZ:18:SER:C	2.41	0.46
3:GB:55:LYS:HB3	3:GB:73:ASN:ND2	2.31	0.46
3:GB:106:LEU:HA	3:GB:106:LEU:HD23	1.82	0.46
3:GH:56:ARG:NH2	3:GU:95:GLU:OE2	2.40	0.46
3:GS:71:MET:SD	3:GS:71:MET:N	2.88	0.46
3:GU:60:LYS:HG3	3:GU:71:MET:HE3	1.98	0.46
3:GY:38:VAL:HG23	3:GY:39:GLY:H	1.80	0.46
1:R:349:U:H2'	1:R:350:G:O4'	2.15	0.46
1:R:438:U:O2'	1:R:965:A:OP2	2.29	0.46
1:R:672:U:H2'	1:R:673:A:H8	1.80	0.46
1:R:729:U:H2'	1:R:730:G:C8	2.51	0.46
1:R:762:U:H2'	1:R:763:C:C6	2.51	0.46
1:R:867:U:H2'	1:R:868:C:H6	1.80	0.46
1:R:991:C:H2'	1:R:992:U:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1033:A:N3	1:R:1035:A:N6	2.63	0.46
1:R:1888:C:H2'	1:R:1889:C:C6	2.51	0.46
1:R:2356:C:H2'	1:R:2357:U:H6	1.81	0.46
1:R:2402:G:H2'	1:R:2403:C:H6	1.81	0.46
1:R:2695:U:H2'	1:R:2696:U:C6	2.51	0.46
1:R:2743:C:H2'	1:R:2744:U:C6	2.51	0.46
2:a:293:TYR:CE2	2:a:313:LYS:HA	2.50	0.46
3:AC:100:LYS:HG2	3:FG:100:LYS:HD3	1.97	0.46
3:AL:124:VAL:HA	3:EX:4:PRO:HA	1.97	0.46
3:Ac:56:ARG:HD2	3:FD:91:THR:HG21	1.96	0.46
3:AZ:33:ARG:NH2	3:BG:115:GLY:O	2.47	0.46
3:BC:123:ILE:HD11	3:BY:17:TRP:CG	2.51	0.46
3:BM:10:SER:HA	3:BM:15:ILE:HD13	1.97	0.46
3:CC:115:GLY:O	3:FO:33:ARG:NH2	2.47	0.46
3:Cc:17:TRP:CD2	3:GD:123:ILE:HG13	2.51	0.46
3:CU:19:ASP:OD2	3:CU:21:THR:OG1	2.25	0.46
3:DB:67:ALA:HB3	3:GP:64:CYS:HB3	1.98	0.46
3:DE:101:ARG:HH12	3:DE:124:VAL:HG23	1.80	0.46
3:DK:101:ARG:CZ	3:DK:124:VAL:HG21	2.46	0.46
3:DX:96:TRP:CE2	3:DX:100:LYS:HD2	2.51	0.46
3:DZ:5:MET:HG3	3:DZ:19:ASP:HA	1.98	0.46
3:EA:97:GLU:OE2	3:EA:100:LYS:NZ	2.49	0.46
3:ED:8:ILE:HB	3:ED:16:VAL:HG23	1.97	0.46
3:ED:96:TRP:CZ2	3:ED:100:LYS:HE3	2.51	0.46
3:FP:57:PRO:HA	3:FP:73:ASN:HA	1.97	0.46
3:GJ:101:ARG:HH12	3:GJ:124:VAL:HG11	1.81	0.46
3:GM:57:PRO:HA	3:GM:73:ASN:HA	1.98	0.46
3:GV:89:LEU:HD21	3:GV:93:LYS:HE2	1.98	0.46
3:GV:127:ASP:N	3:GV:127:ASP:OD1	2.47	0.46
3:GX:60:LYS:HG3	3:GX:61:PRO:HD2	1.98	0.46
1:R:79:A:H2'	1:R:80:U:C6	2.51	0.46
1:R:141:A:N1	1:R:157:G:N2	2.61	0.46
1:R:897:U:H2'	1:R:898:G:C8	2.51	0.46
1:R:970:C:H5'	1:R:971:C:C5	2.50	0.46
1:R:1010:U:H2'	1:R:1011:C:C6	2.51	0.46
1:R:1102:G:H2'	1:R:1103:A:C8	2.51	0.46
1:R:1543:G:H2'	1:R:1544:A:H5'	1.97	0.46
1:R:2169:G:OP2	3:BS:13:ASN:ND2	2.49	0.46
1:R:2271:G:N2	1:R:2301:U:H2'	2.31	0.46
1:R:2406:A:H2'	1:R:2407:A:C8	2.50	0.46
1:R:2578:A:P	3:DZ:81:VAL:HG21	2.56	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2928:A:H1'	3:EW:35:ARG:HH12	1.80	0.46
1:R:3218:U:O2'	1:R:3220:A:N7	2.43	0.46
1:R:3259:A:H2'	1:R:3260:G:C8	2.51	0.46
1:R:3375:A:H2'	1:R:3376:C:C6	2.51	0.46
1:R:3561:U:H2'	1:R:3562:U:C6	2.51	0.46
1:R:3894:C:H2'	1:R:3895:C:C6	2.51	0.46
1:R:4043:U:H2'	1:R:4044:G:H8	1.76	0.46
2:a:291:SER:HA	2:a:294:ASP:OD2	2.16	0.46
2:a:402:ARG:HB3	2:a:467:ARG:HB3	1.97	0.46
2:b:476:LEU:HB3	2:b:479:ILE:O	2.16	0.46
3:AI:89:LEU:O	3:AI:93:LYS:HG3	2.16	0.46
3:BC:54:TYR:HB2	3:BY:95:GLU:OE2	2.16	0.46
3:BF:36:VAL:N	3:BF:42:GLU:OE2	2.49	0.46
3:BG:49:GLN:N	3:BG:49:GLN:OE1	2.49	0.46
3:BH:89:LEU:HD11	3:ET:113:GLY:HA3	1.97	0.46
3:BL:57:PRO:HB3	3:BL:73:ASN:HB3	1.97	0.46
3:BP:101:ARG:HH21	3:BP:124:VAL:HG21	1.81	0.46
3:BQ:35:ARG:HG2	3:BQ:35:ARG:HH11	1.81	0.46
3:BU:127:ASP:OD1	3:BU:127:ASP:N	2.48	0.46
3:BZ:117:LEU:HD21	3:FL:31:LEU:HD13	1.97	0.46
3:CO:86:ALA:O	3:CO:89:LEU:HD23	2.16	0.46
3:CY:60:LYS:NZ	3:CY:65:ALA:HA	2.30	0.46
3:DB:5:MET:HB3	3:GI:123:ILE:HG22	1.97	0.46
3:DJ:111:ASN:HD22	3:DJ:114:LEU:HD12	1.81	0.46
3:DM:22:ARG:NH2	3:DM:55:LYS:O	2.49	0.46
3:EO:87:GLU:OE1	3:EO:87:GLU:N	2.42	0.46
3:ES:32:LEU:HB3	3:ES:34:GLN:HE22	1.81	0.46
3:FE:43:LEU:HA	3:FE:43:LEU:HD23	1.74	0.46
3:GH:89:LEU:HD21	3:GH:93:LYS:HE2	1.97	0.46
3:GP:31:LEU:HG	3:GP:48:GLY:HA2	1.97	0.46
1:R:488:C:H4'	1:R:489:A:H5'	1.97	0.46
1:R:640:A:H2'	1:R:641:A:H8	1.80	0.46
1:R:1071:U:H4'	1:R:1072:A:O4'	2.16	0.46
1:R:1247:U:OP2	1:R:1249:C:N4	2.49	0.46
1:R:1726:A:N6	1:R:1752:G:O6	2.48	0.46
1:R:2154:A:H2'	1:R:2155:U:C6	2.51	0.46
1:R:2567:U:H2'	1:R:2568:A:C8	2.51	0.46
1:R:3339:U:O4'	1:R:3343:G:N2	2.49	0.46
1:R:3633:A:H2'	1:R:3634:A:C8	2.51	0.46
2:a:347:ARG:NH1	2:b:318:LYS:HE2	2.30	0.46
3:AC:103:VAL:O	3:AC:107:PHE:N	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AF:27:PHE:CE2	3:FJ:102:ASN:HB3	2.51	0.46
3:AF:96:TRP:CE2	3:AF:100:LYS:HE3	2.51	0.46
3:AO:72:PRO:HG2	3:FA:39:GLY:HA2	1.97	0.46
3:AQ:118:ASP:OD1	3:AQ:120:THR:HG22	2.16	0.46
3:AS:80:THR:HG23	3:EE:80:THR:HG22	1.98	0.46
3:AT:17:TRP:CE2	3:BJ:123:ILE:HG13	2.50	0.46
3:AT:35:ARG:HG2	3:AT:44:ASN:HD22	1.80	0.46
3:AU:38:VAL:HB	3:AU:41:ALA:HB3	1.98	0.46
3:AY:60:LYS:HA	3:AY:71:MET:HE2	1.98	0.46
3:BN:129:THR:HG22	3:EZ:1:ALA:HB1	1.98	0.46
3:BQ:95:GLU:HG3	3:BQ:126:SER:OG	2.15	0.46
3:Bc:125:SER:OG	3:Bc:126:SER:N	2.49	0.46
3:BU:55:LYS:HD3	3:BU:55:LYS:HA	1.75	0.46
3:CC:101:ARG:HH21	3:CC:124:VAL:HG11	1.80	0.46
3:CD:58:ALA:HB3	3:CD:71:MET:SD	2.55	0.46
3:CI:125:SER:HB2	3:FU:5:MET:HE2	1.98	0.46
3:DA:46:VAL:HG21	3:GM:113:GLY:O	2.16	0.46
3:DC:35:ARG:HH22	3:DC:42:GLU:HG2	1.80	0.46
3:DK:62:GLU:HG2	3:DK:63:GLY:H	1.81	0.46
3:DM:31:LEU:HG	3:GY:117:LEU:HD21	1.97	0.46
3:DN:85:SER:OG	3:DN:88:ASN:HB2	2.16	0.46
3:DW:62:GLU:HG3	3:FL:67:ALA:O	2.16	0.46
3:DY:35:ARG:HH12	3:DY:44:ASN:ND2	2.14	0.46
3:DZ:5:MET:SD	3:DZ:5:MET:N	2.89	0.46
3:EO:115:GLY:HA2	3:FE:31:LEU:HD23	1.98	0.46
3:EW:101:ARG:HH21	3:EW:124:VAL:HG21	1.81	0.46
3:EX:38:VAL:HG13	3:EX:39:GLY:N	2.31	0.46
3:EZ:96:TRP:NE1	3:EZ:100:LYS:HE3	2.31	0.46
3:GC:115:GLY:O	3:GW:33:ARG:NH2	2.39	0.46
3:GS:49:GLN:HG3	3:GS:81:VAL:HG12	1.98	0.46
3:GT:56:ARG:HD3	3:GT:57:PRO:HD2	1.98	0.46
1:R:51:G:N1	1:R:69:C:H1'	2.31	0.46
1:R:70:U:H2'	1:R:71:U:C6	2.50	0.46
1:R:178:C:H42	1:R:278:A:H1'	1.81	0.46
1:R:417:C:OP2	1:R:419:C:N4	2.49	0.46
1:R:477:U:H2'	1:R:478:G:C8	2.50	0.46
1:R:1258:G:H2'	1:R:1259:C:H6	1.81	0.46
1:R:1360:G:H2'	1:R:1361:A:C8	2.52	0.46
1:R:1517:C:H2'	1:R:1518:A:C8	2.51	0.46
1:R:2335:A:H2'	1:R:2336:A:C8	2.51	0.46
1:R:2877:A:H2'	1:R:2878:G:C8	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3382:U:P	3:AB:35:ARG:HH22	2.38	0.46
1:R:3410:U:H2'	1:R:3411:C:H6	1.81	0.46
1:R:3476:C:H2'	1:R:3477:A:C8	2.51	0.46
1:R:3914:A:H2'	1:R:3915:A:H8	1.81	0.46
1:R:4256:A:H2'	1:R:4257:G:C8	2.51	0.46
2:b:271:HIS:NE2	2:b:335:PHE:HB2	2.30	0.46
3:AG:17:TRP:CG	3:DS:123:ILE:HD11	2.51	0.46
3:AM:3:LYS:HE3	3:DY:129:THR:HA	1.98	0.46
3:AW:69:VAL:HG13	3:AW:69:VAL:O	2.16	0.46
3:BA:57:PRO:HA	3:BA:73:ASN:HA	1.98	0.46
3:BE:102:ASN:HB3	3:EQ:27:PHE:CE2	2.51	0.46
3:BH:36:VAL:HG22	3:BH:38:VAL:HG13	1.98	0.46
3:BI:105:THR:HG23	3:BI:106:LEU:HD12	1.98	0.46
3:BK:17:TRP:CG	3:EW:123:ILE:HD11	2.50	0.46
3:CM:124:VAL:HA	3:DO:4:PRO:HA	1.98	0.46
3:CN:70:ILE:O	3:CN:70:ILE:HG13	2.16	0.46
3:DA:19:ASP:OD2	3:DA:22:ARG:N	2.42	0.46
3:DB:124:VAL:HB	3:GI:2:ASN:HB2	1.97	0.46
3:DJ:15:ILE:HG13	3:GV:117:LEU:HD13	1.97	0.46
3:DV:60:LYS:HD2	3:DV:71:MET:HE1	1.97	0.46
3:DZ:58:ALA:O	3:DZ:60:LYS:HD2	2.15	0.46
3:EA:118:ASP:OD1	3:EA:120:THR:HG22	2.15	0.46
3:EC:33:ARG:NH2	3:FH:115:GLY:O	2.37	0.46
3:EK:37:LYS:HD2	3:EK:41:ALA:O	2.16	0.46
3:EN:125:SER:OG	3:EN:126:SER:N	2.48	0.46
3:Ec:11:THR:H	3:Ec:15:ILE:HD13	1.81	0.46
3:FC:92:LEU:HD12	3:FC:95:GLU:HB3	1.97	0.46
3:FE:33:ARG:NH1	3:FF:8:ILE:HG23	2.31	0.46
3:FQ:35:ARG:NE	3:FQ:44:ASN:OD1	2.49	0.46
3:FX:101:ARG:CZ	3:FX:124:VAL:HG21	2.46	0.46
3:GI:61:PRO:O	3:GI:62:GLU:HG3	2.15	0.46
3:GJ:101:ARG:HH22	3:GJ:124:VAL:HG21	1.81	0.46
3:GO:43:LEU:HD12	3:GO:85:SER:HB2	1.98	0.46
3:GP:66:ASP:OD1	3:GP:66:ASP:N	2.49	0.46
3:GX:62:GLU:O	3:GX:63:GLY:C	2.57	0.46
3:GX:66:ASP:CG	3:GX:68:CYS:H	2.24	0.46
1:R:753:U:H2'	1:R:754:A:C8	2.51	0.45
1:R:1376:G:H2'	1:R:1377:G:C8	2.51	0.45
1:R:2024:U:H2'	1:R:2025:G:H8	1.81	0.45
1:R:2291:U:H2'	1:R:2292:A:C8	2.50	0.45
1:R:2545:C:H2'	1:R:2546:G:O4'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3398:U:H2'	1:R:3399:A:C8	2.52	0.45
3:AC:47:SER:HA	3:AC:82:ILE:O	2.17	0.45
3:AJ:38:VAL:HG23	3:AJ:39:GLY:N	2.31	0.45
3:AK:95:GLU:OE1	3:CT:56:ARG:NH2	2.43	0.45
3:BI:49:GLN:OE1	3:BI:49:GLN:N	2.49	0.45
3:BK:54:TYR:HB2	3:EW:95:GLU:OE2	2.17	0.45
3:BO:5:MET:HE1	3:EG:124:VAL:C	2.40	0.45
3:BT:33:ARG:HD3	3:FF:115:GLY:HA3	1.97	0.45
3:BV:35:ARG:NH2	3:BV:44:ASN:OD1	2.49	0.45
3:CB:55:LYS:HE3	3:CB:75:ASN:HB3	1.98	0.45
3:CN:6:GLN:HE22	3:CN:20:PRO:HG3	1.80	0.45
3:CP:89:LEU:HD21	3:CP:93:LYS:HE3	1.97	0.45
3:CX:113:GLY:HA3	3:GJ:89:LEU:HD11	1.98	0.45
3:CY:51:VAL:HG22	3:CY:79:ARG:HG2	1.98	0.45
3:DF:66:ASP:N	3:DF:66:ASP:OD1	2.47	0.45
3:DN:55:LYS:HE2	3:DN:73:ASN:CG	2.41	0.45
3:DO:38:VAL:HG13	3:DO:39:GLY:N	2.31	0.45
3:DQ:5:MET:HB2	3:DQ:18:SER:O	2.15	0.45
3:DS:127:ASP:OD1	3:DS:127:ASP:N	2.48	0.45
3:EM:19:ASP:OD2	3:EM:21:THR:OG1	2.25	0.45
3:EM:66:ASP:OD1	3:EM:67:ALA:N	2.49	0.45
3:EP:35:ARG:NH1	3:EP:43:LEU:H	2.13	0.45
3:FF:5:MET:HE1	3:FF:18:SER:C	2.41	0.45
3:FK:101:ARG:CZ	3:FK:124:VAL:HG21	2.45	0.45
3:FX:6:GLN:HB2	3:GB:116:PHE:CD1	2.51	0.45
3:FY:54:TYR:HD1	3:FY:56:ARG:HG3	1.80	0.45
3:GF:31:LEU:HD13	3:GQ:117:LEU:HD21	1.97	0.45
3:GI:60:LYS:HB2	3:GI:60:LYS:HE2	1.63	0.45
3:GM:55:LYS:HE3	3:GM:75:ASN:OD1	2.16	0.45
1:R:183:U:H2'	1:R:184:C:C6	2.51	0.45
1:R:242:G:H2'	1:R:243:A:C8	2.50	0.45
1:R:271:G:H2'	1:R:272:U:C6	2.50	0.45
1:R:1766:C:H2'	1:R:1767:U:O4'	2.16	0.45
1:R:1837:A:O2'	1:R:1839:G:OP2	2.33	0.45
1:R:2064:U:H2'	1:R:2065:C:C6	2.51	0.45
1:R:2306:G:H2'	1:R:2307:G:C8	2.50	0.45
1:R:3240:G:H2'	1:R:3241:U:C6	2.51	0.45
1:R:3347:G:H2'	1:R:3348:G:C8	2.51	0.45
1:R:3632:C:H2'	1:R:3633:A:H8	1.81	0.45
1:R:3695:C:H2'	1:R:3696:A:C8	2.51	0.45
1:R:3824:U:H2'	1:R:3825:U:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:4001:U:H2'	1:R:4002:U:C6	2.51	0.45
1:R:4019:A:H2'	1:R:4020:A:H8	1.79	0.45
2:a:141:THR:OG1	2:a:142:PRO:HD3	2.15	0.45
2:a:258:LYS:HA	2:a:261:LYS:HG2	1.97	0.45
2:b:401:PRO:HG3	2:b:468:PHE:CZ	2.51	0.45
3:AB:78:ILE:HD11	3:DI:96:TRP:HE3	1.80	0.45
3:AU:88:ASN:ND2	3:EI:74:GLU:OE2	2.48	0.45
3:BJ:101:ARG:NH2	3:BJ:124:VAL:HG21	2.31	0.45
3:BN:95:GLU:OE1	3:EZ:54:TYR:HB2	2.16	0.45
3:BS:7:PRO:C	3:BS:8:ILE:HD13	2.41	0.45
3:BU:5:MET:HG2	3:BU:18:SER:C	2.40	0.45
3:CG:128:THR:HA	3:EA:2:ASN:HA	1.99	0.45
3:CM:44:ASN:ND2	3:CN:23:LEU:HB3	2.32	0.45
3:CM:85:SER:OG	3:CM:88:ASN:OD1	2.30	0.45
3:CO:5:MET:SD	3:GA:123:ILE:HG22	2.56	0.45
3:CP:56:ARG:HG2	3:Dc:88:ASN:ND2	2.31	0.45
3:DH:5:MET:HB2	3:DH:18:SER:O	2.16	0.45
3:DL:22:ARG:NH2	3:DL:55:LYS:O	2.50	0.45
3:DM:124:VAL:HB	3:GY:2:ASN:HB2	1.98	0.45
3:DS:96:TRP:CZ2	3:DS:100:LYS:HE3	2.51	0.45
3:EX:11:THR:H	3:EX:15:ILE:HD13	1.81	0.45
3:FD:9:THR:HB	3:FD:16:VAL:HG22	1.98	0.45
3:FH:89:LEU:HD21	3:FH:93:LYS:HE3	1.99	0.45
3:FL:37:LYS:HZ1	3:FL:41:ALA:H	1.64	0.45
3:FM:117:LEU:HA	3:FM:117:LEU:HD23	1.71	0.45
3:FV:96:TRP:CE2	3:FV:100:LYS:HE3	2.51	0.45
3:GC:89:LEU:CD2	3:GC:93:LYS:HE3	2.46	0.45
3:GH:71:MET:N	3:GH:71:MET:SD	2.89	0.45
3:GH:79:ARG:HG3	3:GU:81:VAL:HB	1.98	0.45
1:R:595:G:H2'	1:R:596:A:C8	2.51	0.45
1:R:672:U:H2'	1:R:673:A:C8	2.51	0.45
1:R:860:U:H2'	1:R:861:U:C6	2.51	0.45
1:R:1809:G:H2'	1:R:1810:A:H8	1.82	0.45
1:R:1941:A:H2'	1:R:1942:C:C6	2.51	0.45
1:R:2328:C:H3'	1:R:2330:A:H62	1.81	0.45
1:R:2999:C:H2'	1:R:3000:C:H6	1.81	0.45
1:R:3199:U:H2'	1:R:3200:U:C5	2.51	0.45
1:R:3476:C:H2'	1:R:3477:A:H8	1.82	0.45
1:R:4249:G:H2'	1:R:4250:C:H6	1.80	0.45
2:b:278:LEU:HG	2:b:282:PHE:CE2	2.51	0.45
2:b:412:SER:HB2	2:b:458:ASP:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AJ:60:LYS:HA	3:AJ:71:MET:HE1	1.97	0.45
3:AP:61:PRO:O	3:AP:62:GLU:C	2.60	0.45
3:AX:24:SER:HB2	3:AX:55:LYS:HG2	1.97	0.45
3:BO:38:VAL:HG13	3:BO:39:GLY:N	2.31	0.45
3:Bc:17:TRP:CD2	3:EJ:123:ILE:HD11	2.51	0.45
3:BU:23:LEU:HD11	3:BW:44:ASN:HB2	1.98	0.45
3:CM:117:LEU:HD22	3:DO:15:ILE:HG12	1.98	0.45
3:Cc:101:ARG:HH12	3:Cc:124:VAL:HG21	1.82	0.45
3:DB:93:LYS:NZ	3:GI:108:ALA:O	2.39	0.45
3:DO:34:GLN:HG3	3:DO:36:VAL:HG13	1.99	0.45
3:DY:49:GLN:HG3	3:DY:81:VAL:HG12	1.98	0.45
3:EA:67:ALA:HB1	3:FN:64:CYS:HB2	1.98	0.45
3:EK:55:LYS:HZ1	3:EK:75:ASN:HB3	1.81	0.45
3:Ec:23:LEU:HB2	3:ET:44:ASN:ND2	2.32	0.45
3:FA:95:GLU:HA	3:FA:98:THR:HG22	1.98	0.45
3:FQ:27:PHE:CE2	3:GE:102:ASN:HB3	2.51	0.45
3:FT:56:ARG:O	3:FT:74:GLU:HG3	2.17	0.45
3:FU:38:VAL:HG23	3:FU:39:GLY:N	2.31	0.45
3:GJ:96:TRP:CE2	3:GJ:100:LYS:HE3	2.51	0.45
3:GN:11:THR:H	3:GN:15:ILE:HD13	1.80	0.45
3:GQ:118:ASP:OD1	3:GQ:120:THR:HG22	2.16	0.45
3:GU:74:GLU:OE1	3:GU:74:GLU:N	2.49	0.45
1:R:234:C:H2'	1:R:235:C:C6	2.51	0.45
1:R:370:A:H2'	1:R:371:C:C6	2.52	0.45
1:R:439:G:O2'	1:R:964:G:OP1	2.27	0.45
1:R:812:A:H2'	1:R:813:G:C8	2.52	0.45
1:R:1138:A:H3'	1:R:1139:A:C8	2.51	0.45
1:R:1251:U:H2'	1:R:1252:G:C8	2.51	0.45
1:R:1277:U:H2'	1:R:1278:A:C8	2.51	0.45
1:R:1324:C:H2'	1:R:1325:A:C8	2.51	0.45
1:R:1405:G:H2'	1:R:1406:G:H8	1.80	0.45
1:R:1980:U:H2'	1:R:1981:C:C6	2.50	0.45
1:R:2313:A:H2'	1:R:2314:C:C6	2.50	0.45
1:R:2499:A:H2'	1:R:2499:A:N3	2.32	0.45
1:R:2694:U:H2'	1:R:2695:U:H6	1.81	0.45
1:R:3136:U:H2'	1:R:3137:U:H6	1.81	0.45
1:R:3436:A:H2'	1:R:3437:U:C6	2.50	0.45
1:R:3587:U:H2'	1:R:3588:G:C8	2.51	0.45
1:R:3945:U:H2'	1:R:3946:C:C6	2.52	0.45
1:R:4087:C:H2'	1:R:4088:C:O4'	2.17	0.45
1:R:4098:C:C2	1:R:4099:A:C8	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:a:84:PRO:HG3	2:b:504:LEU:HD21	1.99	0.45
2:a:246:PHE:HD1	2:a:249:ALA:HB3	1.80	0.45
3:AF:2:ASN:HB3	3:FJ:125:SER:O	2.16	0.45
3:AL:38:VAL:HG22	3:EX:72:PRO:HG2	1.99	0.45
3:AU:64:CYS:SG	3:EJ:68:CYS:N	2.89	0.45
3:AZ:81:VAL:HG22	3:BG:79:ARG:HB2	1.99	0.45
3:BK:114:LEU:HD22	3:EW:89:LEU:HD13	1.98	0.45
3:BT:99:HIS:O	3:BT:103:VAL:HG22	2.17	0.45
3:BX:32:LEU:HB3	3:BX:34:GLN:NE2	2.30	0.45
3:CD:92:LEU:HD12	3:DX:76:GLN:HE21	1.82	0.45
3:CI:31:LEU:HD21	3:FU:115:GLY:HA2	1.97	0.45
3:Cc:128:THR:O	3:GD:3:LYS:NZ	2.49	0.45
3:CY:70:ILE:HD11	3:DA:40:ILE:O	2.16	0.45
3:DB:60:LYS:HE3	3:DB:64:CYS:O	2.17	0.45
3:DC:114:LEU:HD22	3:FS:89:LEU:HD13	1.97	0.45
3:DD:124:VAL:HG22	3:GP:2:ASN:HB2	1.98	0.45
3:EC:89:LEU:O	3:EC:93:LYS:HG2	2.17	0.45
3:EJ:60:LYS:HD3	3:EJ:61:PRO:HD2	1.98	0.45
3:EQ:5:MET:HB3	3:EQ:17:TRP:HB3	1.98	0.45
3:Ec:91:THR:HG21	3:EY:56:ARG:HD2	1.98	0.45
3:EW:34:GLN:NE2	3:EW:35:ARG:O	2.49	0.45
3:FO:5:MET:HG2	3:FO:18:SER:C	2.41	0.45
3:GD:60:LYS:HA	3:GD:71:MET:HE2	1.98	0.45
3:GL:70:ILE:O	3:GL:70:ILE:HG13	2.16	0.45
3:GN:85:SER:OG	3:GN:88:ASN:HB2	2.16	0.45
3:GP:38:VAL:HG13	3:GP:39:GLY:N	2.31	0.45
1:R:6:G:H2'	1:R:7:A:H8	1.80	0.45
1:R:42:U:H2'	1:R:43:U:H6	1.82	0.45
1:R:101:U:H4'	3:GX:37:LYS:HD2	1.98	0.45
1:R:1032:U:H5'	1:R:1071:U:H2'	1.98	0.45
1:R:1287:U:H2'	1:R:1288:U:H6	1.81	0.45
1:R:1809:G:H2'	1:R:1810:A:C8	2.52	0.45
1:R:1868:C:H2'	1:R:1869:G:C8	2.51	0.45
1:R:2005:U:O4	1:R:2006:A:N6	2.50	0.45
1:R:2257:U:H2'	1:R:2258:C:H6	1.82	0.45
1:R:2817:G:H22	1:R:2835:U:H3	1.65	0.45
1:R:2864:A:O2'	3:EW:79:ARG:NH2	2.50	0.45
1:R:2912:A:H2'	1:R:2913:G:C8	2.52	0.45
1:R:3027:G:H1	1:R:3708:G:H22	1.64	0.45
1:R:3264:G:H2'	1:R:3265:U:H6	1.82	0.45
1:R:3859:A:H2'	1:R:3860:A:H8	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3947:U:H2'	1:R:3948:G:C8	2.51	0.45
2:a:3:MET:O	2:a:188:TYR:HB2	2.15	0.45
2:b:240:PRO:HA	2:b:243:LEU:HB2	1.99	0.45
3:AB:52:SER:HB2	3:AB:78:ILE:HG23	1.98	0.45
3:AB:78:ILE:HD11	3:DI:96:TRP:CE3	2.51	0.45
3:AC:33:ARG:NE	3:FG:115:GLY:HA3	2.30	0.45
3:AG:88:ASN:ND2	3:DS:74:GLU:OE2	2.47	0.45
3:AI:102:ASN:OD1	3:AI:123:ILE:HG23	2.17	0.45
3:AL:35:ARG:NH2	3:AL:42:GLU:HB3	2.29	0.45
3:BN:37:LYS:HZ1	3:BN:41:ALA:N	2.06	0.45
3:BS:2:ASN:HD21	3:BU:126:SER:C	2.24	0.45
3:CK:40:ILE:O	3:CK:40:ILE:HG22	2.17	0.45
3:CW:55:LYS:HB3	3:CW:73:ASN:HD21	1.79	0.45
3:DF:14:LYS:NZ	3:DF:30:SER:HB2	2.32	0.45
3:DG:56:ARG:NH1	3:DG:76:GLN:OE1	2.49	0.45
3:EC:4:PRO:HA	3:FH:124:VAL:HA	1.99	0.45
3:EL:56:ARG:O	3:EL:74:GLU:HG3	2.17	0.45
3:EW:31:LEU:HD23	3:EW:48:GLY:HA2	1.98	0.45
3:FD:71:MET:SD	3:FD:71:MET:N	2.90	0.45
3:FI:71:MET:SD	3:FI:71:MET:N	2.79	0.45
3:FI:106:LEU:HD12	3:FI:106:LEU:HA	1.84	0.45
3:FM:92:LEU:HG	3:FM:95:GLU:OE2	2.16	0.45
3:FT:35:ARG:HH12	3:FT:42:GLU:CD	2.21	0.45
3:GF:35:ARG:NE	3:GF:35:ARG:HA	2.32	0.45
3:GF:55:LYS:HE3	3:GF:75:ASN:HB3	1.98	0.45
3:GG:70:ILE:O	3:GG:70:ILE:HG13	2.16	0.45
1:R:234:C:H2'	1:R:235:C:H6	1.82	0.45
1:R:238:U:H2'	1:R:239:U:C6	2.52	0.45
1:R:789:A:H2'	1:R:790:A:H8	1.82	0.45
1:R:1741:G:H2'	1:R:1742:A:H8	1.81	0.45
1:R:2223:A:N6	1:R:2239:G:H1'	2.31	0.45
1:R:2826:G:H2'	1:R:2827:A:O4'	2.16	0.45
1:R:2924:U:O2	1:R:2926:A:H8	1.99	0.45
1:R:2984:A:H2'	1:R:2986:C:OP2	2.17	0.45
1:R:3271:A:N1	1:R:3705:A:C6	2.85	0.45
1:R:3283:A:H2'	1:R:3284:G:C8	2.52	0.45
1:R:3446:C:H2'	1:R:3447:A:O4'	2.16	0.45
1:R:3499:U:H2'	1:R:3500:G:H8	1.81	0.45
1:R:3525:A:H2'	1:R:3526:A:H8	1.82	0.45
1:R:3568:C:H2'	1:R:3569:A:C8	2.52	0.45
1:R:3605:U:H2'	1:R:3606:A:H8	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3624:G:H2'	1:R:3625:C:C6	2.52	0.45
1:R:3826:U:H2'	1:R:3827:A:H8	1.82	0.45
1:R:4214:U:H2'	1:R:4215:G:C8	2.51	0.45
2:a:73:ARG:HG2	2:a:151:SER:HB3	1.99	0.45
2:b:378:VAL:HG13	2:b:380:LYS:H	1.82	0.45
2:b:509:LYS:HE3	2:b:513:PHE:HE2	1.82	0.45
3:AI:46:VAL:HG21	3:FM:113:GLY:O	2.17	0.45
3:AI:57:PRO:HA	3:AI:73:ASN:HA	1.98	0.45
3:AT:97:GLU:HA	3:AT:100:LYS:HE3	1.97	0.45
3:AW:19:ASP:OD2	3:AW:21:THR:OG1	2.20	0.45
3:AX:39:GLY:HA3	3:EL:72:PRO:HG3	1.97	0.45
3:BA:124:VAL:C	3:EF:5:MET:HE1	2.42	0.45
3:BF:6:GLN:HG2	3:BF:7:PRO:HD2	1.97	0.45
3:BG:37:LYS:HE2	3:BG:42:GLU:OE2	2.17	0.45
3:BQ:49:GLN:HG3	3:BQ:81:VAL:HG22	1.99	0.45
3:BT:100:LYS:HD2	3:FF:100:LYS:HD2	1.98	0.45
3:BU:118:ASP:HB3	3:BU:121:ALA:HB2	1.99	0.45
3:BW:113:GLY:O	3:FI:46:VAL:HG11	2.15	0.45
3:BZ:5:MET:HE2	3:FL:125:SER:HB2	1.99	0.45
3:CE:35:ARG:NH2	3:CE:42:GLU:HG3	2.26	0.45
3:CH:11:THR:HG22	3:CH:12:ALA:N	2.32	0.45
3:CP:39:GLY:O	3:CP:40:ILE:HG22	2.17	0.45
3:CW:80:THR:HG23	3:FV:80:THR:HG22	1.97	0.45
3:DC:113:GLY:HA3	3:FS:89:LEU:HD11	1.98	0.45
3:DL:118:ASP:OD1	3:DL:120:THR:OG1	2.33	0.45
3:DU:28:SER:HB2	3:DU:51:VAL:HG22	1.96	0.45
3:EG:63:GLY:O	3:EG:65:ALA:N	2.49	0.45
3:EO:42:GLU:OE1	3:EO:42:GLU:HA	2.15	0.45
3:FD:55:LYS:HZ3	3:FD:75:ASN:HB2	1.81	0.45
3:FJ:111:ASN:HB2	3:FJ:114:LEU:HD12	1.99	0.45
3:FT:43:LEU:HD12	3:FT:85:SER:HB3	1.98	0.45
3:FW:5:MET:HG2	3:FW:18:SER:C	2.40	0.45
3:GB:56:ARG:HE	3:GB:76:GLN:HE22	1.63	0.45
3:GC:96:TRP:NE1	3:GC:100:LYS:HE3	2.32	0.45
1:R:3:A:H2'	1:R:4:G:H8	1.81	0.45
1:R:58:U:N3	1:R:59:C:O2'	2.49	0.45
1:R:60:A:H4'	1:R:1051:U:C4	2.52	0.45
1:R:217:U:O2	1:R:255:G:N2	2.48	0.45
1:R:330:U:H2'	1:R:331:U:O4'	2.17	0.45
1:R:610:C:H2'	1:R:611:C:C6	2.52	0.45
1:R:898:G:H2'	1:R:899:G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1003:G:H2'	1:R:1004:G:C8	2.51	0.45
1:R:1097:U:H2'	1:R:1098:C:C6	2.51	0.45
1:R:1137:U:H2'	1:R:1138:A:C8	2.51	0.45
1:R:1163:C:H2'	1:R:1164:A:C8	2.51	0.45
1:R:1318:C:H2'	1:R:1319:A:C8	2.52	0.45
1:R:1513:C:H2'	1:R:1514:U:C6	2.51	0.45
1:R:1594:G:O6	1:R:1662:U:H2'	2.16	0.45
1:R:1948:A:H1'	3:BO:14:LYS:HD2	1.99	0.45
1:R:2000:U:H4'	1:R:2711:U:C2	2.51	0.45
1:R:2177:G:H2'	1:R:2178:G:C4	2.52	0.45
1:R:2368:A:H2'	1:R:2369:C:H6	1.81	0.45
1:R:2832:G:H8	1:R:2832:G:O5'	2.00	0.45
1:R:2989:U:H2'	1:R:2990:G:H8	1.81	0.45
1:R:3042:A:H61	1:R:3198:A:N6	2.15	0.45
1:R:3476:C:H5'	2:a:280:VAL:HG22	1.98	0.45
1:R:3606:A:H2'	1:R:3607:A:H8	1.80	0.45
1:R:3916:A:H2'	1:R:3917:C:C6	2.51	0.45
1:R:4069:G:H2'	1:R:4070:U:C6	2.51	0.45
2:a:469:ASP:O	2:b:521:LEU:HD11	2.17	0.45
3:AB:56:ARG:NH2	3:DI:91:THR:HG23	2.32	0.45
3:AH:55:LYS:HE2	3:AH:55:LYS:HA	1.99	0.45
3:AL:35:ARG:NH1	3:AL:43:LEU:O	2.48	0.45
3:AN:80:THR:OG1	3:CN:80:THR:HG22	2.16	0.45
3:AN:91:THR:HG23	3:CN:76:GLN:HE22	1.82	0.45
3:AO:78:ILE:HD13	3:FA:96:TRP:HE3	1.81	0.45
3:Ac:37:LYS:NZ	3:Ac:41:ALA:O	2.49	0.45
3:AU:5:MET:HG2	3:AU:18:SER:C	2.42	0.45
3:AZ:5:MET:HE1	3:BG:124:VAL:C	2.42	0.45
3:BA:17:TRP:CE2	3:EF:123:ILE:HG13	2.51	0.45
3:BF:44:ASN:ND2	3:BF:87:GLU:OE2	2.49	0.45
3:BK:51:VAL:HG22	3:BK:79:ARG:HG3	1.97	0.45
3:BO:23:LEU:HD23	3:BO:23:LEU:H	1.82	0.45
3:BO:49:GLN:OE1	3:BO:79:ARG:NH2	2.49	0.45
3:Bc:46:VAL:HG11	3:EJ:113:GLY:O	2.16	0.45
3:CH:95:GLU:OE2	3:CH:95:GLU:HA	2.15	0.45
3:CM:68:CYS:SG	3:GA:60:LYS:NZ	2.88	0.45
3:CU:71:MET:HE3	3:CU:71:MET:HB2	1.83	0.45
3:CZ:89:LEU:HD21	3:CZ:93:LYS:HE2	1.99	0.45
3:DS:37:LYS:HE2	3:DS:40:ILE:HA	1.99	0.45
3:EU:50:TYR:HE1	3:FB:106:LEU:HD22	1.82	0.45
3:FI:34:GLN:O	3:FI:45:ASN:N	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:FN:14:LYS:HZ3	3:FN:30:SER:HB3	1.82	0.45
3:FN:56:ARG:HG2	3:FN:56:ARG:HH11	1.82	0.45
3:FN:70:ILE:O	3:FN:70:ILE:HG13	2.17	0.45
3:Fc:35:ARG:HG3	3:Fc:35:ARG:HH11	1.81	0.45
3:FS:66:ASP:O	3:FS:68:CYS:N	2.50	0.45
3:GC:87:GLU:H	3:GC:87:GLU:CD	2.24	0.45
3:GE:5:MET:HG2	3:GE:18:SER:C	2.41	0.45
3:GE:62:GLU:HG3	3:GE:63:GLY:N	2.31	0.45
3:GF:22:ARG:NH2	3:GF:55:LYS:O	2.48	0.45
3:GH:46:VAL:HG21	3:GU:113:GLY:O	2.16	0.45
3:GW:38:VAL:HG23	3:GW:39:GLY:N	2.32	0.45
1:R:1031:U:O2'	1:R:1071:U:O2	2.34	0.45
1:R:1037:G:N7	1:R:1066:C:N4	2.65	0.45
1:R:1175:A:H2'	1:R:1176:A:H8	1.82	0.45
1:R:1323:U:H2'	1:R:1324:C:C6	2.52	0.45
1:R:1348:A:O2'	1:R:1349:A:O4'	2.16	0.45
1:R:1426:C:N3	1:R:1510:A:N6	2.65	0.45
1:R:1793:G:C2	1:R:1897:A:N1	2.84	0.45
1:R:1818:A:P	3:BP:34:GLN:HE22	2.40	0.45
1:R:2040:A:H2'	1:R:2041:A:H8	1.82	0.45
1:R:2159:A:H2'	1:R:2160:G:C8	2.52	0.45
1:R:2220:G:H2'	1:R:2221:A:O4'	2.17	0.45
1:R:2345:A:H1'	1:R:2347:G:OP2	2.17	0.45
1:R:2358:U:H2'	1:R:2359:C:C6	2.52	0.45
1:R:2720:A:H2'	1:R:2721:G:H8	1.81	0.45
1:R:3246:C:H2'	1:R:3247:U:C6	2.51	0.45
1:R:3533:C:H2'	1:R:3534:U:C6	2.52	0.45
1:R:3714:U:C2	1:R:3715:G:H1'	2.51	0.45
2:a:352:PRO:HB2	2:b:286:ARG:HD3	1.98	0.45
2:b:16:GLU:OE1	2:b:147:ARG:NE	2.50	0.45
2:b:238:GLU:HB3	3:CM:116:PHE:HD2	1.81	0.45
2:b:306:ILE:O	2:b:310:ARG:HG3	2.16	0.45
2:b:419:LYS:O	2:b:423:VAL:HB	2.17	0.45
3:AE:66:ASP:CG	3:AE:67:ALA:H	2.25	0.45
3:AF:38:VAL:HG23	3:AF:41:ALA:HB3	1.99	0.45
3:AH:34:GLN:OE1	3:AH:34:GLN:HA	2.17	0.45
3:AH:57:PRO:HA	3:AH:73:ASN:HA	1.97	0.45
3:AK:80:THR:OG1	3:CT:99:HIS:NE2	2.46	0.45
3:AM:95:GLU:OE1	3:AM:95:GLU:HA	2.17	0.45
3:AN:60:LYS:NZ	3:AN:65:ALA:HA	2.31	0.45
3:AW:58:ALA:HB3	3:AW:71:MET:HG3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BI:78:ILE:HD11	3:BV:96:TRP:HE3	1.82	0.45
3:BK:115:GLY:HA2	3:EW:31:LEU:HD13	1.99	0.45
3:BL:38:VAL:HG23	3:BL:39:GLY:N	2.31	0.45
3:BX:125:SER:OG	3:BX:126:SER:N	2.50	0.45
3:CA:9:THR:HB	3:CA:16:VAL:HG22	1.98	0.45
3:CC:118:ASP:OD2	3:CC:121:ALA:N	2.49	0.45
3:CC:124:VAL:CG2	3:FO:2:ASN:HB2	2.47	0.45
3:CG:60:LYS:HG3	3:CG:71:MET:HE3	1.99	0.45
3:CG:60:LYS:HD2	3:CG:60:LYS:C	2.42	0.45
3:CJ:56:ARG:O	3:CJ:74:GLU:HG3	2.16	0.45
3:CJ:91:THR:HG23	3:ED:76:GLN:HE22	1.81	0.45
3:CK:55:LYS:HE2	3:CK:75:ASN:OD1	2.17	0.45
3:CS:68:CYS:HB3	3:GG:64:CYS:HB2	1.51	0.45
3:CY:56:ARG:NH1	3:GO:91:THR:OG1	2.50	0.45
3:DB:93:LYS:NZ	3:GI:107:PHE:O	2.50	0.45
3:DN:36:VAL:HG13	3:DN:43:LEU:HB3	1.99	0.45
3:DN:58:ALA:HB2	3:DN:74:GLU:OE2	2.17	0.45
3:Dc:36:VAL:HG11	3:Dc:45:ASN:HD22	1.81	0.45
3:DW:15:ILE:HD11	3:FK:117:LEU:HB3	1.97	0.45
3:EG:35:ARG:HH11	3:EG:35:ARG:HG3	1.81	0.45
3:EG:62:GLU:C	3:EG:64:CYS:H	2.25	0.45
3:EM:111:ASN:OD1	3:EM:116:PHE:HB2	2.16	0.45
3:EQ:57:PRO:HA	3:EQ:73:ASN:HA	1.99	0.45
3:Ec:96:TRP:CE2	3:Ec:100:LYS:HD2	2.52	0.45
3:EU:60:LYS:HZ2	3:EU:63:GLY:HA2	1.82	0.45
3:EV:56:ARG:HG3	3:EV:57:PRO:HD2	1.98	0.45
3:FB:71:MET:SD	3:FB:71:MET:N	2.68	0.45
3:GK:74:GLU:OE1	3:GX:88:ASN:ND2	2.48	0.45
3:GL:95:GLU:OE2	3:GL:95:GLU:HA	2.17	0.45
1:R:872:U:H2'	1:R:873:U:C6	2.51	0.45
1:R:1073:U:H2'	1:R:1074:C:C6	2.52	0.45
1:R:1508:A:H2'	1:R:1509:G:C8	2.52	0.45
1:R:1587:U:C2	1:R:1588:G:C8	3.05	0.45
1:R:1639:A:H2'	1:R:1640:C:C6	2.51	0.45
1:R:1824:U:O4	3:CA:33:ARG:NH1	2.46	0.45
1:R:1871:A:H2'	1:R:1872:C:C6	2.52	0.45
1:R:2005:U:H2'	1:R:2006:A:C8	2.52	0.45
1:R:2302:A:H2'	1:R:2303:A:O4'	2.16	0.45
1:R:2643:U:H2'	1:R:2644:U:C6	2.50	0.45
1:R:2879:A:H2'	1:R:2881:A:C8	2.52	0.45
1:R:3101:U:H2'	1:R:3102:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3372:A:C5	3:DI:49:GLN:HB2	2.52	0.45
1:R:4123:U:H2'	1:R:4124:G:C8	2.51	0.45
1:R:4216:U:H2'	1:R:4217:A:C8	2.52	0.45
2:a:207:LEU:HD21	2:a:468:PHE:CE2	2.52	0.45
2:a:471:LYS:HG3	2:b:521:LEU:HD13	1.99	0.45
2:b:53:ILE:HG23	2:b:152:LEU:HD13	1.99	0.45
2:b:445:PHE:O	2:b:449:ILE:HG12	2.17	0.45
3:AC:8:ILE:HD11	3:DI:116:PHE:HE1	1.82	0.45
3:AK:116:PHE:CE1	3:CU:8:ILE:HD11	2.52	0.45
3:BE:56:ARG:O	3:BE:74:GLU:HG3	2.17	0.45
3:BT:60:LYS:CG	3:BT:61:PRO:HD2	2.44	0.45
3:BW:96:TRP:HZ3	3:FI:108:ALA:HB2	1.82	0.45
3:CC:5:MET:HB3	3:CC:17:TRP:HB3	1.99	0.45
3:CE:111:ASN:ND2	3:CE:116:PHE:HD2	2.14	0.45
3:CZ:22:ARG:NH2	3:CZ:55:LYS:O	2.49	0.45
3:DF:5:MET:HB3	3:DF:17:TRP:HB3	1.99	0.45
3:DF:96:TRP:NE1	3:DF:100:LYS:HD2	2.32	0.45
3:DG:128:THR:HA	3:GS:2:ASN:HA	1.99	0.45
3:EF:19:ASP:OD2	3:EF:21:THR:OG1	2.27	0.45
3:EN:54:TYR:CD1	3:EN:56:ARG:HG2	2.52	0.45
3:EO:71:MET:SD	3:EO:71:MET:N	2.90	0.45
3:FI:101:ARG:CZ	3:FI:124:VAL:HG21	2.47	0.45
3:FL:125:SER:OG	3:FL:126:SER:N	2.50	0.45
3:FT:104:ASP:CG	3:FY:100:LYS:HZ1	2.23	0.45
3:FY:49:GLN:OE1	3:FY:79:ARG:NH2	2.40	0.45
3:FZ:37:LYS:NZ	3:FZ:38:VAL:O	2.39	0.45
3:FZ:74:GLU:OE2	3:GT:88:ASN:ND2	2.50	0.45
3:GJ:25:THR:HB	3:GJ:54:TYR:CD1	2.51	0.45
1:R:458:G:H2'	1:R:459:C:C6	2.52	0.45
1:R:595:G:H2'	1:R:596:A:H8	1.82	0.45
1:R:1099:G:H2'	1:R:1100:C:C6	2.52	0.45
1:R:1632:U:H2'	1:R:1633:G:C8	2.51	0.45
1:R:1666:A:H3'	1:R:1667:A:H8	1.82	0.45
1:R:1680:A:H2'	1:R:1681:A:H8	1.81	0.45
1:R:1711:G:H2'	1:R:1712:A:H8	1.82	0.45
1:R:2194:A:C5	1:R:2195:A:H1'	2.51	0.45
1:R:4112:C:H2'	1:R:4113:A:H8	1.81	0.45
2:a:65:GLY:O	2:b:223:ALA:HA	2.17	0.45
2:a:89:ALA:HB2	2:b:499:ARG:HH12	1.82	0.45
2:a:145:ASP:HB2	2:a:147:ARG:HH12	1.81	0.45
3:AN:117:LEU:HD22	3:CN:31:LEU:HD12	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AO:2:ASN:HB2	3:FA:124:VAL:CG2	2.47	0.45
3:AP:89:LEU:HG	3:AP:93:LYS:HE3	1.99	0.45
3:AQ:37:LYS:NZ	3:AQ:40:ILE:HA	2.32	0.45
3:AQ:113:GLY:O	3:CQ:46:VAL:HG11	2.17	0.45
3:AS:46:VAL:HG21	3:EE:113:GLY:O	2.17	0.45
3:AT:37:LYS:HB3	3:AT:42:GLU:OE1	2.17	0.45
3:AT:42:GLU:C	3:AT:43:LEU:HD22	2.42	0.45
3:BF:57:PRO:HA	3:BF:73:ASN:HA	1.99	0.45
3:BH:72:PRO:HG3	3:ET:39:GLY:H	1.82	0.45
3:BJ:85:SER:OG	3:BJ:88:ASN:OD1	2.33	0.45
3:BT:117:LEU:HD21	3:FF:15:ILE:HG22	1.99	0.45
3:BT:128:THR:HA	3:FF:2:ASN:HA	1.98	0.45
3:CM:103:VAL:HG23	3:DO:50:TYR:CE2	2.52	0.45
3:CO:125:SER:OG	3:CO:126:SER:N	2.49	0.45
3:CP:96:TRP:NE1	3:CP:100:LYS:HE3	2.32	0.45
3:Cc:117:LEU:HD13	3:GD:15:ILE:HG12	1.99	0.45
3:CS:128:THR:C	3:DU:3:LYS:HZ2	2.25	0.45
3:DD:96:TRP:CE2	3:DD:100:LYS:HE3	2.52	0.45
3:DM:51:VAL:HG22	3:DM:79:ARG:HG2	1.99	0.45
3:DS:60:LYS:HA	3:DS:60:LYS:HE2	1.99	0.45
3:DZ:96:TRP:CZ2	3:DZ:100:LYS:HE3	2.52	0.45
3:EH:99:HIS:O	3:EH:103:VAL:HG22	2.17	0.45
3:EI:74:GLU:OE2	3:EI:76:GLN:NE2	2.49	0.45
3:EW:88:ASN:O	3:EW:91:THR:HG22	2.16	0.45
3:FB:27:PHE:HD2	3:FB:52:SER:HB2	1.82	0.45
3:FB:38:VAL:CG2	3:FB:43:LEU:HB2	2.47	0.45
3:FC:97:GLU:HA	3:FC:100:LYS:HE2	1.98	0.45
3:FN:11:THR:HG22	3:FN:12:ALA:N	2.32	0.45
3:FU:5:MET:HB3	3:FU:17:TRP:HB3	1.98	0.45
3:FW:43:LEU:HD12	3:FW:85:SER:HB2	1.99	0.45
3:GD:87:GLU:OE1	3:GD:87:GLU:N	2.45	0.45
3:GH:38:VAL:HG13	3:GH:39:GLY:N	2.32	0.45
1:R:399:G:H2'	1:R:400:A:H8	1.81	0.44
1:R:703:A:H2'	1:R:704:G:H8	1.82	0.44
1:R:782:A:H2'	1:R:783:C:C6	2.51	0.44
1:R:824:G:O2'	1:R:827:G:OP1	2.31	0.44
1:R:1057:A:H2'	1:R:1058:A:C8	2.52	0.44
1:R:1183:C:H2'	1:R:1184:A:C8	2.51	0.44
1:R:1404:U:H2'	1:R:1405:G:C8	2.53	0.44
1:R:1509:G:H2'	1:R:1510:A:H8	1.82	0.44
1:R:1982:A:H2'	1:R:2266:C:C5	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2318:G:H2'	1:R:2319:C:C6	2.53	0.44
1:R:2694:U:H2'	1:R:2695:U:C6	2.52	0.44
1:R:2809:G:H2'	1:R:2810:C:C6	2.52	0.44
1:R:3091:U:N3	3:CX:13:ASN:HB2	2.32	0.44
1:R:3413:U:H2'	1:R:3414:A:C8	2.51	0.44
1:R:4017:G:H2'	1:R:4018:U:C6	2.53	0.44
2:a:348:TYR:OH	2:b:314:GLU:HG3	2.17	0.44
2:b:417:ILE:HD12	2:b:421:LEU:HD13	1.98	0.44
3:AM:61:PRO:C	3:AM:63:GLY:H	2.24	0.44
3:AQ:123:ILE:O	3:CQ:5:MET:HB2	2.17	0.44
3:AY:2:ASN:HB3	3:EK:125:SER:O	2.17	0.44
3:AY:38:VAL:HG13	3:AY:39:GLY:N	2.32	0.44
3:BA:12:ALA:HB1	3:BB:9:THR:HG23	1.99	0.44
3:BE:54:TYR:CD1	3:BE:56:ARG:HG2	2.52	0.44
3:BE:93:LYS:HE2	3:EQ:108:ALA:HA	1.99	0.44
3:BN:2:ASN:HB2	3:EZ:124:VAL:HG13	2.00	0.44
3:BP:96:TRP:CZ2	3:BP:100:LYS:HE3	2.52	0.44
3:CJ:11:THR:H	3:CJ:15:ILE:HD13	1.82	0.44
3:CL:5:MET:HG2	3:CL:18:SER:C	2.41	0.44
3:CO:2:ASN:CB	3:GA:128:THR:HA	2.47	0.44
3:EJ:44:ASN:N	3:EJ:87:GLU:OE2	2.45	0.44
3:EK:95:GLU:HA	3:EK:95:GLU:OE1	2.18	0.44
3:EO:2:ASN:ND2	3:FE:126:SER:O	2.50	0.44
3:ES:70:ILE:HD11	3:EY:61:PRO:HG3	1.99	0.44
3:EV:19:ASP:OD2	3:EV:21:THR:OG1	2.20	0.44
3:FC:39:GLY:O	3:FC:41:ALA:N	2.51	0.44
3:FF:55:LYS:HZ2	3:FF:75:ASN:HB3	1.82	0.44
3:FW:115:GLY:HA2	3:GB:31:LEU:HD23	1.99	0.44
3:GE:19:ASP:OD2	3:GE:21:THR:OG1	2.25	0.44
3:GH:38:VAL:HG13	3:GH:39:GLY:H	1.82	0.44
3:GN:5:MET:SD	3:Gc:125:SER:HB2	2.58	0.44
3:GN:22:ARG:NH2	3:GN:55:LYS:O	2.50	0.44
1:R:29:A:H2'	1:R:30:A:H8	1.82	0.44
1:R:211:C:N4	1:R:264:C:OP1	2.42	0.44
1:R:438:U:O5'	1:R:966:A:N6	2.43	0.44
1:R:519:U:H2'	1:R:520:G:O4'	2.17	0.44
1:R:1595:U:H2'	1:R:1596:C:C6	2.51	0.44
1:R:2234:G:H2'	1:R:2235:A:C8	2.52	0.44
1:R:2379:G:H2'	1:R:2380:U:C6	2.52	0.44
1:R:2403:C:H2'	1:R:2404:U:C6	2.52	0.44
1:R:3323:C:H2'	1:R:3324:G:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3701:G:H2'	1:R:3702:C:C6	2.52	0.44
1:R:3788:U:H2'	1:R:3789:G:C8	2.52	0.44
3:AS:15:ILE:HD12	3:EE:117:LEU:HB3	1.99	0.44
3:BE:127:ASP:HB3	3:EQ:3:LYS:HZ1	1.82	0.44
3:BK:87:GLU:OE1	3:BK:87:GLU:N	2.38	0.44
3:CF:2:ASN:HB2	3:Fc:124:VAL:HB	1.98	0.44
3:CH:68:CYS:HB3	3:EA:64:CYS:HB3	1.87	0.44
3:CL:2:ASN:HB2	3:FX:124:VAL:HB	1.99	0.44
3:CL:107:PHE:O	3:FX:93:LYS:NZ	2.50	0.44
3:CM:71:MET:SD	3:DO:39:GLY:HA3	2.57	0.44
3:CP:69:VAL:O	3:CP:69:VAL:HG13	2.17	0.44
3:Cc:19:ASP:OD2	3:Cc:21:THR:OG1	2.21	0.44
3:CW:2:ASN:HB2	3:FV:124:VAL:CG1	2.46	0.44
3:CX:5:MET:HB3	3:CX:17:TRP:HB3	1.99	0.44
3:DN:34:GLN:OE1	3:DN:34:GLN:N	2.51	0.44
3:DT:35:ARG:HB3	3:DT:42:GLU:OE2	2.17	0.44
3:EB:55:LYS:HB3	3:EB:73:ASN:ND2	2.32	0.44
3:EC:129:THR:HA	3:FH:3:LYS:NZ	2.32	0.44
3:EQ:102:ASN:O	3:EQ:105:THR:HG22	2.18	0.44
3:EZ:5:MET:HG2	3:EZ:19:ASP:N	2.32	0.44
3:FD:35:ARG:HG2	3:FD:35:ARG:HH11	1.81	0.44
3:FP:23:LEU:HD23	3:FP:23:LEU:H	1.83	0.44
3:FW:51:VAL:HG13	3:FW:79:ARG:HG2	1.99	0.44
3:GC:82:ILE:HD13	3:GW:78:ILE:HG23	1.98	0.44
3:GF:116:PHE:CE2	3:Gc:6:GLN:HB2	2.51	0.44
3:GU:96:TRP:CE2	3:GU:100:LYS:HE3	2.52	0.44
1:R:53:G:H2'	1:R:54:U:H6	1.82	0.44
1:R:315:U:C5	1:R:316:U:C4	3.05	0.44
1:R:697:G:H2'	1:R:698:A:C8	2.53	0.44
1:R:1184:A:N6	1:R:1185:A:N7	2.64	0.44
1:R:1249:C:H4'	1:R:1250:G:H5'	1.99	0.44
1:R:1285:U:H2'	1:R:1286:C:H6	1.83	0.44
1:R:1567:G:H2'	1:R:1568:U:C6	2.52	0.44
1:R:1810:A:O2'	3:BP:38:VAL:O	2.31	0.44
1:R:1810:A:H2'	1:R:1811:G:C8	2.52	0.44
1:R:2264:C:H2'	1:R:2265:C:H6	1.80	0.44
1:R:2473:U:O2	1:R:2631:G:N2	2.51	0.44
1:R:3022:A:H2'	1:R:3023:C:C6	2.51	0.44
1:R:3210:A:H2'	1:R:3211:A:C8	2.52	0.44
1:R:3319:U:C2	1:R:3321:A:H1'	2.53	0.44
1:R:3600:G:O2'	1:R:3602:U:O4	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3716:U:C6	1:R:3806:G:H2'	2.53	0.44
1:R:3745:C:H2'	1:R:3746:G:C8	2.49	0.44
2:a:118:VAL:HG11	2:a:463:THR:HG22	1.99	0.44
2:b:328:GLU:O	2:b:332:ILE:HG12	2.18	0.44
3:AF:2:ASN:HA	3:FJ:128:THR:HA	2.00	0.44
3:AH:31:LEU:HD13	3:DF:115:GLY:HA2	1.99	0.44
3:AH:62:GLU:HG2	3:AH:62:GLU:O	2.17	0.44
3:AN:96:TRP:CE2	3:AN:100:LYS:HE3	2.53	0.44
3:AP:111:ASN:HB3	3:AP:114:LEU:HD12	1.99	0.44
3:Ac:113:GLY:O	3:FD:46:VAL:HG21	2.17	0.44
3:AY:39:GLY:HA2	3:EK:72:PRO:HG2	1.99	0.44
3:BH:80:THR:HG22	3:ET:80:THR:HG23	1.99	0.44
3:BK:62:GLU:C	3:BK:64:CYS:H	2.25	0.44
3:BL:117:LEU:HD23	3:BL:117:LEU:HA	1.89	0.44
3:BM:123:ILE:HD11	3:BX:17:TRP:CG	2.53	0.44
3:BQ:34:GLN:HG3	3:BQ:36:VAL:HG13	2.00	0.44
3:Be:81:VAL:HG22	3:EJ:79:ARG:HB2	1.99	0.44
3:BV:66:ASP:OD2	3:BV:68:CYS:N	2.49	0.44
3:BZ:98:THR:HG21	3:BZ:126:SER:HB2	1.98	0.44
3:CD:125:SER:HB2	3:DX:5:MET:HE2	1.98	0.44
3:CE:3:LYS:HZ2	3:DK:128:THR:C	2.25	0.44
3:CE:91:THR:OG1	3:DK:56:ARG:NH1	2.50	0.44
3:CV:44:ASN:ND2	3:CV:87:GLU:OE2	2.51	0.44
3:DA:125:SER:HB3	3:GM:5:MET:HE2	2.00	0.44
3:DD:66:ASP:HB3	3:DD:69:VAL:HG13	1.98	0.44
3:DE:64:CYS:O	3:DE:66:ASP:N	2.48	0.44
3:DG:22:ARG:NH2	3:DG:24:SER:OG	2.49	0.44
3:EH:5:MET:HB3	3:EH:17:TRP:HB3	2.00	0.44
3:FC:104:ASP:OD1	3:FC:105:THR:N	2.49	0.44
3:FO:19:ASP:OD2	3:FO:21:THR:OG1	2.27	0.44
3:FP:35:ARG:HH11	3:FP:35:ARG:HG3	1.81	0.44
3:FU:118:ASP:OD1	3:FU:120:THR:HG22	2.18	0.44
3:GU:111:ASN:HB2	3:GU:114:LEU:HD13	2.00	0.44
3:GX:111:ASN:HB2	3:GX:114:LEU:HD12	1.99	0.44
1:R:21:U:H2'	1:R:22:U:C6	2.52	0.44
1:R:49:U:H2'	1:R:50:U:C6	2.52	0.44
1:R:419:C:H2'	1:R:420:C:C6	2.53	0.44
1:R:560:G:O6	1:R:605:U:O4	2.35	0.44
1:R:794:G:H2'	1:R:795:G:C8	2.53	0.44
1:R:1405:G:H2'	1:R:1406:G:C8	2.53	0.44
1:R:1653:C:H2'	1:R:1654:U:H6	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1808:U:H2'	1:R:1809:G:C8	2.53	0.44
1:R:2326:G:H2'	1:R:2327:U:C6	2.53	0.44
1:R:2736:G:H2'	1:R:2737:G:C8	2.52	0.44
1:R:3179:A:H3'	1:R:3180:G:H8	1.83	0.44
1:R:3409:A:H2'	1:R:3410:U:H6	1.82	0.44
1:R:3416:C:H2'	1:R:3417:U:C6	2.52	0.44
1:R:3522:U:H2'	1:R:3523:U:C6	2.53	0.44
1:R:3524:G:H3'	1:R:3525:A:C8	2.51	0.44
2:b:121:TYR:HB2	2:b:493:ARG:NH2	2.33	0.44
3:AC:55:LYS:HE3	3:AC:75:ASN:HB3	2.00	0.44
3:AL:5:MET:HB3	3:AL:17:TRP:HB3	1.98	0.44
3:BD:35:ARG:NH1	3:BD:44:ASN:OD1	2.45	0.44
3:BD:60:LYS:NZ	3:BD:65:ALA:O	2.50	0.44
3:BT:95:GLU:O	3:BT:99:HIS:N	2.34	0.44
3:BX:60:LYS:HG2	3:BX:65:ALA:HB2	2.00	0.44
3:CA:54:TYR:CE1	3:CA:56:ARG:HB3	2.49	0.44
3:CB:105:THR:HG23	3:CB:106:LEU:HD12	1.98	0.44
3:CE:115:GLY:O	3:DK:33:ARG:NH2	2.49	0.44
3:CF:66:ASP:OD1	3:CF:67:ALA:N	2.51	0.44
3:CH:124:VAL:HA	3:DE:4:PRO:HA	1.99	0.44
3:CI:89:LEU:HD13	3:FU:114:LEU:HD22	1.99	0.44
3:CJ:125:SER:OG	3:CJ:126:SER:N	2.50	0.44
3:CK:82:ILE:HG23	3:DH:78:ILE:HG12	2.00	0.44
3:CU:71:MET:HB3	3:CU:72:PRO:HD2	1.99	0.44
3:CW:125:SER:OG	3:CW:127:ASP:OD1	2.33	0.44
3:DF:125:SER:OG	3:DF:126:SER:N	2.51	0.44
3:DO:50:TYR:HB2	3:DO:80:THR:OG1	2.18	0.44
3:DT:117:LEU:HD21	3:ES:31:LEU:HD13	1.99	0.44
3:EJ:19:ASP:OD2	3:EJ:22:ARG:N	2.45	0.44
3:EK:19:ASP:OD2	3:EK:22:ARG:N	2.31	0.44
3:EN:45:ASN:OD1	3:EN:46:VAL:N	2.50	0.44
3:Ec:124:VAL:HG12	3:EY:2:ASN:HB2	1.98	0.44
3:FA:19:ASP:OD2	3:FA:21:THR:OG1	2.25	0.44
3:FJ:61:PRO:O	3:FJ:62:GLU:HG3	2.17	0.44
3:FN:11:THR:HG22	3:FN:12:ALA:H	1.82	0.44
3:FQ:15:ILE:HD13	3:GE:117:LEU:HG	1.99	0.44
3:FS:60:LYS:HZ3	3:FS:65:ALA:HA	1.83	0.44
3:FT:44:ASN:OD1	3:FU:23:LEU:HD11	2.18	0.44
3:FW:89:LEU:HD21	3:FW:93:LYS:HE2	1.99	0.44
3:GB:71:MET:SD	3:GB:71:MET:N	2.84	0.44
3:GN:31:LEU:HD13	3:Gc:117:LEU:HD21	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GV:125:SER:OG	3:GV:126:SER:N	2.50	0.44
1:R:47:C:C2	1:R:48:U:C5	3.06	0.44
1:R:179:A:H8	1:R:179:A:OP1	2.00	0.44
1:R:404:A:H5''	1:R:407:C:H1'	2.00	0.44
1:R:1365:U:H2'	1:R:1366:A:H8	1.82	0.44
1:R:1561:U:H5''	1:R:1562:U:C5	2.52	0.44
1:R:1774:C:H2'	1:R:1775:C:C6	2.53	0.44
1:R:1899:G:H2'	1:R:1900:A:C8	2.52	0.44
1:R:1945:C:H2'	1:R:1946:A:C8	2.52	0.44
1:R:2044:A:H2'	1:R:2045:U:C6	2.52	0.44
1:R:2252:G:H2'	1:R:2253:G:C8	2.50	0.44
1:R:2499:A:N6	1:R:2542:G:N1	2.29	0.44
1:R:2581:U:H2'	1:R:2582:G:C8	2.52	0.44
1:R:3108:G:H2'	1:R:3109:G:O4'	2.16	0.44
1:R:3154:A:H2'	1:R:3155:A:C8	2.52	0.44
1:R:3186:U:H2'	1:R:3187:C:C6	2.53	0.44
1:R:3476:C:C2	1:R:3477:A:C8	3.05	0.44
1:R:3605:U:H2'	1:R:3606:A:C8	2.51	0.44
1:R:4202:G:C6	1:R:4215:G:C6	3.05	0.44
3:AF:9:THR:HG22	3:AF:16:VAL:HB	1.99	0.44
3:AI:82:ILE:HD12	3:FM:78:ILE:HG12	1.98	0.44
3:AO:46:VAL:HG21	3:FA:113:GLY:O	2.16	0.44
3:AQ:24:SER:HB2	3:AQ:55:LYS:HG3	2.00	0.44
3:AU:5:MET:HG2	3:AU:19:ASP:N	2.32	0.44
3:BB:87:GLU:OE1	3:BB:87:GLU:N	2.38	0.44
3:BG:38:VAL:HG13	3:BG:39:GLY:N	2.33	0.44
3:BH:124:VAL:HA	3:ET:4:PRO:HA	1.99	0.44
3:BP:40:ILE:HG22	3:BP:40:ILE:O	2.17	0.44
3:BP:87:GLU:OE1	3:BP:87:GLU:N	2.46	0.44
3:BU:22:ARG:NH2	3:BU:55:LYS:O	2.47	0.44
3:CA:55:LYS:CB	3:CA:73:ASN:HD21	2.28	0.44
3:CC:95:GLU:OE1	3:CC:95:GLU:HA	2.18	0.44
3:CM:54:TYR:OH	3:DO:127:ASP:OD2	2.34	0.44
3:CO:111:ASN:ND2	3:FY:6:GLN:OE1	2.50	0.44
3:CQ:11:THR:HG22	3:CQ:12:ALA:N	2.33	0.44
3:CQ:70:ILE:HD11	3:Dc:61:PRO:HG2	1.99	0.44
3:CU:15:ILE:HD12	3:GG:117:LEU:HB3	1.99	0.44
3:CU:125:SER:HB2	3:GG:5:MET:SD	2.58	0.44
3:DH:6:GLN:NE2	3:GV:114:LEU:HD11	2.33	0.44
3:DJ:123:ILE:HG22	3:GV:5:MET:HE2	2.00	0.44
3:DQ:104:ASP:OD1	3:EP:100:LYS:NZ	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Dc:5:MET:HG2	3:Dc:19:ASP:N	2.32	0.44
3:DS:51:VAL:HG22	3:DS:79:ARG:HB2	2.00	0.44
3:DS:96:TRP:CE2	3:DS:100:LYS:HE3	2.52	0.44
3:DZ:128:THR:HA	3:FN:2:ASN:HA	1.99	0.44
3:EK:38:VAL:HG12	3:EK:43:LEU:HD13	2.00	0.44
3:EM:5:MET:HB3	3:EM:17:TRP:HB3	1.99	0.44
3:EO:67:ALA:HB1	3:EO:69:VAL:HG22	2.00	0.44
3:EU:60:LYS:NZ	3:EU:63:GLY:HA2	2.33	0.44
3:EU:64:CYS:HB2	3:FC:68:CYS:HB3	1.58	0.44
3:FF:38:VAL:HG13	3:FF:39:GLY:N	2.32	0.44
3:GJ:5:MET:HG2	3:GJ:18:SER:C	2.42	0.44
3:GK:80:THR:HG23	3:GX:80:THR:HG22	1.99	0.44
3:GL:8:ILE:HB	3:GL:16:VAL:HG23	2.00	0.44
3:GN:64:CYS:HB3	3:GS:68:CYS:HB3	1.70	0.44
3:GV:19:ASP:OD2	3:GV:22:ARG:N	2.42	0.44
3:GX:62:GLU:O	3:GX:64:CYS:N	2.51	0.44
1:R:80:U:H2'	1:R:81:A:C8	2.53	0.44
1:R:554:C:H2'	1:R:555:G:C8	2.52	0.44
1:R:794:G:H2'	1:R:795:G:H8	1.81	0.44
1:R:881:C:H2'	1:R:882:G:H8	1.82	0.44
1:R:1181:G:H2'	1:R:1182:G:C8	2.52	0.44
1:R:1424:A:N6	1:R:1511:C:O2'	2.50	0.44
1:R:1635:G:H2'	1:R:1636:G:N9	2.33	0.44
1:R:1724:A:H2'	1:R:1725:C:C6	2.52	0.44
1:R:1808:U:H2'	1:R:1809:G:H8	1.82	0.44
1:R:1811:G:H4'	3:BP:37:LYS:NZ	2.32	0.44
1:R:2251:U:H2'	1:R:2252:G:C8	2.53	0.44
1:R:2358:U:H2'	1:R:2359:C:H6	1.82	0.44
1:R:2750:C:H2'	1:R:2751:U:C6	2.52	0.44
1:R:2936:U:H2'	1:R:2937:C:C6	2.52	0.44
1:R:3000:C:H2'	1:R:3001:A:H8	1.83	0.44
1:R:3713:C:H2'	1:R:3714:U:C6	2.53	0.44
1:R:3851:C:H1'	2:a:326:ARG:HH22	1.82	0.44
1:R:4117:G:C4	1:R:4118:G:H1'	2.53	0.44
1:R:4184:G:H2'	1:R:4185:A:C8	2.50	0.44
3:AE:5:MET:HG2	3:AE:19:ASP:N	2.33	0.44
3:AS:22:ARG:NH2	3:AS:55:LYS:O	2.50	0.44
3:AS:92:LEU:HD22	3:EE:107:PHE:HZ	1.82	0.44
3:AT:35:ARG:HG2	3:AT:44:ASN:ND2	2.33	0.44
3:AY:87:GLU:OE1	3:AY:87:GLU:N	2.44	0.44
3:BA:123:ILE:HD11	3:EF:17:TRP:CG	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CB:38:VAL:HG13	3:CB:39:GLY:N	2.32	0.44
3:CD:60:LYS:HD3	3:CD:71:MET:HE1	1.99	0.44
3:CF:89:LEU:HD11	3:Fc:113:GLY:HA3	1.98	0.44
3:CG:68:CYS:N	3:FU:64:CYS:SG	2.90	0.44
3:CG:117:LEU:HD21	3:EA:31:LEU:HD13	2.00	0.44
3:CV:124:VAL:HB	3:GL:2:ASN:HB2	2.00	0.44
3:CW:19:ASP:OD2	3:CW:21:THR:OG1	2.29	0.44
3:CX:114:LEU:HD12	3:GJ:89:LEU:HD13	1.98	0.44
3:DB:43:LEU:HD22	3:DB:87:GLU:OE1	2.17	0.44
3:DC:58:ALA:HB1	3:DC:59:PRO:HD2	1.98	0.44
3:DD:58:ALA:HB1	3:DD:59:PRO:HD2	2.00	0.44
3:DI:71:MET:HA	3:DI:71:MET:HE3	1.99	0.44
3:DN:11:THR:N	3:DN:14:LYS:O	2.51	0.44
3:DN:71:MET:HB2	3:DN:72:PRO:HD2	2.00	0.44
3:Dc:102:ASN:O	3:Dc:105:THR:HG22	2.18	0.44
3:DT:5:MET:SD	3:ES:125:SER:HB2	2.57	0.44
3:DZ:89:LEU:HD21	3:DZ:93:LYS:HE3	2.00	0.44
3:EI:5:MET:SD	3:EI:5:MET:N	2.90	0.44
3:EK:31:LEU:HD22	3:EK:48:GLY:HA2	1.98	0.44
3:EM:55:LYS:HG3	3:EM:73:ASN:HB3	1.98	0.44
3:GM:37:LYS:HD3	3:GM:42:GLU:OE1	2.18	0.44
1:R:347:C:H2'	1:R:348:U:C6	2.53	0.44
1:R:393:U:H3	1:R:417:C:N4	2.16	0.44
1:R:545:A:O2'	1:R:546:A:O4'	2.14	0.44
1:R:767:U:OP1	1:R:918:G:N2	2.51	0.44
1:R:837:A:H2'	1:R:838:A:C8	2.53	0.44
1:R:1283:U:H2'	1:R:1284:U:C6	2.53	0.44
1:R:1284:U:H2'	1:R:1285:U:C6	2.52	0.44
1:R:1365:U:O4	1:R:1366:A:N6	2.50	0.44
1:R:1874:C:H2'	1:R:1875:A:O4'	2.17	0.44
1:R:1890:C:H2'	1:R:1891:A:C8	2.53	0.44
1:R:2120:U:H2'	1:R:2121:A:H8	1.82	0.44
1:R:2773:U:H2'	1:R:2774:G:C8	2.52	0.44
1:R:2799:C:H2'	1:R:2800:A:C8	2.53	0.44
1:R:2817:G:H1	1:R:2835:U:H3	1.65	0.44
1:R:3164:C:H1'	1:R:3190:A:H61	1.83	0.44
1:R:3273:G:C6	1:R:3703:A:N1	2.86	0.44
1:R:3970:U:H2'	1:R:3971:C:C5	2.53	0.44
1:R:4067:U:H2'	1:R:4068:G:H8	1.83	0.44
2:b:415:ASN:HB3	2:b:455:GLY:O	2.18	0.44
3:AB:79:ARG:NH1	3:AB:81:VAL:HG23	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:49:GLN:HG3	3:AC:81:VAL:HG12	2.00	0.44
3:AC:81:VAL:HG22	3:FG:79:ARG:HB2	1.99	0.44
3:AI:74:GLU:OE2	3:FM:85:SER:OG	2.31	0.44
3:AI:123:ILE:HG13	3:FM:17:TRP:CE2	2.53	0.44
3:AL:61:PRO:HG3	3:EY:70:ILE:HD11	2.00	0.44
3:AL:112:ALA:HA	3:AL:116:PHE:O	2.18	0.44
3:AN:56:ARG:HH12	3:CN:91:THR:C	2.25	0.44
3:AP:95:GLU:OE1	3:AP:95:GLU:HA	2.17	0.44
3:Ac:102:ASN:OD1	3:Ac:123:ILE:HG23	2.18	0.44
3:AT:125:SER:HB2	3:BJ:5:MET:HE2	2.00	0.44
3:AW:9:THR:HB	3:AW:16:VAL:HG22	1.99	0.44
3:BB:20:PRO:HB3	3:EF:116:PHE:HE2	1.82	0.44
3:BD:19:ASP:OD2	3:BD:21:THR:OG1	2.26	0.44
3:BD:87:GLU:HG2	3:BD:88:ASN:N	2.32	0.44
3:BE:43:LEU:HD12	3:BE:87:GLU:CD	2.43	0.44
3:BF:54:TYR:CD1	3:BF:56:ARG:HG2	2.53	0.44
3:BY:14:LYS:CG	3:BY:30:SER:HB3	2.47	0.44
3:BZ:19:ASP:OD2	3:BZ:21:THR:OG1	2.29	0.44
3:CL:2:ASN:HA	3:FX:128:THR:HA	1.98	0.44
3:Cc:54:TYR:HE2	3:Cc:56:ARG:HE	1.64	0.44
3:CS:118:ASP:OD1	3:CS:120:THR:HG22	2.17	0.44
3:DE:60:LYS:HB2	3:DE:60:LYS:HE2	1.83	0.44
3:DT:128:THR:HA	3:ES:2:ASN:HA	2.00	0.44
3:DY:36:VAL:HG23	3:DY:43:LEU:HB2	1.99	0.44
3:DY:38:VAL:HG23	3:DY:39:GLY:H	1.82	0.44
3:DY:42:GLU:OE1	3:DY:42:GLU:HA	2.18	0.44
3:DY:61:PRO:O	3:DY:63:GLY:N	2.51	0.44
3:ED:96:TRP:CE2	3:ED:100:LYS:HE3	2.52	0.44
3:EK:37:LYS:HZ1	3:EK:40:ILE:HA	1.83	0.44
3:EP:12:ALA:HB1	3:EQ:9:THR:HG23	2.00	0.44
3:EV:37:LYS:HE2	3:EV:37:LYS:HA	2.00	0.44
3:EY:11:THR:HG22	3:EY:12:ALA:H	1.83	0.44
3:EY:11:THR:HG22	3:EY:12:ALA:N	2.32	0.44
3:FY:43:LEU:HA	3:FY:43:LEU:HD23	1.80	0.44
3:GA:112:ALA:HA	3:GA:116:PHE:O	2.17	0.44
3:GE:97:GLU:O	3:GE:101:ARG:N	2.41	0.44
3:GH:35:ARG:HG2	3:GH:44:ASN:HD22	1.83	0.44
3:GJ:56:ARG:HB2	3:GJ:74:GLU:OE2	2.18	0.44
3:GQ:60:LYS:HE3	3:GQ:65:ALA:HA	2.00	0.44
3:GU:34:GLN:HB3	3:GU:45:ASN:HB3	1.99	0.44
1:R:53:G:H2'	1:R:54:U:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1740:U:H3'	1:R:1741:G:C8	2.53	0.44
1:R:2628:C:O2'	1:R:2629:A:H8	1.99	0.44
1:R:2644:U:H2'	1:R:2645:U:H6	1.83	0.44
1:R:3272:U:H2'	1:R:3273:G:C8	2.53	0.44
1:R:3532:U:H2'	1:R:3533:C:C6	2.53	0.44
1:R:4006:C:H2'	1:R:4007:C:C6	2.53	0.44
1:R:4055:G:H5''	1:R:4056:G:O4'	2.18	0.44
1:R:4200:A:H2'	1:R:4201:U:C6	2.53	0.44
2:a:498:PRO:C	2:a:499:ARG:HD3	2.43	0.44
3:AJ:14:LYS:HZ3	3:AJ:30:SER:HB3	1.83	0.44
3:AN:60:LYS:HD3	3:AN:61:PRO:HD2	2.00	0.44
3:AQ:38:VAL:HG13	3:AQ:39:GLY:N	2.33	0.44
3:AV:20:PRO:HB3	3:EI:116:PHE:HE2	1.81	0.44
3:BI:62:GLU:OE2	3:BI:64:CYS:HB3	2.18	0.44
3:BJ:60:LYS:HE3	3:BJ:60:LYS:HB2	1.84	0.44
3:BK:5:MET:HG2	3:BK:19:ASP:N	2.33	0.44
3:BL:15:ILE:HG13	3:EM:117:LEU:HD13	1.98	0.44
3:BO:38:VAL:HG13	3:BO:39:GLY:H	1.83	0.44
3:BT:35:ARG:CZ	3:BT:44:ASN:HD21	2.31	0.44
3:BV:19:ASP:CG	3:BV:21:THR:HG1	2.25	0.44
3:BZ:27:PHE:CE2	3:FL:102:ASN:HB3	2.53	0.44
3:CM:31:LEU:HD23	3:CM:48:GLY:HA2	2.00	0.44
3:CQ:5:MET:HE3	3:CQ:6:GLN:N	2.28	0.44
3:Cc:36:VAL:HG23	3:Cc:43:LEU:HB2	2.00	0.44
3:CS:2:ASN:ND2	3:DU:126:SER:O	2.51	0.44
3:DB:102:ASN:HB3	3:GI:27:PHE:CE2	2.53	0.44
3:DJ:96:TRP:CZ2	3:DJ:100:LYS:HD3	2.52	0.44
3:DM:19:ASP:OD2	3:DM:21:THR:OG1	2.27	0.44
3:EE:58:ALA:C	3:EE:60:LYS:N	2.76	0.44
3:EI:61:PRO:HB2	3:EI:62:GLU:OE2	2.18	0.44
3:EI:101:ARG:O	3:EI:105:THR:HG23	2.17	0.44
3:EK:5:MET:HB3	3:EK:17:TRP:HB3	1.99	0.44
3:EO:95:GLU:HA	3:EO:95:GLU:OE2	2.17	0.44
3:ES:35:ARG:NH2	3:ES:42:GLU:HG3	2.32	0.44
3:EZ:95:GLU:HA	3:EZ:98:THR:HG22	2.00	0.44
3:FG:96:TRP:CE2	3:FG:100:LYS:HE3	2.52	0.44
3:FI:43:LEU:HD12	3:FI:85:SER:HB3	2.00	0.44
3:FJ:96:TRP:CE2	3:FJ:100:LYS:HE3	2.53	0.44
3:FW:11:THR:HG22	3:FW:12:ALA:N	2.33	0.44
3:GB:14:LYS:HD3	3:GB:30:SER:HB3	2.00	0.44
3:GC:66:ASP:CG	3:GC:67:ALA:N	2.73	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GN:43:LEU:HD11	3:GN:87:GLU:OE2	2.18	0.44
1:R:209:G:H2'	1:R:210:C:C6	2.52	0.44
1:R:416:U:H2'	1:R:417:C:O4'	2.18	0.44
1:R:1135:C:H2'	1:R:1136:G:O4'	2.18	0.44
1:R:1176:A:H2'	1:R:1177:U:C6	2.53	0.44
1:R:1523:A:N7	1:R:1525:C:H5'	2.33	0.44
1:R:1547:U:H2'	1:R:1548:G:C8	2.48	0.44
1:R:2231:C:H5'	1:R:2232:G:C8	2.53	0.44
1:R:2465:G:H2'	1:R:2466:G:C8	2.52	0.44
1:R:2465:G:H2'	1:R:2466:G:H8	1.83	0.44
1:R:2568:A:H2'	1:R:2569:A:H8	1.82	0.44
1:R:3027:G:N2	1:R:3709:U:H1'	2.33	0.44
1:R:3093:G:H2'	1:R:3094:C:C6	2.53	0.44
1:R:3269:G:H2'	1:R:3270:U:H6	1.83	0.44
1:R:3279:A:H2'	1:R:3280:C:C6	2.52	0.44
1:R:3363:U:H4'	1:R:3364:U:C5	2.53	0.44
1:R:3637:A:H2'	1:R:3638:A:C8	2.53	0.44
1:R:3679:U:H2'	1:R:3680:A:C8	2.53	0.44
1:R:3715:G:H2'	1:R:3715:G:N3	2.31	0.44
1:R:4112:C:H2'	1:R:4113:A:C8	2.52	0.44
1:R:4113:A:H2'	1:R:4114:U:H6	1.83	0.44
1:R:4163:C:H2'	1:R:4164:A:C8	2.53	0.44
1:R:4212:U:O4	1:R:4213:A:N6	2.50	0.44
2:a:166:TYR:CG	2:a:172:PHE:HB3	2.53	0.44
2:b:159:VAL:HB	2:b:166:TYR:HB2	1.99	0.44
2:b:224:ASP:O	2:b:228:LYS:NZ	2.47	0.44
3:AH:114:LEU:HG	3:DF:89:LEU:HD13	1.99	0.44
3:BH:95:GLU:HA	3:BH:95:GLU:OE2	2.18	0.44
3:BL:22:ARG:HD3	3:BL:25:THR:HG23	1.99	0.44
3:BM:89:LEU:HD21	3:BM:93:LYS:HE3	1.99	0.44
3:BP:98:THR:HG21	3:BP:126:SER:HB3	1.98	0.44
3:BS:56:ARG:NH2	3:BU:95:GLU:OE1	2.50	0.44
3:BX:5:MET:HB3	3:BX:17:TRP:HB3	2.00	0.44
3:CB:12:ALA:HB1	3:CC:9:THR:HG23	2.00	0.44
3:CE:106:LEU:HD22	3:DK:50:TYR:HE2	1.83	0.44
3:CN:14:LYS:NZ	3:CN:30:SER:HB3	2.33	0.44
3:CQ:61:PRO:HD3	3:CQ:71:MET:HE3	2.00	0.44
3:DC:89:LEU:HD21	3:DC:93:LYS:HE2	1.99	0.44
3:DE:19:ASP:OD2	3:DE:21:THR:OG1	2.22	0.44
3:DH:117:LEU:HD23	3:DH:117:LEU:HA	1.86	0.44
3:DJ:98:THR:HG21	3:DJ:126:SER:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DQ:39:GLY:HA3	3:EP:72:PRO:HG3	1.99	0.44
3:ED:55:LYS:HE3	3:ED:75:ASN:OD1	2.18	0.44
3:EO:42:GLU:O	3:EO:43:LEU:HD23	2.18	0.44
3:GC:66:ASP:O	3:GC:67:ALA:HB2	2.18	0.44
3:GH:19:ASP:OD2	3:GH:21:THR:OG1	2.22	0.44
3:GI:57:PRO:HA	3:GI:73:ASN:HA	2.00	0.44
3:GN:2:ASN:HB2	3:Gc:124:VAL:HG22	2.00	0.44
3:GO:87:GLU:OE1	3:GO:87:GLU:N	2.38	0.44
1:R:199:A:H1'	1:R:201:U:H1'	2.00	0.43
1:R:299:A:H2'	1:R:300:G:H8	1.82	0.43
1:R:556:G:H3'	1:R:557:U:H5''	1.99	0.43
1:R:793:U:H2'	1:R:794:G:H8	1.82	0.43
1:R:820:A:H2'	1:R:821:C:C6	2.53	0.43
1:R:951:C:H2'	1:R:952:A:C8	2.52	0.43
1:R:1024:A:O2'	3:DY:34:GLN:OE1	2.36	0.43
1:R:1786:C:H2'	1:R:1787:U:C6	2.53	0.43
1:R:1900:A:H2'	1:R:1901:A:C8	2.53	0.43
1:R:2282:A:H2'	1:R:2283:U:C6	2.53	0.43
1:R:2374:A:C4	3:AV:37:LYS:HB3	2.53	0.43
1:R:2505:A:H2'	1:R:2506:A:H8	1.83	0.43
1:R:2511:C:H2'	1:R:2512:G:C8	2.52	0.43
1:R:2829:G:H2'	1:R:2830:A:C8	2.53	0.43
1:R:2901:C:C2	1:R:2950:G:N2	2.86	0.43
1:R:2917:C:H2'	1:R:2918:U:H6	1.81	0.43
1:R:3307:U:H2'	1:R:3308:C:C6	2.52	0.43
1:R:3718:A:O2'	1:R:3719:A:O4'	2.22	0.43
1:R:4091:U:H2'	1:R:4092:A:C8	2.53	0.43
3:AG:87:GLU:OE1	3:AG:87:GLU:N	2.50	0.43
3:AG:123:ILE:HG13	3:DS:17:TRP:CE2	2.53	0.43
3:AM:97:GLU:HA	3:AM:100:LYS:HE2	1.99	0.43
3:AO:51:VAL:HG13	3:AO:79:ARG:HB3	2.00	0.43
3:AP:56:ARG:O	3:AP:74:GLU:N	2.41	0.43
3:AV:35:ARG:NH1	3:AV:42:GLU:OE2	2.51	0.43
3:AX:2:ASN:HB2	3:EL:124:VAL:CG2	2.48	0.43
3:AZ:106:LEU:HD23	3:AZ:106:LEU:HA	1.83	0.43
3:BF:35:ARG:HH22	3:BF:44:ASN:HB3	1.82	0.43
3:BK:62:GLU:OE2	3:BK:62:GLU:N	2.46	0.43
3:BS:27:PHE:HD1	3:BS:52:SER:HB3	1.83	0.43
3:BT:8:ILE:N	3:BT:16:VAL:O	2.44	0.43
3:BT:66:ASP:HB3	3:BT:69:VAL:HG22	2.00	0.43
3:BT:123:ILE:O	3:FF:5:MET:HB2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BZ:95:GLU:HA	3:BZ:95:GLU:OE2	2.18	0.43
3:CE:125:SER:O	3:DK:2:ASN:ND2	2.51	0.43
3:CL:113:GLY:O	3:FX:46:VAL:HG11	2.18	0.43
3:CM:3:LYS:NZ	3:DO:125:SER:OG	2.48	0.43
3:CM:15:ILE:HG13	3:DO:117:LEU:HD13	1.99	0.43
3:Cc:38:VAL:HG13	3:Cc:39:GLY:N	2.33	0.43
3:Cc:46:VAL:HG21	3:GD:113:GLY:O	2.18	0.43
3:Cc:74:GLU:OE2	3:GD:88:ASN:ND2	2.48	0.43
3:CU:128:THR:OG1	3:CU:129:THR:N	2.51	0.43
3:CV:87:GLU:OE1	3:CV:87:GLU:N	2.40	0.43
3:DB:31:LEU:HD12	3:GI:117:LEU:HG	1.99	0.43
3:DD:19:ASP:OD2	3:DD:22:ARG:N	2.31	0.43
3:DM:33:ARG:NH2	3:GY:115:GLY:O	2.49	0.43
3:DM:104:ASP:OD2	3:GY:100:LYS:NZ	2.47	0.43
3:Dc:5:MET:CB	3:Dc:17:TRP:HB3	2.48	0.43
3:DY:22:ARG:NH2	3:DY:55:LYS:O	2.50	0.43
3:EC:108:ALA:HA	3:FH:93:LYS:HE2	1.99	0.43
3:Ec:27:PHE:CE2	3:EY:102:ASN:HB3	2.53	0.43
3:Ec:31:LEU:HD12	3:EY:117:LEU:HG	1.99	0.43
3:EV:40:ILE:O	3:EV:40:ILE:HG22	2.17	0.43
3:FE:11:THR:HG22	3:FE:12:ALA:N	2.33	0.43
3:FE:96:TRP:NE1	3:FE:100:LYS:HE3	2.33	0.43
3:FG:125:SER:OG	3:FG:126:SER:N	2.51	0.43
3:FO:5:MET:HB3	3:FO:17:TRP:HB3	2.00	0.43
3:FZ:117:LEU:HD21	3:GT:31:LEU:HD13	1.99	0.43
3:GC:95:GLU:HA	3:GC:95:GLU:OE1	2.18	0.43
1:R:272:U:H2'	1:R:273:A:H8	1.82	0.43
1:R:709:G:H2'	1:R:710:C:C6	2.54	0.43
1:R:1143:C:H2'	1:R:1144:G:C8	2.49	0.43
1:R:1163:C:H2'	1:R:1164:A:H8	1.83	0.43
1:R:1637:C:OP1	3:BZ:79:ARG:NH2	2.51	0.43
1:R:1892:A:H2'	1:R:1893:A:C8	2.53	0.43
1:R:1942:C:H2'	1:R:1943:A:H8	1.83	0.43
1:R:2468:U:H2'	1:R:2469:G:C8	2.52	0.43
1:R:2957:A:H1'	1:R:2958:U:H5	1.82	0.43
1:R:2978:C:H2'	1:R:2979:G:C8	2.53	0.43
1:R:3035:U:H2'	1:R:3036:U:C6	2.53	0.43
1:R:3269:G:H2'	1:R:3270:U:C6	2.53	0.43
1:R:3443:C:H2'	1:R:3444:A:H8	1.83	0.43
1:R:3491:U:H2'	1:R:3492:G:C8	2.52	0.43
1:R:3514:A:N1	3:FX:32:LEU:HD22	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:a:343:TRP:O	2:a:346:PHE:HB3	2.18	0.43
3:AH:17:TRP:CE2	3:DF:123:ILE:HD12	2.53	0.43
3:AM:79:ARG:HB2	3:DY:81:VAL:HG22	2.01	0.43
3:AO:117:LEU:HD11	3:FA:31:LEU:HD21	1.99	0.43
3:Ac:35:ARG:HH12	3:Ac:36:VAL:C	2.25	0.43
3:Ac:95:GLU:OE1	3:FD:56:ARG:NH2	2.51	0.43
3:BB:66:ASP:N	3:BB:66:ASP:OD1	2.51	0.43
3:BE:16:VAL:HG12	3:BE:28:SER:HB3	2.00	0.43
3:BI:2:ASN:HB2	3:BV:124:VAL:HB	1.99	0.43
3:BI:38:VAL:HG13	3:BI:39:GLY:N	2.32	0.43
3:BM:101:ARG:O	3:BM:105:THR:HG23	2.18	0.43
3:BP:123:ILE:HG22	3:CA:5:MET:HE2	2.00	0.43
3:BU:101:ARG:HH12	3:BU:124:VAL:HG11	1.83	0.43
3:BY:49:GLN:HG3	3:BY:81:VAL:HG12	2.00	0.43
3:CL:46:VAL:HG21	3:FX:113:GLY:O	2.18	0.43
3:Cc:2:ASN:HA	3:GD:128:THR:HA	2.00	0.43
3:CW:123:ILE:HG13	3:FV:5:MET:HE2	1.99	0.43
3:DB:32:LEU:HD12	3:DB:32:LEU:HA	1.85	0.43
3:DC:11:THR:HG22	3:DC:12:ALA:N	2.33	0.43
3:DD:71:MET:SD	3:DD:71:MET:N	2.87	0.43
3:DL:13:ASN:N	3:DL:13:ASN:OD1	2.51	0.43
3:Dc:11:THR:HG22	3:Dc:12:ALA:N	2.33	0.43
3:ED:5:MET:CB	3:ED:17:TRP:HB3	2.48	0.43
3:EH:88:ASN:HB3	3:EH:91:THR:HG22	2.01	0.43
3:EO:2:ASN:HB2	3:FE:124:VAL:CG1	2.48	0.43
3:FK:57:PRO:HA	3:FK:73:ASN:HA	2.00	0.43
3:FX:9:THR:O	3:FX:15:ILE:HA	2.18	0.43
3:FX:118:ASP:OD1	3:FX:120:THR:HG22	2.18	0.43
3:FZ:35:ARG:NH1	3:FZ:44:ASN:OD1	2.51	0.43
3:GH:60:LYS:HE2	3:GH:71:MET:HE1	1.99	0.43
3:GK:74:GLU:OE1	3:GX:85:SER:OG	2.31	0.43
3:GK:101:ARG:NH1	3:GK:124:VAL:HG21	2.33	0.43
1:R:646:G:O6	1:R:687:U:O4	2.35	0.43
1:R:1137:U:H2'	1:R:1138:A:H8	1.83	0.43
1:R:1327:G:H2'	1:R:1328:A:H8	1.83	0.43
1:R:1811:G:H4'	3:BP:37:LYS:HZ1	1.84	0.43
1:R:1869:G:H4'	3:CB:37:LYS:HZ2	1.82	0.43
1:R:2122:U:H2'	1:R:2123:G:C8	2.53	0.43
1:R:2902:C:H2'	1:R:2903:A:C8	2.53	0.43
1:R:3202:A:H2'	1:R:3203:U:O4'	2.18	0.43
1:R:3557:C:H2'	1:R:3558:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3717:G:OP1	1:R:3808:A:H4'	2.17	0.43
2:a:370:GLU:HG2	2:a:371:PHE:N	2.33	0.43
2:b:299:SER:HB2	2:b:301:ARG:NH1	2.34	0.43
3:AI:55:LYS:HZ3	3:AI:75:ASN:HB2	1.82	0.43
3:AO:5:MET:HG2	3:AO:19:ASP:N	2.32	0.43
3:AT:60:LYS:HZ1	3:AT:66:ASP:H	1.66	0.43
3:AV:80:THR:HG23	3:EH:80:THR:HG22	1.98	0.43
3:BI:37:LYS:HB2	3:BI:42:GLU:OE1	2.19	0.43
3:BJ:96:TRP:CZ2	3:BJ:100:LYS:HE3	2.54	0.43
3:BU:60:LYS:NZ	3:BU:65:ALA:HA	2.33	0.43
3:BV:49:GLN:HA	3:BV:81:VAL:HG12	2.01	0.43
3:BW:37:LYS:NZ	3:BW:40:ILE:HA	2.32	0.43
3:CB:71:MET:HE3	3:CB:72:PRO:HD2	2.00	0.43
3:CO:38:VAL:HG13	3:CO:39:GLY:N	2.32	0.43
3:CP:35:ARG:HB3	3:CP:42:GLU:OE2	2.18	0.43
3:DD:125:SER:HB2	3:GP:5:MET:HE2	2.00	0.43
3:DJ:31:LEU:HD13	3:GV:117:LEU:HD21	1.99	0.43
3:DS:38:VAL:HG23	3:DS:39:GLY:N	2.33	0.43
3:EF:96:TRP:CZ2	3:EF:100:LYS:HD2	2.52	0.43
3:EP:96:TRP:CZ2	3:EP:100:LYS:HE3	2.53	0.43
3:EQ:95:GLU:O	3:EQ:99:HIS:N	2.31	0.43
3:FL:101:ARG:HH22	3:FL:124:VAL:HG11	1.83	0.43
3:FT:60:LYS:HA	3:FT:61:PRO:HD3	1.91	0.43
3:FV:6:GLN:HG3	3:FV:7:PRO:HD2	1.99	0.43
3:GE:112:ALA:HA	3:GE:116:PHE:O	2.19	0.43
3:GM:38:VAL:HG23	3:GM:41:ALA:HB3	2.00	0.43
3:GN:42:GLU:OE2	3:GN:43:LEU:N	2.52	0.43
3:GN:93:LYS:HE2	3:Gc:108:ALA:HA	1.99	0.43
3:GQ:37:LYS:NZ	3:GQ:42:GLU:HA	2.32	0.43
3:GX:11:THR:HG22	3:GX:12:ALA:N	2.33	0.43
1:R:384:G:H2'	1:R:385:C:C6	2.54	0.43
1:R:1127:A:N6	1:R:1207:G:N7	2.65	0.43
1:R:1141:A:H2'	1:R:1142:U:H6	1.83	0.43
1:R:1420:U:H1'	1:R:1436:A:N6	2.33	0.43
1:R:1743:C:H2'	1:R:1744:C:C6	2.53	0.43
1:R:1941:A:H2'	1:R:1942:C:H6	1.82	0.43
1:R:2255:U:C2	1:R:2256:U:C5	3.06	0.43
1:R:2645:U:H2'	1:R:2646:U:H6	1.83	0.43
1:R:2926:A:H2'	1:R:2927:C:O4'	2.18	0.43
1:R:3017:U:O4	1:R:3018:A:N6	2.52	0.43
1:R:3159:U:H4'	1:R:3160:U:H5'	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3210:A:N1	1:R:3227:C:N4	2.67	0.43
1:R:3999:C:H2'	1:R:4000:G:H5''	2.00	0.43
1:R:4072:C:H2'	1:R:4073:A:C8	2.53	0.43
1:R:4234:U:H2'	1:R:4235:A:C8	2.54	0.43
1:R:4243:A:C4	1:R:4244:G:C8	3.07	0.43
1:R:4252:U:O4	2:b:125:GLY:HA2	2.18	0.43
2:a:94:LYS:HG3	2:a:128:THR:HG22	2.00	0.43
3:AB:62:GLU:CD	3:AB:63:GLY:N	2.76	0.43
3:AC:55:LYS:HB3	3:AC:73:ASN:HD22	1.83	0.43
3:AN:96:TRP:HE3	3:CN:78:ILE:HD13	1.84	0.43
3:AS:93:LYS:NZ	3:EE:107:PHE:O	2.51	0.43
3:AU:11:THR:HG22	3:AU:12:ALA:N	2.34	0.43
3:BC:51:VAL:HG22	3:BC:79:ARG:HB3	2.00	0.43
3:BH:55:LYS:HZ2	3:BH:75:ASN:HA	1.83	0.43
3:BQ:98:THR:HA	3:BQ:101:ARG:HD3	1.99	0.43
3:BS:125:SER:HB2	3:BU:5:MET:HE2	1.99	0.43
3:CD:62:GLU:OE1	3:CD:64:CYS:HB3	2.17	0.43
3:CF:128:THR:C	3:Fc:3:LYS:HZ2	2.26	0.43
3:CJ:39:GLY:H	3:ED:72:PRO:HG2	1.84	0.43
3:CS:17:TRP:CE2	3:DU:123:ILE:HD12	2.54	0.43
3:CV:96:TRP:NE1	3:CV:100:LYS:HE3	2.34	0.43
3:CV:104:ASP:OD1	3:GL:96:TRP:NE1	2.49	0.43
3:CW:55:LYS:HD3	3:CW:55:LYS:HA	1.86	0.43
3:DC:49:GLN:OE1	3:DC:79:ARG:NH2	2.51	0.43
3:DC:89:LEU:HD11	3:FS:113:GLY:HA3	1.98	0.43
3:DF:89:LEU:HD21	3:DF:93:LYS:HE2	2.00	0.43
3:DI:54:TYR:HE2	3:DI:56:ARG:HE	1.66	0.43
3:DJ:59:PRO:HG2	3:DJ:71:MET:HG3	2.01	0.43
3:DK:68:CYS:HB2	3:GY:64:CYS:HB3	1.81	0.43
3:DK:125:SER:OG	3:DK:126:SER:N	2.51	0.43
3:DN:96:TRP:NE1	3:DN:100:LYS:HE2	2.33	0.43
3:DV:55:LYS:HB3	3:DV:73:ASN:HD21	1.82	0.43
3:EZ:61:PRO:HD3	3:EZ:71:MET:SD	2.58	0.43
3:FE:117:LEU:HD23	3:FE:117:LEU:HA	1.85	0.43
3:FG:56:ARG:O	3:FG:74:GLU:HG2	2.18	0.43
3:FW:93:LYS:NZ	3:GB:107:PHE:O	2.52	0.43
3:GK:89:LEU:HD21	3:GK:93:LYS:HE3	2.01	0.43
3:GL:38:VAL:HG12	3:GL:39:GLY:N	2.28	0.43
3:GU:43:LEU:HD12	3:GU:85:SER:HB2	2.01	0.43
1:R:876:G:H2'	1:R:877:G:C8	2.49	0.43
1:R:1100:C:H2'	1:R:1101:A:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1103:A:H2'	1:R:1104:A:C8	2.51	0.43
1:R:1466:U:H5''	1:R:1473:U:H4'	2.00	0.43
1:R:1663:A:H2'	1:R:1663:A:N3	2.34	0.43
1:R:2130:G:H2'	1:R:2131:A:H8	1.82	0.43
1:R:2345:A:H5'	1:R:2346:A:N7	2.34	0.43
1:R:2372:G:H2'	1:R:2373:A:O4'	2.19	0.43
1:R:2887:U:H3	2:b:308:LYS:HG3	1.83	0.43
1:R:3000:C:H2'	1:R:3001:A:C8	2.52	0.43
1:R:3144:C:H2'	1:R:3145:A:C8	2.54	0.43
1:R:3510:A:H2'	1:R:3511:A:C8	2.54	0.43
1:R:3912:G:H2'	1:R:3913:U:H6	1.83	0.43
1:R:3925:U:H2'	1:R:3926:U:C6	2.53	0.43
1:R:3946:C:H2'	1:R:3947:U:C6	2.53	0.43
2:b:66:PRO:HD2	2:b:78:ALA:O	2.18	0.43
3:AT:117:LEU:HD13	3:BJ:15:ILE:HG22	2.00	0.43
3:AV:81:VAL:HG22	3:EH:79:ARG:HB3	2.00	0.43
3:AW:31:LEU:HD13	3:BD:117:LEU:HD21	1.99	0.43
3:BB:113:GLY:O	3:EN:46:VAL:HG11	2.19	0.43
3:BJ:89:LEU:HD21	3:BJ:93:LYS:HE2	1.99	0.43
3:BK:98:THR:HG21	3:BK:126:SER:HB3	1.99	0.43
3:BL:96:TRP:CZ2	3:BL:100:LYS:HD3	2.53	0.43
3:BM:5:MET:CE	3:BM:17:TRP:HB3	2.48	0.43
3:BO:127:ASP:O	3:EG:3:LYS:NZ	2.51	0.43
3:Bc:64:CYS:HB2	3:EK:68:CYS:HB3	1.41	0.43
3:BS:2:ASN:HB3	3:BU:124:VAL:HG21	2.01	0.43
3:BZ:60:LYS:HZ2	3:BZ:61:PRO:HD2	1.83	0.43
3:CD:15:ILE:HG13	3:DX:117:LEU:HD13	2.01	0.43
3:CE:123:ILE:HD12	3:DK:17:TRP:CE2	2.52	0.43
3:CM:89:LEU:O	3:CM:93:LYS:HG2	2.18	0.43
3:CN:118:ASP:OD1	3:CN:120:THR:OG1	2.31	0.43
3:CW:11:THR:HG22	3:CW:12:ALA:N	2.33	0.43
3:CW:96:TRP:CE2	3:CW:100:LYS:HD2	2.53	0.43
3:CX:92:LEU:HD22	3:GJ:107:PHE:HZ	1.82	0.43
3:DJ:92:LEU:CA	3:GV:56:ARG:HH22	2.30	0.43
3:DT:60:LYS:O	3:DT:62:GLU:N	2.46	0.43
3:DW:38:VAL:HG22	3:FK:72:PRO:HB2	1.99	0.43
3:EF:71:MET:HB2	3:EF:72:PRO:HD2	2.01	0.43
3:EP:95:GLU:HA	3:EP:95:GLU:OE2	2.18	0.43
3:Ec:15:ILE:HG12	3:EY:117:LEU:HD13	2.00	0.43
3:EU:50:TYR:O	3:EU:80:THR:N	2.44	0.43
3:FA:5:MET:HG3	3:FA:17:TRP:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:FQ:34:GLN:NE2	3:FQ:36:VAL:HB	2.31	0.43
3:FQ:92:LEU:HD22	3:GE:107:PHE:HZ	1.83	0.43
3:Fc:38:VAL:HG13	3:Fc:39:GLY:N	2.32	0.43
3:GA:35:ARG:HH22	3:GA:44:ASN:CG	2.24	0.43
3:GD:35:ARG:HH22	3:GD:42:GLU:HG2	1.83	0.43
3:GE:38:VAL:HG23	3:GE:39:GLY:H	1.83	0.43
3:GF:31:LEU:HD23	3:GQ:115:GLY:HA2	2.01	0.43
3:GH:24:SER:HB2	3:GH:55:LYS:HG3	2.00	0.43
3:GJ:96:TRP:NE1	3:GJ:100:LYS:HE3	2.33	0.43
3:GK:128:THR:O	3:GX:3:LYS:NZ	2.52	0.43
1:R:332:A:H5''	1:R:359:C:H41	1.83	0.43
1:R:546:A:O2'	1:R:547:C:O4'	2.15	0.43
1:R:1839:G:H2'	1:R:1840:A:H8	1.80	0.43
1:R:2223:A:H61	1:R:2239:G:H1'	1.84	0.43
1:R:2271:G:N1	1:R:2301:U:N3	2.67	0.43
1:R:2328:C:H2'	1:R:2329:A:C8	2.47	0.43
1:R:2455:A:C5	1:R:2634:G:H1'	2.53	0.43
1:R:2897:G:H2'	1:R:2898:G:H8	1.83	0.43
1:R:2997:A:H1'	1:R:2999:C:H5	1.83	0.43
1:R:3011:C:H2'	1:R:3012:C:C6	2.53	0.43
1:R:3305:A:N7	3:FI:34:GLN:NE2	2.65	0.43
1:R:3351:A:OP1	3:AB:32:LEU:HG	2.18	0.43
1:R:3427:A:H2'	1:R:3428:C:C6	2.54	0.43
1:R:3519:U:O2	1:R:3527:G:N2	2.45	0.43
1:R:4141:C:H2'	1:R:4142:A:C8	2.54	0.43
2:a:522:SER:O	2:a:525:ARG:HD3	2.19	0.43
3:AC:128:THR:HA	3:FG:2:ASN:CB	2.48	0.43
3:AH:61:PRO:HG2	3:DG:70:ILE:HD11	2.00	0.43
3:AI:35:ARG:HH21	3:AI:43:LEU:C	2.27	0.43
3:AW:6:GLN:NE2	3:EK:114:LEU:HD21	2.34	0.43
3:BC:102:ASN:HB3	3:BY:27:PHE:CE2	2.54	0.43
3:BN:37:LYS:HD2	3:BN:42:GLU:HA	2.01	0.43
3:CF:3:LYS:HZ3	3:Fc:127:ASP:C	2.26	0.43
3:CM:6:GLN:HG2	3:CM:20:PRO:HG3	2.01	0.43
3:CM:19:ASP:OD2	3:CM:21:THR:OG1	2.27	0.43
3:CM:44:ASN:O	3:CM:86:ALA:N	2.41	0.43
3:CM:103:VAL:HG23	3:DO:50:TYR:CD2	2.53	0.43
3:Cc:17:TRP:CE2	3:GD:123:ILE:HG13	2.53	0.43
3:CX:24:SER:HB2	3:CX:55:LYS:CG	2.48	0.43
3:DG:34:GLN:O	3:DG:45:ASN:N	2.48	0.43
3:DW:89:LEU:HA	3:DW:92:LEU:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:EA:67:ALA:HB1	3:FN:64:CYS:CB	2.48	0.43
3:EF:57:PRO:C	3:EF:59:PRO:HD3	2.42	0.43
3:EG:7:PRO:HD3	3:EG:17:TRP:CZ3	2.54	0.43
3:EH:97:GLU:HA	3:EH:100:LYS:HE2	2.00	0.43
3:EL:55:LYS:HB3	3:EL:73:ASN:ND2	2.33	0.43
3:EP:5:MET:HB3	3:EP:17:TRP:HB3	2.00	0.43
3:ES:125:SER:OG	3:ES:126:SER:N	2.51	0.43
3:EU:10:SER:HA	3:EU:15:ILE:HD12	2.00	0.43
3:FD:88:ASN:O	3:FD:91:THR:HG22	2.19	0.43
3:FJ:9:THR:HG23	3:FL:12:ALA:HB1	2.01	0.43
3:FV:71:MET:HB2	3:FV:72:PRO:HD2	2.00	0.43
3:FY:96:TRP:CE2	3:FY:100:LYS:HE3	2.53	0.43
3:GA:14:LYS:HZ2	3:GA:14:LYS:HG3	1.55	0.43
3:GA:69:VAL:O	3:GA:69:VAL:HG13	2.19	0.43
3:GN:124:VAL:HA	3:Gc:4:PRO:HA	2.01	0.43
3:GU:49:GLN:HB3	3:GU:81:VAL:HG22	2.00	0.43
3:GV:36:VAL:HB	3:GV:43:LEU:HB2	1.99	0.43
1:R:181:A:H2'	1:R:182:C:C6	2.54	0.43
1:R:433:C:H2'	1:R:434:G:O4'	2.19	0.43
1:R:891:A:H2'	1:R:892:G:C8	2.51	0.43
1:R:1035:A:OP1	3:FK:49:GLN:HG3	2.17	0.43
1:R:1215:U:H2'	1:R:1216:A:C8	2.54	0.43
1:R:1415:U:H2'	1:R:1416:G:C8	2.53	0.43
1:R:1965:G:H2'	1:R:1966:A:H8	1.83	0.43
1:R:2000:U:H4'	1:R:2711:U:C6	2.54	0.43
1:R:2204:U:H2'	1:R:2205:C:C6	2.54	0.43
1:R:2294:U:H2'	1:R:2295:A:C8	2.54	0.43
1:R:2337:C:H2'	1:R:2338:G:C8	2.53	0.43
1:R:2758:C:O2'	1:R:2760:G:OP2	2.34	0.43
1:R:3085:U:H2'	1:R:3086:A:C8	2.53	0.43
1:R:3091:U:H3	3:CX:13:ASN:HB2	1.84	0.43
1:R:3105:C:H2'	1:R:3106:U:C6	2.54	0.43
1:R:3180:G:H2'	1:R:3181:A:C8	2.54	0.43
1:R:3347:G:H2'	1:R:3348:G:H8	1.84	0.43
1:R:3475:A:HO2'	1:R:3476:C:H5	1.65	0.43
1:R:3648:A:H2'	1:R:3649:U:C6	2.54	0.43
1:R:3841:U:H2'	1:R:3842:A:H8	1.81	0.43
1:R:4095:A:H2'	1:R:4096:G:C8	2.53	0.43
1:R:4204:A:H2'	1:R:4205:C:C6	2.54	0.43
2:a:6:TRP:CZ2	2:a:183:MET:HG2	2.54	0.43
3:AE:59:PRO:HB2	3:AE:71:MET:HE3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AG:71:MET:N	3:AG:71:MET:SD	2.91	0.43
3:AJ:2:ASN:HB2	3:DV:124:VAL:HB	2.01	0.43
3:AP:38:VAL:HG23	3:AP:39:GLY:N	2.33	0.43
3:AS:30:SER:C	3:AS:31:LEU:HD12	2.44	0.43
3:AS:79:ARG:NH1	3:AS:79:ARG:HB2	2.34	0.43
3:AT:49:GLN:NE2	3:AT:79:ARG:HE	2.17	0.43
3:AW:72:PRO:HB2	3:BD:38:VAL:HG22	2.00	0.43
3:AX:8:ILE:HG13	3:AX:9:THR:N	2.34	0.43
3:AZ:87:GLU:H	3:AZ:87:GLU:CD	2.26	0.43
3:BB:5:MET:HB3	3:BB:17:TRP:HB3	1.99	0.43
3:BD:66:ASP:OD1	3:BD:67:ALA:N	2.51	0.43
3:BY:51:VAL:HG22	3:BY:79:ARG:HG2	2.00	0.43
3:CE:19:ASP:OD2	3:CE:22:ARG:N	2.31	0.43
3:CN:7:PRO:C	3:CN:8:ILE:HD13	2.44	0.43
3:CO:48:GLY:O	3:CO:81:VAL:HA	2.18	0.43
3:CP:50:TYR:HE2	3:Dc:106:LEU:HD11	1.83	0.43
3:CU:96:TRP:CZ2	3:CU:100:LYS:HD2	2.54	0.43
3:CY:56:ARG:O	3:CY:74:GLU:HG2	2.19	0.43
3:DC:3:LYS:HE3	3:FS:129:THR:HG22	2.01	0.43
3:DG:124:VAL:HG11	3:GS:2:ASN:OD1	2.19	0.43
3:DO:118:ASP:OD1	3:DO:120:THR:OG1	2.31	0.43
3:DQ:17:TRP:CG	3:EP:123:ILE:HD11	2.54	0.43
3:EC:43:LEU:HD12	3:EC:43:LEU:HA	1.72	0.43
3:EC:92:LEU:HD22	3:FH:107:PHE:HZ	1.84	0.43
3:EC:116:PHE:HE1	3:FI:8:ILE:HD11	1.83	0.43
3:ED:101:ARG:CZ	3:ED:124:VAL:HG21	2.49	0.43
3:EH:35:ARG:HG3	3:EH:35:ARG:HH11	1.82	0.43
3:EM:57:PRO:HA	3:EM:73:ASN:HA	1.99	0.43
3:EO:60:LYS:HE2	3:EO:60:LYS:HB2	1.82	0.43
3:Ec:101:ARG:HH12	3:Ec:124:VAL:HB	1.82	0.43
3:EW:59:PRO:O	3:EW:71:MET:HE1	2.19	0.43
3:EX:61:PRO:O	3:EX:62:GLU:HG3	2.19	0.43
3:FN:95:GLU:O	3:FN:99:HIS:N	2.33	0.43
3:GF:70:ILE:HG13	3:GF:70:ILE:O	2.17	0.43
3:GF:116:PHE:CZ	3:Gc:8:ILE:HD11	2.53	0.43
1:R:31:G:H2'	1:R:32:C:C6	2.54	0.43
1:R:128:A:H2'	1:R:129:A:C8	2.53	0.43
1:R:166:U:H3'	1:R:167:G:O4'	2.19	0.43
1:R:578:A:H2'	1:R:579:G:C8	2.54	0.43
1:R:629:A:C4	1:R:982:U:C5	3.06	0.43
1:R:774:C:H2'	1:R:775:C:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1466:U:H2'	1:R:1467:G:H8	1.82	0.43
1:R:1723:U:O4	1:R:1754:G:O6	2.37	0.43
1:R:1725:C:H2'	1:R:1726:A:C8	2.54	0.43
1:R:2217:G:H2'	1:R:2218:U:H6	1.84	0.43
1:R:2569:A:H2'	1:R:2570:C:C6	2.54	0.43
1:R:2757:A:O2'	1:R:2882:A:N1	2.50	0.43
1:R:2989:U:H2'	1:R:2990:G:C8	2.53	0.43
1:R:3461:C:H2'	1:R:3462:G:H8	1.83	0.43
1:R:3473:C:O5'	2:a:272:GLN:NE2	2.51	0.43
1:R:3877:C:H2'	1:R:3878:A:H8	1.83	0.43
1:R:4077:U:H2'	1:R:4078:A:C8	2.54	0.43
2:a:335:PHE:HA	2:a:338:GLN:HE21	1.84	0.43
2:b:99:ARG:HD2	2:b:121:TYR:OH	2.19	0.43
2:b:297:ILE:HD11	2:b:309:LEU:HB3	2.01	0.43
3:AB:116:PHE:HE2	3:DJ:20:PRO:HB3	1.83	0.43
3:AF:95:GLU:HA	3:AF:95:GLU:OE2	2.18	0.43
3:AN:33:ARG:H	3:AN:33:ARG:HG2	1.65	0.43
3:AU:72:PRO:HG3	3:EI:39:GLY:HA3	2.00	0.43
3:AY:9:THR:HB	3:AY:16:VAL:HG22	2.01	0.43
3:AZ:71:MET:HB2	3:AZ:72:PRO:HD2	1.99	0.43
3:BA:4:PRO:HA	3:EF:124:VAL:HA	2.00	0.43
3:BI:5:MET:N	3:BI:5:MET:SD	2.92	0.43
3:BT:89:LEU:HD13	3:FF:114:LEU:HD22	1.99	0.43
3:BX:66:ASP:OD2	3:BX:69:VAL:HG23	2.19	0.43
3:CF:58:ALA:HB3	3:CF:71:MET:HG3	2.01	0.43
3:CS:2:ASN:HB2	3:DU:124:VAL:HB	2.00	0.43
3:CV:49:GLN:OE1	3:CV:79:ARG:NH2	2.52	0.43
3:CW:66:ASP:OD1	3:CW:67:ALA:N	2.49	0.43
3:CX:92:LEU:HD12	3:GJ:76:GLN:HG2	2.00	0.43
3:DA:101:ARG:HH12	3:DA:124:VAL:CG2	2.32	0.43
3:DM:58:ALA:HB3	3:DM:71:MET:HG3	2.01	0.43
3:EF:12:ALA:HB1	3:EG:8:ILE:O	2.19	0.43
3:EJ:5:MET:HE2	3:EJ:5:MET:HB2	1.91	0.43
3:Ec:123:ILE:HD11	3:EY:17:TRP:CG	2.53	0.43
3:FB:58:ALA:HB1	3:FB:59:PRO:CD	2.48	0.43
3:FI:87:GLU:OE1	3:FI:87:GLU:N	2.42	0.43
3:FS:24:SER:HB2	3:FS:55:LYS:HG3	2.00	0.43
3:FW:58:ALA:CB	3:FW:59:PRO:HD3	2.48	0.43
3:FZ:5:MET:CB	3:FZ:17:TRP:HB3	2.48	0.43
3:GD:5:MET:CB	3:GD:17:TRP:HB3	2.49	0.43
3:GF:102:ASN:OD1	3:GF:123:ILE:HG23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GJ:118:ASP:OD1	3:GJ:120:THR:HG22	2.18	0.43
3:GX:87:GLU:OE1	3:GX:87:GLU:N	2.50	0.43
1:R:65:A:H2'	1:R:66:C:C6	2.54	0.43
1:R:205:G:H2'	1:R:206:A:C8	2.54	0.43
1:R:239:U:H4'	3:Dc:49:GLN:HE21	1.83	0.43
1:R:723:A:OP2	1:R:935:A:N6	2.52	0.43
1:R:802:C:H2'	1:R:803:G:H8	1.84	0.43
1:R:1017:G:N1	1:R:1085:U:H1'	2.34	0.43
1:R:1234:G:H2'	1:R:1235:A:H8	1.83	0.43
1:R:1309:C:H2'	1:R:1310:U:C6	2.54	0.43
1:R:1358:C:H2'	1:R:1359:U:C6	2.54	0.43
1:R:1395:A:H2'	1:R:1396:A:H8	1.84	0.43
1:R:1582:A:H2'	1:R:1583:A:C8	2.54	0.43
1:R:1615:G:C6	1:R:1642:G:C6	3.06	0.43
1:R:2065:C:H2'	1:R:2066:U:C6	2.54	0.43
1:R:2247:G:H2'	1:R:2248:G:C8	2.53	0.43
1:R:2669:U:H2'	1:R:2670:A:C8	2.51	0.43
1:R:2695:U:H2'	1:R:2696:U:H6	1.83	0.43
1:R:2812:C:H2'	1:R:2813:U:O4'	2.18	0.43
1:R:2934:U:H2'	1:R:2935:C:C6	2.53	0.43
1:R:3143:U:H2'	1:R:3144:C:H6	1.83	0.43
1:R:3517:C:H2'	1:R:3518:C:H6	1.84	0.43
1:R:3756:G:C6	1:R:3757:A:H1'	2.53	0.43
2:b:119:ALA:O	2:b:493:ARG:NE	2.39	0.43
2:b:457:SER:OG	2:b:508:PRO:HG2	2.19	0.43
3:AC:100:LYS:HE3	3:FG:100:LYS:HD3	2.01	0.43
3:AK:115:GLY:HA2	3:CT:31:LEU:HD23	2.01	0.43
3:AL:56:ARG:CD	3:EX:91:THR:HG21	2.49	0.43
3:AN:46:VAL:HG21	3:CN:113:GLY:O	2.18	0.43
3:AO:104:ASP:CG	3:FA:100:LYS:HZ1	2.27	0.43
3:AP:115:GLY:HA2	3:EB:31:LEU:HD11	2.01	0.43
3:AS:85:SER:OG	3:AS:88:ASN:OD1	2.33	0.43
3:AT:101:ARG:NH2	3:BJ:2:ASN:OD1	2.52	0.43
3:BD:51:VAL:HG22	3:BD:79:ARG:HB2	2.00	0.43
3:BE:113:GLY:O	3:EQ:46:VAL:HG11	2.19	0.43
3:BT:15:ILE:HD13	3:FF:117:LEU:HB3	2.01	0.43
3:CD:2:ASN:HB2	3:DX:124:VAL:CG1	2.49	0.43
3:CO:51:VAL:HG22	3:CO:79:ARG:HG2	2.01	0.43
3:CP:82:ILE:HG23	3:Dc:78:ILE:HG12	2.01	0.43
3:CW:55:LYS:HE3	3:CW:75:ASN:HB3	2.00	0.43
3:DC:37:LYS:NZ	3:DC:38:VAL:O	2.38	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DF:16:VAL:HG22	3:DF:28:SER:HB2	2.01	0.43
3:DM:40:ILE:O	3:DM:40:ILE:HG13	2.18	0.43
3:DN:22:ARG:NH2	3:DN:24:SER:OG	2.52	0.43
3:DN:99:HIS:O	3:DN:103:VAL:HG12	2.18	0.43
3:DW:91:THR:OG1	3:FK:56:ARG:NH1	2.52	0.43
3:DY:38:VAL:HG23	3:DY:39:GLY:N	2.34	0.43
3:EL:57:PRO:HB2	3:EL:71:MET:SD	2.58	0.43
3:EO:9:THR:HG23	3:EQ:12:ALA:HB1	2.01	0.43
3:EV:51:VAL:HG12	3:EV:79:ARG:HA	2.01	0.43
3:EV:89:LEU:HA	3:EV:92:LEU:HB2	1.99	0.43
3:EX:60:LYS:HD3	3:EX:60:LYS:HA	1.88	0.43
3:FA:5:MET:HE3	3:FA:5:MET:HB3	1.94	0.43
3:FB:30:SER:OG	3:FB:49:GLN:HB2	2.18	0.43
3:FD:95:GLU:HA	3:FD:95:GLU:OE2	2.18	0.43
3:FM:70:ILE:H	3:FM:70:ILE:HD12	1.84	0.43
3:Fc:95:GLU:HA	3:Fc:95:GLU:OE1	2.19	0.43
3:FZ:60:LYS:O	3:FZ:61:PRO:C	2.61	0.43
3:GL:12:ALA:HB1	3:GM:9:THR:HG23	2.01	0.43
3:GN:17:TRP:CG	3:Gc:123:ILE:HD11	2.53	0.43
1:R:411:C:H2'	1:R:412:A:C8	2.53	0.43
1:R:439:G:H2'	1:R:440:U:H6	1.84	0.43
1:R:546:A:H2'	1:R:547:C:C6	2.54	0.43
1:R:950:U:H2'	1:R:951:C:H6	1.82	0.43
1:R:1023:U:H2'	1:R:1024:A:C8	2.54	0.43
1:R:1033:A:H1'	1:R:1035:A:N6	2.34	0.43
1:R:1213:G:H2'	1:R:1214:A:C8	2.53	0.43
1:R:1388:C:O2'	1:R:1390:A:N6	2.48	0.43
1:R:1420:U:H2'	1:R:1434:A:OP2	2.19	0.43
1:R:1434:A:H2'	1:R:1435:G:C8	2.54	0.43
1:R:1525:C:H2'	1:R:1526:C:C6	2.53	0.43
1:R:1567:G:H2'	1:R:1568:U:H6	1.84	0.43
1:R:1954:U:H2'	1:R:1955:U:C6	2.54	0.43
1:R:2347:G:H2'	1:R:2348:A:H8	1.84	0.43
1:R:2460:C:H2'	1:R:2461:U:O4'	2.19	0.43
1:R:2817:G:H1'	1:R:2818:A:C8	2.54	0.43
1:R:2880:A:H5''	1:R:2882:A:H62	1.84	0.43
1:R:3742:G:H2'	1:R:3743:A:H8	1.84	0.43
1:R:3904:U:H2'	1:R:3905:A:C8	2.54	0.43
1:R:4135:A:H2'	1:R:4136:C:C6	2.54	0.43
2:b:295:ARG:HA	2:b:295:ARG:HD2	1.80	0.43
3:AH:83:SER:OG	3:DF:77:SER:OG	2.35	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AI:70:ILE:HD11	3:DF:61:PRO:HG2	2.00	0.43
3:AM:68:CYS:SG	3:EX:61:PRO:HG2	2.58	0.43
3:AM:114:LEU:HD12	3:AM:114:LEU:H	1.83	0.43
3:Ac:2:ASN:HB2	3:FD:124:VAL:CG2	2.49	0.43
3:Ac:67:ALA:HB1	3:CQ:64:CYS:HB2	2.01	0.43
3:AT:80:THR:HG23	3:BJ:80:THR:HG22	2.00	0.43
3:BB:56:ARG:O	3:BB:74:GLU:HG3	2.19	0.43
3:BD:19:ASP:OD2	3:BD:22:ARG:N	2.44	0.43
3:BF:31:LEU:HD13	3:CB:117:LEU:HD21	2.01	0.43
3:BW:16:VAL:HG12	3:BW:28:SER:HB2	2.01	0.43
3:BX:57:PRO:HA	3:BX:73:ASN:HA	2.01	0.43
3:CC:69:VAL:HG13	3:CC:69:VAL:O	2.18	0.43
3:CF:35:ARG:HA	3:CF:35:ARG:CZ	2.49	0.43
3:CJ:57:PRO:HB2	3:CJ:71:MET:HB2	2.00	0.43
3:CJ:93:LYS:HZ1	3:ED:108:ALA:HA	1.83	0.43
3:Cc:55:LYS:HZ3	3:Cc:75:ASN:CB	2.31	0.43
3:CU:118:ASP:OD1	3:CU:121:ALA:N	2.52	0.43
3:CY:14:LYS:NZ	3:CY:30:SER:HB2	2.33	0.43
3:DM:5:MET:HE2	3:GY:123:ILE:HG22	1.99	0.43
3:DM:37:LYS:HA	3:DM:37:LYS:HD2	1.88	0.43
3:DQ:5:MET:HG3	3:DQ:17:TRP:HB3	2.01	0.43
3:EG:58:ALA:HB1	3:EG:59:PRO:HD2	2.00	0.43
3:EQ:55:LYS:HB3	3:EQ:73:ASN:ND2	2.34	0.43
3:Ec:2:ASN:ND2	3:EY:127:ASP:O	2.51	0.43
3:ET:14:LYS:HZ3	3:ET:14:LYS:HG3	1.61	0.43
3:EZ:60:LYS:HA	3:EZ:61:PRO:HD3	1.90	0.43
3:FH:19:ASP:OD2	3:FH:21:THR:OG1	2.17	0.43
3:FJ:89:LEU:HD21	3:FJ:93:LYS:HE3	2.01	0.43
3:FM:56:ARG:HG3	3:FM:57:PRO:HD2	2.01	0.43
3:FX:34:GLN:O	3:FX:45:ASN:N	2.49	0.43
3:GE:35:ARG:NH1	3:GE:35:ARG:HB3	2.34	0.43
3:GP:54:TYR:CD1	3:GP:56:ARG:HG2	2.53	0.43
3:GS:101:ARG:HH21	3:GS:124:VAL:HG21	1.84	0.43
1:R:282:U:H2'	1:R:283:A:C8	2.53	0.42
1:R:324:U:H2'	1:R:325:G:H8	1.83	0.42
1:R:359:C:H2'	1:R:360:G:C8	2.54	0.42
1:R:415:G:H2'	1:R:416:U:C6	2.54	0.42
1:R:1057:A:C8	1:R:1058:A:N7	2.87	0.42
1:R:1644:U:H2'	1:R:1645:A:C8	2.53	0.42
1:R:2066:U:H2'	1:R:2067:G:C8	2.54	0.42
1:R:2267:U:H2'	1:R:2268:A:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2549:C:H2'	1:R:2550:C:H6	1.84	0.42
1:R:2889:G:OP1	2:b:315:LYS:HD2	2.19	0.42
1:R:3442:U:H2'	1:R:3443:C:C6	2.54	0.42
1:R:3557:C:H2'	1:R:3558:C:H6	1.84	0.42
1:R:3693:C:C2	1:R:3694:G:C8	3.07	0.42
1:R:3895:C:N4	1:R:3938:U:H3	2.15	0.42
1:R:4042:A:H2'	1:R:4043:U:C6	2.53	0.42
1:R:4198:G:H2'	1:R:4199:U:H6	1.84	0.42
2:a:417:ILE:O	2:a:417:ILE:HG22	2.19	0.42
2:b:100:ARG:N	2:b:122:THR:OG1	2.51	0.42
3:AI:11:THR:HG22	3:AI:12:ALA:N	2.33	0.42
3:AL:37:LYS:HD2	3:AL:42:GLU:OE1	2.19	0.42
3:AN:128:THR:HA	3:CN:2:ASN:HA	2.01	0.42
3:AP:57:PRO:O	3:AP:58:ALA:C	2.61	0.42
3:AW:125:SER:HB2	3:BD:5:MET:SD	2.59	0.42
3:AX:20:PRO:HB3	3:BD:116:PHE:CE2	2.53	0.42
3:BA:5:MET:HB3	3:BA:17:TRP:HB3	2.00	0.42
3:BE:117:LEU:HD23	3:BE:117:LEU:HA	1.92	0.42
3:BG:111:ASN:HB3	3:BG:116:PHE:HD2	1.84	0.42
3:BM:125:SER:OG	3:BM:126:SER:N	2.51	0.42
3:BO:19:ASP:HB3	3:BO:22:ARG:O	2.19	0.42
3:BT:102:ASN:HB3	3:FF:27:PHE:CE2	2.54	0.42
3:BX:71:MET:SD	3:BX:71:MET:N	2.92	0.42
3:BZ:61:PRO:HD3	3:BZ:71:MET:CE	2.49	0.42
3:CE:31:LEU:HD23	3:DK:115:GLY:HA2	2.01	0.42
3:CF:64:CYS:HB3	3:CF:67:ALA:HB3	2.01	0.42
3:CU:124:VAL:C	3:GG:5:MET:HE1	2.44	0.42
3:DA:14:LYS:HD2	3:DA:30:SER:HB3	2.01	0.42
3:DO:98:THR:HG23	3:DO:101:ARG:HH21	1.84	0.42
3:DU:70:ILE:HD12	3:ES:61:PRO:HG2	2.01	0.42
3:DV:60:LYS:HA	3:DV:71:MET:HE1	2.01	0.42
3:DV:101:ARG:O	3:DV:105:THR:HG23	2.19	0.42
3:DZ:125:SER:OG	3:DZ:126:SER:N	2.51	0.42
3:EB:61:PRO:HB2	3:EB:64:CYS:SG	2.59	0.42
3:EC:5:MET:HE2	3:FH:123:ILE:HG13	2.01	0.42
3:EK:62:GLU:H	3:EK:62:GLU:CD	2.27	0.42
3:FD:34:GLN:O	3:FD:45:ASN:N	2.48	0.42
3:FF:32:LEU:HB3	3:FF:34:GLN:HE22	1.83	0.42
3:FJ:61:PRO:C	3:FJ:62:GLU:HG3	2.44	0.42
3:FO:60:LYS:N	3:FO:71:MET:HE1	2.34	0.42
3:FQ:59:PRO:HD3	3:GE:88:ASN:ND2	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:Fc:24:SER:HB2	3:Fc:55:LYS:HG3	2.00	0.42
3:GI:95:GLU:HA	3:GI:95:GLU:OE1	2.19	0.42
3:Gc:87:GLU:HG2	3:Gc:88:ASN:N	2.32	0.42
3:GS:14:LYS:HZ3	3:GS:30:SER:HB2	1.82	0.42
3:GW:69:VAL:O	3:GW:69:VAL:HG12	2.19	0.42
1:R:78:G:H2'	1:R:79:A:H8	1.84	0.42
1:R:240:A:H2'	1:R:241:G:C8	2.54	0.42
1:R:262:U:H1'	1:R:265:A:H61	1.84	0.42
1:R:439:G:H2'	1:R:440:U:C6	2.53	0.42
1:R:529:A:H2'	1:R:530:A:H8	1.78	0.42
1:R:2211:C:N4	1:R:2212:G:O6	2.53	0.42
1:R:2437:U:H2'	1:R:2438:U:H6	1.84	0.42
1:R:2587:A:H2'	1:R:2588:A:H8	1.83	0.42
1:R:2805:A:H2'	1:R:2806:C:C6	2.54	0.42
1:R:2855:U:H2'	1:R:2856:C:O4'	2.19	0.42
1:R:3370:U:H2'	1:R:3371:A:O4'	2.18	0.42
1:R:3735:U:H5'	2:a:402:ARG:NH2	2.34	0.42
2:a:16:GLU:O	2:a:18:GLN:NE2	2.52	0.42
2:b:2:ASN:HB3	2:b:187:LYS:HG3	2.00	0.42
3:AC:27:PHE:CE2	3:FG:102:ASN:HB3	2.54	0.42
3:AE:60:LYS:HE2	3:AE:71:MET:HE2	2.01	0.42
3:AI:87:GLU:HG2	3:AI:88:ASN:N	2.33	0.42
3:AN:56:ARG:NH1	3:AN:76:GLN:OE1	2.52	0.42
3:Ac:93:LYS:HE2	3:Ac:93:LYS:HB2	1.84	0.42
3:AY:124:VAL:HB	3:EK:2:ASN:HB2	2.01	0.42
3:BB:56:ARG:CD	3:EN:91:THR:HG21	2.49	0.42
3:BC:34:GLN:OE1	3:BC:34:GLN:N	2.52	0.42
3:BG:56:ARG:HG3	3:BG:57:PRO:HD2	2.01	0.42
3:BH:64:CYS:HB3	3:Ec:68:CYS:HB3	1.19	0.42
3:CK:62:GLU:OE2	3:CK:64:CYS:HB3	2.19	0.42
3:CQ:117:LEU:HD23	3:CQ:117:LEU:HA	1.87	0.42
3:CU:17:TRP:CD2	3:GG:123:ILE:HD12	2.54	0.42
3:CX:60:LYS:HA	3:CX:71:MET:HE1	2.01	0.42
3:DA:43:LEU:HD22	3:DA:87:GLU:OE2	2.19	0.42
3:DA:124:VAL:HA	3:GM:4:PRO:HA	2.01	0.42
3:DB:15:ILE:HD11	3:GI:117:LEU:HB3	2.01	0.42
3:DJ:71:MET:N	3:DJ:71:MET:SD	2.92	0.42
3:DO:93:LYS:O	3:DO:96:TRP:HB3	2.19	0.42
3:DO:125:SER:OG	3:DO:126:SER:N	2.51	0.42
3:DZ:102:ASN:HB3	3:FN:27:PHE:CE2	2.54	0.42
3:EA:38:VAL:HG22	3:EA:43:LEU:HD23	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:EG:125:SER:OG	3:EG:126:SER:N	2.52	0.42
3:FD:23:LEU:HB2	3:FF:44:ASN:OD1	2.19	0.42
3:FV:56:ARG:O	3:FV:74:GLU:HG3	2.19	0.42
3:GA:96:TRP:O	3:GA:100:LYS:HG2	2.18	0.42
3:GE:38:VAL:HG23	3:GE:39:GLY:N	2.34	0.42
3:GG:8:ILE:HD11	3:GQ:116:PHE:CE1	2.54	0.42
3:GU:95:GLU:O	3:GU:99:HIS:N	2.30	0.42
1:R:193:A:H2'	1:R:194:C:H6	1.83	0.42
1:R:360:G:H2'	1:R:361:G:C8	2.54	0.42
1:R:399:G:H2'	1:R:400:A:C8	2.54	0.42
1:R:1276:C:H2'	1:R:1277:U:C6	2.54	0.42
1:R:1592:A:H1'	1:R:1593:C:H2'	2.01	0.42
1:R:2112:U:H2'	1:R:2113:G:C8	2.53	0.42
1:R:2243:C:H2'	1:R:2244:G:C8	2.54	0.42
1:R:2386:C:H2'	1:R:2387:U:C6	2.54	0.42
1:R:2526:U:H2'	1:R:2527:U:C6	2.55	0.42
1:R:2835:U:H2'	1:R:2836:G:H8	1.84	0.42
1:R:2853:A:N6	1:R:2865:A:N1	2.66	0.42
1:R:2933:U:H2'	1:R:2934:U:C6	2.53	0.42
1:R:2999:C:H2'	1:R:3000:C:C6	2.54	0.42
1:R:3225:G:H2'	1:R:3226:U:C6	2.54	0.42
1:R:3265:U:H2'	1:R:3266:A:H8	1.84	0.42
1:R:3278:G:H2'	1:R:3279:A:H8	1.84	0.42
1:R:3342:A:O2'	1:R:3345:A:N7	2.48	0.42
1:R:3562:U:H2'	1:R:3563:U:C6	2.54	0.42
2:a:357:SER:O	2:a:360:VAL:HG12	2.19	0.42
2:a:483:MET:SD	2:a:485:ILE:HG12	2.60	0.42
3:AG:46:VAL:HG11	3:DS:113:GLY:O	2.19	0.42
3:AG:57:PRO:HA	3:AG:73:ASN:HA	2.02	0.42
3:Ac:56:ARG:NE	3:FD:91:THR:OG1	2.51	0.42
3:AU:3:LYS:HG2	3:EI:129:THR:HG22	2.00	0.42
3:AU:128:THR:C	3:EI:3:LYS:HZ2	2.27	0.42
3:AX:19:ASP:HB3	3:AX:22:ARG:O	2.18	0.42
3:AY:31:LEU:HD13	3:EK:115:GLY:HA2	2.01	0.42
3:AZ:19:ASP:HB3	3:AZ:22:ARG:O	2.19	0.42
3:BC:101:ARG:HH12	3:BC:124:VAL:CG2	2.32	0.42
3:BD:68:CYS:HB3	3:BY:61:PRO:HB2	2.01	0.42
3:BH:116:PHE:HB2	3:Ec:8:ILE:HA	2.00	0.42
3:BJ:12:ALA:HB1	3:BK:9:THR:HA	2.01	0.42
3:BN:102:ASN:HB3	3:EZ:27:PHE:CE2	2.54	0.42
3:BP:3:LYS:NZ	3:CA:128:THR:O	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BQ:88:ASN:HB3	3:BQ:91:THR:HG22	1.99	0.42
3:CG:39:GLY:H	3:EA:72:PRO:HG3	1.84	0.42
3:CK:35:ARG:HD3	3:CK:42:GLU:OE2	2.20	0.42
3:CK:116:PHE:HE2	3:DI:6:GLN:HG2	1.84	0.42
3:CT:60:LYS:HA	3:CT:71:MET:CE	2.48	0.42
3:DA:31:LEU:HD13	3:GM:117:LEU:HD11	2.00	0.42
3:DC:58:ALA:HB3	3:DC:71:MET:CG	2.49	0.42
3:DH:96:TRP:NE1	3:DH:100:LYS:HD2	2.34	0.42
3:DK:62:GLU:OE1	3:DK:62:GLU:N	2.52	0.42
3:DQ:87:GLU:OE1	3:DQ:87:GLU:N	2.53	0.42
3:DU:87:GLU:CD	3:DU:87:GLU:H	2.27	0.42
3:DW:94:ALA:O	3:DW:97:GLU:HG3	2.20	0.42
3:DZ:2:ASN:HB2	3:FN:124:VAL:CG1	2.50	0.42
3:EG:60:LYS:HE2	3:EG:64:CYS:HB3	2.01	0.42
3:EZ:125:SER:OG	3:EZ:126:SER:N	2.52	0.42
3:FD:9:THR:HG23	3:FF:12:ALA:HB1	2.01	0.42
3:FD:24:SER:HB2	3:FD:55:LYS:HG3	2.00	0.42
3:FP:101:ARG:NH1	3:FP:124:VAL:HG21	2.35	0.42
3:FT:35:ARG:HH22	3:FT:42:GLU:HG2	1.84	0.42
3:GE:19:ASP:HB3	3:GE:22:ARG:O	2.19	0.42
3:GO:5:MET:HB3	3:GO:17:TRP:HB3	2.00	0.42
1:R:84:A:O2'	1:R:85:G:O4'	2.26	0.42
1:R:188:U:H2'	1:R:189:U:C5	2.55	0.42
1:R:443:U:H2'	1:R:444:U:C6	2.54	0.42
1:R:741:A:N3	1:R:742:C:N4	2.65	0.42
1:R:1095:U:C2	1:R:1096:U:C5	3.08	0.42
1:R:1580:U:H2'	1:R:1581:C:C6	2.54	0.42
1:R:1730:G:H2'	1:R:1731:U:O4'	2.19	0.42
1:R:1748:G:H2'	1:R:1749:G:C8	2.55	0.42
1:R:1752:G:OP1	1:R:1780:C:H4'	2.19	0.42
1:R:1994:A:H2'	1:R:1995:G:C8	2.54	0.42
1:R:2191:C:H2'	1:R:2192:A:H8	1.85	0.42
1:R:2262:G:H2'	1:R:2263:A:C8	2.54	0.42
1:R:2475:U:H2'	1:R:2476:C:H5	1.84	0.42
1:R:2991:C:C2	1:R:2992:C:C5	3.07	0.42
1:R:3051:C:N3	3:CX:55:LYS:HE3	2.33	0.42
1:R:3363:U:O2'	1:R:3364:U:H5''	2.19	0.42
1:R:3469:U:N3	1:R:3472:U:OP1	2.50	0.42
1:R:3518:C:H2'	1:R:3519:U:H6	1.84	0.42
1:R:3827:A:H2'	1:R:3828:G:C8	2.55	0.42
1:R:4084:C:N4	1:R:4142:A:H61	2.16	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AJ:35:ARG:HB3	3:AJ:42:GLU:OE2	2.20	0.42
3:AK:117:LEU:HD21	3:CT:31:LEU:HD13	2.01	0.42
3:AU:33:ARG:HD3	3:EI:115:GLY:HA3	2.01	0.42
3:AW:19:ASP:HB3	3:AW:22:ARG:O	2.19	0.42
3:BA:95:GLU:OE2	3:BA:95:GLU:HA	2.20	0.42
3:BE:42:GLU:OE1	3:BE:42:GLU:HA	2.19	0.42
3:BF:74:GLU:OE1	3:CB:85:SER:OG	2.37	0.42
3:BK:125:SER:HB2	3:EW:5:MET:SD	2.59	0.42
3:Bc:19:ASP:HB3	3:Bc:22:ARG:O	2.19	0.42
3:BS:61:PRO:HB2	3:BS:64:CYS:SG	2.59	0.42
3:BV:19:ASP:OD2	3:BV:21:THR:OG1	2.36	0.42
3:BW:80:THR:HG23	3:FI:80:THR:HG22	2.01	0.42
3:CA:61:PRO:O	3:CA:62:GLU:HG3	2.19	0.42
3:CB:5:MET:HG2	3:CB:18:SER:C	2.43	0.42
3:CH:38:VAL:CG1	3:CH:39:GLY:H	2.33	0.42
3:CL:100:LYS:HD2	3:FX:100:LYS:HG2	2.01	0.42
3:CN:11:THR:HG22	3:CN:12:ALA:N	2.34	0.42
3:CO:55:LYS:HE3	3:CO:75:ASN:OD1	2.19	0.42
3:CQ:51:VAL:HG22	3:CQ:79:ARG:HG3	2.01	0.42
3:CS:51:VAL:HG23	3:CS:79:ARG:HG2	2.02	0.42
3:CS:95:GLU:OE2	3:CS:95:GLU:HA	2.19	0.42
3:DA:60:LYS:HD3	3:DA:71:MET:HE1	2.02	0.42
3:DB:88:ASN:OD1	3:GI:59:PRO:HD3	2.20	0.42
3:DK:57:PRO:HA	3:DK:73:ASN:HA	2.00	0.42
3:EG:60:LYS:HA	3:EG:71:MET:HE1	2.01	0.42
3:EP:11:THR:HG22	3:EP:12:ALA:N	2.34	0.42
3:EQ:38:VAL:HG11	3:EQ:43:LEU:HD12	2.01	0.42
3:ET:99:HIS:O	3:ET:103:VAL:HG22	2.19	0.42
3:FB:58:ALA:HB3	3:FB:71:MET:CG	2.48	0.42
3:FI:45:ASN:OD1	3:FI:46:VAL:N	2.52	0.42
3:FK:5:MET:CB	3:FK:17:TRP:HB3	2.49	0.42
3:FL:37:LYS:NZ	3:FL:41:ALA:H	2.17	0.42
3:FM:37:LYS:HZ1	3:FM:40:ILE:N	2.18	0.42
3:Fc:98:THR:HA	3:Fc:101:ARG:HG2	2.01	0.42
3:FZ:43:LEU:HD22	3:FZ:87:GLU:OE2	2.19	0.42
3:GD:88:ASN:O	3:GD:91:THR:HG22	2.19	0.42
3:GP:30:SER:O	3:GP:49:GLN:N	2.47	0.42
3:GW:71:MET:SD	3:GW:71:MET:N	2.84	0.42
1:R:85:G:H2'	1:R:86:U:O4'	2.20	0.42
1:R:103:U:O4	1:R:122:G:N2	2.53	0.42
1:R:355:G:H2'	1:R:356:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:654:U:H2'	1:R:655:C:H6	1.84	0.42
1:R:992:U:H2'	1:R:996:U:C4	2.54	0.42
1:R:993:C:O2'	1:R:994:G:O5'	2.36	0.42
1:R:1339:G:H2'	1:R:1340:U:O4'	2.20	0.42
1:R:1465:G:O6	1:R:1482:A:N6	2.52	0.42
1:R:1497:C:O5'	1:R:1497:C:H6	2.02	0.42
1:R:1546:C:H2'	1:R:1547:U:C6	2.54	0.42
1:R:2077:G:H21	1:R:2110:C:H1'	1.84	0.42
1:R:2276:U:H2'	1:R:2277:A:O4'	2.18	0.42
1:R:2343:A:C4	1:R:2344:U:H5	2.37	0.42
1:R:2457:G:H2'	1:R:2458:U:H6	1.84	0.42
1:R:2902:C:H2'	1:R:2903:A:H8	1.84	0.42
1:R:3105:C:H2'	1:R:3106:U:H6	1.85	0.42
1:R:3177:C:N3	1:R:3179:A:N6	2.68	0.42
1:R:3198:A:C2	1:R:3199:U:C4	3.08	0.42
1:R:3411:C:H2'	1:R:3412:C:H6	1.85	0.42
1:R:3831:A:N3	1:R:3836:U:O2'	2.50	0.42
1:R:3951:C:H2'	1:R:3952:A:O4'	2.19	0.42
1:R:4198:G:H2'	1:R:4199:U:C6	2.54	0.42
2:b:301:ARG:HB2	2:b:302:LYS:HZ2	1.84	0.42
3:AE:43:LEU:HD12	3:AE:85:SER:HB2	2.00	0.42
3:AE:112:ALA:HA	3:AE:116:PHE:O	2.19	0.42
3:AG:2:ASN:HB2	3:DS:124:VAL:HB	2.02	0.42
3:AH:127:ASP:OD1	3:DF:3:LYS:NZ	2.33	0.42
3:AI:6:GLN:HB2	3:DF:116:PHE:CE2	2.53	0.42
3:AJ:39:GLY:HA2	3:DV:72:PRO:CG	2.49	0.42
3:Ac:24:SER:HB3	3:Ac:55:LYS:HG2	2.00	0.42
3:BG:38:VAL:HG13	3:BG:39:GLY:H	1.83	0.42
3:BH:102:ASN:HB3	3:ET:27:PHE:CE2	2.55	0.42
3:BK:78:ILE:HG22	3:EW:82:ILE:HA	2.02	0.42
3:BM:5:MET:HB2	3:BX:123:ILE:O	2.19	0.42
3:BN:60:LYS:HD2	3:BN:60:LYS:HA	1.37	0.42
3:BX:99:HIS:O	3:BX:103:VAL:HG12	2.20	0.42
3:CI:2:ASN:HA	3:FU:128:THR:HA	2.02	0.42
3:CY:101:ARG:CZ	3:CY:124:VAL:HG21	2.50	0.42
3:DG:31:LEU:HD13	3:GS:117:LEU:HD11	2.02	0.42
3:DZ:61:PRO:O	3:DZ:63:GLY:N	2.52	0.42
3:EC:37:LYS:NZ	3:EC:40:ILE:HA	2.34	0.42
3:EE:19:ASP:OD2	3:EE:22:ARG:N	2.40	0.42
3:EF:96:TRP:CE2	3:EF:100:LYS:HD2	2.55	0.42
3:EK:71:MET:N	3:EK:71:MET:SD	2.93	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:FE:87:GLU:HG2	3:FE:88:ASN:N	2.34	0.42
3:FL:16:VAL:HG12	3:FL:28:SER:CB	2.50	0.42
3:Fc:40:ILE:HG13	3:Fc:40:ILE:O	2.18	0.42
3:FT:8:ILE:HG13	3:FT:18:SER:HB3	2.02	0.42
3:FY:96:TRP:CZ2	3:FY:100:LYS:HE3	2.55	0.42
3:GC:66:ASP:HB3	3:GC:69:VAL:CG1	2.49	0.42
3:GU:60:LYS:O	3:GU:61:PRO:C	2.61	0.42
1:R:17:G:H2'	1:R:18:G:H8	1.85	0.42
1:R:1032:U:OP1	1:R:1033:A:H4'	2.20	0.42
1:R:1034:A:N6	3:FK:34:GLN:HG3	2.35	0.42
1:R:1076:G:C5	1:R:1078:A:H5''	2.55	0.42
1:R:1148:C:H2'	1:R:1149:U:H6	1.83	0.42
1:R:1661:A:H2'	1:R:1662:U:O4'	2.20	0.42
1:R:2077:G:O6	1:R:2108:U:C4	2.73	0.42
1:R:2290:A:H2'	1:R:2291:U:C6	2.54	0.42
1:R:2315:U:C2	1:R:2353:G:N2	2.87	0.42
1:R:2400:A:N6	1:R:2402:G:O6	2.53	0.42
1:R:2410:C:O2'	3:AV:36:VAL:HG22	2.19	0.42
1:R:3378:C:H2'	1:R:3379:U:O4'	2.19	0.42
1:R:3412:C:H2'	1:R:3413:U:C6	2.54	0.42
1:R:3933:C:H2'	1:R:3934:C:C6	2.54	0.42
2:a:360:VAL:O	2:a:364:ILE:HG22	2.20	0.42
2:a:417:ILE:H	2:a:417:ILE:HD12	1.84	0.42
3:AC:115:GLY:O	3:FG:33:ARG:NH2	2.50	0.42
3:AF:54:TYR:HE1	3:AF:56:ARG:HB3	1.83	0.42
3:AL:87:GLU:OE1	3:AL:87:GLU:N	2.52	0.42
3:AM:113:GLY:O	3:DY:46:VAL:HG21	2.19	0.42
3:AN:81:VAL:N	3:CN:79:ARG:O	2.36	0.42
3:AQ:107:PHE:HZ	3:CQ:92:LEU:HD22	1.85	0.42
3:Ac:33:ARG:NH1	3:FD:115:GLY:O	2.52	0.42
3:AU:88:ASN:O	3:AU:91:THR:HG22	2.20	0.42
3:AW:34:GLN:NE2	3:AW:35:ARG:O	2.52	0.42
3:AZ:50:TYR:HE2	3:BG:106:LEU:HD23	1.83	0.42
3:BA:33:ARG:NH2	3:EF:115:GLY:O	2.39	0.42
3:BO:89:LEU:HD21	3:BO:93:LYS:HE2	2.01	0.42
3:Bc:32:LEU:HB3	3:Bc:34:GLN:OE1	2.20	0.42
3:BY:62:GLU:H	3:BY:62:GLU:CD	2.27	0.42
3:CH:60:LYS:HZ2	3:CH:64:CYS:HB3	1.84	0.42
3:CK:2:ASN:HB2	3:DH:124:VAL:CG1	2.49	0.42
3:Cc:87:GLU:OE1	3:Cc:87:GLU:N	2.39	0.42
3:DD:31:LEU:HD23	3:GP:115:GLY:HA2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DG:80:THR:HG23	3:GS:80:THR:HG22	2.01	0.42
3:DO:117:LEU:HD23	3:DO:117:LEU:HA	1.82	0.42
3:DS:60:LYS:HE2	3:DS:71:MET:HE1	2.00	0.42
3:DU:35:ARG:NH2	3:DU:42:GLU:HA	2.33	0.42
3:DU:67:ALA:HB1	3:ES:63:GLY:O	2.19	0.42
3:EA:35:ARG:HH11	3:EA:35:ARG:HG3	1.85	0.42
3:ED:60:LYS:HB3	3:ED:60:LYS:HE2	1.74	0.42
3:FF:35:ARG:NH2	3:FF:42:GLU:HG2	2.34	0.42
3:FP:22:ARG:NH2	3:FP:55:LYS:O	2.50	0.42
3:FW:66:ASP:OD1	3:FW:68:CYS:CA	2.67	0.42
3:FY:118:ASP:OD1	3:FY:120:THR:HG22	2.19	0.42
3:FZ:117:LEU:HD12	3:GT:15:ILE:HD12	2.01	0.42
3:GE:71:MET:HB2	3:GE:72:PRO:HD2	2.02	0.42
3:GI:35:ARG:HH21	3:GI:44:ASN:HA	1.84	0.42
3:GK:43:LEU:HD22	3:GK:87:GLU:OE2	2.19	0.42
3:GT:49:GLN:OE1	3:GT:79:ARG:NH2	2.52	0.42
3:GW:19:ASP:OD2	3:GW:21:THR:OG1	2.21	0.42
1:R:127:U:H2'	1:R:128:A:H8	1.84	0.42
1:R:230:U:H3	1:R:244:G:H1	1.67	0.42
1:R:397:A:H2'	1:R:398:U:C6	2.54	0.42
1:R:475:A:H2'	1:R:476:C:H6	1.84	0.42
1:R:1105:A:H2'	1:R:1106:G:H8	1.84	0.42
1:R:1635:G:H2'	1:R:1636:G:C8	2.55	0.42
1:R:1818:A:OP1	3:BP:34:GLN:NE2	2.53	0.42
1:R:2120:U:H2'	1:R:2121:A:C8	2.54	0.42
1:R:2268:A:C6	1:R:2306:G:C6	3.08	0.42
1:R:2394:G:C4	1:R:2396:U:H1'	2.55	0.42
1:R:2518:U:O2'	1:R:2521:C:OP1	2.37	0.42
1:R:2601:A:H3'	1:R:2601:A:OP2	2.19	0.42
1:R:2646:U:H2'	1:R:2647:U:C6	2.54	0.42
1:R:3009:G:H2'	1:R:3010:A:C8	2.55	0.42
1:R:3037:U:H2'	1:R:3038:C:C6	2.54	0.42
1:R:3098:G:H2'	1:R:3099:A:H8	1.84	0.42
1:R:3409:A:H2'	1:R:3410:U:C6	2.54	0.42
1:R:3832:U:H5''	1:R:3838:A:C5	2.55	0.42
1:R:4095:A:H2'	1:R:4096:G:H8	1.85	0.42
2:a:4:TYR:HB2	2:a:79:SER:HB3	2.02	0.42
2:a:250:LEU:HD12	2:a:250:LEU:HA	1.85	0.42
2:a:348:TYR:CD1	2:b:317:LEU:HD21	2.55	0.42
2:b:175:PRO:HA	2:b:178:PHE:HB3	2.01	0.42
3:AB:70:ILE:H	3:AB:70:ILE:HD12	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AE:72:PRO:HG3	3:DL:39:GLY:HA3	2.00	0.42
3:AN:37:LYS:HD3	3:AN:42:GLU:OE2	2.19	0.42
3:BA:19:ASP:OD2	3:BA:21:THR:OG1	2.23	0.42
3:BC:8:ILE:CD1	3:BC:18:SER:HB2	2.49	0.42
3:BC:70:ILE:HD11	3:BE:40:ILE:HG13	2.02	0.42
3:BD:35:ARG:HD3	3:BD:42:GLU:OE2	2.19	0.42
3:BE:42:GLU:C	3:BE:43:LEU:HD22	2.45	0.42
3:BN:115:GLY:HA2	3:EZ:31:LEU:HD13	2.02	0.42
3:BS:37:LYS:HA	3:BS:37:LYS:HD3	1.81	0.42
3:BV:97:GLU:O	3:BV:100:LYS:HB2	2.19	0.42
3:CX:101:ARG:CZ	3:CX:124:VAL:HG21	2.50	0.42
3:DC:79:ARG:HG2	3:FS:81:VAL:HG22	2.02	0.42
3:DG:115:GLY:HA2	3:GS:31:LEU:HD23	2.01	0.42
3:DJ:123:ILE:HG13	3:GV:17:TRP:CE2	2.54	0.42
3:DL:42:GLU:OE1	3:DL:42:GLU:HA	2.20	0.42
3:DM:27:PHE:CE2	3:GY:102:ASN:HB3	2.55	0.42
3:DM:39:GLY:C	3:DM:41:ALA:H	2.26	0.42
3:DQ:101:ARG:HE	3:DQ:101:ARG:HB3	1.74	0.42
3:DY:61:PRO:O	3:DY:62:GLU:HG3	2.18	0.42
3:EC:99:HIS:O	3:EC:103:VAL:HG12	2.19	0.42
3:EE:62:GLU:CD	3:EE:62:GLU:N	2.78	0.42
3:EL:37:LYS:NZ	3:EL:38:VAL:O	2.35	0.42
3:EZ:87:GLU:OE1	3:EZ:87:GLU:N	2.41	0.42
3:FD:35:ARG:HD2	3:FD:42:GLU:HB3	2.01	0.42
3:FK:11:THR:HG22	3:FK:12:ALA:N	2.34	0.42
3:Fc:39:GLY:C	3:Fc:41:ALA:N	2.77	0.42
3:GA:40:ILE:HG13	3:GA:41:ALA:H	1.84	0.42
3:GD:97:GLU:HA	3:GD:100:LYS:HE3	2.02	0.42
3:GE:37:LYS:HD2	3:GE:41:ALA:O	2.20	0.42
3:GE:51:VAL:HG22	3:GE:79:ARG:HG2	2.02	0.42
3:GM:5:MET:HB3	3:GM:17:TRP:HB3	2.00	0.42
3:GN:117:LEU:HD23	3:GN:117:LEU:HA	1.88	0.42
3:Gc:11:THR:HG22	3:Gc:12:ALA:N	2.34	0.42
3:GS:61:PRO:HD3	3:GS:71:MET:HE3	2.01	0.42
3:GU:5:MET:CB	3:GU:17:TRP:HB3	2.50	0.42
1:R:257:A:H2'	1:R:258:C:C6	2.55	0.42
1:R:265:A:O2'	1:R:266:A:N3	2.49	0.42
1:R:396:C:H2'	1:R:397:A:C8	2.55	0.42
1:R:436:G:H1	1:R:950:U:H5''	1.84	0.42
1:R:783:C:H2'	1:R:784:U:C6	2.55	0.42
1:R:1259:C:C2	1:R:1260:C:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1285:U:H2'	1:R:1286:C:C6	2.55	0.42
1:R:1688:U:H2'	1:R:1689:C:C6	2.54	0.42
1:R:1901:A:H2'	1:R:1902:A:C8	2.55	0.42
1:R:1926:C:N3	1:R:1933:U:H1'	2.35	0.42
1:R:1939:C:H2'	1:R:1940:U:C6	2.54	0.42
1:R:2030:A:C5	1:R:2031:G:C6	3.08	0.42
1:R:2128:A:H2'	1:R:2129:U:C6	2.54	0.42
1:R:2385:G:H2'	1:R:2386:C:H6	1.82	0.42
1:R:2518:U:O2	1:R:2521:C:H5''	2.19	0.42
1:R:2843:A:H2'	1:R:2844:G:H8	1.85	0.42
1:R:2941:A:N7	3:EV:49:GLN:HG2	2.35	0.42
1:R:3350:A:H1'	3:AB:49:GLN:HE21	1.84	0.42
1:R:3402:A:H2'	1:R:3403:U:H6	1.85	0.42
1:R:3832:U:H1'	1:R:3835:C:C5	2.54	0.42
1:R:3865:G:H2'	1:R:3866:G:C8	2.55	0.42
1:R:4158:U:H2'	1:R:4159:U:C6	2.55	0.42
2:b:92:VAL:HB	2:b:94:LYS:HE2	2.00	0.42
3:AB:32:LEU:HD23	3:AB:49:GLN:HE22	1.85	0.42
3:AF:68:CYS:HB3	3:DL:64:CYS:HB2	1.54	0.42
3:AG:5:MET:HB3	3:AG:17:TRP:HB3	2.00	0.42
3:AM:58:ALA:HB3	3:AM:71:MET:HB3	2.01	0.42
3:AT:37:LYS:HE2	3:AT:37:LYS:HB2	1.87	0.42
3:AZ:38:VAL:HG23	3:AZ:39:GLY:H	1.85	0.42
3:BB:125:SER:HB2	3:EN:5:MET:HE2	2.01	0.42
3:BL:82:ILE:HG22	3:EM:78:ILE:HG12	2.02	0.42
3:BW:101:ARG:NH2	3:BW:124:VAL:HG11	2.34	0.42
3:CI:56:ARG:HH12	3:FU:91:THR:HB	1.85	0.42
3:CI:60:LYS:HB3	3:CI:71:MET:HE2	2.02	0.42
3:CI:96:TRP:CE3	3:FU:78:ILE:HD13	2.43	0.42
3:CN:7:PRO:O	3:CN:8:ILE:HD13	2.19	0.42
3:CO:5:MET:HG2	3:CO:17:TRP:HB3	2.02	0.42
3:CO:35:ARG:HH22	3:CO:37:LYS:CB	2.21	0.42
3:CV:55:LYS:HA	3:CV:55:LYS:HD2	1.82	0.42
3:CV:72:PRO:HG3	3:GL:39:GLY:HA3	2.02	0.42
3:CZ:1:ALA:O	3:CZ:2:ASN:ND2	2.52	0.42
3:CZ:3:LYS:NZ	3:FP:128:THR:O	2.53	0.42
3:DH:61:PRO:HB2	3:DH:62:GLU:OE1	2.20	0.42
3:DJ:36:VAL:HG23	3:DJ:43:LEU:HB2	2.01	0.42
3:DJ:125:SER:HB2	3:GV:5:MET:SD	2.59	0.42
3:DT:67:ALA:O	3:DT:69:VAL:HG22	2.19	0.42
3:DW:3:LYS:HD2	3:DW:3:LYS:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DX:3:LYS:HA	3:DX:3:LYS:HD3	1.94	0.42
3:EA:35:ARG:NE	3:EA:44:ASN:OD1	2.46	0.42
3:ED:43:LEU:HD12	3:ED:85:SER:HB2	2.02	0.42
3:EF:60:LYS:HD3	3:EF:64:CYS:O	2.20	0.42
3:EP:35:ARG:NH2	3:EP:37:LYS:HE2	2.34	0.42
3:Ec:62:GLU:OE1	3:EZ:67:ALA:HB1	2.20	0.42
3:EY:49:GLN:HB2	3:EY:81:VAL:HG12	2.02	0.42
3:FD:38:VAL:HG23	3:FD:39:GLY:H	1.84	0.42
3:FW:125:SER:HB2	3:GB:5:MET:HE1	2.01	0.42
3:GW:51:VAL:HG22	3:GW:79:ARG:HG2	2.00	0.42
1:R:43:U:H2'	1:R:44:C:C6	2.55	0.42
1:R:194:C:C4	1:R:195:U:H1'	2.55	0.42
1:R:198:C:H2'	1:R:199:A:O4'	2.20	0.42
1:R:784:U:H2'	1:R:785:U:C6	2.55	0.42
1:R:929:A:H2'	1:R:930:C:C6	2.54	0.42
1:R:947:U:H2'	1:R:948:C:C6	2.55	0.42
1:R:1076:G:C6	1:R:1078:A:H5''	2.55	0.42
1:R:1217:A:H5'	1:R:1392:A:H4'	2.02	0.42
1:R:1463:A:H2'	1:R:1464:U:H6	1.84	0.42
1:R:1871:A:H2'	1:R:1872:C:H6	1.85	0.42
1:R:1885:G:H3'	1:R:1885:G:OP2	2.20	0.42
1:R:1968:C:H2'	1:R:1969:C:C6	2.54	0.42
1:R:1985:U:H5''	1:R:1986:A:O4'	2.20	0.42
1:R:2581:U:H2'	1:R:2582:G:H8	1.84	0.42
1:R:2862:C:N3	1:R:2868:G:N1	2.68	0.42
1:R:2964:G:H2'	1:R:2965:U:C6	2.55	0.42
1:R:2974:C:H2'	1:R:2975:C:C6	2.55	0.42
1:R:3068:C:H2'	1:R:3069:G:C8	2.55	0.42
1:R:3328:C:H2'	1:R:3329:G:C8	2.55	0.42
1:R:3337:U:H2'	1:R:3338:U:O4'	2.20	0.42
1:R:3348:G:H2'	1:R:3349:G:C8	2.54	0.42
1:R:3417:U:H4'	1:R:3419:C:OP1	2.19	0.42
1:R:3843:A:H2'	1:R:3844:A:H8	1.85	0.42
1:R:4231:C:H5''	1:R:4269:A:N7	2.35	0.42
2:a:186:ARG:HB2	2:a:188:TYR:CE1	2.55	0.42
3:AE:123:ILE:HD13	3:DL:17:TRP:CE2	2.54	0.42
3:AG:54:TYR:HB2	3:DS:95:GLU:OE2	2.20	0.42
3:AG:66:ASP:N	3:AG:66:ASP:OD1	2.52	0.42
3:AI:8:ILE:HD11	3:DF:116:PHE:CZ	2.55	0.42
3:AK:60:LYS:HB2	3:AK:60:LYS:HE2	1.67	0.42
3:AL:27:PHE:CE2	3:EX:102:ASN:HB3	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AV:88:ASN:OD1	3:AV:88:ASN:N	2.48	0.42
3:AX:61:PRO:HB2	3:AX:64:CYS:SG	2.60	0.42
3:AY:128:THR:HA	3:EK:2:ASN:HA	2.02	0.42
3:BG:14:LYS:HG2	3:BG:30:SER:HB2	2.01	0.42
3:BH:31:LEU:HD23	3:ET:115:GLY:HA2	2.02	0.42
3:BI:1:ALA:C	3:BV:128:THR:HG23	2.45	0.42
3:BK:16:VAL:HG22	3:BK:28:SER:HB2	2.02	0.42
3:BM:35:ARG:NE	3:BM:44:ASN:OD1	2.53	0.42
3:BN:32:LEU:HB3	3:BN:34:GLN:OE1	2.18	0.42
3:BO:128:THR:OG1	3:BO:129:THR:N	2.53	0.42
3:BP:96:TRP:CE2	3:BP:100:LYS:HE3	2.55	0.42
3:BX:37:LYS:HA	3:BX:37:LYS:HD2	1.75	0.42
3:CG:47:SER:HA	3:CG:82:ILE:O	2.19	0.42
3:CI:74:GLU:OE2	3:FU:88:ASN:ND2	2.53	0.42
3:CN:37:LYS:HZ1	3:CN:40:ILE:HA	1.83	0.42
3:Cc:102:ASN:HB3	3:GD:27:PHE:CE2	2.54	0.42
3:CX:125:SER:OG	3:CX:126:SER:N	2.52	0.42
3:CY:9:THR:HG23	3:DA:12:ALA:HB1	2.02	0.42
3:DL:11:THR:HG22	3:DL:12:ALA:N	2.34	0.42
3:DO:37:LYS:HG3	3:DO:42:GLU:OE1	2.19	0.42
3:DX:106:LEU:HD23	3:DX:106:LEU:HA	1.83	0.42
3:DZ:32:LEU:HG	3:DZ:34:GLN:NE2	2.33	0.42
3:EH:49:GLN:HG3	3:EH:81:VAL:HG12	2.02	0.42
3:EJ:11:THR:HG22	3:EJ:12:ALA:N	2.35	0.42
3:EN:9:THR:O	3:EN:15:ILE:HA	2.19	0.42
3:EU:78:ILE:HG23	3:FB:82:ILE:HD13	2.01	0.42
3:EY:54:TYR:CE1	3:EY:56:ARG:HB2	2.54	0.42
3:FA:8:ILE:HD13	3:FA:8:ILE:HA	1.92	0.42
3:FB:8:ILE:HD13	3:FB:8:ILE:HA	1.92	0.42
3:FE:79:ARG:NH1	3:FE:79:ARG:HB2	2.35	0.42
3:FK:12:ALA:HB1	3:FL:9:THR:HG23	2.00	0.42
3:FO:85:SER:OG	3:FO:88:ASN:HB2	2.20	0.42
3:FQ:1:ALA:O	3:GE:128:THR:OG1	2.26	0.42
3:FV:9:THR:HG23	3:FX:12:ALA:HB1	2.02	0.42
3:GE:11:THR:H	3:GE:15:ILE:HD13	1.85	0.42
3:GF:56:ARG:HG3	3:GF:57:PRO:HD2	2.02	0.42
3:GF:124:VAL:HG13	3:GQ:2:ASN:HB2	2.02	0.42
3:GJ:69:VAL:HG23	3:GJ:69:VAL:O	2.19	0.42
3:GN:124:VAL:HG22	3:Gc:2:ASN:HB2	2.01	0.42
3:GP:34:GLN:O	3:GP:45:ASN:N	2.42	0.42
3:GV:60:LYS:O	3:GV:61:PRO:C	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3:A:C6	1:R:27:G:N2	2.88	0.42
1:R:48:U:H2'	1:R:49:U:C6	2.54	0.42
1:R:81:A:H2'	1:R:82:C:H6	1.85	0.42
1:R:332:A:H2'	1:R:333:U:C6	2.54	0.42
1:R:332:A:H3'	1:R:359:C:H41	1.85	0.42
1:R:495:C:H2'	1:R:496:G:H8	1.83	0.42
1:R:754:A:H2'	1:R:755:C:C6	2.55	0.42
1:R:1477:U:H2'	1:R:1478:C:H6	1.84	0.42
1:R:1636:G:H2'	1:R:1637:C:H6	1.85	0.42
1:R:1855:U:O2'	1:R:1857:A:N6	2.52	0.42
1:R:1869:G:H2'	1:R:1870:C:C6	2.55	0.42
1:R:2804:G:H2'	1:R:2805:A:H8	1.85	0.42
1:R:3269:G:N2	1:R:3707:C:O2	2.53	0.42
1:R:3423:G:H2'	1:R:3424:U:O4'	2.20	0.42
1:R:3474:A:H2'	1:R:3475:A:H4'	2.02	0.42
1:R:3567:A:N1	1:R:3589:A:H2	2.17	0.42
1:R:4020:A:H2'	1:R:4021:G:C8	2.54	0.42
2:a:147:ARG:HA	2:a:181:TRP:O	2.20	0.42
2:a:197:PHE:HA	2:a:390:TRP:CZ3	2.55	0.42
3:AK:71:MET:SD	3:AK:71:MET:N	2.91	0.42
3:AM:40:ILE:HG13	3:AM:40:ILE:O	2.20	0.42
3:AQ:115:GLY:HA2	3:CQ:31:LEU:HD13	2.02	0.42
3:AT:15:ILE:HG13	3:BJ:117:LEU:HD13	2.01	0.42
3:AU:124:VAL:C	3:EI:5:MET:HE1	2.45	0.42
3:AV:115:GLY:HA2	3:EH:31:LEU:HD11	2.02	0.42
3:BG:35:ARG:HH22	3:BG:42:GLU:HB3	1.84	0.42
3:BI:6:GLN:OE1	3:BI:7:PRO:HD2	2.20	0.42
3:BK:39:GLY:HA2	3:EW:72:PRO:CG	2.50	0.42
3:BV:5:MET:HB3	3:BV:17:TRP:HB3	2.01	0.42
3:BW:40:ILE:O	3:BW:40:ILE:HG23	2.20	0.42
3:BW:41:ALA:HB1	3:BW:43:LEU:CD2	2.49	0.42
3:BW:125:SER:OG	3:BW:126:SER:N	2.53	0.42
3:BX:96:TRP:CE2	3:BX:100:LYS:HE3	2.55	0.42
3:BZ:60:LYS:HA	3:BZ:60:LYS:HD2	1.88	0.42
3:BZ:113:GLY:O	3:FL:46:VAL:HG11	2.20	0.42
3:CK:17:TRP:CE2	3:DH:123:ILE:HD12	2.54	0.42
3:CL:71:MET:HB3	3:CL:72:PRO:HD2	2.02	0.42
3:CL:97:GLU:HA	3:CL:100:LYS:HB2	2.02	0.42
3:CO:51:VAL:HG13	3:CO:79:ARG:HG2	2.02	0.42
3:CT:55:LYS:HE3	3:CT:75:ASN:OD1	2.20	0.42
3:CV:36:VAL:HG12	3:CV:38:VAL:HG13	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CV:100:LYS:HD3	3:GL:100:LYS:HD2	2.01	0.42
3:CX:5:MET:HG3	3:CX:18:SER:C	2.45	0.42
3:CZ:113:GLY:O	3:FP:46:VAL:HG21	2.20	0.42
3:DI:38:VAL:HG23	3:DI:41:ALA:HB3	2.01	0.42
3:DJ:95:GLU:HA	3:DJ:98:THR:HG22	2.01	0.42
3:DZ:19:ASP:HB3	3:DZ:22:ARG:O	2.20	0.42
3:EK:32:LEU:HG	3:EK:47:SER:HB3	2.02	0.42
3:EP:66:ASP:CG	3:EP:67:ALA:H	2.27	0.42
3:FK:70:ILE:HD13	3:FK:70:ILE:HA	1.89	0.42
3:FN:97:GLU:O	3:FN:101:ARG:HG3	2.20	0.42
3:FQ:19:ASP:OD2	3:FQ:21:THR:OG1	2.23	0.42
3:FZ:2:ASN:HB2	3:GT:124:VAL:CG2	2.49	0.42
3:GT:66:ASP:HB2	3:GT:69:VAL:HB	2.02	0.42
3:GU:112:ALA:HA	3:GU:116:PHE:O	2.20	0.42
1:R:114:A:H2'	1:R:114:A:N3	2.34	0.41
1:R:555:G:H2'	1:R:556:G:H8	1.85	0.41
1:R:609:A:H2'	1:R:610:C:C6	2.54	0.41
1:R:748:U:H2'	1:R:749:A:C8	2.55	0.41
1:R:839:C:H2'	1:R:840:G:C8	2.55	0.41
1:R:925:A:H2'	1:R:926:A:C8	2.54	0.41
1:R:928:A:H2'	1:R:929:A:H8	1.79	0.41
1:R:1057:A:H2'	1:R:1058:A:H8	1.85	0.41
1:R:1271:C:H2'	1:R:1272:C:C6	2.55	0.41
1:R:1631:C:H2'	1:R:1632:U:C6	2.56	0.41
1:R:1804:G:H22	1:R:1822:A:H2	1.67	0.41
1:R:2202:A:H2'	1:R:2203:C:C6	2.55	0.41
1:R:2234:G:H2'	1:R:2235:A:H8	1.85	0.41
1:R:2246:C:H2'	1:R:2247:G:C8	2.55	0.41
1:R:2320:C:P	3:EI:79:ARG:HH12	2.42	0.41
1:R:2508:C:H2'	1:R:2509:A:O4'	2.20	0.41
1:R:2579:A:H2'	1:R:2580:U:O4'	2.20	0.41
1:R:2742:U:H2'	1:R:2743:C:C6	2.55	0.41
1:R:2834:U:H2'	1:R:2835:U:C6	2.54	0.41
1:R:3078:C:H2'	1:R:3079:G:C8	2.55	0.41
1:R:3086:A:H2'	1:R:3087:A:C8	2.55	0.41
1:R:3233:G:H2'	1:R:3234:U:C6	2.55	0.41
1:R:3488:C:H2'	1:R:3489:A:C8	2.54	0.41
1:R:3658:C:H4'	3:EE:34:GLN:HG3	2.02	0.41
1:R:3922:C:H5''	1:R:3923:U:C5	2.55	0.41
2:a:151:SER:O	2:a:152:LEU:HG	2.20	0.41
2:a:344:LEU:C	2:a:346:PHE:H	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:b:91:ILE:HG13	2:b:194:MET:HE2	2.02	0.41
2:b:195:PRO:HG3	2:b:482:ALA:HB1	2.02	0.41
3:AH:80:THR:HG22	3:DF:80:THR:HG23	2.02	0.41
3:AO:22:ARG:NH1	3:AO:55:LYS:O	2.53	0.41
3:Ac:5:MET:HE2	3:FD:125:SER:HB2	2.01	0.41
3:AT:113:GLY:O	3:BJ:46:VAL:HG11	2.20	0.41
3:AX:113:GLY:O	3:EL:46:VAL:HG21	2.21	0.41
3:BC:125:SER:OG	3:BC:126:SER:N	2.53	0.41
3:BD:5:MET:SD	3:BD:5:MET:N	2.93	0.41
3:BD:11:THR:HG22	3:BD:12:ALA:N	2.31	0.41
3:BE:89:LEU:HD11	3:EQ:113:GLY:HA3	2.02	0.41
3:BI:96:TRP:NE1	3:BI:100:LYS:HD2	2.35	0.41
3:BO:5:MET:SD	3:BO:5:MET:N	2.93	0.41
3:BX:51:VAL:HG22	3:BX:79:ARG:HG2	2.01	0.41
3:CK:87:GLU:OE1	3:CK:87:GLU:N	2.51	0.41
3:CO:17:TRP:CD2	3:GA:123:ILE:HG13	2.55	0.41
3:CW:88:ASN:ND2	3:FV:74:GLU:OE2	2.50	0.41
3:CX:96:TRP:CZ2	3:CX:100:LYS:HD2	2.55	0.41
3:DC:56:ARG:HG3	3:DC:57:PRO:HD2	2.02	0.41
3:DM:5:MET:HB3	3:DM:17:TRP:HB3	2.02	0.41
3:DN:102:ASN:OD1	3:DN:123:ILE:HG23	2.20	0.41
3:DO:9:THR:H	3:DO:16:VAL:HB	1.85	0.41
3:DT:61:PRO:O	3:DT:62:GLU:C	2.62	0.41
3:EM:117:LEU:HD23	3:EM:117:LEU:HA	1.90	0.41
3:EQ:102:ASN:OD1	3:EQ:123:ILE:HG23	2.20	0.41
3:Ec:60:LYS:HE3	3:Ec:64:CYS:CB	2.48	0.41
3:ES:19:ASP:OD2	3:ES:21:THR:OG1	2.25	0.41
3:FA:58:ALA:HB3	3:FA:71:MET:HG3	2.02	0.41
3:FJ:5:MET:CB	3:FJ:17:TRP:HB3	2.50	0.41
3:FK:47:SER:HA	3:FK:82:ILE:O	2.20	0.41
3:FM:5:MET:HE2	3:FM:5:MET:HB2	1.95	0.41
3:FM:49:GLN:HG3	3:FM:81:VAL:HG22	2.02	0.41
3:GE:43:LEU:HD12	3:GE:85:SER:HB2	2.02	0.41
3:GH:128:THR:HA	3:GU:2:ASN:HA	2.02	0.41
3:GY:34:GLN:O	3:GY:45:ASN:N	2.50	0.41
1:R:35:A:H2'	1:R:36:A:C8	2.55	0.41
1:R:309:C:OP2	1:R:319:A:H5''	2.20	0.41
1:R:716:C:H5'	1:R:1094:C:O2'	2.20	0.41
1:R:1676:A:H2'	1:R:1677:C:O4'	2.20	0.41
1:R:1816:U:H2'	1:R:1817:C:C6	2.56	0.41
1:R:2425:A:H2'	1:R:2426:G:H8	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2652:U:H2'	1:R:2653:U:H6	1.85	0.41
1:R:2800:A:H2'	1:R:2801:C:C6	2.55	0.41
1:R:2891:U:H2'	1:R:2892:C:C6	2.55	0.41
1:R:3243:C:H2'	1:R:3244:A:C8	2.53	0.41
1:R:3657:G:H1'	1:R:3658:C:C5	2.56	0.41
1:R:3815:G:H5''	2:a:326:ARG:NH2	2.35	0.41
1:R:3821:U:H2'	1:R:3822:G:C8	2.55	0.41
1:R:4260:C:H2'	1:R:4261:U:H6	1.82	0.41
2:a:294:ASP:OD1	2:a:295:ARG:N	2.53	0.41
2:a:321:ASP:O	2:a:325:VAL:HG23	2.20	0.41
3:AB:56:ARG:HH22	3:DI:92:LEU:N	2.18	0.41
3:AC:8:ILE:N	3:AC:16:VAL:O	2.45	0.41
3:AE:31:LEU:HD13	3:DL:117:LEU:HD21	2.02	0.41
3:AG:42:GLU:O	3:AG:43:LEU:HD23	2.20	0.41
3:AO:112:ALA:HA	3:AO:116:PHE:O	2.20	0.41
3:AS:124:VAL:C	3:EE:5:MET:HE1	2.44	0.41
3:AU:95:GLU:OE1	3:EI:56:ARG:NH2	2.52	0.41
3:AW:59:PRO:HG3	3:BD:87:GLU:HG3	2.02	0.41
3:AZ:60:LYS:NZ	3:AZ:61:PRO:HD2	2.36	0.41
3:BA:31:LEU:HD22	3:EF:117:LEU:HD21	2.02	0.41
3:BE:89:LEU:HD21	3:BE:93:LYS:HE3	2.03	0.41
3:BF:74:GLU:OE1	3:CB:88:ASN:ND2	2.44	0.41
3:BI:9:THR:HB	3:BI:16:VAL:HG22	2.02	0.41
3:BO:117:LEU:HD13	3:EG:15:ILE:HG12	2.01	0.41
3:BV:11:THR:HG22	3:BV:12:ALA:N	2.35	0.41
3:BY:5:MET:CB	3:BY:17:TRP:HB3	2.50	0.41
3:CE:31:LEU:HD13	3:DK:117:LEU:HD21	2.02	0.41
3:CE:66:ASP:OD2	3:CE:69:VAL:HG13	2.20	0.41
3:CF:57:PRO:HA	3:CF:73:ASN:HA	2.02	0.41
3:CK:113:GLY:O	3:DH:46:VAL:HG21	2.20	0.41
3:CN:5:MET:HG3	3:CN:18:SER:C	2.45	0.41
3:CU:19:ASP:OD2	3:CU:22:ARG:N	2.38	0.41
3:CZ:61:PRO:HG3	3:FQ:70:ILE:HD13	2.02	0.41
3:DD:118:ASP:OD1	3:DD:121:ALA:N	2.54	0.41
3:DN:55:LYS:HG3	3:DN:73:ASN:ND2	2.34	0.41
3:DN:96:TRP:CE2	3:DN:100:LYS:HE2	2.55	0.41
3:DQ:33:ARG:NH2	3:EP:115:GLY:O	2.43	0.41
3:Dc:85:SER:OG	3:Dc:87:GLU:OE1	2.35	0.41
3:EH:19:ASP:OD2	3:EH:22:ARG:N	2.38	0.41
3:EK:40:ILE:HG23	3:EK:40:ILE:O	2.20	0.41
3:EM:102:ASN:O	3:EM:105:THR:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:EP:96:TRP:CE2	3:EP:100:LYS:HE3	2.54	0.41
3:Ec:56:ARG:O	3:Ec:74:GLU:HG3	2.20	0.41
3:ET:16:VAL:HG22	3:ET:28:SER:HB2	2.02	0.41
3:ET:102:ASN:O	3:ET:105:THR:OG1	2.35	0.41
3:FA:11:THR:HG22	3:FA:12:ALA:N	2.35	0.41
3:FJ:5:MET:HB2	3:FJ:17:TRP:HB3	2.02	0.41
3:FO:62:GLU:OE2	3:FO:64:CYS:HB3	2.21	0.41
3:FU:98:THR:O	3:FU:101:ARG:HG2	2.20	0.41
3:FW:55:LYS:HE3	3:FW:75:ASN:OD1	2.20	0.41
3:FZ:89:LEU:HD21	3:FZ:93:LYS:HE2	2.02	0.41
3:GC:33:ARG:HG3	3:GC:46:VAL:HG22	2.01	0.41
3:GL:92:LEU:O	3:GL:95:GLU:HB2	2.20	0.41
3:GU:60:LYS:NZ	3:GU:71:MET:HB3	2.35	0.41
3:GU:71:MET:SD	3:GU:71:MET:N	2.93	0.41
3:GV:64:CYS:HB2	3:GV:66:ASP:OD1	2.20	0.41
1:R:136:G:O6	1:R:137:A:N6	2.54	0.41
1:R:560:G:H2'	1:R:561:C:C6	2.55	0.41
1:R:715:U:H2'	1:R:716:C:H6	1.83	0.41
1:R:1001:U:O5'	1:R:1002:G:H5''	2.20	0.41
1:R:1255:U:H2'	1:R:1256:U:H6	1.85	0.41
1:R:1534:A:H2'	1:R:1535:C:C6	2.55	0.41
1:R:1584:C:H2'	1:R:1585:U:C6	2.55	0.41
1:R:1833:U:H5	3:FO:49:GLN:NE2	2.18	0.41
1:R:2476:C:C6	1:R:2477:C:H4'	2.55	0.41
1:R:3778:A:H2'	1:R:3779:A:C8	2.56	0.41
1:R:3821:U:H2'	1:R:3822:G:C5	2.55	0.41
1:R:3930:G:H4'	1:R:3932:C:H1'	2.02	0.41
2:a:105:GLY:HA2	3:AC:34:GLN:CD	2.45	0.41
3:AB:33:ARG:NH2	3:DI:115:GLY:O	2.52	0.41
3:AH:61:PRO:HB2	3:AH:64:CYS:SG	2.60	0.41
3:AL:59:PRO:HG3	3:EX:87:GLU:HB3	2.02	0.41
3:Ac:61:PRO:HG3	3:FE:70:ILE:HD11	2.02	0.41
3:AU:23:LEU:H	3:AU:23:LEU:HD23	1.84	0.41
3:AY:102:ASN:O	3:AY:105:THR:HG22	2.20	0.41
3:BB:35:ARG:HB3	3:BB:42:GLU:OE1	2.20	0.41
3:BH:5:MET:HB3	3:BH:17:TRP:HB3	2.01	0.41
3:BI:5:MET:HB2	3:BI:18:SER:C	2.45	0.41
3:BN:40:ILE:O	3:BN:40:ILE:HG22	2.21	0.41
3:BO:85:SER:OG	3:BO:88:ASN:OD1	2.37	0.41
3:Bc:3:LYS:NZ	3:EJ:128:THR:O	2.53	0.41
3:Bc:93:LYS:HE3	3:Bc:93:LYS:HB2	1.90	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BV:66:ASP:CG	3:BV:67:ALA:H	2.27	0.41
3:BW:41:ALA:HB1	3:BW:43:LEU:HD23	2.02	0.41
3:CC:89:LEU:HG	3:CC:93:LYS:HE3	2.01	0.41
3:CE:42:GLU:OE1	3:CE:42:GLU:HA	2.19	0.41
3:CH:19:ASP:CG	3:CH:21:THR:HG1	2.27	0.41
3:DB:46:VAL:HG21	3:GI:113:GLY:O	2.20	0.41
3:DD:124:VAL:CG2	3:GP:2:ASN:HB2	2.50	0.41
3:DE:42:GLU:C	3:DE:43:LEU:HD22	2.45	0.41
3:DE:60:LYS:HG2	3:DE:65:ALA:HB2	2.02	0.41
3:DF:16:VAL:HG13	3:DF:28:SER:HB3	2.02	0.41
3:DK:32:LEU:HB3	3:DK:47:SER:OG	2.20	0.41
3:DL:95:GLU:O	3:DL:99:HIS:N	2.34	0.41
3:DM:106:LEU:HD23	3:DM:106:LEU:HA	1.83	0.41
3:DO:58:ALA:N	3:DO:59:PRO:HD3	2.35	0.41
3:DV:70:ILE:H	3:DV:70:ILE:HG13	1.63	0.41
3:EF:5:MET:SD	3:EF:5:MET:N	2.93	0.41
3:EF:38:VAL:HG23	3:EF:41:ALA:HB3	2.01	0.41
3:EM:89:LEU:HD23	3:EM:89:LEU:O	2.20	0.41
3:Ec:17:TRP:CE2	3:EY:123:ILE:HD12	2.54	0.41
3:EV:6:GLN:HB2	3:FB:116:PHE:CE2	2.55	0.41
3:EW:3:LYS:H	3:EW:3:LYS:HG2	1.69	0.41
3:FB:6:GLN:NE2	3:FB:7:PRO:O	2.52	0.41
3:FD:31:LEU:HD22	3:FD:33:ARG:NH2	2.35	0.41
3:FK:19:ASP:OD2	3:FK:21:THR:OG1	2.29	0.41
3:FN:38:VAL:HG23	3:FN:41:ALA:HB3	2.02	0.41
3:FS:60:LYS:O	3:FS:60:LYS:HD3	2.20	0.41
3:GA:66:ASP:OD1	3:GA:69:VAL:HB	2.20	0.41
3:GF:81:VAL:HG22	3:GQ:79:ARG:HB2	2.03	0.41
3:GT:71:MET:SD	3:GT:71:MET:N	2.92	0.41
3:GX:5:MET:CB	3:GX:17:TRP:HB3	2.50	0.41
1:R:140:A:O3'	1:R:141:A:H2'	2.21	0.41
1:R:1638:A:H2'	1:R:1639:A:H8	1.83	0.41
1:R:1819:U:H2'	1:R:1820:G:C8	2.55	0.41
1:R:1842:C:H3'	1:R:1843:A:C5'	2.50	0.41
1:R:2258:C:H2'	1:R:2259:C:C6	2.55	0.41
1:R:2364:A:H61	1:R:2418:C:H42	1.68	0.41
1:R:2457:G:H2'	1:R:2458:U:C6	2.56	0.41
1:R:2653:U:H2'	1:R:2654:G:H8	1.85	0.41
1:R:2688:A:H2'	1:R:2689:A:C8	2.56	0.41
1:R:2750:C:H2'	1:R:2751:U:H6	1.86	0.41
1:R:3119:G:H2'	1:R:3120:A:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3179:A:H3'	1:R:3180:G:C8	2.56	0.41
1:R:3271:A:N1	1:R:3705:A:N6	2.69	0.41
1:R:3431:A:H2'	1:R:3432:G:O4'	2.20	0.41
2:a:134:GLY:O	2:a:193:VAL:HG12	2.19	0.41
2:a:208:LYS:HA	2:a:211:LEU:HD23	2.01	0.41
3:AC:128:THR:O	3:FG:3:LYS:NZ	2.53	0.41
3:AE:117:LEU:HD23	3:AE:117:LEU:HA	1.81	0.41
3:AJ:35:ARG:HG2	3:AJ:44:ASN:OD1	2.21	0.41
3:AK:5:MET:HE1	3:CT:124:VAL:C	2.44	0.41
3:AM:8:ILE:HG13	3:AM:18:SER:HB2	2.02	0.41
3:AP:97:GLU:O	3:AP:100:LYS:HB2	2.20	0.41
3:AQ:124:VAL:HG22	3:CQ:2:ASN:HB2	2.01	0.41
3:AX:99:HIS:O	3:AX:103:VAL:HG12	2.20	0.41
3:AZ:15:ILE:HD12	3:BG:117:LEU:HG	2.01	0.41
3:BL:95:GLU:O	3:BL:99:HIS:N	2.31	0.41
3:BL:124:VAL:HB	3:EM:2:ASN:HB2	2.01	0.41
3:BZ:56:ARG:NH1	3:FL:91:THR:OG1	2.53	0.41
3:CC:113:GLY:O	3:FO:46:VAL:HG21	2.20	0.41
3:CE:16:VAL:HG12	3:CE:28:SER:CB	2.50	0.41
3:CH:37:LYS:NZ	3:CH:42:GLU:HA	2.35	0.41
3:CK:17:TRP:CD2	3:DH:123:ILE:HD12	2.55	0.41
3:CL:37:LYS:HD3	3:CL:41:ALA:O	2.21	0.41
3:CM:56:ARG:HA	3:CM:57:PRO:HD3	1.91	0.41
3:CN:11:THR:N	3:CN:14:LYS:O	2.53	0.41
3:CP:50:TYR:CE2	3:Dc:106:LEU:HD11	2.56	0.41
3:CU:63:GLY:HA3	3:GE:67:ALA:CB	2.51	0.41
3:CW:89:LEU:HD21	3:CW:93:LYS:HE2	2.02	0.41
3:CZ:35:ARG:HD3	3:CZ:42:GLU:OE2	2.21	0.41
3:DD:5:MET:HE2	3:GP:125:SER:HB2	2.02	0.41
3:DD:67:ALA:HB1	3:FS:63:GLY:C	2.44	0.41
3:DH:56:ARG:HD3	3:DH:57:PRO:HD2	2.02	0.41
3:DJ:62:GLU:OE2	3:GT:67:ALA:HB1	2.19	0.41
3:DM:117:LEU:HB3	3:GY:15:ILE:HD12	2.03	0.41
3:DT:62:GLU:N	3:DT:62:GLU:OE1	2.53	0.41
3:EG:59:PRO:O	3:EG:60:LYS:HB3	2.20	0.41
3:EH:43:LEU:HA	3:EH:43:LEU:HD23	1.76	0.41
3:EI:33:ARG:HH12	3:EJ:8:ILE:HG23	1.85	0.41
3:EL:60:LYS:NZ	3:EL:64:CYS:HB3	2.36	0.41
3:EN:65:ALA:O	3:EN:66:ASP:OD1	2.38	0.41
3:ES:58:ALA:HB3	3:ES:71:MET:CG	2.48	0.41
3:ES:66:ASP:C	3:ES:68:CYS:H	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:FI:5:MET:CB	3:FI:17:TRP:HB3	2.51	0.41
3:FM:35:ARG:HH21	3:FM:44:ASN:HA	1.85	0.41
3:FV:70:ILE:HD11	3:FX:40:ILE:HG23	2.02	0.41
3:FW:35:ARG:NH2	3:FW:44:ASN:OD1	2.54	0.41
3:FW:38:VAL:HG13	3:FW:39:GLY:N	2.35	0.41
3:FW:65:ALA:O	3:FW:66:ASP:C	2.57	0.41
3:FX:39:GLY:C	3:FX:41:ALA:N	2.78	0.41
3:FX:55:LYS:HE2	3:FX:75:ASN:OD1	2.20	0.41
3:FZ:27:PHE:CE2	3:GT:102:ASN:HB3	2.55	0.41
3:GC:3:LYS:HZ2	3:GW:128:THR:C	2.29	0.41
3:GC:11:THR:HG22	3:GC:12:ALA:N	2.34	0.41
3:GF:66:ASP:CG	3:Gc:67:ALA:HB1	2.45	0.41
3:GJ:101:ARG:NH1	3:GJ:124:VAL:HG11	2.34	0.41
3:GS:8:ILE:N	3:GS:16:VAL:O	2.42	0.41
3:GT:5:MET:HB3	3:GT:18:SER:C	2.46	0.41
1:R:3:A:H2'	1:R:4:G:C8	2.55	0.41
1:R:38:C:H2'	1:R:39:G:O4'	2.21	0.41
1:R:608:C:H2'	1:R:609:A:C8	2.46	0.41
1:R:1065:U:C2'	1:R:1067:A:H5'	2.49	0.41
1:R:1288:U:H2'	1:R:1289:U:C6	2.56	0.41
1:R:1596:C:H2'	1:R:1597:A:C8	2.55	0.41
1:R:1769:U:H2'	1:R:1770:C:C6	2.55	0.41
1:R:1834:U:H2'	1:R:1835:U:C6	2.55	0.41
1:R:2014:G:H2'	1:R:2015:U:C6	2.56	0.41
1:R:2390:C:H3'	1:R:2391:A:H5''	2.01	0.41
1:R:2610:C:H2'	1:R:2611:A:H8	1.84	0.41
1:R:2820:G:N1	1:R:2832:G:O6	2.53	0.41
1:R:3107:U:H2'	1:R:3108:G:C8	2.56	0.41
1:R:3215:U:H2'	1:R:3216:U:C6	2.55	0.41
1:R:3262:A:H2'	1:R:3263:U:O4'	2.19	0.41
1:R:3659:U:N3	1:R:3670:A:N3	2.69	0.41
1:R:3689:A:H2'	1:R:3690:U:C6	2.55	0.41
1:R:3713:C:H2'	1:R:3714:U:H6	1.86	0.41
1:R:3828:G:H2'	1:R:3829:C:H6	1.84	0.41
1:R:3976:A:H2'	1:R:3977:C:C6	2.56	0.41
2:b:141:THR:HB	2:b:142:PRO:HD3	2.02	0.41
3:AM:117:LEU:HD21	3:DY:31:LEU:HD13	2.02	0.41
3:AS:39:GLY:HA2	3:EE:72:PRO:CG	2.49	0.41
3:AV:38:VAL:HG13	3:AV:39:GLY:N	2.36	0.41
3:BE:19:ASP:OD2	3:BE:21:THR:OG1	2.19	0.41
3:BI:56:ARG:O	3:BI:74:GLU:HG3	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BU:5:MET:HB2	3:BU:17:TRP:HB3	2.02	0.41
3:BU:23:LEU:H	3:BU:23:LEU:HD23	1.85	0.41
3:BW:101:ARG:HA	3:BW:104:ASP:HB2	2.03	0.41
3:CJ:5:MET:HB3	3:CJ:17:TRP:HB3	2.02	0.41
3:CO:42:GLU:OE2	3:CO:44:ASN:ND2	2.54	0.41
3:CU:63:GLY:HA3	3:GE:67:ALA:HB1	2.02	0.41
3:DG:115:GLY:O	3:GS:33:ARG:NH2	2.52	0.41
3:DH:106:LEU:HD23	3:DH:106:LEU:HA	1.87	0.41
3:DL:35:ARG:NH1	3:DL:35:ARG:HB3	2.36	0.41
3:DQ:5:MET:SD	3:EP:123:ILE:HG13	2.60	0.41
3:DZ:5:MET:CE	3:FN:123:ILE:HG22	2.50	0.41
3:DZ:55:LYS:HE2	3:DZ:75:ASN:OD1	2.20	0.41
3:DZ:65:ALA:C	3:DZ:67:ALA:H	2.28	0.41
3:EG:61:PRO:O	3:EG:64:CYS:HB2	2.21	0.41
3:EQ:36:VAL:HG23	3:EQ:43:LEU:HB2	2.02	0.41
3:EW:117:LEU:HD23	3:EW:117:LEU:H	1.85	0.41
3:FG:96:TRP:CZ2	3:FG:100:LYS:HE3	2.55	0.41
3:FI:127:ASP:OD2	3:FI:127:ASP:C	2.63	0.41
3:FJ:118:ASP:OD1	3:FJ:120:THR:HG22	2.20	0.41
3:FN:35:ARG:HH22	3:FN:42:GLU:HG3	1.86	0.41
3:FQ:64:CYS:HB3	3:GF:67:ALA:CB	2.46	0.41
3:FQ:117:LEU:HD21	3:GE:31:LEU:HD13	2.02	0.41
3:FS:56:ARG:O	3:FS:74:GLU:HG3	2.20	0.41
3:FX:5:MET:HB3	3:FX:17:TRP:HB3	2.01	0.41
3:GC:16:VAL:HG23	3:GC:28:SER:HB3	2.03	0.41
1:R:83:U:H5''	1:R:85:G:O6	2.20	0.41
1:R:160:U:H2'	1:R:161:C:C5	2.55	0.41
1:R:270:G:H2'	1:R:271:G:H8	1.84	0.41
1:R:281:G:H5''	1:R:386:U:C5	2.55	0.41
1:R:380:A:H2'	1:R:381:A:H8	1.85	0.41
1:R:702:U:H2'	1:R:703:A:C8	2.56	0.41
1:R:954:C:H2'	1:R:955:G:C8	2.56	0.41
1:R:1388:C:HO2'	1:R:1390:A:H62	1.68	0.41
1:R:1512:U:H2'	1:R:1513:C:C6	2.55	0.41
1:R:1580:U:H2'	1:R:1581:C:H6	1.86	0.41
1:R:1665:A:H2'	1:R:1666:A:H8	1.86	0.41
1:R:1727:C:H2'	1:R:1728:C:C6	2.54	0.41
1:R:1926:C:O2'	1:R:1968:C:H1'	2.19	0.41
1:R:2222:C:H4'	1:R:2223:A:H8	1.84	0.41
1:R:2445:U:H2'	1:R:2446:U:C6	2.55	0.41
1:R:2903:A:H2'	1:R:2904:A:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3350:A:N3	3:AB:49:GLN:HG2	2.36	0.41
1:R:3568:C:H2'	1:R:3569:A:H8	1.85	0.41
1:R:3612:A:H2'	1:R:3613:C:H6	1.85	0.41
1:R:4122:U:H2'	1:R:4123:U:H6	1.85	0.41
2:b:457:SER:CB	2:b:509:LYS:HD2	2.50	0.41
3:AE:60:LYS:HA	3:AE:61:PRO:HD3	1.93	0.41
3:AI:14:LYS:HG2	3:AI:30:SER:HB2	2.03	0.41
3:AJ:33:ARG:NH2	3:DV:115:GLY:O	2.42	0.41
3:AV:31:LEU:HD23	3:AV:48:GLY:HA2	2.02	0.41
3:AZ:17:TRP:CG	3:BG:123:ILE:HD11	2.55	0.41
3:BN:37:LYS:HZ3	3:BN:38:VAL:H	1.69	0.41
3:BQ:100:LYS:HD2	3:FC:100:LYS:HD2	2.02	0.41
3:Bc:24:SER:HB3	3:Bc:55:LYS:HB3	2.01	0.41
3:BU:47:SER:O	3:BU:47:SER:OG	2.32	0.41
3:BU:55:LYS:HE2	3:BU:75:ASN:HB3	2.03	0.41
3:CD:125:SER:HB3	3:DX:3:LYS:HB2	2.03	0.41
3:CE:16:VAL:HG12	3:CE:28:SER:HB2	2.02	0.41
3:CG:125:SER:O	3:EA:2:ASN:HB3	2.20	0.41
3:CJ:56:ARG:HH21	3:CJ:76:GLN:NE2	2.17	0.41
3:Cc:89:LEU:HD13	3:GD:114:LEU:HD12	2.01	0.41
3:CX:16:VAL:HG22	3:CX:28:SER:HB2	2.01	0.41
3:DA:34:GLN:O	3:DA:45:ASN:N	2.45	0.41
3:DC:87:GLU:H	3:DC:87:GLU:CD	2.28	0.41
3:DQ:62:GLU:OE2	3:DQ:64:CYS:HB3	2.19	0.41
3:DT:42:GLU:OE1	3:DT:42:GLU:HA	2.19	0.41
3:DW:77:SER:OG	3:FK:83:SER:OG	2.24	0.41
3:DX:87:GLU:H	3:DX:87:GLU:CD	2.28	0.41
3:EA:8:ILE:HD11	3:FN:116:PHE:HE1	1.85	0.41
3:EC:116:PHE:CE1	3:FI:8:ILE:HD11	2.55	0.41
3:EL:57:PRO:HA	3:EL:73:ASN:HA	2.03	0.41
3:EO:106:LEU:HD22	3:FE:50:TYR:HE2	1.86	0.41
3:Ec:49:GLN:HG3	3:Ec:81:VAL:HG22	2.01	0.41
3:EU:89:LEU:HG	3:EU:93:LYS:HZ3	1.84	0.41
3:EV:88:ASN:HB3	3:EV:91:THR:HG22	2.02	0.41
3:FA:35:ARG:HH21	3:FA:45:ASN:H	1.67	0.41
3:FB:43:LEU:HB3	3:FB:87:GLU:CD	2.45	0.41
3:FH:11:THR:HG22	3:FH:12:ALA:N	2.35	0.41
3:Fc:22:ARG:NH1	3:Fc:24:SER:OG	2.41	0.41
3:FW:35:ARG:HH21	3:FW:43:LEU:C	2.28	0.41
3:FY:49:GLN:HA	3:FY:81:VAL:HG12	2.03	0.41
3:GF:8:ILE:HG22	3:GF:9:THR:HG23	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GM:35:ARG:CZ	3:GM:42:GLU:HG3	2.51	0.41
3:GN:114:LEU:HG	3:Gc:89:LEU:HD13	2.02	0.41
1:R:525:U:H3	1:R:541:G:H1	1.69	0.41
1:R:530:A:H2'	1:R:531:C:O4'	2.21	0.41
1:R:594:U:H2'	1:R:595:G:C8	2.56	0.41
1:R:859:A:H2'	1:R:860:U:C6	2.56	0.41
1:R:1226:U:H2'	1:R:1227:U:C6	2.54	0.41
1:R:1289:U:H5''	3:Gc:14:LYS:NZ	2.36	0.41
1:R:1363:U:H2'	1:R:1364:U:C6	2.56	0.41
1:R:1404:U:H2'	1:R:1405:G:H8	1.85	0.41
1:R:1898:G:H2'	1:R:1899:G:H8	1.86	0.41
1:R:2299:C:H2'	1:R:2300:U:H6	1.85	0.41
1:R:2342:A:C6	3:AU:49:GLN:HG3	2.56	0.41
1:R:2513:A:H2'	1:R:2514:A:C8	2.56	0.41
1:R:2824:U:O2'	1:R:2825:U:H5''	2.20	0.41
1:R:3030:C:H2'	1:R:3031:C:C6	2.55	0.41
1:R:3031:C:H2'	1:R:3032:C:C6	2.56	0.41
1:R:3106:U:H2'	1:R:3107:U:C6	2.56	0.41
1:R:3490:U:H2'	1:R:3491:U:C6	2.55	0.41
1:R:3615:G:H1	1:R:3616:A:N6	2.19	0.41
1:R:3855:G:H2'	1:R:3856:A:C8	2.56	0.41
1:R:4040:C:H2'	1:R:4041:A:C8	2.46	0.41
1:R:4173:U:H2'	1:R:4174:A:C8	2.55	0.41
2:b:259:ASP:HB3	2:b:262:ARG:HH21	1.85	0.41
2:b:305:ILE:O	2:b:308:LYS:HG2	2.21	0.41
3:AC:62:GLU:OE2	3:AC:64:CYS:HB3	2.20	0.41
3:AC:116:PHE:HE2	3:FH:20:PRO:HB3	1.85	0.41
3:AF:123:ILE:HG13	3:FJ:17:TRP:CD2	2.55	0.41
3:AG:37:LYS:HZ1	3:AG:40:ILE:HA	1.86	0.41
3:AK:100:LYS:HD2	3:CT:100:LYS:HD3	2.01	0.41
3:AL:125:SER:OG	3:AL:126:SER:N	2.53	0.41
3:AP:60:LYS:HB3	3:AP:60:LYS:HE3	1.35	0.41
3:Ac:123:ILE:HG13	3:FD:17:TRP:CE2	2.56	0.41
3:AV:8:ILE:HD11	3:AV:18:SER:HB3	2.03	0.41
3:AW:5:MET:HE2	3:BD:125:SER:HB2	2.03	0.41
3:AZ:37:LYS:HB3	3:AZ:42:GLU:OE1	2.21	0.41
3:BI:61:PRO:C	3:BI:62:GLU:HG3	2.45	0.41
3:BK:60:LYS:HD2	3:BK:61:PRO:HD2	2.03	0.41
3:BM:19:ASP:OD2	3:BM:21:THR:OG1	2.27	0.41
3:BN:67:ALA:O	3:BN:69:VAL:HG13	2.20	0.41
3:BO:5:MET:HG3	3:BO:19:ASP:HA	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BO:49:GLN:HG2	3:BO:81:VAL:HG22	2.02	0.41
3:BS:8:ILE:HG13	3:BS:18:SER:HB3	2.03	0.41
3:BT:49:GLN:OE1	3:BT:79:ARG:NH2	2.37	0.41
3:CH:115:GLY:HA2	3:DE:31:LEU:HD23	2.02	0.41
3:CL:96:TRP:NE1	3:FX:104:ASP:OD1	2.46	0.41
3:CP:38:VAL:O	3:CP:40:ILE:N	2.54	0.41
3:CT:56:ARG:HG3	3:CT:57:PRO:HD2	2.02	0.41
3:DK:6:GLN:NE2	3:GY:111:ASN:HD22	2.18	0.41
3:DK:43:LEU:HD23	3:DK:43:LEU:HA	1.89	0.41
3:DM:43:LEU:HD23	3:DM:43:LEU:HA	1.86	0.41
3:DT:64:CYS:HB3	3:DT:66:ASP:OD1	2.21	0.41
3:EA:60:LYS:HB3	3:EA:60:LYS:HE2	1.81	0.41
3:EU:76:GLN:OE1	3:FB:91:THR:HG23	2.21	0.41
3:EX:92:LEU:HD12	3:EX:92:LEU:HA	1.87	0.41
3:EX:125:SER:OG	3:EX:126:SER:N	2.54	0.41
3:EY:97:GLU:HA	3:EY:100:LYS:HZ3	1.86	0.41
3:EZ:38:VAL:HG23	3:EZ:39:GLY:N	2.36	0.41
3:FA:62:GLU:O	3:FA:62:GLU:HG2	2.20	0.41
3:FA:96:TRP:CE2	3:FA:100:LYS:HE3	2.56	0.41
3:FC:94:ALA:HA	3:FC:97:GLU:HG3	2.02	0.41
3:FD:37:LYS:HE2	3:FD:40:ILE:HA	2.02	0.41
3:FG:3:LYS:HE3	3:FG:3:LYS:HB3	1.78	0.41
3:FQ:113:GLY:O	3:GE:46:VAL:HG21	2.21	0.41
3:FY:86:ALA:O	3:FY:89:LEU:HG	2.21	0.41
3:GC:86:ALA:O	3:GC:89:LEU:HB2	2.20	0.41
3:GG:14:LYS:NZ	3:GG:30:SER:HB2	2.35	0.41
1:R:119:C:H2'	1:R:120:C:H6	1.83	0.41
1:R:169:G:H2'	1:R:170:G:H8	1.86	0.41
1:R:249:U:C2	1:R:250:G:C8	3.09	0.41
1:R:333:U:H2'	1:R:334:G:H8	1.84	0.41
1:R:682:U:C2	1:R:683:A:C8	3.08	0.41
1:R:833:U:H2'	1:R:834:G:H8	1.85	0.41
1:R:1067:A:H5''	1:R:1068:A:OP2	2.21	0.41
1:R:1360:G:H2'	1:R:1361:A:H8	1.85	0.41
1:R:1383:U:H2'	1:R:1384:G:H8	1.86	0.41
1:R:2213:U:O2'	1:R:2216:C:N4	2.36	0.41
1:R:2228:C:H2'	1:R:2229:U:C5	2.56	0.41
1:R:2504:C:H3'	1:R:2504:C:OP2	2.20	0.41
1:R:2518:U:H2'	1:R:2520:U:C1'	2.50	0.41
1:R:2527:U:H2'	1:R:2528:C:C6	2.55	0.41
1:R:2927:C:C4	1:R:2928:A:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3347:G:C2	1:R:3383:C:C4	3.09	0.41
1:R:3483:U:H2'	1:R:3484:C:H6	1.84	0.41
1:R:3817:A:H1'	1:R:3851:C:N3	2.36	0.41
1:R:3842:A:H2'	1:R:3843:A:H8	1.85	0.41
2:a:38:ILE:HD11	2:a:180:ASN:HD22	1.84	0.41
2:a:326:ARG:HA	2:a:326:ARG:HD2	1.96	0.41
2:b:100:ARG:HH22	2:b:121:TYR:N	2.19	0.41
2:b:516:LEU:HB3	2:b:519:MET:SD	2.61	0.41
3:AB:55:LYS:HE3	3:AB:73:ASN:ND2	2.36	0.41
3:AB:71:MET:HA	3:AB:72:PRO:HD3	1.89	0.41
3:AG:19:ASP:OD2	3:AG:22:ARG:N	2.36	0.41
3:AI:3:LYS:HE3	3:FM:129:THR:HA	2.03	0.41
3:AJ:125:SER:OG	3:AJ:126:SER:N	2.54	0.41
3:AO:127:ASP:OD1	3:AO:127:ASP:N	2.52	0.41
3:AQ:38:VAL:HG13	3:AQ:39:GLY:H	1.85	0.41
3:AT:43:LEU:HD12	3:AT:87:GLU:CD	2.46	0.41
3:AZ:112:ALA:HA	3:AZ:116:PHE:O	2.21	0.41
3:BL:19:ASP:OD2	3:BL:21:THR:OG1	2.26	0.41
3:BM:96:TRP:CZ2	3:BM:100:LYS:HE3	2.56	0.41
3:BS:35:ARG:NE	3:BS:43:LEU:H	2.18	0.41
3:BV:37:LYS:HA	3:BV:37:LYS:HD2	1.90	0.41
3:CC:58:ALA:HB3	3:CC:71:MET:HG2	2.03	0.41
3:CF:127:ASP:OD1	3:CF:127:ASP:N	2.54	0.41
3:CM:89:LEU:HD23	3:CM:92:LEU:HD12	2.03	0.41
3:CM:92:LEU:HD23	3:CM:92:LEU:HA	1.96	0.41
3:CO:49:GLN:HG2	3:CO:81:VAL:HG12	2.03	0.41
3:CO:89:LEU:HB3	3:CO:93:LYS:NZ	2.36	0.41
3:CT:44:ASN:ND2	3:CU:23:LEU:HD22	2.36	0.41
3:CU:5:MET:HE2	3:GG:125:SER:HB2	2.02	0.41
3:CW:70:ILE:HD13	3:CW:70:ILE:HA	1.87	0.41
3:DJ:35:ARG:NH2	3:DJ:44:ASN:HA	2.36	0.41
3:DO:8:ILE:HG13	3:DO:18:SER:HB3	2.03	0.41
3:DS:87:GLU:OE1	3:DS:87:GLU:N	2.36	0.41
3:EQ:55:LYS:HE3	3:EQ:75:ASN:OD1	2.20	0.41
3:ES:71:MET:HE3	3:ES:71:MET:HB3	1.85	0.41
3:EY:30:SER:C	3:EY:31:LEU:HD12	2.46	0.41
3:FD:58:ALA:HB3	3:FD:71:MET:HG3	2.02	0.41
3:FG:25:THR:HB	3:FG:54:TYR:CD1	2.46	0.41
3:FG:107:PHE:HA	3:FG:112:ALA:HB3	2.02	0.41
3:FJ:35:ARG:HG2	3:FJ:42:GLU:OE2	2.20	0.41
3:FL:16:VAL:HG12	3:FL:28:SER:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:FP:5:MET:CG	3:FP:17:TRP:HB3	2.45	0.41
3:FS:36:VAL:N	3:FS:42:GLU:OE2	2.54	0.41
3:GE:51:VAL:HG13	3:GE:79:ARG:HG2	2.02	0.41
3:GH:37:LYS:HD2	3:GH:41:ALA:O	2.20	0.41
1:R:23:C:H2'	1:R:24:G:H8	1.86	0.41
1:R:25:C:H2'	1:R:26:U:C6	2.55	0.41
1:R:333:U:H2'	1:R:334:G:C8	2.56	0.41
1:R:374:U:H2'	1:R:375:G:C8	2.56	0.41
1:R:531:C:O2'	1:R:1771:U:OP1	2.20	0.41
1:R:708:G:H2'	1:R:709:G:C8	2.55	0.41
1:R:763:C:H1'	1:R:888:A:C8	2.56	0.41
1:R:778:C:H2'	1:R:779:G:C8	2.56	0.41
1:R:786:C:H2'	1:R:787:C:O4'	2.21	0.41
1:R:892:G:H1	1:R:915:U:H3	1.68	0.41
1:R:1025:A:H5''	1:R:1026:A:O4'	2.21	0.41
1:R:1053:A:C8	1:R:1054:A:H1'	2.56	0.41
1:R:1142:U:H2'	1:R:1143:C:C6	2.56	0.41
1:R:1267:G:H2'	1:R:1268:C:C6	2.56	0.41
1:R:1398:C:H2'	1:R:1399:A:C8	2.55	0.41
1:R:1484:U:H2'	1:R:1485:G:H8	1.84	0.41
1:R:1645:A:H2'	1:R:1646:G:C8	2.56	0.41
1:R:1890:C:H2'	1:R:1891:A:H8	1.85	0.41
1:R:1991:U:H2'	1:R:1992:U:H6	1.85	0.41
1:R:2068:U:H2'	1:R:2069:U:C6	2.56	0.41
1:R:2174:C:H5''	1:R:2175:U:C5	2.55	0.41
1:R:2431:C:H2'	1:R:2432:G:C8	2.42	0.41
1:R:2442:G:H2'	1:R:2443:C:C6	2.56	0.41
1:R:2489:G:C2	1:R:2551:U:C2	3.09	0.41
1:R:2523:A:H8	1:R:2525:A:C4	2.38	0.41
1:R:2589:C:H2'	1:R:2590:A:O4'	2.20	0.41
1:R:2988:G:H2'	1:R:2989:U:C6	2.55	0.41
1:R:3027:G:H22	1:R:3709:U:H1'	1.84	0.41
1:R:3080:C:H2'	1:R:3081:U:C6	2.56	0.41
1:R:3094:C:H2'	1:R:3095:U:C6	2.56	0.41
1:R:3101:U:H2'	1:R:3102:C:H6	1.85	0.41
1:R:3426:U:N3	1:R:3453:G:O6	2.53	0.41
1:R:3514:A:H62	3:FX:49:GLN:HB2	1.86	0.41
1:R:3564:G:H2'	1:R:3565:A:C8	2.56	0.41
1:R:3699:G:H2'	1:R:3701:G:N7	2.36	0.41
1:R:3742:G:H2'	1:R:3743:A:C8	2.55	0.41
1:R:3822:G:H1'	1:R:3823:A:H2'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:3914:A:H2'	1:R:3915:A:C8	2.55	0.41
1:R:4086:U:O4	1:R:4141:C:N4	2.54	0.41
1:R:4197:G:O2'	1:R:4198:G:H5'	2.21	0.41
2:a:116:ILE:O	2:a:116:ILE:HG13	2.19	0.41
2:a:120:PRO:HB3	2:a:494:GLN:HA	2.03	0.41
2:b:4:TYR:CE1	2:b:187:LYS:HD3	2.55	0.41
2:b:387:PRO:HB2	2:b:389:GLU:CD	2.46	0.41
3:AB:38:VAL:HG23	3:AB:39:GLY:N	2.31	0.41
3:AG:71:MET:HB2	3:AG:72:PRO:HD2	2.03	0.41
3:AJ:8:ILE:HD11	3:AJ:18:SER:HB3	2.03	0.41
3:AL:45:ASN:ND2	3:AL:84:GLY:O	2.51	0.41
3:AL:60:LYS:HZ1	3:AL:66:ASP:N	2.16	0.41
3:AN:14:LYS:HD3	3:AN:30:SER:HB3	2.03	0.41
3:AN:15:ILE:HG13	3:CN:117:LEU:HD13	2.03	0.41
3:AN:17:TRP:CD2	3:CN:123:ILE:HD12	2.55	0.41
3:AT:56:ARG:O	3:AT:74:GLU:HG3	2.20	0.41
3:AT:116:PHE:CE1	3:BK:8:ILE:HD11	2.56	0.41
3:AU:49:GLN:HG2	3:AU:81:VAL:HG22	2.02	0.41
3:AU:95:GLU:OE2	3:AU:95:GLU:HA	2.20	0.41
3:AW:38:VAL:HG13	3:AW:39:GLY:N	2.35	0.41
3:AX:5:MET:HB3	3:AX:17:TRP:HB3	2.02	0.41
3:AY:28:SER:HB3	3:AY:51:VAL:HG22	2.02	0.41
3:BC:55:LYS:HB3	3:BC:73:ASN:CG	2.46	0.41
3:BD:95:GLU:OE1	3:BD:95:GLU:HA	2.21	0.41
3:BD:102:ASN:O	3:BD:105:THR:HG22	2.21	0.41
3:BF:89:LEU:HD21	3:BF:93:LYS:HE3	2.03	0.41
3:BG:71:MET:HB2	3:BG:72:PRO:HD2	2.02	0.41
3:BI:123:ILE:HG13	3:BV:5:MET:HE2	2.03	0.41
3:BK:3:LYS:O	3:EW:125:SER:N	2.44	0.41
3:BL:124:VAL:C	3:EM:5:MET:HE1	2.45	0.41
3:BL:129:THR:HA	3:EM:3:LYS:HE3	2.02	0.41
3:BO:56:ARG:CD	3:EG:91:THR:HG21	2.51	0.41
3:BP:117:LEU:HD13	3:CA:15:ILE:HG13	2.03	0.41
3:Bc:99:HIS:O	3:Bc:103:VAL:HG12	2.21	0.41
3:BT:8:ILE:HD11	3:BT:18:SER:HB3	2.03	0.41
3:BT:86:ALA:O	3:BT:89:LEU:HB2	2.21	0.41
3:BW:2:ASN:HB2	3:FI:124:VAL:HB	2.02	0.41
3:BW:129:THR:HA	3:FI:3:LYS:HE3	2.03	0.41
3:CC:3:LYS:HE2	3:CC:3:LYS:HB2	1.95	0.41
3:CE:87:GLU:OE1	3:CE:87:GLU:N	2.45	0.41
3:CH:35:ARG:HH21	3:CH:43:LEU:C	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CL:74:GLU:OE2	3:FX:88:ASN:ND2	2.52	0.41
3:CN:8:ILE:N	3:CN:16:VAL:O	2.43	0.41
3:CN:14:LYS:O	3:CN:15:ILE:HD13	2.20	0.41
3:CN:35:ARG:NH2	3:CN:42:GLU:HG2	2.36	0.41
3:CO:108:ALA:O	3:GA:93:LYS:NZ	2.49	0.41
3:CT:11:THR:HG22	3:CT:12:ALA:N	2.32	0.41
3:CU:5:MET:HG2	3:CU:19:ASP:N	2.35	0.41
3:CV:3:LYS:HZ3	3:GL:128:THR:C	2.28	0.41
3:CW:55:LYS:HB3	3:CW:73:ASN:ND2	2.36	0.41
3:CX:61:PRO:HB2	3:GH:68:CYS:SG	2.60	0.41
3:CX:61:PRO:HD3	3:CX:71:MET:HE3	2.02	0.41
3:DA:115:GLY:HA2	3:GM:31:LEU:HD23	2.03	0.41
3:DB:60:LYS:NZ	3:DB:64:CYS:HB3	2.35	0.41
3:DB:115:GLY:HA2	3:GI:31:LEU:HD23	2.03	0.41
3:DB:117:LEU:HD21	3:GI:31:LEU:HD13	2.03	0.41
3:DH:56:ARG:HH11	3:DH:56:ARG:HG2	1.86	0.41
3:DJ:113:GLY:O	3:GV:46:VAL:HG21	2.20	0.41
3:DK:38:VAL:HG23	3:DK:39:GLY:N	2.34	0.41
3:DQ:79:ARG:HB3	3:EP:81:VAL:HG22	2.03	0.41
3:DV:16:VAL:HG22	3:DV:28:SER:HB2	2.02	0.41
3:DV:45:ASN:HA	3:DV:85:SER:HA	2.02	0.41
3:DV:106:LEU:HD23	3:DV:106:LEU:HA	1.83	0.41
3:EF:54:TYR:CD1	3:EF:56:ARG:HB2	2.55	0.41
3:EI:86:ALA:O	3:EI:89:LEU:HG	2.21	0.41
3:EL:16:VAL:HG22	3:EL:28:SER:HB2	2.02	0.41
3:EM:89:LEU:HD21	3:EM:93:LYS:HE2	2.03	0.41
3:EN:9:THR:HB	3:EN:16:VAL:HG12	2.02	0.41
3:Ec:78:ILE:HD13	3:EY:96:TRP:HE3	1.85	0.41
3:EU:9:THR:HG23	3:EW:12:ALA:HB1	2.03	0.41
3:EU:113:GLY:HA3	3:FB:89:LEU:HD11	2.03	0.41
3:FB:19:ASP:OD2	3:FB:21:THR:OG1	2.26	0.41
3:FI:60:LYS:HB2	3:FI:60:LYS:HE3	1.77	0.41
3:FQ:124:VAL:CG1	3:GE:2:ASN:HB2	2.51	0.41
3:FT:35:ARG:HH12	3:FT:42:GLU:CG	2.34	0.41
3:FX:60:LYS:NZ	3:FX:69:VAL:H	2.18	0.41
3:FY:62:GLU:H	3:FY:62:GLU:CD	2.27	0.41
3:FZ:55:LYS:HE3	3:FZ:75:ASN:HB3	2.03	0.41
3:GC:64:CYS:SG	3:GX:67:ALA:C	3.00	0.41
3:GH:50:TYR:HE1	3:GU:106:LEU:HD22	1.85	0.41
3:GH:89:LEU:CD2	3:GH:93:LYS:HE2	2.51	0.41
3:GI:125:SER:OG	3:GI:126:SER:N	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:GN:58:ALA:HB1	3:GN:59:PRO:HD2	2.03	0.41
3:GQ:19:ASP:HB3	3:GQ:22:ARG:O	2.21	0.41
3:GW:56:ARG:O	3:GW:74:GLU:HG3	2.21	0.41
1:R:38:C:C2	1:R:39:G:C8	3.09	0.41
1:R:40:A:H4'	1:R:41:A:O5'	2.20	0.41
1:R:58:U:H2'	1:R:59:C:H4'	2.03	0.41
1:R:400:A:H2'	1:R:401:G:C8	2.56	0.41
1:R:859:A:H2'	1:R:860:U:H6	1.86	0.41
1:R:999:G:H5''	1:R:1092:G:OP1	2.21	0.41
1:R:1021:A:N6	1:R:1081:A:H61	2.19	0.41
1:R:1155:U:H2'	1:R:1156:A:C8	2.56	0.41
1:R:1187:G:H2'	1:R:1188:G:H8	1.86	0.41
1:R:1841:U:H2'	1:R:1842:C:H6	1.85	0.41
1:R:1846:C:H2'	1:R:1847:G:O4'	2.21	0.41
1:R:1967:U:H2'	1:R:1968:C:C6	2.56	0.41
1:R:1993:C:H5'	3:EL:34:GLN:NE2	2.36	0.41
1:R:2413:G:OP1	3:EH:79:ARG:NH2	2.54	0.41
1:R:3151:C:H2'	1:R:3152:U:C6	2.56	0.41
1:R:3250:U:C4	1:R:3257:G:N1	2.89	0.41
1:R:3555:U:H5''	1:R:3557:C:H5''	2.03	0.41
2:a:499:ARG:HG2	2:a:499:ARG:O	2.20	0.41
2:b:87:LYS:HG2	2:b:192:TRP:CZ2	2.56	0.41
2:b:305:ILE:HA	2:b:308:LYS:HD2	2.02	0.41
3:AI:27:PHE:CE2	3:FM:102:ASN:HB3	2.56	0.41
3:AL:128:THR:HA	3:EX:2:ASN:HA	2.03	0.41
3:AO:96:TRP:NE1	3:AO:100:LYS:HE3	2.37	0.41
3:AP:17:TRP:CG	3:EB:123:ILE:HD11	2.55	0.41
3:AP:118:ASP:OD1	3:AP:120:THR:HG22	2.20	0.41
3:Ac:101:ARG:NH2	3:Ac:124:VAL:HG21	2.35	0.41
3:AV:81:VAL:CG2	3:EH:79:ARG:HB3	2.51	0.41
3:AW:14:LYS:HE2	3:AW:14:LYS:HB3	1.91	0.41
3:BB:114:LEU:HD12	3:EN:89:LEU:HD13	2.02	0.41
3:BD:37:LYS:NZ	3:BD:42:GLU:OE1	2.31	0.41
3:BE:1:ALA:O	3:EQ:129:THR:HG23	2.21	0.41
3:BE:27:PHE:HD1	3:BE:52:SER:HB2	1.85	0.41
3:BP:39:GLY:C	3:BP:41:ALA:N	2.79	0.41
3:BU:6:GLN:HG2	3:FI:111:ASN:ND2	2.35	0.41
3:BV:105:THR:HA	3:BV:109:SER:HB3	2.03	0.41
3:CE:40:ILE:O	3:CE:40:ILE:HG22	2.21	0.41
3:CF:31:LEU:HD23	3:CF:31:LEU:N	2.36	0.41
3:CH:35:ARG:NH2	3:CH:44:ASN:OD1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CK:56:ARG:CD	3:DH:91:THR:HG21	2.51	0.41
3:CK:59:PRO:HD3	3:DH:88:ASN:OD1	2.21	0.41
3:CM:111:ASN:O	3:CM:114:LEU:HG	2.21	0.41
3:CO:5:MET:CG	3:CO:17:TRP:HB3	2.51	0.41
3:CP:56:ARG:HE	3:CP:56:ARG:HB2	1.66	0.41
3:Cc:60:LYS:HD2	3:Cc:71:MET:HE1	2.03	0.41
3:CT:49:GLN:OE1	3:CT:79:ARG:NH1	2.54	0.41
3:CW:37:LYS:HD3	3:CW:42:GLU:OE1	2.21	0.41
3:CW:51:VAL:HG22	3:CW:79:ARG:HG3	2.03	0.41
3:CZ:13:ASN:OD1	3:CZ:14:LYS:N	2.54	0.41
3:DB:8:ILE:HG13	3:DB:9:THR:N	2.36	0.41
3:DC:12:ALA:HB1	3:DD:9:THR:HG23	2.02	0.41
3:DL:35:ARG:HH22	3:DL:42:GLU:HB3	1.86	0.41
3:DN:108:ALA:HB2	3:EV:96:TRP:HZ3	1.86	0.41
3:Dc:48:GLY:O	3:Dc:81:VAL:HA	2.21	0.41
3:DT:107:PHE:HZ	3:ES:92:LEU:HD22	1.86	0.41
3:EE:85:SER:OG	3:EE:88:ASN:HB2	2.21	0.41
3:EE:92:LEU:HA	3:EE:92:LEU:HD12	1.82	0.41
3:EE:125:SER:OG	3:EE:126:SER:N	2.53	0.41
3:EQ:95:GLU:HG3	3:EQ:126:SER:OG	2.20	0.41
3:Ec:111:ASN:HB2	3:Ec:114:LEU:HD13	2.03	0.41
3:ET:87:GLU:OE1	3:ET:87:GLU:N	2.41	0.41
3:EV:35:ARG:HH21	3:EV:42:GLU:HG2	1.87	0.41
3:FB:56:ARG:O	3:FB:74:GLU:HG3	2.21	0.41
3:FG:58:ALA:HB3	3:FG:71:MET:HG3	2.03	0.41
3:FI:42:GLU:HA	3:FI:42:GLU:OE2	2.20	0.41
3:FZ:87:GLU:HG2	3:FZ:88:ASN:OD1	2.21	0.41
3:FZ:123:ILE:HD11	3:GT:17:TRP:CG	2.56	0.41
3:GC:37:LYS:HD3	3:GC:42:GLU:OE1	2.21	0.41
3:GF:42:GLU:C	3:GF:43:LEU:HD22	2.46	0.41
3:GN:87:GLU:HG2	3:GN:88:ASN:N	2.36	0.41
3:GN:96:TRP:HE3	3:Gc:78:ILE:HD13	1.85	0.41
3:GQ:55:LYS:O	3:GQ:73:ASN:ND2	2.47	0.41
3:GT:5:MET:N	3:GT:5:MET:SD	2.94	0.41
3:GX:62:GLU:HB2	3:GX:63:GLY:H	1.52	0.41
1:R:303:G:N2	1:R:305:A:H3'	2.36	0.40
1:R:550:A:H2'	1:R:551:G:H8	1.86	0.40
1:R:1126:A:H61	1:R:1212:A:N6	2.20	0.40
1:R:1576:U:H2'	1:R:1577:U:H6	1.86	0.40
1:R:1712:A:H2'	1:R:1713:C:C6	2.56	0.40
1:R:1919:G:H2'	1:R:1920:C:C6	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:1977:U:H3	1:R:2428:C:P	2.44	0.40
1:R:2000:U:H4'	1:R:2711:U:N1	2.35	0.40
1:R:2162:G:H2'	1:R:2163:U:C6	2.56	0.40
1:R:2363:U:H2'	1:R:2364:A:C8	2.56	0.40
1:R:2422:U:H2'	1:R:2423:G:H8	1.85	0.40
1:R:2437:U:H2'	1:R:2438:U:C6	2.56	0.40
1:R:2470:U:H2'	1:R:2471:U:H6	1.82	0.40
1:R:2562:G:N1	1:R:2590:A:H2	2.15	0.40
1:R:2587:A:H2'	1:R:2588:A:C8	2.56	0.40
1:R:2953:U:N3	2:b:262:ARG:HB2	2.36	0.40
1:R:3011:C:C2	1:R:3012:C:C5	3.09	0.40
1:R:3025:U:O2	1:R:3027:G:N1	2.45	0.40
1:R:3278:G:H2'	1:R:3279:A:C8	2.56	0.40
1:R:3352:A:H2'	1:R:3353:U:C6	2.56	0.40
1:R:3892:A:H2'	1:R:3893:C:C6	2.56	0.40
1:R:4081:G:H2'	1:R:4082:U:H6	1.85	0.40
2:a:176:ARG:NH1	2:a:177:TYR:HB2	2.35	0.40
2:a:233:LEU:HD13	2:a:456:TYR:HE2	1.86	0.40
2:a:404:ASN:HB3	2:a:465:SER:HG	1.86	0.40
2:b:318:LYS:O	2:b:322:LYS:HG3	2.21	0.40
3:AC:123:ILE:HD11	3:FG:17:TRP:CG	2.56	0.40
3:AF:5:MET:SD	3:AF:17:TRP:HB3	2.61	0.40
3:AO:123:ILE:HG13	3:FA:5:MET:SD	2.61	0.40
3:AP:31:LEU:HB3	3:AP:48:GLY:HA2	2.03	0.40
3:AP:35:ARG:NH1	3:AP:35:ARG:HB2	2.36	0.40
3:AX:100:LYS:HB2	3:AX:100:LYS:HE3	1.95	0.40
3:BE:38:VAL:HG23	3:BE:39:GLY:N	2.36	0.40
3:BE:87:GLU:HG2	3:BE:88:ASN:N	2.36	0.40
3:BH:22:ARG:HE	3:BH:22:ARG:HB3	1.63	0.40
3:BH:100:LYS:HG2	3:ET:100:LYS:HG2	2.02	0.40
3:BZ:61:PRO:C	3:BZ:62:GLU:HG3	2.45	0.40
3:CD:17:TRP:CD2	3:DX:123:ILE:HG13	2.56	0.40
3:CE:11:THR:HG22	3:CE:12:ALA:N	2.36	0.40
3:CG:31:LEU:HD23	3:EA:115:GLY:HA2	2.02	0.40
3:CI:127:ASP:O	3:FU:2:ASN:HB3	2.21	0.40
3:CT:95:GLU:HA	3:CT:95:GLU:OE1	2.21	0.40
3:CV:38:VAL:HG23	3:CV:39:GLY:N	2.36	0.40
3:CZ:82:ILE:HG13	3:FP:78:ILE:HG23	2.02	0.40
3:DA:97:GLU:HA	3:DA:100:LYS:HE2	2.03	0.40
3:DE:58:ALA:N	3:DE:71:MET:HE1	2.35	0.40
3:DF:87:GLU:OE1	3:DF:87:GLU:N	2.47	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:DQ:9:THR:HB	3:DQ:16:VAL:HG12	2.03	0.40
3:DX:11:THR:HG22	3:DX:12:ALA:N	2.35	0.40
3:EC:62:GLU:OE1	3:EC:63:GLY:N	2.54	0.40
3:ED:125:SER:OG	3:ED:126:SER:N	2.55	0.40
3:EL:38:VAL:HG22	3:EL:39:GLY:N	2.36	0.40
3:EY:117:LEU:HD23	3:EY:117:LEU:HA	1.86	0.40
3:FD:66:ASP:OD1	3:FD:66:ASP:N	2.52	0.40
3:FK:35:ARG:HB3	3:FK:42:GLU:OE2	2.21	0.40
3:FM:5:MET:CG	3:FM:17:TRP:HB3	2.49	0.40
3:FN:60:LYS:HA	3:FN:71:MET:CE	2.50	0.40
3:FQ:92:LEU:HD12	3:GE:76:GLN:HE21	1.85	0.40
3:FY:71:MET:SD	3:FY:71:MET:N	2.94	0.40
3:FZ:5:MET:HG2	3:FZ:19:ASP:N	2.37	0.40
3:GW:66:ASP:OD1	3:GW:66:ASP:N	2.51	0.40
3:GY:5:MET:HB3	3:GY:17:TRP:HB3	2.02	0.40
1:R:78:G:H2'	1:R:79:A:C8	2.56	0.40
1:R:184:C:H2'	1:R:185:A:C8	2.56	0.40
1:R:1105:A:H2'	1:R:1106:G:C8	2.57	0.40
1:R:1325:A:H2'	1:R:1326:G:H8	1.85	0.40
1:R:1392:A:H5''	1:R:1393:G:C8	2.56	0.40
1:R:1861:U:H2'	1:R:1862:U:C6	2.56	0.40
1:R:3612:A:H2'	1:R:3613:C:C6	2.57	0.40
1:R:3957:G:H2'	1:R:3958:G:C8	2.56	0.40
1:R:4092:A:H2'	1:R:4093:U:H6	1.85	0.40
1:R:4243:A:HO2'	1:R:4244:G:H5''	1.85	0.40
2:b:5:LYS:HD3	2:b:188:TYR:CD2	2.56	0.40
2:b:271:HIS:CE1	2:b:331:MET:HE2	2.56	0.40
3:AJ:16:VAL:HG22	3:AJ:28:SER:HB2	2.03	0.40
3:AL:5:MET:CB	3:AL:17:TRP:HB3	2.51	0.40
3:AQ:8:ILE:HD11	3:AQ:18:SER:OG	2.20	0.40
3:AQ:37:LYS:HB2	3:AQ:42:GLU:OE2	2.22	0.40
3:AU:16:VAL:HG22	3:AU:28:SER:HB2	2.03	0.40
3:AW:35:ARG:HG3	3:AW:42:GLU:OE2	2.21	0.40
3:AW:66:ASP:HB2	3:AW:69:VAL:HG12	2.03	0.40
3:AX:45:ASN:OD1	3:AX:46:VAL:N	2.54	0.40
3:BH:91:THR:HG23	3:ET:76:GLN:HE22	1.86	0.40
3:BI:60:LYS:HB2	3:BI:61:PRO:HD2	2.04	0.40
3:BI:124:VAL:C	3:BV:5:MET:HE1	2.46	0.40
3:BJ:68:CYS:SG	3:BV:64:CYS:HB3	2.62	0.40
3:BL:9:THR:HB	3:BL:16:VAL:HG22	2.03	0.40
3:BL:108:ALA:HA	3:EM:93:LYS:NZ	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BL:111:ASN:HB2	3:BL:114:LEU:HD12	2.02	0.40
3:BT:5:MET:CB	3:BT:17:TRP:HB3	2.51	0.40
3:BY:37:LYS:HD2	3:BY:41:ALA:O	2.21	0.40
3:BY:117:LEU:HD23	3:BY:117:LEU:HA	1.97	0.40
3:BZ:38:VAL:O	3:BZ:40:ILE:N	2.53	0.40
3:CC:56:ARG:HD3	3:CC:56:ARG:HA	1.95	0.40
3:CC:123:ILE:HD11	3:FO:17:TRP:CG	2.56	0.40
3:CK:60:LYS:HD3	3:CK:60:LYS:HA	1.88	0.40
3:CO:69:VAL:HG23	3:CO:69:VAL:O	2.21	0.40
3:CP:95:GLU:OE1	3:Dc:54:TYR:HB2	2.20	0.40
3:CS:5:MET:HG2	3:CS:19:ASP:N	2.36	0.40
3:CS:55:LYS:HB3	3:CS:73:ASN:HD22	1.86	0.40
3:CS:61:PRO:HG2	3:CS:62:GLU:OE1	2.21	0.40
3:CV:56:ARG:O	3:CV:74:GLU:HG3	2.21	0.40
3:DA:31:LEU:HD22	3:GM:117:LEU:HD11	2.02	0.40
3:DB:17:TRP:CD2	3:GI:123:ILE:HD12	2.57	0.40
3:DD:14:LYS:HE2	3:DD:30:SER:HB3	2.04	0.40
3:DH:107:PHE:HA	3:DH:112:ALA:HB3	2.03	0.40
3:DO:5:MET:HB2	3:DO:18:SER:C	2.47	0.40
3:DO:8:ILE:N	3:DO:16:VAL:O	2.39	0.40
3:DQ:116:PHE:CE2	3:EQ:8:ILE:HD11	2.56	0.40
3:FF:7:PRO:HA	3:FF:17:TRP:HA	2.02	0.40
3:FJ:112:ALA:HA	3:FJ:116:PHE:O	2.21	0.40
3:FN:35:ARG:HA	3:FN:35:ARG:NE	2.36	0.40
3:FV:27:PHE:HD1	3:FV:52:SER:HB2	1.86	0.40
3:GJ:38:VAL:HG13	3:GJ:39:GLY:N	2.36	0.40
3:GJ:55:LYS:NZ	3:GJ:75:ASN:OD1	2.40	0.40
3:GP:51:VAL:HG13	3:GP:79:ARG:HG2	2.02	0.40
3:GV:66:ASP:OD1	3:GV:67:ALA:N	2.55	0.40
1:R:217:U:H3	1:R:255:G:H1	1.69	0.40
1:R:297:C:H2'	1:R:299:A:OP1	2.22	0.40
1:R:321:U:H2'	1:R:322:A:H8	1.84	0.40
1:R:425:A:H3'	1:R:426:A:H8	1.87	0.40
1:R:479:G:H5'	1:R:612:G:OP1	2.21	0.40
1:R:655:C:H2'	1:R:656:A:C8	2.56	0.40
1:R:919:G:H2'	1:R:920:C:C5	2.57	0.40
1:R:1445:U:H2'	1:R:1446:U:C6	2.57	0.40
1:R:1555:U:C2	1:R:1564:G:O6	2.74	0.40
1:R:1762:C:H2'	1:R:1763:U:C6	2.56	0.40
1:R:1823:A:H62	1:R:1843:A:H1'	1.86	0.40
1:R:2010:C:H2'	1:R:2011:A:H8	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2173:A:H61	1:R:3626:G:H1	1.70	0.40
1:R:2318:G:H4'	3:AU:45:ASN:HD22	1.87	0.40
1:R:2518:U:H5''	1:R:2523:A:H2'	2.04	0.40
1:R:2521:C:H5'	3:GA:79:ARG:HH22	1.84	0.40
1:R:3006:A:H1'	1:R:3008:G:H1'	2.04	0.40
1:R:3232:U:N3	1:R:3235:G:O6	2.45	0.40
1:R:3686:A:H2'	1:R:3687:A:H8	1.86	0.40
1:R:3752:G:H2'	1:R:3753:C:C6	2.56	0.40
1:R:3899:G:C6	1:R:3900:G:O6	2.74	0.40
1:R:3912:G:H2'	1:R:3913:U:C6	2.56	0.40
1:R:3965:U:P	1:R:3966:C:H41	2.42	0.40
1:R:4039:U:H2'	1:R:4040:C:C6	2.56	0.40
1:R:4100:G:H2'	1:R:4101:C:C6	2.56	0.40
1:R:4166:C:H2'	1:R:4167:U:C6	2.56	0.40
2:b:124:ASP:OD1	2:b:124:ASP:N	2.48	0.40
3:AB:52:SER:HB2	3:AB:78:ILE:CG2	2.52	0.40
3:AC:38:VAL:HG13	3:AC:39:GLY:N	2.36	0.40
3:AE:38:VAL:O	3:AE:40:ILE:N	2.51	0.40
3:AF:70:ILE:HG13	3:AF:70:ILE:O	2.21	0.40
3:AG:89:LEU:HD11	3:DS:113:GLY:HA3	2.03	0.40
3:AM:5:MET:CB	3:AM:17:TRP:HB3	2.50	0.40
3:AS:5:MET:SD	3:EE:125:SER:HB2	2.61	0.40
3:AX:13:ASN:OD1	3:AX:14:LYS:N	2.55	0.40
3:BB:123:ILE:HD11	3:EN:17:TRP:CG	2.56	0.40
3:BG:62:GLU:O	3:BG:62:GLU:HG2	2.21	0.40
3:BN:2:ASN:HB2	3:EZ:124:VAL:CG1	2.51	0.40
3:BN:3:LYS:N	3:BN:3:LYS:HD3	2.37	0.40
3:BT:35:ARG:HG3	3:BT:42:GLU:OE2	2.21	0.40
3:BT:60:LYS:HG3	3:BT:61:PRO:CD	2.44	0.40
3:CG:96:TRP:NE1	3:CG:100:LYS:HE3	2.36	0.40
3:CK:71:MET:HB2	3:CK:72:PRO:HD2	2.02	0.40
3:CL:6:GLN:HB2	3:DH:116:PHE:HD2	1.86	0.40
3:CO:114:LEU:H	3:CO:114:LEU:HD12	1.85	0.40
3:CO:118:ASP:OD1	3:CO:121:ALA:N	2.54	0.40
3:CV:27:PHE:HD1	3:CV:52:SER:HB2	1.87	0.40
3:DA:106:LEU:HD22	3:GM:50:TYR:HE2	1.85	0.40
3:DD:106:LEU:HD22	3:GP:50:TYR:HE2	1.87	0.40
3:DN:112:ALA:HA	3:DN:116:PHE:O	2.22	0.40
3:DV:70:ILE:HD12	3:DV:71:MET:N	2.36	0.40
3:DX:38:VAL:HG12	3:DX:43:LEU:HD23	2.02	0.40
3:ED:79:ARG:HB2	3:ED:79:ARG:NH1	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:EG:62:GLU:C	3:EG:62:GLU:CD	2.89	0.40
3:EH:5:MET:CB	3:EH:17:TRP:HB3	2.52	0.40
3:EH:118:ASP:OD1	3:EH:120:THR:HG22	2.22	0.40
3:EO:5:MET:HG2	3:EO:18:SER:C	2.46	0.40
3:ES:14:LYS:O	3:ES:15:ILE:HD13	2.21	0.40
3:EU:38:VAL:HG23	3:EU:39:GLY:N	2.36	0.40
3:FF:89:LEU:HD21	3:FF:93:LYS:HE3	2.03	0.40
3:FQ:43:LEU:HD23	3:FQ:43:LEU:HA	1.76	0.40
3:GF:117:LEU:HD21	3:GQ:31:LEU:HG	2.04	0.40
3:GH:95:GLU:O	3:GH:99:HIS:N	2.44	0.40
3:GT:19:ASP:HB3	3:GT:22:ARG:O	2.21	0.40
1:R:10:C:H2'	1:R:11:C:H6	1.86	0.40
1:R:28:A:H2'	1:R:29:A:C8	2.57	0.40
1:R:173:U:H2'	1:R:174:U:H6	1.86	0.40
1:R:208:U:H2'	1:R:209:G:H8	1.85	0.40
1:R:258:C:H2'	1:R:259:A:H8	1.86	0.40
1:R:286:C:H2'	1:R:287:G:O4'	2.22	0.40
1:R:645:A:H2'	1:R:646:G:C8	2.56	0.40
1:R:681:U:H2'	1:R:682:U:H6	1.87	0.40
1:R:1152:C:H2'	1:R:1153:C:H6	1.85	0.40
1:R:1567:G:O6	1:R:1715:U:H1'	2.22	0.40
1:R:1813:U:H1'	1:R:1815:A:N7	2.36	0.40
1:R:2418:C:H2'	1:R:2419:A:C8	2.56	0.40
1:R:2474:U:H4'	1:R:2642:G:H22	1.87	0.40
1:R:2478:C:N3	1:R:2480:C:N4	2.69	0.40
1:R:2665:A:H2'	1:R:2666:G:C8	2.57	0.40
1:R:2950:G:H2'	1:R:2951:U:C6	2.57	0.40
1:R:3414:A:H2'	1:R:3415:C:C6	2.57	0.40
1:R:3498:A:H2'	1:R:3499:U:C6	2.56	0.40
1:R:3704:U:H2'	1:R:3705:A:C8	2.57	0.40
2:a:247:LEU:HD12	2:a:523:TRP:HB2	2.03	0.40
2:a:269:LYS:HE2	2:a:273:ARG:HH21	1.86	0.40
2:b:325:VAL:O	2:b:329:LYS:HG2	2.22	0.40
2:b:515:TYR:O	2:b:517:ASP:N	2.55	0.40
3:AT:49:GLN:HE21	3:AT:79:ARG:HE	1.68	0.40
3:AU:87:GLU:OE1	3:AU:87:GLU:N	2.51	0.40
3:BE:35:ARG:HB3	3:BE:42:GLU:OE2	2.21	0.40
3:BG:34:GLN:HE21	3:BG:45:ASN:HB3	1.87	0.40
3:BH:87:GLU:OE1	3:BH:87:GLU:N	2.42	0.40
3:BM:46:VAL:HG21	3:BX:113:GLY:O	2.22	0.40
3:BU:9:THR:O	3:BU:15:ILE:HA	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CB:111:ASN:HB2	3:CB:114:LEU:HD13	2.03	0.40
3:CI:129:THR:HA	3:FU:3:LYS:NZ	2.37	0.40
3:CJ:56:ARG:HH21	3:CJ:76:GLN:HE22	1.70	0.40
3:CJ:66:ASP:OD1	3:CJ:67:ALA:N	2.55	0.40
3:CN:22:ARG:HG2	3:CN:24:SER:H	1.86	0.40
3:Cc:82:ILE:HG12	3:GD:78:ILE:HG12	2.04	0.40
3:DJ:6:GLN:NE2	3:DJ:8:ILE:HD13	2.36	0.40
3:DN:3:LYS:HG2	3:EV:129:THR:HG22	2.03	0.40
3:DY:35:ARG:NH2	3:DY:44:ASN:HD22	2.10	0.40
3:DZ:117:LEU:HD21	3:FN:31:LEU:HD13	2.03	0.40
3:EC:92:LEU:HD12	3:FH:76:GLN:HG2	2.03	0.40
3:EC:96:TRP:CE2	3:EC:100:LYS:HE3	2.57	0.40
3:EL:92:LEU:O	3:EL:96:TRP:N	2.45	0.40
3:EW:11:THR:H	3:EW:15:ILE:HD13	1.86	0.40
3:EY:42:GLU:HA	3:EY:42:GLU:OE2	2.22	0.40
3:FD:60:LYS:HD3	3:FD:60:LYS:HA	1.96	0.40
3:FL:87:GLU:OE1	3:FL:87:GLU:N	2.43	0.40
3:FP:34:GLN:O	3:FP:45:ASN:N	2.43	0.40
3:FP:37:LYS:HD2	3:FP:41:ALA:O	2.20	0.40
3:FQ:2:ASN:HB3	3:GE:124:VAL:HG21	2.04	0.40
3:FQ:5:MET:CG	3:FQ:17:TRP:HB3	2.48	0.40
3:FQ:40:ILE:O	3:FQ:40:ILE:HG13	2.22	0.40
3:FW:96:TRP:CE2	3:FW:100:LYS:HD2	2.56	0.40
3:FW:96:TRP:CZ2	3:FW:100:LYS:HD2	2.57	0.40
3:GO:5:MET:CB	3:GO:17:TRP:HB3	2.52	0.40
3:GS:111:ASN:OD1	3:GS:116:PHE:HB3	2.21	0.40
3:GX:11:THR:HG22	3:GX:12:ALA:H	1.86	0.40
3:GX:118:ASP:OD2	3:GX:121:ALA:N	2.54	0.40
1:R:233:A:H61	1:R:244:G:H21	1.69	0.40
1:R:686:A:H2'	1:R:687:U:C6	2.56	0.40
1:R:860:U:H2'	1:R:861:U:H6	1.87	0.40
1:R:1325:A:H2'	1:R:1326:G:C8	2.56	0.40
1:R:1408:A:C2	1:R:1410:U:H2'	2.57	0.40
1:R:1486:U:H5	1:R:1490:C:H5''	1.86	0.40
1:R:1582:A:H2'	1:R:1583:A:H8	1.87	0.40
1:R:1617:U:H2'	1:R:1618:U:C6	2.57	0.40
1:R:1630:U:H2'	1:R:1631:C:H6	1.84	0.40
1:R:1825:C:H4'	1:R:1826:G:C8	2.56	0.40
1:R:1908:A:H2'	1:R:1909:U:H6	1.86	0.40
1:R:2242:A:H2'	1:R:2243:C:C6	2.55	0.40
1:R:2621:U:O2'	1:R:2622:C:H6	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:R:2748:A:H2'	1:R:2749:C:O4'	2.22	0.40
1:R:2775:U:N3	1:R:2797:C:OP2	2.45	0.40
1:R:3257:G:H2'	1:R:3258:A:H8	1.86	0.40
1:R:3544:C:H2'	1:R:3545:A:C8	2.57	0.40
1:R:3640:U:H2'	1:R:3641:G:O4'	2.21	0.40
1:R:3856:A:H2'	1:R:3857:U:C6	2.57	0.40
1:R:4093:U:H2'	1:R:4094:C:C6	2.57	0.40
1:R:4161:A:H2'	1:R:4162:U:C6	2.56	0.40
1:R:4198:G:H1	1:R:4218:U:H3	1.70	0.40
2:a:469:ASP:OD1	2:b:524:ASN:ND2	2.54	0.40
3:AE:4:PRO:HA	3:DL:123:ILE:O	2.22	0.40
3:AJ:79:ARG:HB2	3:DV:81:VAL:HG22	2.03	0.40
3:AO:66:ASP:OD1	3:AO:66:ASP:N	2.52	0.40
3:AS:58:ALA:HB1	3:AS:59:PRO:HD2	2.02	0.40
3:AU:33:ARG:NH1	3:AU:33:ARG:HB2	2.36	0.40
3:AZ:116:PHE:CE2	3:BH:8:ILE:HD11	2.55	0.40
3:BM:22:ARG:HD3	3:BM:25:THR:HG23	2.03	0.40
3:Bc:2:ASN:HB2	3:EJ:124:VAL:HB	2.04	0.40
3:CA:58:ALA:N	3:CA:59:PRO:HD3	2.36	0.40
3:CC:74:GLU:CD	3:FO:88:ASN:HD22	2.25	0.40
3:CE:124:VAL:HB	3:DK:2:ASN:HB2	2.04	0.40
3:CK:11:THR:HG22	3:CK:12:ALA:H	1.87	0.40
3:CM:12:ALA:HB1	3:CN:9:THR:HA	2.04	0.40
3:CO:59:PRO:HG3	3:GA:87:GLU:HB3	2.03	0.40
3:CV:59:PRO:HB3	3:GL:43:LEU:HD21	2.02	0.40
3:CY:62:GLU:OE2	3:GP:67:ALA:HB1	2.21	0.40
3:DE:55:LYS:HE3	3:DE:55:LYS:HB2	1.89	0.40
3:DF:35:ARG:HH22	3:DF:42:GLU:HG2	1.87	0.40
3:DF:38:VAL:HG12	3:DF:43:LEU:HD23	2.04	0.40
3:DI:25:THR:HB	3:DI:54:TYR:CD1	2.57	0.40
3:DT:116:PHE:CE1	3:ET:8:ILE:HD11	2.55	0.40
3:EE:60:LYS:HB3	3:EE:71:MET:CE	2.52	0.40
3:EN:37:LYS:HA	3:EN:37:LYS:HD2	1.85	0.40
3:FS:12:ALA:HB1	3:FT:9:THR:HA	2.02	0.40
3:GA:86:ALA:HA	3:GA:89:LEU:HB2	2.02	0.40
3:GC:2:ASN:ND2	3:GW:128:THR:HG22	2.37	0.40
3:GH:106:LEU:HD23	3:GH:112:ALA:HB2	2.04	0.40
3:GK:4:PRO:HA	3:GX:124:VAL:HA	2.03	0.40
3:GS:5:MET:CB	3:GS:17:TRP:HB3	2.51	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	a	532/534 (100%)	492 (92%)	38 (7%)	2 (0%)	30	60
2	b	532/534 (100%)	488 (92%)	41 (8%)	3 (1%)	21	50
3	AB	127/129 (98%)	114 (90%)	13 (10%)	0	100	100
3	AC	127/129 (98%)	119 (94%)	6 (5%)	2 (2%)	7	29
3	AE	127/129 (98%)	114 (90%)	12 (9%)	1 (1%)	16	45
3	AF	127/129 (98%)	117 (92%)	8 (6%)	2 (2%)	7	29
3	AG	127/129 (98%)	112 (88%)	15 (12%)	0	100	100
3	AH	127/129 (98%)	120 (94%)	5 (4%)	2 (2%)	7	29
3	AI	127/129 (98%)	120 (94%)	7 (6%)	0	100	100
3	AJ	127/129 (98%)	123 (97%)	3 (2%)	1 (1%)	16	45
3	AK	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	AL	127/129 (98%)	118 (93%)	9 (7%)	0	100	100
3	AM	127/129 (98%)	118 (93%)	8 (6%)	1 (1%)	16	45
3	AN	127/129 (98%)	118 (93%)	8 (6%)	1 (1%)	16	45
3	AO	127/129 (98%)	121 (95%)	5 (4%)	1 (1%)	16	45
3	AP	127/129 (98%)	120 (94%)	7 (6%)	0	100	100
3	AQ	127/129 (98%)	113 (89%)	11 (9%)	3 (2%)	4	21
3	AS	127/129 (98%)	122 (96%)	4 (3%)	1 (1%)	16	45
3	AT	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	AU	127/129 (98%)	121 (95%)	6 (5%)	0	100	100
3	AV	127/129 (98%)	114 (90%)	11 (9%)	2 (2%)	7	29
3	AW	127/129 (98%)	119 (94%)	7 (6%)	1 (1%)	16	45
3	AX	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	AY	127/129 (98%)	120 (94%)	5 (4%)	2 (2%)	7	29
3	AZ	127/129 (98%)	115 (91%)	7 (6%)	5 (4%)	2	13

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	Ac	127/129 (98%)	118 (93%)	9 (7%)	0	100	100
3	BA	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	BB	127/129 (98%)	123 (97%)	4 (3%)	0	100	100
3	BC	127/129 (98%)	112 (88%)	13 (10%)	2 (2%)	7	29
3	BD	127/129 (98%)	121 (95%)	5 (4%)	1 (1%)	16	45
3	BE	127/129 (98%)	123 (97%)	3 (2%)	1 (1%)	16	45
3	BF	127/129 (98%)	118 (93%)	8 (6%)	1 (1%)	16	45
3	BG	127/129 (98%)	120 (94%)	7 (6%)	0	100	100
3	BH	127/129 (98%)	120 (94%)	5 (4%)	2 (2%)	7	29
3	BI	127/129 (98%)	120 (94%)	7 (6%)	0	100	100
3	BJ	127/129 (98%)	119 (94%)	8 (6%)	0	100	100
3	BK	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	BL	127/129 (98%)	119 (94%)	8 (6%)	0	100	100
3	BM	127/129 (98%)	121 (95%)	5 (4%)	1 (1%)	16	45
3	BN	127/129 (98%)	113 (89%)	12 (9%)	2 (2%)	7	29
3	BO	127/129 (98%)	114 (90%)	11 (9%)	2 (2%)	7	29
3	BP	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	BQ	127/129 (98%)	121 (95%)	5 (4%)	1 (1%)	16	45
3	BS	127/129 (98%)	118 (93%)	9 (7%)	0	100	100
3	BT	127/129 (98%)	114 (90%)	11 (9%)	2 (2%)	7	29
3	BU	127/129 (98%)	121 (95%)	4 (3%)	2 (2%)	7	29
3	BV	127/129 (98%)	117 (92%)	9 (7%)	1 (1%)	16	45
3	BW	127/129 (98%)	118 (93%)	9 (7%)	0	100	100
3	BX	127/129 (98%)	118 (93%)	7 (6%)	2 (2%)	7	29
3	BY	127/129 (98%)	119 (94%)	8 (6%)	0	100	100
3	BZ	127/129 (98%)	118 (93%)	8 (6%)	1 (1%)	16	45
3	Bc	127/129 (98%)	119 (94%)	7 (6%)	1 (1%)	16	45
3	CA	127/129 (98%)	115 (91%)	10 (8%)	2 (2%)	7	29
3	CB	127/129 (98%)	123 (97%)	4 (3%)	0	100	100
3	CC	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	CD	127/129 (98%)	116 (91%)	9 (7%)	2 (2%)	7	29

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	CE	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	CF	127/129 (98%)	122 (96%)	4 (3%)	1 (1%)	16	45
3	CG	127/129 (98%)	122 (96%)	4 (3%)	1 (1%)	16	45
3	CH	127/129 (98%)	122 (96%)	5 (4%)	0	100	100
3	CI	127/129 (98%)	120 (94%)	7 (6%)	0	100	100
3	CJ	127/129 (98%)	120 (94%)	7 (6%)	0	100	100
3	CK	127/129 (98%)	120 (94%)	7 (6%)	0	100	100
3	CL	127/129 (98%)	118 (93%)	8 (6%)	1 (1%)	16	45
3	CM	127/129 (98%)	116 (91%)	9 (7%)	2 (2%)	7	29
3	CN	127/129 (98%)	118 (93%)	7 (6%)	2 (2%)	7	29
3	CO	127/129 (98%)	119 (94%)	8 (6%)	0	100	100
3	CP	127/129 (98%)	115 (91%)	10 (8%)	2 (2%)	7	29
3	CQ	127/129 (98%)	122 (96%)	3 (2%)	2 (2%)	7	29
3	CS	127/129 (98%)	118 (93%)	8 (6%)	1 (1%)	16	45
3	CT	127/129 (98%)	118 (93%)	9 (7%)	0	100	100
3	CU	127/129 (98%)	119 (94%)	8 (6%)	0	100	100
3	CV	127/129 (98%)	117 (92%)	7 (6%)	3 (2%)	4	21
3	CW	127/129 (98%)	124 (98%)	2 (2%)	1 (1%)	16	45
3	CX	127/129 (98%)	123 (97%)	3 (2%)	1 (1%)	16	45
3	CY	127/129 (98%)	119 (94%)	7 (6%)	1 (1%)	16	45
3	CZ	127/129 (98%)	121 (95%)	5 (4%)	1 (1%)	16	45
3	Cc	127/129 (98%)	123 (97%)	3 (2%)	1 (1%)	16	45
3	DA	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	DB	127/129 (98%)	119 (94%)	8 (6%)	0	100	100
3	DC	127/129 (98%)	118 (93%)	8 (6%)	1 (1%)	16	45
3	DD	127/129 (98%)	118 (93%)	7 (6%)	2 (2%)	7	29
3	DE	127/129 (98%)	121 (95%)	6 (5%)	0	100	100
3	DF	127/129 (98%)	121 (95%)	4 (3%)	2 (2%)	7	29
3	DG	127/129 (98%)	116 (91%)	10 (8%)	1 (1%)	16	45
3	DH	127/129 (98%)	120 (94%)	7 (6%)	0	100	100
3	DI	127/129 (98%)	122 (96%)	5 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	DJ	127/129 (98%)	118 (93%)	9 (7%)	0	100	100
3	DK	127/129 (98%)	119 (94%)	6 (5%)	2 (2%)	7	29
3	DL	127/129 (98%)	118 (93%)	9 (7%)	0	100	100
3	DM	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	DN	127/129 (98%)	116 (91%)	11 (9%)	0	100	100
3	DO	127/129 (98%)	117 (92%)	10 (8%)	0	100	100
3	DQ	127/129 (98%)	117 (92%)	9 (7%)	1 (1%)	16	45
3	DS	127/129 (98%)	117 (92%)	8 (6%)	2 (2%)	7	29
3	DT	127/129 (98%)	116 (91%)	10 (8%)	1 (1%)	16	45
3	DU	127/129 (98%)	118 (93%)	9 (7%)	0	100	100
3	DV	127/129 (98%)	117 (92%)	7 (6%)	3 (2%)	4	21
3	DW	127/129 (98%)	118 (93%)	8 (6%)	1 (1%)	16	45
3	DX	127/129 (98%)	121 (95%)	6 (5%)	0	100	100
3	DY	127/129 (98%)	118 (93%)	9 (7%)	0	100	100
3	DZ	127/129 (98%)	119 (94%)	8 (6%)	0	100	100
3	Dc	127/129 (98%)	122 (96%)	5 (4%)	0	100	100
3	EA	127/129 (98%)	121 (95%)	6 (5%)	0	100	100
3	EB	127/129 (98%)	121 (95%)	6 (5%)	0	100	100
3	EC	127/129 (98%)	117 (92%)	10 (8%)	0	100	100
3	ED	127/129 (98%)	120 (94%)	5 (4%)	2 (2%)	7	29
3	EE	127/129 (98%)	115 (91%)	8 (6%)	4 (3%)	3	17
3	EF	127/129 (98%)	115 (91%)	12 (9%)	0	100	100
3	EG	127/129 (98%)	120 (94%)	3 (2%)	4 (3%)	3	17
3	EH	127/129 (98%)	121 (95%)	5 (4%)	1 (1%)	16	45
3	EI	127/129 (98%)	115 (91%)	10 (8%)	2 (2%)	7	29
3	EJ	127/129 (98%)	119 (94%)	5 (4%)	3 (2%)	4	21
3	EK	127/129 (98%)	123 (97%)	2 (2%)	2 (2%)	7	29
3	EL	127/129 (98%)	119 (94%)	6 (5%)	2 (2%)	7	29
3	EM	127/129 (98%)	122 (96%)	5 (4%)	0	100	100
3	EN	127/129 (98%)	115 (91%)	11 (9%)	1 (1%)	16	45
3	EO	127/129 (98%)	118 (93%)	8 (6%)	1 (1%)	16	45

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	EP	127/129 (98%)	119 (94%)	6 (5%)	2 (2%)	7	29
3	EQ	127/129 (98%)	118 (93%)	7 (6%)	2 (2%)	7	29
3	ES	127/129 (98%)	120 (94%)	7 (6%)	0	100	100
3	ET	127/129 (98%)	122 (96%)	4 (3%)	1 (1%)	16	45
3	EU	127/129 (98%)	115 (91%)	11 (9%)	1 (1%)	16	45
3	EV	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	EW	127/129 (98%)	119 (94%)	7 (6%)	1 (1%)	16	45
3	EX	127/129 (98%)	110 (87%)	13 (10%)	4 (3%)	3	17
3	EY	127/129 (98%)	118 (93%)	9 (7%)	0	100	100
3	EZ	127/129 (98%)	119 (94%)	6 (5%)	2 (2%)	7	29
3	Ec	127/129 (98%)	116 (91%)	10 (8%)	1 (1%)	16	45
3	FA	127/129 (98%)	119 (94%)	8 (6%)	0	100	100
3	FB	127/129 (98%)	115 (91%)	9 (7%)	3 (2%)	4	21
3	FC	127/129 (98%)	118 (93%)	6 (5%)	3 (2%)	4	21
3	FD	127/129 (98%)	119 (94%)	8 (6%)	0	100	100
3	FE	127/129 (98%)	116 (91%)	11 (9%)	0	100	100
3	FF	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	FG	127/129 (98%)	116 (91%)	11 (9%)	0	100	100
3	FH	127/129 (98%)	115 (91%)	12 (9%)	0	100	100
3	FI	127/129 (98%)	121 (95%)	6 (5%)	0	100	100
3	FJ	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	FK	127/129 (98%)	123 (97%)	4 (3%)	0	100	100
3	FL	127/129 (98%)	117 (92%)	9 (7%)	1 (1%)	16	45
3	FM	127/129 (98%)	118 (93%)	7 (6%)	2 (2%)	7	29
3	FN	127/129 (98%)	121 (95%)	5 (4%)	1 (1%)	16	45
3	FO	127/129 (98%)	119 (94%)	7 (6%)	1 (1%)	16	45
3	FP	127/129 (98%)	120 (94%)	5 (4%)	2 (2%)	7	29
3	FQ	127/129 (98%)	120 (94%)	7 (6%)	0	100	100
3	FS	127/129 (98%)	121 (95%)	5 (4%)	1 (1%)	16	45
3	FT	127/129 (98%)	118 (93%)	8 (6%)	1 (1%)	16	45
3	FU	127/129 (98%)	121 (95%)	6 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	FV	127/129 (98%)	119 (94%)	7 (6%)	1 (1%)	16	45
3	FW	127/129 (98%)	112 (88%)	11 (9%)	4 (3%)	3	17
3	FX	127/129 (98%)	117 (92%)	8 (6%)	2 (2%)	7	29
3	FY	127/129 (98%)	123 (97%)	4 (3%)	0	100	100
3	FZ	127/129 (98%)	113 (89%)	11 (9%)	3 (2%)	4	21
3	Fc	127/129 (98%)	118 (93%)	7 (6%)	2 (2%)	7	29
3	GA	127/129 (98%)	116 (91%)	10 (8%)	1 (1%)	16	45
3	GB	127/129 (98%)	120 (94%)	7 (6%)	0	100	100
3	GC	127/129 (98%)	117 (92%)	7 (6%)	3 (2%)	4	21
3	GD	127/129 (98%)	122 (96%)	5 (4%)	0	100	100
3	GE	127/129 (98%)	119 (94%)	5 (4%)	3 (2%)	4	21
3	GF	127/129 (98%)	121 (95%)	5 (4%)	1 (1%)	16	45
3	GG	127/129 (98%)	122 (96%)	4 (3%)	1 (1%)	16	45
3	GH	127/129 (98%)	122 (96%)	3 (2%)	2 (2%)	7	29
3	GI	127/129 (98%)	117 (92%)	9 (7%)	1 (1%)	16	45
3	GJ	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	GK	127/129 (98%)	117 (92%)	9 (7%)	1 (1%)	16	45
3	GL	127/129 (98%)	121 (95%)	6 (5%)	0	100	100
3	GM	127/129 (98%)	122 (96%)	5 (4%)	0	100	100
3	GN	127/129 (98%)	118 (93%)	7 (6%)	2 (2%)	7	29
3	GO	127/129 (98%)	121 (95%)	5 (4%)	1 (1%)	16	45
3	GP	127/129 (98%)	120 (94%)	6 (5%)	1 (1%)	16	45
3	GQ	127/129 (98%)	119 (94%)	7 (6%)	1 (1%)	16	45
3	GS	127/129 (98%)	123 (97%)	4 (3%)	0	100	100
3	GT	127/129 (98%)	119 (94%)	6 (5%)	2 (2%)	7	29
3	GU	127/129 (98%)	121 (95%)	5 (4%)	1 (1%)	16	45
3	GV	127/129 (98%)	116 (91%)	9 (7%)	2 (2%)	7	29
3	GW	127/129 (98%)	117 (92%)	10 (8%)	0	100	100
3	GX	127/129 (98%)	114 (90%)	9 (7%)	4 (3%)	3	17
3	GY	127/129 (98%)	118 (93%)	8 (6%)	1 (1%)	16	45
3	Gc	127/129 (98%)	121 (95%)	6 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
All	All	23670/24030 (98%)	22117 (93%)	1356 (6%)	197 (1%)	18	45

All (197) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	a	148	ILE
2	b	148	ILE
3	AV	66	ASP
3	AX	70	ILE
3	AY	67	ALA
3	AZ	58	ALA
3	AZ	62	GLU
3	BA	66	ASP
3	BC	66	ASP
3	BK	66	ASP
3	BO	62	GLU
3	Bc	67	ALA
3	BT	58	ALA
3	BU	67	ALA
3	BZ	67	ALA
3	CD	67	ALA
3	CE	67	ALA
3	CM	64	CYS
3	CP	66	ASP
3	CW	67	ALA
3	CY	58	ALA
3	CZ	67	ALA
3	DC	67	ALA
3	DD	67	ALA
3	DT	62	GLU
3	DV	59	PRO
3	ED	66	ASP
3	EK	65	ALA
3	EL	58	ALA
3	EL	59	PRO
3	EN	66	ASP
3	Ec	61	PRO
3	ET	40	ILE
3	EV	67	ALA
3	EX	59	PRO
3	EX	69	VAL
3	FB	67	ALA

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Mol	Chain	Res	Type
3	FF	70	ILE
3	FM	62	GLU
3	FV	67	ALA
3	FW	59	PRO
3	FW	66	ASP
3	FW	67	ALA
3	FZ	58	ALA
3	FZ	61	PRO
3	GA	40	ILE
3	GE	58	ALA
3	GG	70	ILE
3	GN	58	ALA
3	GO	67	ALA
3	GQ	58	ALA
3	GU	61	PRO
3	GV	58	ALA
3	GV	61	PRO
3	AC	67	ALA
3	AF	70	ILE
3	AQ	62	GLU
3	BD	67	ALA
3	BH	65	ALA
3	CA	70	ILE
3	CC	58	ALA
3	CN	66	ASP
3	CN	70	ILE
3	CQ	67	ALA
3	DK	62	GLU
3	DV	58	ALA
3	EJ	66	ASP
3	EP	66	ASP
3	EP	67	ALA
3	EX	70	ILE
3	FB	58	ALA
3	FM	66	ASP
3	FN	70	ILE
3	FO	67	ALA
3	FS	67	ALA
3	FX	66	ASP
3	FZ	67	ALA
3	GC	63	GLY
3	GC	67	ALA

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Mol	Chain	Res	Type
3	GF	70	ILE
3	GX	62	GLU
2	a	141	THR
2	b	141	THR
3	AN	70	ILE
3	AS	58	ALA
3	AZ	66	ASP
3	CA	67	ALA
3	DF	65	ALA
3	EE	64	CYS
3	EE	67	ALA
3	EI	58	ALA
3	GH	70	ILE
3	GX	66	ASP
3	AH	66	ASP
3	AQ	58	ALA
3	BH	60	LYS
3	BT	60	LYS
3	CF	60	LYS
3	CP	58	ALA
3	CV	67	ALA
3	DM	40	ILE
3	DQ	67	ALA
3	EG	60	LYS
3	GK	58	ALA
3	GT	67	ALA
3	GX	60	LYS
3	GX	70	ILE
3	AY	60	LYS
3	AZ	59	PRO
3	AZ	60	LYS
3	BQ	70	ILE
3	CM	58	ALA
3	DD	70	ILE
3	DS	70	ILE
3	EE	60	LYS
3	EJ	70	ILE
3	EO	58	ALA
3	EQ	66	ASP
3	EW	58	ALA
3	EZ	58	ALA
3	FJ	70	ILE

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Mol	Chain	Res	Type
3	FP	67	ALA
3	Fc	40	ILE
3	GE	70	ILE
3	GI	62	GLU
3	GT	58	ALA
2	b	434	THR
3	AE	66	ASP
3	BM	66	ASP
3	BN	64	CYS
3	BU	60	LYS
3	BV	66	ASP
3	BX	70	ILE
3	CS	70	ILE
3	EG	64	CYS
3	EG	70	ILE
3	EH	70	ILE
3	EK	66	ASP
3	EZ	60	LYS
3	FB	70	ILE
3	FC	60	LYS
3	FC	63	GLY
3	GY	66	ASP
3	BP	70	ILE
3	CD	40	ILE
3	CV	58	ALA
3	FC	40	ILE
3	AM	40	ILE
3	AO	40	ILE
3	AW	40	ILE
3	BC	58	ALA
3	EI	70	ILE
3	Fc	61	PRO
3	FW	40	ILE
3	AH	40	ILE
3	AK	40	ILE
3	AQ	60	LYS
3	CG	60	LYS
3	CQ	40	ILE
3	CV	69	VAL
3	CX	40	ILE
3	DG	40	ILE
3	DK	58	ALA

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Mol	Chain	Res	Type
3	DW	40	ILE
3	FT	70	ILE
3	GN	69	VAL
3	GP	40	ILE
3	AF	60	LYS
3	AT	60	LYS
3	AV	40	ILE
3	BE	40	ILE
3	BF	40	ILE
3	BN	38	VAL
3	BO	58	ALA
3	BX	40	ILE
3	Cc	40	ILE
3	DA	40	ILE
3	DV	71	MET
3	ED	40	ILE
3	EX	40	ILE
3	FP	40	ILE
3	GC	40	ILE
3	GE	40	ILE
3	GH	40	ILE
3	AC	40	ILE
3	AJ	40	ILE
3	CL	40	ILE
3	DF	40	ILE
3	DS	40	ILE
3	EE	63	GLY
3	EG	40	ILE
3	EJ	40	ILE
3	EQ	40	ILE
3	EU	58	ALA
3	FL	40	ILE
3	FX	40	ILE
3	GJ	40	ILE

5.3.2 Protein sidechains [i](#)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	a	466/466 (100%)	466 (100%)	0	100	100
2	b	466/466 (100%)	466 (100%)	0	100	100
3	AB	108/108 (100%)	108 (100%)	0	100	100
3	AC	108/108 (100%)	108 (100%)	0	100	100
3	AE	108/108 (100%)	108 (100%)	0	100	100
3	AF	108/108 (100%)	108 (100%)	0	100	100
3	AG	108/108 (100%)	108 (100%)	0	100	100
3	AH	108/108 (100%)	108 (100%)	0	100	100
3	AI	108/108 (100%)	108 (100%)	0	100	100
3	AJ	108/108 (100%)	108 (100%)	0	100	100
3	AK	108/108 (100%)	108 (100%)	0	100	100
3	AL	108/108 (100%)	108 (100%)	0	100	100
3	AM	108/108 (100%)	108 (100%)	0	100	100
3	AN	108/108 (100%)	108 (100%)	0	100	100
3	AO	108/108 (100%)	108 (100%)	0	100	100
3	AP	108/108 (100%)	107 (99%)	1 (1%)	70	78
3	AQ	108/108 (100%)	108 (100%)	0	100	100
3	AS	108/108 (100%)	108 (100%)	0	100	100
3	AT	108/108 (100%)	108 (100%)	0	100	100
3	AU	108/108 (100%)	108 (100%)	0	100	100
3	AV	108/108 (100%)	108 (100%)	0	100	100
3	AW	108/108 (100%)	108 (100%)	0	100	100
3	AX	108/108 (100%)	108 (100%)	0	100	100
3	AY	108/108 (100%)	108 (100%)	0	100	100
3	AZ	108/108 (100%)	106 (98%)	2 (2%)	50	71
3	Ac	108/108 (100%)	108 (100%)	0	100	100
3	BA	108/108 (100%)	108 (100%)	0	100	100
3	BB	108/108 (100%)	108 (100%)	0	100	100
3	BC	108/108 (100%)	108 (100%)	0	100	100
3	BD	108/108 (100%)	108 (100%)	0	100	100
3	BE	108/108 (100%)	108 (100%)	0	100	100
3	BF	108/108 (100%)	108 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	BG	108/108 (100%)	108 (100%)	0	100	100
3	BH	108/108 (100%)	108 (100%)	0	100	100
3	BI	108/108 (100%)	108 (100%)	0	100	100
3	BJ	108/108 (100%)	108 (100%)	0	100	100
3	BK	108/108 (100%)	108 (100%)	0	100	100
3	BL	108/108 (100%)	108 (100%)	0	100	100
3	BM	108/108 (100%)	108 (100%)	0	100	100
3	BN	108/108 (100%)	106 (98%)	2 (2%)	50	71
3	BO	108/108 (100%)	108 (100%)	0	100	100
3	BP	108/108 (100%)	108 (100%)	0	100	100
3	BQ	108/108 (100%)	108 (100%)	0	100	100
3	BS	108/108 (100%)	108 (100%)	0	100	100
3	BT	108/108 (100%)	108 (100%)	0	100	100
3	BU	108/108 (100%)	108 (100%)	0	100	100
3	BV	108/108 (100%)	108 (100%)	0	100	100
3	BW	108/108 (100%)	108 (100%)	0	100	100
3	BX	108/108 (100%)	108 (100%)	0	100	100
3	BY	108/108 (100%)	108 (100%)	0	100	100
3	BZ	108/108 (100%)	108 (100%)	0	100	100
3	Bc	108/108 (100%)	108 (100%)	0	100	100
3	CA	108/108 (100%)	108 (100%)	0	100	100
3	CB	108/108 (100%)	108 (100%)	0	100	100
3	CC	108/108 (100%)	108 (100%)	0	100	100
3	CD	108/108 (100%)	108 (100%)	0	100	100
3	CE	108/108 (100%)	108 (100%)	0	100	100
3	CF	108/108 (100%)	108 (100%)	0	100	100
3	CG	108/108 (100%)	108 (100%)	0	100	100
3	CH	108/108 (100%)	108 (100%)	0	100	100
3	CI	108/108 (100%)	108 (100%)	0	100	100
3	CJ	108/108 (100%)	108 (100%)	0	100	100
3	CK	108/108 (100%)	108 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	CL	108/108 (100%)	108 (100%)	0	100	100
3	CM	108/108 (100%)	108 (100%)	0	100	100
3	CN	108/108 (100%)	108 (100%)	0	100	100
3	CO	108/108 (100%)	108 (100%)	0	100	100
3	CP	108/108 (100%)	108 (100%)	0	100	100
3	CQ	108/108 (100%)	108 (100%)	0	100	100
3	CS	108/108 (100%)	108 (100%)	0	100	100
3	CT	108/108 (100%)	108 (100%)	0	100	100
3	CU	108/108 (100%)	108 (100%)	0	100	100
3	CV	108/108 (100%)	108 (100%)	0	100	100
3	CW	108/108 (100%)	108 (100%)	0	100	100
3	CX	108/108 (100%)	108 (100%)	0	100	100
3	CY	108/108 (100%)	108 (100%)	0	100	100
3	CZ	108/108 (100%)	108 (100%)	0	100	100
3	Cc	108/108 (100%)	108 (100%)	0	100	100
3	DA	108/108 (100%)	108 (100%)	0	100	100
3	DB	108/108 (100%)	108 (100%)	0	100	100
3	DC	108/108 (100%)	108 (100%)	0	100	100
3	DD	108/108 (100%)	108 (100%)	0	100	100
3	DE	108/108 (100%)	108 (100%)	0	100	100
3	DF	108/108 (100%)	108 (100%)	0	100	100
3	DG	108/108 (100%)	108 (100%)	0	100	100
3	DH	108/108 (100%)	108 (100%)	0	100	100
3	DI	108/108 (100%)	108 (100%)	0	100	100
3	DJ	108/108 (100%)	108 (100%)	0	100	100
3	DK	108/108 (100%)	108 (100%)	0	100	100
3	DL	108/108 (100%)	108 (100%)	0	100	100
3	DM	108/108 (100%)	108 (100%)	0	100	100
3	DN	108/108 (100%)	108 (100%)	0	100	100
3	DO	108/108 (100%)	108 (100%)	0	100	100
3	DQ	108/108 (100%)	108 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	DS	108/108 (100%)	108 (100%)	0	100	100
3	DT	108/108 (100%)	108 (100%)	0	100	100
3	DU	108/108 (100%)	108 (100%)	0	100	100
3	DV	108/108 (100%)	107 (99%)	1 (1%)	70	78
3	DW	108/108 (100%)	108 (100%)	0	100	100
3	DX	108/108 (100%)	108 (100%)	0	100	100
3	DY	108/108 (100%)	108 (100%)	0	100	100
3	DZ	108/108 (100%)	108 (100%)	0	100	100
3	Dc	108/108 (100%)	108 (100%)	0	100	100
3	EA	108/108 (100%)	108 (100%)	0	100	100
3	EB	108/108 (100%)	108 (100%)	0	100	100
3	EC	108/108 (100%)	108 (100%)	0	100	100
3	ED	108/108 (100%)	108 (100%)	0	100	100
3	EE	108/108 (100%)	107 (99%)	1 (1%)	70	78
3	EF	108/108 (100%)	108 (100%)	0	100	100
3	EG	108/108 (100%)	108 (100%)	0	100	100
3	EH	108/108 (100%)	108 (100%)	0	100	100
3	EI	108/108 (100%)	108 (100%)	0	100	100
3	EJ	108/108 (100%)	108 (100%)	0	100	100
3	EK	108/108 (100%)	108 (100%)	0	100	100
3	EL	108/108 (100%)	108 (100%)	0	100	100
3	EM	108/108 (100%)	108 (100%)	0	100	100
3	EN	108/108 (100%)	108 (100%)	0	100	100
3	EO	108/108 (100%)	108 (100%)	0	100	100
3	EP	108/108 (100%)	108 (100%)	0	100	100
3	EQ	108/108 (100%)	108 (100%)	0	100	100
3	ES	108/108 (100%)	108 (100%)	0	100	100
3	ET	108/108 (100%)	108 (100%)	0	100	100
3	EU	108/108 (100%)	108 (100%)	0	100	100
3	EV	108/108 (100%)	108 (100%)	0	100	100
3	EW	108/108 (100%)	108 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	EX	108/108 (100%)	108 (100%)	0	100	100
3	EY	108/108 (100%)	108 (100%)	0	100	100
3	EZ	108/108 (100%)	108 (100%)	0	100	100
3	Ec	108/108 (100%)	108 (100%)	0	100	100
3	FA	108/108 (100%)	108 (100%)	0	100	100
3	FB	108/108 (100%)	108 (100%)	0	100	100
3	FC	108/108 (100%)	108 (100%)	0	100	100
3	FD	108/108 (100%)	108 (100%)	0	100	100
3	FE	108/108 (100%)	108 (100%)	0	100	100
3	FF	108/108 (100%)	108 (100%)	0	100	100
3	FG	108/108 (100%)	108 (100%)	0	100	100
3	FH	108/108 (100%)	108 (100%)	0	100	100
3	FI	108/108 (100%)	108 (100%)	0	100	100
3	FJ	108/108 (100%)	108 (100%)	0	100	100
3	FK	108/108 (100%)	108 (100%)	0	100	100
3	FL	108/108 (100%)	108 (100%)	0	100	100
3	FM	108/108 (100%)	108 (100%)	0	100	100
3	FN	108/108 (100%)	108 (100%)	0	100	100
3	FO	108/108 (100%)	108 (100%)	0	100	100
3	FP	108/108 (100%)	108 (100%)	0	100	100
3	FQ	108/108 (100%)	108 (100%)	0	100	100
3	FS	108/108 (100%)	108 (100%)	0	100	100
3	FT	108/108 (100%)	108 (100%)	0	100	100
3	FU	108/108 (100%)	108 (100%)	0	100	100
3	FV	108/108 (100%)	108 (100%)	0	100	100
3	FW	108/108 (100%)	107 (99%)	1 (1%)	70	78
3	FX	108/108 (100%)	108 (100%)	0	100	100
3	FY	108/108 (100%)	108 (100%)	0	100	100
3	FZ	108/108 (100%)	108 (100%)	0	100	100
3	Fc	108/108 (100%)	108 (100%)	0	100	100
3	GA	108/108 (100%)	108 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	GB	108/108 (100%)	108 (100%)	0	100	100
3	GC	108/108 (100%)	104 (96%)	4 (4%)	30	59
3	GD	108/108 (100%)	108 (100%)	0	100	100
3	GE	108/108 (100%)	108 (100%)	0	100	100
3	GF	108/108 (100%)	108 (100%)	0	100	100
3	GG	108/108 (100%)	108 (100%)	0	100	100
3	GH	108/108 (100%)	108 (100%)	0	100	100
3	GI	108/108 (100%)	108 (100%)	0	100	100
3	GJ	108/108 (100%)	108 (100%)	0	100	100
3	GK	108/108 (100%)	108 (100%)	0	100	100
3	GL	108/108 (100%)	108 (100%)	0	100	100
3	GM	108/108 (100%)	108 (100%)	0	100	100
3	GN	108/108 (100%)	108 (100%)	0	100	100
3	GO	108/108 (100%)	108 (100%)	0	100	100
3	GP	108/108 (100%)	108 (100%)	0	100	100
3	GQ	108/108 (100%)	108 (100%)	0	100	100
3	GS	108/108 (100%)	108 (100%)	0	100	100
3	GT	108/108 (100%)	108 (100%)	0	100	100
3	GU	108/108 (100%)	108 (100%)	0	100	100
3	GV	108/108 (100%)	108 (100%)	0	100	100
3	GW	108/108 (100%)	108 (100%)	0	100	100
3	GX	108/108 (100%)	101 (94%)	7 (6%)	15	42
3	GY	108/108 (100%)	108 (100%)	0	100	100
3	Gc	108/108 (100%)	108 (100%)	0	100	100
All	All	20156/20156 (100%)	20137 (100%)	19 (0%)	87	90

All (19) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	AP	60	LYS
3	AZ	60	LYS
3	AZ	62	GLU
3	BN	60	LYS
3	BN	62	GLU

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Mol	Chain	Res	Type
3	DV	70	ILE
3	EE	62	GLU
3	FW	66	ASP
3	GC	60	LYS
3	GC	62	GLU
3	GC	68	CYS
3	GC	69	VAL
3	GX	60	LYS
3	GX	62	GLU
3	GX	64	CYS
3	GX	69	VAL
3	GX	70	ILE
3	GX	71	MET
3	GX	73	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (133) such sidechains are listed below:

Mol	Chain	Res	Type
2	a	18	GLN
2	a	43	GLN
2	a	225	ASN
2	a	272	GLN
2	a	288	GLN
2	a	338	GLN
2	b	24	ASN
2	b	104	ASN
2	b	108	GLN
2	b	241	GLN
2	b	358	GLN
2	b	475	HIS
3	AB	2	ASN
3	AB	44	ASN
3	AB	76	GLN
3	AE	76	GLN
3	AG	111	ASN
3	AI	45	ASN
3	AI	75	ASN
3	AJ	2	ASN
3	AK	6	GLN
3	AK	34	GLN
3	AP	49	GLN
3	AQ	2	ASN

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Mol	Chain	Res	Type
3	AQ	49	GLN
3	AS	111	ASN
3	AT	49	GLN
3	AU	6	GLN
3	AU	44	ASN
3	AW	6	GLN
3	AX	34	GLN
3	AY	13	ASN
3	AY	88	ASN
3	AZ	44	ASN
3	BB	44	ASN
3	BC	2	ASN
3	BC	44	ASN
3	BF	6	GLN
3	BG	2	ASN
3	BG	13	ASN
3	BG	34	GLN
3	BI	34	GLN
3	BI	76	GLN
3	BJ	88	ASN
3	Bc	76	GLN
3	BS	76	GLN
3	BT	44	ASN
3	BU	34	GLN
3	BU	44	ASN
3	BW	75	ASN
3	BX	34	GLN
3	BY	34	GLN
3	BZ	44	ASN
3	BZ	88	ASN
3	CA	2	ASN
3	CA	44	ASN
3	CC	49	GLN
3	CD	34	GLN
3	CD	44	ASN
3	CD	45	ASN
3	CE	44	ASN
3	CG	44	ASN
3	CG	102	ASN
3	CJ	34	GLN
3	CJ	44	ASN
3	CL	49	GLN

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Mol	Chain	Res	Type
3	CM	2	ASN
3	CM	34	GLN
3	CM	102	ASN
3	CO	73	ASN
3	CQ	2	ASN
3	Cc	44	ASN
3	CU	111	ASN
3	CZ	2	ASN
3	CZ	44	ASN
3	DB	2	ASN
3	DF	102	ASN
3	DG	13	ASN
3	DH	2	ASN
3	DH	6	GLN
3	DI	73	ASN
3	DJ	6	GLN
3	DL	44	ASN
3	DS	13	ASN
3	DT	102	ASN
3	DT	111	ASN
3	DY	44	ASN
3	DY	111	ASN
3	DZ	34	GLN
3	ED	76	GLN
3	EH	75	ASN
3	EK	111	ASN
3	EL	2	ASN
3	EM	88	ASN
3	EN	44	ASN
3	Ec	2	ASN
3	ET	49	GLN
3	ET	102	ASN
3	EV	45	ASN
3	EW	6	GLN
3	EX	44	ASN
3	EY	73	ASN
3	EY	88	ASN
3	FA	2	ASN
3	FA	44	ASN
3	FA	45	ASN
3	FB	76	GLN
3	FD	13	ASN

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Mol	Chain	Res	Type
3	FE	34	GLN
3	FF	44	ASN
3	FI	6	GLN
3	FJ	44	ASN
3	FJ	88	ASN
3	FL	75	ASN
3	FO	44	ASN
3	FO	49	GLN
3	FQ	34	GLN
3	FS	6	GLN
3	FS	76	GLN
3	FY	2	ASN
3	FY	34	GLN
3	GC	2	ASN
3	GE	88	ASN
3	GH	44	ASN
3	GK	49	GLN
3	GM	2	ASN
3	GP	34	GLN
3	Gc	49	GLN
3	Gc	73	ASN
3	GS	44	ASN
3	GX	73	ASN
3	GY	2	ASN
3	GY	111	ASN

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	R	4269/4269 (100%)	689 (16%)	7 (0%)

All (689) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	R	2	G
1	R	4	G
1	R	17	G
1	R	29	A
1	R	37	U
1	R	41	A
1	R	58	U

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Mol	Chain	Res	Type
1	R	59	C
1	R	60	A
1	R	61	C
1	R	69	C
1	R	70	U
1	R	73	C
1	R	78	G
1	R	103	U
1	R	107	A
1	R	115	A
1	R	132	U
1	R	135	U
1	R	136	G
1	R	141	A
1	R	153	C
1	R	164	U
1	R	165	A
1	R	167	G
1	R	173	U
1	R	177	U
1	R	178	C
1	R	179	A
1	R	186	G
1	R	200	U
1	R	212	U
1	R	213	U
1	R	222	A
1	R	223	U
1	R	224	U
1	R	232	U
1	R	237	U
1	R	239	U
1	R	261	G
1	R	262	U
1	R	266	A
1	R	267	A
1	R	298	G
1	R	307	C
1	R	313	U
1	R	316	U
1	R	318	A
1	R	332	A

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Mol	Chain	Res	Type
1	R	336	A
1	R	362	G
1	R	367	C
1	R	368	A
1	R	369	U
1	R	386	U
1	R	393	U
1	R	402	A
1	R	403	A
1	R	406	U
1	R	407	C
1	R	427	G
1	R	437	A
1	R	438	U
1	R	441	C
1	R	467	G
1	R	473	U
1	R	484	G
1	R	488	C
1	R	489	A
1	R	492	G
1	R	502	C
1	R	515	C
1	R	525	U
1	R	535	U
1	R	538	A
1	R	548	G
1	R	554	C
1	R	557	U
1	R	567	A
1	R	568	A
1	R	572	U
1	R	577	C
1	R	593	G
1	R	613	U
1	R	629	A
1	R	671	G
1	R	692	G
1	R	714	A
1	R	724	U
1	R	741	A
1	R	742	C

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Mol	Chain	Res	Type
1	R	751	U
1	R	752	A
1	R	757	A
1	R	758	A
1	R	766	U
1	R	767	U
1	R	768	C
1	R	776	C
1	R	779	G
1	R	799	A
1	R	802	C
1	R	810	U
1	R	825	U
1	R	826	U
1	R	827	G
1	R	835	C
1	R	843	U
1	R	846	U
1	R	847	A
1	R	853	A
1	R	857	A
1	R	862	U
1	R	864	U
1	R	870	C
1	R	875	A
1	R	876	G
1	R	881	C
1	R	887	U
1	R	905	U
1	R	906	C
1	R	933	A
1	R	934	A
1	R	936	A
1	R	937	C
1	R	939	G
1	R	947	U
1	R	950	U
1	R	963	U
1	R	964	G
1	R	967	A
1	R	972	A
1	R	979	C

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Mol	Chain	Res	Type
1	R	981	C
1	R	982	U
1	R	993	C
1	R	994	G
1	R	995	A
1	R	996	U
1	R	1002	G
1	R	1005	U
1	R	1015	U
1	R	1016	C
1	R	1017	G
1	R	1034	A
1	R	1039	C
1	R	1040	G
1	R	1051	U
1	R	1054	A
1	R	1056	U
1	R	1057	A
1	R	1064	A
1	R	1066	C
1	R	1067	A
1	R	1072	A
1	R	1075	C
1	R	1076	G
1	R	1077	U
1	R	1093	U
1	R	1116	A
1	R	1117	A
1	R	1118	U
1	R	1120	G
1	R	1121	U
1	R	1127	A
1	R	1128	G
1	R	1147	U
1	R	1162	G
1	R	1168	A
1	R	1174	A
1	R	1175	A
1	R	1201	U
1	R	1211	U
1	R	1218	A
1	R	1226	U

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Mol	Chain	Res	Type
1	R	1231	G
1	R	1249	C
1	R	1264	C
1	R	1295	A
1	R	1296	C
1	R	1301	U
1	R	1302	C
1	R	1306	C
1	R	1338	C
1	R	1339	G
1	R	1342	A
1	R	1343	U
1	R	1356	U
1	R	1374	G
1	R	1382	U
1	R	1385	U
1	R	1390	A
1	R	1391	A
1	R	1393	G
1	R	1397	U
1	R	1401	C
1	R	1404	U
1	R	1411	C
1	R	1413	U
1	R	1414	U
1	R	1421	G
1	R	1424	A
1	R	1425	U
1	R	1429	G
1	R	1430	A
1	R	1437	A
1	R	1438	A
1	R	1447	U
1	R	1455	G
1	R	1460	A
1	R	1476	A
1	R	1481	A
1	R	1482	A
1	R	1488	A
1	R	1492	G
1	R	1494	A
1	R	1499	A

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Mol	Chain	Res	Type
1	R	1502	U
1	R	1512	U
1	R	1515	U
1	R	1522	A
1	R	1523	A
1	R	1524	U
1	R	1529	U
1	R	1532	C
1	R	1544	A
1	R	1560	C
1	R	1566	C
1	R	1567	G
1	R	1573	U
1	R	1574	G
1	R	1591	G
1	R	1593	C
1	R	1629	U
1	R	1676	A
1	R	1677	C
1	R	1679	U
1	R	1682	A
1	R	1690	C
1	R	1692	C
1	R	1693	U
1	R	1705	A
1	R	1707	C
1	R	1714	A
1	R	1715	U
1	R	1717	A
1	R	1722	C
1	R	1751	U
1	R	1755	C
1	R	1756	G
1	R	1765	G
1	R	1766	C
1	R	1768	U
1	R	1769	U
1	R	1812	U
1	R	1813	U
1	R	1815	A
1	R	1825	C
1	R	1826	G

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Mol	Chain	Res	Type
1	R	1830	U
1	R	1833	U
1	R	1834	U
1	R	1837	A
1	R	1838	A
1	R	1843	A
1	R	1844	G
1	R	1847	G
1	R	1855	U
1	R	1857	A
1	R	1858	C
1	R	1859	A
1	R	1860	A
1	R	1876	U
1	R	1884	G
1	R	1885	G
1	R	1895	U
1	R	1896	G
1	R	1897	A
1	R	1907	C
1	R	1917	A
1	R	1948	A
1	R	1949	U
1	R	1950	A
1	R	1951	A
1	R	1973	U
1	R	2002	U
1	R	2008	G
1	R	2014	G
1	R	2017	U
1	R	2018	U
1	R	2022	G
1	R	2029	U
1	R	2034	G
1	R	2037	C
1	R	2038	U
1	R	2042	U
1	R	2043	A
1	R	2048	U
1	R	2049	U
1	R	2052	G
1	R	2058	U

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Mol	Chain	Res	Type
1	R	2063	A
1	R	2064	U
1	R	2071	A
1	R	2072	U
1	R	2080	C
1	R	2081	U
1	R	2086	C
1	R	2087	U
1	R	2089	A
1	R	2106	G
1	R	2110	C
1	R	2136	C
1	R	2152	U
1	R	2162	G
1	R	2165	A
1	R	2167	C
1	R	2168	C
1	R	2169	G
1	R	2174	C
1	R	2177	G
1	R	2180	U
1	R	2181	A
1	R	2183	C
1	R	2187	A
1	R	2188	A
1	R	2189	A
1	R	2195	A
1	R	2196	U
1	R	2197	G
1	R	2198	G
1	R	2208	A
1	R	2213	U
1	R	2214	A
1	R	2226	C
1	R	2229	U
1	R	2230	U
1	R	2231	C
1	R	2234	G
1	R	2260	U
1	R	2271	G
1	R	2289	G
1	R	2302	A

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Mol	Chain	Res	Type
1	R	2326	G
1	R	2328	C
1	R	2330	A
1	R	2331	A
1	R	2332	A
1	R	2341	A
1	R	2342	A
1	R	2343	A
1	R	2344	U
1	R	2345	A
1	R	2346	A
1	R	2356	C
1	R	2360	C
1	R	2361	G
1	R	2362	U
1	R	2373	A
1	R	2381	U
1	R	2382	A
1	R	2385	G
1	R	2391	A
1	R	2392	A
1	R	2393	U
1	R	2396	U
1	R	2397	G
1	R	2401	U
1	R	2402	G
1	R	2410	C
1	R	2415	G
1	R	2423	G
1	R	2424	A
1	R	2427	U
1	R	2428	C
1	R	2441	U
1	R	2451	U
1	R	2476	C
1	R	2477	C
1	R	2479	U
1	R	2480	C
1	R	2482	C
1	R	2486	U
1	R	2489	G
1	R	2497	U

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Mol	Chain	Res	Type
1	R	2499	A
1	R	2503	U
1	R	2504	C
1	R	2505	A
1	R	2517	G
1	R	2518	U
1	R	2519	U
1	R	2520	U
1	R	2522	U
1	R	2524	A
1	R	2531	C
1	R	2546	G
1	R	2547	A
1	R	2548	G
1	R	2552	C
1	R	2553	C
1	R	2556	G
1	R	2557	A
1	R	2559	G
1	R	2575	A
1	R	2577	A
1	R	2579	A
1	R	2596	U
1	R	2600	G
1	R	2601	A
1	R	2604	A
1	R	2605	U
1	R	2606	U
1	R	2608	C
1	R	2609	U
1	R	2618	U
1	R	2619	A
1	R	2621	U
1	R	2622	C
1	R	2628	C
1	R	2629	A
1	R	2630	G
1	R	2631	G
1	R	2634	G
1	R	2641	A
1	R	2642	G
1	R	2643	U

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Mol	Chain	Res	Type
1	R	2651	U
1	R	2663	A
1	R	2664	A
1	R	2691	A
1	R	2711	U
1	R	2715	A
1	R	2750	C
1	R	2753	G
1	R	2755	C
1	R	2757	A
1	R	2758	C
1	R	2759	U
1	R	2760	G
1	R	2769	U
1	R	2784	C
1	R	2787	U
1	R	2790	A
1	R	2791	A
1	R	2792	C
1	R	2812	C
1	R	2818	A
1	R	2821	U
1	R	2822	C
1	R	2823	G
1	R	2826	G
1	R	2828	U
1	R	2829	G
1	R	2834	U
1	R	2835	U
1	R	2838	C
1	R	2839	A
1	R	2840	U
1	R	2847	U
1	R	2851	A
1	R	2853	A
1	R	2855	U
1	R	2857	G
1	R	2864	A
1	R	2865	A
1	R	2866	A
1	R	2867	G
1	R	2877	A

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Mol	Chain	Res	Type
1	R	2880	A
1	R	2881	A
1	R	2888	C
1	R	2894	G
1	R	2906	U
1	R	2915	G
1	R	2919	G
1	R	2924	U
1	R	2925	G
1	R	2926	A
1	R	2939	C
1	R	2940	C
1	R	2941	A
1	R	2942	C
1	R	2954	U
1	R	2956	U
1	R	2957	A
1	R	2958	U
1	R	2959	C
1	R	2971	G
1	R	2975	C
1	R	2995	A
1	R	2998	A
1	R	2999	C
1	R	3006	A
1	R	3007	C
1	R	3008	G
1	R	3015	U
1	R	3025	U
1	R	3028	A
1	R	3035	U
1	R	3037	U
1	R	3042	A
1	R	3050	C
1	R	3051	C
1	R	3052	A
1	R	3055	G
1	R	3070	A
1	R	3076	C
1	R	3091	U
1	R	3092	A
1	R	3093	G

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Mol	Chain	Res	Type
1	R	3109	G
1	R	3110	C
1	R	3111	G
1	R	3126	A
1	R	3129	G
1	R	3146	C
1	R	3158	A
1	R	3159	U
1	R	3166	A
1	R	3172	U
1	R	3177	C
1	R	3178	G
1	R	3197	U
1	R	3207	U
1	R	3216	U
1	R	3219	G
1	R	3220	A
1	R	3232	U
1	R	3233	G
1	R	3240	G
1	R	3252	U
1	R	3253	U
1	R	3269	G
1	R	3275	U
1	R	3276	U
1	R	3277	U
1	R	3280	C
1	R	3281	A
1	R	3286	A
1	R	3288	C
1	R	3291	U
1	R	3294	U
1	R	3305	A
1	R	3307	U
1	R	3318	C
1	R	3319	U
1	R	3333	A
1	R	3341	A
1	R	3343	G
1	R	3344	U
1	R	3350	A
1	R	3364	U

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Mol	Chain	Res	Type
1	R	3367	A
1	R	3368	A
1	R	3371	A
1	R	3373	U
1	R	3374	G
1	R	3389	G
1	R	3393	A
1	R	3394	U
1	R	3395	A
1	R	3406	U
1	R	3407	U
1	R	3418	G
1	R	3422	G
1	R	3440	U
1	R	3444	A
1	R	3456	G
1	R	3460	C
1	R	3468	U
1	R	3473	C
1	R	3475	A
1	R	3478	C
1	R	3487	C
1	R	3494	C
1	R	3495	U
1	R	3497	C
1	R	3515	G
1	R	3525	A
1	R	3538	G
1	R	3540	G
1	R	3543	U
1	R	3547	G
1	R	3551	U
1	R	3555	U
1	R	3556	U
1	R	3568	C
1	R	3572	U
1	R	3580	A
1	R	3591	U
1	R	3592	U
1	R	3602	U
1	R	3628	U
1	R	3631	G

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Mol	Chain	Res	Type
1	R	3640	U
1	R	3642	A
1	R	3643	A
1	R	3656	C
1	R	3657	G
1	R	3658	C
1	R	3660	G
1	R	3664	A
1	R	3665	A
1	R	3669	A
1	R	3677	A
1	R	3678	G
1	R	3700	C
1	R	3701	G
1	R	3710	C
1	R	3715	G
1	R	3716	U
1	R	3717	G
1	R	3720	U
1	R	3724	U
1	R	3729	G
1	R	3734	U
1	R	3735	U
1	R	3736	G
1	R	3759	U
1	R	3770	U
1	R	3771	U
1	R	3784	U
1	R	3786	U
1	R	3797	U
1	R	3798	U
1	R	3802	A
1	R	3805	A
1	R	3807	A
1	R	3809	A
1	R	3816	A
1	R	3819	U
1	R	3821	U
1	R	3822	G
1	R	3823	A
1	R	3824	U
1	R	3831	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	R	3833	A
1	R	3834	A
1	R	3836	U
1	R	3865	G
1	R	3884	A
1	R	3903	U
1	R	3904	U
1	R	3910	A
1	R	3921	C
1	R	3923	U
1	R	3931	U
1	R	3932	C
1	R	3933	C
1	R	3961	A
1	R	4023	G
1	R	4024	G
1	R	4046	U
1	R	4047	C
1	R	4051	A
1	R	4056	G
1	R	4057	U
1	R	4064	G
1	R	4088	C
1	R	4109	U
1	R	4118	G
1	R	4129	C
1	R	4130	C
1	R	4166	C
1	R	4171	A
1	R	4172	A
1	R	4179	U
1	R	4184	G
1	R	4189	A
1	R	4191	A
1	R	4194	A
1	R	4195	A
1	R	4196	U
1	R	4203	U
1	R	4209	G
1	R	4210	A
1	R	4227	A
1	R	4229	A

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Mol	Chain	Res	Type
1	R	4231	C
1	R	4233	C
1	R	4245	G
1	R	4248	U
1	R	4253	A
1	R	4254	G
1	R	4256	A
1	R	4258	U
1	R	4265	C
1	R	4268	C

All (7) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	R	1	G
1	R	40	A
1	R	60	A
1	R	317	C
1	R	993	C
1	R	2865	A
1	R	3833	A

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

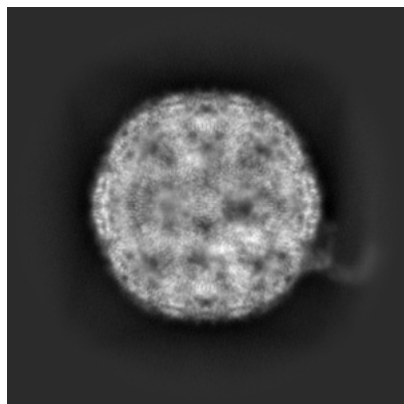
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-41443. These allow visual inspection of the internal detail of the map and identification of artifacts.

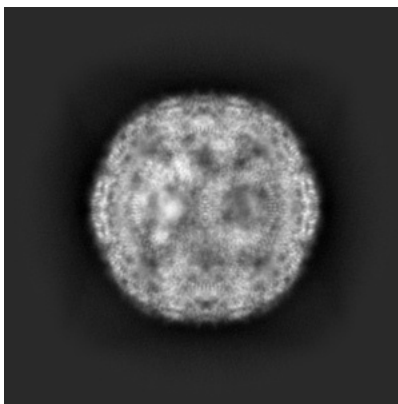
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

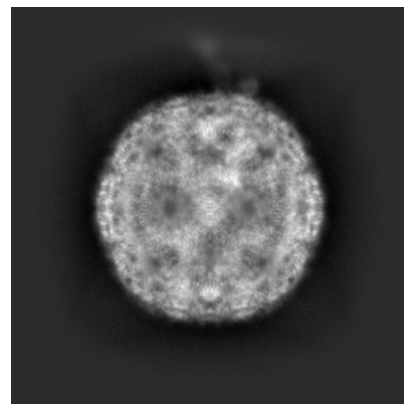
6.1.1 Primary map



X

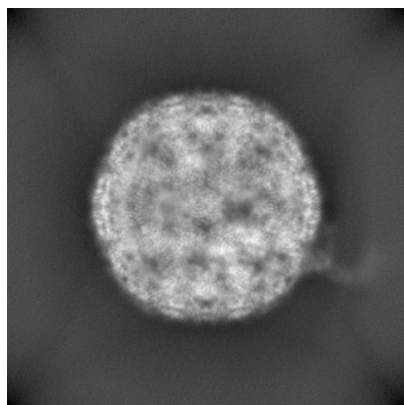


Y

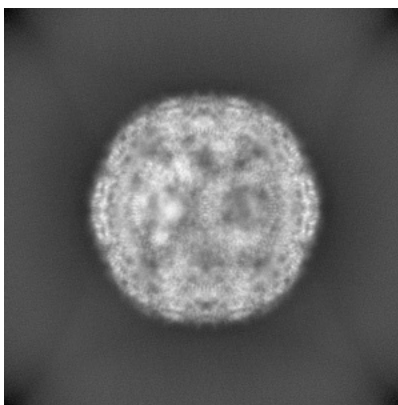


Z

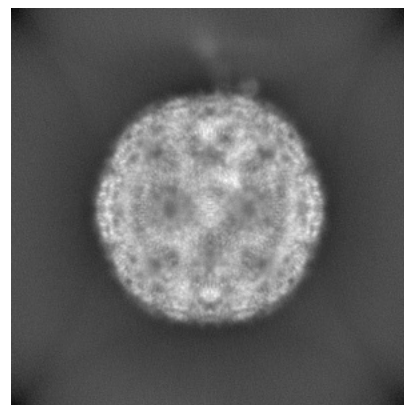
6.1.2 Raw map



X



Y

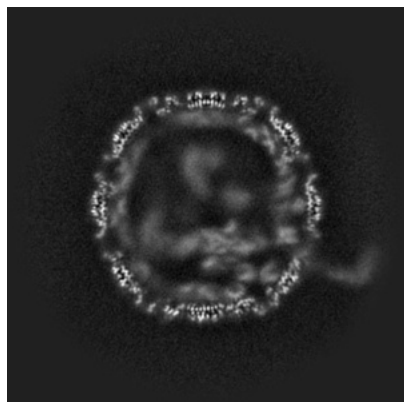


Z

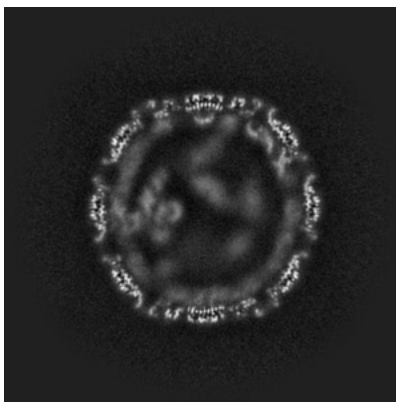
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

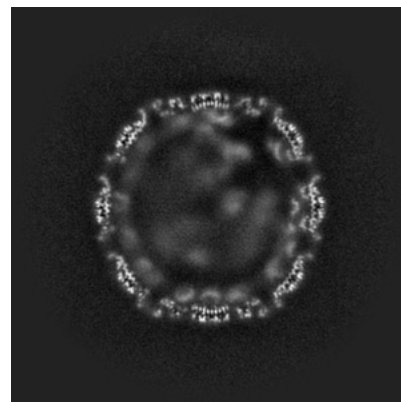
6.2.1 Primary map



X Index: 230

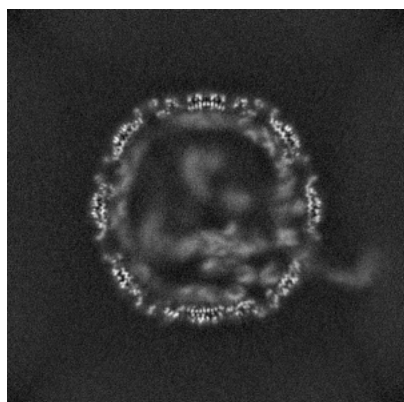


Y Index: 230

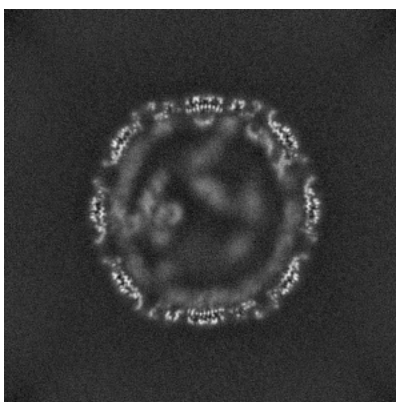


Z Index: 230

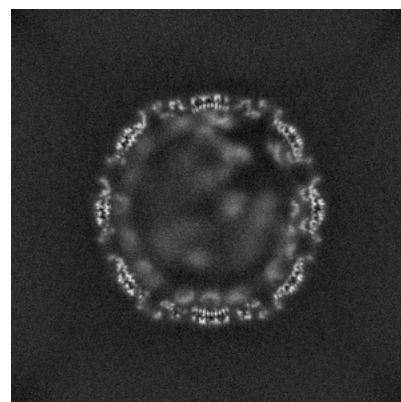
6.2.2 Raw map



X Index: 230



Y Index: 230

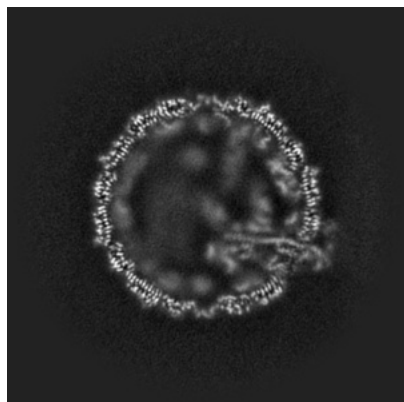


Z Index: 230

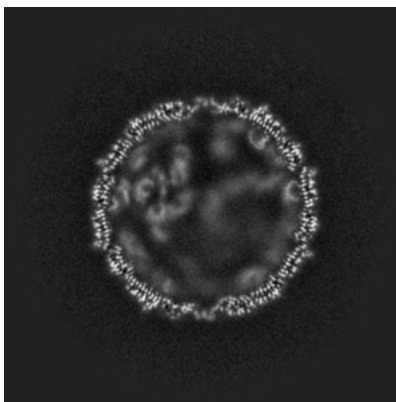
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

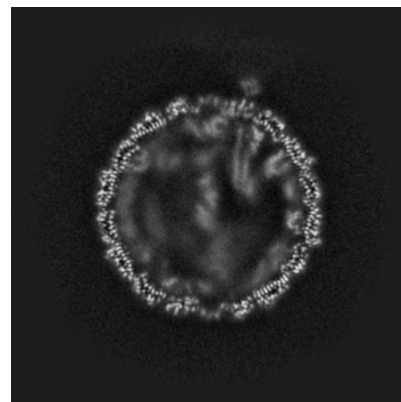
6.3.1 Primary map



X Index: 262

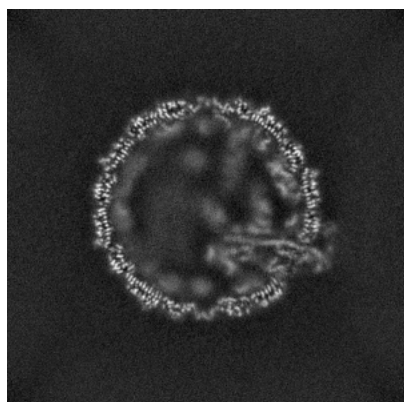


Y Index: 262

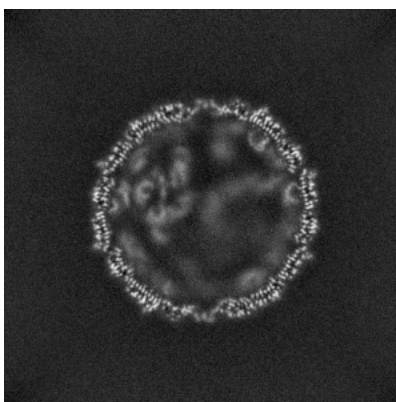


Z Index: 194

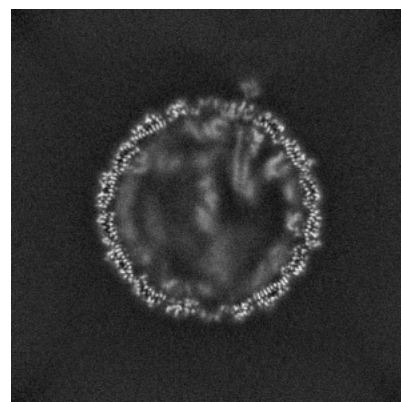
6.3.2 Raw map



X Index: 262



Y Index: 262

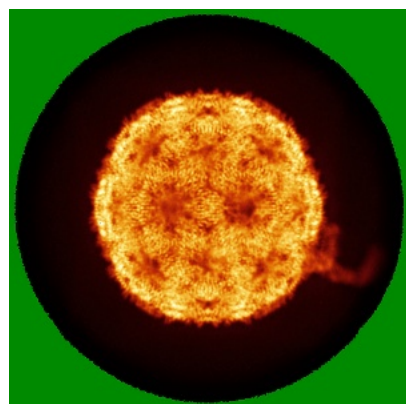


Z Index: 194

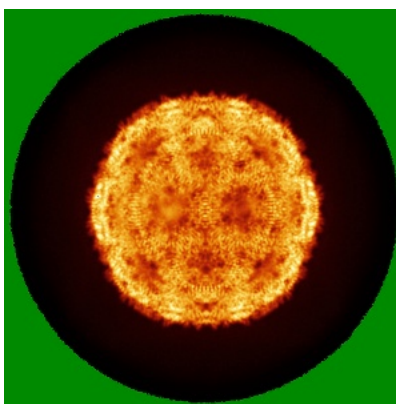
The images above show the largest variance slices of the map in three orthogonal directions.

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

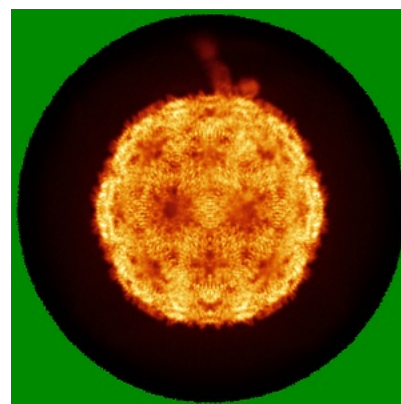
6.4.1 Primary map



X

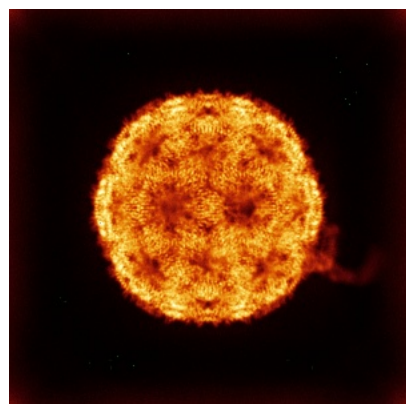


Y

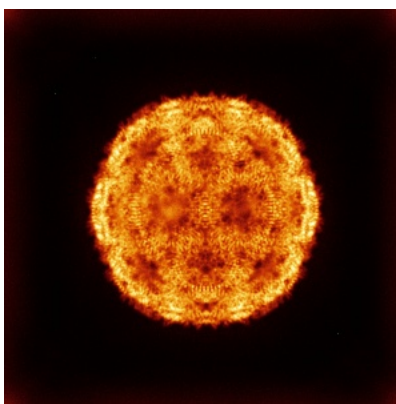


Z

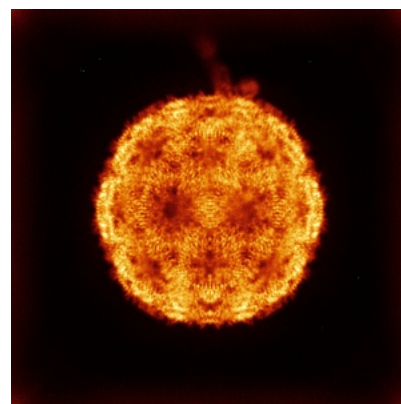
6.4.2 Raw map



X



Y

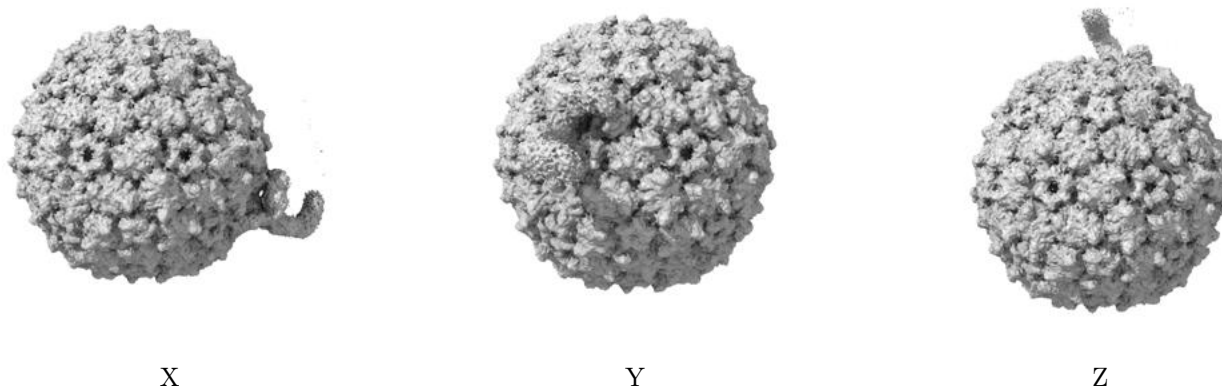


Z

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

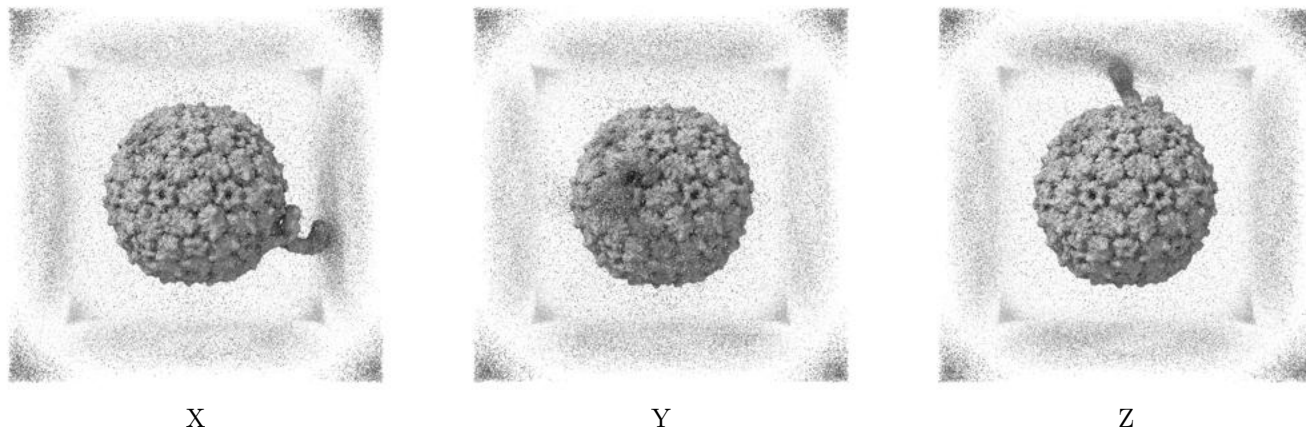
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.128. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



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

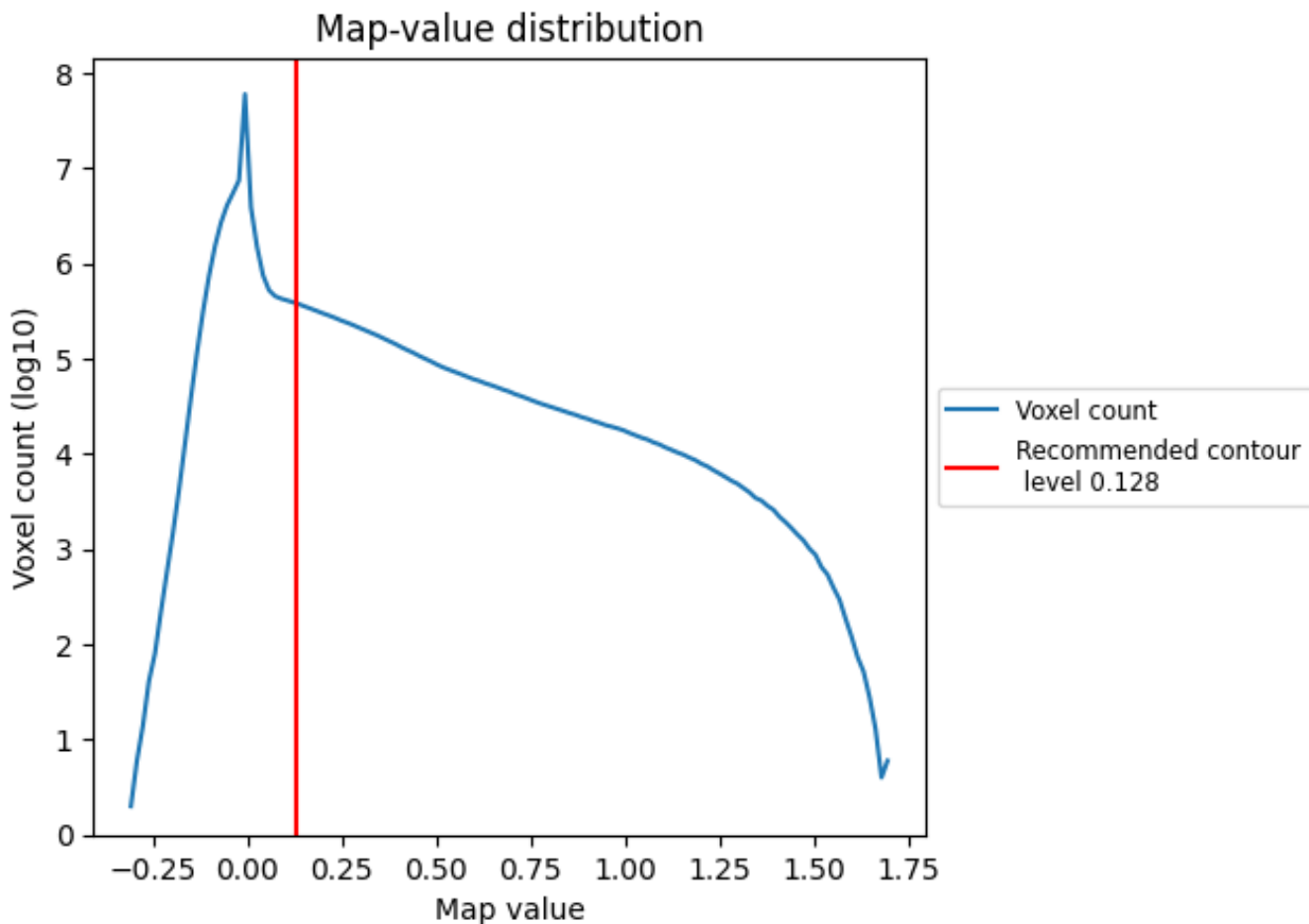
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

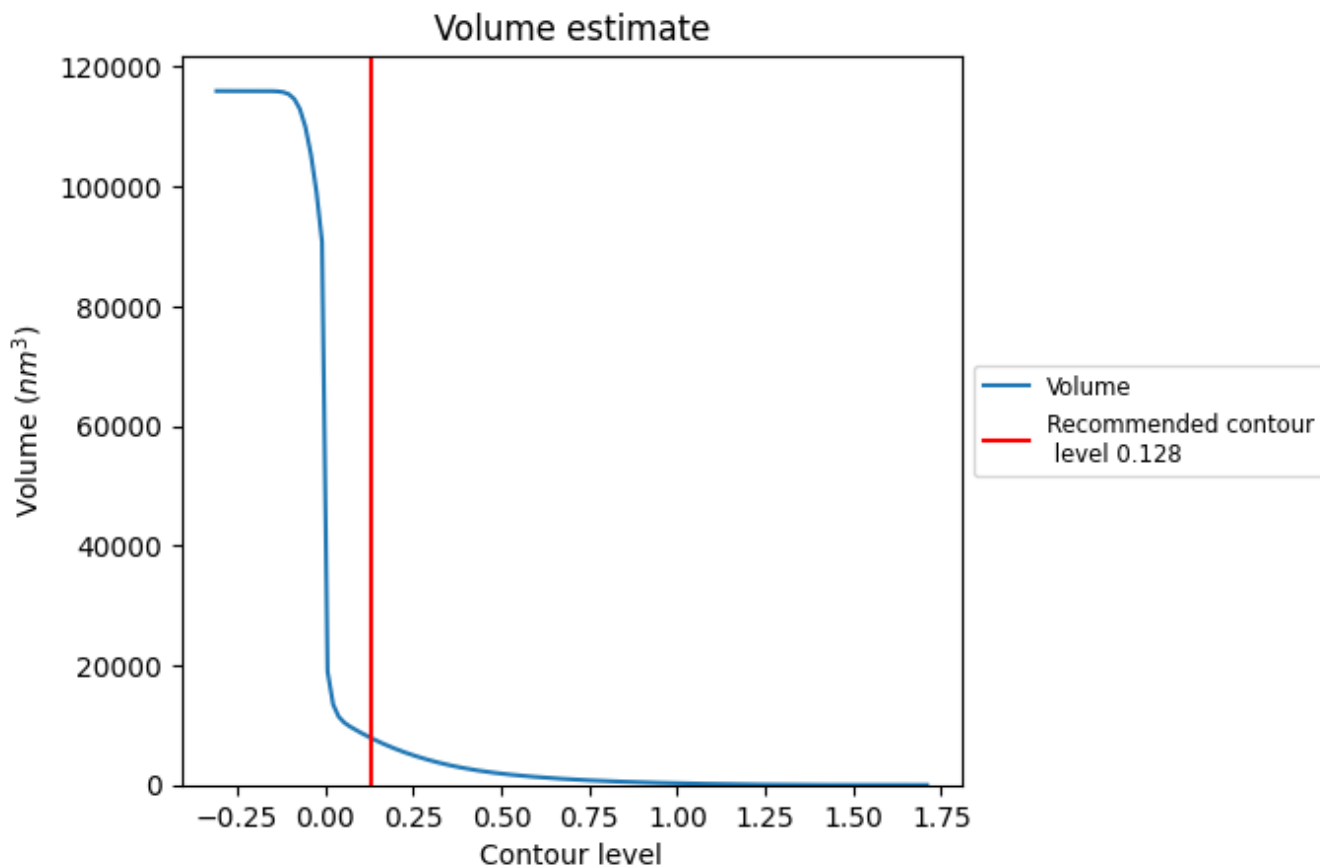
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

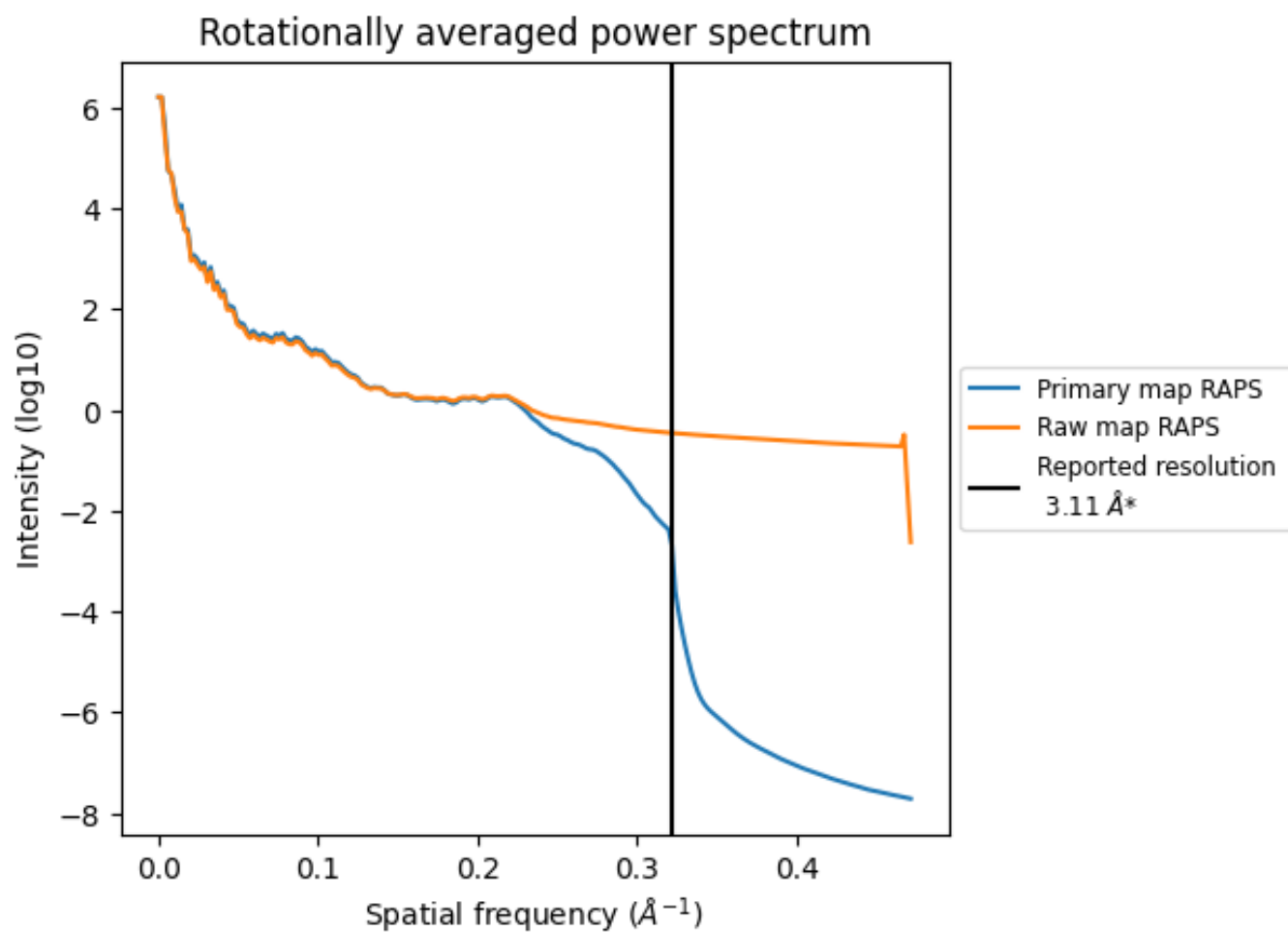
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 7917 nm³; this corresponds to an approximate mass of 7152 kDa.

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

7.3 Rotationally averaged power spectrum [i](#)

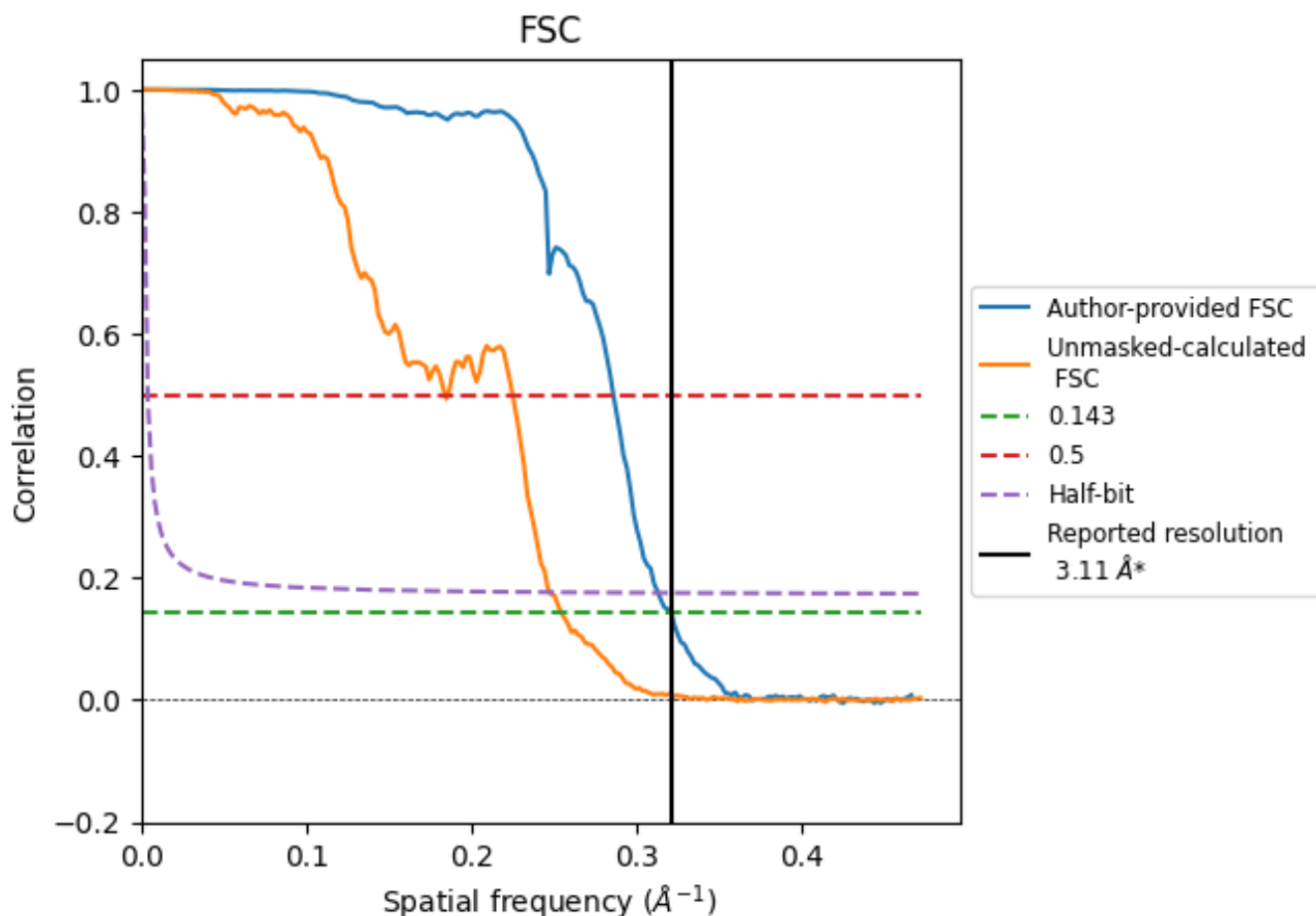


*Reported resolution corresponds to spatial frequency of 0.322 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.322 Å⁻¹

8.2 Resolution estimates [i](#)

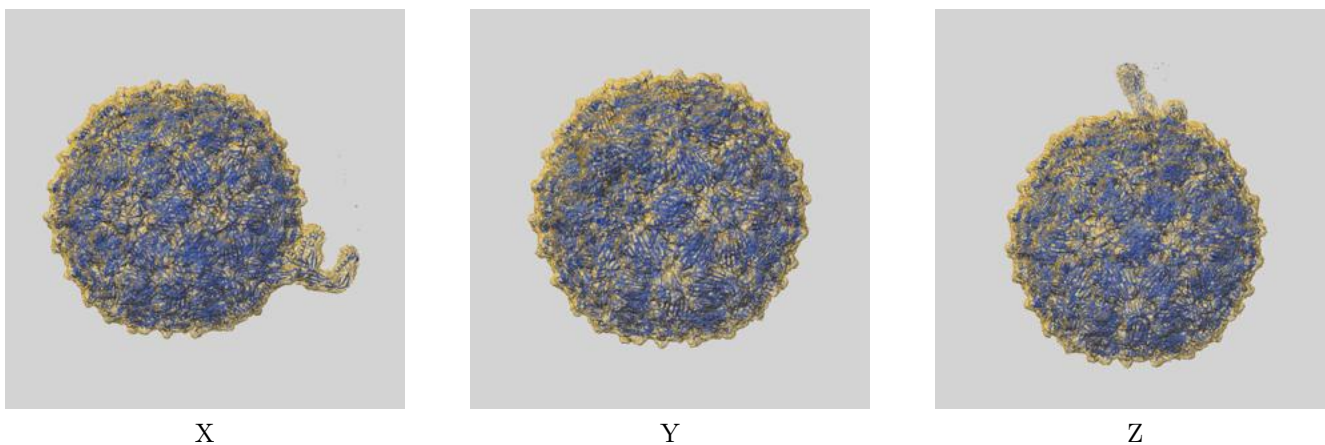
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.11	-	-
Author-provided FSC curve	3.12	3.50	3.19
Unmasked-calculated*	3.93	5.44	4.04

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.93 differs from the reported value 3.11 by more than 10 %

9 Map-model fit [i](#)

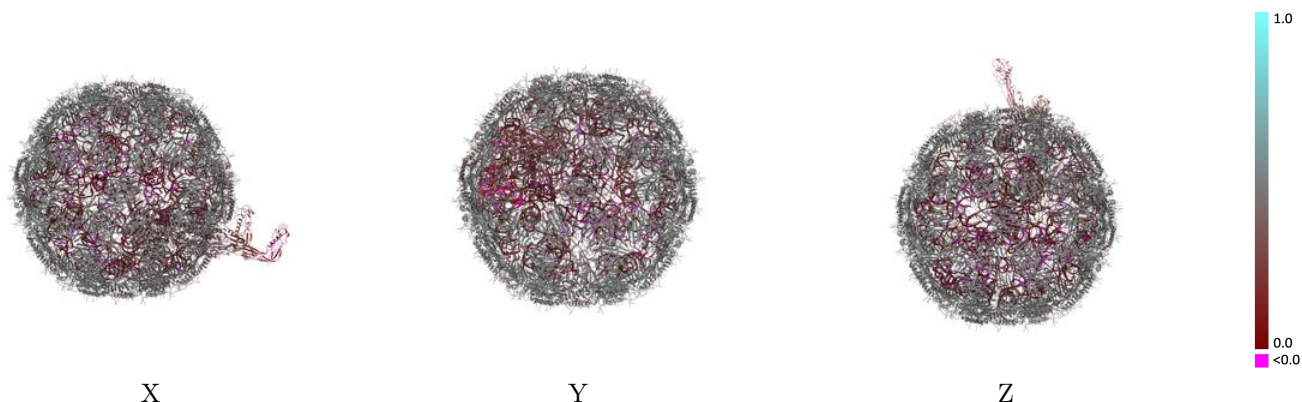
This section contains information regarding the fit between EMDB map EMD-41443 and PDB model 8TOC. Per-residue inclusion information can be found in section 3 on page 20.

9.1 Map-model overlay [i](#)



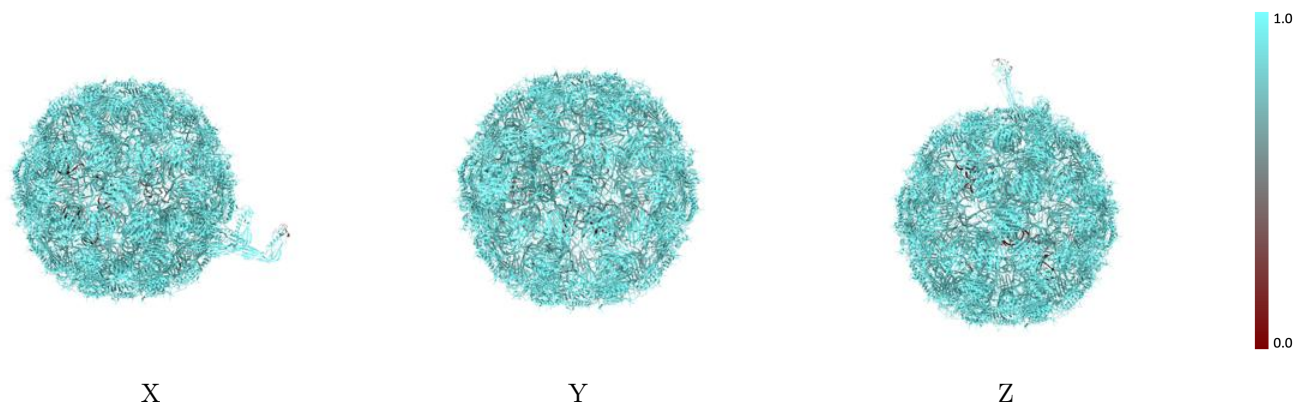
The images above show the 3D surface view of the map at the recommended contour level 0.128 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



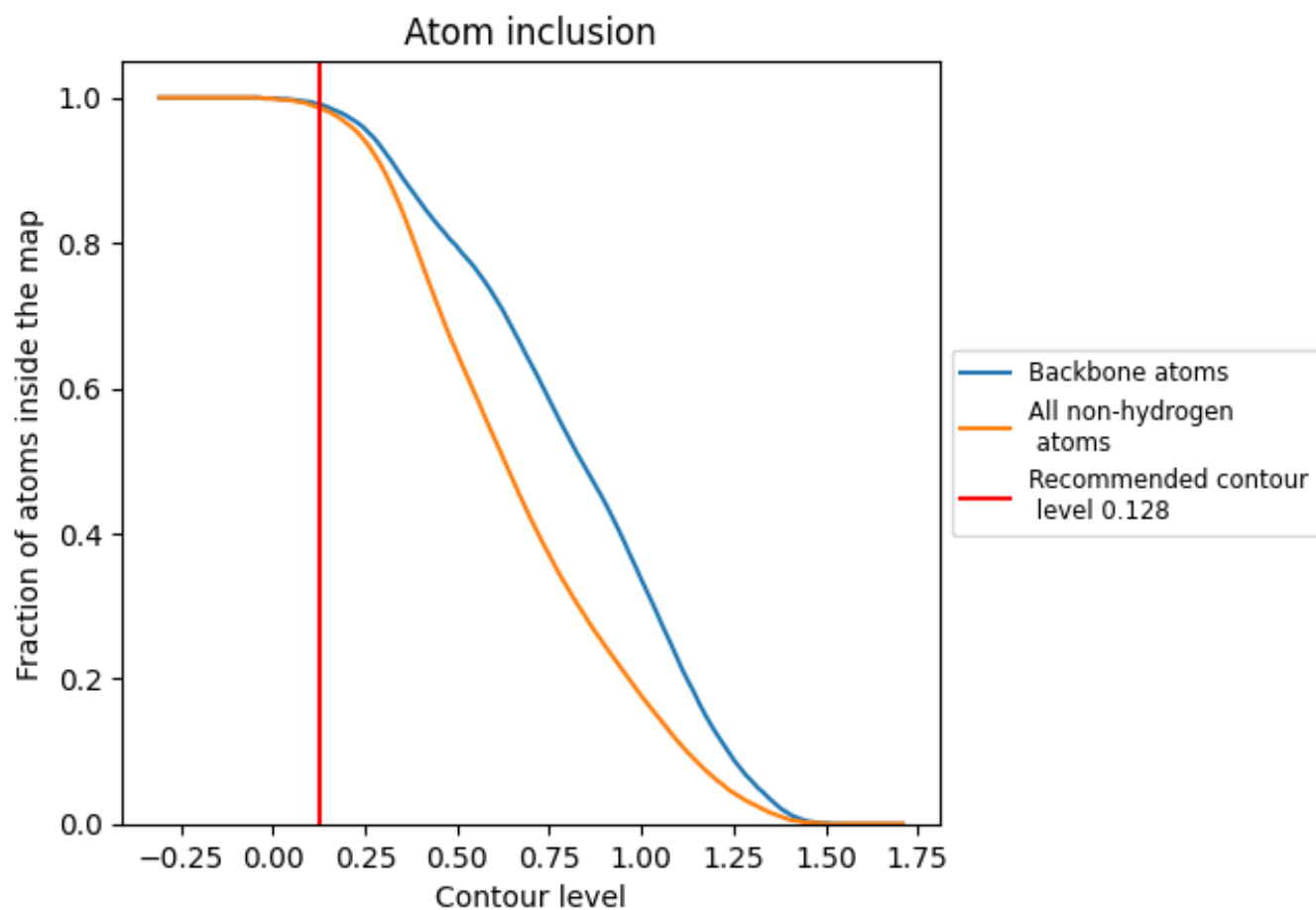
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.128).







































































9.4 Atom inclusion [i](#)



At the recommended contour level, 99% of all backbone atoms, 99% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.128) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9860	 0.3540
AB	 1.0000	 0.4070
AC	 1.0000	 0.4160
AE	 1.0000	 0.4640
AF	 0.9990	 0.4650
AG	 1.0000	 0.4690
AH	 1.0000	 0.4680
AI	 1.0000	 0.4600
AJ	 0.9980	 0.4630
AK	 1.0000	 0.4690
AL	 1.0000	 0.4660
AM	 1.0000	 0.4790
AN	 1.0000	 0.4450
AO	 1.0000	 0.4540
AP	 1.0000	 0.4620
AQ	 1.0000	 0.4640
AS	 1.0000	 0.4600
AT	 1.0000	 0.4570
AU	 1.0000	 0.4650
AV	 1.0000	 0.4560
AW	 1.0000	 0.4680
AX	 0.9980	 0.4650
AY	 1.0000	 0.4670
AZ	 1.0000	 0.4650
Ac	 1.0000	 0.4610
BA	 1.0000	 0.4630
BB	 1.0000	 0.4670
BC	 1.0000	 0.4620
BD	 0.9990	 0.4660
BE	 1.0000	 0.4690
BF	 1.0000	 0.4680
BG	 0.9990	 0.4710
BH	 0.9990	 0.4650
BI	 1.0000	 0.4480
BJ	 1.0000	 0.4610























































































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Chain	Atom inclusion	Q-score
BK	1.0000	0.4460
BL	1.0000	0.4610
BM	1.0000	0.4700
BN	1.0000	0.4700
BO	1.0000	0.4610
BP	1.0000	0.4600
BQ	1.0000	0.4550
BS	1.0000	0.4530
BT	1.0000	0.4610
BU	1.0000	0.4580
BV	0.9970	0.4490
BW	1.0000	0.4440
BX	1.0000	0.4680
BY	0.9990	0.4680
BZ	1.0000	0.4670
Bc	1.0000	0.4680
CA	1.0000	0.4620
CB	1.0000	0.4660
CC	0.9970	0.4600
CD	1.0000	0.4690
CE	1.0000	0.4690
CF	1.0000	0.4690
CG	1.0000	0.4650
CH	1.0000	0.4720
CI	1.0000	0.4620
CJ	1.0000	0.4570
CK	1.0000	0.4520
CL	1.0000	0.4640
CM	1.0000	0.4070
CN	0.9960	0.4330
CO	1.0000	0.4300
CP	1.0000	0.4680
CQ	0.9990	0.4660
CS	1.0000	0.4740
CT	1.0000	0.4700
CU	1.0000	0.4740
CV	1.0000	0.4650
CW	1.0000	0.4630
CX	0.9990	0.4650
CY	1.0000	0.4700
CZ	1.0000	0.4740
Cc	1.0000	0.4630





















































































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Chain	Atom inclusion	Q-score
DA	 1.0000	 0.4670
DB	 0.9990	 0.4620
DC	 0.9990	 0.4680
DD	 1.0000	 0.4670
DE	 1.0000	 0.4670
DF	 0.9990	 0.4680
DG	 1.0000	 0.4710
DH	 1.0000	 0.4530
DI	 1.0000	 0.4240
DJ	 1.0000	 0.4480
DK	 0.9990	 0.4760
DL	 1.0000	 0.4660
DM	 0.9990	 0.4720
DN	 0.9990	 0.4270
DO	 0.9990	 0.3930
DQ	 1.0000	 0.4760
DS	 1.0000	 0.4650
DT	 1.0000	 0.4580
DU	 1.0000	 0.4660
DV	 1.0000	 0.4640
DW	 1.0000	 0.4670
DX	 1.0000	 0.4730
DY	 1.0000	 0.4660
DZ	 1.0000	 0.4670
Dc	 0.9990	 0.4670
EA	 1.0000	 0.4680
EB	 1.0000	 0.4600
EC	 1.0000	 0.4540
ED	 1.0000	 0.4560
EE	 1.0000	 0.4620
EF	 1.0000	 0.4570
EG	 0.9990	 0.4640
EH	 1.0000	 0.4620
EI	 0.9990	 0.4590
EJ	 1.0000	 0.4630
EK	 1.0000	 0.4680
EL	 1.0000	 0.4660
EM	 1.0000	 0.4660
EN	 1.0000	 0.4640
EO	 1.0000	 0.4700
EP	 1.0000	 0.4640
EQ	 1.0000	 0.4670











































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Chain	Atom inclusion	Q-score
ES	 1.0000	 0.4650
ET	 0.9990	 0.4640
EU	 1.0000	 0.4410
EV	 0.9990	 0.4380
EW	 1.0000	 0.4500
EX	 1.0000	 0.4690
EY	 0.9980	 0.4630
EZ	 1.0000	 0.4680
Ec	 1.0000	 0.4640
FA	 1.0000	 0.4520
FB	 1.0000	 0.4330
FC	 1.0000	 0.4500
FD	 1.0000	 0.4660
FE	 0.9990	 0.4620
FF	 1.0000	 0.4650
FG	 1.0000	 0.4200
FH	 1.0000	 0.4470
FI	 1.0000	 0.4500
FJ	 1.0000	 0.4710
FK	 1.0000	 0.4630
FL	 1.0000	 0.4660
FM	 1.0000	 0.4660
FN	 0.9990	 0.4660
FO	 1.0000	 0.4620
FP	 1.0000	 0.4730
FQ	 1.0000	 0.4710
FS	 1.0000	 0.4660
FT	 1.0000	 0.4570
FU	 0.9990	 0.4660
FV	 1.0000	 0.4660
FW	 0.9990	 0.4650
FX	 0.9990	 0.4590
FY	 1.0000	 0.4630
FZ	 1.0000	 0.4500
Fc	 1.0000	 0.4710
GA	 1.0000	 0.4320
GB	 0.9990	 0.4630
GC	 1.0000	 0.4690
GD	 1.0000	 0.4700
GE	 1.0000	 0.4710
GF	 1.0000	 0.4640
GG	 1.0000	 0.4720

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Chain	Atom inclusion	Q-score
GH	 1.0000	 0.4570
GI	 1.0000	 0.4630
GJ	 1.0000	 0.4670
GK	 1.0000	 0.4710
GL	 1.0000	 0.4690
GM	 0.9990	 0.4710
GN	 1.0000	 0.4730
GO	 1.0000	 0.4650
GP	 1.0000	 0.4710
GQ	 0.9990	 0.4690
GS	 1.0000	 0.4660
GT	 1.0000	 0.4570
GU	 1.0000	 0.4480
GV	 0.9990	 0.4480
GW	 1.0000	 0.4680
GX	 0.9990	 0.4720
GY	 1.0000	 0.4730
Gc	 1.0000	 0.4660
R	 0.9600	 0.1610
a	 0.9970	 0.2750
b	 0.9600	 0.2190