Full wwPDB EM Validation Report ⓘ

Mar 5, 2026 – 08:34 PM UTC

PDB ID	:	4V66 / pdb_00004v66
EMDB ID	:	EMD-1056
Title	:	Structure of the E. coli ribosome and the tRNAs in Post-accommodation state
Authors	:	Devkota, B.; Caulfield, T.R.; Tan, R.-Z.; Harvey, S.C.
Deposited on	:	2008-08-03
Resolution	:	9.00 Å(reported)
Based on initial models	:	1EHZ, 2I2P

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

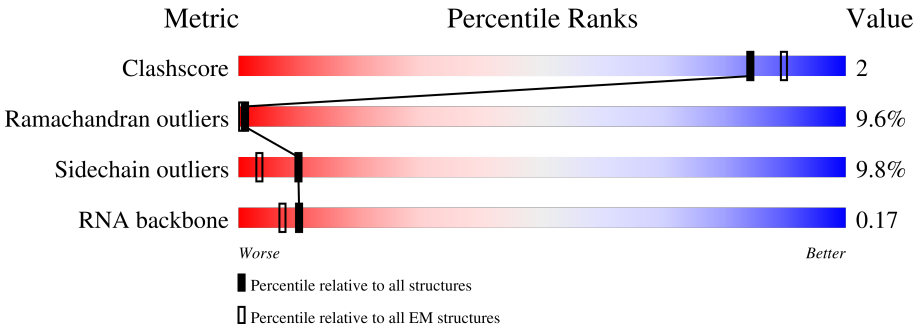
EMDB validation analysis	:	0.0.1.dev132
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh &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

1 Overall quality at a glance

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

The reported resolution of this entry is 9.00 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	229148	23984
Ramachandran outliers	224038	23583
Sidechain outliers	223484	23102
RNA backbone	8273	3508

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

Mol	Chain	Length	Quality of chain
1	AA	76	64%: 5% 21% 41% 32% ·
1	AE	76	54%: · 25% 59% 13%
1	AP	76	57%: · 26% 47% 22% ·
2	AM	20	10%: 10% 5% 35% 50%
3	A1	1530	66%: · 18% 45% 34%
4	AB	241	70%: 38% 43% 8% · 10%
5	AC	129	46%: 33% 46% 9% · 9%

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Mol	Chain	Length	Quality of chain
6	AD	124	73% 34% 43% 19%
7	AF	118	53% 34% 45% 16%
8	AG	101	86% 33% 52% 8% 5%
9	AH	89	83% 30% 58% 8%
10	AI	82	100% 35% 49% 15%
11	AJ	84	73% 36% 45% 12% 5%
12	AK	75	25% 24% 41% 8% 27%
13	AL	92	83% 32% 38% 14% 14%
14	AN	87	57% 41% 43% 14%
15	AO	233	28% 37% 41% 9% 12%
16	AQ	71	42% 30% 34% 7% 28%
17	AR	206	53% 42% 48% 9%
18	AS	159	32% 34% 47% 11% 6%
19	AT	135	53% 29% 32% 12% 26%
20	AU	179	39% 28% 44% 12% 16%
21	AV	130	50% 42% 45% 10%
22	AW	130	82% 32% 55% 10%
23	AX	103	71% 32% 48% 14% 5%
24	BA	117	66% 26% 36% 35%
25	BB	2903	55% 18% 41% 39%
26	BC	94	72% 46% 48% 6%
27	BD	123	57% 34% 52% 12%
28	BE	144	60% 33% 43% 22%
29	BF	136	63% 40% 39% 16%
30	BG	127	39% 36% 50% 13%

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Mol	Chain	Length	Quality of chain
31	BH	117	55% 42% 50% 5%
32	BI	115	52% 36% 48% 13%
33	BJ	118	81% 36% 50% 11%
34	BK	103	92% 37% 49% 12%
35	BL	110	46% 32% 47% 19%
36	BM	99	71% 46% 38% 11%
37	BN	270	59% 25% 55% 16%
38	BO	103	99% 31% 48% 18%
39	BP	85	34% 25% 56% 16%
40	BQ	63	51% 33% 46% 16% 5%
41	BR	59	53% 41% 44% 10%
42	BS	70	71% 33% 51% 14%
43	BT	57	44% 21% 54% 19%
44	BU	54	78% 37% 54% 9%
45	BV	46	50% 30% 52% 13%
46	BW	64	69% 28% 42% 22% 8%
47	BX	38	71% 34% 45% 21%
48	BY	209	38% 35% 48% 13%
49	BZ	213	95% 34% 57% 8%
50	B1	201	72% 35% 49% 14%
51	B2	178	33% 35% 51% 11%
52	B3	177	79% 50% 40% 8%
53	B4	149	93% 42% 50% 7%
54	B5	142	38% 47% 43% 8%
55	B6	140	47% 29% 54% 13%

2 Entry composition (i)

There are 55 unique types of molecules in this entry. The entry contains 149248 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 A/T, P and E-site tRNAs.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	AA	75	Total	C	N	O	P	0	0
			1600	715	288	523	74		
1	AP	75	Total	C	N	O	P	0	0
			1600	715	288	523	74		
1	AE	76	Total	C	N	O	P	0	0
			1622	725	293	529	75		

- Molecule 2 is a RNA chain called mRNA model.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	AM	20	Total	C	N	O	P	0	0
			397	180	40	158	19		

- Molecule 3 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	A1	1530	Total	C	N	O	P	0	0
			32828	14642	6024	10633	1529		

- Molecule 4 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	AB	218	Total	C	N	O	S	0	0
			1704	1081	305	311	7		

- Molecule 5 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	AC	117	Total	C	N	O	S	0	0
			876	540	174	159	3		

- Molecule 6 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	AD	123	Total	C	N	O	S	0	0
			954	590	196	164	4		

- Molecule 7 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	AF	114	Total	C	N	O	S	0	0
			883	546	178	156	3		

- Molecule 8 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	AG	96	Total	C	N	O	S	0	0
			773	483	160	127	3		

- Molecule 9 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	AH	88	Total	C	N	O	S	0	0
			715	440	146	128	1		

- Molecule 10 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	AI	82	Total	C	N	O	S	0	0
			648	406	128	113	1		

- Molecule 11 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	AJ	80	Total	C	N	O	S	0	0
			648	411	121	113	3		

- Molecule 12 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				AltConf	Trace
12	AK	55	Total	C	N	O	0	0
			455	288	86	81		

- Molecule 13 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	AL	79	Total	C	N	O	S	0	0
			637	408	120	107	2		

- Molecule 14 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	AN	85	Total	C	N	O	S	0	0
			664	411	137	113	3		

- Molecule 15 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	AO	206	Total	C	N	O	S	0	0
			1624	1028	305	288	3		

- Molecule 16 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	AQ	51	Total	C	N	O	S	0	0
			425	265	86	73	1		

- Molecule 17 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	AR	205	Total	C	N	O	S	0	0
			1642	1026	315	297	4		

- Molecule 18 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	AS	150	Total	C	N	O	S	0	0
			1105	687	211	201	6		

- Molecule 19 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	AT	100	Total	C	N	O	S	0	0
			817	515	148	148	6		

- Molecule 20 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	AU	150	Total	C	N	O	S	0	0
			1174	730	226	214	4		

- Molecule 21 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	AV	129	Total	C	N	O	S	0	0
			978	616	173	183	6		

- Molecule 22 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	AW	127	Total	C	N	O	S	0	0
			1021	634	206	178	3		

- Molecule 23 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	AX	98	Total	C	N	O	S	0	0
			786	493	150	142	1		

- Molecule 24 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	BA	117	Total	C	N	O	P	0	0
			2504	1116	459	813	116		

- Molecule 25 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	BB	2903	Total	C	N	O	P	0	0
			62317	27801	11467	20147	2902		

- Molecule 26 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	BC	94	Total	C	N	O	S	0	0
			752	479	137	133	3		

- Molecule 27 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	BD	121	Total	C	N	O	S	0	0
			930	582	179	164	5		

- Molecule 28 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	BE	144	Total	C	N	O	S	0	0
			1052	654	207	189	2		

- Molecule 29 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	BF	136	Total	C	N	O	S	0	0
			1073	686	205	176	6		

- Molecule 30 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	BG	127	Total	C	N	O	S	0	0
			1007	621	204	177	5		

- Molecule 31 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	BH	117	Total	C	N	O	S	0	0
			899	557	179	162	1		

- Molecule 32 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	BI	114	Total	C	N	O	S	0	0
			916	574	179	162	1		

- Molecule 33 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms				AltConf	Trace
33	BJ	117	Total	C	N	O	0	0
			946	604	192	150		

- Molecule 34 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	BK	103	Total	C	N	O	S	0	0
			815	516	153	144	2		

- Molecule 35 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	BL	110	Total	C	N	O	S	0	0
			856	532	166	155	3		

- Molecule 36 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	BM	99	Total	C	N	O	S	0	0
			777	491	145	139	2		

- Molecule 37 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	BN	267	Total	C	N	O	S	0	0
			2053	1271	416	359	7		

- Molecule 38 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				AltConf	Trace
38	BO	102	Total	C	N	O	0	0
			779	492	146	141		

- Molecule 39 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
39	BP	84	Total	C	N	O	S	0	0
			633	391	129	112	1		

- Molecule 40 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
40	BQ	63	Total	C	N	O	S	0	0
			508	313	99	94	2		

- Molecule 41 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					AltConf	Trace
41	BR	58	Total	C	N	O	S	0	0
			448	281	87	78	2		

- Molecule 42 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
42	BS	70	Total	C	N	O	S	0	0
			548	339	104	99	6		

- Molecule 43 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
43	BT	56	Total	C	N	O	S	0	0
			443	269	94	79	1		

- Molecule 44 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				AltConf	Trace
44	BU	54	Total	C	N	O	0	0
			440	284	81	75		

- Molecule 45 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
45	BV	46	Total	C	N	O	S	0	0
			376	228	90	56	2		

- Molecule 46 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
46	BW	64	Total	C	N	O	S	0	0
			503	323	105	73	2		

- Molecule 47 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
47	BX	38	Total	C	N	O	S	0	0
			301	185	65	47	4		

- Molecule 48 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
48	BY	209	Total	C	N	O	S	0	0
			1564	979	288	293	4		

- Molecule 49 is a protein called 50S ribosomal protein L1P.

Mol	Chain	Residues	Atoms					AltConf	Trace
49	BZ	213	Total	C	N	O	S	0	0
			1687	1078	300	308	1		

There are 7 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BZ	1	MET	-	insertion	UNP P35024
BZ	?	-	MET	deletion	UNP P35024
BZ	70	SER	PHE	conflict	UNP P35024
BZ	82	LYS	ASN	conflict	UNP P35024
BZ	?	-	MET	deletion	UNP P35024
BZ	?	-	MET	deletion	UNP P35024
BZ	?	-	MET	deletion	UNP P35024

- Molecule 50 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
50	B1	201	Total	C	N	O	S	0	0
			1551	974	283	289	5		

- Molecule 51 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
51	B2	178	Total	C	N	O	S	0	0
			1419	905	251	257	6		

- Molecule 52 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
52	B3	176	Total	C	N	O	S	0	0
			1322	832	243	245	2		

- Molecule 53 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
53	B4	149	Total	C	N	O	S	0	0
			1110	699	197	213	1		

- Molecule 54 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
54	B5	141	Total	C	N	O	S	0	0
			1031	651	179	195	6		

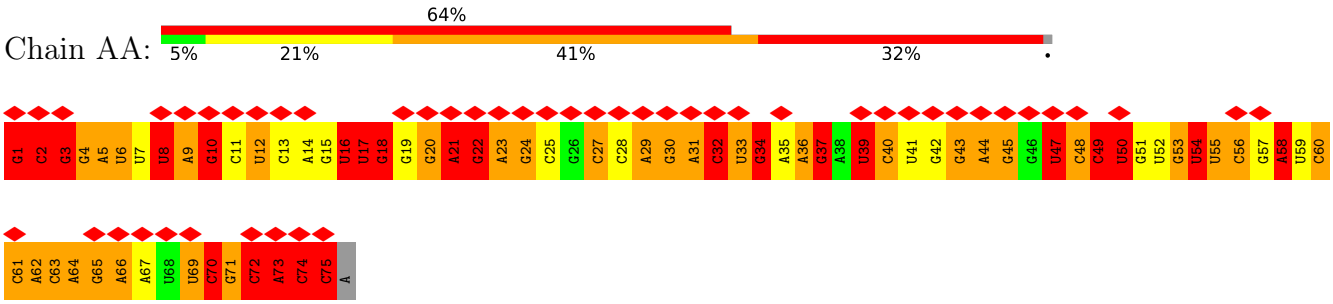
- Molecule 55 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
55	B6	140	Total	C	N	O	S	0	0
			1112	704	210	194	4		

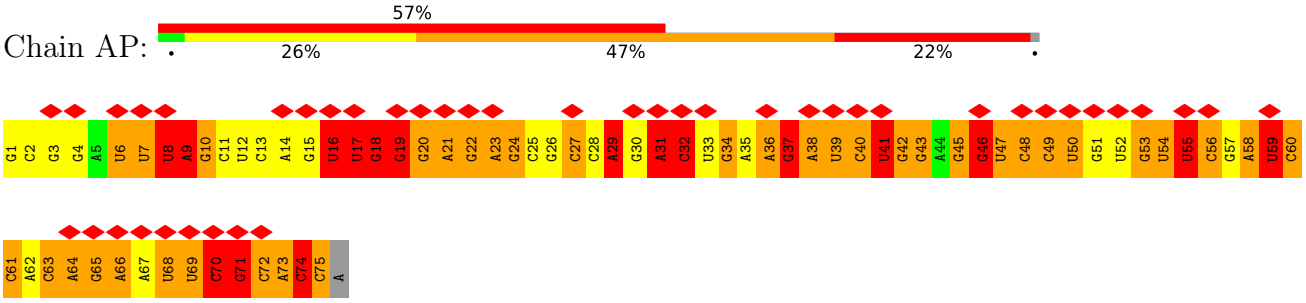
3 Residue-property plots (i)

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.

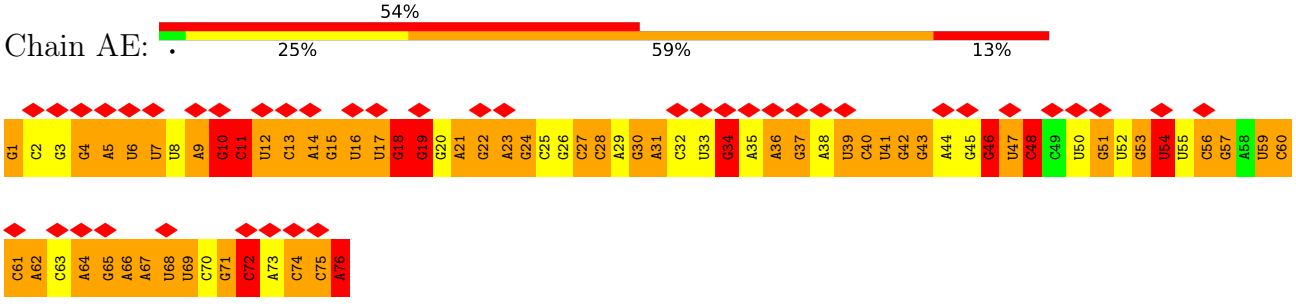
• Molecule 1: A/T, P and E-site tRNAs



• Molecule 1: A/T, P and E-site tRNAs

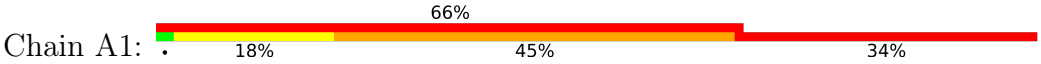


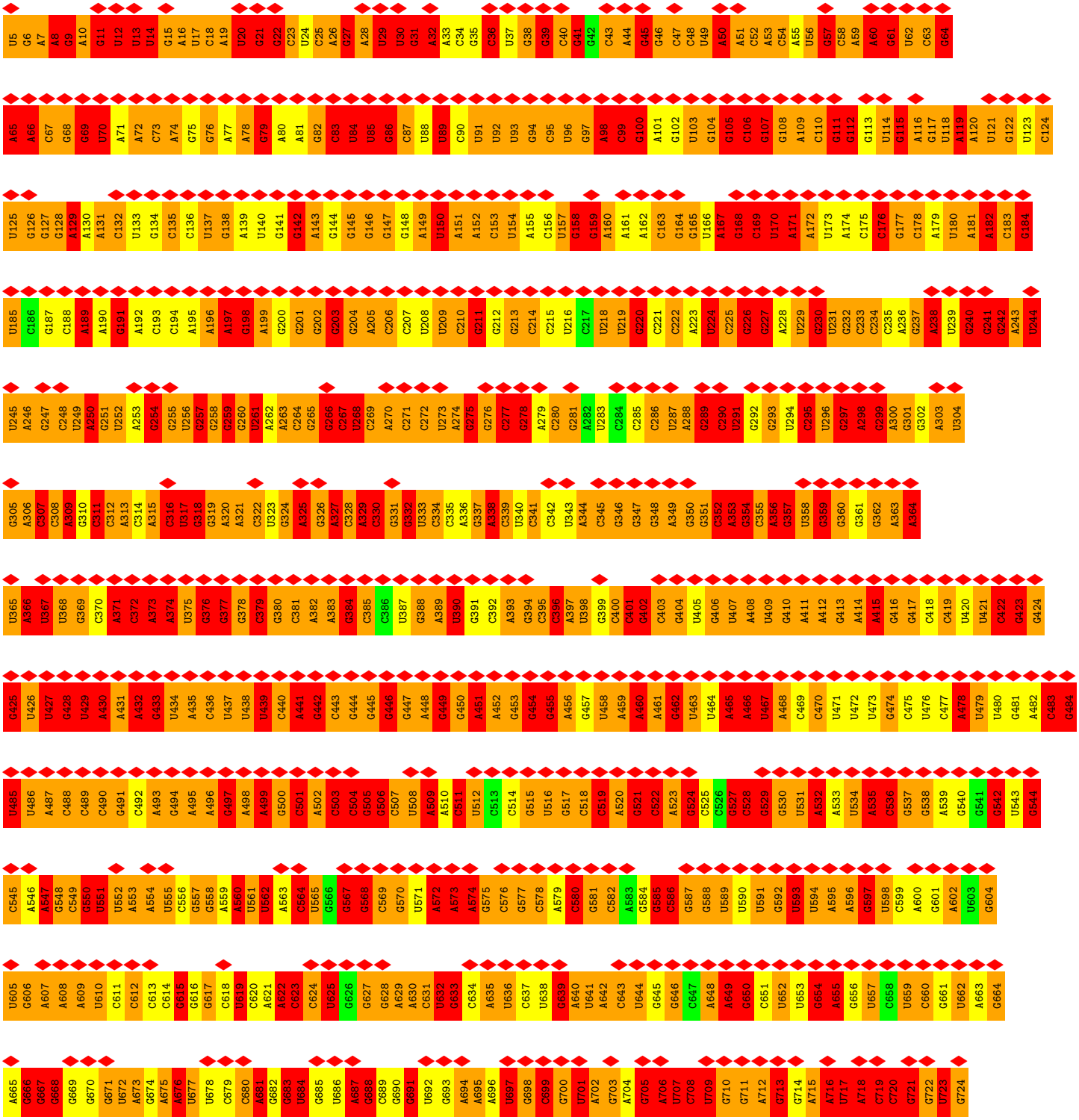
• Molecule 1: A/T, P and E-site tRNAs

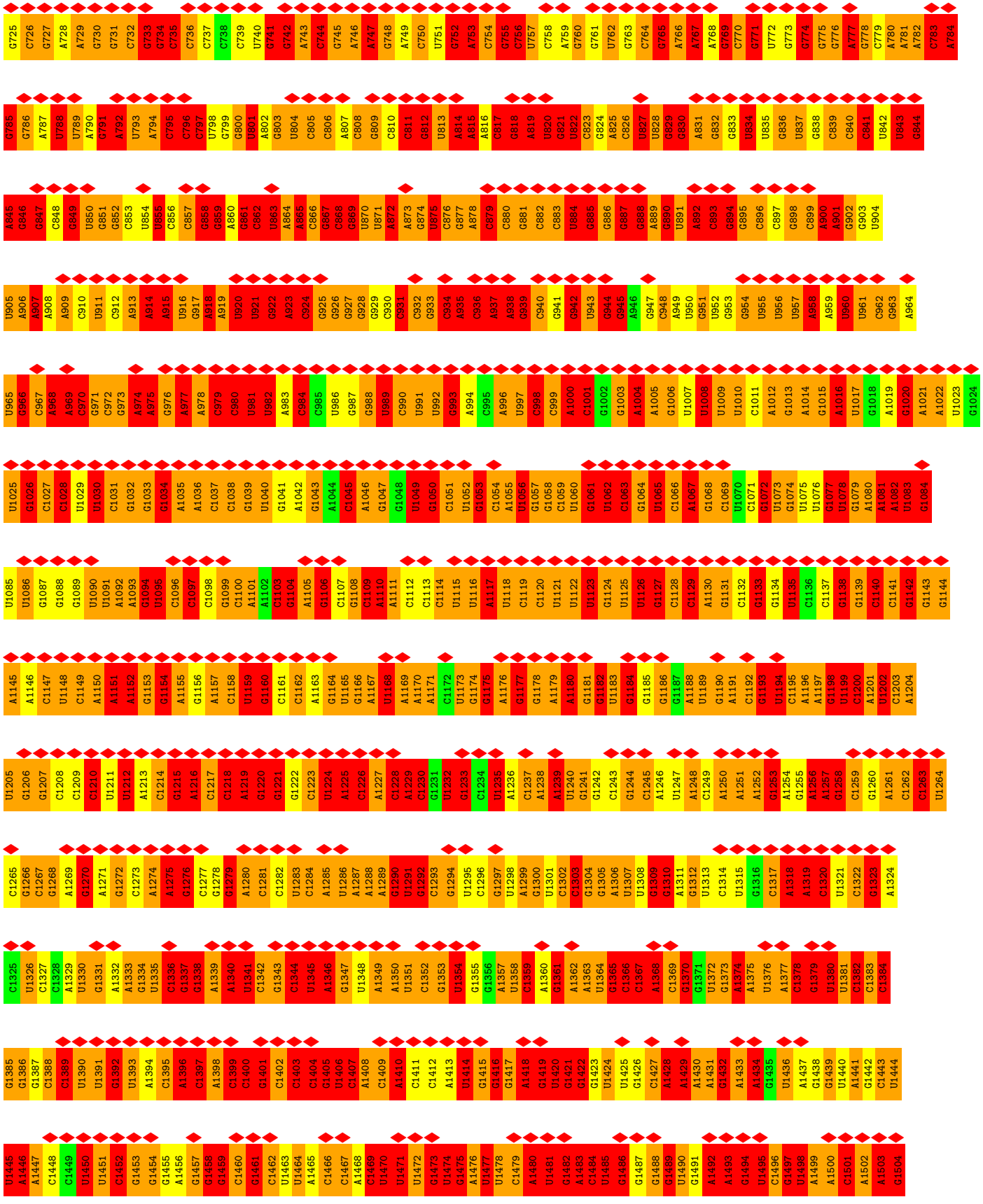


• Molecule 2: mRNA model

• Molecule 3: 16S rRNA

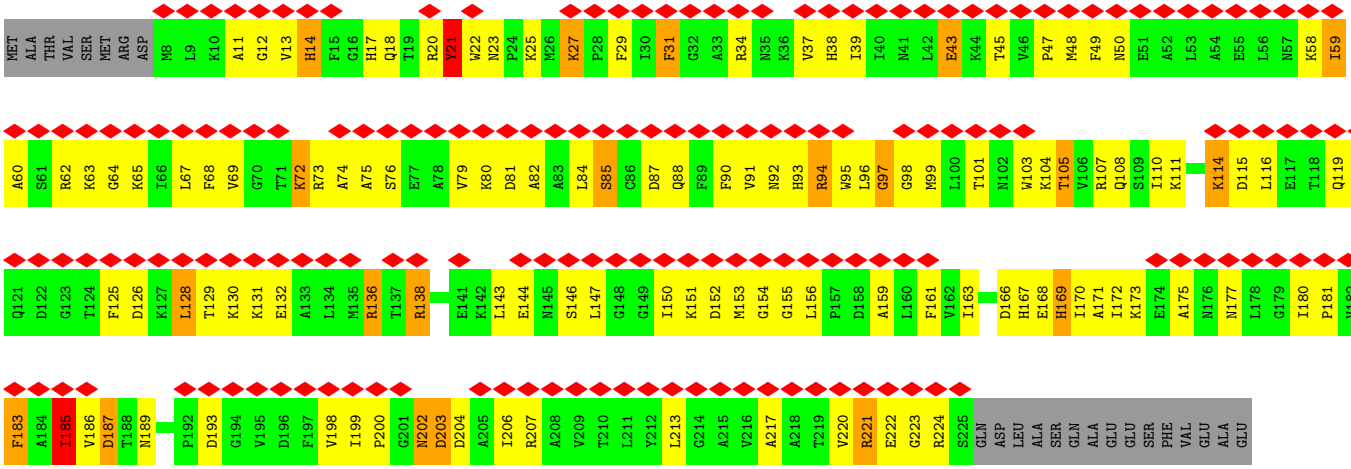






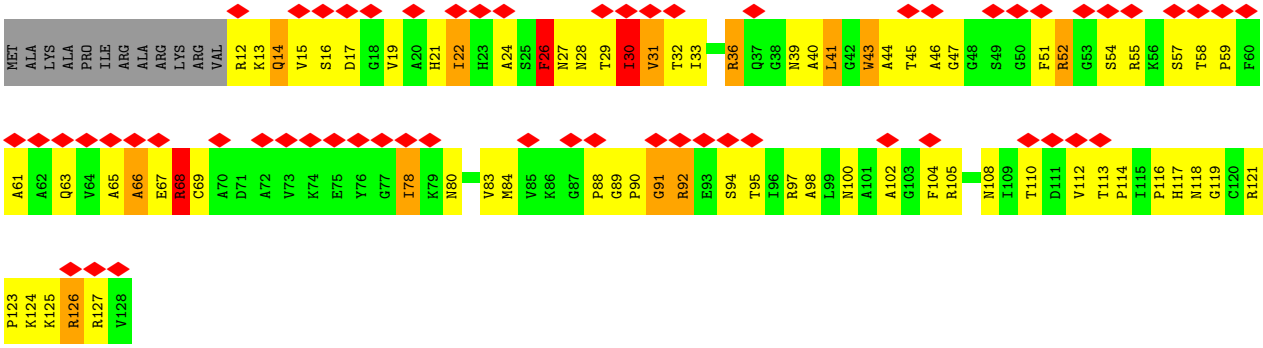
• Molecule 4: 30S ribosomal protein S2

Chain AB:



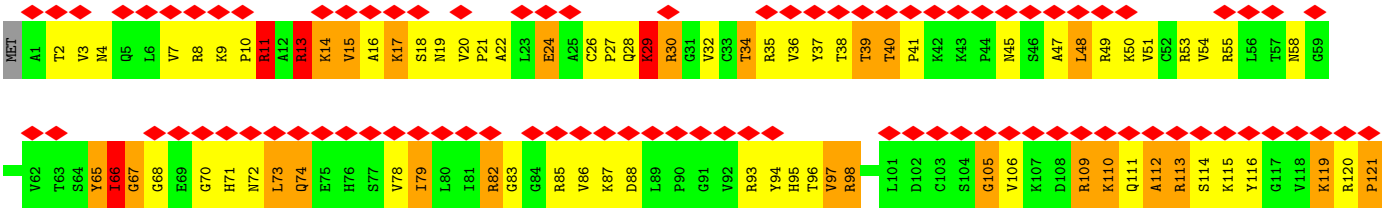
• Molecule 5: 30S ribosomal protein S11

Chain AC:



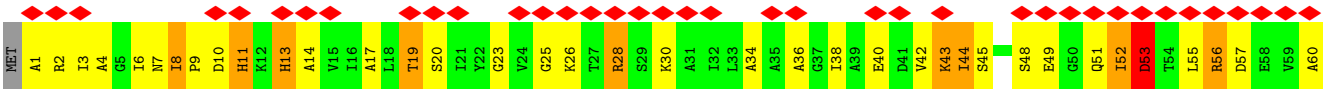
• Molecule 6: 30S ribosomal protein S12

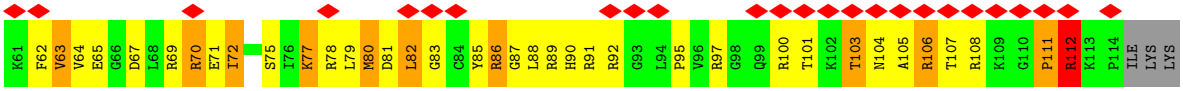
Chain AD:



• Molecule 7: 30S ribosomal protein S13

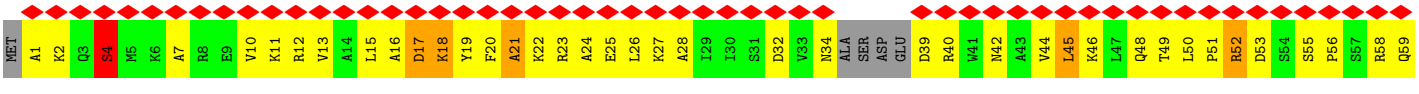
Chain AF:

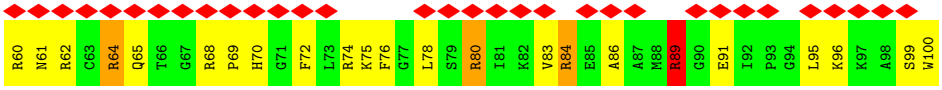




• Molecule 8: 30S ribosomal protein S14

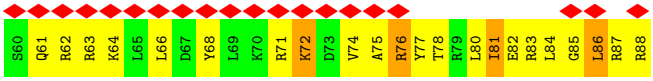
Chain AG:





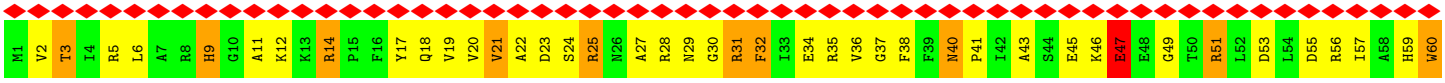
• Molecule 9: 30S ribosomal protein S15

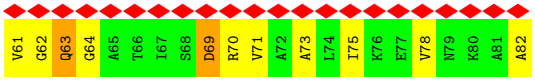
Chain AH:



• Molecule 10: 30S ribosomal protein S16

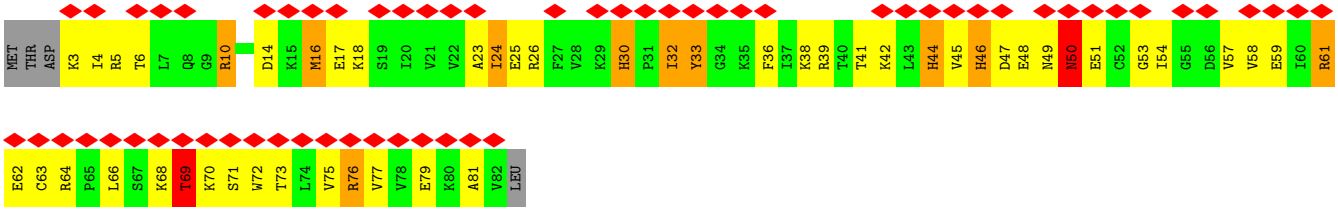
Chain AI:



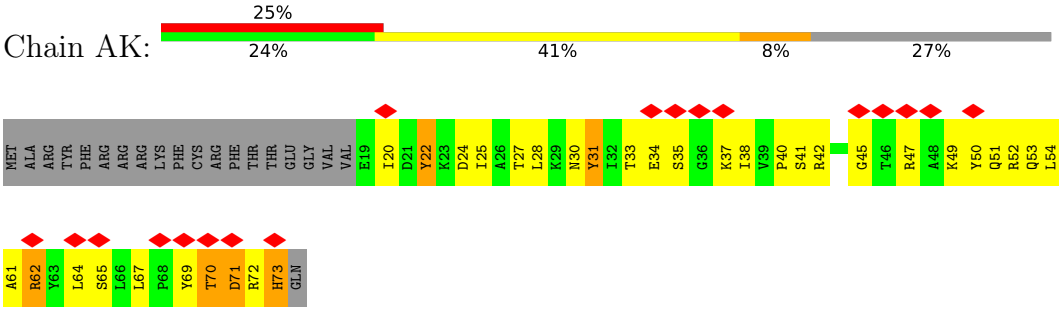


• Molecule 11: 30S ribosomal protein S17

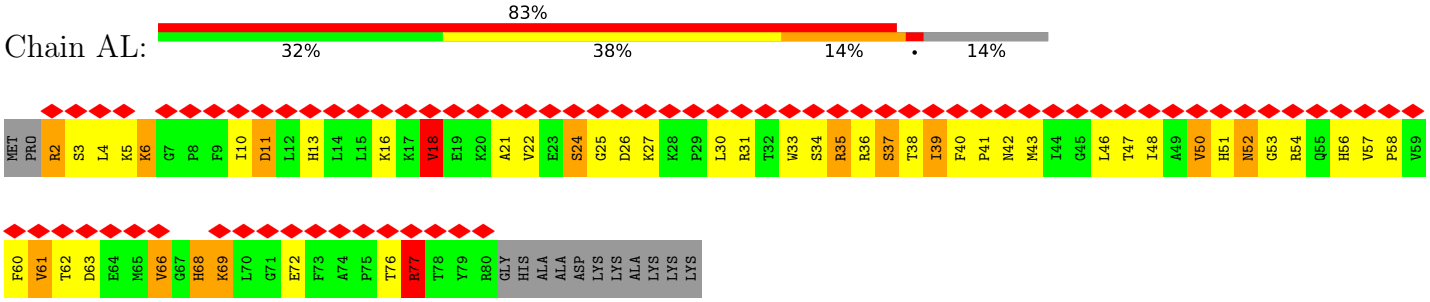
Chain AJ:



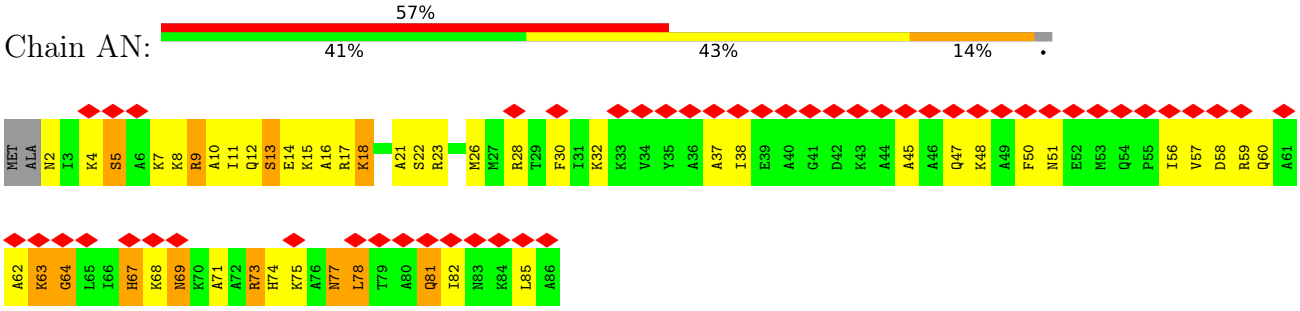
• Molecule 12: 30S ribosomal protein S18



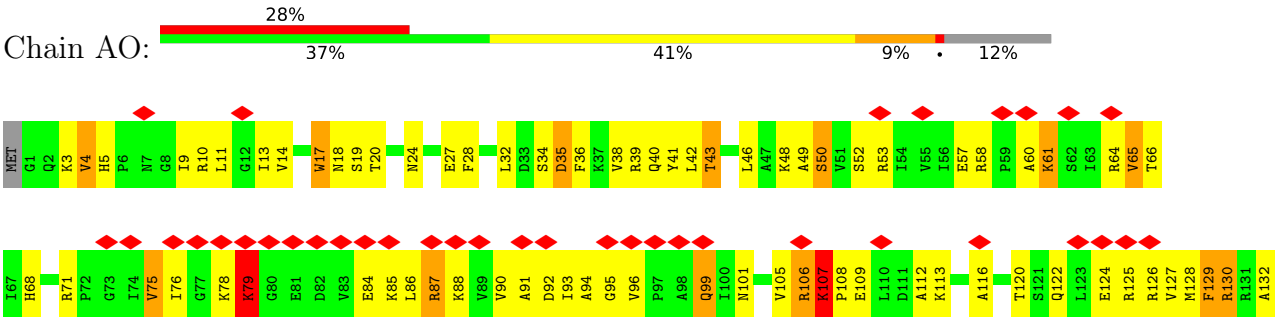
• Molecule 13: 30S ribosomal protein S19

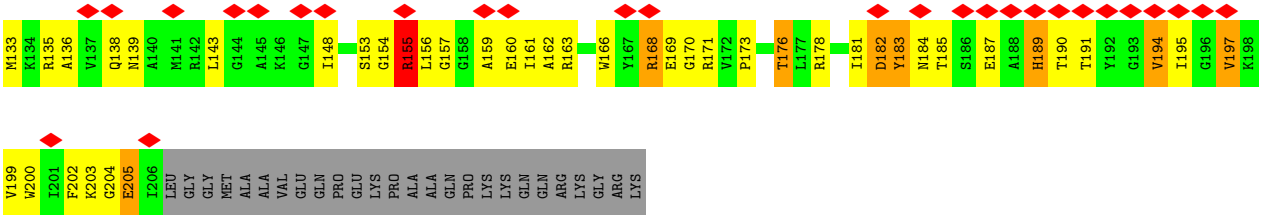


• Molecule 14: 30S ribosomal protein S20



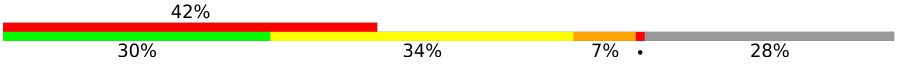
• Molecule 15: 30S ribosomal protein S3

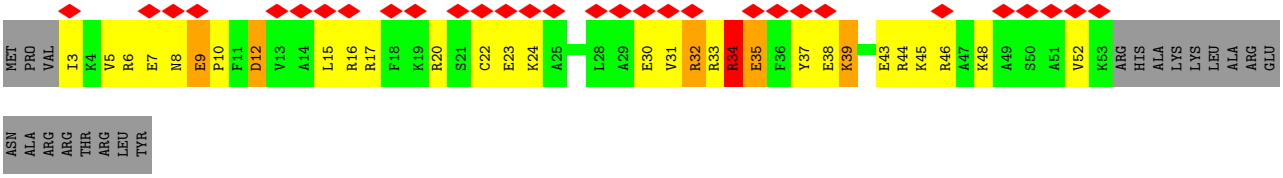




• Molecule 16: 30S ribosomal protein S21

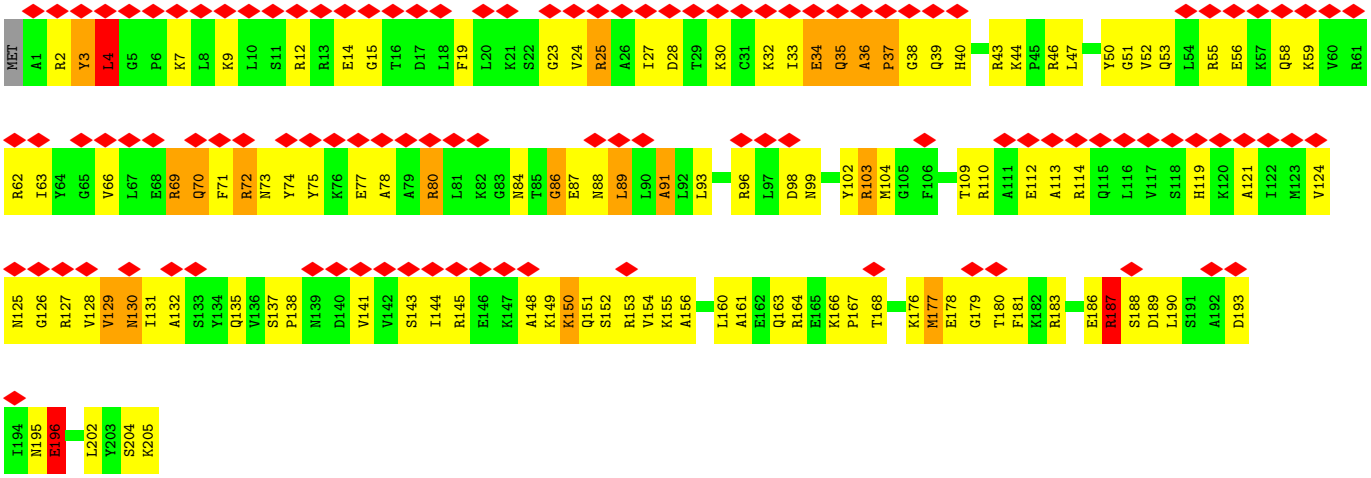
Chain AQ:





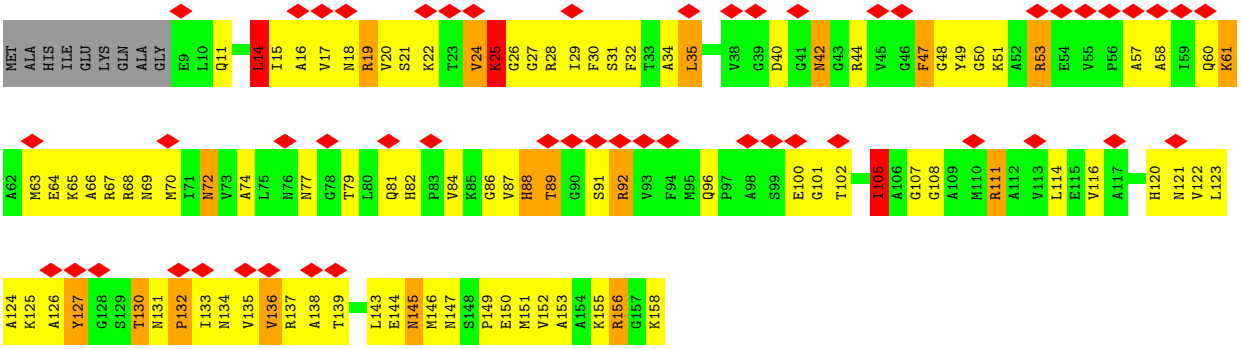
• Molecule 17: 30S ribosomal protein S4

Chain AR:



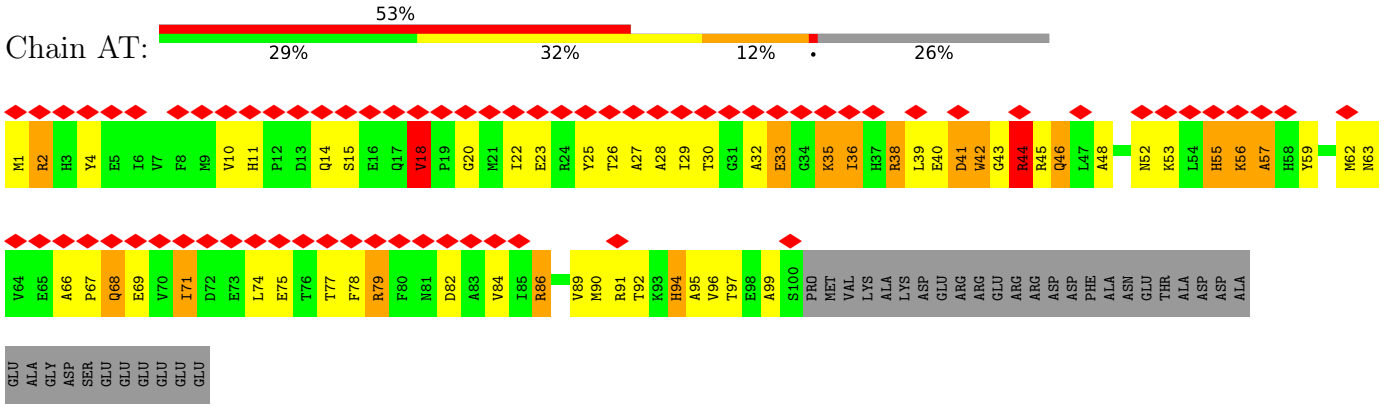
• Molecule 18: 30S ribosomal protein S5

Chain AS:



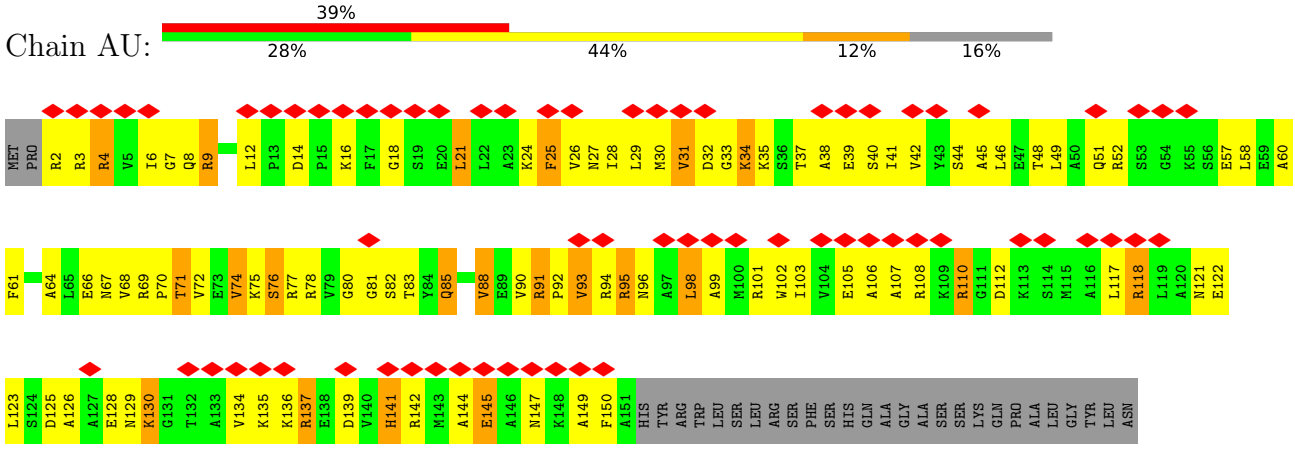
• Molecule 19: 30S ribosomal protein S6

Chain AT:



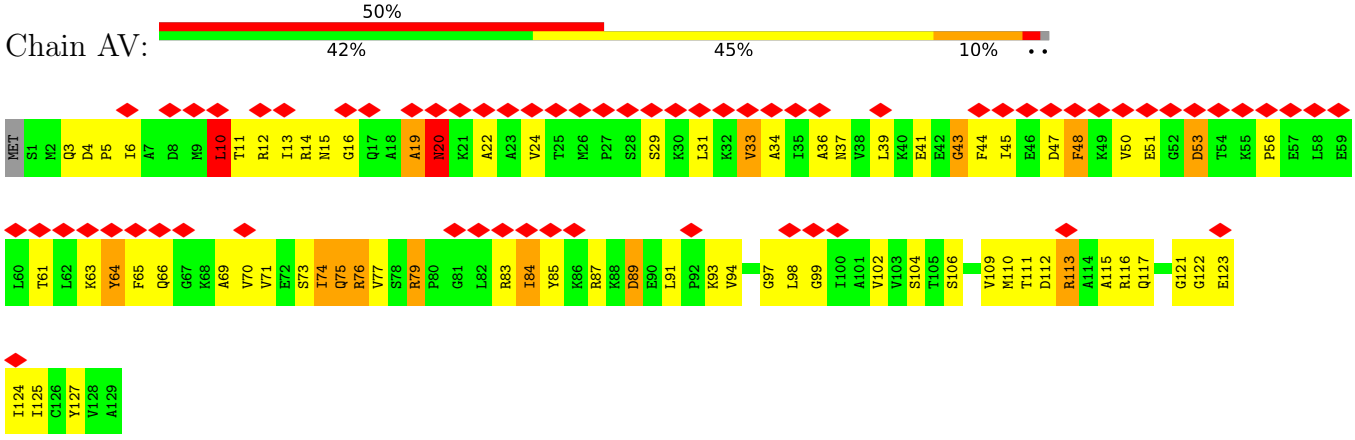
• Molecule 20: 30S ribosomal protein S7

Chain AU:



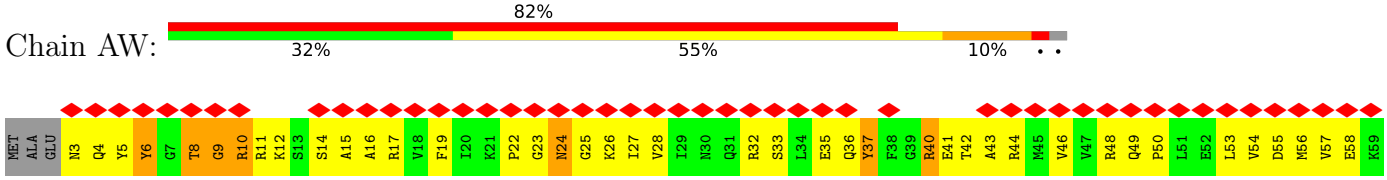
• Molecule 21: 30S ribosomal protein S8

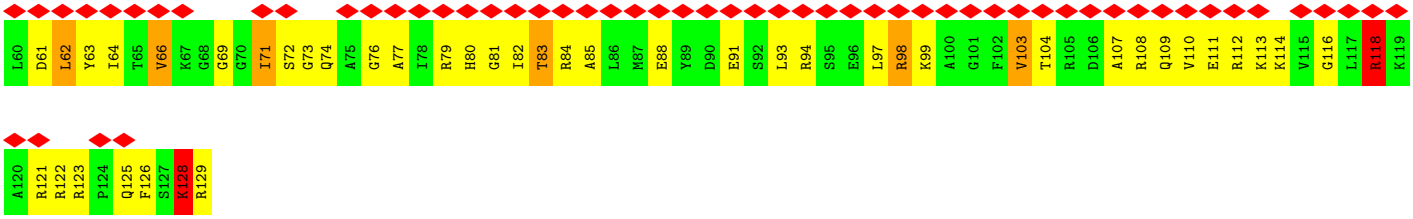
Chain AV:



• Molecule 22: 30S ribosomal protein S9

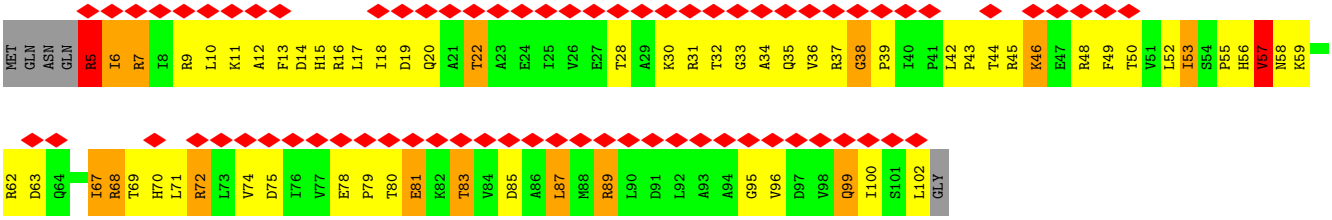
Chain AW:





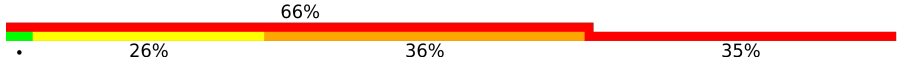
• Molecule 23: 30S ribosomal protein S10

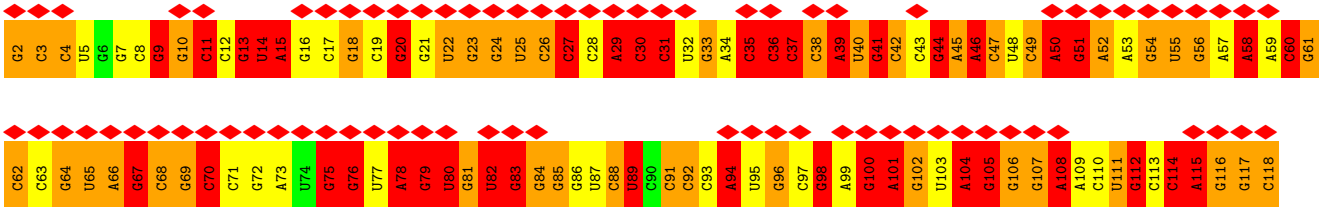
Chain AX:



• Molecule 24: 5S rRNA

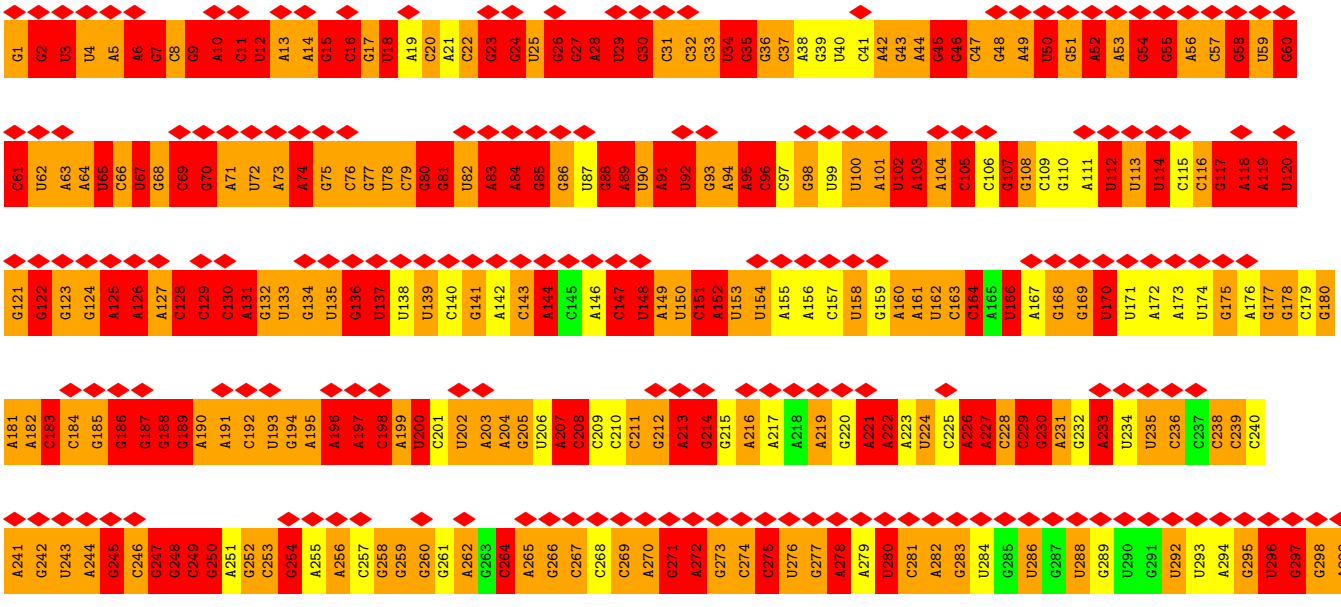
Chain BA:

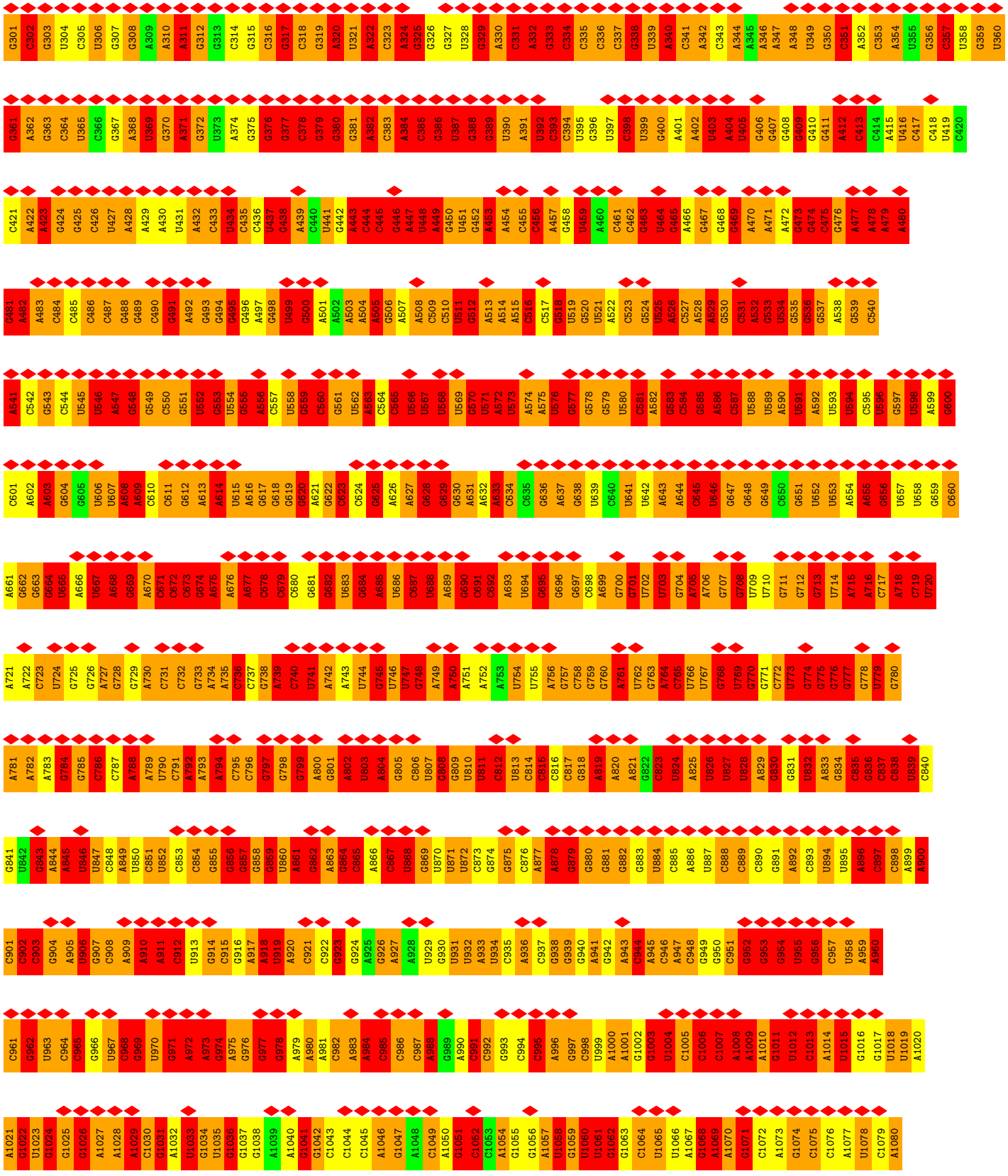




• Molecule 25: 23S rRNA

Chain BB:

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G361 A362 G363 C364 U365 C366 G367 A368 U369 G370 A371 G372 U373 A374 G375 G376 G377 C378 G379 G380 G381 A382 C383 A384 C385 G386 U387 G388 G389 U390 A391 U392 G393 C394 U395 G396 U397 C398 U399 G400 A401 A402 U403 A404 U405 G406 G407 G408 G409 G410 G411 A412 C413 C414 A415 U416 C417 C418 U419 C420
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C601 A602 A603 G604 G605 U606 U607 A608 A609 C610 C611 G612 A613 A614 U615 A616 G617 G618 G619 G620 A621 G622 C623 C624 G625 A626 A627 G628 G629 G630 A631 A632 A633 C634 C635 G636 A637 G638 U639 C640 U641 U642 A643 A644 C645 U646 G647 G648 G649 C650 G651 U652 U653 A654 A655 G656 U657 U658 G659 C660
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A721 A722 C723 U724 G725 G726 A727 G728 G729 A730 C731 C732 G733 A734 A735 C736 C737 G738 A739 C740 U741 A742 A743 U744 G745 U746 U747 G748 A749 A750 A751 A752 A753 U754 U755 A756 G757 C758 G759 G760 A761 U762 G763 A764 C765 U766 U767 G768 U769 G770 G771 C772 U773 G774 G775 G776 G777 G778 U779 G780
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C901 C902 C903 G904 A905 U906 G907 C908 A909 A910 A911 C912 U913 G914 C915 G916 A917 A918 U919 A920 C921 C922 G923 G924 A925 G926 A927 A928 U929 G930 U931 U932 A933 U934 C935 A936 C937 G938 G939 G940 A941 G942 A943 C944 A945 C946 A947 C948 G949 G950 C951 G952 G953 G954 U955 G956 C957 U958 A959 A960
C961 G962 U963 C964 C965 G966 U967 C968 G969 U970 G971 A972 A973 G974 A975 G976 G977 G978 A979 A980 A981 C982 A983 A984 C985 C986 C987 A988 G989 A990 C991 C992 G993 C994 C995 A996 G997 C998 U999 A1000 A1001 G1002 G1003 U1004 C1005 C1006 C1007 A1008 A1009 A1010 G1011 U1012 C1013 A1014 U1015 G1016 G1017 U1018 U1019 A1020
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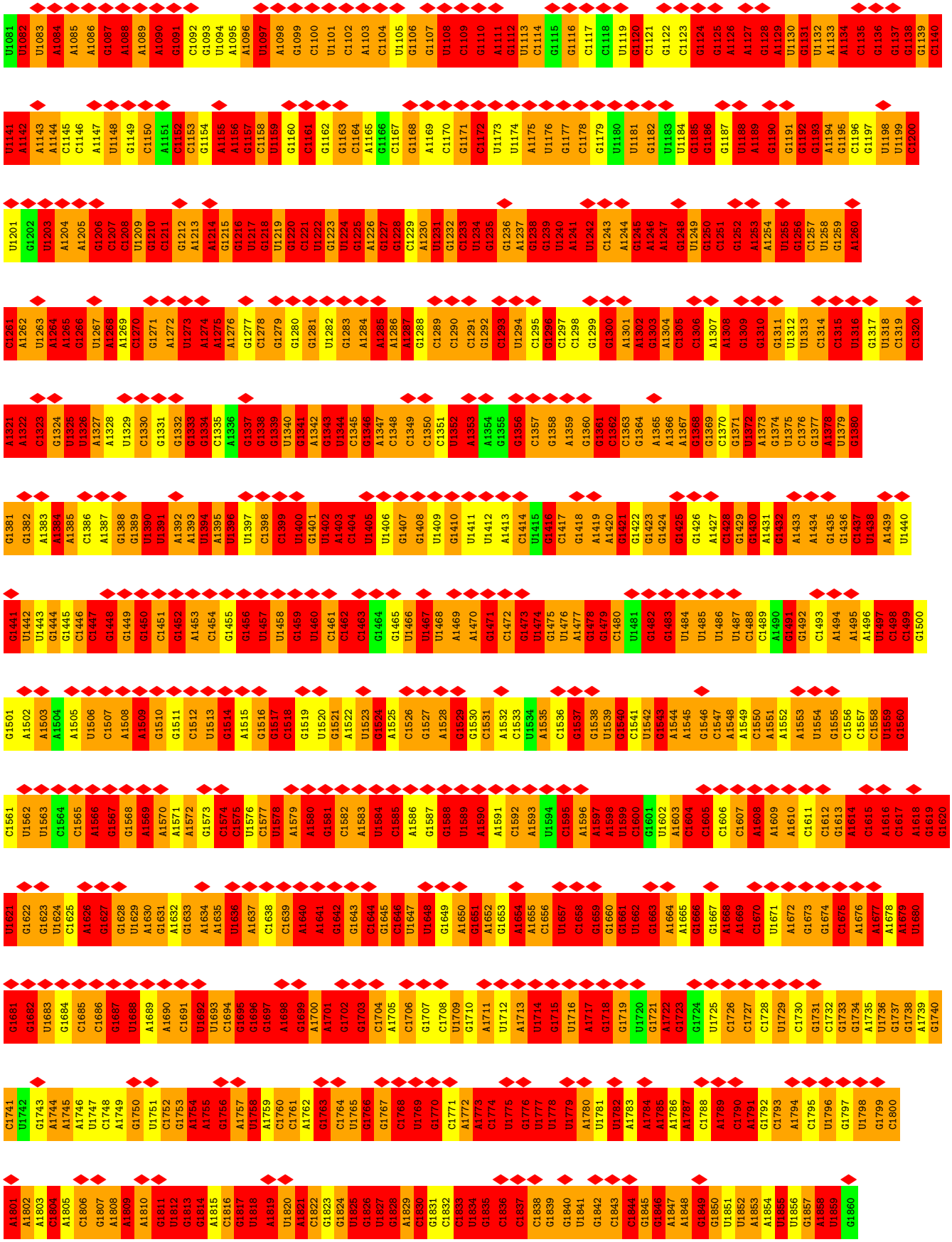
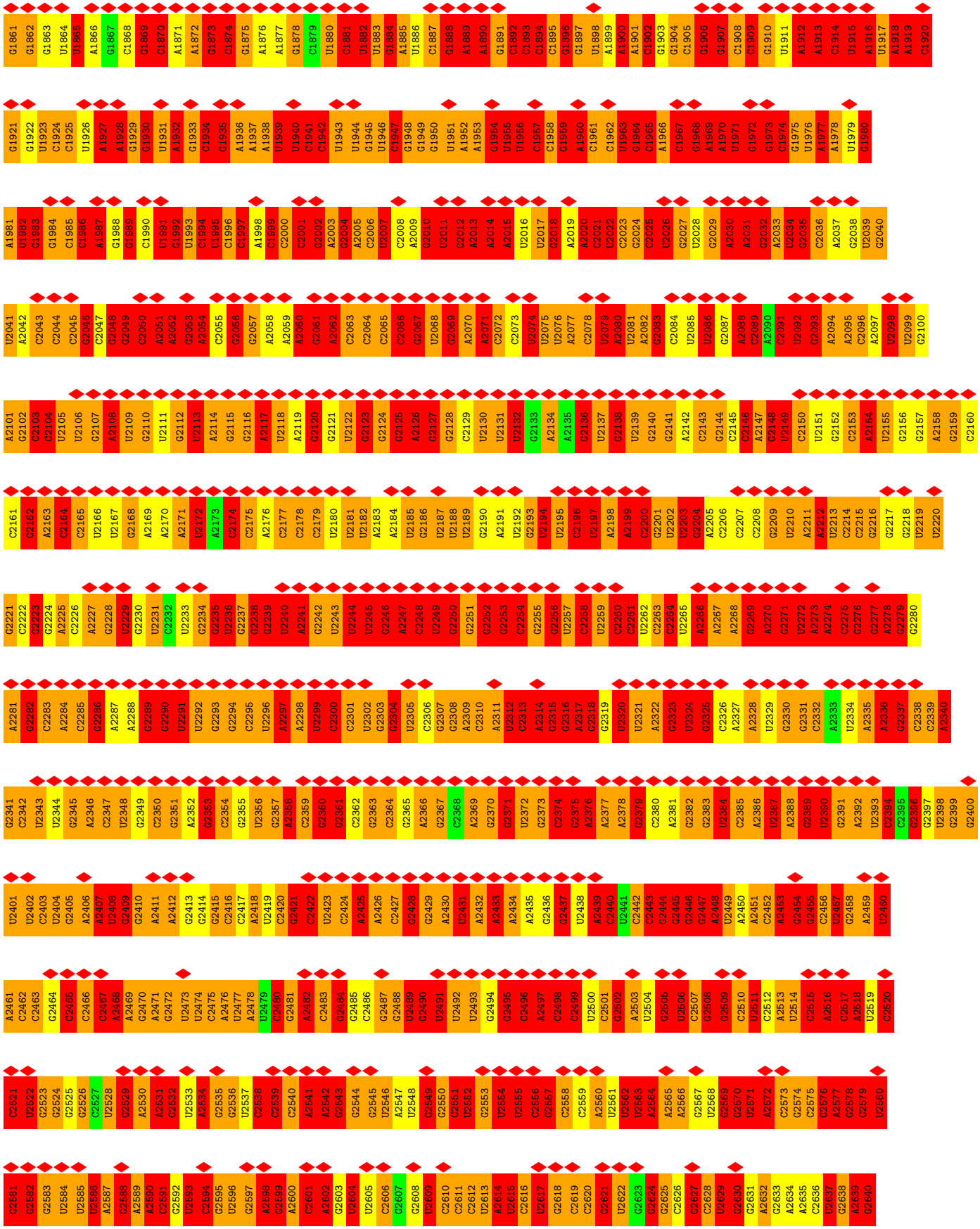
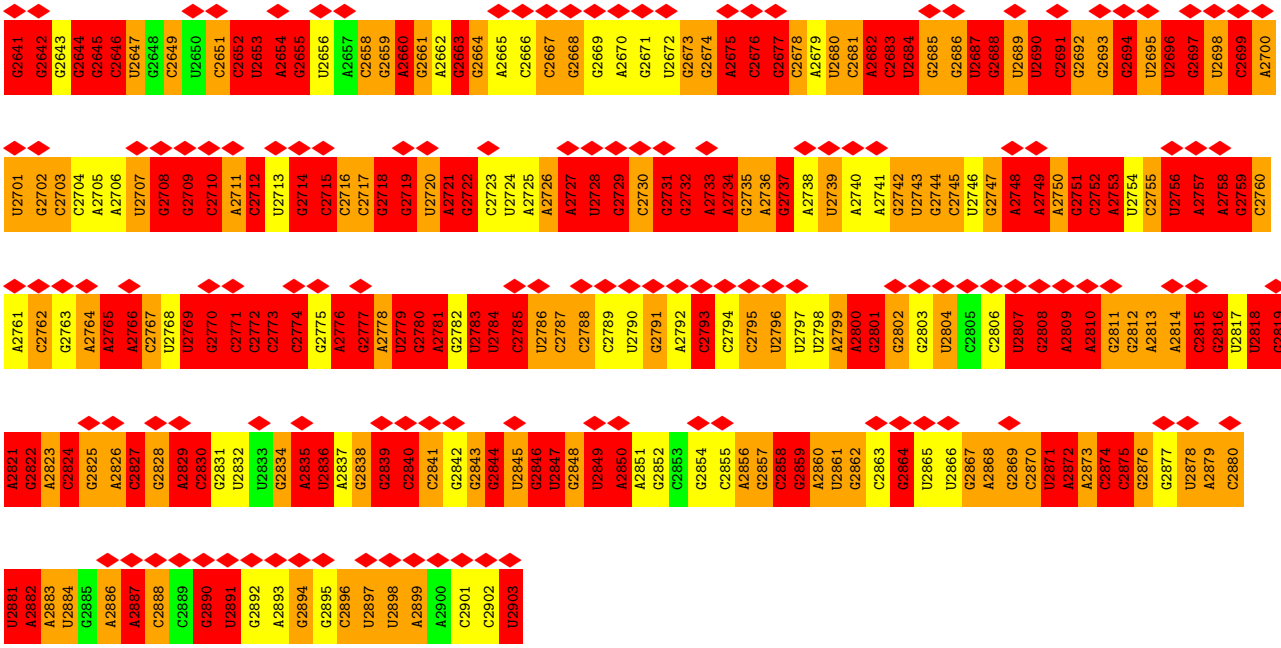
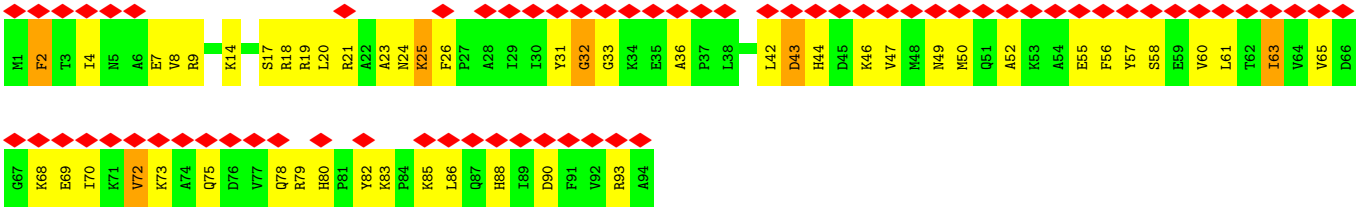






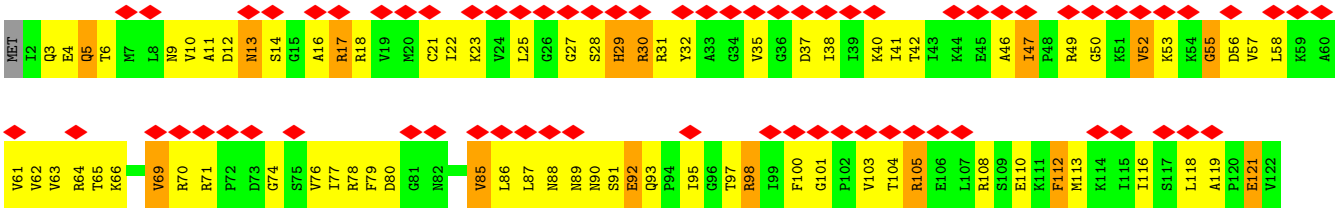
• Molecule 26: 50S ribosomal protein L25

Chain BC:



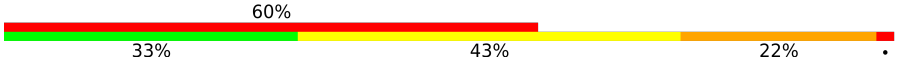
• Molecule 27: 50S ribosomal protein L14

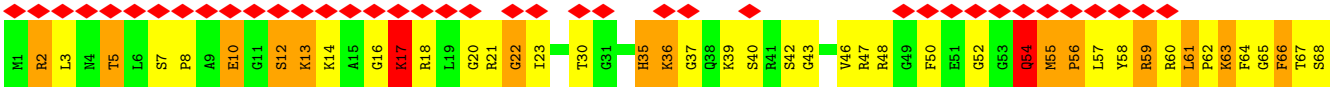
Chain BD:

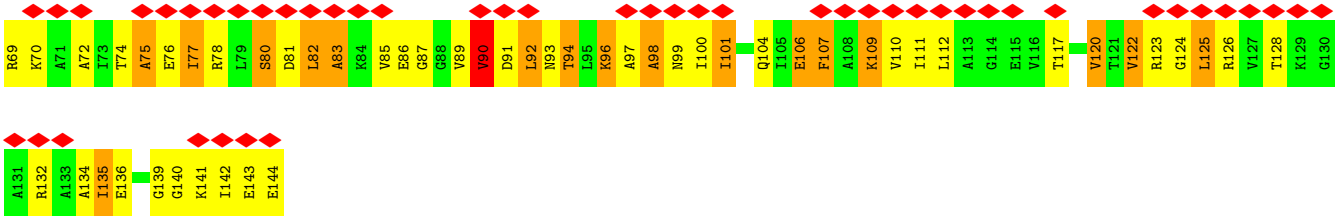


• Molecule 28: 50S ribosomal protein L15

Chain BE:

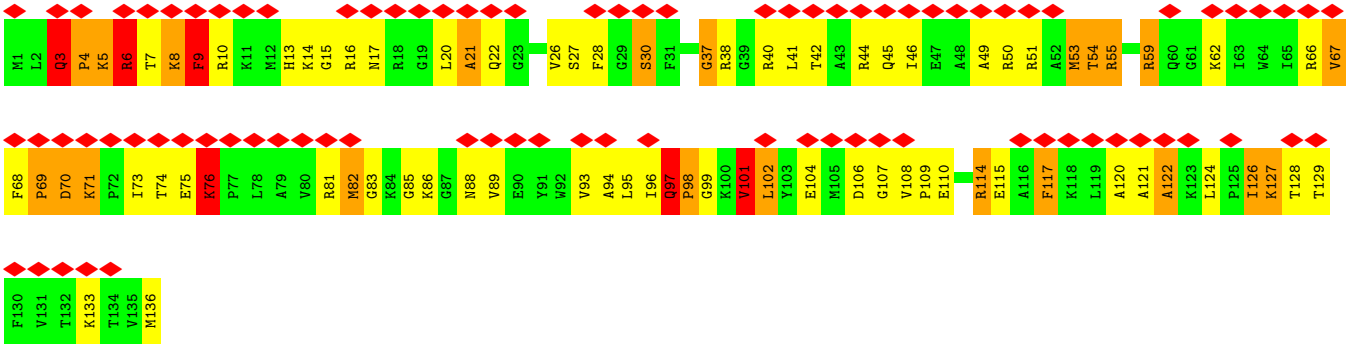






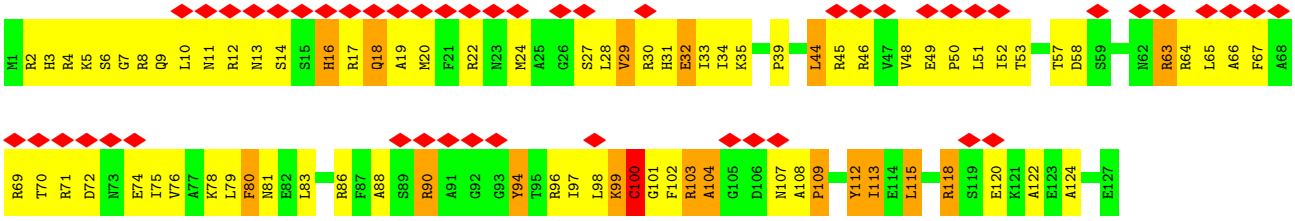
• Molecule 29: 50S ribosomal protein L16

Chain BF:



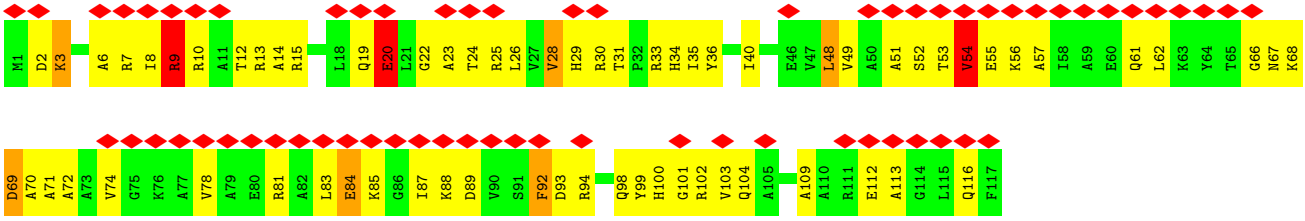
• Molecule 30: 50S ribosomal protein L17

Chain BG:



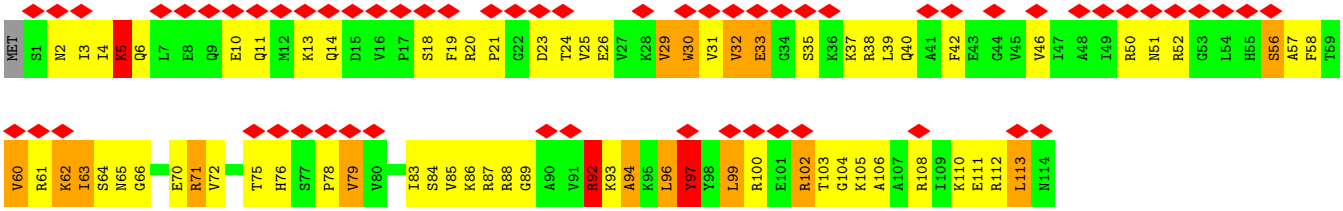
• Molecule 31: 50S ribosomal protein L18

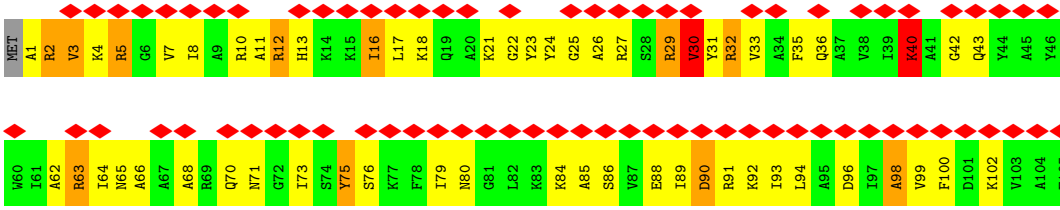
Chain BH:



• Molecule 32: 50S ribosomal protein L19

Chain BI:



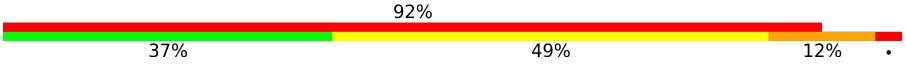


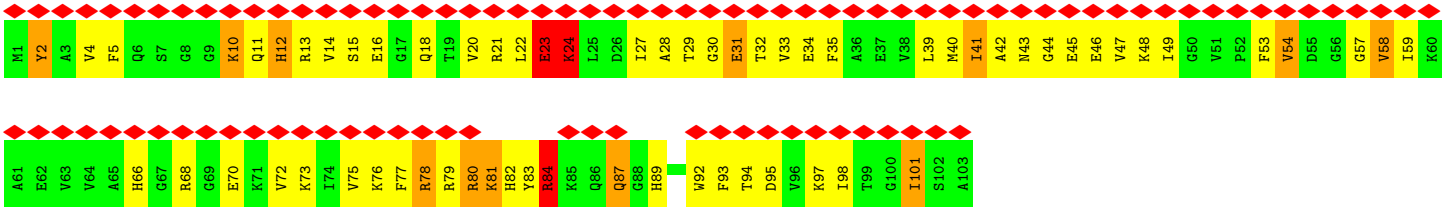
• Molecule 33: 50S ribosomal protein L20

Chain BJ:

• Molecule 34: 50S ribosomal protein L21

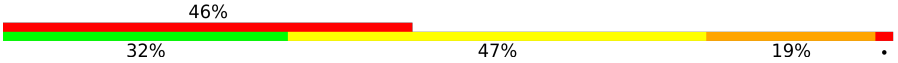
Chain BK:

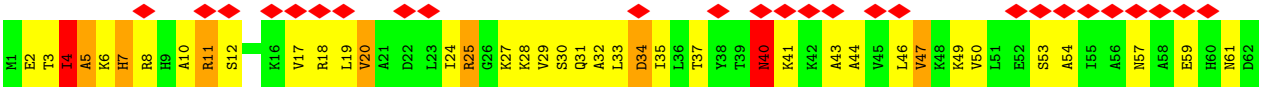


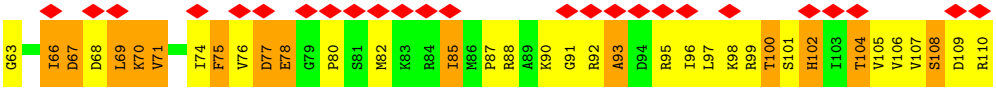


• Molecule 35: 50S ribosomal protein L22

Chain BL:

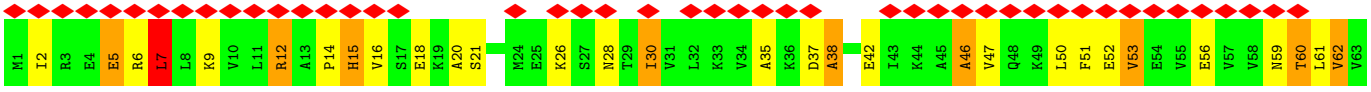




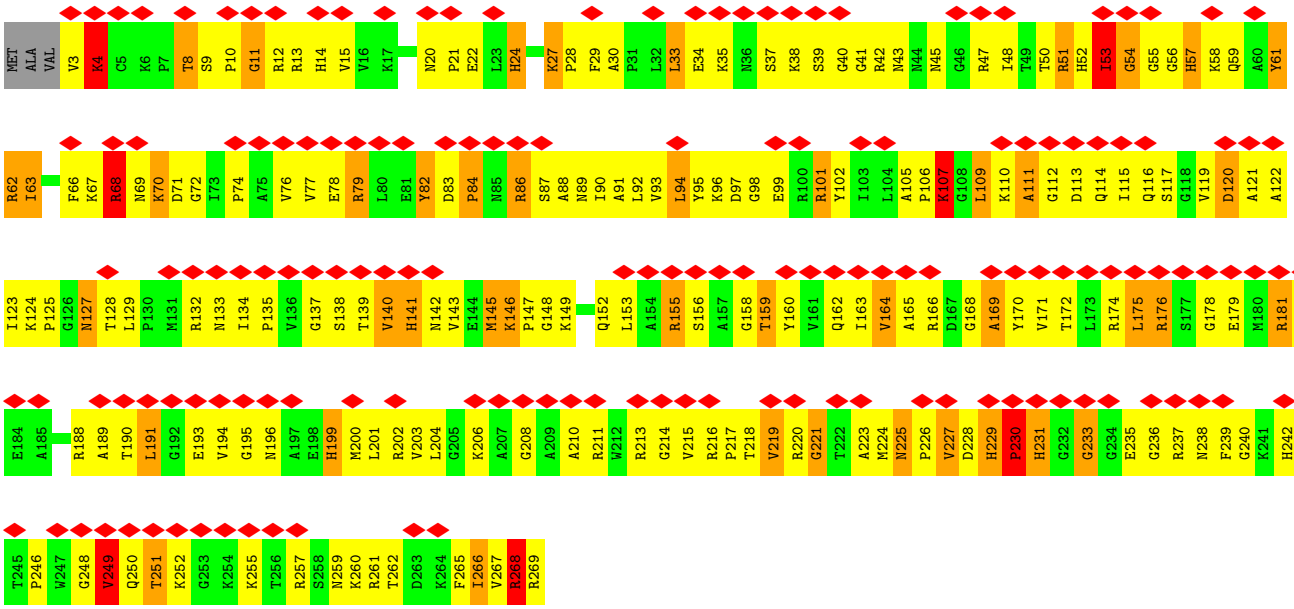


• Molecule 36: 50S ribosomal protein L23

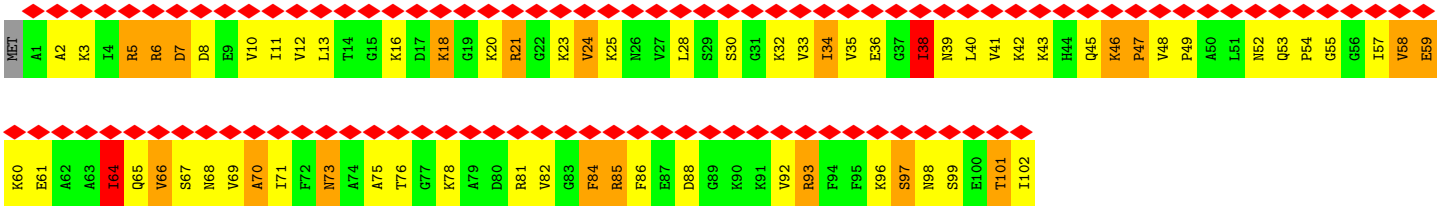
Chain BM:



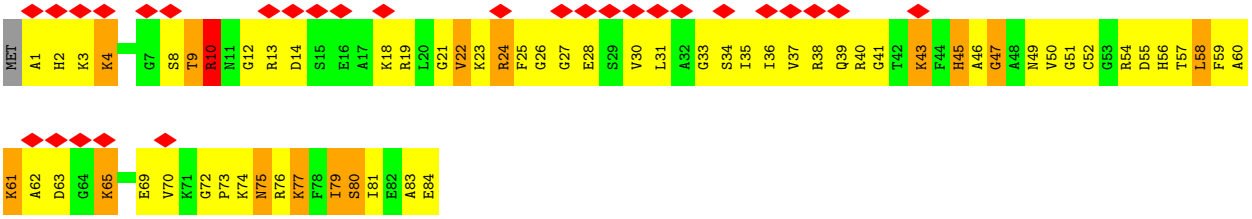
• Molecule 37: 50S ribosomal protein L2



• Molecule 38: 50S ribosomal protein L24

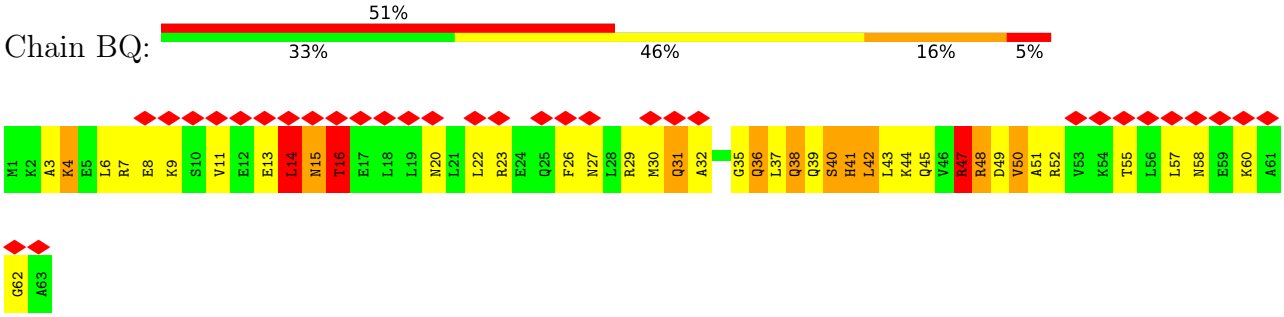


• Molecule 39: 50S ribosomal protein L27



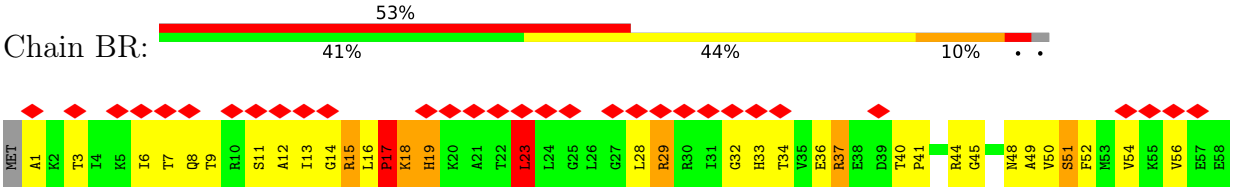
• Molecule 40: 50S ribosomal protein L29

Chain BQ:



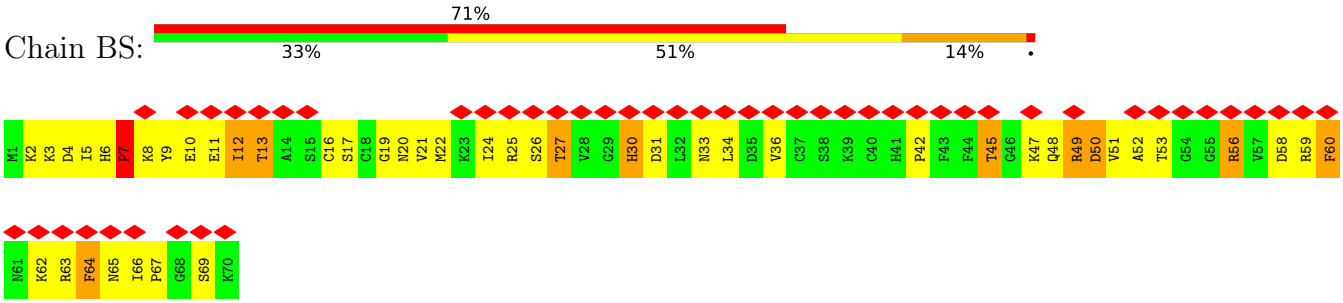
• Molecule 41: 50S ribosomal protein L30

Chain BR:



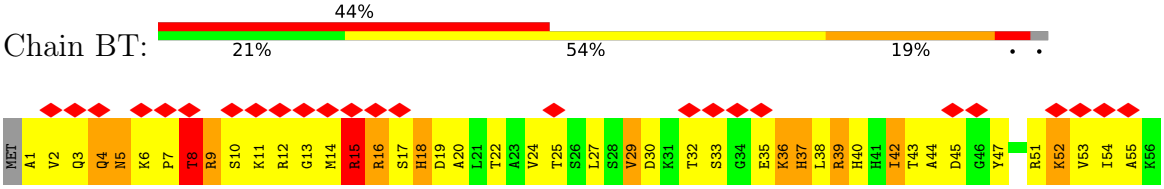
• Molecule 42: 50S ribosomal protein L31

Chain BS:



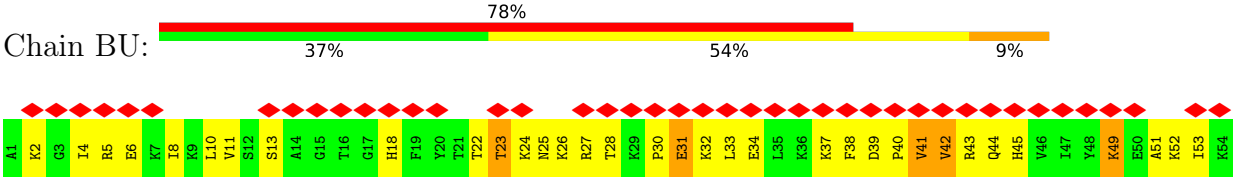
• Molecule 43: 50S ribosomal protein L32

Chain BT:



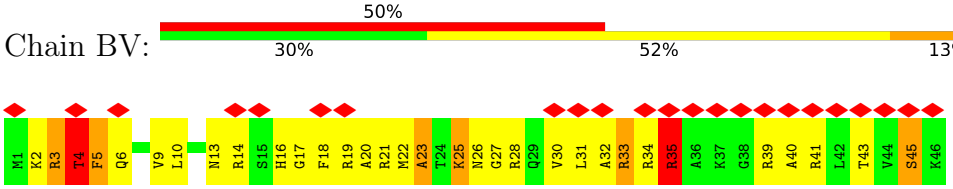
• Molecule 44: 50S ribosomal protein L33

Chain BU:



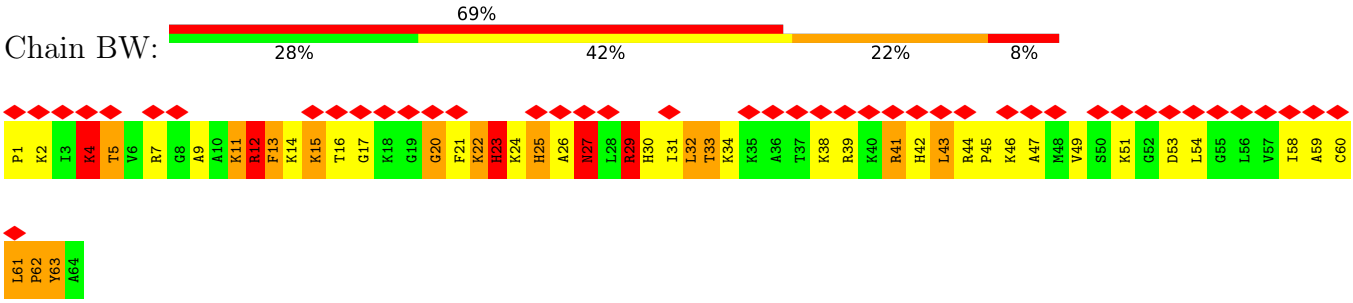
• Molecule 45: 50S ribosomal protein L34

Chain BV:



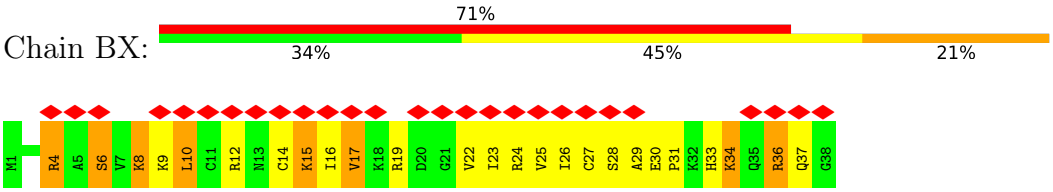
• Molecule 46: 50S ribosomal protein L35

Chain BW:



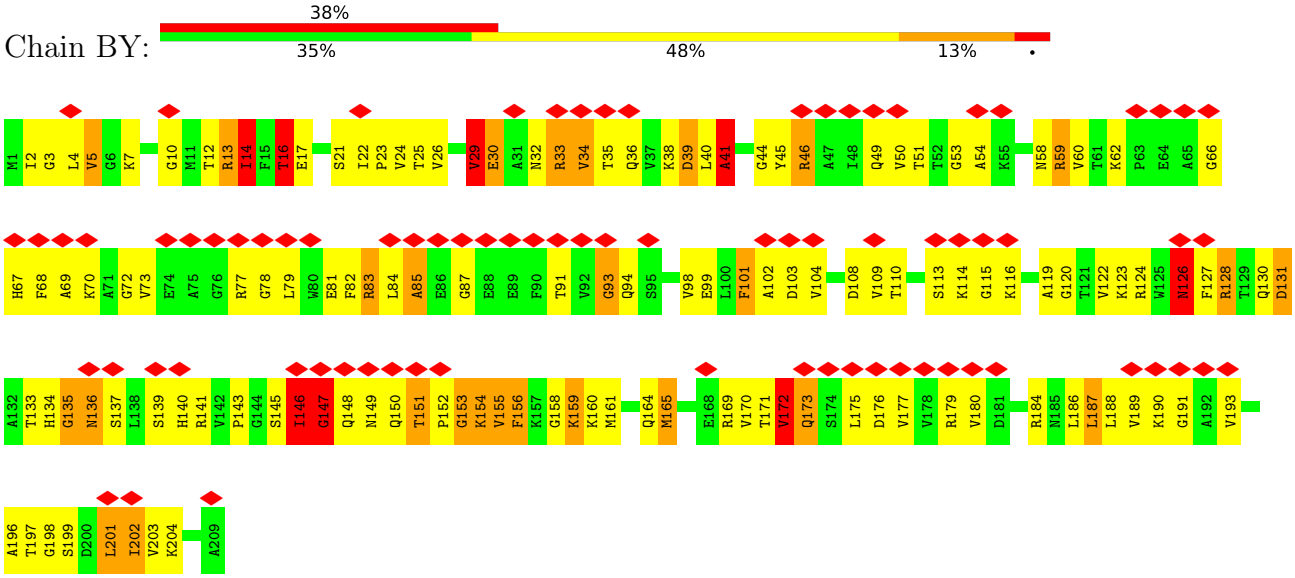
• Molecule 47: 50S ribosomal protein L36

Chain BX:



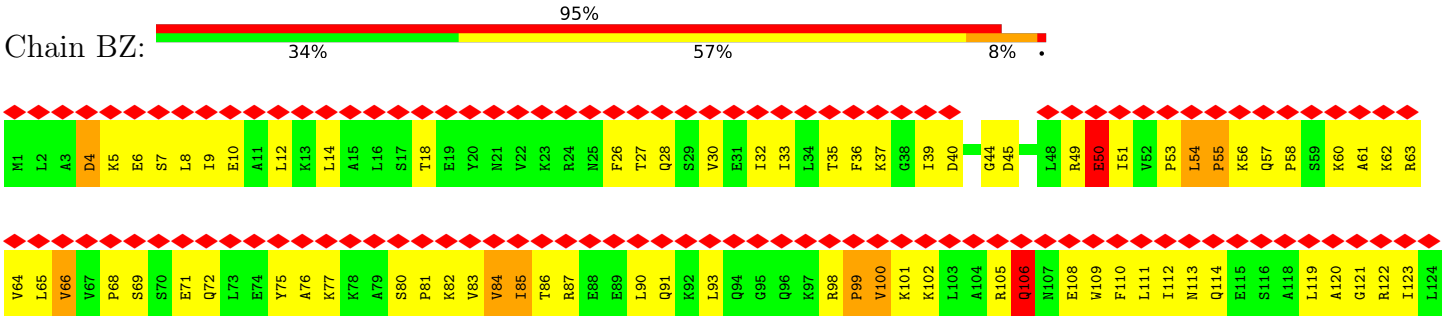
• Molecule 48: 50S ribosomal protein L3

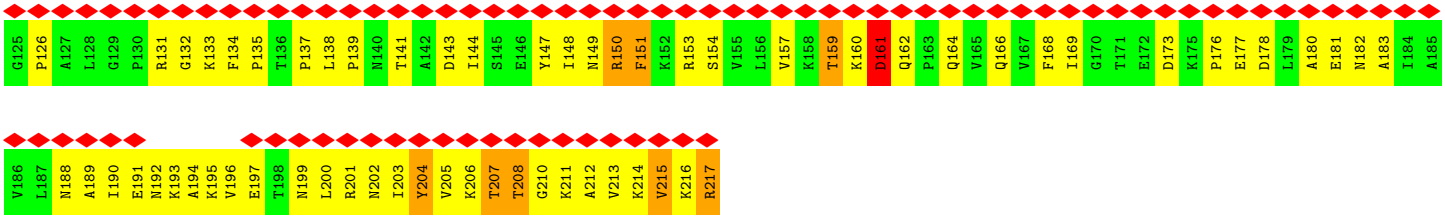
Chain BY:



• Molecule 49: 50S ribosomal protein L1P

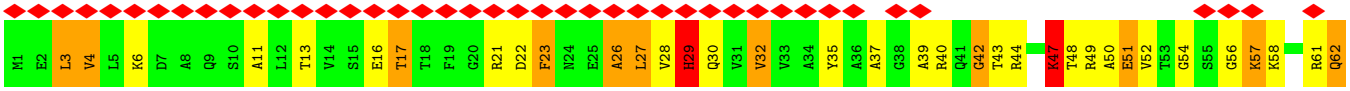
Chain BZ:

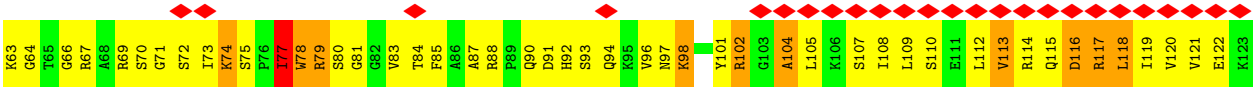


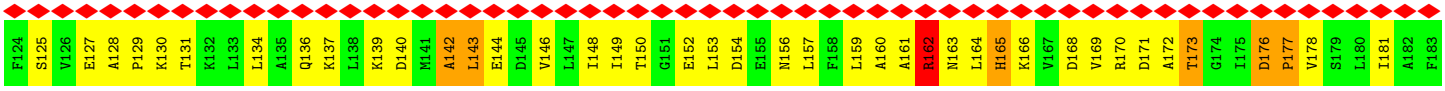


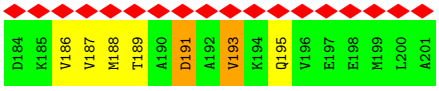
• Molecule 50: 50S ribosomal protein L4

Chain B1:



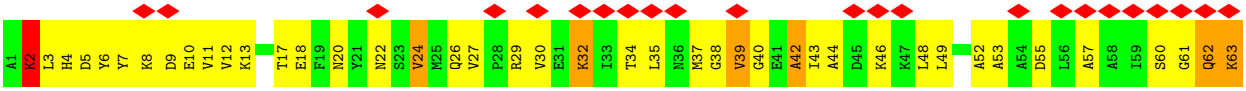


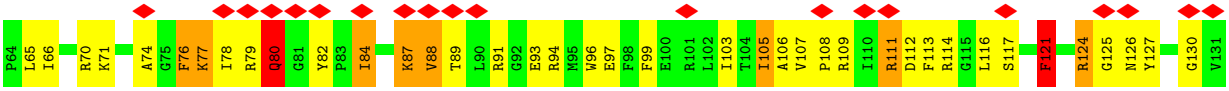


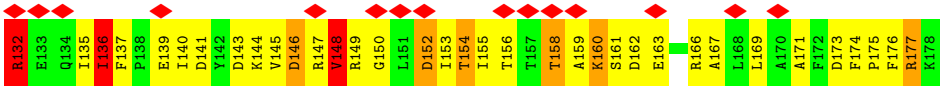


• Molecule 51: 50S ribosomal protein L5

Chain B2:

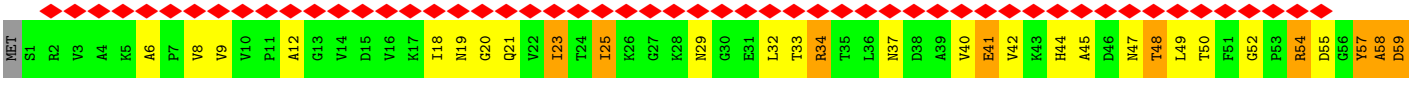


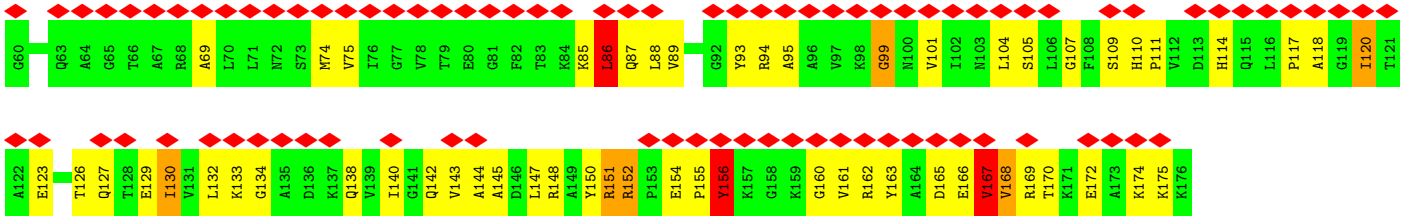




• Molecule 52: 50S ribosomal protein L6

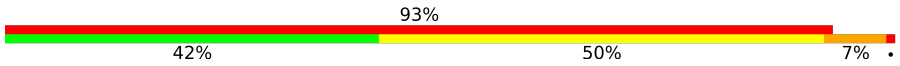
Chain B3:

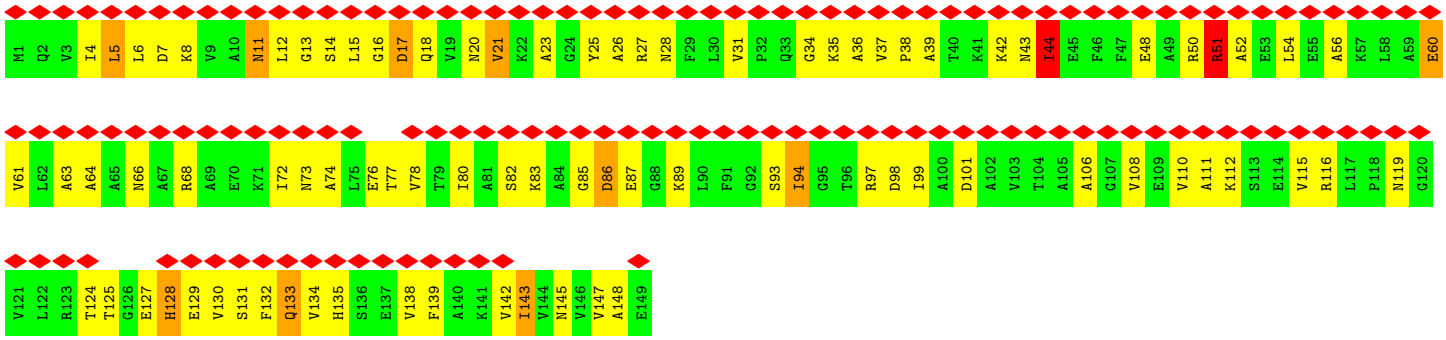




• Molecule 53: 50S ribosomal protein L9

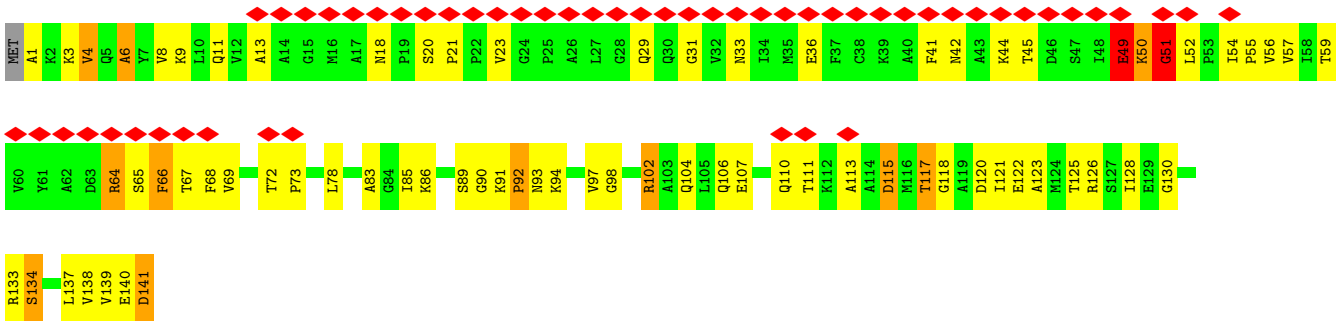
Chain B4:





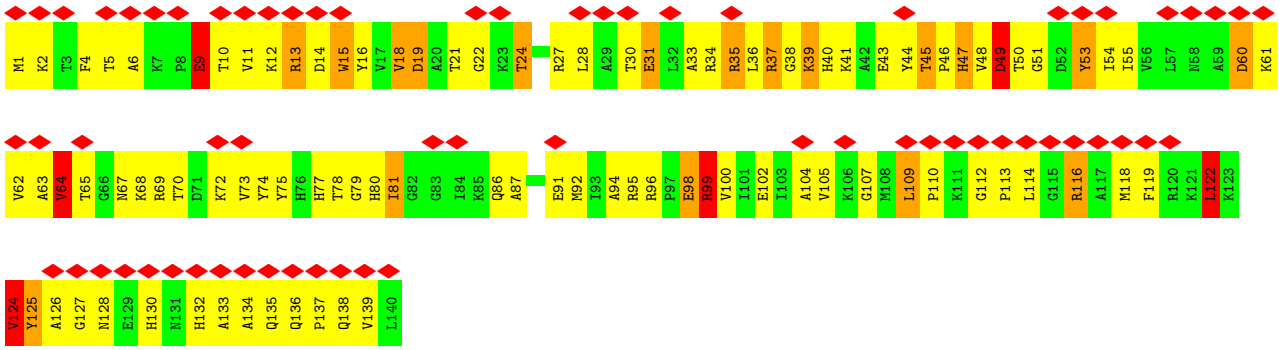
• Molecule 54: 50S ribosomal protein L11

Chain B5:



• Molecule 55: 50S ribosomal protein L13

Chain B6:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	52181	Depositor
Resolution determination method	Not provided	
CTF correction method	Not provided	
Microscope	FEI TECNAI F20	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/Å^2$)	15	Depositor
Minimum defocus (nm)	2000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	50000	Depositor
Image detector	KODAK SO-163 FILM	Depositor
Maximum map value	250.773	Depositor
Minimum map value	-142.587	Depositor
Average map value	1.513	Depositor
Map value standard deviation	24.331	Depositor
Recommended contour level	43.4	Depositor
Map size (Å)	366.6, 366.6, 366.6	wwPDB
Map dimensions	130, 130, 130	wwPDB
Map angles (°)	90, 90, 90	wwPDB
Pixel spacing (Å)	2.82, 2.82, 2.82	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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	AA	2.02	34/1789 (1.9%)	2.42	140/2788 (5.0%)
1	AE	2.00	37/1814 (2.0%)	2.15	124/2827 (4.4%)
1	AP	2.41	34/1789 (1.9%)	2.70	129/2788 (4.6%)
2	AM	1.89	6/436 (1.4%)	2.44	40/672 (6.0%)
3	A1	2.07	614/36759 (1.7%)	2.18	2490/57346 (4.3%)
4	AB	2.19	52/1735 (3.0%)	2.63	145/2338 (6.2%)
5	AC	2.22	37/892 (4.1%)	2.89	107/1205 (8.9%)
6	AD	2.26	43/968 (4.4%)	2.63	82/1300 (6.3%)
7	AF	2.13	22/892 (2.5%)	2.81	91/1193 (7.6%)
8	AG	2.15	27/785 (3.4%)	2.81	95/1046 (9.1%)
9	AH	2.40	36/723 (5.0%)	2.71	77/966 (8.0%)
10	AI	2.17	16/658 (2.4%)	2.77	59/884 (6.7%)
11	AJ	2.14	19/657 (2.9%)	2.64	62/881 (7.0%)
12	AK	2.24	16/462 (3.5%)	2.63	41/621 (6.6%)
13	AL	2.17	16/652 (2.5%)	2.64	61/877 (7.0%)
14	AN	2.11	14/670 (2.1%)	2.74	61/888 (6.9%)
15	AO	2.18	56/1651 (3.4%)	2.61	142/2225 (6.4%)
16	AQ	2.13	11/430 (2.6%)	2.76	35/570 (6.1%)
17	AR	2.13	53/1664 (3.2%)	2.68	144/2227 (6.5%)
18	AS	2.26	50/1118 (4.5%)	2.70	93/1504 (6.2%)
19	AT	2.13	20/835 (2.4%)	2.72	78/1128 (6.9%)
20	AU	2.20	36/1187 (3.0%)	2.68	114/1591 (7.2%)
21	AV	2.17	35/988 (3.5%)	2.63	88/1326 (6.6%)
22	AW	2.27	45/1033 (4.4%)	2.77	93/1375 (6.8%)
23	AX	2.17	28/796 (3.5%)	2.67	71/1077 (6.6%)
24	BA	1.97	41/2800 (1.5%)	2.22	191/4367 (4.4%)
25	BB	6.77	1207/69795 (1.7%)	2.22	4965/108884 (4.6%)
26	BC	2.12	26/765 (3.4%)	2.60	64/1025 (6.2%)
27	BD	2.29	39/939 (4.2%)	2.87	111/1258 (8.8%)
28	BE	2.22	38/1061 (3.6%)	2.68	96/1413 (6.8%)
29	BF	2.12	24/1092 (2.2%)	2.65	85/1460 (5.8%)
30	BG	2.18	33/1020 (3.2%)	2.77	111/1364 (8.1%)
31	BH	2.19	24/909 (2.6%)	2.71	81/1219 (6.6%)
32	BI	2.24	34/928 (3.7%)	2.61	69/1242 (5.6%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
33	BJ	2.15	29/959 (3.0%)	2.78	87/1278 (6.8%)
34	BK	2.12	21/828 (2.5%)	2.60	57/1107 (5.1%)
35	BL	2.15	28/863 (3.2%)	2.74	90/1156 (7.8%)
36	BM	2.07	23/784 (2.9%)	2.51	56/1048 (5.3%)
37	BN	2.30	80/2092 (3.8%)	2.72	216/2813 (7.7%)
38	BO	2.15	24/787 (3.0%)	2.71	70/1051 (6.7%)
39	BP	2.22	23/641 (3.6%)	2.78	69/848 (8.1%)
40	BQ	2.21	22/509 (4.3%)	2.69	42/677 (6.2%)
41	BR	2.17	16/452 (3.5%)	2.59	35/605 (5.8%)
42	BS	2.20	20/558 (3.6%)	2.74	51/745 (6.8%)
43	BT	2.35	25/449 (5.6%)	2.83	47/599 (7.8%)
44	BU	2.21	12/447 (2.7%)	2.74	36/594 (6.1%)
45	BV	2.25	8/379 (2.1%)	2.94	47/498 (9.4%)
46	BW	2.09	15/512 (2.9%)	2.61	45/676 (6.7%)
47	BX	2.17	10/302 (3.3%)	3.14	35/397 (8.8%)
48	BY	2.27	55/1585 (3.5%)	2.74	135/2134 (6.3%)
49	BZ	2.15	55/1711 (3.2%)	2.68	145/2305 (6.3%)
50	B1	2.19	52/1570 (3.3%)	2.72	146/2113 (6.9%)
51	B2	2.17	45/1443 (3.1%)	2.71	131/1937 (6.8%)
52	B3	2.14	44/1342 (3.3%)	2.56	85/1816 (4.7%)
53	B4	2.11	36/1121 (3.2%)	2.58	81/1515 (5.3%)
54	B5	2.06	28/1045 (2.7%)	2.66	84/1410 (6.0%)
55	B6	2.27	47/1135 (4.1%)	2.74	111/1529 (7.3%)
All	All	4.72	3541/162206 (2.2%)	2.35	12336/242726 (5.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	AA	0	52
1	AE	0	46
1	AP	2	51
2	AM	0	12
3	A1	4	995
4	AB	0	8
5	AC	0	4
6	AD	0	9
7	AF	0	8
8	AG	0	3
9	AH	0	2

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Mol	Chain	#Chirality outliers	#Planarity outliers
10	AI	0	9
11	AJ	0	4
12	AK	0	3
13	AL	0	8
14	AN	1	0
15	AO	0	9
16	AQ	0	5
17	AR	0	5
18	AS	0	2
19	AT	0	9
20	AU	0	8
21	AV	0	4
22	AW	0	9
23	AX	0	2
24	BA	0	81
25	BB	3	1853
26	BC	0	2
27	BD	0	4
28	BE	0	5
29	BF	0	9
30	BG	0	5
31	BH	0	7
32	BI	0	6
33	BJ	0	3
34	BK	0	11
35	BL	0	4
36	BM	0	3
37	BN	0	12
38	BO	0	4
39	BP	0	7
41	BR	0	4
42	BS	0	7
43	BT	0	3
44	BU	0	3
45	BV	0	4
46	BW	0	7
47	BX	0	1
48	BY	0	8
49	BZ	0	9
50	B1	0	9
51	B2	0	7
52	B3	0	7

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Mol	Chain	#Chirality outliers	#Planarity outliers
53	B4	0	3
54	B5	0	3
55	B6	0	12
All	All	10	3370

All (3541) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	995	C	C4-N4	1059.90	22.53	1.33
25	BB	995	C	C4-C5	954.00	20.50	1.43
25	BB	995	C	C2-N3	945.45	20.26	1.35
3	A1	1429	A	P-O5'	89.03	3.37	1.59
3	A1	1340	A	C3'-O3'	72.25	2.86	1.42
25	BB	1687	G	C4'-C3'	31.38	1.99	1.52
25	BB	1687	G	O4'-C1'	30.55	1.87	1.41
25	BB	1687	G	C2'-C1'	30.10	1.98	1.53
1	AP	31	A	O4'-C1'	29.28	2.00	1.41
25	BB	1687	G	C3'-C2'	28.10	1.95	1.52
1	AP	31	A	C4'-C3'	27.84	2.08	1.52
25	BB	1687	G	C4'-O4'	26.86	1.85	1.45
1	AP	31	A	C3'-C2'	26.48	2.06	1.53
1	AP	31	A	C2'-C1'	25.44	2.04	1.53
1	AP	31	A	C4'-O4'	23.54	1.92	1.45
1	AP	74	C	O3'-P	-20.85	1.29	1.61
3	A1	1418	A	C5-C6	13.74	1.68	1.41
3	A1	1418	A	C2-N3	12.34	1.58	1.33
3	A1	1418	A	N3-C4	11.98	1.58	1.34
3	A1	1418	A	C5-C4	11.90	1.62	1.38
3	A1	1418	A	N1-C2	11.04	1.56	1.34
52	B3	160	GLY	N-CA	10.94	1.56	1.45
3	A1	1418	A	C6-N1	10.75	1.57	1.35
55	B6	79	GLY	N-CA	10.58	1.53	1.45
51	B2	2	LYS	N-CA	10.43	1.59	1.45
51	B2	84	ILE	N-CA	10.01	1.58	1.46
25	BB	256	A	C5'-C4'	9.88	1.66	1.51
32	BI	24	THR	CA-C	9.86	1.66	1.52
50	B1	165	HIS	CD2-NE2	9.81	1.48	1.37
27	BD	38	ILE	CA-C	9.80	1.61	1.53
13	AL	58	PRO	CA-C	9.74	1.61	1.52
16	AQ	16	ARG	CZ-NH2	-9.73	1.20	1.33
49	BZ	83	VAL	N-CA	9.68	1.56	1.46
31	BH	29	HIS	CA-CB	9.65	1.64	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	BJ	57	ARG	N-CA	9.65	1.58	1.46
9	AH	52	ARG	CZ-NH1	-9.57	1.19	1.32
22	AW	9	GLY	N-CA	9.55	1.54	1.44
54	B5	98	GLY	N-CA	9.54	1.56	1.44
50	B1	74	LYS	N-CA	9.51	1.57	1.46
4	AB	154	GLY	N-CA	9.43	1.57	1.45
22	AW	49	GLN	CA-C	9.39	1.64	1.52
3	A1	627	G	C5'-C4'	9.28	1.65	1.51
3	A1	180	U	O3'-P	-9.24	1.47	1.61
44	BU	2	LYS	CA-C	9.12	1.65	1.52
10	AI	56	ARG	CA-C	9.12	1.61	1.52
9	AH	31	LEU	N-CA	9.11	1.57	1.46
3	A1	900	A	P-O5'	9.11	1.73	1.59
37	BN	30	ALA	CA-C	9.05	1.61	1.52
25	BB	2825	G	O3'-P	-9.04	1.47	1.61
44	BU	52	LYS	CA-C	9.00	1.63	1.52
11	AJ	30	HIS	CA-C	8.99	1.61	1.52
50	B1	27	LEU	CA-C	8.99	1.64	1.52
30	BG	4	ARG	CZ-NH2	-8.99	1.21	1.33
3	A1	632	U	C4'-O4'	-8.97	1.32	1.45
25	BB	1604	C	O3'-P	-8.92	1.47	1.61
25	BB	2498	C	O3'-P	-8.91	1.47	1.61
3	A1	309	A	O3'-P	-8.88	1.47	1.61
31	BH	49	VAL	N-CA	8.87	1.57	1.46
4	AB	62	ARG	CZ-NH2	-8.84	1.22	1.33
25	BB	1005	C	C5'-C4'	8.84	1.64	1.51
48	BY	23	PRO	CA-C	8.83	1.61	1.53
39	BP	38	ARG	CD-NE	8.79	1.58	1.46
15	AO	170	GLY	CA-C	8.78	1.60	1.51
3	A1	659	U	O3'-P	-8.78	1.48	1.61
25	BB	2677	G	O3'-P	-8.76	1.48	1.61
6	AD	15	VAL	CA-C	8.75	1.63	1.52
3	A1	1186	G	P-O5'	8.72	1.72	1.59
18	AS	22	LYS	CA-C	8.71	1.63	1.52
37	BN	117	SER	CA-C	8.70	1.61	1.53
49	BZ	49	ARG	CZ-NH2	-8.70	1.22	1.33
3	A1	294	U	P-O5'	-8.68	1.46	1.59
25	BB	1301	A	C5'-C4'	8.68	1.64	1.51
3	A1	206	C	C4'-O4'	-8.67	1.32	1.45
23	AX	9	ARG	CA-C	8.66	1.62	1.53
1	AE	55	U	C5'-C4'	8.66	1.64	1.51
35	BL	105	VAL	CA-CB	8.65	1.65	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
37	BN	248	GLY	CA-C	8.65	1.61	1.52
30	BG	70	THR	CA-C	8.62	1.63	1.52
21	AV	122	GLY	N-CA	8.60	1.53	1.45
3	A1	861	G	O3'-P	-8.57	1.48	1.61
13	AL	31	ARG	CA-C	8.55	1.62	1.52
28	BE	55	MET	CA-C	8.55	1.63	1.52
25	BB	1644	C	C5'-C4'	8.54	1.64	1.51
1	AA	74	C	O3'-P	-8.52	1.48	1.61
3	A1	557	G	C5'-C4'	8.52	1.64	1.51
49	BZ	134	PHE	CA-C	8.50	1.61	1.52
49	BZ	80	SER	CA-C	8.49	1.59	1.53
6	AD	109	ARG	CZ-NH2	-8.49	1.22	1.33
7	AF	78	ARG	CZ-NH2	-8.48	1.22	1.33
25	BB	1145	C	O3'-P	-8.47	1.48	1.61
5	AC	47	GLY	CA-C	8.47	1.61	1.52
15	AO	58	ARG	CA-CB	8.47	1.63	1.53
12	AK	40	PRO	CA-C	8.46	1.62	1.52
25	BB	754	U	O3'-P	-8.46	1.48	1.61
49	BZ	189	ALA	CA-C	8.46	1.64	1.52
54	B5	21	PRO	CA-C	8.44	1.60	1.52
25	BB	300	A	C4'-O4'	-8.44	1.32	1.45
25	BB	2573	C	C4'-O4'	-8.40	1.33	1.45
48	BY	140	HIS	ND1-CE1	8.39	1.41	1.32
50	B1	114	ARG	CZ-NH2	-8.39	1.22	1.33
37	BN	82	TYR	CA-C	8.36	1.62	1.52
41	BR	40	THR	CB-OG1	-8.36	1.30	1.43
25	BB	2700	A	C2'-O2'	-8.35	1.29	1.41
37	BN	128	THR	CA-C	8.34	1.62	1.52
25	BB	2471	A	C4'-C3'	8.34	1.65	1.53
25	BB	770	G	P-O5'	8.32	1.72	1.59
48	BY	81	GLU	CA-C	8.32	1.63	1.52
51	B2	79	ARG	C-N	8.32	1.45	1.33
25	BB	1735	A	O3'-P	-8.31	1.48	1.61
25	BB	2704	C	O3'-P	-8.30	1.48	1.61
25	BB	418	C	O3'-P	-8.28	1.48	1.61
25	BB	1130	U	O3'-P	-8.27	1.48	1.61
3	A1	1202	U	C5'-C4'	8.26	1.63	1.51
50	B1	156	ASN	CA-C	8.26	1.63	1.52
25	BB	411	G	O3'-P	-8.26	1.48	1.61
25	BB	707	G	C4'-C3'	8.25	1.65	1.52
39	BP	21	GLY	CA-C	8.24	1.58	1.52
50	B1	162	ARG	N-CA	8.23	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	BC	83	LYS	CA-C	8.23	1.61	1.52
31	BH	33	ARG	CZ-NH2	-8.22	1.22	1.33
38	BO	48	VAL	CA-C	8.22	1.61	1.52
34	BK	13	ARG	CZ-NH2	-8.21	1.22	1.33
50	B1	84	THR	N-CA	8.20	1.56	1.46
25	BB	2315	G	O3'-P	-8.18	1.48	1.61
37	BN	135	PRO	C-N	8.18	1.43	1.33
10	AI	56	ARG	CZ-NH1	-8.17	1.21	1.32
53	B4	31	VAL	C-N	8.17	1.43	1.33
15	AO	168	ARG	CZ-NH2	-8.16	1.22	1.33
3	A1	1369	C	O3'-P	-8.16	1.49	1.61
3	A1	1475	G	P-O5'	8.15	1.72	1.59
3	A1	893	C	C1'-N1	8.15	1.59	1.47
32	BI	24	THR	CB-OG1	-8.15	1.30	1.43
25	BB	400	G	P-O5'	-8.13	1.47	1.59
44	BU	39	ASP	CA-C	8.11	1.62	1.52
10	AI	49	GLY	N-CA	8.10	1.57	1.45
3	A1	181	A	C1'-N9	8.08	1.59	1.47
3	A1	1065	U	C4'-O4'	-8.07	1.33	1.45
4	AB	220	VAL	CA-C	8.05	1.61	1.52
43	BT	4	GLN	N-CA	8.04	1.54	1.46
22	AW	73	GLY	CA-C	8.04	1.63	1.51
25	BB	1531	C	C4'-O4'	-8.04	1.33	1.45
30	BG	30	ARG	CZ-NH2	-8.03	1.23	1.33
1	AP	9	A	C4'-C3'	8.03	1.65	1.53
12	AK	42	ARG	CZ-NH2	-8.02	1.23	1.33
17	AR	44	LYS	CA-CB	8.02	1.60	1.53
43	BT	15	ARG	CZ-NH2	-8.01	1.23	1.33
3	A1	192	A	C4'-O4'	-8.01	1.33	1.45
52	B3	117	PRO	CA-C	8.01	1.63	1.52
7	AF	71	GLU	CA-C	8.00	1.63	1.52
25	BB	2771	C	O3'-P	-8.00	1.49	1.61
25	BB	46	G	O3'-P	-7.99	1.49	1.61
17	AR	62	ARG	CA-C	7.99	1.63	1.52
48	BY	58	ASN	CA-C	7.99	1.62	1.52
15	AO	101	ASN	CA-C	7.99	1.62	1.52
25	BB	504	A	C4'-O4'	-7.98	1.33	1.45
22	AW	72	SER	N-CA	7.98	1.56	1.46
17	AR	189	ASP	N-CA	7.97	1.54	1.46
25	BB	1331	G	P-O5'	7.97	1.71	1.59
3	A1	1224	U	C4'-O4'	-7.95	1.33	1.45
1	AE	37	G	O4'-C1'	7.95	1.53	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	BD	13	ASN	CA-C	7.94	1.63	1.52
25	BB	2144	G	C5'-C4'	7.94	1.63	1.51
25	BB	2821	A	O3'-P	-7.94	1.49	1.61
20	AU	126	ALA	CA-C	7.92	1.63	1.52
5	AC	55	ARG	CA-C	7.91	1.63	1.52
25	BB	1305	C	O3'-P	-7.90	1.49	1.61
1	AA	6	U	C4'-O4'	-7.89	1.33	1.45
3	A1	125	U	C2'-C1'	-7.89	1.41	1.53
27	BD	86	LEU	N-CA	7.89	1.55	1.46
25	BB	808	G	C5'-C4'	7.86	1.63	1.51
18	AS	28	ARG	CZ-NH2	-7.86	1.23	1.33
19	AT	66	ALA	CA-C	7.86	1.59	1.52
3	A1	1089	G	P-O5'	-7.85	1.48	1.59
3	A1	819	A	O3'-P	-7.84	1.49	1.61
25	BB	324	A	C4'-C3'	7.84	1.64	1.52
25	BB	2306	C	C3'-C2'	7.84	1.64	1.52
48	BY	5	VAL	N-CA	7.83	1.56	1.46
18	AS	136	VAL	N-CA	7.82	1.56	1.46
21	AV	127	TYR	CA-C	7.82	1.63	1.52
48	BY	35	THR	N-CA	7.81	1.55	1.46
55	B6	130	HIS	CB-CG	7.81	1.61	1.50
20	AU	90	VAL	CA-C	7.80	1.62	1.52
55	B6	134	ALA	N-CA	7.80	1.55	1.46
3	A1	1259	C	O3'-P	-7.79	1.49	1.61
9	AH	78	THR	N-CA	7.79	1.55	1.46
15	AO	182	ASP	N-CA	7.79	1.55	1.45
1	AE	69	U	O3'-P	-7.79	1.49	1.61
25	BB	178	G	C2'-C1'	7.79	1.65	1.53
25	BB	1174	U	C5'-C4'	7.78	1.62	1.51
46	BW	44	ARG	N-CA	7.77	1.53	1.45
48	BY	176	ASP	N-CA	7.77	1.55	1.46
25	BB	1108	U	O3'-P	-7.76	1.49	1.61
3	A1	962	C	C4'-C3'	7.76	1.64	1.52
23	AX	81	GLU	N-CA	7.75	1.56	1.46
49	BZ	113	ASN	N-CA	7.74	1.56	1.46
3	A1	759	A	C2'-O2'	7.74	1.54	1.42
51	B2	20	ASN	CA-C	7.74	1.63	1.53
6	AD	35	ARG	CA-C	7.72	1.62	1.52
49	BZ	106	GLN	N-CA	7.72	1.55	1.46
25	BB	1909	C	O3'-P	-7.71	1.49	1.61
1	AP	10	G	C5'-C4'	7.71	1.62	1.51
3	A1	8	A	O3'-P	-7.69	1.49	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	75	G	C3'-C2'	7.69	1.64	1.52
25	BB	176	A	C2'-O2'	-7.69	1.30	1.42
29	BF	75	GLU	C-O	-7.69	1.16	1.24
20	AU	76	SER	N-CA	7.68	1.56	1.46
26	BC	44	HIS	ND1-CE1	7.68	1.40	1.32
37	BN	251	THR	CA-CB	7.68	1.66	1.53
25	BB	109	C	C5'-C4'	7.68	1.62	1.51
25	BB	2339	C	C5'-C4'	7.68	1.62	1.51
49	BZ	84	VAL	N-CA	7.68	1.55	1.46
25	BB	23	G	C4'-C3'	7.67	1.64	1.52
55	B6	19	ASP	N-CA	7.67	1.56	1.46
6	AD	93	ARG	CZ-NH1	-7.65	1.22	1.32
25	BB	1002	G	C5'-C4'	7.65	1.62	1.51
36	BM	26	LYS	N-CA	7.65	1.56	1.45
3	A1	108	G	C2'-C1'	7.65	1.64	1.53
30	BG	81	ASN	N-CA	7.64	1.55	1.46
54	B5	83	ALA	CA-C	7.64	1.65	1.52
37	BN	121	ALA	CA-C	7.63	1.62	1.52
19	AT	35	LYS	N-CA	7.63	1.55	1.45
49	BZ	80	SER	C-O	-7.62	1.20	1.23
25	BB	1929	G	P-O5'	7.62	1.71	1.59
25	BB	1332	G	C1'-N9	7.61	1.58	1.47
51	B2	70	ARG	CZ-NH1	-7.61	1.22	1.32
50	B1	70	SER	CA-C	7.61	1.62	1.52
28	BE	120	VAL	N-CA	7.60	1.55	1.46
26	BC	9	ARG	NE-CZ	-7.60	1.24	1.33
25	BB	2043	C	C5'-C4'	7.60	1.62	1.51
1	AE	62	A	O3'-P	-7.59	1.49	1.61
9	AH	88	ARG	CZ-NH2	-7.58	1.23	1.33
25	BB	1846	G	C1'-N9	7.57	1.58	1.47
25	BB	56	A	P-O5'	-7.57	1.48	1.59
39	BP	51	GLY	CA-C	7.57	1.62	1.51
25	BB	357	C	P-O5'	7.57	1.71	1.59
17	AR	66	VAL	N-CA	7.56	1.54	1.46
51	B2	39	VAL	C-O	-7.56	1.15	1.24
25	BB	2068	U	C1'-N1	7.55	1.58	1.47
15	AO	162	ALA	CA-C	7.55	1.60	1.52
20	AU	74	VAL	CA-C	7.55	1.62	1.52
25	BB	2536	G	C5'-C4'	7.54	1.62	1.51
37	BN	220	ARG	CZ-NH2	-7.54	1.23	1.33
39	BP	47	GLY	N-CA	7.54	1.56	1.45
8	AG	75	LYS	N-CA	7.53	1.55	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	BJ	89	ILE	N-CA	7.52	1.54	1.45
28	BE	35	HIS	ND1-CE1	7.52	1.40	1.32
27	BD	63	VAL	CA-C	7.51	1.62	1.52
3	A1	1155	A	P-O5'	-7.51	1.48	1.59
29	BF	126	ILE	N-CA	7.50	1.55	1.46
11	AJ	39	ARG	CZ-NH2	-7.50	1.23	1.33
37	BN	181	ARG	CZ-NH1	-7.50	1.22	1.32
25	BB	1716	U	P-O5'	-7.50	1.48	1.59
29	BF	73	ILE	CA-C	7.50	1.61	1.52
3	A1	1174	G	C4'-O4'	-7.49	1.34	1.45
37	BN	225	ASN	N-CA	7.49	1.56	1.46
13	AL	50	VAL	C-O	7.49	1.31	1.24
20	AU	6	ILE	N-CA	7.49	1.55	1.46
26	BC	52	ALA	CA-C	7.48	1.62	1.52
3	A1	70	U	C3'-O3'	-7.48	1.31	1.43
18	AS	50	GLY	N-CA	7.48	1.52	1.45
21	AV	98	LEU	N-CA	7.48	1.55	1.46
40	BQ	45	GLN	CA-C	7.47	1.62	1.52
49	BZ	169	ILE	C-N	7.47	1.40	1.33
23	AX	35	GLN	C-N	7.47	1.40	1.33
48	BY	17	GLU	CA-C	7.47	1.62	1.52
55	B6	12	LYS	N-CA	7.46	1.56	1.46
17	AR	40	HIS	CE1-NE2	7.46	1.40	1.32
25	BB	2460	U	C5'-C4'	7.45	1.62	1.51
29	BF	73	ILE	CA-CB	7.45	1.63	1.54
20	AU	94	ARG	NE-CZ	-7.45	1.24	1.33
25	BB	1480	C	C5'-C4'	7.45	1.62	1.51
25	BB	895	U	C3'-C2'	-7.45	1.41	1.52
8	AG	26	LEU	CA-C	7.44	1.62	1.52
3	A1	1001	C	C2'-O2'	7.44	1.53	1.42
25	BB	27	G	C5'-C4'	7.44	1.62	1.51
49	BZ	120	ALA	N-CA	7.44	1.55	1.46
25	BB	813	U	O3'-P	-7.43	1.50	1.61
25	BB	1447	C	O5'-C5'	-7.43	1.31	1.42
18	AS	25	LYS	CA-C	7.43	1.62	1.52
24	BA	46	A	O3'-P	-7.42	1.50	1.61
17	AR	144	ILE	C-O	-7.42	1.15	1.24
20	AU	145	GLU	CA-C	7.42	1.62	1.52
22	AW	122	ARG	CZ-NH1	-7.40	1.22	1.32
52	B3	95	ALA	CA-C	7.40	1.61	1.52
9	AH	27	GLN	N-CA	7.39	1.55	1.46
6	AD	86	VAL	CA-CB	7.39	1.62	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	639	G	O3'-P	-7.38	1.50	1.61
3	A1	915	A	O3'-P	7.38	1.72	1.61
25	BB	2300	C	O3'-P	-7.38	1.50	1.61
36	BM	76	ARG	CZ-NH2	-7.37	1.23	1.33
23	AX	62	ARG	CA-C	7.37	1.60	1.53
25	BB	249	C	C4'-O4'	-7.37	1.34	1.45
25	BB	1213	A	P-O5'	7.37	1.70	1.59
22	AW	16	ALA	CA-C	7.37	1.61	1.52
22	AW	118	ARG	CZ-NH2	-7.37	1.23	1.33
17	AR	176	LYS	CA-C	7.36	1.62	1.52
25	BB	1914	C	O3'-P	-7.36	1.50	1.61
37	BN	171	VAL	N-CA	7.36	1.55	1.46
36	BM	50	LEU	CA-C	7.36	1.59	1.52
3	A1	670	G	O3'-P	-7.36	1.50	1.61
3	A1	365	U	O3'-P	-7.35	1.50	1.61
27	BD	53	LYS	N-CA	7.35	1.55	1.46
28	BE	18	ARG	CZ-NH2	-7.35	1.23	1.33
27	BD	95	ILE	CA-C	7.35	1.62	1.52
36	BM	47	VAL	CA-CB	7.35	1.63	1.54
29	BF	40	ARG	CZ-NH1	-7.34	1.22	1.32
7	AF	80	MET	N-CA	7.33	1.55	1.46
24	BA	80	U	C5'-C4'	7.33	1.62	1.51
25	BB	1646	C	O3'-P	-7.33	1.50	1.61
25	BB	2483	C	O3'-P	-7.33	1.50	1.61
32	BI	76	HIS	CD2-NE2	7.33	1.46	1.37
35	BL	44	ALA	N-CA	-7.32	1.37	1.46
48	BY	69	ALA	N-CA	7.32	1.54	1.46
39	BP	83	ALA	CA-C	7.31	1.61	1.52
1	AE	55	U	C2'-C1'	-7.31	1.42	1.53
55	B6	40	HIS	CA-C	7.30	1.58	1.52
53	B4	36	ALA	N-CA	7.28	1.54	1.46
25	BB	701	G	O4'-C1'	7.28	1.52	1.41
37	BN	191	LEU	CA-C	7.28	1.62	1.52
25	BB	922	C	O5'-C5'	7.27	1.53	1.42
4	AB	150	ILE	N-CA	7.26	1.55	1.46
40	BQ	41	HIS	CA-C	7.26	1.62	1.52
25	BB	1978	A	P-O5'	7.26	1.70	1.59
38	BO	96	LYS	N-CA	7.26	1.54	1.46
25	BB	215	G	C2-N2	-7.26	1.20	1.34
25	BB	1184	U	O4'-C1'	7.25	1.52	1.41
42	BS	59	ARG	N-CA	7.25	1.54	1.46
52	B3	169	ARG	CD-NE	7.25	1.56	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	908	C	C1'-N1	7.23	1.58	1.47
32	BI	71	ARG	CZ-NH1	-7.22	1.22	1.32
40	BQ	41	HIS	CG-ND1	-7.22	1.30	1.38
3	A1	978	A	C3'-O3'	7.22	1.52	1.42
52	B3	44	HIS	CA-C	7.22	1.61	1.53
53	B4	34	GLY	CA-C	7.22	1.59	1.52
15	AO	39	ARG	CZ-NH2	-7.21	1.24	1.33
25	BB	180	G	C4'-O4'	-7.21	1.34	1.45
26	BC	80	HIS	CA-C	7.21	1.60	1.53
3	A1	432	A	C1'-N9	7.21	1.58	1.48
25	BB	467	G	P-O5'	7.21	1.70	1.59
25	BB	1072	C	O3'-P	-7.21	1.50	1.61
37	BN	72	GLY	CA-C	7.21	1.60	1.52
3	A1	1277	C	C5'-C4'	7.21	1.62	1.51
25	BB	78	U	C3'-O3'	7.20	1.52	1.42
3	A1	1414	U	O3'-P	-7.20	1.50	1.61
25	BB	388	G	C5'-C4'	7.20	1.62	1.51
31	BH	94	ARG	CZ-NH2	-7.20	1.24	1.33
25	BB	358	U	O4'-C1'	7.20	1.52	1.41
40	BQ	57	LEU	CA-C	7.20	1.62	1.52
3	A1	435	A	C4'-O4'	-7.20	1.34	1.45
3	A1	685	G	O3'-P	-7.20	1.50	1.61
25	BB	319	G	C4'-O4'	-7.20	1.34	1.45
3	A1	425	G	C3'-C2'	7.19	1.63	1.52
3	A1	764	C	C5'-C4'	7.19	1.62	1.51
37	BN	132	ARG	CZ-NH2	-7.19	1.24	1.33
3	A1	1114	C	C4'-C3'	-7.18	1.41	1.52
3	A1	17	U	C3'-C2'	7.18	1.63	1.52
20	AU	52	ARG	CZ-NH1	-7.18	1.22	1.32
7	AF	69	ARG	CZ-NH1	-7.18	1.22	1.32
29	BF	53	MET	N-CA	7.18	1.54	1.46
36	BM	83	ALA	N-CA	7.18	1.55	1.45
37	BN	61	TYR	N-CA	7.17	1.54	1.45
18	AS	120	HIS	N-CA	7.17	1.55	1.46
25	BB	686	U	C4'-O4'	-7.17	1.34	1.45
29	BF	114	ARG	NE-CZ	-7.17	1.25	1.33
3	A1	229	U	C4'-O4'	-7.16	1.34	1.45
23	AX	11	LYS	N-CA	7.15	1.54	1.46
22	AW	97	LEU	CA-C	7.15	1.62	1.52
6	AD	96	THR	CB-OG1	-7.14	1.32	1.43
25	BB	2717	C	C4-N4	-7.14	1.19	1.33
38	BO	61	GLU	CA-C	7.14	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
15	AO	195	ILE	CA-C	7.14	1.61	1.52
25	BB	1320	C	C1'-N1	7.14	1.58	1.47
25	BB	1362	C	C4'-O4'	-7.13	1.34	1.45
13	AL	51	HIS	CG-CD2	7.13	1.43	1.35
32	BI	21	PRO	N-CA	7.13	1.54	1.46
33	BJ	30	VAL	CA-C	7.13	1.61	1.52
25	BB	1177	G	C4'-O4'	-7.13	1.34	1.45
25	BB	1794	A	O3'-P	-7.13	1.50	1.61
25	BB	600	G	C2'-O2'	-7.12	1.31	1.42
51	B2	97	GLU	CA-C	7.12	1.61	1.52
25	BB	1101	U	O3'-P	-7.12	1.50	1.61
27	BD	37	ASP	CA-C	7.12	1.61	1.52
25	BB	1657	U	P-O5'	7.11	1.70	1.59
7	AF	90	HIS	CA-C	7.11	1.61	1.52
3	A1	161	A	C5'-C4'	7.11	1.61	1.51
3	A1	306	A	C1'-N9	7.11	1.57	1.47
25	BB	615	U	O3'-P	-7.11	1.50	1.61
55	B6	13	ARG	CZ-NH2	-7.11	1.24	1.33
20	AU	32	ASP	CA-CB	7.11	1.65	1.53
25	BB	1222	U	C4'-O4'	-7.11	1.34	1.45
37	BN	223	ALA	CA-C	7.11	1.62	1.52
3	A1	1340	A	C4'-C3'	7.10	1.66	1.52
9	AH	58	MET	N-CA	7.10	1.55	1.46
6	AD	95	HIS	ND1-CE1	7.10	1.39	1.32
49	BZ	183	ALA	CA-C	7.10	1.62	1.52
4	AB	14	HIS	CE1-NE2	7.09	1.39	1.32
25	BB	2382	G	C2'-O2'	7.09	1.52	1.41
3	A1	173	U	C4'-O4'	-7.09	1.35	1.45
25	BB	2363	G	O3'-P	-7.09	1.50	1.61
9	AH	61	GLN	N-CA	7.09	1.54	1.46
9	AH	53	ARG	CA-C	-7.08	1.44	1.52
6	AD	29	LYS	N-CA	7.08	1.54	1.46
16	AQ	33	ARG	NE-CZ	7.08	1.40	1.33
25	BB	1	G	O3'-P	-7.08	1.50	1.61
3	A1	1117	A	C4'-O4'	-7.08	1.34	1.45
22	AW	19	PHE	CA-C	7.07	1.60	1.52
25	BB	2314	A	C4'-O4'	-7.07	1.34	1.45
25	BB	1268	A	C5'-C4'	7.07	1.61	1.51
40	BQ	52	ARG	CZ-NH2	-7.07	1.24	1.33
37	BN	195	GLY	N-CA	7.06	1.50	1.45
25	BB	323	C	C1'-N1	7.06	1.58	1.47
49	BZ	54	LEU	CA-C	7.06	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	1193	G	C2'-O2'	7.06	1.53	1.42
32	BI	26	GLU	C-N	7.06	1.39	1.33
25	BB	506	G	N9-C4	7.05	1.52	1.38
10	AI	57	ILE	CA-C	7.05	1.61	1.52
42	BS	36	VAL	CA-CB	7.05	1.60	1.53
3	A1	326	G	C4'-C3'	7.05	1.63	1.52
53	B4	129	GLU	CA-C	7.05	1.61	1.52
25	BB	1748	C	O3'-P	-7.04	1.50	1.61
8	AG	53	ASP	CA-C	7.04	1.62	1.52
50	B1	16	GLU	CA-C	7.04	1.61	1.52
54	B5	49	GLU	N-CA	7.04	1.55	1.46
3	A1	508	U	O3'-P	-7.04	1.50	1.61
25	BB	1386	C	C4'-O4'	-7.04	1.34	1.45
4	AB	143	LEU	CA-C	7.03	1.59	1.52
3	A1	329	A	C5'-C4'	7.03	1.61	1.51
49	BZ	143	ASP	CA-CB	7.03	1.62	1.52
6	AD	51	VAL	N-CA	7.02	1.55	1.46
3	A1	876	C	C4'-O4'	-7.02	1.35	1.45
4	AB	37	VAL	N-CA	7.02	1.55	1.46
25	BB	594	U	C5'-C4'	7.01	1.61	1.51
37	BN	190	THR	N-CA	7.01	1.55	1.46
4	AB	163	ILE	N-CA	7.01	1.53	1.46
25	BB	984	A	P-O5'	-7.01	1.49	1.59
25	BB	2033	A	O3'-P	-7.00	1.50	1.61
55	B6	64	VAL	N-CA	7.00	1.55	1.46
51	B2	156	THR	N-CA	7.00	1.54	1.46
25	BB	1460	U	C5'-C4'	7.00	1.61	1.51
24	BA	45	A	P-O5'	-6.99	1.49	1.59
39	BP	70	VAL	CA-CB	6.99	1.60	1.53
25	BB	594	U	O3'-P	-6.99	1.50	1.61
34	BK	84	ARG	CA-C	6.99	1.62	1.52
35	BL	69	LEU	CA-C	6.99	1.62	1.52
37	BN	51	ARG	CA-C	6.99	1.62	1.52
55	B6	107	GLY	CA-C	6.99	1.64	1.51
51	B2	163	GLU	CA-C	6.99	1.61	1.52
32	BI	108	ARG	N-CA	6.99	1.54	1.45
5	AC	102	ALA	N-CA	6.99	1.55	1.46
48	BY	158	GLY	CA-C	6.99	1.61	1.51
25	BB	620	G	C2-N2	-6.98	1.20	1.34
37	BN	163	ILE	N-CA	6.98	1.54	1.46
25	BB	2846	G	O3'-P	-6.98	1.50	1.61
4	AB	155	GLY	CA-C	6.97	1.58	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	AS	51	LYS	N-CA	6.97	1.54	1.45
25	BB	24	G	O3'-P	-6.97	1.50	1.61
25	BB	1077	A	C5'-C4'	6.97	1.61	1.51
1	AA	74	C	P-O5'	6.97	1.70	1.59
49	BZ	98	ARG	CZ-NH2	-6.97	1.24	1.33
15	AO	176	THR	N-CA	6.97	1.55	1.46
25	BB	459	U	C5'-C4'	6.97	1.61	1.51
17	AR	91	ALA	CA-C	6.96	1.62	1.52
25	BB	2298	A	O3'-P	-6.95	1.50	1.61
39	BP	43	LYS	N-CA	6.95	1.55	1.46
3	A1	1143	G	O5'-C5'	6.95	1.52	1.42
3	A1	1385	G	C3'-C2'	6.95	1.63	1.52
25	BB	529	A	P-O5'	-6.95	1.49	1.59
8	AG	89	ARG	CZ-NH2	-6.95	1.24	1.33
52	B3	19	ASN	CA-C	6.95	1.63	1.53
25	BB	2742	G	C5'-C4'	6.94	1.61	1.51
4	AB	220	VAL	CA-CB	6.94	1.62	1.54
47	BX	27	CYS	CA-C	6.93	1.61	1.52
3	A1	1368	A	O3'-P	-6.93	1.50	1.61
25	BB	197	A	C4'-O4'	-6.93	1.35	1.45
25	BB	1189	A	C5'-C4'	6.93	1.61	1.51
36	BM	96	VAL	N-CA	6.93	1.54	1.46
55	B6	124	VAL	CA-C	6.93	1.61	1.52
3	A1	1416	G	O4'-C1'	6.92	1.52	1.41
3	A1	160	A	O3'-P	-6.92	1.50	1.61
25	BB	385	C	P-O5'	-6.92	1.49	1.59
25	BB	1702	G	C5'-C4'	6.92	1.61	1.51
42	BS	49	ARG	CZ-NH2	-6.92	1.24	1.33
25	BB	2229	U	P-O5'	6.91	1.70	1.59
25	BB	1417	C	C4'-O4'	-6.91	1.35	1.45
3	A1	324	G	O3'-P	-6.91	1.50	1.61
3	A1	1019	A	C3'-C2'	6.91	1.63	1.52
18	AS	89	THR	N-CA	6.91	1.55	1.46
47	BX	4	ARG	CD-NE	6.91	1.55	1.46
3	A1	1374	A	P-O5'	-6.90	1.49	1.59
15	AO	68	HIS	CE1-NE2	6.90	1.39	1.32
6	AD	45	ASN	CA-C	6.90	1.62	1.52
3	A1	130	A	C5'-C4'	6.90	1.61	1.51
17	AR	145	ARG	CZ-NH1	-6.90	1.23	1.32
25	BB	421	C	C2'-O2'	6.90	1.52	1.42
27	BD	52	VAL	C-O	-6.90	1.15	1.24
37	BN	153	LEU	CA-C	6.90	1.61	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	AD	55	ARG	CZ-NH2	-6.90	1.24	1.33
25	BB	1243	C	O3'-P	-6.90	1.50	1.61
16	AQ	48	LYS	CA-C	6.89	1.61	1.52
55	B6	49	ASP	CA-C	6.89	1.62	1.52
25	BB	801	G	P-O5'	6.89	1.70	1.59
3	A1	354	G	P-O5'	-6.89	1.49	1.59
25	BB	2803	G	C5'-C4'	6.89	1.61	1.51
37	BN	68	ARG	CZ-NH1	-6.89	1.23	1.32
40	BQ	13	GLU	N-CA	6.89	1.55	1.46
25	BB	1233	C	C1'-N1	6.88	1.58	1.48
25	BB	2141	G	O4'-C1'	6.88	1.51	1.41
25	BB	2796	U	C3'-C2'	6.88	1.63	1.52
25	BB	1254	A	O3'-P	-6.88	1.50	1.61
17	AR	69	ARG	NE-CZ	-6.88	1.25	1.33
38	BO	38	ILE	CA-CB	6.88	1.63	1.54
15	AO	61	LYS	N-CA	6.87	1.55	1.46
3	A1	82	G	C5'-C4'	6.87	1.61	1.51
25	BB	364	C	P-O5'	-6.87	1.49	1.59
53	B4	85	GLY	N-CA	6.87	1.52	1.45
49	BZ	148	ILE	N-CA	6.87	1.54	1.46
20	AU	142	ARG	CZ-NH2	-6.86	1.24	1.33
48	BY	147	GLY	CA-C	6.86	1.61	1.51
43	BT	47	TYR	C-O	-6.86	1.14	1.23
3	A1	1223	C	C4'-C3'	6.86	1.63	1.53
27	BD	61	VAL	N-CA	6.85	1.53	1.46
37	BN	202	ARG	CZ-NH1	-6.85	1.23	1.32
25	BB	186	G	P-O5'	6.85	1.70	1.59
6	AD	120	ARG	CZ-NH2	-6.85	1.24	1.33
23	AX	100	ILE	CA-C	6.85	1.60	1.52
17	AR	43	ARG	CZ-NH2	-6.84	1.24	1.33
55	B6	18	VAL	N-CA	6.84	1.54	1.46
3	A1	685	G	C3'-C2'	6.84	1.63	1.52
25	BB	2348	U	C5'-C4'	6.84	1.61	1.51
25	BB	604	G	O4'-C1'	6.84	1.51	1.41
36	BM	14	PRO	CA-C	6.84	1.60	1.52
36	BM	89	GLU	C-O	6.84	1.31	1.24
25	BB	2128	G	P-O5'	-6.83	1.49	1.59
3	A1	1191	A	C4'-O4'	-6.83	1.35	1.45
25	BB	759	G	C5'-C4'	6.83	1.61	1.51
42	BS	19	GLY	N-CA	6.83	1.54	1.45
3	A1	605	U	O3'-P	-6.83	1.50	1.61
25	BB	888	C	C4'-O4'	-6.83	1.35	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	BQ	42	LEU	CA-C	6.83	1.61	1.52
1	AA	32	C	C4-N4	-6.82	1.20	1.33
3	A1	1221	G	C5'-C4'	6.82	1.61	1.51
31	BH	15	ARG	CZ-NH2	-6.82	1.24	1.33
43	BT	32	THR	N-CA	6.82	1.55	1.46
21	AV	24	VAL	CA-C	6.82	1.61	1.52
33	BJ	12	ARG	CZ-NH2	-6.82	1.24	1.33
3	A1	1192	C	C5'-C4'	6.82	1.61	1.51
9	AH	63	ARG	CA-C	-6.81	1.44	1.52
3	A1	418	C	C2'-C1'	6.81	1.63	1.53
25	BB	1886	U	C5'-C4'	6.81	1.61	1.51
25	BB	2050	C	C5'-C4'	6.81	1.61	1.51
48	BY	12	THR	CA-C	6.81	1.60	1.52
50	B1	193	VAL	N-CA	6.81	1.54	1.46
25	BB	510	C	O4'-C1'	6.81	1.51	1.41
27	BD	64	ARG	CZ-NH2	-6.81	1.24	1.33
43	BT	39	ARG	NE-CZ	-6.81	1.25	1.33
16	AQ	17	ARG	CZ-NH2	-6.80	1.24	1.33
22	AW	27	ILE	CA-CB	6.80	1.62	1.53
17	AR	153	ARG	CZ-NH2	-6.80	1.24	1.33
4	AB	58	LYS	N-CA	6.80	1.54	1.46
25	BB	324	A	C5'-C4'	6.80	1.61	1.51
3	A1	939	G	C4'-O4'	-6.80	1.35	1.45
25	BB	2064	C	C1'-N1	6.79	1.57	1.47
25	BB	84	A	C3'-O3'	-6.79	1.32	1.43
25	BB	918	A	C2'-O2'	6.79	1.52	1.42
52	B3	94	ARG	CD-NE	6.79	1.55	1.46
37	BN	53	ILE	N-CA	6.79	1.54	1.46
25	BB	797	G	C5'-C4'	6.79	1.61	1.51
9	AH	54	GLY	CA-C	6.78	1.60	1.51
25	BB	2670	A	C5'-C4'	6.78	1.61	1.51
3	A1	1347	G	C4'-O4'	-6.77	1.35	1.45
51	B2	52	ALA	CA-C	6.76	1.62	1.52
11	AJ	69	THR	CA-C	6.76	1.61	1.52
18	AS	139	THR	N-CA	6.76	1.54	1.46
1	AA	73	A	C1'-N9	6.76	1.58	1.48
22	AW	6	TYR	N-CA	6.76	1.54	1.45
27	BD	18	ARG	CA-C	6.76	1.60	1.52
6	AD	26	CYS	CA-C	6.76	1.58	1.52
17	AR	55	ARG	CZ-NH2	-6.76	1.24	1.33
25	BB	2350	C	C4'-O4'	-6.76	1.35	1.45
38	BO	38	ILE	N-CA	6.76	1.54	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
40	BQ	52	ARG	NE-CZ	-6.76	1.25	1.33
22	AW	111	GLU	CA-C	6.76	1.61	1.53
38	BO	10	VAL	CA-C	6.75	1.60	1.52
25	BB	526	A	C4'-O4'	-6.75	1.35	1.45
25	BB	673	C	O4'-C1'	6.75	1.52	1.42
25	BB	2501	C	C4-N4	-6.75	1.20	1.33
25	BB	1582	C	P-O5'	6.75	1.69	1.59
25	BB	2630	G	C5'-C4'	6.75	1.61	1.51
4	AB	39	ILE	N-CA	6.74	1.54	1.46
16	AQ	7	GLU	C-N	6.74	1.42	1.33
25	BB	850	U	P-O5'	-6.74	1.49	1.59
3	A1	604	G	C5'-C4'	6.74	1.61	1.51
40	BQ	32	ALA	CA-C	6.74	1.61	1.52
7	AF	36	ALA	C-O	-6.73	1.15	1.24
17	AR	89	LEU	CA-C	6.73	1.61	1.52
38	BO	33	VAL	N-CA	6.73	1.54	1.46
3	A1	577	G	O4'-C1'	6.73	1.51	1.41
23	AX	15	HIS	N-CA	6.73	1.54	1.46
25	BB	1296	G	C4'-O4'	-6.73	1.35	1.45
31	BH	67	ASN	CA-CB	6.73	1.58	1.53
3	A1	1291	U	C5'-C4'	6.73	1.61	1.51
3	A1	1452	C	C4'-C3'	6.73	1.63	1.53
33	BJ	91	ARG	N-CA	6.72	1.54	1.46
40	BQ	55	THR	N-CA	6.72	1.54	1.46
15	AO	166	TRP	CA-C	6.72	1.60	1.52
48	BY	51	THR	C-O	-6.72	1.16	1.23
3	A1	239	U	C1'-N1	6.72	1.57	1.47
25	BB	1543	G	C4'-C3'	6.72	1.62	1.52
39	BP	35	ILE	N-CA	6.71	1.54	1.46
3	A1	251	G	C3'-C2'	6.71	1.62	1.52
3	A1	614	C	C5'-C4'	6.71	1.61	1.51
34	BK	54	VAL	N-CA	6.71	1.54	1.46
25	BB	1739	A	C5'-C4'	6.70	1.61	1.51
25	BB	859	G	C3'-O3'	-6.69	1.33	1.43
3	A1	720	C	C3'-O3'	-6.69	1.32	1.42
55	B6	119	PHE	N-CA	6.69	1.54	1.46
3	A1	322	C	C5'-C4'	6.69	1.61	1.51
24	BA	14	U	O4'-C1'	6.68	1.51	1.42
25	BB	839	U	P-O5'	6.68	1.69	1.59
7	AF	92	ARG	NE-CZ	-6.68	1.25	1.33
10	AI	43	ALA	CA-C	6.68	1.61	1.52
48	BY	46	ARG	CZ-NH2	-6.68	1.24	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	1190	G	C5'-C4'	6.68	1.61	1.51
9	AH	37	HIS	CD2-NE2	6.68	1.45	1.37
25	BB	2376	A	C5'-C4'	6.68	1.61	1.51
1	AE	75	C	P-O5'	-6.67	1.49	1.59
25	BB	48	G	C3'-C2'	6.67	1.62	1.52
3	A1	80	A	C4'-O4'	-6.67	1.35	1.45
25	BB	1856	U	C2'-O2'	6.67	1.52	1.42
38	BO	13	LEU	CA-C	6.67	1.61	1.52
3	A1	842	U	O4'-C1'	6.67	1.51	1.41
5	AC	58	THR	CA-C	6.67	1.58	1.52
15	AO	204	GLY	CA-C	6.67	1.57	1.52
25	BB	301	G	C4'-O4'	-6.67	1.35	1.45
31	BH	9	ARG	N-CA	6.67	1.54	1.46
46	BW	44	ARG	CA-C	6.67	1.59	1.52
42	BS	8	LYS	N-CA	6.66	1.54	1.45
50	B1	137	LYS	N-CA	6.66	1.54	1.46
3	A1	668	G	C4'-C3'	6.66	1.62	1.52
50	B1	54	GLY	CA-C	6.66	1.61	1.51
5	AC	127	ARG	CZ-NH2	-6.66	1.24	1.33
1	AA	64	A	O3'-P	-6.65	1.51	1.61
21	AV	44	PHE	CA-C	6.65	1.62	1.52
25	BB	2696	U	C5'-C4'	6.65	1.61	1.51
25	BB	334	C	O3'-P	-6.65	1.51	1.61
25	BB	1959	G	P-O5'	-6.65	1.49	1.59
3	A1	1366	C	P-O5'	6.65	1.69	1.59
3	A1	504	C	C4'-O4'	-6.64	1.35	1.45
37	BN	63	ILE	CA-CB	6.64	1.61	1.54
3	A1	1507	A	O3'-P	-6.64	1.51	1.61
37	BN	248	GLY	N-CA	6.64	1.52	1.45
25	BB	906	U	P-O5'	6.64	1.69	1.59
25	BB	2249	U	O3'-P	-6.64	1.51	1.61
1	AA	31	A	C3'-C2'	6.64	1.62	1.52
3	A1	753	A	C2'-O2'	6.64	1.51	1.41
25	BB	940	G	O3'-P	-6.64	1.51	1.61
25	BB	2571	U	C2'-C1'	6.64	1.63	1.53
45	BV	43	THR	N-CA	6.64	1.54	1.46
3	A1	621	A	C4'-O4'	-6.63	1.35	1.45
25	BB	1990	C	C5'-C4'	6.63	1.61	1.51
25	BB	2387	U	O3'-P	-6.63	1.51	1.61
50	B1	73	ILE	N-CA	6.63	1.54	1.46
3	A1	1033	G	O3'-P	-6.63	1.51	1.61
25	BB	2330	G	C3'-C2'	6.62	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
48	BY	29	VAL	N-CA	6.62	1.54	1.46
52	B3	110	HIS	CD2-NE2	6.62	1.45	1.37
25	BB	1618	A	P-O5'	6.62	1.69	1.59
25	BB	1554	U	C5'-C4'	6.61	1.61	1.51
55	B6	136	GLN	C-O	-6.61	1.18	1.24
13	AL	57	VAL	N-CA	6.61	1.51	1.46
51	B2	154	THR	CA-CB	6.61	1.62	1.53
39	BP	81	ILE	CA-CB	6.61	1.63	1.54
25	BB	2489	U	C3'-C2'	6.60	1.62	1.52
25	BB	596	U	C5'-C4'	6.60	1.61	1.51
25	BB	1023	U	C4'-O4'	-6.60	1.35	1.45
25	BB	1984	G	C4'-O4'	-6.60	1.35	1.45
37	BN	40	GLY	CA-C	6.59	1.57	1.52
12	AK	53	GLN	CA-C	6.59	1.61	1.52
25	BB	2599	G	O3'-P	6.59	1.71	1.61
25	BB	168	G	O3'-P	-6.59	1.51	1.61
3	A1	1404	C	C5'-C4'	6.59	1.61	1.51
4	AB	136	ARG	CZ-NH2	-6.59	1.24	1.33
17	AR	78	ALA	CA-C	6.59	1.61	1.52
25	BB	1972	G	C3'-C2'	-6.59	1.42	1.52
30	BG	49	GLU	CA-C	6.58	1.60	1.52
49	BZ	77	LYS	CA-C	6.58	1.61	1.52
25	BB	743	A	O3'-P	-6.58	1.51	1.61
3	A1	1518	A	C2'-C1'	6.58	1.62	1.53
1	AP	54	U	O4'-C1'	6.58	1.51	1.41
9	AH	10	ILE	N-CA	6.58	1.54	1.46
15	AO	87	ARG	N-CA	6.58	1.54	1.46
47	BX	28	SER	N-CA	6.58	1.54	1.46
41	BR	15	ARG	N-CA	6.57	1.55	1.46
5	AC	36	ARG	CD-NE	6.57	1.55	1.46
25	BB	1503	A	O5'-C5'	6.57	1.52	1.42
38	BO	76	THR	N-CA	6.57	1.54	1.46
3	A1	449	G	P-O5'	-6.57	1.49	1.59
11	AJ	5	ARG	N-CA	6.57	1.54	1.46
25	BB	1238	G	C3'-O3'	-6.57	1.32	1.42
3	A1	412	A	C4'-C3'	6.57	1.62	1.53
3	A1	1434	A	O3'-P	-6.57	1.51	1.61
28	BE	61	LEU	CA-C	6.57	1.61	1.52
25	BB	1225	G	O3'-P	-6.56	1.51	1.61
25	BB	2132	U	C5'-C4'	6.56	1.61	1.51
10	AI	28	ARG	CA-C	6.56	1.61	1.52
19	AT	25	TYR	CA-C	6.56	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	BS	17	SER	N-CA	6.56	1.55	1.46
13	AL	34	SER	N-CA	6.56	1.54	1.46
25	BB	780	G	C2'-C1'	6.55	1.62	1.53
25	BB	1322	A	C3'-O3'	-6.55	1.33	1.43
3	A1	917	G	C4'-O4'	-6.55	1.35	1.45
25	BB	1097	U	C3'-C2'	6.55	1.62	1.52
25	BB	2405	G	C2'-O2'	6.55	1.52	1.42
22	AW	79	ARG	CD-NE	6.55	1.55	1.46
37	BN	101	ARG	N-CA	6.55	1.54	1.45
27	BD	70	ARG	CA-C	6.55	1.61	1.52
7	AF	82	LEU	CA-C	6.55	1.61	1.52
25	BB	1958	C	C4'-O4'	-6.54	1.36	1.45
25	BB	1206	G	C3'-O3'	6.54	1.51	1.42
37	BN	159	THR	N-CA	6.54	1.54	1.46
3	A1	33	A	C2'-O2'	6.54	1.52	1.42
37	BN	163	ILE	CA-CB	6.54	1.60	1.54
51	B2	103	ILE	CA-C	6.54	1.59	1.52
11	AJ	45	VAL	N-CA	6.54	1.54	1.46
3	A1	300	A	C4'-O4'	-6.53	1.36	1.45
25	BB	2236	U	C3'-C2'	6.53	1.62	1.52
25	BB	2147	A	C3'-O3'	6.53	1.51	1.42
3	A1	573	A	C4'-O4'	-6.53	1.36	1.45
3	A1	862	C	C2'-O2'	6.53	1.52	1.42
5	AC	54	SER	CA-C	6.53	1.61	1.52
37	BN	238	ASN	CA-C	6.53	1.61	1.52
33	BJ	10	ARG	CZ-NH2	-6.52	1.25	1.33
3	A1	557	G	O4'-C1'	6.52	1.51	1.42
3	A1	702	A	C4'-O4'	-6.52	1.36	1.45
15	AO	10	ARG	CZ-NH2	-6.52	1.25	1.33
42	BS	16	CYS	CA-C	6.52	1.61	1.52
25	BB	1456	G	C5'-C4'	6.52	1.61	1.51
2	AM	1	U	C1'-N1	6.51	1.57	1.47
5	AC	92	ARG	CZ-NH2	-6.51	1.25	1.33
25	BB	1808	A	C5'-C4'	6.51	1.61	1.51
28	BE	69	ARG	N-CA	6.51	1.54	1.45
28	BE	76	GLU	CA-C	6.51	1.61	1.52
24	BA	52	A	O3'-P	-6.51	1.51	1.61
25	BB	21	A	C5'-C4'	6.51	1.61	1.51
34	BK	79	ARG	C-O	-6.51	1.16	1.23
25	BB	1289	C	O3'-P	-6.50	1.51	1.61
48	BY	187	LEU	CA-C	6.50	1.60	1.52
25	BB	1651	G	O3'-P	-6.50	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	BI	99	LEU	CB-CG	6.50	1.66	1.53
3	A1	863	U	P-O5'	6.50	1.69	1.59
4	AB	221	ARG	CA-C	6.50	1.58	1.52
25	BB	938	G	C2'-C1'	6.50	1.63	1.53
52	B3	33	THR	N-CA	6.50	1.54	1.45
25	BB	1348	C	O4'-C1'	6.50	1.51	1.41
25	BB	1075	C	C4'-C3'	6.49	1.62	1.52
30	BG	16	HIS	CG-CD2	6.49	1.43	1.35
34	BK	78	ARG	N-CA	6.49	1.54	1.46
48	BY	172	VAL	N-CA	6.49	1.54	1.46
6	AD	78	VAL	CA-CB	-6.49	1.45	1.54
25	BB	1239	G	C4'-O4'	-6.49	1.35	1.45
28	BE	60	ARG	CA-C	6.49	1.61	1.52
44	BU	4	ILE	N-CA	6.49	1.54	1.46
51	B2	114	ARG	CZ-NH2	-6.49	1.25	1.33
53	B4	97	ARG	N-CA	6.49	1.54	1.46
3	A1	316	C	C5'-C4'	6.49	1.61	1.51
51	B2	93	GLU	CA-C	6.49	1.61	1.52
12	AK	40	PRO	N-CA	-6.49	1.39	1.47
3	A1	1481	U	O3'-P	-6.49	1.51	1.61
8	AG	91	GLU	N-CA	6.49	1.54	1.46
25	BB	1692	U	O5'-C5'	-6.48	1.33	1.42
25	BB	1593	A	O3'-P	-6.48	1.51	1.61
55	B6	72	LYS	N-CA	6.48	1.54	1.46
3	A1	230	G	C3'-C2'	6.48	1.62	1.52
25	BB	2269	G	O3'-P	-6.48	1.51	1.61
1	AE	36	A	O3'-P	-6.48	1.51	1.61
3	A1	356	A	C4'-O4'	-6.48	1.35	1.45
50	B1	6	LYS	N-CA	6.48	1.54	1.45
25	BB	1327	A	C4'-O4'	-6.47	1.35	1.45
25	BB	2335	A	P-O5'	-6.47	1.50	1.59
48	BY	113	SER	CA-C	6.47	1.60	1.52
3	A1	1436	U	C5'-C4'	6.46	1.60	1.51
6	AD	95	HIS	CD2-NE2	6.46	1.45	1.37
25	BB	1970	A	C1'-N9	6.46	1.56	1.47
19	AT	22	ILE	CA-CB	-6.46	1.46	1.54
3	A1	66	A	O3'-P	-6.46	1.51	1.61
25	BB	581	C	C5'-C4'	6.46	1.61	1.51
52	B3	9	VAL	CA-C	6.46	1.60	1.52
54	B5	130	GLY	CA-C	6.46	1.60	1.51
25	BB	507	A	O3'-P	-6.45	1.51	1.61
25	BB	544	C	C1'-N1	6.45	1.58	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	1994	C	C2'-C1'	-6.45	1.43	1.53
3	A1	1055	A	C4'-O4'	-6.45	1.35	1.45
9	AH	68	TYR	CA-C	6.45	1.61	1.52
18	AS	88	HIS	CA-CB	6.45	1.64	1.53
25	BB	774	G	P-O5'	-6.45	1.50	1.59
25	BB	1592	C	C4'-C3'	6.45	1.62	1.52
53	B4	68	ARG	CZ-NH2	-6.45	1.25	1.33
18	AS	67	ARG	CD-NE	6.44	1.55	1.46
25	BB	2647	U	C2'-C1'	-6.44	1.43	1.53
25	BB	558	U	O3'-P	-6.44	1.51	1.61
38	BO	53	GLN	N-CA	6.44	1.55	1.46
25	BB	911	A	C3'-C2'	6.44	1.62	1.52
3	A1	1047	G	O3'-P	-6.44	1.51	1.61
25	BB	2319	G	C5'-C4'	6.44	1.60	1.51
28	BE	16	GLY	N-CA	6.44	1.54	1.45
17	AR	52	VAL	C-O	-6.43	1.16	1.24
25	BB	1391	U	P-O5'	6.43	1.69	1.59
55	B6	130	HIS	CG-CD2	6.43	1.43	1.35
49	BZ	183	ALA	N-CA	6.43	1.54	1.46
20	AU	60	ALA	N-CA	6.43	1.54	1.46
25	BB	2106	U	O4'-C1'	6.43	1.51	1.41
34	BK	24	LYS	N-CA	6.43	1.54	1.46
25	BB	524	G	C4'-C3'	6.43	1.62	1.52
12	AK	35	SER	N-CA	6.43	1.55	1.46
25	BB	1616	A	C4'-O4'	-6.43	1.36	1.45
3	A1	663	A	C4'-C3'	6.43	1.62	1.52
9	AH	76	ARG	CA-CB	6.43	1.64	1.53
25	BB	1662	U	P-O5'	6.43	1.69	1.59
53	B4	72	ILE	N-CA	6.43	1.54	1.46
25	BB	1019	U	C4'-O4'	-6.42	1.35	1.45
25	BB	2149	U	C5'-C4'	6.42	1.60	1.51
41	BR	37	ARG	N-CA	6.42	1.55	1.46
32	BI	86	LYS	N-CA	6.42	1.54	1.46
15	AO	79	LYS	N-CA	6.42	1.54	1.46
18	AS	63	MET	CA-C	6.42	1.61	1.52
1	AP	29	A	C4'-O4'	-6.42	1.35	1.45
18	AS	86	GLY	N-CA	6.42	1.54	1.45
25	BB	784	G	C1'-N9	6.42	1.56	1.47
25	BB	830	G	C4'-O4'	-6.42	1.36	1.45
28	BE	143	GLU	CA-C	6.42	1.61	1.52
3	A1	462	G	C3'-C2'	6.42	1.62	1.52
22	AW	91	GLU	N-CA	6.42	1.54	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	BD	4	GLU	CA-C	6.42	1.60	1.52
48	BY	51	THR	CA-C	6.42	1.60	1.52
7	AF	13	HIS	CG-ND1	-6.41	1.31	1.38
3	A1	1275	A	C5'-C4'	6.41	1.60	1.51
2	AM	13	U	C5'-C4'	6.41	1.60	1.51
18	AS	48	GLY	CA-C	6.41	1.58	1.51
32	BI	30	TRP	N-CA	6.41	1.53	1.46
37	BN	204	LEU	N-CA	6.41	1.54	1.46
42	BS	58	ASP	C-O	-6.41	1.16	1.23
3	A1	379	C	O4'-C1'	6.41	1.51	1.41
14	AN	67	HIS	N-CA	6.41	1.54	1.46
3	A1	472	U	O3'-P	-6.41	1.51	1.61
25	BB	1193	G	C3'-O3'	-6.40	1.32	1.42
3	A1	1153	G	C5'-C4'	6.40	1.60	1.51
4	AB	13	VAL	CA-C	6.40	1.62	1.52
10	AI	35	ARG	CA-CB	6.40	1.61	1.52
46	BW	53	ASP	CA-C	6.40	1.61	1.52
11	AJ	77	VAL	C-O	-6.40	1.16	1.23
37	BN	249	VAL	CA-CB	6.39	1.63	1.54
50	B1	154	ASP	N-CA	6.39	1.54	1.45
4	AB	93	HIS	C-N	6.39	1.42	1.33
22	AW	129	ARG	CZ-NH2	-6.39	1.25	1.33
44	BU	23	THR	N-CA	6.39	1.54	1.46
22	AW	48	ARG	N-CA	6.39	1.54	1.45
25	BB	351	C	C4'-O4'	-6.39	1.35	1.45
25	BB	1543	G	O3'-P	-6.39	1.51	1.61
48	BY	152	PRO	N-CA	-6.39	1.39	1.47
1	AE	46	G	C4'-O4'	-6.39	1.36	1.45
3	A1	736	C	C4'-O4'	-6.38	1.35	1.45
9	AH	4	THR	N-CA	6.38	1.54	1.46
3	A1	38	G	C3'-O3'	-6.38	1.33	1.43
17	AR	2	ARG	CZ-NH2	-6.38	1.25	1.33
25	BB	844	A	C3'-C2'	6.38	1.62	1.52
25	BB	2891	U	C5'-C4'	6.38	1.60	1.51
53	B4	131	SER	N-CA	6.38	1.55	1.46
11	AJ	75	VAL	N-CA	6.38	1.54	1.46
18	AS	19	ARG	N-CA	6.38	1.54	1.46
1	AE	7	U	O3'-P	-6.38	1.51	1.61
25	BB	2564	A	O5'-C5'	-6.38	1.33	1.42
25	BB	1297	C	C2'-O2'	6.38	1.52	1.42
25	BB	1994	C	C4'-C3'	-6.38	1.43	1.52
25	BB	2835	A	O3'-P	-6.38	1.51	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BL	8	ARG	CZ-NH2	-6.38	1.25	1.33
1	AA	43	G	O3'-P	-6.37	1.51	1.61
25	BB	2558	C	C5'-C4'	-6.37	1.41	1.51
51	B2	125	GLY	CA-C	6.37	1.60	1.51
3	A1	675	A	C3'-C2'	6.37	1.62	1.52
1	AP	35	A	C5'-C4'	6.37	1.60	1.51
25	BB	774	G	C5'-C4'	6.37	1.60	1.51
25	BB	2110	G	O5'-C5'	-6.37	1.32	1.42
5	AC	36	ARG	CZ-NH1	-6.37	1.23	1.32
24	BA	114	C	C3'-C2'	6.37	1.62	1.52
3	A1	1497	G	C2'-O2'	-6.37	1.32	1.42
18	AS	137	ARG	N-CA	6.37	1.54	1.46
6	AD	20	VAL	N-CA	6.36	1.54	1.46
25	BB	84	A	C5'-C4'	6.36	1.60	1.51
3	A1	1032	G	C5'-C4'	6.36	1.60	1.51
17	AR	179	GLY	N-CA	6.36	1.52	1.45
3	A1	1419	G	C4'-C3'	6.36	1.62	1.52
25	BB	2147	A	C5'-C4'	6.36	1.60	1.51
32	BI	65	ASN	N-CA	6.36	1.53	1.46
36	BM	87	LEU	CA-CB	6.36	1.64	1.53
3	A1	558	G	C4'-O4'	-6.35	1.36	1.45
6	AD	73	LEU	N-CA	6.35	1.54	1.46
15	AO	53	ARG	CD-NE	6.35	1.55	1.46
25	BB	1904	G	P-O5'	-6.35	1.50	1.59
25	BB	2703	C	O5'-C5'	6.35	1.51	1.42
10	AI	20	VAL	CA-C	6.35	1.60	1.52
15	AO	11	LEU	N-CA	6.35	1.54	1.46
25	BB	1862	G	C3'-C2'	6.35	1.62	1.52
30	BG	27	SER	CA-C	6.35	1.61	1.52
33	BJ	53	LYS	N-CA	6.35	1.54	1.46
53	B4	66	ASN	CA-C	6.35	1.60	1.52
25	BB	342	A	C3'-O3'	6.35	1.51	1.42
25	BB	1749	A	C1'-N9	6.35	1.57	1.48
3	A1	1292	G	C5'-C4'	6.34	1.60	1.51
1	AA	17	U	N3-C4	-6.34	1.25	1.38
25	BB	2239	G	O3'-P	-6.34	1.51	1.61
3	A1	369	G	C3'-O3'	-6.34	1.32	1.42
25	BB	155	A	C4'-C3'	6.34	1.62	1.52
19	AT	78	PHE	CA-C	6.33	1.61	1.52
3	A1	832	G	O3'-P	-6.33	1.51	1.61
10	AI	40	ASN	CA-C	6.33	1.60	1.53
25	BB	577	G	C3'-C2'	6.33	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
45	BV	21	ARG	CZ-NH2	-6.33	1.25	1.33
50	B1	49	ARG	CZ-NH2	-6.33	1.25	1.33
3	A1	558	G	C3'-O3'	6.33	1.51	1.42
25	BB	2142	A	P-O5'	-6.33	1.50	1.59
25	BB	2218	G	C1'-N9	6.33	1.57	1.48
27	BD	119	ALA	CA-C	6.33	1.60	1.52
6	AD	38	THR	CA-C	6.33	1.61	1.52
25	BB	1930	G	O3'-P	-6.33	1.51	1.61
25	BB	607	U	O3'-P	-6.33	1.51	1.61
30	BG	64	ARG	N-CA	6.33	1.54	1.46
44	BU	30	PRO	N-CA	-6.33	1.39	1.47
25	BB	2435	A	C5'-C4'	6.33	1.60	1.51
1	AP	50	U	O3'-P	-6.33	1.51	1.61
25	BB	2004	G	C3'-C2'	6.33	1.62	1.52
14	AN	28	ARG	N-CA	6.32	1.54	1.46
11	AJ	57	VAL	CA-CB	6.32	1.62	1.53
25	BB	910	A	C2'-O2'	-6.32	1.32	1.42
50	B1	169	VAL	CA-C	6.32	1.60	1.52
25	BB	2651	C	O5'-C5'	-6.31	1.32	1.42
22	AW	62	LEU	CA-C	6.31	1.59	1.52
34	BK	70	GLU	N-CA	6.31	1.54	1.46
35	BL	102	HIS	CD2-NE2	6.31	1.44	1.37
18	AS	152	VAL	N-CA	6.31	1.54	1.46
25	BB	1747	U	C5'-C4'	6.31	1.60	1.51
37	BN	216	ARG	CA-C	6.31	1.60	1.52
3	A1	1402	C	C5'-C4'	6.31	1.60	1.51
25	BB	2039	U	C4'-O4'	-6.31	1.36	1.45
3	A1	201	G	O3'-P	-6.30	1.51	1.61
9	AH	30	LEU	N-CA	6.30	1.53	1.46
10	AI	5	ARG	NE-CZ	-6.30	1.26	1.33
25	BB	2615	U	C4'-O4'	-6.30	1.36	1.45
3	A1	868	C	C5'-C4'	6.30	1.60	1.51
4	AB	144	GLU	N-CA	6.30	1.54	1.46
6	AD	53	ARG	NE-CZ	-6.30	1.26	1.33
22	AW	108	ARG	CZ-NH1	-6.30	1.24	1.32
25	BB	1411	U	O3'-P	-6.30	1.51	1.61
22	AW	61	ASP	N-CA	6.30	1.53	1.46
3	A1	704	A	C2'-C1'	6.30	1.62	1.53
25	BB	207	A	O3'-P	-6.30	1.51	1.61
25	BB	804	A	P-O5'	-6.30	1.50	1.59
23	AX	99	GLN	N-CA	6.29	1.54	1.46
25	BB	1246	A	C1'-N9	6.29	1.57	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	BJ	16	ILE	N-CA	6.29	1.55	1.46
25	BB	1447	C	C4'-O4'	-6.29	1.36	1.45
25	BB	1551	A	C3'-O3'	6.29	1.51	1.42
25	BB	2054	A	C5'-C4'	6.29	1.60	1.51
25	BB	2619	C	C5'-C4'	6.29	1.60	1.51
33	BJ	80	ASN	N-CA	6.29	1.53	1.46
9	AH	83	ARG	CZ-NH2	-6.29	1.25	1.33
11	AJ	81	ALA	N-CA	6.29	1.54	1.46
34	BK	49	ILE	N-CA	6.29	1.54	1.46
35	BL	28	LYS	CA-C	6.29	1.60	1.52
8	AG	61	ASN	CA-C	6.28	1.61	1.52
25	BB	2661	G	O3'-P	-6.28	1.51	1.61
48	BY	67	HIS	CD2-NE2	6.28	1.44	1.37
51	B2	12	VAL	CA-CB	6.28	1.61	1.54
21	AV	69	ALA	CA-C	6.28	1.61	1.52
5	AC	57	SER	CA-C	6.28	1.60	1.53
25	BB	1468	U	C4'-O4'	-6.28	1.36	1.45
24	BA	118	C	C2'-O2'	6.27	1.51	1.41
34	BK	84	ARG	N-CA	6.27	1.54	1.46
25	BB	2752	C	O5'-C5'	6.27	1.52	1.42
25	BB	1736	U	C5'-C4'	6.27	1.60	1.51
15	AO	157	GLY	CA-C	6.26	1.60	1.51
29	BF	133	LYS	CA-C	6.26	1.61	1.52
32	BI	87	ARG	CZ-NH2	-6.26	1.25	1.33
13	AL	2	ARG	CZ-NH2	-6.26	1.25	1.33
19	AT	48	ALA	CA-C	6.26	1.61	1.52
25	BB	1620	G	P-O5'	6.26	1.69	1.59
33	BJ	54	ARG	CA-CB	6.26	1.64	1.53
25	BB	2274	A	C5'-C4'	6.25	1.60	1.51
49	BZ	161	ASP	C-N	6.25	1.41	1.32
3	A1	374	A	O3'-P	-6.25	1.51	1.61
3	A1	1229	A	C4'-O4'	-6.25	1.36	1.45
4	AB	132	GLU	N-CA	6.25	1.53	1.46
25	BB	2661	G	C3'-O3'	6.25	1.51	1.42
3	A1	1509	C	O3'-P	-6.25	1.51	1.61
20	AU	74	VAL	N-CA	6.25	1.54	1.46
40	BQ	47	ARG	CZ-NH1	-6.25	1.24	1.32
3	A1	271	C	C4'-O4'	-6.25	1.36	1.45
28	BE	142	ILE	C-O	-6.25	1.18	1.24
25	BB	1373	A	C4'-C3'	6.24	1.61	1.52
3	A1	1425	U	O5'-C5'	-6.24	1.33	1.42
6	AD	40	THR	CA-C	6.24	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AP	56	C	C3'-O3'	6.24	1.51	1.42
25	BB	129	C	C2'-O2'	6.24	1.51	1.41
25	BB	2862	G	O4'-C1'	6.24	1.51	1.41
4	AB	107	ARG	CA-C	6.24	1.61	1.52
25	BB	931	U	P-O5'	6.24	1.69	1.59
25	BB	2880	C	C5'-C4'	6.24	1.60	1.51
42	BS	27	THR	N-CA	6.24	1.54	1.46
3	A1	822	U	O3'-P	-6.24	1.51	1.61
3	A1	129	A	O3'-P	-6.24	1.51	1.61
3	A1	1000	A	O5'-C5'	-6.24	1.33	1.42
25	BB	87	U	O3'-P	-6.24	1.51	1.61
34	BK	30	GLY	N-CA	6.24	1.54	1.45
32	BI	79	VAL	CA-C	6.23	1.60	1.52
17	AR	190	LEU	CA-C	6.23	1.61	1.52
20	AU	82	SER	N-CA	6.23	1.53	1.46
3	A1	1015	G	O3'-P	-6.23	1.51	1.61
25	BB	743	A	C3'-C2'	6.23	1.62	1.52
25	BB	1058	U	P-O5'	6.23	1.69	1.59
15	AO	87	ARG	CD-NE	6.23	1.54	1.46
29	BF	96	ILE	CA-CB	6.23	1.61	1.54
12	AK	37	LYS	C-N	6.23	1.39	1.33
37	BN	97	ASP	CA-C	6.23	1.61	1.52
52	B3	48	THR	N-CA	6.23	1.53	1.46
3	A1	156	C	C3'-O3'	-6.22	1.32	1.42
25	BB	999	U	C4'-O4'	-6.22	1.36	1.45
53	B4	147	VAL	CA-CB	6.22	1.61	1.53
21	AV	63	LYS	N-CA	6.22	1.54	1.46
25	BB	547	A	P-O5'	6.22	1.69	1.59
25	BB	1278	C	C4-N4	-6.22	1.21	1.33
35	BL	3	THR	N-CA	6.22	1.53	1.45
25	BB	1746	A	C3'-C2'	6.22	1.62	1.52
3	A1	654	G	C2'-O2'	6.22	1.51	1.42
25	BB	1251	C	P-O5'	6.22	1.69	1.59
25	BB	1953	A	O3'-P	-6.22	1.51	1.61
52	B3	54	ARG	CZ-NH2	-6.22	1.25	1.33
26	BC	65	VAL	N-CA	6.21	1.53	1.46
25	BB	269	C	C4-N4	-6.21	1.21	1.33
20	AU	33	GLY	N-CA	6.21	1.54	1.45
25	BB	1947	C	C4'-O4'	-6.21	1.36	1.45
31	BH	36	TYR	CA-C	6.21	1.61	1.52
13	AL	58	PRO	N-CA	6.21	1.54	1.47
25	BB	1491	G	O3'-P	6.21	1.70	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	AK	56	ARG	NE-CZ	-6.21	1.26	1.33
24	BA	26	C	C4'-C3'	-6.21	1.43	1.52
25	BB	1086	A	C2'-C1'	6.21	1.62	1.53
25	BB	1999	C	O3'-P	-6.20	1.51	1.61
18	AS	31	SER	N-CA	6.20	1.54	1.46
18	AS	153	ALA	N-CA	6.20	1.53	1.46
25	BB	1875	G	C5'-C4'	6.20	1.60	1.51
25	BB	2207	C	C2'-O2'	6.20	1.51	1.42
46	BW	39	ARG	CD-NE	6.20	1.54	1.46
3	A1	781	A	C5'-C4'	6.20	1.60	1.51
50	B1	94	GLN	N-CA	6.20	1.54	1.46
25	BB	673	C	C4'-O4'	-6.20	1.36	1.45
34	BK	82	HIS	ND1-CE1	6.20	1.38	1.32
52	B3	132	LEU	CA-C	6.20	1.60	1.52
3	A1	430	A	O3'-P	-6.19	1.51	1.61
54	B5	86	LYS	N-CA	6.19	1.54	1.46
25	BB	1124	G	C5'-C4'	6.19	1.60	1.51
25	BB	1300	G	C5'-C4'	6.19	1.60	1.51
25	BB	1320	C	C5'-C4'	6.19	1.60	1.51
43	BT	35	GLU	N-CA	6.19	1.54	1.46
25	BB	448	U	C2'-O2'	6.19	1.50	1.41
54	B5	52	LEU	CA-C	6.19	1.60	1.53
9	AH	53	ARG	CZ-NH2	-6.19	1.25	1.33
25	BB	2803	G	O3'-P	-6.19	1.51	1.61
1	AP	22	G	C3'-C2'	6.19	1.62	1.52
14	AN	37	ALA	N-CA	-6.19	1.39	1.46
25	BB	2019	A	C4'-O4'	-6.19	1.36	1.45
25	BB	2431	U	C3'-C2'	6.19	1.62	1.52
3	A1	286	C	P-O5'	6.19	1.69	1.59
25	BB	624	C	C5'-C4'	6.19	1.60	1.51
33	BJ	12	ARG	C-O	-6.18	1.16	1.24
52	B3	18	ILE	N-CA	6.18	1.53	1.46
3	A1	243	A	O5'-C5'	-6.18	1.33	1.42
25	BB	1616	A	C4'-C3'	6.18	1.62	1.53
25	BB	2099	U	O4'-C1'	6.18	1.50	1.41
37	BN	69	ASN	CA-C	6.18	1.61	1.52
41	BR	51	SER	CA-C	6.18	1.61	1.52
48	BY	85	ALA	N-CA	6.18	1.54	1.46
3	A1	158	G	C3'-O3'	6.18	1.51	1.42
25	BB	2042	A	C4'-C3'	6.18	1.61	1.52
25	BB	1888	G	C3'-C2'	6.17	1.62	1.52
25	BB	2010	G	C3'-C2'	6.17	1.62	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	586	A	O5'-C5'	6.17	1.52	1.42
25	BB	9	G	O5'-C5'	-6.17	1.33	1.42
25	BB	1600	C	O5'-C5'	-6.17	1.33	1.42
52	B3	104	LEU	C-O	-6.17	1.17	1.23
3	A1	1203	C	C4'-O4'	-6.17	1.36	1.45
25	BB	2689	U	P-O5'	-6.17	1.50	1.59
25	BB	2738	A	O3'-P	-6.16	1.51	1.61
3	A1	815	A	C4'-C3'	6.16	1.62	1.53
39	BP	80	SER	N-CA	6.16	1.54	1.46
47	BX	15	LYS	CA-C	6.16	1.59	1.52
51	B2	156	THR	CA-C	6.16	1.60	1.52
25	BB	2082	A	C2'-C1'	6.16	1.62	1.53
48	BY	114	LYS	N-CA	6.16	1.54	1.46
25	BB	1878	G	O3'-P	-6.16	1.51	1.61
25	BB	2191	A	C5'-C4'	6.16	1.60	1.51
37	BN	206	LYS	CA-C	6.16	1.61	1.53
24	BA	50	A	C5'-C4'	6.15	1.60	1.51
25	BB	2085	U	O3'-P	-6.15	1.51	1.61
53	B4	12	LEU	N-CA	6.15	1.53	1.46
20	AU	94	ARG	CA-C	6.15	1.60	1.52
25	BB	598	U	C4'-O4'	-6.15	1.36	1.45
55	B6	73	VAL	CA-C	6.15	1.59	1.53
3	A1	765	G	C4'-C3'	6.15	1.61	1.52
25	BB	1834	U	C5'-C4'	6.15	1.60	1.51
25	BB	2685	G	C4'-C3'	6.15	1.61	1.52
31	BH	51	ALA	CA-CB	6.15	1.63	1.54
3	A1	1071	C	C4'-O4'	-6.15	1.36	1.45
25	BB	289	G	C4'-C3'	6.15	1.61	1.52
15	AO	178	ARG	CZ-NH2	-6.15	1.25	1.33
3	A1	1515	G	C3'-C2'	6.14	1.61	1.52
25	BB	670	A	C2'-O2'	6.14	1.50	1.41
25	BB	1177	G	O3'-P	-6.14	1.51	1.61
43	BT	52	LYS	CA-C	6.14	1.61	1.52
25	BB	1047	G	C1'-N9	6.14	1.56	1.47
25	BB	1811	G	C4'-C3'	6.14	1.62	1.53
3	A1	1332	A	C5'-C4'	6.14	1.60	1.51
25	BB	483	A	C4'-O4'	-6.14	1.36	1.45
50	B1	72	SER	N-CA	6.14	1.54	1.46
50	B1	40	ARG	CZ-NH2	-6.14	1.25	1.33
30	BG	18	GLN	N-CA	6.14	1.54	1.46
25	BB	1226	A	P-O5'	-6.13	1.50	1.59
4	AB	156	LEU	CA-C	6.13	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BZ	194	ALA	CA-C	-6.13	1.47	1.53
5	AC	80	ASN	N-CA	6.13	1.53	1.45
21	AV	73	SER	CA-C	6.13	1.61	1.52
25	BB	2794	C	C4'-O4'	-6.13	1.36	1.45
40	BQ	40	SER	N-CA	-6.13	1.38	1.46
55	B6	136	GLN	CA-C	6.13	1.60	1.52
25	BB	342	A	C2'-O2'	6.12	1.51	1.42
1	AE	70	C	C2'-O2'	6.12	1.51	1.42
15	AO	143	LEU	C-N	6.12	1.40	1.33
25	BB	1306	C	C5'-C4'	6.12	1.60	1.51
37	BN	141	HIS	CD2-NE2	6.12	1.44	1.37
3	A1	259	G	C1'-N9	6.12	1.57	1.48
3	A1	1366	C	O5'-C5'	-6.12	1.33	1.42
48	BY	83	ARG	CZ-NH2	-6.12	1.25	1.33
51	B2	53	ALA	N-CA	6.12	1.54	1.46
25	BB	1800	C	O4'-C1'	6.12	1.50	1.41
50	B1	93	SER	CA-C	6.12	1.60	1.52
1	AE	61	C	C2'-C1'	6.11	1.62	1.53
7	AF	90	HIS	CD2-NE2	6.11	1.44	1.37
25	BB	956	G	O4'-C1'	6.11	1.50	1.41
25	BB	2811	G	C1'-N9	6.11	1.57	1.48
13	AL	60	PHE	CA-C	6.11	1.60	1.52
25	BB	1913	A	C4'-O4'	-6.11	1.36	1.45
51	B2	109	ARG	CA-C	6.11	1.61	1.52
21	AV	116	ARG	CZ-NH2	-6.10	1.25	1.33
25	BB	827	U	C4'-O4'	-6.10	1.36	1.45
3	A1	56	U	C3'-C2'	6.10	1.61	1.52
24	BA	50	A	O5'-C5'	-6.10	1.33	1.42
25	BB	846	U	C4'-O4'	-6.10	1.36	1.45
25	BB	1349	C	C3'-O3'	-6.10	1.33	1.43
25	BB	2087	G	C5'-C4'	6.10	1.60	1.51
41	BR	45	GLY	CA-C	6.10	1.60	1.51
3	A1	1497	G	C2'-C1'	-6.10	1.44	1.53
35	BL	105	VAL	N-CA	6.10	1.53	1.46
17	AR	63	ILE	N-CA	6.10	1.53	1.46
25	BB	1875	G	O4'-C1'	6.10	1.50	1.41
3	A1	1513	A	C4'-C3'	6.10	1.61	1.52
25	BB	708	G	O5'-C5'	6.10	1.51	1.42
25	BB	2554	U	C5'-C4'	6.10	1.60	1.51
9	AH	41	HIS	ND1-CE1	6.09	1.38	1.32
22	AW	121	ARG	CZ-NH2	-6.09	1.25	1.33
25	BB	1501	G	C5'-C4'	6.09	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BL	46	LEU	CA-CB	6.09	1.62	1.53
25	BB	2197	U	O3'-P	-6.09	1.52	1.61
43	BT	15	ARG	CA-C	6.09	1.60	1.52
9	AH	76	ARG	CZ-NH2	-6.09	1.25	1.33
3	A1	134	G	O3'-P	-6.09	1.52	1.61
3	A1	289	G	O3'-P	-6.09	1.52	1.61
8	AG	59	GLN	CA-C	6.09	1.59	1.52
25	BB	1221	C	C2'-C1'	6.09	1.62	1.53
33	BJ	13	HIS	CA-C	6.09	1.58	1.52
34	BK	66	HIS	CE1-NE2	6.08	1.38	1.32
25	BB	1505	A	O3'-P	-6.08	1.52	1.61
3	A1	88	U	C5'-C4'	6.08	1.60	1.51
3	A1	999	C	C5'-C4'	6.08	1.60	1.51
15	AO	190	THR	N-CA	6.08	1.51	1.46
25	BB	452	G	C5'-C4'	6.08	1.60	1.51
25	BB	1021	A	O3'-P	-6.08	1.52	1.61
27	BD	105	ARG	CZ-NH1	-6.08	1.24	1.32
37	BN	4	LYS	N-CA	6.08	1.54	1.46
44	BU	37	LYS	N-CA	6.08	1.54	1.45
3	A1	712	A	O3'-P	-6.08	1.52	1.61
18	AS	19	ARG	CZ-NH2	-6.08	1.25	1.33
25	BB	1941	C	P-O5'	6.07	1.68	1.59
28	BE	58	TYR	N-CA	6.07	1.54	1.46
32	BI	18	SER	CA-C	6.07	1.59	1.52
3	A1	617	G	O3'-P	-6.07	1.52	1.61
3	A1	992	U	O3'-P	-6.07	1.52	1.61
49	BZ	213	VAL	CA-C	6.07	1.60	1.52
7	AF	52	ILE	N-CA	6.07	1.51	1.46
21	AV	74	ILE	N-CA	6.07	1.53	1.46
38	BO	82	VAL	N-CA	6.07	1.53	1.46
23	AX	44	THR	N-CA	6.06	1.53	1.46
25	BB	985	C	O4'-C1'	6.06	1.50	1.41
26	BC	90	ASP	CA-CB	6.06	1.60	1.52
3	A1	1405	G	C5'-C4'	6.06	1.60	1.51
47	BX	6	SER	N-CA	6.06	1.54	1.46
25	BB	119	A	C5'-C4'	6.06	1.60	1.51
25	BB	975	A	P-O5'	6.06	1.68	1.59
25	BB	1850	G	C3'-C2'	6.06	1.61	1.52
36	BM	64	LYS	N-CA	6.06	1.53	1.46
52	B3	47	ASN	CA-C	6.06	1.60	1.52
5	AC	66	ALA	CA-C	6.06	1.60	1.52
25	BB	607	U	C5'-C4'	6.05	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	1114	C	C5'-C4'	6.05	1.60	1.51
25	BB	1347	A	C4'-O4'	-6.05	1.36	1.45
25	BB	1970	A	C3'-C2'	6.05	1.62	1.52
31	BH	31	THR	CA-C	6.05	1.60	1.52
25	BB	2125	G	C2'-O2'	6.05	1.50	1.41
25	BB	1089	A	P-O5'	6.05	1.68	1.59
32	BI	56	SER	CA-CB	6.05	1.63	1.53
25	BB	2031	A	C2'-C1'	6.05	1.62	1.53
28	BE	36	LYS	N-CA	6.05	1.53	1.46
25	BB	2314	A	C4'-C3'	6.04	1.61	1.52
4	AB	147	LEU	N-CA	6.04	1.54	1.45
24	BA	85	G	C4'-O4'	-6.04	1.36	1.45
25	BB	2550	G	P-O5'	6.04	1.68	1.59
25	BB	2626	C	O3'-P	-6.04	1.52	1.61
27	BD	64	ARG	N-CA	6.04	1.53	1.46
29	BF	46	ILE	N-CA	6.04	1.53	1.46
25	BB	2627	G	O3'-P	-6.04	1.52	1.61
29	BF	3	GLN	CA-C	6.04	1.60	1.52
25	BB	2373	G	C5'-C4'	6.04	1.60	1.51
1	AP	64	A	C2'-C1'	6.03	1.62	1.53
11	AJ	68	LYS	N-CA	6.03	1.53	1.46
25	BB	1087	G	C2'-O2'	-6.03	1.33	1.42
8	AG	64	ARG	CZ-NH2	-6.03	1.25	1.33
53	B4	106	ALA	CA-C	6.03	1.62	1.52
3	A1	860	A	P-O5'	6.03	1.68	1.59
23	AX	31	ARG	CZ-NH2	-6.03	1.25	1.33
32	BI	92	ARG	CD-NE	6.03	1.54	1.46
1	AA	62	A	O3'-P	-6.03	1.52	1.61
25	BB	798	G	C5'-C4'	6.03	1.60	1.51
25	BB	2653	U	C3'-C2'	6.03	1.61	1.52
29	BF	66	ARG	NE-CZ	-6.03	1.26	1.33
3	A1	641	U	C4'-C3'	6.03	1.62	1.53
30	BG	90	ARG	NE-CZ	-6.03	1.26	1.33
49	BZ	55	PRO	CA-C	6.03	1.61	1.52
3	A1	1407	C	O3'-P	6.02	1.70	1.61
5	AC	29	THR	N-CA	6.02	1.53	1.46
25	BB	2471	A	C2'-O2'	6.02	1.50	1.41
5	AC	41	LEU	CA-C	6.02	1.60	1.52
53	B4	128	HIS	CD2-NE2	6.02	1.44	1.37
25	BB	523	C	C4'-O4'	-6.02	1.36	1.45
25	BB	2146	C	O4'-C1'	6.02	1.50	1.42
55	B6	116	ARG	CZ-NH2	-6.02	1.25	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	AD	13	ARG	CZ-NH2	-6.02	1.25	1.33
25	BB	982	C	O3'-P	-6.02	1.52	1.61
6	AD	48	LEU	CA-C	6.02	1.60	1.52
25	BB	1612	C	C4'-O4'	-6.01	1.36	1.45
25	BB	407	G	C4'-C3'	6.01	1.62	1.53
3	A1	1494	G	C4'-O4'	-6.01	1.36	1.45
25	BB	619	G	C4'-O4'	-6.01	1.36	1.45
3	A1	371	A	P-O5'	-6.01	1.50	1.59
25	BB	890	C	C5'-C4'	6.01	1.60	1.51
25	BB	1330	C	C1'-N1	6.01	1.57	1.48
32	BI	85	VAL	CA-C	6.01	1.60	1.53
33	BJ	5	ARG	N-CA	6.01	1.53	1.46
39	BP	52	CYS	N-CA	6.01	1.54	1.46
1	AA	67	A	C4'-O4'	-6.00	1.36	1.45
25	BB	2901	C	C4'-O4'	-6.00	1.36	1.45
52	B3	59	ASP	CA-C	6.00	1.60	1.52
3	A1	612	C	O5'-C5'	6.00	1.51	1.42
9	AH	35	ILE	N-CA	6.00	1.53	1.46
23	AX	32	THR	CA-C	6.00	1.60	1.52
25	BB	782	A	O3'-P	-6.00	1.52	1.61
25	BB	2401	U	O3'-P	-6.00	1.52	1.61
3	A1	671	G	C3'-C2'	6.00	1.61	1.52
27	BD	30	ARG	CA-C	6.00	1.60	1.52
33	BJ	2	ARG	CZ-NH2	-6.00	1.25	1.33
41	BR	49	ALA	CA-C	6.00	1.60	1.52
43	BT	24	VAL	N-CA	6.00	1.53	1.46
25	BB	47	C	O4'-C1'	6.00	1.50	1.41
25	BB	110	G	C5'-C4'	6.00	1.60	1.51
25	BB	974	G	O4'-C1'	6.00	1.50	1.41
25	BB	1372	U	P-O5'	6.00	1.68	1.59
3	A1	1285	A	O3'-P	5.99	1.70	1.61
3	A1	1482	G	C5'-C4'	5.99	1.60	1.51
37	BN	129	LEU	CA-C	5.99	1.59	1.52
54	B5	59	THR	CA-CB	5.99	1.60	1.52
43	BT	12	ARG	CZ-NH1	-5.99	1.24	1.32
3	A1	358	U	C1'-N1	5.99	1.56	1.47
25	BB	2034	U	P-O5'	-5.99	1.50	1.59
25	BB	2343	U	C3'-C2'	5.99	1.61	1.52
25	BB	1468	U	C2'-C1'	5.99	1.62	1.53
24	BA	105	G	O3'-P	-5.99	1.52	1.61
25	BB	140	C	O3'-P	-5.99	1.52	1.61
31	BH	9	ARG	CZ-NH1	-5.99	1.24	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	853	C	C4'-O4'	-5.98	1.36	1.45
18	AS	35	LEU	CA-C	5.98	1.59	1.52
25	BB	1181	U	C2'-C1'	5.98	1.62	1.53
48	BY	145	SER	N-CA	5.98	1.53	1.46
1	AE	9	A	O3'-P	-5.98	1.52	1.61
3	A1	1221	G	P-O5'	5.98	1.68	1.59
6	AD	58	ASN	CA-C	5.98	1.61	1.52
25	BB	1484	U	C2'-O2'	5.98	1.51	1.42
25	BB	2768	U	O3'-P	-5.98	1.52	1.61
3	A1	257	G	C2'-O2'	5.98	1.51	1.42
23	AX	18	ILE	C-N	5.98	1.41	1.33
15	AO	20	THR	CA-C	5.98	1.59	1.52
25	BB	161	A	C3'-C2'	5.98	1.61	1.52
7	AF	53	ASP	CA-C	5.97	1.60	1.52
25	BB	823	C	C2'-C1'	5.97	1.62	1.53
25	BB	897	C	C4'-O4'	-5.97	1.36	1.45
25	BB	1608	A	C3'-C2'	5.97	1.61	1.52
25	BB	2112	G	C5'-C4'	5.97	1.60	1.51
39	BP	40	ARG	CZ-NH2	-5.97	1.25	1.33
51	B2	60	SER	CA-C	5.97	1.59	1.52
1	AA	54	U	O3'-P	-5.97	1.52	1.61
25	BB	920	A	C3'-C2'	5.97	1.61	1.52
25	BB	2172	U	O3'-P	-5.97	1.52	1.61
37	BN	229	HIS	ND1-CE1	5.97	1.38	1.32
25	BB	386	G	C5'-C4'	5.97	1.60	1.51
25	BB	1619	G	P-O5'	-5.97	1.50	1.59
25	BB	1778	U	C2'-C1'	5.97	1.62	1.53
53	B4	12	LEU	C-N	5.97	1.39	1.33
27	BD	29	HIS	CB-CG	5.97	1.58	1.50
36	BM	95	PHE	CA-C	5.97	1.59	1.52
3	A1	446	G	O5'-C5'	5.96	1.51	1.42
17	AR	77	GLU	CA-C	-5.96	1.44	1.52
48	BY	21	SER	CA-CB	-5.96	1.44	1.53
3	A1	1191	A	C1'-N9	5.96	1.56	1.48
14	AN	2	ASN	C-N	5.96	1.40	1.33
52	B3	169	ARG	CA-C	5.96	1.59	1.52
24	BA	45	A	O3'-P	-5.96	1.52	1.61
3	A1	1142	G	C2'-O2'	5.96	1.51	1.42
18	AS	120	HIS	CB-CG	5.96	1.58	1.50
54	B5	4	VAL	CA-CB	5.96	1.62	1.54
25	BB	2452	C	C5'-C4'	5.96	1.60	1.51
42	BS	60	PHE	CA-C	5.96	1.59	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
50	B1	170	ARG	N-CA	5.96	1.53	1.46
25	BB	1384	A	C1'-N9	5.96	1.55	1.47
5	AC	84	MET	CA-CB	5.96	1.62	1.53
25	BB	1132	U	P-O5'	-5.95	1.50	1.59
53	B4	127	GLU	C-O	5.95	1.31	1.23
16	AQ	6	ARG	CZ-NH2	-5.95	1.25	1.33
6	AD	39	THR	CA-C	5.95	1.60	1.52
25	BB	556	A	C4'-O4'	-5.95	1.36	1.45
25	BB	758	C	C4'-O4'	-5.95	1.36	1.45
25	BB	1916	A	N7-C5	5.95	1.51	1.39
35	BL	10	ALA	N-CA	5.95	1.53	1.46
1	AE	1	G	C4'-O4'	-5.95	1.36	1.45
25	BB	1178	C	O4'-C1'	5.95	1.50	1.41
3	A1	1262	C	C3'-C2'	5.94	1.61	1.52
48	BY	196	ALA	CA-C	5.94	1.60	1.52
18	AS	87	VAL	N-CA	5.94	1.53	1.46
25	BB	1250	G	C2'-C1'	-5.94	1.44	1.53
27	BD	49	ARG	CZ-NH2	-5.94	1.25	1.33
29	BF	10	ARG	CZ-NH2	-5.94	1.25	1.33
50	B1	148	ILE	CA-CB	5.94	1.62	1.54
3	A1	415	A	O4'-C1'	-5.94	1.32	1.41
8	AG	12	ARG	CZ-NH2	-5.94	1.25	1.33
15	AO	113	LYS	N-CA	5.94	1.53	1.46
25	BB	1835	G	C2-N2	-5.94	1.22	1.34
30	BG	39	PRO	N-CD	-5.94	1.39	1.47
55	B6	99	ARG	CD-NE	5.94	1.54	1.46
25	BB	271	G	C4'-O4'	-5.94	1.36	1.45
25	BB	963	U	O3'-P	5.94	1.70	1.61
25	BB	1087	G	C1'-N9	5.93	1.56	1.48
3	A1	193	C	P-O5'	-5.93	1.50	1.59
3	A1	664	G	C4'-O4'	-5.93	1.36	1.45
3	A1	958	A	P-O5'	-5.93	1.50	1.59
25	BB	1267	U	P-O5'	5.93	1.68	1.59
25	BB	2597	G	P-O5'	-5.93	1.50	1.59
25	BB	2447	G	O3'-P	-5.93	1.52	1.61
22	AW	84	ARG	NE-CZ	-5.93	1.26	1.33
25	BB	651	G	C3'-O3'	5.93	1.51	1.42
33	BJ	63	ARG	CZ-NH2	-5.93	1.25	1.33
49	BZ	58	PRO	CA-CB	5.93	1.62	1.53
25	BB	2362	C	C3'-C2'	5.93	1.61	1.52
27	BD	55	GLY	CA-C	5.93	1.60	1.51
10	AI	41	PRO	N-CA	-5.92	1.39	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	AS	151	MET	N-CA	5.92	1.53	1.46
25	BB	1207	C	O3'-P	-5.92	1.52	1.61
1	AE	5	A	C4'-O4'	-5.92	1.36	1.45
3	A1	1159	U	C3'-C2'	5.92	1.61	1.52
25	BB	657	U	C3'-C2'	5.92	1.61	1.52
25	BB	792	A	C1'-N9	5.92	1.55	1.47
25	BB	1350	C	C5'-C4'	5.92	1.60	1.51
3	A1	475	C	C3'-O3'	5.92	1.51	1.42
25	BB	567	U	C4'-O4'	-5.92	1.36	1.45
25	BB	1174	U	O4'-C1'	5.92	1.50	1.41
25	BB	421	C	C5'-C4'	5.92	1.60	1.51
38	BO	93	ARG	CZ-NH1	-5.92	1.24	1.32
3	A1	439	U	C2'-O2'	5.92	1.51	1.42
3	A1	939	G	C4'-C3'	-5.92	1.43	1.52
4	AB	183	PHE	N-CA	5.92	1.53	1.46
25	BB	2393	U	C3'-C2'	5.92	1.61	1.52
45	BV	16	HIS	C-N	5.92	1.37	1.33
36	BM	37	ASP	CA-C	5.92	1.61	1.52
24	BA	99	A	C4'-C3'	5.91	1.61	1.52
49	BZ	144	ILE	CA-CB	5.91	1.61	1.54
24	BA	31	C	C1'-N1	5.91	1.57	1.48
1	AE	18	G	C2'-O2'	5.91	1.50	1.41
5	AC	19	VAL	N-CA	5.91	1.53	1.46
25	BB	458	G	O3'-P	-5.91	1.52	1.61
25	BB	1938	A	C4'-O4'	-5.91	1.36	1.45
25	BB	786	C	P-O5'	-5.91	1.50	1.59
25	BB	1370	C	P-O5'	5.91	1.68	1.59
21	AV	56	PRO	CA-C	5.91	1.59	1.52
25	BB	656	G	O4'-C1'	-5.91	1.32	1.41
3	A1	412	A	P-O5'	-5.90	1.50	1.59
3	A1	1457	G	C1'-N9	-5.90	1.39	1.48
50	B1	146	VAL	CA-CB	-5.90	1.48	1.54
3	A1	338	A	C5'-C4'	5.90	1.60	1.51
21	AV	48	PHE	N-CA	5.90	1.53	1.45
3	A1	305	G	C4'-O4'	-5.90	1.37	1.45
25	BB	2408	U	O3'-P	-5.90	1.52	1.61
29	BF	50	ARG	CZ-NH2	-5.90	1.25	1.33
25	BB	1896	G	C3'-C2'	5.90	1.61	1.52
25	BB	2204	G	P-O5'	-5.89	1.50	1.59
25	BB	2742	G	O3'-P	-5.89	1.52	1.61
32	BI	88	ARG	CZ-NH1	-5.89	1.24	1.32
40	BQ	35	GLY	CA-C	5.89	1.57	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	1218	C	O3'-P	-5.89	1.52	1.61
9	AH	34	GLN	N-CA	5.89	1.53	1.46
25	BB	2749	A	C3'-O3'	5.89	1.50	1.42
40	BQ	7	ARG	CZ-NH2	-5.89	1.25	1.33
25	BB	940	G	C3'-C2'	5.89	1.61	1.52
35	BL	24	ILE	N-CA	5.89	1.54	1.46
3	A1	471	U	C4'-O4'	-5.89	1.36	1.45
25	BB	2693	G	O3'-P	-5.89	1.52	1.61
39	BP	45	HIS	ND1-CE1	5.89	1.38	1.32
25	BB	1237	A	C4'-C3'	5.89	1.61	1.53
24	BA	114	C	P-O5'	-5.89	1.50	1.59
25	BB	247	G	C4'-O4'	-5.89	1.37	1.45
25	BB	2508	G	O3'-P	-5.89	1.52	1.61
51	B2	17	THR	CB-OG1	-5.89	1.34	1.43
7	AF	72	ILE	N-CA	5.88	1.54	1.46
19	AT	56	LYS	CA-C	5.88	1.59	1.52
25	BB	2786	U	C4'-C3'	5.88	1.61	1.52
3	A1	1438	G	O4'-C1'	5.88	1.50	1.41
28	BE	97	ALA	CA-CB	5.88	1.62	1.53
34	BK	41	ILE	CA-CB	5.88	1.62	1.54
23	AX	78	GLU	CA-CB	5.88	1.61	1.53
25	BB	2170	A	O5'-C5'	5.88	1.51	1.42
4	AB	147	LEU	CA-C	5.87	1.60	1.52
22	AW	8	THR	N-CA	5.87	1.53	1.45
1	AE	44	A	O3'-P	-5.87	1.52	1.61
26	BC	85	LYS	CA-C	5.87	1.61	1.52
51	B2	130	GLY	N-CA	5.87	1.53	1.45
55	B6	9	GLU	N-CA	5.87	1.53	1.46
25	BB	2720	U	C4'-O4'	-5.87	1.37	1.45
23	AX	30	LYS	N-CA	5.87	1.53	1.46
33	BJ	70	GLN	N-CA	5.87	1.53	1.46
52	B3	144	ALA	CA-C	5.87	1.60	1.52
25	BB	521	U	O3'-P	-5.86	1.52	1.61
25	BB	2291	U	C2'-O2'	5.86	1.51	1.42
37	BN	149	LYS	CA-C	5.86	1.60	1.52
42	BS	19	GLY	CA-C	5.86	1.61	1.52
25	BB	977	G	O4'-C1'	5.86	1.50	1.41
25	BB	1875	G	C4'-C3'	5.86	1.61	1.52
22	AW	23	GLY	N-CA	5.86	1.53	1.45
25	BB	213	A	O5'-C5'	-5.86	1.34	1.42
54	B5	68	PHE	CA-C	5.86	1.59	1.52
25	BB	116	C	O4'-C1'	5.85	1.50	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	BS	59	ARG	CZ-NH2	-5.85	1.25	1.33
19	AT	67	PRO	N-CD	5.85	1.55	1.47
29	BF	49	ALA	CA-C	5.85	1.60	1.52
3	A1	280	C	P-O5'	-5.85	1.50	1.59
3	A1	1248	A	C5'-C4'	5.85	1.60	1.51
17	AR	69	ARG	CZ-NH2	-5.85	1.25	1.33
55	B6	87	ALA	C-N	5.85	1.41	1.33
3	A1	585	G	C4'-O4'	-5.85	1.36	1.45
3	A1	655	A	O3'-P	-5.85	1.52	1.61
25	BB	1661	G	O3'-P	5.85	1.70	1.61
25	BB	2113	U	C5'-C4'	5.85	1.60	1.51
30	BG	44	LEU	CA-CB	5.84	1.62	1.53
52	B3	58	ALA	CA-C	5.84	1.61	1.52
3	A1	852	G	C3'-C2'	-5.84	1.44	1.52
15	AO	139	ASN	N-CA	5.84	1.53	1.46
21	AV	4	ASP	CA-C	5.84	1.59	1.52
33	BJ	99	VAL	N-CA	5.84	1.53	1.46
15	AO	64	ARG	CZ-NH2	-5.84	1.25	1.33
15	AO	87	ARG	NE-CZ	-5.84	1.26	1.33
25	BB	1569	A	C5'-C4'	5.84	1.60	1.51
28	BE	22	GLY	CA-C	5.84	1.60	1.51
3	A1	874	G	C2-N2	-5.84	1.22	1.34
25	BB	708	G	C5'-C4'	5.84	1.60	1.51
25	BB	944	C	C2'-C1'	-5.84	1.44	1.53
25	BB	1099	G	C2'-C1'	5.84	1.62	1.53
25	BB	2153	C	O5'-C5'	-5.84	1.33	1.42
51	B2	53	ALA	CA-C	5.84	1.61	1.52
25	BB	841	G	C4'-C3'	5.84	1.61	1.52
25	BB	2795	C	C5'-C4'	5.84	1.60	1.51
29	BF	14	LYS	CA-C	5.84	1.60	1.52
3	A1	1532	U	C4'-O4'	-5.84	1.36	1.45
20	AU	64	ALA	CA-C	5.84	1.59	1.52
25	BB	185	G	O4'-C1'	5.84	1.50	1.41
53	B4	52	ALA	CA-C	5.84	1.60	1.52
1	AP	63	C	C3'-O3'	-5.83	1.33	1.42
25	BB	1478	G	C4'-C3'	5.83	1.61	1.52
1	AA	75	C	C3'-C2'	5.83	1.61	1.52
3	A1	48	C	C5'-C4'	5.83	1.60	1.51
3	A1	339	C	O3'-P	-5.83	1.52	1.61
3	A1	1067	A	C2'-O2'	5.83	1.50	1.41
25	BB	2433	A	C1'-N9	5.83	1.55	1.47
25	BB	2522	U	C5'-C4'	5.83	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	77	A	C2'-O2'	5.83	1.51	1.42
22	AW	26	LYS	CA-CB	5.83	1.63	1.53
25	BB	595	C	C4-N4	-5.83	1.22	1.33
25	BB	2057	G	C5'-C4'	5.83	1.59	1.51
25	BB	2223	G	C1'-N9	5.83	1.56	1.48
30	BG	102	PHE	CA-C	5.83	1.60	1.52
37	BN	11	GLY	CA-C	5.83	1.60	1.51
25	BB	2068	U	O3'-P	-5.83	1.52	1.61
3	A1	301	G	C3'-O3'	5.82	1.50	1.42
5	AC	52	ARG	N-CA	5.82	1.53	1.46
5	AC	58	THR	N-CA	5.82	1.51	1.45
5	AC	61	ALA	CA-CB	5.82	1.62	1.53
11	AJ	10	ARG	CD-NE	5.82	1.54	1.46
22	AW	64	ILE	N-CA	5.82	1.52	1.46
45	BV	23	ALA	C-N	-5.82	1.25	1.33
1	AP	33	U	C4'-O4'	-5.82	1.36	1.45
25	BB	678	C	C5'-C4'	5.82	1.59	1.51
25	BB	750	A	O3'-P	-5.82	1.52	1.61
25	BB	1914	C	C3'-C2'	5.82	1.61	1.52
3	A1	20	U	O3'-P	-5.82	1.52	1.61
41	BR	15	ARG	CZ-NH2	-5.82	1.25	1.33
4	AB	27	LYS	CA-C	5.82	1.59	1.52
9	AH	87	ARG	CA-C	5.82	1.60	1.52
18	AS	64	GLU	N-CA	5.82	1.53	1.46
32	BI	33	GLU	C-N	5.82	1.40	1.32
18	AS	130	THR	N-CA	5.81	1.52	1.46
26	BC	93	ARG	CZ-NH1	-5.81	1.24	1.32
3	A1	1052	U	O5'-C5'	5.81	1.51	1.42
25	BB	1023	U	O3'-P	-5.81	1.52	1.61
13	AL	27	LYS	CA-CB	5.81	1.62	1.53
18	AS	15	ILE	CA-C	5.81	1.60	1.52
24	BA	38	C	C4-N4	-5.81	1.22	1.33
25	BB	475	C	C1'-N1	5.81	1.57	1.48
25	BB	561	G	C5'-C4'	5.81	1.59	1.51
25	BB	1992	G	O3'-P	-5.81	1.52	1.61
46	BW	12	ARG	CZ-NH1	-5.81	1.24	1.32
50	B1	37	ALA	CA-C	5.81	1.59	1.52
3	A1	659	U	C4'-C3'	5.81	1.61	1.52
35	BL	37	THR	CB-OG1	-5.81	1.34	1.43
38	BO	66	VAL	N-CA	5.81	1.53	1.46
46	BW	58	ILE	CA-C	5.81	1.60	1.52
25	BB	1172	C	C4'-C3'	5.81	1.61	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	AA	34	G	C5'-C4'	5.80	1.59	1.51
3	A1	348	G	O3'-P	-5.80	1.52	1.61
3	A1	589	U	C1'-N1	5.80	1.56	1.47
25	BB	996	A	O5'-C5'	5.80	1.51	1.42
41	BR	6	ILE	C-O	-5.80	1.18	1.23
49	BZ	60	LYS	N-CA	5.80	1.53	1.46
14	AN	10	ALA	CA-C	5.80	1.60	1.52
25	BB	2765	A	C4'-C3'	5.80	1.61	1.53
25	BB	1747	U	C4'-O4'	-5.80	1.36	1.45
31	BH	34	HIS	CD2-NE2	5.80	1.44	1.37
3	A1	242	G	O5'-C5'	5.80	1.51	1.42
25	BB	179	C	C4'-O4'	-5.80	1.36	1.45
25	BB	600	G	O3'-P	-5.80	1.52	1.61
48	BY	177	VAL	N-CA	5.80	1.53	1.46
3	A1	1254	A	C4'-O4'	-5.80	1.36	1.45
23	AX	48	ARG	CD-NE	5.80	1.54	1.46
41	BR	11	SER	C-N	5.80	1.41	1.33
52	B3	57	TYR	N-CA	5.80	1.53	1.46
3	A1	295	C	C3'-O3'	5.80	1.50	1.42
3	A1	509	A	O3'-P	-5.80	1.52	1.61
3	A1	1480	A	C5'-C4'	5.80	1.60	1.51
52	B3	114	HIS	CE1-NE2	5.80	1.38	1.32
3	A1	1482	G	C4'-C3'	5.79	1.61	1.53
3	A1	317	U	C5'-C4'	5.79	1.59	1.51
6	AD	121	PRO	N-CD	-5.79	1.39	1.47
3	A1	602	A	C4'-O4'	-5.79	1.36	1.45
25	BB	1342	A	O3'-P	-5.79	1.52	1.61
29	BF	129	THR	CA-C	5.79	1.59	1.52
3	A1	553	A	O5'-C5'	5.79	1.51	1.42
25	BB	117	G	C4'-O4'	-5.79	1.37	1.45
10	AI	32	PHE	N-CA	5.79	1.53	1.45
25	BB	951	C	C3'-O3'	5.79	1.50	1.42
25	BB	1727	C	P-O5'	5.79	1.68	1.59
25	BB	1908	C	O3'-P	-5.79	1.52	1.61
25	BB	2175	C	C3'-O3'	-5.79	1.33	1.42
37	BN	124	LYS	N-CA	5.79	1.53	1.45
25	BB	1370	C	C5'-C4'	5.79	1.59	1.51
21	AV	70	VAL	CA-C	-5.79	1.44	1.52
27	BD	71	ARG	CZ-NH2	-5.79	1.25	1.33
28	BE	91	ASP	N-CA	5.79	1.53	1.46
25	BB	1876	A	C4'-O4'	-5.78	1.36	1.45
1	AP	68	U	C3'-O3'	-5.78	1.33	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	623	C	C5'-C4'	5.78	1.59	1.51
25	BB	238	C	O3'-P	-5.78	1.52	1.61
25	BB	1078	U	O5'-C5'	5.78	1.51	1.42
4	AB	65	LYS	N-CA	5.78	1.53	1.46
4	AB	159	ALA	N-CA	5.78	1.53	1.46
3	A1	266	G	C4'-O4'	-5.77	1.36	1.45
25	BB	2520	C	O3'-P	-5.77	1.52	1.61
3	A1	1012	A	C4'-O4'	-5.77	1.36	1.45
3	A1	1470	U	C1'-N1	5.77	1.56	1.47
9	AH	36	ASN	C-N	5.77	1.41	1.33
19	AT	48	ALA	N-CA	5.77	1.53	1.46
25	BB	1331	G	C4'-O4'	-5.77	1.36	1.45
49	BZ	135	PRO	N-CA	-5.77	1.41	1.46
51	B2	160	LYS	N-CA	5.77	1.53	1.46
52	B3	86	LEU	N-CA	5.77	1.53	1.46
52	B3	134	GLY	N-CA	5.77	1.51	1.45
3	A1	1417	G	C4'-O4'	-5.77	1.37	1.45
3	A1	1533	C	C5'-C4'	5.77	1.60	1.51
25	BB	1098	A	P-O5'	-5.77	1.51	1.59
25	BB	1988	G	C5'-C4'	5.77	1.59	1.51
26	BC	19	ARG	NE-CZ	-5.77	1.26	1.33
43	BT	19	ASP	N-CA	5.77	1.54	1.46
12	AK	33	THR	N-CA	5.77	1.53	1.45
20	AU	95	ARG	CZ-NH2	-5.77	1.25	1.33
22	AW	37	TYR	CA-C	5.77	1.60	1.52
25	BB	2138	G	O3'-P	-5.77	1.52	1.61
25	BB	2397	G	P-O5'	5.77	1.68	1.59
25	BB	2864	G	C5'-C4'	5.77	1.59	1.51
3	A1	177	G	C3'-O3'	5.77	1.50	1.42
7	AF	6	ILE	C-O	5.76	1.30	1.24
18	AS	53	ARG	CZ-NH2	-5.76	1.25	1.33
25	BB	1231	U	C1'-N1	5.76	1.57	1.48
26	BC	56	PHE	CA-C	5.76	1.60	1.52
31	BH	33	ARG	NE-CZ	-5.76	1.26	1.33
1	AA	18	G	C1'-N9	-5.76	1.38	1.47
8	AG	84	ARG	CZ-NH2	-5.76	1.25	1.33
25	BB	146	A	C4'-O4'	-5.76	1.36	1.45
25	BB	1428	C	O4'-C1'	5.76	1.50	1.42
26	BC	8	VAL	CA-C	5.76	1.58	1.52
37	BN	148	GLY	CA-C	5.76	1.60	1.51
3	A1	1343	G	C4'-O4'	-5.76	1.36	1.45
17	AR	148	ALA	CA-C	5.76	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BZ	30	VAL	CA-C	5.76	1.59	1.52
3	A1	622	A	C5'-C4'	5.76	1.59	1.51
52	B3	165	ASP	CA-CB	5.76	1.63	1.53
54	B5	8	VAL	CA-C	5.76	1.60	1.52
36	BM	7	LEU	N-CA	5.76	1.53	1.46
11	AJ	42	LYS	CA-CB	5.76	1.59	1.52
25	BB	2325	G	C3'-C2'	5.76	1.61	1.52
25	BB	2486	C	C5'-C4'	5.76	1.59	1.51
25	BB	2526	G	C5'-C4'	5.76	1.59	1.51
53	B4	14	SER	N-CA	5.76	1.53	1.46
3	A1	1226	C	O5'-C5'	-5.75	1.33	1.42
25	BB	532	A	C3'-C2'	5.75	1.61	1.52
44	BU	11	VAL	CA-CB	5.75	1.60	1.53
3	A1	877	G	C5'-C4'	5.75	1.59	1.51
18	AS	158	LYS	N-CA	5.75	1.57	1.46
25	BB	846	U	O4'-C1'	5.75	1.50	1.41
25	BB	2790	U	O5'-C5'	-5.75	1.33	1.42
33	BJ	17	LEU	N-CA	5.75	1.53	1.46
49	BZ	45	ASP	N-CA	5.75	1.53	1.46
3	A1	1055	A	P-O5'	5.75	1.68	1.59
3	A1	1404	C	O4'-C1'	5.75	1.50	1.41
25	BB	2487	G	C4'-O4'	-5.75	1.36	1.45
25	BB	2509	G	P-O5'	5.75	1.68	1.59
43	BT	9	ARG	CZ-NH1	-5.75	1.24	1.32
55	B6	33	ALA	CA-CB	-5.75	1.43	1.53
3	A1	1213	A	P-O5'	5.75	1.68	1.59
25	BB	828	U	P-O5'	-5.75	1.51	1.59
25	BB	1004	U	C4'-C3'	5.75	1.61	1.52
25	BB	2535	G	C3'-C2'	5.75	1.61	1.52
32	BI	71	ARG	N-CA	5.75	1.53	1.46
28	BE	20	GLY	CA-C	5.75	1.62	1.52
52	B3	52	GLY	N-CA	5.75	1.52	1.44
3	A1	1266	G	C3'-O3'	5.75	1.50	1.42
25	BB	570	G	C2'-C1'	-5.75	1.44	1.53
9	AH	84	LEU	C-O	5.74	1.31	1.24
25	BB	1962	C	C5'-C4'	5.74	1.59	1.51
53	B4	5	LEU	CB-CG	5.74	1.65	1.53
3	A1	581	G	P-O5'	5.74	1.68	1.59
20	AU	41	ILE	N-CA	5.74	1.53	1.46
25	BB	2535	G	P-O5'	5.74	1.68	1.59
32	BI	75	THR	N-CA	5.74	1.53	1.45
36	BM	76	ARG	CD-NE	-5.74	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	1701	A	C5'-C4'	5.74	1.59	1.51
3	A1	1147	C	C3'-C2'	5.74	1.61	1.52
25	BB	2136	G	C2-N2	-5.74	1.23	1.34
28	BE	59	ARG	N-CA	5.74	1.53	1.46
6	AD	71	HIS	CA-C	5.74	1.60	1.52
15	AO	39	ARG	C-N	5.74	1.41	1.33
17	AR	62	ARG	CZ-NH2	-5.74	1.25	1.33
25	BB	83	A	C1'-N9	5.74	1.55	1.47
30	BG	46	ARG	CZ-NH2	-5.74	1.25	1.33
49	BZ	40	ASP	N-CA	-5.74	1.38	1.45
25	BB	1552	A	O5'-C5'	5.73	1.51	1.42
3	A1	556	C	C5'-C4'	5.73	1.59	1.51
7	AF	90	HIS	ND1-CE1	5.73	1.38	1.32
15	AO	42	LEU	N-CA	5.73	1.52	1.46
25	BB	1285	A	O3'-P	-5.73	1.52	1.61
31	BH	78	VAL	N-CA	5.73	1.53	1.46
50	B1	163	ASN	N-CA	5.73	1.53	1.46
52	B3	147	LEU	CA-C	5.73	1.60	1.52
9	AH	39	GLN	N-CA	5.73	1.53	1.46
15	AO	143	LEU	CA-C	5.73	1.60	1.52
25	BB	977	G	C5'-C4'	5.73	1.59	1.51
25	BB	1963	U	C5'-C4'	5.73	1.59	1.51
26	BC	80	HIS	ND1-CE1	5.73	1.38	1.32
49	BZ	189	ALA	C-O	-5.73	1.17	1.24
3	A1	1436	U	O3'-P	-5.73	1.52	1.61
3	A1	1469	C	C4'-O4'	-5.73	1.36	1.45
25	BB	217	A	O3'-P	-5.73	1.52	1.61
25	BB	1344	U	C4'-C3'	5.73	1.61	1.52
3	A1	121	U	C2'-C1'	5.73	1.61	1.53
22	AW	81	GLY	CA-C	5.73	1.59	1.51
25	BB	756	A	P-O5'	5.73	1.68	1.59
39	BP	77	LYS	CA-C	5.73	1.60	1.52
47	BX	17	VAL	CA-C	5.73	1.60	1.52
50	B1	29	HIS	CD2-NE2	5.73	1.44	1.37
3	A1	71	A	O5'-C5'	-5.72	1.34	1.42
3	A1	514	C	O3'-P	-5.72	1.52	1.61
29	BF	9	PHE	C-O	-5.72	1.16	1.24
41	BR	29	ARG	N-CA	5.72	1.53	1.46
3	A1	8	A	C4'-C3'	5.72	1.61	1.53
18	AS	127	TYR	CA-C	5.72	1.60	1.52
3	A1	86	G	C5'-C4'	5.72	1.59	1.51
5	AC	58	THR	C-O	5.72	1.29	1.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
20	AU	18	GLY	CA-C	-5.72	1.44	1.51
25	BB	1688	U	O4'-C1'	-5.72	1.33	1.41
33	BJ	5	ARG	CZ-NH2	-5.72	1.26	1.33
25	BB	1069	A	C3'-O3'	-5.72	1.34	1.43
25	BB	974	G	O3'-P	-5.72	1.52	1.61
25	BB	2179	C	C1'-N1	5.72	1.57	1.48
3	A1	366	A	O3'-P	-5.71	1.52	1.61
3	A1	1396	A	O4'-C1'	5.71	1.50	1.42
3	A1	1464	U	C3'-C2'	5.71	1.61	1.52
23	AX	13	PHE	CA-C	5.71	1.60	1.52
24	BA	117	G	C3'-C2'	5.71	1.61	1.52
25	BB	190	A	C5'-C4'	5.71	1.59	1.51
25	BB	579	G	C1'-N9	5.71	1.56	1.48
46	BW	39	ARG	CA-C	5.71	1.59	1.52
3	A1	148	G	C1'-N9	5.71	1.56	1.48
37	BN	10	PRO	CA-C	5.71	1.59	1.52
20	AU	31	VAL	CA-C	5.71	1.59	1.52
25	BB	1366	A	C2'-O2'	5.71	1.51	1.42
25	BB	1623	G	C3'-C2'	5.71	1.61	1.52
26	BC	26	PHE	N-CA	5.71	1.53	1.45
48	BY	103	ASP	N-CA	5.71	1.53	1.45
1	AP	27	C	C3'-C2'	5.71	1.61	1.52
3	A1	38	G	C5'-C4'	5.71	1.59	1.51
3	A1	887	G	C4'-O4'	-5.71	1.36	1.45
53	B4	60	GLU	N-CA	5.71	1.53	1.46
25	BB	1339	G	C4'-O4'	-5.71	1.36	1.45
32	BI	64	SER	N-CA	5.71	1.54	1.46
39	BP	40	ARG	CZ-NH1	-5.71	1.24	1.32
53	B4	97	ARG	CA-CB	5.71	1.63	1.53
3	A1	178	C	P-O5'	-5.70	1.51	1.59
18	AS	19	ARG	NE-CZ	-5.70	1.26	1.33
25	BB	637	A	C3'-O3'	-5.70	1.34	1.43
33	BJ	91	ARG	CZ-NH2	-5.70	1.26	1.33
49	BZ	82	LYS	CA-C	5.70	1.60	1.52
3	A1	980	C	C5'-C4'	5.70	1.59	1.51
17	AR	114	ARG	CA-C	-5.70	1.45	1.52
25	BB	405	U	C2'-C1'	-5.70	1.44	1.53
25	BB	493	G	C3'-C2'	5.70	1.61	1.52
4	AB	180	ILE	CB-CG1	5.70	1.64	1.53
25	BB	1195	G	C4'-O4'	-5.70	1.37	1.45
35	BL	88	ARG	CA-C	5.70	1.61	1.52
15	AO	24	ASN	CA-C	5.70	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	1302	A	C3'-O3'	5.70	1.50	1.42
8	AG	69	PRO	CA-C	5.70	1.59	1.53
9	AH	81	ILE	N-CA	5.70	1.53	1.46
5	AC	33	ILE	CA-C	5.69	1.59	1.52
19	AT	39	LEU	CA-CB	5.69	1.59	1.52
25	BB	2281	A	O3'-P	-5.69	1.52	1.61
25	BB	626	A	P-O5'	-5.69	1.51	1.59
25	BB	1127	A	C5'-C4'	5.69	1.59	1.51
51	B2	121	PHE	N-CA	5.69	1.53	1.45
3	A1	729	A	C4'-O4'	-5.69	1.37	1.45
25	BB	464	U	C3'-C2'	5.69	1.61	1.52
25	BB	2016	U	O3'-P	-5.69	1.52	1.61
42	BS	13	THR	CA-C	5.69	1.59	1.52
25	BB	663	G	C4'-O4'	-5.69	1.37	1.45
3	A1	320	A	C4'-O4'	-5.69	1.37	1.45
25	BB	2619	C	C1'-N1	5.69	1.55	1.47
3	A1	43	C	C5'-C4'	5.69	1.59	1.51
3	A1	494	G	O3'-P	-5.69	1.52	1.61
48	BY	179	ARG	NE-CZ	-5.69	1.26	1.33
49	BZ	68	PRO	CA-CB	-5.69	1.44	1.54
3	A1	111	G	P-O5'	5.68	1.68	1.59
25	BB	354	A	C1'-N9	5.68	1.56	1.48
25	BB	378	C	P-O5'	-5.68	1.51	1.59
25	BB	1492	G	O4'-C1'	5.68	1.50	1.41
37	BN	155	ARG	CZ-NH1	-5.68	1.24	1.32
37	BN	164	VAL	CA-C	5.68	1.59	1.52
3	A1	796	C	C4'-C3'	5.68	1.61	1.53
25	BB	1317	G	C4'-C3'	5.68	1.61	1.52
25	BB	1964	G	C2-N2	-5.68	1.23	1.34
14	AN	23	ARG	CA-C	5.68	1.60	1.52
1	AE	45	G	C2-N2	-5.68	1.23	1.34
3	A1	1520	C	C4'-C3'	5.68	1.61	1.53
24	BA	5	U	O4'-C1'	-5.68	1.33	1.41
25	BB	280	U	C1'-N1	5.68	1.56	1.48
25	BB	1225	G	O4'-C1'	5.68	1.50	1.41
26	BC	19	ARG	CZ-NH2	-5.68	1.26	1.33
37	BN	211	ARG	N-CA	5.68	1.53	1.46
49	BZ	208	THR	N-CA	5.68	1.53	1.46
52	B3	12	ALA	N-CA	5.68	1.52	1.45
3	A1	288	A	O5'-C5'	-5.68	1.33	1.42
25	BB	80	G	O3'-P	-5.68	1.52	1.61
3	A1	1028	C	O4'-C1'	-5.68	1.33	1.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	1115	U	C2'-C1'	5.68	1.61	1.53
21	AV	37	ASN	CA-C	5.68	1.60	1.52
44	BU	28	THR	CA-C	5.68	1.60	1.52
1	AP	41	U	N3-C4	-5.67	1.27	1.38
8	AG	51	PRO	N-CD	-5.67	1.39	1.47
17	AR	56	GLU	CA-C	5.67	1.60	1.52
25	BB	2091	C	O3'-P	-5.67	1.52	1.61
28	BE	39	LYS	CA-C	5.67	1.60	1.52
4	AB	126	ASP	CA-C	5.67	1.61	1.52
3	A1	155	A	O3'-P	5.67	1.69	1.61
4	AB	193	ASP	C-N	5.67	1.41	1.33
24	BA	117	G	C1'-N9	5.67	1.56	1.48
25	BB	2242	G	C2'-C1'	5.67	1.61	1.53
34	BK	16	GLU	N-CA	5.67	1.53	1.46
55	B6	13	ARG	CZ-NH1	-5.67	1.24	1.32
3	A1	1493	A	O3'-P	5.67	1.69	1.61
25	BB	2739	U	P-O5'	5.67	1.68	1.59
25	BB	2752	C	P-O5'	5.67	1.68	1.59
36	BM	38	ALA	CA-C	5.67	1.60	1.52
41	BR	19	HIS	CA-C	5.67	1.60	1.52
55	B6	69	ARG	CZ-NH2	-5.67	1.26	1.33
3	A1	895	G	C4'-C3'	-5.67	1.44	1.53
25	BB	1105	U	O3'-P	-5.67	1.52	1.61
25	BB	2313	C	C4'-O4'	-5.67	1.37	1.45
3	A1	1299	A	O3'-P	-5.66	1.52	1.61
25	BB	2463	C	O3'-P	-5.66	1.52	1.61
25	BB	2508	G	C3'-O3'	5.66	1.51	1.43
3	A1	89	U	O3'-P	-5.66	1.52	1.61
3	A1	538	G	N9-C4	5.66	1.49	1.38
25	BB	203	A	C4'-C3'	5.66	1.61	1.52
38	BO	2	ALA	CA-C	5.66	1.62	1.52
3	A1	698	G	P-O5'	-5.66	1.51	1.59
3	A1	1101	A	O3'-P	-5.66	1.52	1.61
25	BB	1121	C	C2'-C1'	5.66	1.61	1.53
25	BB	2690	U	O3'-P	-5.66	1.52	1.61
25	BB	2806	C	C4-N4	-5.66	1.22	1.33
37	BN	33	LEU	CA-C	5.66	1.60	1.52
50	B1	149	ILE	N-CA	5.66	1.53	1.45
25	BB	1911	U	C3'-C2'	5.66	1.61	1.52
1	AP	7	U	C3'-C2'	5.66	1.61	1.52
19	AT	26	THR	C-O	-5.66	1.17	1.24
23	AX	72	ARG	N-CA	5.66	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	815	C	C2'-C1'	5.66	1.61	1.53
46	BW	42	HIS	CD2-NE2	5.65	1.44	1.37
3	A1	887	G	C3'-C2'	5.65	1.61	1.52
25	BB	665	U	C5'-C4'	5.65	1.59	1.51
25	BB	1854	A	P-O5'	-5.65	1.51	1.59
55	B6	70	THR	CA-C	5.65	1.60	1.52
25	BB	215	G	C5'-C4'	5.65	1.59	1.51
27	BD	18	ARG	N-CA	5.65	1.53	1.46
37	BN	55	GLY	N-CA	-5.65	1.37	1.45
3	A1	463	U	C2'-C1'	-5.65	1.44	1.53
25	BB	1302	A	O4'-C1'	5.65	1.50	1.41
3	A1	392	C	O3'-P	-5.65	1.52	1.61
3	A1	1191	A	P-O5'	-5.65	1.51	1.59
21	AV	125	ILE	CA-C	5.65	1.59	1.52
25	BB	829	A	C3'-C2'	5.65	1.61	1.52
25	BB	2742	G	P-O5'	-5.65	1.51	1.59
32	BI	33	GLU	CA-C	5.65	1.60	1.52
37	BN	8	THR	C-O	-5.65	1.17	1.24
3	A1	1490	U	O3'-P	-5.64	1.52	1.61
25	BB	2695	U	O4'-C1'	5.64	1.50	1.41
3	A1	183	C	C4'-O4'	-5.64	1.37	1.45
3	A1	496	A	C4'-O4'	-5.64	1.37	1.45
30	BG	104	ALA	N-CA	5.64	1.53	1.46
1	AA	10	G	C4'-O4'	-5.64	1.37	1.45
21	AV	102	VAL	C-N	-5.64	1.26	1.33
38	BO	81	ARG	CZ-NH2	-5.64	1.26	1.33
3	A1	77	A	P-O5'	-5.64	1.51	1.59
8	AG	10	VAL	N-CA	5.64	1.53	1.46
25	BB	1818	U	C1'-N1	5.64	1.55	1.47
3	A1	966	G	C2'-C1'	5.63	1.61	1.53
24	BA	113	C	C2'-O2'	5.63	1.50	1.42
37	BN	265	PHE	N-CA	5.63	1.53	1.46
1	AP	8	U	O3'-P	-5.63	1.52	1.61
25	BB	861	A	C1'-N9	5.63	1.56	1.48
48	BY	44	GLY	CA-C	5.63	1.60	1.51
50	B1	125	SER	CA-C	5.63	1.60	1.52
3	A1	287	U	O4'-C1'	-5.63	1.33	1.41
3	A1	505	G	C3'-C2'	5.63	1.61	1.52
3	A1	944	G	C4'-O4'	-5.63	1.37	1.45
25	BB	1932	A	C4'-O4'	-5.63	1.37	1.45
47	BX	9	LYS	C-O	-5.63	1.17	1.24
55	B6	78	THR	C-N	5.63	1.38	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	437	U	P-O5'	-5.63	1.51	1.59
22	AW	103	VAL	CA-C	-5.63	1.45	1.52
25	BB	557	C	C5'-C4'	5.63	1.59	1.51
23	AX	62	ARG	NE-CZ	-5.63	1.26	1.33
50	B1	88	ARG	CZ-NH1	-5.63	1.24	1.32
8	AG	75	LYS	CA-C	5.63	1.60	1.52
25	BB	723	C	C3'-O3'	5.62	1.50	1.42
39	BP	50	VAL	N-CA	5.62	1.53	1.46
3	A1	325	A	P-O5'	5.62	1.68	1.59
25	BB	443	A	C5'-C4'	5.62	1.59	1.51
37	BN	113	ASP	N-CA	-5.62	1.39	1.46
48	BY	68	PHE	CA-C	5.62	1.60	1.52
27	BD	87	LEU	CA-C	5.62	1.59	1.52
30	BG	78	LYS	N-CA	5.62	1.53	1.46
25	BB	1393	A	C5'-C4'	5.62	1.59	1.51
33	BJ	11	ALA	N-CA	5.62	1.53	1.46
40	BQ	48	ARG	CZ-NH1	-5.62	1.24	1.32
1	AE	57	G	C5'-C4'	5.62	1.59	1.51
25	BB	2628	C	C2'-O2'	5.62	1.50	1.42
43	BT	18	HIS	CG-CD2	5.62	1.42	1.35
1	AE	39	U	O5'-C5'	5.62	1.50	1.42
3	A1	306	A	O3'-P	-5.62	1.52	1.61
3	A1	797	C	O3'-P	-5.62	1.52	1.61
3	A1	447	G	O4'-C1'	5.62	1.50	1.41
3	A1	1357	A	C5'-C4'	5.62	1.59	1.51
25	BB	1301	A	C4'-O4'	-5.62	1.37	1.45
25	BB	2361	G	O3'-P	-5.62	1.52	1.61
25	BB	2529	G	C5'-C4'	5.62	1.59	1.51
30	BG	6	SER	C-N	5.62	1.41	1.33
25	BB	2481	G	C5'-C4'	5.61	1.59	1.51
3	A1	1355	G	C4'-C3'	5.61	1.60	1.52
9	AH	74	VAL	N-CA	5.61	1.53	1.46
40	BQ	8	GLU	CA-CB	5.61	1.63	1.53
3	A1	453	G	O5'-C5'	5.61	1.50	1.42
25	BB	776	G	O3'-P	-5.61	1.52	1.61
36	BM	18	GLU	N-CA	5.61	1.53	1.46
25	BB	265	A	P-O5'	5.61	1.68	1.59
25	BB	1085	A	O3'-P	-5.61	1.52	1.61
25	BB	1232	G	C1'-N9	5.61	1.56	1.48
39	BP	34	SER	CA-C	5.61	1.60	1.52
48	BY	187	LEU	N-CA	5.61	1.52	1.46
3	A1	1525	G	C5'-C4'	5.61	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
16	AQ	20	ARG	N-CA	5.61	1.53	1.46
17	AR	130	ASN	CA-CB	5.61	1.62	1.53
25	BB	669	G	O4'-C1'	5.61	1.50	1.41
25	BB	198	C	C3'-C2'	5.61	1.61	1.52
49	BZ	49	ARG	N-CA	5.61	1.53	1.46
25	BB	2299	U	C4'-O4'	-5.60	1.37	1.45
37	BN	231	HIS	CA-C	5.60	1.59	1.52
3	A1	221	C	O3'-P	-5.60	1.52	1.61
3	A1	1197	A	C5'-C4'	5.60	1.59	1.51
5	AC	104	PHE	CA-C	5.60	1.59	1.53
25	BB	155	A	C3'-C2'	-5.60	1.44	1.52
25	BB	2070	A	C5'-C4'	5.60	1.59	1.51
8	AG	58	ARG	CD-NE	5.60	1.54	1.46
20	AU	139	ASP	N-CA	5.60	1.53	1.46
25	BB	1210	G	C4'-C3'	5.60	1.61	1.53
49	BZ	81	PRO	CA-CB	-5.60	1.46	1.53
25	BB	1099	G	O3'-P	-5.60	1.52	1.61
50	B1	104	ALA	CA-C	5.60	1.60	1.52
53	B4	78	VAL	N-CA	5.60	1.53	1.46
55	B6	5	THR	N-CA	5.60	1.51	1.47
3	A1	7	A	O3'-P	-5.60	1.52	1.61
3	A1	74	A	C3'-C2'	5.60	1.61	1.52
25	BB	2163	A	C5'-C4'	5.60	1.59	1.51
30	BG	118	ARG	N-CA	5.60	1.53	1.46
25	BB	2802	G	C2'-O2'	5.59	1.50	1.42
50	B1	51	GLU	CA-CB	5.59	1.59	1.52
50	B1	139	LYS	N-CA	5.59	1.53	1.46
3	A1	1077	G	C4'-O4'	-5.59	1.37	1.45
18	AS	72	ASN	N-CA	5.59	1.53	1.46
51	B2	4	HIS	CA-C	5.59	1.60	1.52
3	A1	990	C	O5'-C5'	-5.59	1.34	1.42
25	BB	1762	A	C3'-C2'	5.59	1.61	1.52
38	BO	99	SER	CA-C	5.59	1.60	1.53
25	BB	2470	G	C2'-O2'	5.59	1.50	1.42
52	B3	162	ARG	NE-CZ	-5.59	1.26	1.33
3	A1	414	A	P-O5'	-5.59	1.51	1.59
3	A1	775	G	O4'-C1'	5.59	1.50	1.41
22	AW	98	ARG	NE-CZ	-5.59	1.26	1.33
43	BT	53	VAL	N-CA	5.59	1.53	1.46
3	A1	1208	C	P-O5'	-5.59	1.51	1.59
25	BB	209	C	O3'-P	-5.59	1.52	1.61
25	BB	2137	U	C5'-C4'	5.59	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	BD	56	ASP	CA-C	5.59	1.60	1.53
25	BB	1425	G	C5'-C4'	5.58	1.59	1.51
25	BB	1565	C	O3'-P	-5.58	1.52	1.61
4	AB	175	ALA	CA-C	5.58	1.59	1.52
25	BB	329	G	C3'-C2'	5.58	1.61	1.52
25	BB	382	A	O4'-C1'	5.58	1.50	1.41
25	BB	1741	C	C4'-O4'	-5.58	1.37	1.45
28	BE	134	ALA	CA-C	5.58	1.60	1.52
46	BW	32	LEU	N-CA	5.58	1.53	1.46
3	A1	1519	A	C4'-O4'	-5.58	1.37	1.45
25	BB	738	G	O5'-C5'	-5.58	1.34	1.42
25	BB	803	U	C1'-N1	5.58	1.56	1.48
25	BB	1429	G	C2'-O2'	5.58	1.50	1.42
25	BB	2013	A	P-O5'	-5.58	1.51	1.59
25	BB	2518	A	O4'-C1'	5.58	1.50	1.42
25	BB	2622	U	C4'-O4'	-5.58	1.37	1.45
43	BT	27	LEU	N-CA	5.58	1.53	1.46
49	BZ	193	LYS	N-CA	5.58	1.52	1.46
25	BB	132	G	C2-N2	-5.58	1.23	1.34
37	BN	86	ARG	N-CA	5.58	1.53	1.45
4	AB	64	GLY	CA-C	5.58	1.56	1.51
25	BB	612	G	C1'-N9	5.58	1.56	1.48
25	BB	2537	U	N3-C4	-5.58	1.27	1.38
35	BL	75	PHE	N-CA	5.58	1.53	1.45
3	A1	1242	G	P-O5'	-5.58	1.51	1.59
27	BD	14	SER	CA-C	5.58	1.60	1.52
3	A1	58	C	C2'-O2'	5.58	1.50	1.42
25	BB	690	G	C2'-O2'	-5.58	1.34	1.42
3	A1	220	G	C5'-C4'	5.57	1.59	1.51
3	A1	1293	C	O3'-P	-5.57	1.52	1.61
24	BA	16	G	O4'-C1'	5.57	1.50	1.41
33	BJ	112	ALA	CA-C	5.57	1.59	1.52
25	BB	723	C	O4'-C1'	5.57	1.50	1.41
25	BB	1128	G	O4'-C1'	5.57	1.50	1.41
25	BB	1803	A	C4'-C3'	5.57	1.60	1.52
25	BB	2882	A	C4'-O4'	-5.57	1.37	1.45
25	BB	1555	G	C2'-C1'	5.57	1.61	1.53
51	B2	114	ARG	CA-C	5.57	1.59	1.52
24	BA	114	C	C4'-O4'	-5.57	1.37	1.45
25	BB	717	C	P-O5'	5.57	1.68	1.59
17	AR	187	ARG	CZ-NH1	-5.57	1.25	1.32
25	BB	827	U	O3'-P	-5.57	1.52	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	1327	A	C5'-C4'	5.57	1.59	1.51
3	A1	748	G	P-O5'	5.57	1.68	1.59
11	AJ	64	ARG	CZ-NH1	-5.57	1.25	1.32
23	AX	78	GLU	N-CA	5.57	1.51	1.45
25	BB	1422	G	P-O5'	-5.57	1.51	1.59
3	A1	494	G	C3'-O3'	5.56	1.50	1.42
3	A1	801	U	O4'-C1'	5.56	1.50	1.41
25	BB	826	U	C1'-N1	5.56	1.56	1.48
39	BP	45	HIS	CD2-NE2	5.56	1.44	1.37
40	BQ	52	ARG	CA-C	5.56	1.60	1.52
50	B1	176	ASP	CA-C	5.56	1.59	1.52
25	BB	2375	G	P-O5'	-5.56	1.51	1.59
3	A1	947	G	O4'-C1'	5.56	1.50	1.41
53	B4	111	ALA	N-CA	5.56	1.53	1.45
3	A1	687	A	C6-N6	-5.56	1.22	1.33
5	AC	51	PHE	C-N	5.56	1.41	1.33
25	BB	66	C	O4'-C1'	5.56	1.50	1.41
25	BB	1944	U	C4'-C3'	5.56	1.60	1.52
52	B3	41	GLU	N-CA	5.56	1.52	1.46
25	BB	2031	A	O3'-P	-5.56	1.52	1.61
3	A1	447	G	C5'-C4'	5.55	1.59	1.51
18	AS	79	THR	N-CA	5.55	1.53	1.46
25	BB	2274	A	O3'-P	-5.55	1.52	1.61
25	BB	2614	A	O3'-P	-5.55	1.52	1.61
50	B1	21	ARG	CZ-NH1	-5.55	1.25	1.32
1	AP	74	C	C1'-N1	5.55	1.55	1.47
25	BB	1977	A	C2'-O2'	5.55	1.50	1.42
25	BB	2709	G	C5'-C4'	5.55	1.59	1.51
53	B4	111	ALA	CA-C	5.55	1.59	1.52
3	A1	1272	G	C5'-C4'	5.55	1.59	1.51
25	BB	326	G	C3'-C2'	5.55	1.61	1.52
25	BB	333	G	O4'-C1'	5.55	1.50	1.42
25	BB	1449	G	P-O5'	-5.55	1.51	1.59
25	BB	1927	A	C5'-C4'	5.55	1.59	1.51
48	BY	60	VAL	N-CA	5.55	1.53	1.46
3	A1	363	A	C1'-N9	5.55	1.55	1.47
25	BB	1994	C	O4'-C1'	5.55	1.50	1.41
3	A1	751	U	C2'-O2'	5.55	1.50	1.42
25	BB	1114	C	O3'-P	-5.55	1.52	1.61
25	BB	2669	G	C4'-O4'	-5.55	1.37	1.45
26	BC	63	ILE	CA-CB	5.55	1.60	1.53
52	B3	165	ASP	CA-C	5.55	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
51	B2	29	ARG	CA-C	5.54	1.60	1.53
3	A1	1531	A	C2'-C1'	5.54	1.61	1.53
17	AR	154	VAL	CA-C	-5.54	1.45	1.52
25	BB	1927	A	C2'-C1'	5.54	1.61	1.53
35	BL	63	GLY	CA-C	5.54	1.59	1.51
55	B6	2	LYS	N-CA	5.54	1.53	1.46
25	BB	546	U	C4'-O4'	-5.54	1.37	1.45
25	BB	795	C	O3'-P	-5.54	1.52	1.61
25	BB	1608	A	C2'-O2'	5.54	1.50	1.41
25	BB	2491	U	C4'-C3'	5.54	1.60	1.52
25	BB	1192	G	O4'-C1'	5.54	1.50	1.41
25	BB	1303	G	C4'-O4'	-5.54	1.37	1.45
25	BB	1483	G	O4'-C1'	5.54	1.50	1.41
25	BB	1576	U	C2'-C1'	5.54	1.61	1.53
39	BP	46	ALA	CA-C	5.54	1.60	1.52
3	A1	704	A	C5'-C4'	5.53	1.59	1.51
3	A1	1244	G	O3'-P	-5.53	1.52	1.61
6	AD	17	LYS	CA-CB	5.53	1.62	1.53
25	BB	60	G	O3'-P	-5.53	1.52	1.61
25	BB	2779	U	C5'-C4'	5.53	1.59	1.51
4	AB	146	SER	CA-C	5.53	1.60	1.52
25	BB	1891	G	P-O5'	-5.53	1.51	1.59
15	AO	43	THR	C-N	5.53	1.42	1.33
25	BB	1871	A	O3'-P	-5.53	1.52	1.61
29	BF	98	PRO	C-O	5.53	1.31	1.24
3	A1	154	U	C4'-O4'	-5.53	1.37	1.45
3	A1	977	A	P-O5'	-5.53	1.51	1.59
3	A1	952	U	C5'-C4'	5.53	1.59	1.51
17	AR	149	LYS	N-CA	5.53	1.53	1.46
25	BB	1815	A	O4'-C1'	5.53	1.50	1.42
42	BS	25	ARG	NE-CZ	-5.53	1.26	1.33
51	B2	40	GLY	N-CA	5.53	1.50	1.45
54	B5	65	SER	CA-C	5.53	1.60	1.53
3	A1	942	G	C2-N2	-5.53	1.23	1.34
3	A1	1157	A	C5'-C4'	5.53	1.59	1.51
25	BB	1991	U	O3'-P	-5.53	1.52	1.61
35	BL	76	VAL	N-CA	-5.53	1.39	1.46
41	BR	29	ARG	CZ-NH1	-5.53	1.25	1.32
48	BY	40	LEU	N-CA	5.53	1.52	1.45
53	B4	20	ASN	CA-C	5.53	1.61	1.52
1	AE	23	A	C4'-O4'	-5.52	1.37	1.45
1	AE	28	C	C4'-O4'	-5.52	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	BT	5	ASN	CA-C	5.52	1.59	1.52
3	A1	379	C	C4-N4	-5.52	1.23	1.33
3	A1	782	A	C4'-O4'	-5.52	1.37	1.45
25	BB	2375	G	C3'-C2'	5.52	1.61	1.52
28	BE	21	ARG	CZ-NH2	-5.52	1.26	1.33
40	BQ	31	GLN	N-CA	-5.52	1.39	1.46
5	AC	45	THR	CA-C	5.52	1.59	1.52
25	BB	2211	A	O3'-P	-5.52	1.52	1.61
31	BH	109	ALA	CA-C	5.52	1.60	1.52
14	AN	22	SER	N-CA	5.52	1.53	1.46
3	A1	1060	U	O3'-P	-5.52	1.52	1.61
25	BB	2717	C	C3'-C2'	5.52	1.61	1.52
1	AP	60	C	O3'-P	-5.51	1.52	1.61
3	A1	1201	A	C5'-C4'	5.51	1.59	1.51
4	AB	17	HIS	ND1-CE1	5.51	1.38	1.32
15	AO	168	ARG	CD-NE	5.51	1.53	1.46
42	BS	42	PRO	N-CD	-5.51	1.40	1.47
10	AI	70	ARG	CZ-NH2	-5.51	1.26	1.33
17	AR	72	ARG	N-CA	5.51	1.53	1.46
27	BD	22	ILE	CA-C	5.51	1.59	1.52
3	A1	1354	U	C3'-C2'	5.51	1.61	1.52
23	AX	12	ALA	CA-C	5.51	1.59	1.52
25	BB	711	G	C5'-C4'	5.51	1.59	1.51
25	BB	1224	U	C4'-C3'	5.51	1.61	1.53
46	BW	39	ARG	CZ-NH1	-5.51	1.25	1.32
3	A1	536	C	C1'-N1	5.51	1.56	1.48
30	BG	97	ILE	C-O	-5.51	1.18	1.24
50	B1	110	SER	CA-C	5.51	1.60	1.52
55	B6	109	LEU	C-N	5.51	1.38	1.33
3	A1	562	U	O3'-P	-5.51	1.52	1.61
3	A1	991	U	C4'-O4'	-5.51	1.37	1.45
25	BB	2641	G	C5'-C4'	5.51	1.59	1.51
49	BZ	35	THR	CB-OG1	-5.51	1.34	1.43
4	AB	34	ARG	CD-NE	5.51	1.53	1.46
14	AN	50	PHE	CA-C	5.51	1.59	1.52
14	AN	82	ILE	CA-CB	5.51	1.62	1.54
25	BB	739	A	C1'-N9	5.51	1.55	1.47
25	BB	1237	A	C4'-O4'	-5.50	1.37	1.45
54	B5	123	ALA	C-O	-5.50	1.17	1.24
3	A1	12	U	O3'-P	-5.50	1.52	1.61
11	AJ	61	ARG	N-CA	5.50	1.52	1.45
25	BB	961	C	C3'-O3'	-5.50	1.34	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	2345	G	C5'-C4'	5.50	1.59	1.51
25	BB	2445	G	C3'-C2'	5.50	1.61	1.52
3	A1	1422	G	C2'-O2'	5.50	1.50	1.42
24	BA	117	G	C4'-C3'	5.50	1.60	1.52
25	BB	1366	A	P-O5'	5.50	1.68	1.59
48	BY	186	LEU	CA-CB	5.50	1.61	1.53
25	BB	2330	G	P-O5'	5.50	1.68	1.59
25	BB	921	C	C1'-N1	5.50	1.56	1.48
25	BB	1405	U	O5'-C5'	-5.50	1.34	1.42
53	B4	56	ALA	N-CA	5.50	1.53	1.46
54	B5	21	PRO	C-N	5.50	1.40	1.34
25	BB	1563	U	C2'-C1'	5.50	1.61	1.53
3	A1	620	C	C2'-O2'	5.49	1.50	1.42
25	BB	1013	C	O3'-P	-5.49	1.52	1.61
25	BB	2286	G	C2'-C1'	5.49	1.61	1.53
25	BB	2465	C	O3'-P	-5.49	1.52	1.61
3	A1	157	U	C4'-O4'	-5.49	1.37	1.45
25	BB	1907	G	O3'-P	-5.49	1.52	1.61
25	BB	2771	C	C1'-N1	5.49	1.56	1.48
51	B2	37	MET	CA-C	5.49	1.58	1.52
25	BB	264	C	O3'-P	5.49	1.69	1.61
25	BB	1921	G	O5'-C5'	5.49	1.50	1.42
25	BB	2172	U	C1'-N1	5.49	1.55	1.47
24	BA	18	G	P-O5'	-5.49	1.51	1.59
25	BB	2827	C	C5'-C4'	5.49	1.59	1.51
3	A1	346	G	C4'-O4'	-5.49	1.37	1.45
25	BB	2784	U	O3'-P	-5.49	1.52	1.61
48	BY	70	LYS	N-CA	5.49	1.52	1.45
54	B5	73	PRO	CA-C	-5.49	1.47	1.52
18	AS	150	GLU	N-CA	5.48	1.53	1.46
3	A1	109	A	C2'-O2'	5.48	1.49	1.41
3	A1	646	G	C2'-C1'	5.48	1.61	1.53
25	BB	955	U	C3'-C2'	5.48	1.60	1.52
25	BB	2776	A	C2'-O2'	5.48	1.49	1.41
3	A1	88	U	C4'-O4'	-5.48	1.37	1.45
14	AN	74	HIS	CA-C	5.48	1.60	1.52
21	AV	110	MET	CA-C	5.48	1.59	1.52
25	BB	10	A	P-O5'	-5.48	1.51	1.59
25	BB	388	G	C2-N2	-5.48	1.23	1.34
25	BB	2061	G	C3'-C2'	5.48	1.61	1.52
25	BB	2709	G	C4'-O4'	-5.48	1.37	1.45
28	BE	3	LEU	N-CA	5.48	1.52	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
17	AR	9	LYS	N-CA	5.48	1.52	1.46
33	BJ	49	ARG	CZ-NH2	-5.48	1.26	1.33
55	B6	51	GLY	N-CA	5.48	1.51	1.45
3	A1	569	C	O3'-P	-5.48	1.52	1.61
3	A1	885	G	O4'-C1'	5.48	1.49	1.41
18	AS	44	ARG	N-CA	5.48	1.52	1.46
25	BB	550	C	O4'-C1'	-5.48	1.33	1.41
25	BB	900	A	P-O5'	5.48	1.68	1.59
32	BI	106	ALA	CA-C	5.48	1.60	1.52
38	BO	30	SER	CA-C	5.48	1.59	1.52
49	BZ	58	PRO	CA-C	5.48	1.60	1.52
25	BB	1757	A	O4'-C1'	5.48	1.49	1.41
25	BB	2437	G	O3'-P	-5.48	1.52	1.61
25	BB	2621	G	C4'-O4'	-5.48	1.37	1.45
25	BB	2859	G	C3'-O3'	5.48	1.50	1.42
50	B1	62	GLN	CA-C	5.48	1.60	1.52
25	BB	2588	G	O5'-C5'	5.47	1.50	1.42
1	AP	58	A	P-O5'	-5.47	1.51	1.59
3	A1	259	G	C3'-C2'	5.47	1.60	1.52
4	AB	161	PHE	N-CA	5.47	1.52	1.46
25	BB	49	A	C4'-C3'	5.47	1.61	1.53
25	BB	2065	C	C4'-O4'	-5.47	1.37	1.45
29	BF	107	GLY	N-CA	5.47	1.51	1.44
3	A1	25	C	O3'-P	-5.47	1.52	1.61
18	AS	100	GLU	CA-C	5.47	1.60	1.52
28	BE	72	ALA	N-CA	5.47	1.53	1.46
3	A1	590	U	C5'-C4'	5.47	1.59	1.51
25	BB	941	A	C5'-C4'	5.47	1.59	1.51
25	BB	2448	A	C4'-O4'	-5.47	1.37	1.45
3	A1	348	G	C5'-C4'	5.47	1.59	1.51
3	A1	1013	G	C5'-C4'	5.47	1.59	1.51
22	AW	77	ALA	CA-C	5.47	1.59	1.52
3	A1	502	A	C3'-O3'	5.46	1.50	1.42
15	AO	125	ARG	CZ-NH2	-5.46	1.26	1.33
25	BB	1467	U	P-O5'	-5.46	1.51	1.59
41	BR	9	THR	CA-C	5.46	1.60	1.52
3	A1	1073	U	O3'-P	-5.46	1.52	1.61
25	BB	1607	C	O4'-C1'	5.46	1.50	1.42
3	A1	1505	G	C3'-O3'	5.46	1.50	1.42
12	AK	52	ARG	CD-NE	5.46	1.53	1.46
25	BB	466	A	C2'-C1'	5.46	1.61	1.53
52	B3	170	THR	CA-CB	-5.46	1.44	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	412	A	C5'-C4'	5.46	1.59	1.51
3	A1	1302	C	O3'-P	-5.46	1.52	1.61
25	BB	2165	C	C2'-C1'	-5.46	1.45	1.53
25	BB	2645	G	O4'-C1'	5.46	1.50	1.42
25	BB	2806	C	O4'-C1'	5.46	1.49	1.41
54	B5	120	ASP	CA-C	5.46	1.59	1.52
3	A1	960	U	C5'-C4'	5.45	1.59	1.51
4	AB	204	ASP	N-CA	5.45	1.53	1.45
21	AV	12	ARG	N-CA	5.45	1.53	1.46
25	BB	2192	U	C5'-C4'	5.45	1.59	1.51
26	BC	32	GLY	CA-C	5.45	1.59	1.51
3	A1	625	U	C1'-N1	5.45	1.56	1.48
25	BB	2736	A	C4'-O4'	-5.45	1.37	1.45
25	BB	410	G	C4'-O4'	-5.45	1.37	1.45
25	BB	2187	U	C5'-C4'	5.45	1.59	1.51
25	BB	228	C	C4'-C3'	5.45	1.61	1.53
25	BB	2086	U	C3'-C2'	5.45	1.60	1.52
25	BB	2844	G	N1-C2	-5.45	1.26	1.37
52	B3	85	LYS	CA-C	-5.45	1.46	1.52
3	A1	173	U	C5'-C4'	5.45	1.59	1.51
25	BB	2201	G	O3'-P	-5.45	1.52	1.61
1	AE	75	C	C4-N4	-5.45	1.23	1.33
3	A1	330	C	C4'-O4'	-5.45	1.37	1.45
25	BB	2127	G	O3'-P	-5.45	1.52	1.61
3	A1	1263	C	C3'-O3'	-5.44	1.33	1.42
4	AB	185	ILE	N-CA	5.44	1.52	1.46
13	AL	26	ASP	N-CA	5.44	1.53	1.46
21	AV	97	GLY	CA-C	5.44	1.60	1.51
25	BB	573	U	C1'-N1	5.44	1.55	1.47
26	BC	18	ARG	N-CA	5.44	1.52	1.46
29	BF	127	LYS	N-CA	5.44	1.53	1.46
3	A1	1276	G	C2-N2	-5.44	1.23	1.34
25	BB	2022	U	C3'-C2'	5.44	1.60	1.52
25	BB	2431	U	O3'-P	-5.44	1.52	1.61
3	A1	157	U	O4'-C1'	5.44	1.49	1.41
15	AO	35	ASP	N-CA	5.44	1.53	1.46
25	BB	462	C	C1'-N1	5.44	1.56	1.48
25	BB	1234	U	O5'-C5'	5.44	1.50	1.42
25	BB	1281	G	P-O5'	-5.44	1.51	1.59
25	BB	1423	G	C3'-C2'	-5.44	1.44	1.52
25	BB	1634	A	O3'-P	-5.44	1.52	1.61
25	BB	2078	C	C4-N4	-5.44	1.23	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
42	BS	21	VAL	N-CA	5.44	1.52	1.46
50	B1	17	THR	N-CA	5.44	1.53	1.46
1	AE	48	C	C4'-O4'	-5.44	1.37	1.45
25	BB	2810	A	P-O5'	-5.44	1.51	1.59
25	BB	2357	G	C5'-C4'	5.44	1.59	1.51
25	BB	2488	G	C5'-C4'	5.44	1.59	1.51
25	BB	2622	U	O4'-C1'	5.44	1.49	1.41
25	BB	2734	A	C2'-C1'	5.44	1.61	1.53
3	A1	1013	G	P-O5'	5.44	1.68	1.59
23	AX	16	ARG	CA-C	-5.44	1.45	1.52
25	BB	597	G	O3'-P	-5.44	1.52	1.61
12	AK	42	ARG	CZ-NH1	-5.43	1.25	1.32
25	BB	2324	U	P-O5'	5.43	1.68	1.59
25	BB	2534	A	C5'-C4'	5.43	1.59	1.51
28	BE	82	LEU	N-CA	5.43	1.53	1.46
48	BY	62	LYS	CA-C	5.43	1.59	1.52
3	A1	15	G	C1'-N9	5.43	1.56	1.48
25	BB	264	C	C4'-O4'	-5.43	1.37	1.45
31	BH	33	ARG	CZ-NH1	-5.43	1.25	1.32
36	BM	46	ALA	CA-C	5.43	1.59	1.53
1	AE	39	U	C2'-O2'	5.43	1.50	1.42
25	BB	2454	G	C2-N2	-5.43	1.23	1.34
28	BE	136	GLU	N-CA	5.43	1.52	1.46
23	AX	37	ARG	N-CA	5.43	1.52	1.46
3	A1	607	A	O4'-C1'	5.43	1.49	1.41
25	BB	491	G	O3'-P	-5.43	1.53	1.61
3	A1	908	A	C4'-O4'	-5.43	1.37	1.45
25	BB	473	G	C3'-C2'	5.43	1.60	1.52
25	BB	553	G	C5'-C4'	5.43	1.59	1.51
25	BB	2554	U	P-O5'	-5.43	1.51	1.59
36	BM	30	ILE	N-CA	5.43	1.52	1.46
43	BT	45	ASP	N-CA	5.43	1.53	1.46
54	B5	139	VAL	CA-C	5.43	1.58	1.52
5	AC	125	LYS	N-CA	5.42	1.53	1.46
6	AD	83	GLY	N-CA	5.42	1.52	1.45
9	AH	24	THR	N-CA	5.42	1.53	1.46
15	AO	135	ARG	CA-C	5.42	1.59	1.52
23	AX	72	ARG	CZ-NH2	-5.42	1.26	1.33
25	BB	354	A	P-O5'	-5.42	1.51	1.59
2	AM	4	U	O5'-C5'	5.42	1.50	1.42
18	AS	105	ILE	CA-C	5.42	1.59	1.52
22	AW	107	ALA	N-CA	5.42	1.53	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	452	G	C4'-O4'	-5.42	1.37	1.45
5	AC	126	ARG	N-CA	5.42	1.52	1.46
24	BA	105	G	P-O5'	5.42	1.67	1.59
25	BB	379	G	O3'-P	-5.42	1.53	1.61
27	BD	41	ILE	CA-CB	5.42	1.61	1.54
9	AH	46	LYS	C-N	5.42	1.41	1.33
25	BB	481	G	C4'-O4'	-5.42	1.37	1.45
25	BB	760	G	C2'-C1'	5.42	1.61	1.53
3	A1	857	C	C3'-C2'	5.42	1.61	1.52
11	AJ	46	HIS	CA-C	5.42	1.60	1.52
25	BB	78	U	C5'-C4'	5.42	1.59	1.51
25	BB	740	C	O3'-P	-5.42	1.53	1.61
25	BB	1390	U	C4'-O4'	-5.42	1.37	1.45
25	BB	1494	A	C3'-C2'	5.42	1.60	1.52
50	B1	168	ASP	CA-C	5.42	1.60	1.52
1	AA	24	G	C2'-C1'	5.42	1.61	1.53
3	A1	407	U	C2'-O2'	5.42	1.50	1.42
3	A1	458	U	C4'-O4'	-5.42	1.37	1.45
21	AV	115	ALA	CA-C	5.42	1.59	1.52
25	BB	253	C	O5'-C5'	5.42	1.50	1.42
25	BB	279	A	C3'-O3'	5.42	1.50	1.42
25	BB	2319	G	O3'-P	-5.42	1.53	1.61
25	BB	2413	G	C5'-C4'	5.42	1.59	1.51
25	BB	2585	U	C2'-O2'	5.42	1.49	1.41
51	B2	158	THR	N-CA	5.42	1.52	1.46
3	A1	1482	G	C2'-C1'	5.41	1.61	1.53
5	AC	97	ARG	N-CA	5.41	1.52	1.46
25	BB	1471	G	C2-N2	-5.41	1.23	1.34
25	BB	2235	G	C2-N2	-5.41	1.23	1.34
43	BT	37	HIS	CE1-NE2	5.41	1.38	1.32
3	A1	758	C	O5'-C5'	-5.41	1.34	1.42
54	B5	50	LYS	N-CA	5.41	1.53	1.45
1	AP	73	A	P-O5'	5.41	1.67	1.59
18	AS	49	TYR	CA-C	5.41	1.59	1.52
25	BB	138	U	P-O5'	5.41	1.67	1.59
31	BH	28	VAL	N-CA	5.41	1.53	1.46
25	BB	992	C	C3'-C2'	5.41	1.61	1.52
37	BN	115	ILE	N-CA	5.41	1.53	1.46
28	BE	2	ARG	CZ-NH2	-5.41	1.26	1.33
48	BY	13	ARG	CA-C	5.41	1.59	1.52
1	AP	32	C	C5'-C4'	5.41	1.59	1.51
1	AP	43	G	C4'-O4'	-5.41	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	160	A	C3'-C2'	5.41	1.60	1.52
11	AJ	41	THR	CA-C	5.41	1.59	1.52
25	BB	180	G	C2-N2	-5.41	1.23	1.34
25	BB	1008	A	C5'-C4'	5.41	1.59	1.51
25	BB	2670	A	C5-C4	-5.41	1.27	1.38
43	BT	33	SER	N-CA	5.41	1.53	1.46
45	BV	33	ARG	CZ-NH1	-5.41	1.25	1.32
51	B2	171	ALA	CA-CB	5.41	1.63	1.53
53	B4	50	ARG	CA-C	5.41	1.59	1.52
55	B6	125	TYR	CA-C	5.41	1.60	1.52
17	AR	43	ARG	NE-CZ	-5.40	1.27	1.33
25	BB	2396	G	C4'-C3'	-5.40	1.44	1.52
37	BN	74	PRO	C-O	5.40	1.30	1.23
3	A1	317	U	C1'-N1	5.40	1.56	1.48
8	AG	52	ARG	CZ-NH2	-5.40	1.26	1.33
20	AU	137	ARG	NE-CZ	-5.40	1.27	1.33
54	B5	118	GLY	CA-C	5.40	1.58	1.52
3	A1	454	G	P-O5'	5.40	1.67	1.59
13	AL	37	SER	CA-C	5.40	1.60	1.52
25	BB	243	U	O3'-P	-5.40	1.53	1.61
25	BB	2294	G	C1'-N9	5.40	1.56	1.48
3	A1	885	G	O5'-C5'	5.40	1.50	1.42
25	BB	221	A	C1'-N9	5.40	1.55	1.47
25	BB	1619	G	C3'-C2'	5.40	1.60	1.52
55	B6	48	VAL	CA-C	5.40	1.59	1.52
3	A1	493	A	C4'-O4'	-5.40	1.37	1.45
3	A1	1153	G	C2-N2	-5.40	1.23	1.34
9	AH	26	VAL	CA-C	5.40	1.59	1.52
25	BB	975	A	C5'-C4'	5.40	1.59	1.51
25	BB	2444	G	C2-N2	-5.40	1.23	1.34
25	BB	2596	U	C1'-N1	5.40	1.56	1.48
3	A1	439	U	O5'-C5'	-5.40	1.34	1.42
25	BB	830	G	C1'-N9	5.40	1.55	1.47
25	BB	1231	U	O3'-P	-5.40	1.53	1.61
30	BG	113	ILE	CA-CB	5.40	1.61	1.54
15	AO	183	TYR	C-O	-5.39	1.17	1.23
1	AA	54	U	C5'-C4'	-5.39	1.43	1.51
3	A1	153	C	P-O5'	-5.39	1.51	1.59
3	A1	1373	G	C3'-C2'	5.39	1.60	1.52
3	A1	1387	G	C4'-O4'	-5.39	1.37	1.45
25	BB	877	A	C2'-O2'	-5.39	1.34	1.42
31	BH	72	ALA	CA-C	5.39	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	BI	58	PHE	CA-C	5.39	1.60	1.52
25	BB	149	A	C4'-C3'	5.39	1.60	1.52
34	BK	12	HIS	CD2-NE2	5.39	1.43	1.37
3	A1	444	G	C2'-C1'	5.39	1.61	1.53
25	BB	216	A	C1'-N9	-5.39	1.39	1.48
25	BB	960	A	C5'-C4'	5.39	1.59	1.51
25	BB	1318	U	O3'-P	-5.39	1.53	1.61
25	BB	1744	A	C3'-C2'	5.39	1.60	1.52
25	BB	1760	C	C5'-C4'	5.39	1.59	1.51
25	BB	1813	G	O5'-C5'	-5.39	1.34	1.42
44	BU	45	HIS	CG-ND1	-5.39	1.32	1.38
37	BN	98	GLY	N-CA	5.39	1.53	1.45
42	BS	67	PRO	CA-C	5.39	1.60	1.52
53	B4	63	ALA	CA-C	5.39	1.59	1.52
1	AE	39	U	O3'-P	-5.39	1.53	1.61
3	A1	784	A	C3'-C2'	5.39	1.60	1.52
13	AL	40	PHE	CA-C	5.39	1.59	1.53
25	BB	571	U	O3'-P	-5.39	1.53	1.61
25	BB	2046	G	C3'-O3'	5.39	1.51	1.43
25	BB	2258	C	C4'-O4'	-5.39	1.37	1.45
49	BZ	61	ALA	CA-C	5.39	1.60	1.53
3	A1	450	G	C4'-O4'	-5.38	1.37	1.45
3	A1	1184	G	C3'-C2'	-5.38	1.44	1.52
3	A1	1194	U	P-O5'	5.38	1.67	1.59
3	A1	1410	A	P-O5'	5.38	1.67	1.59
34	BK	28	ALA	CA-C	-5.38	1.46	1.52
37	BN	233	GLY	CA-C	5.38	1.59	1.51
25	BB	680	C	C4'-C3'	5.38	1.60	1.52
3	A1	695	A	P-O5'	5.38	1.67	1.59
4	AB	94	ARG	CZ-NH2	-5.38	1.26	1.33
15	AO	168	ARG	CZ-NH1	-5.38	1.25	1.32
17	AR	71	PHE	N-CA	-5.38	1.39	1.46
25	BB	661	A	C5'-C4'	5.38	1.59	1.51
25	BB	706	A	P-O5'	5.38	1.67	1.59
27	BD	58	LEU	CA-CB	5.38	1.62	1.53
40	BQ	6	LEU	CA-C	5.38	1.59	1.52
3	A1	7	A	P-O5'	-5.38	1.51	1.59
3	A1	1035	A	C4'-O4'	-5.38	1.37	1.45
25	BB	1761	C	C4-N4	-5.38	1.23	1.33
1	AP	20	G	C2-N2	-5.38	1.23	1.34
1	AP	47	U	C5'-C4'	5.38	1.59	1.51
5	AC	122	PRO	CA-C	5.38	1.57	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	672	C	P-O5'	-5.38	1.51	1.59
25	BB	1475	G	C5'-C4'	5.38	1.59	1.51
25	BB	2630	G	C4'-O4'	-5.38	1.37	1.45
25	BB	2736	A	C2'-O2'	5.38	1.50	1.42
30	BG	96	ARG	NE-CZ	-5.38	1.27	1.33
49	BZ	27	THR	CA-CB	5.38	1.59	1.53
49	BZ	64	VAL	N-CA	5.38	1.52	1.46
3	A1	1345	U	P-O5'	5.38	1.67	1.59
19	AT	29	ILE	N-CA	5.38	1.53	1.46
25	BB	2631	G	O5'-C5'	-5.38	1.34	1.42
33	BJ	43	GLN	CA-C	5.38	1.60	1.52
53	B4	74	ALA	C-N	5.38	1.40	1.33
3	A1	88	U	C2'-C1'	5.38	1.61	1.53
3	A1	300	A	O3'-P	-5.37	1.53	1.61
46	BW	38	LYS	N-CA	5.37	1.53	1.46
1	AA	56	C	C5'-C4'	5.37	1.59	1.51
3	A1	343	U	C5'-C4'	5.37	1.59	1.51
3	A1	1314	C	N3-C4	-5.37	1.23	1.33
25	BB	1574	C	C5'-C4'	5.37	1.59	1.51
25	BB	2807	U	C4'-O4'	-5.37	1.37	1.45
32	BI	10	GLU	CA-C	5.37	1.59	1.52
51	B2	112	ASP	CA-C	5.37	1.58	1.53
25	BB	1131	G	C5'-C4'	5.37	1.59	1.51
25	BB	2023	C	C4'-O4'	-5.37	1.37	1.45
38	BO	46	LYS	C-O	5.37	1.28	1.23
3	A1	957	U	O4'-C1'	-5.37	1.33	1.41
25	BB	2286	G	O3'-P	-5.37	1.53	1.61
3	A1	504	C	C5'-C4'	5.37	1.59	1.51
3	A1	988	G	P-O5'	5.37	1.67	1.59
4	AB	183	PHE	CA-C	5.37	1.59	1.52
18	AS	34	ALA	CA-C	5.37	1.59	1.52
25	BB	226	A	C3'-O3'	5.37	1.50	1.42
25	BB	1691	C	C2'-O2'	-5.37	1.34	1.42
3	A1	346	G	C5'-C4'	5.36	1.59	1.51
4	AB	136	ARG	N-CA	5.36	1.52	1.46
25	BB	1858	A	C5'-C4'	5.36	1.59	1.51
25	BB	2779	U	O3'-P	-5.36	1.53	1.61
27	BD	18	ARG	NE-CZ	-5.36	1.27	1.33
3	A1	219	U	O4'-C1'	5.36	1.50	1.42
3	A1	1158	C	C5'-C4'	5.36	1.59	1.51
13	AL	42	ASN	CA-CB	5.36	1.62	1.53
25	BB	60	G	C4'-C3'	5.36	1.60	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	1326	U	C3'-C2'	5.36	1.60	1.52
37	BN	213	ARG	CZ-NH1	-5.36	1.25	1.32
25	BB	811	U	O4'-C1'	5.36	1.50	1.42
25	BB	861	A	C5'-C4'	5.36	1.59	1.51
4	AB	79	VAL	C-O	-5.36	1.17	1.24
9	AH	80	LEU	CA-C	5.36	1.59	1.52
25	BB	1648	U	C5'-C4'	5.36	1.59	1.51
35	BL	28	LYS	N-CA	5.36	1.53	1.46
3	A1	1475	G	O4'-C1'	5.35	1.49	1.41
3	A1	785	G	C4'-O4'	-5.35	1.37	1.45
3	A1	1246	A	O3'-P	-5.35	1.53	1.61
3	A1	1431	A	C5'-C4'	5.35	1.59	1.51
6	AD	82	ARG	CD-NE	5.35	1.53	1.46
22	AW	80	HIS	CA-C	5.35	1.59	1.52
25	BB	136	G	C4'-C3'	5.35	1.60	1.52
15	AO	135	ARG	CZ-NH2	-5.35	1.26	1.33
19	AT	45	ARG	CD-NE	5.35	1.53	1.46
45	BV	4	THR	CB-OG1	-5.35	1.35	1.43
3	A1	418	C	C5'-C4'	5.35	1.59	1.51
3	A1	906	A	C4'-O4'	-5.35	1.37	1.45
19	AT	25	TYR	N-CA	5.35	1.53	1.46
24	BA	22	U	C3'-C2'	5.35	1.60	1.52
25	BB	2011	U	C3'-C2'	5.35	1.60	1.52
25	BB	2288	A	O4'-C1'	5.35	1.49	1.41
1	AA	20	G	O5'-C5'	5.35	1.50	1.42
3	A1	143	A	C4'-O4'	-5.35	1.37	1.45
22	AW	17	ARG	CZ-NH1	-5.35	1.25	1.32
25	BB	1910	G	P-O5'	5.35	1.67	1.59
25	BB	2193	G	O4'-C1'	5.35	1.49	1.41
25	BB	2336	A	C5'-C4'	5.35	1.59	1.51
25	BB	2879	A	C5'-C4'	5.35	1.59	1.51
37	BN	155	ARG	CZ-NH2	-5.35	1.26	1.33
25	BB	1176	U	C4'-C3'	5.35	1.60	1.52
25	BB	1600	C	C4'-O4'	-5.35	1.37	1.45
51	B2	39	VAL	C-N	-5.34	1.25	1.34
15	AO	88	LYS	N-CA	5.34	1.52	1.46
48	BY	30	GLU	N-CA	5.34	1.53	1.46
48	BY	154	LYS	C-O	-5.34	1.17	1.24
25	BB	2314	A	O5'-C5'	-5.34	1.34	1.42
28	BE	94	THR	N-CA	5.34	1.53	1.46
3	A1	484	G	O3'-P	-5.34	1.53	1.61
24	BA	61	G	C2-N2	-5.34	1.23	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	895	U	C2'-O2'	5.34	1.50	1.42
25	BB	1721	G	C4'-O4'	-5.34	1.37	1.45
42	BS	22	MET	CA-C	5.34	1.61	1.52
25	BB	2162	G	C2-N2	-5.34	1.23	1.34
3	A1	185	U	C4'-C3'	-5.34	1.44	1.52
20	AU	48	THR	CB-OG1	-5.34	1.35	1.43
21	AV	14	ARG	CZ-NH1	-5.34	1.25	1.32
25	BB	83	A	O3'-P	-5.34	1.53	1.61
25	BB	512	G	C5'-C4'	5.34	1.59	1.51
25	BB	1825	U	C5'-C4'	5.34	1.59	1.51
25	BB	2098	U	C3'-C2'	5.34	1.60	1.52
25	BB	2672	U	C1'-N1	5.34	1.56	1.48
30	BG	35	LYS	CA-C	5.34	1.59	1.52
37	BN	169	ALA	CA-C	5.34	1.59	1.52
55	B6	35	ARG	NE-CZ	-5.34	1.27	1.33
25	BB	203	A	C5'-C4'	5.33	1.59	1.51
3	A1	353	A	O4'-C1'	5.33	1.49	1.41
25	BB	881	G	O4'-C1'	5.33	1.49	1.41
25	BB	1800	C	C5'-C4'	5.33	1.59	1.51
25	BB	1937	A	O3'-P	-5.33	1.53	1.61
25	BB	1962	C	C4'-O4'	-5.33	1.37	1.45
37	BN	51	ARG	CZ-NH2	-5.33	1.26	1.33
3	A1	1385	G	O3'-P	-5.33	1.53	1.61
31	BH	92	PHE	N-CA	5.33	1.52	1.45
1	AE	39	U	C3'-O3'	-5.33	1.34	1.42
4	AB	105	THR	CB-OG1	-5.33	1.35	1.43
7	AF	112	ARG	CZ-NH2	-5.33	1.26	1.33
25	BB	174	U	O4'-C1'	5.33	1.49	1.41
25	BB	490	C	C5'-C4'	5.33	1.59	1.51
25	BB	1905	C	C3'-O3'	-5.33	1.35	1.43
25	BB	2507	C	C4'-O4'	-5.33	1.37	1.45
50	B1	134	LEU	CA-CB	5.33	1.63	1.53
25	BB	48	G	C5'-C4'	5.33	1.59	1.51
25	BB	332	A	C4'-O4'	-5.33	1.37	1.45
25	BB	1802	A	C2'-O2'	-5.33	1.34	1.42
25	BB	2620	C	C3'-O3'	5.33	1.50	1.42
15	AO	161	ILE	CA-C	5.33	1.58	1.52
23	AX	59	LYS	N-CA	5.33	1.52	1.46
29	BF	4	PRO	N-CA	-5.33	1.40	1.47
55	B6	135	GLN	CA-C	5.33	1.59	1.52
3	A1	932	C	C4-N4	-5.32	1.23	1.33
25	BB	10	A	C4'-O4'	-5.32	1.37	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	1911	U	P-O5'	5.32	1.67	1.59
51	B2	166	ARG	CA-CB	5.32	1.62	1.53
1	AP	62	A	C5'-C4'	5.32	1.59	1.51
8	AG	27	LYS	CA-C	-5.32	1.45	1.52
25	BB	678	C	C4-N4	-5.32	1.23	1.33
25	BB	919	U	O4'-C1'	5.32	1.49	1.41
35	BL	41	LYS	N-CA	5.32	1.52	1.46
3	A1	141	G	O3'-P	-5.32	1.53	1.61
3	A1	492	C	C4'-O4'	-5.32	1.37	1.45
3	A1	889	A	O3'-P	-5.32	1.53	1.61
51	B2	155	ILE	CA-CB	5.32	1.60	1.54
25	BB	576	U	C2'-C1'	-5.32	1.45	1.53
25	BB	2311	A	O5'-C5'	5.32	1.50	1.42
48	BY	119	ALA	N-CA	5.32	1.53	1.46
55	B6	138	GLN	C-N	5.32	1.40	1.33
25	BB	256	A	C4'-C3'	5.32	1.60	1.52
25	BB	704	G	O3'-P	-5.32	1.53	1.61
25	BB	1727	C	O3'-P	-5.32	1.53	1.61
26	BC	18	ARG	CZ-NH1	-5.32	1.25	1.32
37	BN	238	ASN	N-CA	5.32	1.53	1.46
50	B1	121	VAL	N-CA	5.32	1.52	1.46
3	A1	918	A	C5'-C4'	5.31	1.59	1.51
3	A1	1249	C	C4-N4	-5.31	1.23	1.33
24	BA	36	C	C5'-C4'	5.31	1.59	1.51
25	BB	30	G	O3'-P	-5.31	1.53	1.61
25	BB	2739	U	C4'-O4'	5.31	1.53	1.45
30	BG	45	ARG	NE-CZ	-5.31	1.27	1.33
32	BI	42	PHE	CA-C	5.31	1.58	1.52
37	BN	35	LYS	CA-CB	5.31	1.59	1.52
1	AE	48	C	O3'-P	5.31	1.69	1.61
3	A1	1294	G	C5'-C4'	5.31	1.59	1.51
15	AO	189	HIS	ND1-CE1	5.31	1.37	1.32
35	BL	18	ARG	CZ-NH2	-5.31	1.26	1.33
37	BN	51	ARG	N-CA	5.31	1.53	1.46
25	BB	998	C	C3'-C2'	5.31	1.60	1.52
25	BB	1037	G	O3'-P	5.31	1.69	1.61
15	AO	95	GLY	CA-C	5.31	1.58	1.51
17	AR	187	ARG	CZ-NH2	-5.31	1.26	1.33
24	BA	30	C	C5'-C4'	5.31	1.59	1.51
25	BB	204	A	P-O5'	-5.31	1.51	1.59
25	BB	231	A	C5'-C4'	5.31	1.59	1.51
25	BB	334	C	N1-C6	5.31	1.47	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	BL	7	HIS	CD2-NE2	5.31	1.43	1.37
1	AA	29	A	C5'-C4'	5.31	1.59	1.51
3	A1	678	U	O5'-C5'	5.31	1.50	1.42
3	A1	835	U	C2'-O2'	5.31	1.50	1.42
3	A1	1112	C	C5'-C4'	5.31	1.59	1.51
3	A1	1343	G	C3'-O3'	-5.31	1.34	1.42
6	AD	94	TYR	N-CA	5.31	1.52	1.45
25	BB	308	G	C3'-O3'	-5.31	1.34	1.42
25	BB	1976	U	C2'-O2'	5.31	1.49	1.41
28	BE	63	LYS	N-CA	5.31	1.52	1.45
25	BB	430	A	N9-C4	5.31	1.48	1.37
25	BB	1912	A	C5'-C4'	5.31	1.59	1.51
30	BG	101	GLY	CA-C	5.31	1.57	1.51
3	A1	1120	C	C5'-C4'	5.30	1.59	1.51
24	BA	83	G	C2'-O2'	5.30	1.50	1.42
25	BB	1177	G	C3'-C2'	5.30	1.60	1.52
25	BB	1431	A	O4'-C1'	5.30	1.49	1.41
33	BJ	102	LYS	N-CA	5.30	1.53	1.46
52	B3	99	GLY	CA-C	5.30	1.59	1.51
3	A1	483	C	O3'-P	-5.30	1.53	1.61
3	A1	670	G	C1'-N9	5.30	1.55	1.48
25	BB	1259	G	O3'-P	-5.30	1.53	1.61
25	BB	2884	U	O3'-P	-5.30	1.53	1.61
3	A1	68	G	P-O5'	5.30	1.67	1.59
3	A1	1193	G	C1'-N9	-5.30	1.40	1.48
3	A1	1498	U	P-O5'	5.30	1.67	1.59
51	B2	88	VAL	N-CA	5.30	1.52	1.46
33	BJ	84	LYS	CA-C	5.30	1.60	1.52
25	BB	176	A	C4'-C3'	5.30	1.60	1.52
35	BL	7	HIS	N-CA	5.30	1.53	1.46
3	A1	611	C	C4'-O4'	-5.30	1.37	1.45
3	A1	632	U	P-O5'	5.30	1.67	1.59
25	BB	20	C	C3'-C2'	5.30	1.60	1.52
25	BB	1615	C	C1'-N1	5.30	1.56	1.48
25	BB	1969	A	O3'-P	-5.30	1.53	1.61
25	BB	1652	A	C5'-C4'	5.29	1.59	1.51
53	B4	42	LYS	N-CA	5.29	1.53	1.46
3	A1	876	C	C5'-C4'	5.29	1.59	1.51
3	A1	921	U	O4'-C1'	-5.29	1.33	1.41
3	A1	1382	C	C1'-N1	-5.29	1.40	1.48
6	AD	121	PRO	CA-C	5.29	1.59	1.52
19	AT	74	LEU	CB-CG	5.29	1.64	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	845	A	C1'-N9	5.29	1.55	1.48
25	BB	1007	C	O3'-P	-5.29	1.53	1.61
25	BB	2481	G	C1'-N9	5.29	1.54	1.47
30	BG	49	GLU	C-O	-5.29	1.19	1.24
48	BY	25	THR	C-O	-5.29	1.17	1.23
15	AO	130	ARG	CA-C	5.29	1.59	1.52
25	BB	789	A	C5'-C4'	5.29	1.59	1.51
49	BZ	63	ARG	CZ-NH2	-5.29	1.26	1.33
4	AB	14	HIS	CD2-NE2	5.29	1.43	1.37
6	AD	36	VAL	N-CA	5.29	1.52	1.46
18	AS	132	PRO	N-CD	-5.29	1.40	1.47
25	BB	1275	A	O3'-P	-5.29	1.53	1.61
49	BZ	164	GLN	C-O	5.29	1.30	1.23
3	A1	867	G	C5'-C4'	5.29	1.59	1.51
6	AD	93	ARG	CZ-NH2	-5.29	1.26	1.33
25	BB	174	U	C4'-C3'	5.29	1.60	1.52
25	BB	591	U	P-O5'	5.29	1.67	1.59
25	BB	904	G	P-O5'	5.29	1.67	1.59
24	BA	28	C	C4'-O4'	-5.29	1.37	1.45
25	BB	305	C	C4'-O4'	-5.29	1.37	1.45
25	BB	2312	U	C2'-O2'	5.29	1.50	1.42
25	BB	2821	A	C5'-C4'	5.29	1.59	1.51
3	A1	159	G	C2-N2	-5.28	1.24	1.34
25	BB	727	A	O3'-P	-5.28	1.53	1.61
25	BB	1618	A	O3'-P	-5.28	1.53	1.61
32	BI	66	GLY	N-CA	5.28	1.53	1.45
37	BN	160	TYR	N-CA	5.28	1.53	1.46
16	AQ	15	LEU	CA-CB	5.28	1.62	1.53
3	A1	904	U	C2'-C1'	-5.28	1.45	1.53
25	BB	512	G	C3'-O3'	5.28	1.50	1.42
55	B6	139	VAL	N-CA	5.28	1.53	1.46
10	AI	14	ARG	CZ-NH2	-5.28	1.26	1.33
25	BB	339	U	C1'-N1	5.28	1.55	1.47
28	BE	123	ARG	CZ-NH2	-5.28	1.26	1.33
17	AR	103	ARG	CZ-NH2	-5.28	1.26	1.33
25	BB	184	C	P-O5'	5.28	1.67	1.59
25	BB	714	U	C1'-N1	5.28	1.56	1.48
25	BB	745	G	C5'-C4'	5.28	1.59	1.51
25	BB	1303	G	C6-N1	-5.28	1.28	1.39
25	BB	2639	A	O3'-P	-5.28	1.53	1.61
29	BF	106	ASP	C-N	5.28	1.39	1.33
50	B1	39	ALA	N-CA	5.28	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	511	C	C2'-O2'	5.28	1.49	1.41
25	BB	14	A	P-O5'	-5.28	1.51	1.59
25	BB	604	G	O3'-P	-5.28	1.53	1.61
25	BB	2391	G	C4'-O4'	-5.28	1.38	1.45
25	BB	2750	A	C5'-C4'	5.27	1.59	1.51
49	BZ	133	LYS	N-CA	5.27	1.52	1.45
16	AQ	48	LYS	CA-CB	5.27	1.61	1.53
25	BB	2101	A	C3'-C2'	5.27	1.60	1.52
25	BB	2216	G	C2'-C1'	5.27	1.61	1.53
25	BB	2289	G	C4'-O4'	-5.27	1.37	1.45
40	BQ	14	LEU	CA-C	5.27	1.60	1.52
49	BZ	122	ARG	NE-CZ	-5.27	1.27	1.33
54	B5	93	ASN	CA-C	5.27	1.59	1.52
25	BB	196	A	C5'-C4'	5.27	1.59	1.51
25	BB	1443	U	O3'-P	-5.27	1.53	1.61
3	A1	14	U	O3'-P	-5.27	1.53	1.61
17	AR	128	VAL	CA-C	5.27	1.59	1.52
25	BB	673	C	P-O5'	-5.27	1.51	1.59
25	BB	1266	G	C3'-O3'	5.27	1.50	1.42
27	BD	100	PHE	N-CA	5.27	1.54	1.46
43	BT	40	HIS	CE1-NE2	5.27	1.37	1.32
3	A1	606	G	O4'-C1'	5.27	1.49	1.41
25	BB	495	G	O5'-C5'	5.27	1.50	1.42
25	BB	2048	G	C5'-C4'	5.27	1.59	1.51
25	BB	2282	G	O3'-P	5.27	1.69	1.61
48	BY	77	ARG	CZ-NH2	-5.27	1.26	1.33
15	AO	107	LYS	CA-C	5.27	1.59	1.52
24	BA	30	C	C2'-C1'	5.27	1.61	1.53
25	BB	58	G	C2'-O2'	-5.27	1.33	1.41
25	BB	768	G	C3'-C2'	5.27	1.60	1.52
3	A1	48	C	O4'-C1'	5.26	1.49	1.42
3	A1	782	A	O3'-P	-5.26	1.53	1.61
3	A1	1503	A	C5'-C4'	5.26	1.59	1.51
25	BB	836	G	C3'-C2'	5.26	1.60	1.52
25	BB	2179	C	P-O5'	5.26	1.67	1.59
48	BY	69	ALA	CA-C	5.26	1.59	1.52
23	AX	95	GLY	CA-C	5.26	1.56	1.51
25	BB	881	G	C5'-C4'	5.26	1.59	1.51
25	BB	1507	C	C4-N4	-5.26	1.23	1.33
3	A1	1170	A	C1'-N9	5.26	1.55	1.48
6	AD	115	LYS	N-CA	5.26	1.52	1.46
25	BB	227	A	C5'-C4'	5.26	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	1323	C	C1'-N1	5.26	1.55	1.47
25	BB	2783	U	O5'-C5'	-5.26	1.34	1.42
31	BH	3	LYS	N-CA	5.26	1.52	1.46
41	BR	19	HIS	ND1-CE1	5.26	1.37	1.32
3	A1	1358	U	C5'-C4'	5.26	1.59	1.51
22	AW	58	GLU	CA-C	5.26	1.59	1.52
24	BA	30	C	O4'-C1'	5.26	1.49	1.41
25	BB	498	G	O3'-P	-5.26	1.53	1.61
25	BB	2708	G	C4'-C3'	-5.26	1.44	1.52
41	BR	23	LEU	C-N	5.26	1.40	1.33
25	BB	1055	G	O3'-P	-5.26	1.53	1.61
25	BB	1706	C	P-O5'	-5.26	1.51	1.59
25	BB	2105	U	C3'-C2'	5.26	1.60	1.52
3	A1	1038	C	C4'-C3'	-5.26	1.44	1.52
9	AH	21	THR	N-CA	5.26	1.52	1.46
21	AV	83	ARG	CZ-NH2	-5.26	1.26	1.33
23	AX	37	ARG	CZ-NH1	-5.26	1.25	1.32
25	BB	1063	G	C4'-O4'	-5.26	1.37	1.45
36	BM	75	GLY	CA-C	5.26	1.59	1.51
2	AM	5	U	C2'-O2'	5.25	1.50	1.42
25	BB	12	U	O5'-C5'	5.25	1.50	1.42
50	B1	160	ALA	CA-C	5.25	1.60	1.52
3	A1	1005	A	C4'-O4'	-5.25	1.37	1.45
3	A1	1051	C	O3'-P	-5.25	1.53	1.61
3	A1	1299	A	C4'-C3'	5.25	1.60	1.52
19	AT	97	THR	N-CA	5.25	1.53	1.46
25	BB	38	A	C5'-C4'	5.25	1.59	1.51
25	BB	1308	A	C4'-C3'	5.25	1.60	1.52
25	BB	1947	C	C4'-C3'	5.25	1.60	1.52
55	B6	70	THR	N-CA	5.25	1.52	1.46
22	AW	94	ARG	CD-NE	5.25	1.53	1.46
25	BB	2351	G	O3'-P	-5.25	1.53	1.61
3	A1	640	A	C5'-C4'	5.25	1.59	1.51
3	A1	687	A	C1'-N9	5.25	1.54	1.47
20	AU	78	ARG	CA-CB	-5.25	1.45	1.53
21	AV	31	LEU	CA-C	5.25	1.59	1.52
25	BB	1482	G	C3'-C2'	5.25	1.60	1.52
25	BB	1969	A	C1'-N9	5.25	1.55	1.48
25	BB	2785	C	C5'-C4'	5.25	1.59	1.51
30	BG	45	ARG	CZ-NH1	-5.25	1.25	1.32
30	BG	83	LEU	CA-C	5.25	1.59	1.52
37	BN	133	ASN	C-N	-5.25	1.27	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
49	BZ	50	GLU	N-CA	5.25	1.52	1.46
3	A1	524	G	C1'-N9	5.24	1.55	1.48
7	AF	20	SER	N-CA	5.24	1.52	1.46
11	AJ	51	GLU	N-CA	5.24	1.53	1.46
15	AO	126	ARG	CA-CB	5.24	1.62	1.53
25	BB	2188	U	C5'-C4'	5.24	1.59	1.51
25	BB	1112	G	C2-N2	-5.24	1.24	1.34
17	AR	196	GLU	CA-CB	5.24	1.61	1.53
25	BB	66	C	C2'-O2'	5.24	1.50	1.42
25	BB	172	A	C5-C6	5.24	1.51	1.41
25	BB	1026	G	C2-N2	-5.24	1.24	1.34
25	BB	1156	A	O3'-P	-5.24	1.53	1.61
25	BB	1213	A	C4'-O4'	-5.24	1.37	1.45
18	AS	149	PRO	N-CA	5.24	1.54	1.47
25	BB	536	G	P-O5'	5.24	1.67	1.59
1	AA	35	A	C3'-C2'	5.24	1.60	1.52
3	A1	539	A	C3'-C2'	5.24	1.60	1.52
3	A1	1398	A	C3'-C2'	5.24	1.60	1.52
25	BB	15	G	O4'-C1'	5.24	1.49	1.41
25	BB	2207	C	O5'-C5'	-5.24	1.34	1.42
32	BI	108	ARG	CA-C	5.24	1.59	1.52
3	A1	1138	G	C4'-O4'	5.24	1.53	1.45
15	AO	50	SER	C-O	5.24	1.30	1.24
25	BB	976	G	C5-C6	5.24	1.52	1.42
25	BB	2276	G	C2'-O2'	-5.24	1.33	1.41
1	AE	31	A	P-O5'	-5.23	1.51	1.59
3	A1	467	U	C5'-C4'	5.23	1.59	1.51
25	BB	880	G	O5'-C5'	-5.23	1.34	1.42
25	BB	2642	G	O3'-P	-5.23	1.53	1.61
28	BE	132	ARG	NE-CZ	-5.23	1.27	1.33
21	AV	14	ARG	CZ-NH2	-5.23	1.26	1.33
25	BB	660	C	P-O5'	-5.23	1.51	1.59
25	BB	2678	C	C4'-O4'	-5.23	1.37	1.45
26	BC	14	LYS	N-CA	5.23	1.53	1.46
37	BN	8	THR	N-CA	5.23	1.52	1.46
1	AA	37	G	O3'-P	-5.23	1.53	1.61
6	AD	115	LYS	CA-C	5.23	1.59	1.52
18	AS	40	ASP	N-CA	5.23	1.52	1.46
36	BM	15	HIS	N-CA	5.23	1.53	1.45
3	A1	1367	C	C5'-C4'	5.23	1.59	1.51
12	AK	28	LEU	CB-CG	5.23	1.64	1.53
3	A1	358	U	O5'-C5'	5.23	1.50	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
12	AK	72	ARG	CZ-NH1	-5.23	1.25	1.32
14	AN	64	GLY	CA-C	-5.23	1.44	1.51
22	AW	74	GLN	CA-CB	5.23	1.61	1.53
25	BB	545	U	P-O5'	5.23	1.67	1.59
38	BO	84	PHE	CA-C	5.23	1.60	1.53
12	AK	41	SER	C-O	-5.23	1.17	1.24
25	BB	458	G	C2'-O2'	-5.23	1.33	1.41
25	BB	1094	U	C5'-C4'	5.23	1.59	1.51
3	A1	926	G	C5'-C4'	5.22	1.59	1.51
5	AC	113	THR	N-CA	5.22	1.53	1.46
15	AO	84	GLU	CA-C	5.22	1.59	1.52
18	AS	44	ARG	CZ-NH1	-5.22	1.25	1.32
25	BB	2608	G	C5'-C4'	5.22	1.59	1.51
48	BY	161	MET	N-CA	5.22	1.53	1.46
25	BB	2427	C	P-O5'	-5.22	1.51	1.59
43	BT	51	ARG	CZ-NH2	-5.22	1.26	1.33
51	B2	148	VAL	N-CA	5.22	1.52	1.46
5	AC	89	GLY	N-CA	5.22	1.51	1.44
5	AC	121	ARG	CZ-NH1	-5.22	1.25	1.32
17	AR	9	LYS	C-N	-5.22	1.27	1.33
25	BB	2094	A	O3'-P	-5.22	1.53	1.61
25	BB	1698	A	C6-N1	-5.22	1.25	1.35
3	A1	912	C	O5'-C5'	5.22	1.50	1.42
3	A1	998	C	C5'-C4'	5.22	1.59	1.51
3	A1	1395	C	C1'-N1	5.22	1.55	1.47
8	AG	40	ARG	CZ-NH2	-5.22	1.26	1.33
10	AI	6	LEU	CA-CB	5.22	1.59	1.53
30	BG	96	ARG	CZ-NH2	-5.22	1.26	1.33
3	A1	30	U	N1-C2	5.21	1.49	1.38
3	A1	63	C	C4-N4	-5.21	1.23	1.33
3	A1	341	C	C4'-C3'	5.21	1.60	1.52
21	AV	94	VAL	N-CA	5.21	1.52	1.46
22	AW	53	LEU	CA-C	5.21	1.59	1.52
25	BB	1430	G	C3'-C2'	5.21	1.60	1.52
25	BB	1598	A	P-O5'	5.21	1.67	1.59
25	BB	1948	G	O3'-P	-5.21	1.53	1.61
50	B1	102	ARG	CD-NE	5.21	1.53	1.46
50	B1	181	ILE	CA-C	-5.21	1.46	1.52
3	A1	562	U	C5'-C4'	5.21	1.59	1.51
9	AH	59	VAL	CA-CB	5.21	1.61	1.54
21	AV	61	THR	N-CA	5.21	1.52	1.46
26	BC	61	LEU	C-N	5.21	1.42	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
52	B3	162	ARG	CZ-NH1	-5.21	1.25	1.32
1	AE	51	G	P-O5'	-5.21	1.51	1.59
3	A1	768	A	O4'-C1'	5.21	1.49	1.41
3	A1	1223	C	O4'-C1'	5.21	1.49	1.42
8	AG	39	ASP	CA-C	5.21	1.59	1.52
25	BB	540	C	C5'-C4'	5.21	1.59	1.51
15	AO	160	GLU	CA-C	5.21	1.59	1.52
25	BB	538	A	C3'-O3'	5.21	1.50	1.42
42	BS	64	PHE	C-O	-5.21	1.18	1.24
6	AD	11	ARG	NE-CZ	-5.21	1.27	1.33
25	BB	1071	G	C5'-C4'	5.21	1.59	1.51
25	BB	1104	C	C4-N4	-5.21	1.23	1.33
25	BB	1680	U	C4'-O4'	-5.21	1.38	1.45
36	BM	59	ASN	CA-C	5.21	1.58	1.52
2	AM	14	U	C3'-C2'	5.21	1.60	1.52
3	A1	89	U	P-O5'	5.21	1.67	1.59
3	A1	1312	G	C2-N2	-5.21	1.24	1.34
3	A1	1378	C	P-O5'	-5.21	1.51	1.59
15	AO	88	LYS	CA-C	5.21	1.57	1.52
17	AR	188	SER	N-CA	5.21	1.52	1.46
25	BB	631	A	C2-N3	-5.21	1.23	1.33
25	BB	2653	U	O3'-P	-5.21	1.53	1.61
3	A1	249	U	C4'-C3'	5.21	1.60	1.53
3	A1	1009	U	C4'-O4'	-5.21	1.37	1.45
25	BB	2617	U	C4'-O4'	-5.21	1.38	1.45
3	A1	485	U	O3'-P	5.20	1.69	1.61
25	BB	64	A	C3'-O3'	-5.20	1.35	1.43
25	BB	333	G	C5'-C4'	5.20	1.59	1.51
25	BB	2163	A	C1'-N9	5.20	1.55	1.48
25	BB	2256	G	C2'-O2'	5.20	1.50	1.42
28	BE	77	ILE	N-CA	5.20	1.52	1.46
32	BI	60	VAL	N-CA	5.20	1.52	1.46
34	BK	81	LYS	CA-C	5.20	1.59	1.52
3	A1	892	A	O4'-C1'	5.20	1.49	1.41
8	AG	96	LYS	CA-C	5.20	1.60	1.53
1	AA	28	C	C3'-C2'	5.20	1.60	1.52
3	A1	598	U	O3'-P	-5.20	1.53	1.61
3	A1	1122	U	C1'-N1	5.20	1.56	1.48
25	BB	23	G	O4'-C1'	5.20	1.49	1.41
25	BB	491	G	O4'-C1'	5.20	1.49	1.41
25	BB	769	U	C2'-C1'	5.20	1.60	1.53
25	BB	2201	G	C2-N2	-5.20	1.24	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	BE	75	ALA	N-CA	5.20	1.52	1.46
10	AI	31	ARG	CA-C	5.20	1.59	1.52
25	BB	1199	U	O3'-P	-5.20	1.53	1.61
25	BB	1434	A	C5'-C4'	5.20	1.59	1.51
25	BB	2720	U	O4'-C1'	5.20	1.49	1.42
28	BE	14	LYS	N-CA	5.20	1.52	1.46
48	BY	39	ASP	CA-C	5.20	1.59	1.52
25	BB	391	A	O4'-C1'	5.20	1.49	1.41
25	BB	1511	G	C2-N2	-5.20	1.24	1.34
25	BB	2241	A	C4'-O4'	-5.20	1.37	1.45
44	BU	18	HIS	CD2-NE2	5.20	1.43	1.37
18	AS	29	ILE	CA-CB	5.20	1.61	1.54
25	BB	879	G	C4'-O4'	-5.20	1.37	1.45
25	BB	2186	G	C4'-O4'	-5.20	1.37	1.45
37	BN	267	VAL	CA-CB	5.20	1.62	1.54
54	B5	13	ALA	C-O	-5.20	1.17	1.23
3	A1	1519	A	C5'-C4'	5.19	1.59	1.51
14	AN	78	LEU	N-CA	5.19	1.52	1.46
30	BG	72	ASP	CA-C	5.19	1.60	1.53
48	BY	79	LEU	CB-CG	5.19	1.63	1.53
3	A1	31	G	C5'-C4'	5.19	1.59	1.51
3	A1	1129	C	C2'-O2'	-5.19	1.34	1.42
4	AB	130	LYS	CA-C	5.19	1.59	1.52
7	AF	57	ASP	CA-C	5.19	1.59	1.52
25	BB	232	G	N3-C4	5.19	1.45	1.35
25	BB	714	U	O3'-P	-5.19	1.53	1.61
25	BB	2877	G	C4'-O4'	-5.19	1.37	1.45
35	BL	10	ALA	CA-C	5.19	1.59	1.52
39	BP	61	LYS	N-CA	5.19	1.52	1.46
43	BT	44	ALA	N-CA	5.19	1.52	1.46
1	AE	35	A	C4'-O4'	-5.19	1.37	1.45
25	BB	352	A	C4'-O4'	-5.19	1.37	1.45
25	BB	2288	A	C2'-C1'	5.19	1.61	1.53
52	B3	45	ALA	N-CA	5.19	1.52	1.45
25	BB	667	U	O3'-P	-5.19	1.53	1.61
3	A1	776	G	C2-N2	-5.19	1.24	1.34
18	AS	150	GLU	CA-C	-5.19	1.45	1.52
38	BO	52	ASN	CA-C	5.19	1.59	1.52
51	B2	149	ARG	CZ-NH2	-5.19	1.26	1.33
20	AU	108	ARG	CZ-NH1	-5.19	1.25	1.32
25	BB	737	C	C2'-O2'	5.19	1.50	1.42
25	BB	999	U	C5'-C4'	5.19	1.59	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	BW	9	ALA	CA-C	5.19	1.59	1.52
3	A1	258	G	O4'-C1'	5.18	1.49	1.41
3	A1	577	G	C3'-C2'	5.18	1.60	1.52
22	AW	10	ARG	CA-C	5.18	1.58	1.53
22	AW	46	VAL	CA-C	5.18	1.60	1.52
23	AX	6	ILE	CA-C	5.18	1.59	1.52
25	BB	1127	A	C4'-O4'	-5.18	1.38	1.45
25	BB	1953	A	C2'-O2'	5.18	1.50	1.42
25	BB	2403	C	C5'-C4'	5.18	1.59	1.51
19	AT	26	THR	CA-CB	5.18	1.62	1.53
19	AT	74	LEU	CA-C	5.18	1.59	1.52
25	BB	672	C	C5'-C4'	5.18	1.59	1.51
25	BB	1906	G	C2-N2	-5.18	1.24	1.34
25	BB	2491	U	C4'-O4'	-5.18	1.37	1.45
25	BB	2781	A	C4'-O4'	-5.18	1.37	1.45
4	AB	221	ARG	N-CA	5.18	1.52	1.46
24	BA	104	A	C4'-C3'	-5.18	1.44	1.52
25	BB	1908	C	N3-C4	-5.18	1.23	1.33
52	B3	148	ARG	CA-C	5.18	1.59	1.52
3	A1	1131	G	C2-N2	-5.18	1.24	1.34
5	AC	108	ASN	CA-C	5.18	1.58	1.52
13	AL	77	ARG	CZ-NH2	-5.18	1.26	1.33
25	BB	132	G	O3'-P	-5.18	1.53	1.61
25	BB	249	C	O5'-C5'	5.18	1.50	1.42
25	BB	1844	C	C1'-N1	5.18	1.56	1.48
25	BB	2126	A	P-O5'	-5.18	1.51	1.59
27	BD	27	GLY	CA-C	5.18	1.57	1.52
8	AG	80	ARG	N-CA	5.18	1.52	1.46
25	BB	110	G	C4'-C3'	5.18	1.60	1.52
3	A1	636	U	C5'-C4'	5.18	1.59	1.51
3	A1	737	C	C4-N4	-5.18	1.23	1.33
25	BB	977	G	C2'-O2'	-5.18	1.34	1.42
25	BB	2211	A	C2'-O2'	5.18	1.49	1.41
17	AR	96	ARG	NE-CZ	-5.17	1.27	1.33
17	AR	168	THR	N-CA	5.17	1.52	1.46
17	AR	202	LEU	N-CA	5.17	1.52	1.46
25	BB	2058	A	O3'-P	-5.17	1.53	1.61
30	BG	22	ARG	CZ-NH2	-5.17	1.26	1.33
3	A1	1340	A	C3'-C2'	5.17	1.63	1.53
25	BB	618	G	N1-C2	-5.17	1.27	1.37
25	BB	900	A	C4'-O4'	-5.17	1.38	1.45
25	BB	1390	U	C1'-N1	5.17	1.55	1.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
36	BM	80	TRP	CG-CD2	5.17	1.53	1.43
38	BO	36	GLU	CA-C	5.17	1.59	1.52
1	AA	30	G	C5'-C4'	5.17	1.59	1.51
3	A1	180	U	C1'-N1	5.17	1.56	1.48
3	A1	635	A	O3'-P	-5.17	1.53	1.61
8	AG	21	ALA	CA-C	5.17	1.61	1.52
25	BB	1199	U	O4'-C1'	5.17	1.49	1.42
38	BO	81	ARG	CA-CB	5.17	1.61	1.53
46	BW	23	HIS	C-O	5.17	1.30	1.24
49	BZ	5	LYS	C-O	-5.17	1.18	1.24
25	BB	134	G	C4'-O4'	-5.17	1.37	1.45
34	BK	35	PHE	C-N	5.17	1.40	1.33
3	A1	1180	A	C5'-C4'	5.17	1.59	1.51
25	BB	67	U	C5'-C4'	5.17	1.59	1.51
3	A1	688	G	C5'-C4'	5.17	1.58	1.51
13	AL	13	HIS	ND1-CE1	5.17	1.37	1.32
18	AS	35	LEU	N-CA	-5.17	1.40	1.46
25	BB	848	C	O3'-P	-5.17	1.53	1.61
25	BB	1869	G	O3'-P	-5.17	1.53	1.61
25	BB	2533	U	C2'-O2'	-5.17	1.34	1.42
25	BB	2578	G	C2-N2	-5.17	1.24	1.34
25	BB	2627	G	O4'-C1'	5.17	1.49	1.41
54	B5	64	ARG	CZ-NH1	-5.17	1.25	1.32
54	B5	78	LEU	CA-C	5.17	1.59	1.52
54	B5	125	THR	N-CA	5.17	1.52	1.46
25	BB	1385	A	C4'-C3'	5.17	1.60	1.53
1	AE	34	G	C2-N2	-5.16	1.24	1.34
25	BB	1449	G	O3'-P	-5.16	1.53	1.61
25	BB	2507	C	C5'-C4'	5.16	1.59	1.51
25	BB	2566	A	C5'-C4'	5.16	1.59	1.51
25	BB	555	G	C4'-C3'	5.16	1.60	1.52
25	BB	1283	G	O3'-P	-5.16	1.53	1.61
3	A1	1035	A	C3'-C2'	5.16	1.60	1.52
3	A1	1345	U	C5'-C4'	5.16	1.58	1.51
6	AD	71	HIS	CG-CD2	5.16	1.41	1.35
20	AU	61	PHE	N-CA	5.16	1.52	1.46
25	BB	9	G	C2'-O2'	-5.16	1.33	1.41
25	BB	1315	C	C4'-O4'	-5.16	1.38	1.45
25	BB	2101	A	C2'-O2'	5.16	1.50	1.42
25	BB	2264	C	C2'-O2'	5.16	1.50	1.42
52	B3	120	ILE	CA-CB	5.16	1.61	1.54
53	B4	133	GLN	N-CA	-5.16	1.40	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	896	C	C4-N4	-5.16	1.23	1.33
5	AC	17	ASP	CA-C	5.16	1.58	1.52
25	BB	211	C	C2'-C1'	5.16	1.61	1.53
45	BV	2	LYS	N-CA	5.16	1.53	1.46
25	BB	1535	A	C3'-O3'	5.16	1.50	1.43
35	BL	49	LYS	N-CA	5.16	1.52	1.46
3	A1	286	C	C4'-O4'	-5.16	1.37	1.45
20	AU	57	GLU	N-CA	5.16	1.53	1.46
25	BB	904	G	O4'-C1'	5.16	1.49	1.41
3	A1	1365	G	O3'-P	-5.15	1.53	1.61
17	AR	70	GLN	C-O	-5.15	1.17	1.24
25	BB	2300	C	C4-N4	-5.15	1.23	1.33
43	BT	29	VAL	CA-C	5.15	1.59	1.52
1	AP	58	A	C4'-O4'	-5.15	1.38	1.45
3	A1	819	A	C4'-C3'	5.15	1.60	1.53
6	AD	85	ARG	NE-CZ	-5.15	1.27	1.33
12	AK	64	LEU	N-CA	5.15	1.52	1.46
25	BB	2066	C	P-O5'	5.15	1.67	1.59
25	BB	2571	U	O3'-P	-5.15	1.53	1.61
27	BD	18	ARG	CZ-NH2	-5.15	1.26	1.33
44	BU	13	SER	CA-C	5.15	1.59	1.52
48	BY	188	LEU	N-CA	5.15	1.52	1.46
1	AA	31	A	O3'-P	5.15	1.68	1.61
3	A1	470	C	C2'-C1'	-5.15	1.45	1.53
8	AG	50	LEU	CA-C	5.15	1.59	1.52
17	AR	96	ARG	N-CA	5.15	1.52	1.45
25	BB	1130	U	C1'-N1	5.15	1.55	1.47
25	BB	1365	A	C4'-O4'	-5.15	1.37	1.45
21	AV	33	VAL	N-CA	5.15	1.53	1.46
31	BH	48	LEU	CA-CB	5.15	1.59	1.52
21	AV	43	GLY	N-CA	5.15	1.52	1.45
25	BB	1322	A	C4'-C3'	5.15	1.60	1.53
32	BI	62	LYS	N-CA	5.15	1.52	1.45
50	B1	107	SER	CA-CB	5.15	1.62	1.53
1	AE	74	C	P-O5'	-5.15	1.52	1.59
25	BB	136	G	P-O5'	5.15	1.67	1.59
51	B2	63	LYS	CA-CB	5.15	1.60	1.53
3	A1	339	C	C2'-O2'	-5.14	1.34	1.42
18	AS	134	ASN	C-N	5.14	1.40	1.33
39	BP	69	GLU	C-N	5.14	1.38	1.33
48	BY	151	THR	CB-OG1	-5.14	1.35	1.43
3	A1	557	G	C4'-O4'	-5.14	1.38	1.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	742	G	P-O5'	5.14	1.67	1.59
3	A1	1516	G	C1'-N9	5.14	1.54	1.47
22	AW	76	GLY	C-N	5.14	1.40	1.33
25	BB	1061	U	C3'-O3'	5.14	1.50	1.43
25	BB	2452	C	C3'-O3'	5.14	1.50	1.43
25	BB	2899	A	C5'-C4'	5.14	1.58	1.51
33	BJ	50	ARG	CZ-NH2	-5.14	1.26	1.33
35	BL	92	ARG	CZ-NH2	-5.14	1.26	1.33
46	BW	2	LYS	CA-C	5.14	1.60	1.53
25	BB	1436	G	C4'-C3'	-5.14	1.44	1.52
38	BO	11	ILE	CA-C	-5.14	1.47	1.52
20	AU	102	TRP	CA-C	5.14	1.59	1.52
25	BB	179	C	O3'-P	-5.14	1.53	1.61
25	BB	1079	C	C2'-O2'	5.14	1.50	1.42
25	BB	1929	G	C2-N2	-5.14	1.24	1.34
25	BB	2617	U	C2'-C1'	5.14	1.60	1.53
37	BN	76	VAL	C-N	5.14	1.38	1.33
25	BB	114	U	O3'-P	-5.14	1.53	1.61
29	BF	114	ARG	CZ-NH2	-5.14	1.26	1.33
3	A1	1465	A	C2'-C1'	5.14	1.61	1.53
5	AC	65	ALA	CA-CB	-5.14	1.44	1.53
20	AU	130	LYS	CA-C	-5.14	1.45	1.52
25	BB	696	G	C5'-C4'	5.14	1.58	1.51
3	A1	1377	A	C2'-C1'	-5.13	1.45	1.53
17	AR	178	GLU	C-N	5.13	1.39	1.33
25	BB	952	G	C4'-O4'	-5.13	1.38	1.45
25	BB	2894	G	O3'-P	-5.13	1.53	1.61
4	AB	206	ILE	N-CA	5.13	1.53	1.46
23	AX	18	ILE	CA-CB	-5.13	1.47	1.54
3	A1	11	G	C4'-C3'	5.13	1.60	1.52
25	BB	1881	C	C5'-C4'	5.13	1.58	1.51
25	BB	2722	G	C4'-O4'	-5.13	1.37	1.45
27	BD	63	VAL	N-CA	5.13	1.52	1.46
1	AA	40	C	C5'-C4'	5.13	1.58	1.51
3	A1	299	G	O3'-P	-5.13	1.53	1.61
3	A1	1244	G	N1-C2	-5.13	1.27	1.37
5	AC	12	ARG	CZ-NH2	-5.13	1.26	1.33
3	A1	595	A	P-O5'	5.13	1.67	1.59
3	A1	684	U	C4'-C3'	5.13	1.60	1.53
21	AV	79	ARG	CA-C	5.13	1.59	1.52
25	BB	213	A	C1'-N9	5.13	1.54	1.47
25	BB	2044	C	C4-N4	-5.13	1.23	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
28	BE	48	ARG	CA-C	5.13	1.59	1.52
51	B2	166	ARG	NE-CZ	-5.13	1.27	1.33
3	A1	806	C	C4'-C3'	5.13	1.60	1.53
25	BB	1322	A	C1'-N9	5.13	1.54	1.47
25	BB	1682	G	P-O5'	-5.13	1.52	1.59
48	BY	46	ARG	CZ-NH1	-5.13	1.25	1.32
53	B4	74	ALA	CA-C	5.13	1.60	1.52
3	A1	726	C	C4-N4	-5.12	1.23	1.33
4	AB	48	MET	CA-C	5.12	1.59	1.52
25	BB	1238	G	C4'-O4'	-5.12	1.37	1.45
39	BP	25	PHE	CA-C	5.12	1.60	1.53
53	B4	86	ASP	N-CA	5.12	1.52	1.46
3	A1	762	U	O4'-C1'	5.12	1.49	1.41
24	BA	10	G	C4'-O4'	5.12	1.53	1.45
25	BB	1142	A	P-O5'	5.12	1.67	1.59
25	BB	1546	G	C4'-O4'	-5.12	1.37	1.45
25	BB	1689	A	C3'-C2'	5.12	1.60	1.52
30	BG	3	HIS	CD2-NE2	5.12	1.43	1.37
45	BV	13	ASN	CA-C	5.12	1.59	1.52
3	A1	444	G	C5'-C4'	5.12	1.58	1.51
25	BB	2187	U	P-O5'	-5.12	1.52	1.59
25	BB	2727	A	C5'-C4'	5.12	1.58	1.51
28	BE	82	LEU	CA-C	5.12	1.59	1.52
42	BS	62	LYS	CA-C	5.12	1.59	1.52
52	B3	44	HIS	CA-CB	-5.12	1.46	1.52
3	A1	818	G	C3'-C2'	5.12	1.60	1.52
6	AD	49	ARG	CZ-NH2	-5.12	1.26	1.33
11	AJ	41	THR	N-CA	5.12	1.52	1.46
11	AJ	73	THR	CA-C	-5.12	1.46	1.52
21	AV	70	VAL	N-CA	5.12	1.53	1.46
17	AR	87	GLU	CA-C	5.12	1.59	1.52
17	AR	124	VAL	CA-C	5.12	1.58	1.52
25	BB	2233	U	C4'-C3'	5.12	1.60	1.52
43	BT	7	PRO	N-CA	5.12	1.52	1.47
24	BA	55	U	P-O5'	-5.12	1.52	1.59
25	BB	1789	A	C5'-C4'	5.12	1.58	1.51
25	BB	2593	U	C2'-C1'	-5.12	1.45	1.53
26	BC	9	ARG	CZ-NH2	-5.12	1.26	1.33
3	A1	1025	U	C4'-O4'	-5.12	1.37	1.45
3	A1	1382	C	O5'-C5'	-5.12	1.34	1.42
25	BB	302	C	C3'-C2'	5.12	1.60	1.52
25	BB	320	A	C3'-O3'	-5.12	1.35	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	507	A	O4'-C1'	5.12	1.49	1.41
25	BB	514	A	C5'-C4'	5.12	1.58	1.51
25	BB	538	A	C4'-C3'	5.12	1.60	1.52
25	BB	1369	G	C4'-C3'	5.12	1.60	1.52
25	BB	1828	G	C5'-C4'	5.12	1.59	1.51
25	BB	2249	U	O4'-C1'	5.12	1.49	1.41
52	B3	151	ARG	CZ-NH2	-5.12	1.26	1.33
15	AO	71	ARG	CZ-NH1	-5.11	1.25	1.32
25	BB	1506	U	C5'-C4'	5.11	1.58	1.51
25	BB	1559	U	P-O5'	-5.11	1.52	1.59
25	BB	2379	G	P-O5'	5.11	1.67	1.59
32	BI	37	LYS	N-CA	5.11	1.52	1.46
49	BZ	45	ASP	C-O	-5.11	1.17	1.24
3	A1	627	G	C2-N2	-5.11	1.24	1.34
28	BE	66	PHE	CA-C	5.11	1.59	1.52
54	B5	137	LEU	CA-C	5.11	1.59	1.52
3	A1	1268	G	C5'-C4'	5.11	1.58	1.51
3	A1	1481	U	C4'-O4'	-5.11	1.37	1.45
8	AG	23	ARG	C-N	-5.11	1.27	1.34
24	BA	41	G	C1'-N9	5.11	1.55	1.48
25	BB	1517	G	C5'-C4'	5.11	1.58	1.51
25	BB	2270	A	C4'-O4'	-5.11	1.38	1.45
25	BB	2559	C	O3'-P	-5.11	1.53	1.61
52	B3	123	GLU	CA-C	5.11	1.58	1.52
55	B6	95	ARG	CZ-NH2	-5.11	1.26	1.33
8	AG	49	THR	N-CA	5.11	1.53	1.46
25	BB	898	C	C4'-O4'	-5.11	1.37	1.45
32	BI	52	ARG	CA-CB	-5.11	1.49	1.53
51	B2	6	TYR	N-CA	5.11	1.52	1.46
3	A1	523	A	C3'-O3'	-5.11	1.34	1.42
4	AB	167	HIS	CE1-NE2	5.11	1.37	1.32
40	BQ	43	LEU	N-CA	5.11	1.52	1.46
50	B1	127	GLU	N-CA	5.11	1.52	1.46
4	AB	90	PHE	N-CA	5.11	1.52	1.45
22	AW	84	ARG	N-CA	5.11	1.52	1.46
25	BB	825	A	C6-N1	-5.11	1.25	1.35
25	BB	1292	G	C4'-O4'	-5.11	1.37	1.45
25	BB	1373	A	O5'-C5'	5.11	1.50	1.42
25	BB	1406	U	C2'-O2'	5.11	1.50	1.42
37	BN	140	VAL	N-CA	5.11	1.52	1.46
48	BY	141	ARG	CZ-NH2	-5.11	1.26	1.33
55	B6	62	VAL	N-CA	5.11	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	1101	A	C5'-C4'	5.10	1.58	1.51
6	AD	27	PRO	C-N	5.10	1.40	1.33
25	BB	964	C	C3'-O3'	5.10	1.49	1.42
25	BB	2586	U	C2-N3	5.10	1.48	1.37
3	A1	1312	G	C2'-O2'	5.10	1.50	1.42
3	A1	1397	C	O3'-P	5.10	1.68	1.61
18	AS	108	GLY	CA-C	5.10	1.58	1.51
25	BB	163	C	C3'-O3'	5.10	1.49	1.42
25	BB	245	G	C2-N2	-5.10	1.24	1.34
25	BB	2248	C	O3'-P	-5.10	1.53	1.61
25	BB	2598	A	N3-C4	5.10	1.45	1.34
1	AE	15	G	C5'-C4'	5.10	1.58	1.51
3	A1	624	C	C4-N4	-5.10	1.23	1.33
25	BB	1330	C	C4-N4	-5.10	1.23	1.33
25	BB	2380	C	C3'-C2'	5.10	1.60	1.52
25	BB	2778	A	C4'-O4'	-5.10	1.37	1.45
34	BK	79	ARG	CZ-NH1	-5.10	1.25	1.32
3	A1	276	G	O3'-P	-5.10	1.53	1.61
6	AD	8	ARG	CD-NE	5.10	1.53	1.46
24	BA	42	C	C4'-O4'	-5.10	1.37	1.45
25	BB	1515	A	O3'-P	-5.10	1.53	1.61
25	BB	2229	U	O3'-P	5.10	1.68	1.61
51	B2	91	ARG	CD-NE	5.10	1.53	1.46
3	A1	1179	A	O4'-C1'	5.10	1.49	1.41
33	BJ	64	ILE	CA-CB	5.10	1.60	1.54
47	BX	12	ARG	CZ-NH2	-5.10	1.26	1.33
3	A1	850	U	C4'-O4'	-5.10	1.38	1.45
3	A1	1343	G	C5'-C4'	5.10	1.58	1.51
25	BB	484	C	C2'-O2'	-5.10	1.34	1.42
35	BL	30	SER	C-N	-5.10	1.26	1.33
20	AU	66	GLU	CA-C	5.09	1.59	1.52
25	BB	250	G	C2-N2	-5.09	1.24	1.34
25	BB	976	G	O3'-P	-5.09	1.53	1.61
25	BB	1089	A	C2'-O2'	5.09	1.49	1.41
25	BB	2365	G	O3'-P	-5.09	1.53	1.61
37	BN	188	ARG	CZ-NH2	-5.09	1.26	1.33
38	BO	18	LYS	CA-C	-5.09	1.46	1.52
1	AE	59	U	C3'-C2'	5.09	1.60	1.52
5	AC	12	ARG	CZ-NH1	-5.09	1.25	1.32
20	AU	7	GLY	CA-C	5.09	1.59	1.51
25	BB	1476	U	O4'-C1'	-5.09	1.34	1.41
25	BB	1950	G	N1-C2	-5.09	1.27	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	BG	66	ALA	N-CA	5.09	1.52	1.46
43	BT	43	THR	N-CA	5.09	1.53	1.46
3	A1	1459	G	C1'-N9	5.09	1.55	1.48
9	AH	45	HIS	N-CA	5.09	1.52	1.46
20	AU	110	ARG	N-CA	5.09	1.52	1.46
21	AV	117	GLN	N-CA	5.09	1.52	1.46
25	BB	1726	C	C5'-C4'	5.09	1.58	1.51
25	BB	1904	G	C4'-O4'	-5.09	1.38	1.45
25	BB	1300	G	C2-N2	-5.09	1.24	1.34
3	A1	144	G	C4'-C3'	5.09	1.60	1.52
3	A1	770	C	O4'-C1'	5.09	1.49	1.41
3	A1	1135	U	P-O5'	5.09	1.67	1.59
15	AO	169	GLU	N-CA	5.09	1.52	1.46
25	BB	1036	G	C5-C6	5.09	1.52	1.42
25	BB	1845	G	C4'-O4'	-5.09	1.38	1.45
25	BB	1887	C	C1'-N1	5.09	1.56	1.48
34	BK	89	HIS	CG-CD2	5.09	1.41	1.35
35	BL	17	VAL	N-CA	5.09	1.52	1.46
36	BM	77	ARG	CZ-NH2	-5.09	1.26	1.33
37	BN	201	LEU	CA-C	5.09	1.59	1.52
53	B4	82	SER	C-O	-5.09	1.17	1.23
12	AK	47	ARG	CZ-NH2	-5.08	1.26	1.33
25	BB	1240	U	C5'-C4'	5.08	1.58	1.51
25	BB	2275	C	C4-N4	-5.08	1.23	1.33
25	BB	2668	G	O5'-C5'	5.08	1.50	1.42
1	AP	25	C	C4'-C3'	5.08	1.60	1.52
3	A1	725	G	C5'-C4'	5.08	1.58	1.51
3	A1	941	G	C1'-N9	5.08	1.55	1.48
3	A1	1000	A	C3'-C2'	5.08	1.60	1.52
41	BR	29	ARG	CZ-NH2	-5.08	1.26	1.33
49	BZ	8	LEU	C-O	-5.08	1.17	1.23
1	AP	45	G	O4'-C1'	5.08	1.49	1.41
3	A1	52	C	O5'-C5'	5.08	1.50	1.42
3	A1	1041	G	C5'-C4'	5.08	1.58	1.51
3	A1	1479	C	O5'-C5'	-5.08	1.34	1.42
7	AF	91	ARG	CZ-NH2	-5.08	1.26	1.33
25	BB	2394	C	C1'-N1	5.08	1.56	1.48
48	BY	32	ASN	C-N	5.08	1.40	1.33
19	AT	45	ARG	CZ-NH2	-5.08	1.26	1.33
25	BB	1915	U	C2'-O2'	5.08	1.50	1.42
25	BB	2855	C	O3'-P	-5.08	1.53	1.61
55	B6	35	ARG	N-CA	5.08	1.52	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	143	C	O5'-C5'	-5.08	1.34	1.42
25	BB	568	U	O4'-C1'	5.08	1.49	1.42
25	BB	1785	A	C1'-N9	5.08	1.54	1.47
25	BB	2143	C	C4-N4	-5.08	1.23	1.33
25	BB	2874	C	C4'-C3'	5.08	1.60	1.53
50	B1	131	THR	N-CA	5.08	1.52	1.46
54	B5	140	GLU	C-O	-5.08	1.17	1.23
55	B6	96	ARG	CZ-NH2	-5.08	1.26	1.33
4	AB	138	ARG	NE-CZ	-5.08	1.27	1.33
25	BB	279	A	O3'-P	-5.08	1.53	1.61
25	BB	1014	A	C4'-O4'	-5.08	1.38	1.45
3	A1	1019	A	C3'-O3'	5.08	1.49	1.42
3	A1	1043	G	C4'-O4'	-5.08	1.38	1.45
25	BB	413	C	O3'-P	-5.08	1.53	1.61
26	BC	17	SER	N-CA	5.08	1.53	1.46
27	BD	31	ARG	CZ-NH1	-5.08	1.25	1.32
27	BD	52	VAL	N-CA	5.08	1.52	1.46
46	BW	41	ARG	CZ-NH2	-5.08	1.26	1.33
47	BX	9	LYS	N-CA	5.08	1.52	1.46
3	A1	448	A	C2'-C1'	5.07	1.60	1.53
20	AU	77	ARG	CZ-NH2	-5.07	1.26	1.33
25	BB	14	A	O3'-P	5.07	1.68	1.61
25	BB	43	G	C4'-O4'	-5.07	1.38	1.45
26	BC	86	LEU	N-CA	5.07	1.52	1.45
31	BH	13	ARG	C-O	-5.07	1.17	1.24
3	A1	796	C	C4'-O4'	-5.07	1.38	1.45
3	A1	983	A	C3'-C2'	-5.07	1.45	1.52
25	BB	1206	G	C3'-C2'	5.07	1.60	1.52
51	B2	2	LYS	C-O	-5.07	1.17	1.23
51	B2	96	TRP	N-CA	5.07	1.52	1.46
3	A1	1395	C	C3'-O3'	5.07	1.50	1.43
20	AU	3	ARG	CZ-NH2	-5.07	1.26	1.33
25	BB	2519	U	C5'-C4'	5.07	1.58	1.51
25	BB	2781	A	P-O5'	-5.07	1.52	1.59
47	BX	4	ARG	C-O	5.07	1.30	1.24
3	A1	1240	U	O4'-C1'	5.07	1.49	1.42
5	AC	97	ARG	CZ-NH2	-5.07	1.26	1.33
25	BB	1062	G	C5'-C4'	5.07	1.58	1.51
1	AA	18	G	P-O5'	5.07	1.67	1.59
1	AA	20	G	C3'-O3'	-5.07	1.34	1.42
3	A1	267	C	O3'-P	-5.07	1.53	1.61
3	A1	1331	G	O3'-P	-5.07	1.53	1.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	1412	C	O4'-C1'	5.07	1.49	1.41
25	BB	479	A	C5'-C4'	5.07	1.58	1.51
25	BB	1133	A	C4'-O4'	-5.07	1.38	1.45
3	A1	383	A	C1'-N9	5.07	1.55	1.48
3	A1	1372	U	C1'-N1	5.07	1.56	1.48
4	AB	166	ASP	CA-C	5.07	1.59	1.53
25	BB	1185	G	P-O5'	-5.07	1.52	1.59
25	BB	2759	G	O3'-P	-5.07	1.53	1.61
39	BP	57	THR	N-CA	5.07	1.52	1.46
50	B1	116	ASP	CA-CB	5.07	1.62	1.53
3	A1	606	G	N9-C4	5.06	1.48	1.38
7	AF	100	ARG	CZ-NH2	-5.06	1.26	1.33
25	BB	1233	C	C5'-C4'	5.06	1.58	1.51
25	BB	1590	A	O5'-C5'	-5.06	1.34	1.42
25	BB	2052	A	C4'-O4'	-5.06	1.38	1.45
25	BB	2714	G	O4'-C1'	5.06	1.49	1.41
25	BB	2801	G	P-O5'	5.06	1.67	1.59
31	BH	30	ARG	CZ-NH1	-5.06	1.25	1.32
49	BZ	166	GLN	CA-C	5.06	1.58	1.52
25	BB	1787	A	O3'-P	-5.06	1.53	1.61
1	AA	73	A	P-O5'	-5.06	1.52	1.59
3	A1	623	C	C3'-C2'	5.06	1.60	1.52
3	A1	743	A	O3'-P	5.06	1.68	1.61
3	A1	1032	G	C1'-N9	5.06	1.55	1.48
3	A1	1163	A	C5'-C4'	5.06	1.58	1.51
7	AF	34	ALA	N-CA	5.06	1.52	1.46
16	AQ	31	VAL	N-CA	5.06	1.52	1.46
25	BB	400	G	O3'-P	-5.06	1.53	1.61
25	BB	1762	A	C4'-O4'	-5.06	1.38	1.45
1	AA	62	A	P-O5'	-5.06	1.52	1.59
2	AM	13	U	P-O5'	5.06	1.67	1.59
3	A1	421	U	O3'-P	-5.06	1.53	1.61
3	A1	636	U	C4-C5	5.06	1.53	1.43
3	A1	819	A	C4'-O4'	-5.06	1.38	1.45
3	A1	1123	U	C5'-C4'	5.06	1.58	1.51
14	AN	5	SER	C-N	5.06	1.40	1.33
25	BB	52	A	C1'-N9	-5.06	1.40	1.48
25	BB	565	C	C3'-C2'	5.06	1.60	1.52
25	BB	1530	G	C1'-N9	5.06	1.55	1.48
27	BD	71	ARG	NE-CZ	-5.06	1.27	1.33
35	BL	18	ARG	CZ-NH1	-5.06	1.25	1.32
54	B5	56	VAL	CA-CB	5.06	1.62	1.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	1466	C	P-O5'	5.06	1.67	1.59
25	BB	292	U	C4'-O4'	-5.06	1.38	1.45
25	BB	1873	G	O5'-C5'	-5.06	1.34	1.42
3	A1	774	G	C5'-C4'	5.05	1.58	1.51
3	A1	894	G	C2-N2	-5.05	1.24	1.34
3	A1	996	A	C2'-C1'	5.05	1.60	1.53
16	AQ	39	LYS	CA-CB	5.05	1.61	1.53
25	BB	63	A	C4'-O4'	-5.05	1.38	1.45
25	BB	1493	C	C5'-C4'	5.05	1.58	1.51
25	BB	2799	A	C3'-O3'	5.05	1.50	1.43
26	BC	36	ALA	CA-C	5.05	1.58	1.52
3	A1	1424	U	C5'-C4'	5.05	1.58	1.51
22	AW	25	GLY	CA-C	5.05	1.58	1.51
25	BB	262	A	C5'-C4'	5.05	1.58	1.51
25	BB	956	G	C2'-C1'	-5.05	1.45	1.53
3	A1	315	A	C2'-C1'	-5.05	1.45	1.53
3	A1	1180	A	C2'-O2'	-5.05	1.34	1.42
21	AV	24	VAL	C-O	5.05	1.30	1.24
21	AV	87	ARG	CZ-NH1	-5.05	1.25	1.32
25	BB	37	C	C3'-C2'	5.05	1.60	1.52
25	BB	37	C	C4-N4	-5.05	1.23	1.33
25	BB	265	A	N9-C4	5.05	1.48	1.37
25	BB	1519	G	C3'-C2'	5.05	1.60	1.52
25	BB	1559	U	O5'-C5'	-5.05	1.35	1.42
25	BB	2891	U	C2'-C1'	5.05	1.60	1.53
3	A1	256	U	C2'-C1'	-5.05	1.45	1.53
40	BQ	62	GLY	C-O	5.05	1.29	1.24
3	A1	200	G	C4'-C3'	-5.05	1.45	1.52
3	A1	836	G	O3'-P	-5.05	1.53	1.61
3	A1	1322	C	O3'-P	-5.05	1.53	1.61
18	AS	21	SER	CA-C	-5.05	1.46	1.52
25	BB	1035	U	O4'-C1'	5.05	1.49	1.42
35	BL	25	ARG	NE-CZ	-5.05	1.27	1.33
49	BZ	160	LYS	CA-C	5.05	1.59	1.52
54	B5	139	VAL	N-CA	5.05	1.52	1.46
22	AW	43	ALA	N-CA	5.05	1.52	1.46
25	BB	1359	A	O3'-P	-5.05	1.53	1.61
27	BD	21	CYS	C-O	-5.05	1.18	1.24
37	BN	219	VAL	N-CA	5.05	1.52	1.46
48	BY	32	ASN	CA-C	5.05	1.59	1.53
1	AE	75	C	C3'-O3'	-5.04	1.34	1.42
3	A1	62	U	C3'-O3'	-5.04	1.34	1.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	A1	539	A	C2'-O2'	5.04	1.50	1.42
25	BB	2117	A	C4'-C3'	5.04	1.60	1.52
1	AA	12	U	O3'-P	-5.04	1.53	1.61
18	AS	57	ALA	N-CA	5.04	1.52	1.46
24	BA	25	U	O5'-C5'	-5.04	1.35	1.42
25	BB	717	C	N3-C4	-5.04	1.23	1.33
25	BB	866	A	C4'-O4'	-5.04	1.38	1.45
25	BB	1851	U	P-O5'	-5.04	1.52	1.59
25	BB	2537	U	P-O5'	5.04	1.67	1.59
27	BD	89	ASN	N-CA	5.04	1.52	1.46
28	BE	63	LYS	CA-C	5.04	1.59	1.52
49	BZ	180	ALA	C-O	-5.04	1.17	1.24
3	A1	27	G	C4'-C3'	5.04	1.60	1.52
3	A1	374	A	P-O5'	-5.04	1.52	1.59
3	A1	1142	G	C4'-C3'	5.04	1.60	1.52
25	BB	8	C	O4'-C1'	5.04	1.49	1.41
25	BB	181	A	C5'-C4'	5.04	1.58	1.51
25	BB	2466	C	C3'-O3'	-5.04	1.34	1.42
28	BE	60	ARG	CA-CB	5.04	1.61	1.53
53	B4	73	ASN	CA-C	5.04	1.59	1.52
3	A1	1405	G	C2-N2	-5.04	1.24	1.34
30	BG	100	CYS	N-CA	5.04	1.52	1.46
32	BI	61	ARG	CA-C	5.04	1.59	1.52
49	BZ	37	LYS	C-O	-5.04	1.17	1.24
55	B6	64	VAL	C-N	5.04	1.39	1.33
1	AE	62	A	C4'-O4'	-5.04	1.38	1.45
3	A1	1019	A	C2'-O2'	-5.04	1.34	1.42
6	AD	14	LYS	CA-C	5.04	1.59	1.52
8	AG	60	ARG	CD-NE	-5.04	1.39	1.46
15	AO	68	HIS	N-CA	5.04	1.52	1.46
20	AU	38	ALA	CA-CB	5.04	1.61	1.53
22	AW	22	PRO	CA-C	5.04	1.57	1.52
25	BB	1527	G	C2'-O2'	5.04	1.50	1.42
25	BB	2651	C	C1'-N1	5.04	1.56	1.48
3	A1	931	C	C5'-C4'	5.04	1.58	1.51
25	BB	81	G	C2'-C1'	5.04	1.60	1.53
55	B6	114	LEU	C-O	-5.04	1.17	1.24
3	A1	500	G	C6-N1	-5.04	1.29	1.39
22	AW	84	ARG	CZ-NH2	-5.04	1.26	1.33
25	BB	1552	A	C2'-C1'	5.04	1.60	1.53
25	BB	2313	C	O3'-P	-5.04	1.53	1.61
25	BB	2382	G	C2-N2	-5.04	1.24	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	2888	C	C4-N4	-5.04	1.23	1.33
48	BY	177	VAL	CA-CB	5.04	1.60	1.54
50	B1	47	LYS	N-CA	5.04	1.52	1.46
52	B3	162	ARG	N-CA	5.04	1.52	1.45
24	BA	111	U	C5'-C4'	5.03	1.58	1.51
25	BB	1251	C	C5'-C4'	5.03	1.58	1.51
37	BN	229	HIS	CA-C	5.03	1.59	1.52
50	B1	87	ALA	CA-C	5.03	1.60	1.52
25	BB	878	A	C1'-N9	5.03	1.54	1.47
25	BB	1424	G	C2'-C1'	5.03	1.60	1.53
25	BB	1488	C	C4'-C3'	5.03	1.60	1.52
25	BB	2412	A	P-O5'	5.03	1.67	1.59
3	A1	1017	U	N1-C2	5.03	1.48	1.38
17	AR	205	LYS	CA-C	5.03	1.63	1.52
25	BB	298	G	P-O5'	-5.03	1.52	1.59
25	BB	1611	C	C5'-C4'	5.03	1.58	1.51
25	BB	1871	A	C3'-C2'	5.03	1.60	1.52
3	A1	1159	U	P-O5'	-5.03	1.52	1.59
3	A1	1208	C	C1'-N1	5.03	1.55	1.48
17	AR	58	GLN	N-CA	5.03	1.52	1.46
55	B6	74	TYR	CA-C	5.03	1.58	1.52
3	A1	945	G	O4'-C1'	5.03	1.49	1.41
4	AB	92	ASN	N-CA	5.03	1.51	1.46
19	AT	99	ALA	C-N	5.03	1.40	1.33
25	BB	354	A	C4'-O4'	-5.03	1.38	1.45
25	BB	1054	A	C5'-C4'	5.03	1.58	1.51
25	BB	1400	U	C4'-C3'	5.03	1.60	1.52
25	BB	2203	U	C5'-C4'	5.03	1.58	1.51
25	BB	2598	A	C5'-C4'	5.03	1.58	1.51
7	AF	38	ILE	CA-C	5.03	1.58	1.52
17	AR	129	VAL	CA-C	5.03	1.59	1.52
25	BB	1436	G	P-O5'	5.03	1.67	1.59
15	AO	153	SER	N-CA	5.02	1.52	1.45
25	BB	1370	C	C3'-O3'	5.02	1.49	1.42
25	BB	1876	A	P-O5'	5.02	1.67	1.59
25	BB	1971	U	C1'-N1	5.02	1.54	1.47
25	BB	2769	U	C2'-O2'	-5.02	1.34	1.42
3	A1	424	G	C5'-C4'	5.02	1.58	1.51
8	AG	40	ARG	NE-CZ	-5.02	1.27	1.33
25	BB	82	U	O3'-P	-5.02	1.53	1.61
25	BB	1759	A	C4'-O4'	-5.02	1.38	1.45
25	BB	2744	G	C4'-C3'	5.02	1.60	1.53

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
55	B6	138	GLN	CA-CB	5.02	1.59	1.52
25	BB	734	A	C5'-C4'	5.02	1.58	1.51
49	BZ	131	ARG	CZ-NH1	-5.02	1.25	1.32
52	B3	120	ILE	C-O	-5.02	1.17	1.24
3	A1	1031	C	O5'-C5'	5.02	1.50	1.42
3	A1	1191	A	C3'-C2'	5.02	1.60	1.52
3	A1	1340	A	O3'-P	5.02	1.68	1.61
15	AO	155	ARG	CZ-NH2	-5.02	1.26	1.33
25	BB	1062	G	O3'-P	-5.02	1.53	1.61
25	BB	1309	G	O3'-P	-5.02	1.53	1.61
25	BB	1704	C	P-O5'	5.02	1.67	1.59
25	BB	2684	U	C4'-O4'	-5.02	1.38	1.45
37	BN	202	ARG	CZ-NH2	-5.02	1.26	1.33
52	B3	154	GLU	CA-C	5.02	1.59	1.52
3	A1	1380	U	C3'-O3'	5.02	1.50	1.43
20	AU	9	ARG	CD-NE	5.02	1.53	1.46
25	BB	2234	G	O4'-C1'	5.02	1.49	1.41
25	BB	2542	A	P-O5'	5.02	1.67	1.59
49	BZ	132	GLY	N-CA	5.02	1.52	1.45
6	AD	34	THR	N-CA	5.02	1.52	1.46
25	BB	2081	U	C4'-O4'	-5.02	1.38	1.45
3	A1	328	C	C1'-N1	5.01	1.55	1.48
21	AV	94	VAL	CA-C	5.01	1.59	1.52
25	BB	1054	A	C1'-N9	5.01	1.55	1.48
26	BC	69	GLU	CA-C	5.01	1.59	1.52
50	B1	81	GLY	N-CA	5.01	1.50	1.45
53	B4	112	LYS	C-O	-5.01	1.17	1.24
3	A1	1066	C	C4-N4	-5.01	1.24	1.33
25	BB	467	G	C3'-C2'	5.01	1.60	1.52
25	BB	1057	A	C5'-C4'	5.01	1.58	1.51
3	A1	418	C	P-O5'	-5.01	1.52	1.59
25	BB	694	U	O3'-P	-5.01	1.53	1.61
25	BB	891	G	C3'-O3'	5.01	1.49	1.42
25	BB	1208	C	O3'-P	-5.01	1.53	1.61
55	B6	45	THR	CA-CB	5.01	1.59	1.53
1	AA	16	U	O5'-C5'	-5.01	1.34	1.42
1	AE	51	G	C3'-C2'	5.01	1.60	1.52
3	A1	474	G	C3'-O3'	5.01	1.49	1.42
17	AR	35	GLN	N-CA	5.01	1.52	1.46
25	BB	2140	G	P-O5'	5.01	1.67	1.59
3	A1	1380	U	C4'-C3'	5.01	1.60	1.53
25	BB	1366	A	C1'-N9	5.01	1.55	1.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BB	510	C	C3'-C2'	5.01	1.60	1.52
37	BN	87	SER	N-CA	5.01	1.52	1.46
3	A1	1307	U	C4'-O4'	-5.00	1.38	1.45
3	A1	1429	A	C5'-C4'	5.00	1.61	1.51
25	BB	2652	C	C4'-O4'	-5.00	1.38	1.45
34	BK	83	TYR	CA-CB	5.00	1.60	1.53
3	A1	536	C	C3'-C2'	5.00	1.60	1.52
3	A1	721	G	C4'-O4'	-5.00	1.38	1.45
3	A1	1384	C	C5'-C4'	5.00	1.58	1.51
14	AN	77	ASN	CA-C	5.00	1.59	1.52
17	AR	112	GLU	C-O	-5.00	1.18	1.24
25	BB	1072	C	C4-N4	-5.00	1.24	1.33
25	BB	2283	C	O3'-P	-5.00	1.53	1.61
25	BB	2820	A	C5'-C4'	5.00	1.58	1.51
33	BJ	27	ARG	CZ-NH2	-5.00	1.26	1.33
1	AA	73	A	O4'-C1'	5.00	1.49	1.41
3	A1	221	C	C1'-N1	5.00	1.55	1.48
9	AH	8	ALA	CA-C	5.00	1.59	1.52
12	AK	31	TYR	N-CA	5.00	1.53	1.46
27	BD	104	THR	CA-C	-5.00	1.46	1.52
31	BH	48	LEU	CA-C	5.00	1.59	1.52

All (12336) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AP	74	C	P-O3'-C3'	-73.08	10.58	120.20
1	AP	74	C	O3'-P-O5'	-41.61	41.58	104.00
25	BB	995	C	C5-C4-N4	-39.06	3.01	120.20
25	BB	995	C	C4-C5-C6	-27.65	34.44	117.40
25	BB	995	C	N1-C2-N3	-25.87	41.59	119.20
1	AA	17	U	O4'-C1'-N1	24.05	144.58	108.50
3	A1	1483	A	O4'-C1'-C2'	-17.63	89.97	107.60
3	A1	1340	A	P-O3'-C3'	17.10	145.86	120.20
1	AA	74	C	O4'-C1'-C2'	-15.81	91.79	107.60
16	AQ	33	ARG	CA-C-N	15.70	149.95	121.70
16	AQ	33	ARG	C-N-CA	15.70	149.95	121.70
3	A1	510	A	C1'-O4'-C4'	-14.69	95.22	109.90
3	A1	169	C	O4'-C1'-C2'	-14.18	93.42	107.60
24	BA	5	U	C4'-C3'-C2'	-14.16	88.44	102.60
34	BK	80	ARG	NE-CZ-NH2	13.87	131.68	119.20
1	AA	17	U	C5'-C4'-O4'	13.84	130.57	109.80
47	BX	19	ARG	NE-CZ-NH2	13.73	131.56	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	AF	51	GLN	OE1-CD-NE2	-13.62	108.97	122.60
25	BB	1972	G	C3'-C2'-C1'	13.49	114.79	101.30
3	A1	372	C	O4'-C1'-C2'	-13.17	94.43	107.60
1	AA	75	C	C2'-C3'-O3'	13.13	129.19	109.50
3	A1	943	U	O4'-C4'-C3'	13.01	117.01	104.00
22	AW	11	ARG	NE-CZ-NH2	12.99	130.89	119.20
1	AA	74	C	C1'-C2'-O2'	12.83	127.65	108.40
3	A1	169	C	C4'-C3'-C2'	-12.81	89.79	102.60
1	AP	74	C	OP1-P-O3'	-12.74	69.78	108.00
22	AW	123	ARG	NE-CZ-NH2	12.73	130.66	119.20
3	A1	1391	U	C2'-C3'-O3'	12.73	128.59	109.50
24	BA	5	U	O4'-C4'-C3'	12.70	116.70	104.00
25	BB	2714	G	O4'-C4'-C3'	12.64	116.64	104.00
45	BV	32	ALA	CA-C-O	-12.61	107.76	121.00
25	BB	2049	G	C4'-C3'-C2'	-12.59	90.02	102.60
24	BA	116	G	O4'-C4'-C3'	12.57	116.57	104.00
3	A1	1121	U	C4'-C3'-C2'	-12.55	90.05	102.60
3	A1	764	C	C3'-C2'-C1'	12.54	113.84	101.30
25	BB	1837	C	O4'-C1'-C2'	-12.50	93.30	105.80
53	B4	73	ASN	OD1-CG-ND2	-12.48	110.12	122.60
1	AP	20	G	C4'-C3'-C2'	-12.47	90.13	102.60
3	A1	388	G	C1'-O4'-C4'	-12.39	97.31	109.70
1	AA	74	C	C4'-C3'-C2'	-12.36	90.24	102.60
25	BB	1302	A	O4'-C4'-C3'	12.29	116.28	104.00
3	A1	510	A	O4'-C1'-C2'	12.24	119.84	107.60
3	A1	297	G	C4'-C3'-C2'	-12.20	90.40	102.60
15	AO	191	THR	N-CA-C	12.18	127.63	113.38
25	BB	696	G	O4'-C4'-C3'	12.18	116.17	104.00
33	BJ	36	GLN	OE1-CD-NE2	-12.12	110.48	122.60
25	BB	1240	U	C4'-C3'-C2'	-12.10	90.50	102.60
54	B5	29	GLN	OE1-CD-NE2	-12.03	110.57	122.60
3	A1	1160	G	O4'-C4'-C3'	11.99	115.99	104.00
27	BD	47	ILE	CA-C-N	11.96	133.39	120.12
27	BD	47	ILE	C-N-CA	11.96	133.39	120.12
3	A1	1520	C	C3'-C2'-C1'	11.91	113.41	101.50
3	A1	886	G	C5'-C4'-C3'	-11.90	98.15	116.00
25	BB	1654	A	O4'-C4'-C3'	11.89	115.89	104.00
3	A1	452	A	C3'-C2'-C1'	-11.87	89.44	101.30
35	BL	12	SER	CA-C-N	11.83	138.62	120.75
35	BL	12	SER	C-N-CA	11.83	138.62	120.75
25	BB	121	G	O4'-C4'-C3'	11.83	115.83	104.00
27	BD	89	ASN	OD1-CG-ND2	-11.78	110.82	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2440	C	C1'-O4'-C4'	-11.76	98.14	109.90
25	BB	2460	U	O4'-C1'-C2'	-11.74	94.06	105.80
34	BK	97	LYS	N-CA-C	11.73	125.40	108.86
25	BB	2554	U	O3'-P-O5'	11.71	121.56	104.00
25	BB	968	C	C2'-C3'-O3'	11.67	127.01	109.50
25	BB	508	A	C1'-O4'-C4'	-11.66	98.24	109.90
25	BB	699	A	C4'-C3'-C2'	-11.64	90.96	102.60
1	AP	25	C	C3'-C2'-C1'	11.62	112.92	101.30
22	AW	14	SER	O-C-N	-11.61	109.56	122.79
17	AR	135	GLN	OE1-CD-NE2	-11.55	111.05	122.60
25	BB	1204	A	O4'-C1'-C2'	-11.54	94.26	105.80
25	BB	2274	A	C1'-O4'-C4'	-11.53	98.17	109.70
5	AC	63	GLN	OE1-CD-NE2	-11.50	111.10	122.60
38	BO	93	ARG	NE-CZ-NH1	11.50	133.00	121.50
2	AM	4	U	O5'-C5'-C4'	11.48	128.73	111.50
3	A1	715	A	O4'-C1'-C2'	-11.48	94.32	105.80
12	AK	41	SER	N-CA-C	11.46	126.63	112.87
25	BB	1383	A	O4'-C1'-C2'	-11.45	96.15	107.60
32	BI	20	ARG	NE-CZ-NH2	11.44	129.49	119.20
3	A1	412	A	O3'-P-O5'	-11.42	86.87	104.00
32	BI	14	GLN	OE1-CD-NE2	-11.40	111.19	122.60
17	AR	44	LYS	O-C-N	-11.38	114.44	121.27
25	BB	412	A	O4'-C4'-C3'	11.35	115.35	104.00
25	BB	995	C	N3-C2-O2	-11.35	87.84	121.90
3	A1	507	C	C3'-C2'-C1'	11.32	112.62	101.30
3	A1	564	C	C1'-O4'-C4'	-11.31	98.59	109.90
3	A1	895	G	O4'-C1'-C2'	-11.28	94.52	105.80
38	BO	70	ALA	CB-CA-C	11.27	123.67	109.80
33	BJ	54	ARG	NE-CZ-NH2	11.27	129.34	119.20
25	BB	1474	U	C3'-C2'-C1'	11.25	112.75	101.50
25	BB	324	A	C3'-C2'-C1'	11.25	112.55	101.30
25	BB	2461	A	O4'-C4'-C3'	11.24	115.24	104.00
25	BB	1608	A	C2'-C3'-O3'	11.23	126.35	109.50
25	BB	2892	G	O4'-C1'-C2'	-11.23	94.57	105.80
3	A1	200	G	O4'-C4'-C3'	11.18	115.18	104.00
3	A1	989	U	C4'-C3'-C2'	-11.18	91.42	102.60
3	A1	413	G	C2'-C3'-O3'	-11.17	96.94	113.70
19	AT	41	ASP	CA-C-N	11.14	137.24	120.31
19	AT	41	ASP	C-N-CA	11.14	137.24	120.31
25	BB	832	U	C1'-O4'-C4'	-11.13	98.77	109.90
25	BB	930	G	C3'-C2'-C1'	11.13	112.43	101.30
1	AA	74	C	O5'-C5'-C4'	11.12	128.17	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2658	C	C1'-C2'-O2'	-11.10	91.74	108.40
48	BY	72	GLY	CA-C-N	11.10	138.13	123.03
48	BY	72	GLY	C-N-CA	11.10	138.13	123.03
4	AB	152	ASP	CA-CB-CG	11.08	123.68	112.60
50	B1	181	ILE	O-C-N	-11.07	111.11	123.07
25	BB	1896	G	C3'-C2'-O2'	11.07	127.30	110.70
18	AS	53	ARG	NE-CZ-NH1	11.06	132.56	121.50
25	BB	1251	C	C2'-C3'-O3'	11.03	126.05	109.50
3	A1	314	C	C4'-C3'-C2'	-11.01	91.59	102.60
25	BB	1687	G	C5'-C4'-C3'	11.00	132.50	116.00
25	BB	2570	G	C2'-C3'-O3'	10.98	125.97	109.50
25	BB	2108	A	C3'-C2'-C1'	-10.98	90.52	101.50
25	BB	140	C	O4'-C4'-C3'	10.97	117.07	106.10
25	BB	1477	A	C3'-C2'-C1'	10.96	112.46	101.50
25	BB	1931	U	C3'-C2'-C1'	10.95	112.25	101.30
25	BB	601	C	C4'-C3'-C2'	-10.94	91.66	102.60
24	BA	37	C	C4'-C3'-C2'	-10.88	91.72	102.60
3	A1	1104	G	C1'-O4'-C4'	-10.87	99.03	109.90
24	BA	63	C	O4'-C4'-C3'	10.85	114.85	104.00
3	A1	1147	C	C4'-C3'-C2'	-10.83	91.77	102.60
3	A1	1257	A	O4'-C1'-C2'	-10.81	94.98	105.80
25	BB	1378	A	O4'-C1'-C2'	-10.81	94.99	105.80
3	A1	765	G	C5'-C4'-C3'	-10.78	99.83	116.00
25	BB	1607	C	O3'-P-O5'	10.78	120.17	104.00
3	A1	1405	G	C2'-C3'-O3'	10.77	125.66	109.50
25	BB	2748	A	C3'-C2'-C1'	10.76	112.06	101.30
25	BB	2253	G	O4'-C4'-C3'	10.75	114.75	104.00
35	BL	40	ASN	OD1-CG-ND2	-10.75	111.85	122.60
3	A1	1099	G	O4'-C1'-N9	10.74	124.62	108.50
1	AA	17	U	O4'-C1'-C2'	-10.72	96.88	107.60
3	A1	116	A	O4'-C4'-C3'	10.72	114.72	104.00
18	AS	67	ARG	NE-CZ-NH1	10.68	132.18	121.50
25	BB	108	G	O4'-C4'-C3'	10.67	114.67	104.00
8	AG	23	ARG	CA-C-N	10.66	135.64	120.28
8	AG	23	ARG	C-N-CA	10.66	135.64	120.28
51	B2	174	PHE	CA-C-N	10.65	130.99	119.28
51	B2	174	PHE	C-N-CA	10.65	130.99	119.28
25	BB	1476	U	O4'-C4'-C3'	-10.64	93.36	104.00
11	AJ	76	ARG	NE-CZ-NH1	10.63	132.13	121.50
3	A1	1505	G	O3'-P-O5'	10.62	119.93	104.00
53	B4	50	ARG	CD-NE-CZ	10.61	139.26	124.40
3	A1	1527	U	C3'-C2'-C1'	10.61	111.91	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1004	A	O4'-C1'-C2'	-10.60	95.20	105.80
25	BB	415	A	O4'-C4'-C3'	-10.60	93.40	104.00
25	BB	1036	G	O4'-C4'-C3'	-10.58	93.42	104.00
25	BB	120	U	C1'-O4'-C4'	-10.55	99.35	109.90
25	BB	300	A	O4'-C4'-C3'	10.54	114.54	104.00
24	BA	52	A	C5'-C4'-C3'	-10.53	100.20	116.00
25	BB	1431	A	O4'-C4'-C3'	10.53	114.53	104.00
25	BB	1082	U	O4'-C4'-C3'	10.52	114.52	104.00
1	AE	47	U	C1'-O4'-C4'	-10.51	99.19	109.70
25	BB	2858	C	N1-C1'-C2'	10.50	127.75	112.00
52	B3	138	GLN	OE1-CD-NE2	-10.50	112.10	122.60
25	BB	886	A	O4'-C4'-C3'	10.50	114.50	104.00
25	BB	849	A	O4'-C4'-C3'	10.49	114.49	104.00
25	BB	2185	U	O4'-C4'-C3'	10.48	114.48	104.00
50	B1	140	ASP	CA-CB-CG	10.48	123.08	112.60
25	BB	2179	C	C4'-C3'-C2'	-10.47	92.13	102.60
25	BB	1450	G	C4'-C3'-O3'	10.46	128.70	113.00
55	B6	138	GLN	OE1-CD-NE2	-10.46	112.14	122.60
3	A1	1079	G	C4'-C3'-C2'	-10.46	92.14	102.60
44	BU	42	VAL	CA-C-N	10.45	134.65	120.54
44	BU	42	VAL	C-N-CA	10.45	134.65	120.54
25	BB	544	C	C4'-C3'-C2'	-10.44	92.16	102.60
3	A1	984	C	C1'-O4'-C4'	-10.41	99.48	109.90
3	A1	1346	A	C1'-O4'-C4'	-10.41	99.29	109.70
3	A1	83	C	O4'-C1'-C2'	-10.41	95.39	105.80
25	BB	684	G	C1'-O4'-C4'	-10.40	99.50	109.90
19	AT	79	ARG	NH1-CZ-NH2	-10.39	105.79	119.30
3	A1	890	G	C1'-O4'-C4'	-10.38	99.52	109.90
28	BE	18	ARG	NE-CZ-NH2	10.37	128.54	119.20
25	BB	141	G	C3'-C2'-C1'	10.36	111.66	101.30
25	BB	1546	G	O4'-C4'-C3'	10.35	114.35	104.00
30	BG	63	ARG	NE-CZ-NH2	10.35	128.51	119.20
24	BA	26	C	O4'-C1'-C2'	-10.35	97.25	107.60
52	B3	52	GLY	CA-C-N	10.33	132.00	120.85
52	B3	52	GLY	C-N-CA	10.33	132.00	120.85
3	A1	378	G	C3'-C2'-O2'	10.32	126.18	110.70
25	BB	172	A	C5'-C4'-C3'	-10.32	100.53	116.00
3	A1	1066	C	C4'-C3'-C2'	-10.30	92.30	102.60
25	BB	2049	G	C4'-C3'-O3'	10.30	128.44	113.00
25	BB	1001	A	C4'-C3'-C2'	-10.28	92.32	102.60
5	AC	117	HIS	CB-CG-CD2	-10.28	117.84	131.20
25	BB	943	A	C1'-O4'-C4'	-10.27	99.63	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1825	U	C1'-O4'-C4'	-10.27	99.43	109.70
3	A1	988	G	C3'-C2'-C1'	10.24	111.54	101.30
25	BB	699	A	C3'-C2'-C1'	10.24	111.54	101.30
25	BB	1474	U	C4'-C3'-C2'	-10.23	92.37	102.60
7	AF	85	TYR	CA-C-N	10.23	140.11	121.70
7	AF	85	TYR	C-N-CA	10.23	140.11	121.70
25	BB	2239	G	C3'-C2'-C1'	10.23	111.53	101.30
25	BB	2317	A	C3'-C2'-O2'	10.23	126.04	110.70
1	AA	74	C	O4'-C1'-N1	10.22	123.83	108.50
22	AW	71	ILE	CA-CB-CG1	10.22	127.78	110.40
7	AF	70	ARG	NE-CZ-NH2	10.21	128.39	119.20
25	BB	463	G	C3'-C2'-C1'	10.21	111.50	101.30
25	BB	191	A	O4'-C4'-C3'	10.19	114.19	104.00
25	BB	2487	G	C4'-C3'-C2'	-10.19	92.41	102.60
3	A1	128	G	O4'-C4'-C3'	10.18	114.18	104.00
31	BH	78	VAL	N-CA-C	10.18	120.10	110.53
25	BB	1193	G	C4'-C3'-C2'	-10.18	92.42	102.60
25	BB	1128	G	C4'-C3'-C2'	-10.16	92.44	102.60
25	BB	2420	C	C4'-C3'-O3'	10.15	124.63	109.40
25	BB	1087	G	C4'-C3'-O3'	10.15	128.23	113.00
25	BB	1029	A	C1'-O4'-C4'	-10.15	99.75	109.90
3	A1	506	G	C4'-C3'-O3'	10.13	128.20	113.00
3	A1	1200	C	O3'-P-O5'	10.13	119.20	104.00
26	BC	26	PHE	CA-CB-CG	10.13	123.93	113.80
3	A1	1263	C	C4'-C3'-C2'	-10.11	92.49	102.60
24	BA	112	G	O4'-C4'-C3'	10.10	114.10	104.00
25	BB	737	C	O3'-P-O5'	10.09	119.14	104.00
3	A1	1141	C	O5'-C5'-C4'	-10.08	96.58	111.70
25	BB	1785	A	O4'-C1'-C2'	-10.08	95.72	105.80
25	BB	2049	G	O4'-C1'-C2'	-10.07	97.53	107.60
25	BB	199	A	C4'-C3'-C2'	-10.07	92.53	102.60
25	BB	862	G	C5'-C4'-C3'	-10.07	100.90	116.00
3	A1	795	C	C1'-O4'-C4'	-10.06	99.64	109.70
3	A1	236	A	O4'-C4'-C3'	10.05	114.05	104.00
3	A1	864	A	C2'-C3'-O3'	10.05	124.57	109.50
1	AA	56	C	C4'-C3'-C2'	-10.04	92.56	102.60
25	BB	195	A	C3'-C2'-O2'	10.03	125.75	110.70
31	BH	7	ARG	NH1-CZ-NH2	-10.03	106.27	119.30
25	BB	532	A	O4'-C4'-C3'	10.02	114.02	104.00
3	A1	129	A	C4'-C3'-C2'	-10.02	92.58	102.60
1	AA	74	C	C5'-C4'-C3'	-10.02	100.98	116.00
1	AP	23	A	C3'-C2'-C1'	10.02	111.31	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	684	U	O4'-C1'-C2'	-10.01	95.79	105.80
3	A1	403	C	O4'-C4'-C3'	9.98	113.98	104.00
38	BO	98	ASN	OD1-CG-ND2	-9.98	112.62	122.60
54	B5	90	GLY	CA-C-N	9.98	131.65	122.37
54	B5	90	GLY	C-N-CA	9.98	131.65	122.37
25	BB	412	A	C4'-C3'-C2'	-9.97	92.63	102.60
25	BB	2215	C	C4'-C3'-C2'	-9.97	92.63	102.60
25	BB	96	C	C4'-C3'-C2'	-9.96	92.64	102.60
25	BB	261	G	C4'-C3'-C2'	-9.94	92.66	102.60
25	BB	2458	G	C3'-C2'-C1'	9.94	111.24	101.30
48	BY	73	VAL	CA-C-O	-9.92	111.92	121.64
25	BB	140	C	C1'-O4'-C4'	-9.92	99.78	109.70
1	AP	38	A	O4'-C4'-C3'	9.91	113.92	104.00
25	BB	308	G	O4'-C4'-C3'	9.91	113.91	104.00
3	A1	1445	U	O3'-P-O5'	9.90	118.84	104.00
3	A1	1454	G	O5'-C5'-C4'	-9.89	96.66	111.50
3	A1	464	U	O4'-C4'-C3'	-9.88	94.12	104.00
25	BB	1416	G	C3'-C2'-O2'	9.88	125.52	110.70
29	BF	30	SER	CA-C-N	9.88	133.91	120.38
29	BF	30	SER	C-N-CA	9.88	133.91	120.38
1	AP	16	U	C4'-C3'-C2'	-9.87	92.73	102.60
47	BX	12	ARG	NE-CZ-NH1	9.86	131.36	121.50
25	BB	1626	A	C4'-C3'-C2'	-9.85	92.75	102.60
20	AU	95	ARG	NE-CZ-NH1	9.85	131.34	121.50
2	AM	4	U	C4'-C3'-C2'	-9.84	92.76	102.60
25	BB	269	C	C3'-C2'-C1'	9.83	111.13	101.30
25	BB	2789	C	O4'-C4'-C3'	9.83	113.83	104.00
25	BB	1117	C	O4'-C1'-C2'	-9.83	97.77	107.60
3	A1	832	G	O5'-C5'-C4'	-9.82	96.77	111.50
53	B4	31	VAL	N-CA-CB	9.82	116.69	110.50
51	B2	55	ASP	CA-C-N	9.82	133.83	120.38
51	B2	55	ASP	C-N-CA	9.82	133.83	120.38
25	BB	995	C	N3-C4-C5	-9.81	92.45	121.90
49	BZ	164	GLN	OE1-CD-NE2	-9.81	112.79	122.60
3	A1	27	G	C5'-C4'-C3'	-9.81	101.29	116.00
22	AW	74	GLN	CA-C-N	9.80	136.41	120.63
22	AW	74	GLN	C-N-CA	9.80	136.41	120.63
33	BJ	66	ALA	N-CA-C	9.79	123.18	111.82
33	BJ	96	ASP	CA-CB-CG	9.79	122.39	112.60
37	BN	174	ARG	NE-CZ-NH2	9.79	128.01	119.20
25	BB	637	A	O4'-C4'-C3'	9.78	115.88	106.10
22	AW	112	ARG	CA-C-N	9.78	134.69	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	AW	112	ARG	C-N-CA	9.78	134.69	120.90
3	A1	1390	U	C1'-O4'-C4'	-9.77	100.13	109.90
3	A1	372	C	C1'-C2'-O2'	9.76	123.04	108.40
25	BB	1136	G	C3'-C2'-C1'	9.76	111.06	101.30
25	BB	2240	U	O3'-P-O5'	9.76	118.64	104.00
5	AC	121	ARG	NE-CZ-NH1	9.74	131.24	121.50
3	A1	842	U	O4'-C4'-C3'	9.73	113.73	104.00
25	BB	1613	G	O4'-C1'-C2'	-9.72	97.88	107.60
25	BB	2678	C	O4'-C4'-C3'	9.71	113.71	104.00
25	BB	76	C	O4'-C4'-C3'	9.71	113.71	104.00
15	AO	122	GLN	OE1-CD-NE2	-9.71	112.89	122.60
25	BB	2075	U	O4'-C4'-C3'	9.71	113.71	104.00
3	A1	884	U	O4'-C1'-C2'	-9.70	96.10	105.80
27	BD	64	ARG	NE-CZ-NH1	9.70	131.20	121.50
3	A1	334	C	C3'-C2'-C1'	9.69	110.99	101.30
8	AG	59	GLN	OE1-CD-NE2	-9.69	112.92	122.60
25	BB	1543	G	C4'-C3'-C2'	-9.68	92.92	102.60
3	A1	673	A	C3'-C2'-O2'	9.67	125.20	110.70
3	A1	321	A	C4'-C3'-C2'	-9.66	92.94	102.60
25	BB	1972	G	O4'-C1'-C2'	-9.65	97.94	107.60
25	BB	514	A	O3'-P-O5'	9.65	118.48	104.00
25	BB	1026	G	C4'-C3'-C2'	-9.65	92.95	102.60
25	BB	1106	G	O4'-C4'-C3'	9.65	113.65	104.00
1	AA	3	G	C5'-C4'-C3'	-9.64	101.53	116.00
3	A1	169	C	O4'-C4'-C3'	9.64	113.64	104.00
52	B3	110	HIS	CB-CG-CD2	-9.64	118.66	131.20
25	BB	789	A	C5'-C4'-O4'	9.64	124.25	109.80
17	AR	98	ASP	CA-CB-CG	9.64	122.24	112.60
40	BQ	31	GLN	OE1-CD-NE2	-9.64	112.96	122.60
30	BG	16	HIS	CA-CB-CG	-9.63	104.17	113.80
25	BB	716	A	C4'-C3'-C2'	-9.62	92.97	102.60
25	BB	469	G	C1'-O4'-C4'	-9.62	100.08	109.70
25	BB	604	G	C3'-C2'-O2'	9.62	125.13	110.70
25	BB	269	C	C4'-C3'-C2'	-9.62	92.98	102.60
18	AS	126	ALA	CA-C-N	9.62	139.91	121.54
18	AS	126	ALA	C-N-CA	9.62	139.91	121.54
30	BG	67	PHE	CA-CB-CG	9.62	123.42	113.80
48	BY	51	THR	N-CA-C	9.62	120.57	108.45
25	BB	739	A	C4'-C3'-O3'	9.62	123.83	109.40
3	A1	916	U	N1-C1'-C2'	9.61	126.42	112.00
25	BB	2291	U	C3'-C2'-C1'	9.62	110.92	101.30
3	A1	1306	A	C4'-C3'-C2'	-9.61	92.99	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	154	U	C1'-O4'-C4'	-9.61	100.29	109.90
25	BB	1775	U	O4'-C1'-C2'	-9.61	97.99	107.60
25	BB	2543	G	O4'-C1'-N9	9.60	122.60	108.20
9	AH	39	GLN	OE1-CD-NE2	-9.60	113.00	122.60
33	BJ	89	ILE	CA-CB-CG1	9.60	126.72	110.40
25	BB	1707	G	O4'-C4'-C3'	9.57	113.57	104.00
20	AU	26	VAL	N-CA-C	9.56	120.40	110.36
25	BB	2779	U	C3'-C2'-C1'	9.56	111.06	101.50
25	BB	163	C	C5'-C4'-C3'	-9.56	101.66	116.00
34	BK	78	ARG	NE-CZ-NH2	9.56	127.80	119.20
53	B4	27	ARG	NE-CZ-NH2	9.56	127.80	119.20
3	A1	1105	A	O4'-C1'-C2'	9.55	117.15	107.60
25	BB	329	G	O4'-C4'-C3'	-9.55	96.55	106.10
40	BQ	60	LYS	N-CA-C	9.55	121.69	111.28
25	BB	2714	G	C1'-O4'-C4'	-9.55	100.35	109.90
1	AA	75	C	C4'-C3'-C2'	-9.55	93.05	102.60
20	AU	134	VAL	CB-CA-C	-9.55	99.25	112.14
3	A1	11	G	C4'-C3'-C2'	-9.54	93.06	102.60
22	AW	14	SER	CA-C-N	9.54	138.86	121.70
22	AW	14	SER	C-N-CA	9.54	138.86	121.70
25	BB	1184	U	O4'-C4'-C3'	9.53	113.53	104.00
3	A1	1135	U	O4'-C4'-C3'	9.53	113.53	104.00
17	AR	193	ASP	CA-CB-CG	9.52	122.12	112.60
25	BB	1739	A	O4'-C1'-C2'	9.52	117.12	107.60
51	B2	57	ALA	N-CA-C	9.52	121.35	110.97
25	BB	2438	U	C4'-C3'-C2'	-9.52	93.08	102.60
25	BB	96	C	C1'-O4'-C4'	-9.52	100.38	109.90
25	BB	1790	C	O4'-C1'-C2'	-9.52	98.08	107.60
25	BB	1226	A	O4'-C1'-C2'	-9.52	98.08	107.60
25	BB	1727	C	C4'-C3'-C2'	-9.52	93.08	102.60
25	BB	581	C	C3'-C2'-C1'	9.51	111.01	101.50
25	BB	2490	G	C2'-C3'-O3'	9.51	123.77	109.50
3	A1	1182	G	O4'-C4'-C3'	-9.51	96.59	106.10
15	AO	53	ARG	NE-CZ-NH2	9.51	127.76	119.20
25	BB	585	G	C1'-O4'-C4'	-9.51	100.39	109.90
25	BB	1870	C	O4'-C1'-C2'	-9.51	96.29	105.80
3	A1	422	C	C5'-C4'-C3'	-9.50	101.75	116.00
25	BB	2449	U	O4'-C4'-C3'	9.50	115.60	106.10
3	A1	1149	C	C5'-C4'-C3'	-9.49	101.76	116.00
25	BB	1235	G	C3'-C2'-C1'	9.49	110.79	101.30
25	BB	2079	U	O4'-C4'-C3'	-9.48	94.52	104.00
3	A1	1100	C	C4'-C3'-O3'	-9.48	98.78	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AK	73	HIS	CA-CB-CG	9.47	123.27	113.80
3	A1	757	U	C3'-C2'-O2'	9.45	124.88	110.70
5	AC	83	VAL	N-CA-C	9.45	121.50	107.80
25	BB	501	A	C5'-C4'-O4'	9.45	123.97	109.80
25	BB	1359	A	O4'-C4'-C3'	9.44	113.44	104.00
38	BO	45	GLN	CA-C-N	9.44	131.90	122.28
38	BO	45	GLN	C-N-CA	9.44	131.90	122.28
9	AH	55	LEU	N-CA-C	9.43	121.16	111.07
3	A1	25	C	C4'-C3'-O3'	9.43	123.54	109.40
3	A1	595	A	C5'-C4'-C3'	-9.43	101.06	115.20
27	BD	31	ARG	CD-NE-CZ	9.43	137.59	124.40
25	BB	995	C	C2-N3-C4	-9.42	91.63	119.90
1	AA	74	C	C2'-C3'-O3'	9.42	127.83	113.70
3	A1	1225	A	C2'-C3'-O3'	9.42	123.63	109.50
6	AD	7	VAL	CA-C-N	9.42	133.25	120.44
6	AD	7	VAL	C-N-CA	9.42	133.25	120.44
25	BB	1033	U	C3'-C2'-C1'	9.42	110.72	101.30
32	BI	104	GLY	CA-C-N	9.42	134.10	120.82
32	BI	104	GLY	C-N-CA	9.42	134.10	120.82
3	A1	918	A	C4'-C3'-C2'	9.42	112.02	102.60
25	BB	958	U	C1'-O4'-C4'	-9.42	100.28	109.70
25	BB	1630	A	O4'-C1'-C2'	-9.42	98.18	107.60
49	BZ	162	GLN	OE1-CD-NE2	-9.42	113.18	122.60
25	BB	1654	A	C3'-C2'-C1'	9.41	110.71	101.30
25	BB	59	U	C5'-C4'-O4'	9.41	123.91	109.80
25	BB	2724	U	C3'-C2'-C1'	9.40	110.70	101.30
50	B1	62	GLN	OE1-CD-NE2	-9.40	113.20	122.60
25	BB	2371	G	C5'-C4'-O4'	9.39	123.89	109.80
25	BB	2880	C	C4'-C3'-C2'	9.39	111.99	102.60
25	BB	1825	U	C4'-C3'-O3'	9.39	123.48	109.40
3	A1	400	C	C4'-C3'-C2'	-9.39	93.21	102.60
25	BB	2490	G	C4'-C3'-C2'	-9.38	93.22	102.60
1	AP	7	U	C3'-C2'-C1'	9.38	110.68	101.30
25	BB	1776	G	C4'-C3'-C2'	-9.38	93.22	102.60
3	A1	525	C	C4'-C3'-C2'	-9.37	93.23	102.60
3	A1	249	U	O4'-C1'-C2'	9.37	115.17	105.80
25	BB	1435	G	C2'-C3'-O3'	9.37	127.76	113.70
25	BB	121	G	C3'-C2'-C1'	9.37	110.67	101.30
25	BB	449	A	O4'-C4'-C3'	9.37	113.36	104.00
3	A1	10	A	O4'-C4'-C3'	9.36	115.46	106.10
25	BB	1468	U	C2'-C3'-O3'	9.36	123.54	109.50
3	A1	1334	G	O4'-C4'-C3'	9.36	115.46	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AV	113	ARG	CD-NE-CZ	9.36	137.50	124.40
24	BA	66	A	O4'-C1'-N9	9.35	122.22	108.20
21	AV	5	PRO	O-C-N	-9.34	112.27	123.01
25	BB	1255	U	C3'-C2'-C1'	-9.34	92.16	101.50
25	BB	2592	G	O4'-C4'-C3'	9.34	113.34	104.00
29	BF	122	ALA	CA-C-N	9.33	138.49	121.70
29	BF	122	ALA	C-N-CA	9.33	138.49	121.70
10	AI	18	GLN	OE1-CD-NE2	-9.32	113.28	122.60
25	BB	664	G	C4'-C3'-O3'	9.32	126.99	113.00
32	BI	29	VAL	N-CA-C	9.32	119.91	108.53
25	BB	773	U	O4'-C1'-C2'	-9.32	96.48	105.80
1	AA	1	G	P-O3'-C3'	9.32	134.18	120.20
15	AO	18	ASN	OD1-CG-ND2	-9.32	113.28	122.60
25	BB	2709	G	O4'-C1'-C2'	-9.32	98.28	107.60
54	B5	126	ARG	NE-CZ-NH2	-9.32	110.81	119.20
42	BS	33	ASN	OD1-CG-ND2	-9.31	113.29	122.60
25	BB	2499	C	O4'-C1'-N1	9.30	122.46	108.50
25	BB	374	A	O3'-P-O5'	9.30	117.95	104.00
14	AN	62	ALA	CA-C-N	9.30	133.10	120.54
14	AN	62	ALA	C-N-CA	9.30	133.10	120.54
25	BB	1668	A	C1'-C2'-O2'	-9.30	97.85	111.80
25	BB	1913	A	C2'-C3'-O3'	9.30	123.45	109.50
25	BB	2694	G	O3'-P-O5'	-9.30	90.06	104.00
3	A1	1055	A	C4'-C3'-C2'	-9.29	93.31	102.60
25	BB	2517	C	O4'-C4'-C3'	9.29	115.39	106.10
25	BB	2898	U	C4'-C3'-O3'	9.29	126.93	113.00
25	BB	379	G	C2'-C3'-O3'	9.29	127.63	113.70
25	BB	1106	G	C4'-C3'-C2'	-9.29	93.31	102.60
25	BB	2535	G	O4'-C4'-C3'	-9.28	94.72	104.00
25	BB	957	C	C2'-C3'-O3'	9.27	127.61	113.70
3	A1	586	C	C4'-C3'-O3'	9.26	126.89	113.00
25	BB	614	A	C2'-C3'-O3'	9.26	123.39	109.50
25	BB	1441	G	C3'-C2'-O2'	9.26	124.59	110.70
3	A1	115	G	O4'-C1'-N9	9.26	122.09	108.20
5	AC	24	ALA	CA-C-N	9.26	138.37	121.70
5	AC	24	ALA	C-N-CA	9.26	138.37	121.70
20	AU	95	ARG	NH1-CZ-NH2	-9.26	107.26	119.30
25	BB	2688	G	O4'-C1'-C2'	-9.25	98.35	107.60
25	BB	1825	U	O4'-C1'-N1	9.25	122.07	108.20
3	A1	755	G	O4'-C4'-C3'	-9.25	94.75	104.00
53	B4	98	ASP	CA-CB-CG	-9.24	103.36	112.60
21	AV	5	PRO	CA-C-N	9.24	138.33	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AV	5	PRO	C-N-CA	9.24	138.33	121.70
44	BU	5	ARG	CA-C-N	9.24	135.44	120.94
44	BU	5	ARG	C-N-CA	9.24	135.44	120.94
49	BZ	166	GLN	OE1-CD-NE2	-9.24	113.36	122.60
25	BB	2292	U	O4'-C4'-C3'	-9.23	94.77	104.00
3	A1	388	G	O4'-C4'-C3'	9.23	115.33	106.10
3	A1	1220	G	O4'-C1'-C2'	-9.22	98.38	107.60
25	BB	493	G	O4'-C4'-C3'	9.22	113.22	104.00
3	A1	1089	G	O4'-C4'-C3'	9.22	113.22	104.00
16	AQ	16	ARG	NH1-CZ-NH2	-9.21	107.32	119.30
37	BN	134	ILE	CA-C-N	9.21	131.36	119.84
37	BN	134	ILE	C-N-CA	9.21	131.36	119.84
49	BZ	202	ASN	CA-CB-CG	9.21	121.81	112.60
46	BW	1	PRO	N-CA-CB	9.21	113.13	103.00
25	BB	1799	G	C4'-C3'-C2'	-9.21	93.39	102.60
5	AC	69	CYS	N-CA-C	9.20	122.62	111.40
4	AB	92	ASN	OD1-CG-ND2	-9.20	113.40	122.60
22	AW	53	LEU	O-C-N	9.20	131.59	122.03
30	BG	17	ARG	NE-CZ-NH2	9.19	127.47	119.20
3	A1	1373	G	C4'-C3'-C2'	-9.19	93.42	102.60
3	A1	1216	A	C2'-C3'-O3'	9.18	123.28	109.50
25	BB	602	A	C4'-C3'-C2'	-9.18	93.42	102.60
50	B1	127	GLU	CA-C-N	9.18	138.21	121.70
50	B1	127	GLU	C-N-CA	9.18	138.21	121.70
3	A1	1319	A	O3'-P-O5'	-9.17	90.24	104.00
21	AV	76	ARG	NE-CZ-NH2	9.17	127.45	119.20
24	BA	104	A	O4'-C1'-C2'	-9.17	98.43	107.60
25	BB	101	A	O4'-C4'-C3'	9.16	115.27	106.10
25	BB	2492	U	C1'-O4'-C4'	-9.16	100.53	109.70
25	BB	1629	U	O4'-C4'-C3'	9.16	113.16	104.00
3	A1	293	G	C5'-C4'-C3'	-9.15	102.27	116.00
25	BB	187	G	C4'-C3'-C2'	-9.15	93.45	102.60
25	BB	696	G	C3'-C2'-C1'	9.14	110.44	101.30
25	BB	1435	G	O4'-C4'-C3'	9.14	113.14	104.00
25	BB	2172	U	C1'-O4'-C4'	-9.14	100.56	109.70
1	AP	20	G	O4'-C4'-C3'	9.13	113.13	104.00
25	BB	1617	C	C2'-C3'-O3'	9.13	123.20	109.50
25	BB	1795	C	O4'-C4'-C3'	-9.13	94.86	104.00
28	BE	70	LYS	CA-C-O	-9.13	109.47	119.97
28	BE	83	ALA	CA-C-N	9.13	132.88	120.38
28	BE	83	ALA	C-N-CA	9.13	132.88	120.38
25	BB	962	G	O4'-C4'-C3'	9.13	113.13	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1533	C	O3'-P-O5'	-9.12	90.32	104.00
25	BB	945	A	O4'-C1'-N9	9.12	121.88	108.20
25	BB	1981	A	O4'-C4'-C3'	-9.12	96.98	106.10
25	BB	2282	G	C2'-C3'-O3'	9.11	123.17	109.50
3	A1	332	G	C4'-C3'-C2'	-9.11	93.49	102.60
25	BB	679	C	O3'-P-O5'	-9.11	90.34	104.00
3	A1	223	A	O4'-C4'-C3'	9.10	113.10	104.00
3	A1	1025	U	C3'-C2'-C1'	9.10	110.40	101.30
25	BB	1105	U	C3'-C2'-O2'	9.10	124.35	110.70
25	BB	276	U	C4'-C3'-C2'	-9.10	93.50	102.60
25	BB	2341	G	C5'-C4'-C3'	-9.10	102.35	116.00
3	A1	817	C	O4'-C1'-C2'	-9.10	96.70	105.80
3	A1	1250	A	O4'-C1'-N9	9.10	122.14	108.50
25	BB	2022	U	C3'-C2'-C1'	9.10	110.40	101.30
3	A1	242	G	C3'-C2'-C1'	9.09	110.39	101.30
25	BB	1973	G	C1'-O4'-C4'	-9.09	100.81	109.90
25	BB	2803	G	C1'-O4'-C4'	-9.09	100.81	109.90
51	B2	114	ARG	NH1-CZ-NH2	-9.09	107.49	119.30
25	BB	435	C	C5'-C4'-O4'	9.08	123.42	109.80
25	BB	1211	C	O4'-C1'-C2'	-9.08	96.72	105.80
25	BB	2056	G	O3'-P-O5'	9.08	117.61	104.00
25	BB	1528	A	C4'-C3'-C2'	-9.07	93.53	102.60
31	BH	2	ASP	CA-C-N	9.06	135.60	121.19
31	BH	2	ASP	C-N-CA	9.06	135.60	121.19
17	AR	166	LYS	CB-CG-CD	9.06	132.13	111.30
25	BB	994	C	C3'-C2'-O2'	9.06	124.28	110.70
3	A1	268	U	C3'-C2'-O2'	9.05	124.28	110.70
25	BB	1083	U	C5'-C4'-C3'	-9.05	102.42	116.00
25	BB	2208	C	C5'-C4'-C3'	-9.05	102.43	116.00
1	AA	63	C	C4'-C3'-C2'	-9.04	93.56	102.60
25	BB	330	A	C5'-C4'-O4'	9.04	122.67	109.10
42	BS	4	ASP	CA-C-N	9.04	132.85	120.46
42	BS	4	ASP	C-N-CA	9.04	132.85	120.46
5	AC	126	ARG	NE-CZ-NH2	9.04	127.34	119.20
49	BZ	141	THR	CA-C-N	9.04	132.58	120.65
49	BZ	141	THR	C-N-CA	9.04	132.58	120.65
50	B1	48	THR	CA-CB-OG1	9.04	123.16	109.60
3	A1	866	C	C3'-C2'-O2'	9.04	124.25	110.70
25	BB	608	A	C3'-C2'-C1'	-9.03	92.27	101.30
25	BB	1660	G	C1'-O4'-C4'	-9.03	100.67	109.70
25	BB	134	G	C1'-C2'-O2'	-9.03	94.86	108.40
26	BC	83	LYS	N-CA-C	9.03	118.72	108.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	378	G	C4'-C3'-C2'	9.02	111.62	102.60
6	AD	120	ARG	NE-CZ-NH1	9.02	130.52	121.50
25	BB	772	C	O4'-C1'-N1	9.02	122.03	108.50
3	A1	529	G	O4'-C1'-C2'	-9.02	98.58	107.60
3	A1	867	G	O4'-C4'-C3'	-9.02	94.98	104.00
12	AK	47	ARG	CA-C-O	-9.02	111.13	120.96
25	BB	1960	A	O3'-P-O5'	9.02	117.53	104.00
4	AB	154	GLY	CA-C-N	9.01	130.63	121.35
4	AB	154	GLY	C-N-CA	9.01	130.63	121.35
1	AP	37	G	O4'-C1'-N9	9.01	122.01	108.50
55	B6	50	THR	CA-C-N	9.01	130.63	121.35
55	B6	50	THR	C-N-CA	9.01	130.63	121.35
4	AB	38	HIS	CA-CB-CG	9.01	122.81	113.80
45	BV	28	ARG	N-CA-C	9.01	121.10	111.28
49	BZ	4	ASP	CA-C-N	9.00	132.14	120.44
49	BZ	4	ASP	C-N-CA	9.00	132.14	120.44
25	BB	760	G	O4'-C4'-C3'	-9.00	95.00	104.00
51	B2	167	ALA	CA-C-N	9.00	135.00	120.60
51	B2	167	ALA	C-N-CA	9.00	135.00	120.60
3	A1	199	A	O4'-C4'-C3'	9.00	113.00	104.00
3	A1	927	G	C1'-O4'-C4'	-9.00	100.90	109.90
48	BY	148	GLN	N-CA-C	9.00	123.64	110.59
2	AM	9	U	O4'-C4'-C3'	8.99	113.00	104.00
3	A1	1340	A	C2'-C3'-O3'	8.99	131.78	113.80
5	AC	68	ARG	NH1-CZ-NH2	-8.99	107.61	119.30
25	BB	2051	A	O4'-C4'-C3'	-8.99	95.01	104.00
25	BB	849	A	C4'-C3'-C2'	-8.99	93.61	102.60
25	BB	2450	A	O4'-C4'-C3'	8.98	112.98	104.00
3	A1	746	A	C4'-C3'-O3'	8.98	126.47	113.00
25	BB	381	G	O4'-C1'-C2'	-8.98	98.62	107.60
25	BB	1960	A	C2'-C3'-O3'	8.98	122.97	109.50
3	A1	273	U	C3'-C2'-O2'	8.98	124.17	110.70
3	A1	1177	G	C4'-C3'-C2'	-8.98	93.62	102.60
10	AI	34	GLU	N-CA-C	8.98	123.08	108.99
25	BB	154	U	O4'-C4'-C3'	8.97	112.97	104.00
3	A1	1067	A	O4'-C4'-C3'	-8.97	97.13	106.10
25	BB	1608	A	C4'-C3'-C2'	-8.97	93.63	102.60
25	BB	1656	C	P-O3'-C3'	8.97	133.66	120.20
3	A1	962	C	C2'-C3'-O3'	8.96	127.14	113.70
25	BB	670	A	C2'-C3'-O3'	8.96	122.94	109.50
1	AA	75	C	C5'-C4'-C3'	-8.96	101.77	115.20
4	AB	72	LYS	CA-C-N	8.96	134.25	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AB	72	LYS	C-N-CA	8.96	134.25	120.82
25	BB	2571	U	C1'-O4'-C4'	-8.96	100.74	109.70
27	BD	90	ASN	OD1-CG-ND2	-8.96	113.64	122.60
3	A1	1519	A	O4'-C1'-C2'	-8.95	96.85	105.80
25	BB	699	A	O4'-C4'-C3'	8.95	112.95	104.00
6	AD	74	GLN	OE1-CD-NE2	-8.95	113.65	122.60
19	AT	79	ARG	NE-CZ-NH1	8.95	130.44	121.50
25	BB	2101	A	O4'-C4'-C3'	8.95	112.95	104.00
25	BB	833	A	O4'-C4'-C3'	8.94	112.94	104.00
28	BE	78	ARG	NE-CZ-NH2	8.94	127.25	119.20
25	BB	81	G	O5'-C5'-C4'	-8.94	98.08	111.50
25	BB	298	G	C3'-C2'-C1'	8.94	110.24	101.30
25	BB	1218	G	C4'-C3'-C2'	-8.94	93.66	102.60
25	BB	1446	C	C3'-C2'-C1'	8.94	110.24	101.30
25	BB	2502	G	C2'-C3'-O3'	8.94	127.11	113.70
25	BB	2196	C	C4'-C3'-C2'	-8.93	93.67	102.60
3	A1	160	A	C4'-C3'-C2'	-8.93	93.67	102.60
1	AA	73	A	C4'-C3'-O3'	8.92	126.39	113.00
8	AG	91	GLU	N-CA-C	8.92	123.43	112.54
3	A1	21	G	O4'-C1'-N9	8.92	121.58	108.20
25	BB	995	C	N3-C4-N4	-8.92	91.25	118.00
19	AT	84	VAL	CA-C-N	8.92	132.45	120.77
19	AT	84	VAL	C-N-CA	8.92	132.45	120.77
4	AB	198	VAL	CB-CA-C	-8.91	98.40	111.68
8	AG	65	GLN	CA-C-N	8.91	135.93	122.65
8	AG	65	GLN	C-N-CA	8.91	135.93	122.65
25	BB	2235	G	O3'-P-O5'	8.91	117.37	104.00
2	AM	13	U	C1'-O4'-C4'	-8.91	100.99	109.90
25	BB	2241	A	O4'-C4'-C3'	8.91	112.91	104.00
25	BB	1757	A	C4'-C3'-C2'	-8.91	93.69	102.60
25	BB	2668	G	C4'-C3'-C2'	-8.91	93.69	102.60
25	BB	1663	G	O3'-P-O5'	8.90	117.36	104.00
3	A1	1353	G	C4'-C3'-C2'	-8.90	93.70	102.60
49	BZ	192	ASN	OD1-CG-ND2	-8.90	113.70	122.60
33	BJ	8	ILE	CA-C-N	8.89	132.92	120.29
33	BJ	8	ILE	C-N-CA	8.89	132.92	120.29
42	BS	45	THR	CA-C-N	8.89	129.58	120.60
42	BS	45	THR	C-N-CA	8.89	129.58	120.60
55	B6	31	GLU	OE1-CD-OE2	-8.89	101.56	122.90
3	A1	742	G	C4'-C3'-C2'	-8.89	93.71	102.60
25	BB	2253	G	C1'-O4'-C4'	-8.89	101.01	109.90
31	BH	61	GLN	OE1-CD-NE2	-8.89	113.71	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	74	A	O4'-C1'-C2'	-8.88	96.92	105.80
25	BB	2751	G	C4'-C3'-C2'	-8.88	93.72	102.60
6	AD	72	ASN	CA-CB-CG	8.88	121.48	112.60
7	AF	100	ARG	CA-C-N	8.88	133.34	120.38
7	AF	100	ARG	C-N-CA	8.88	133.34	120.38
25	BB	743	A	C1'-C2'-O2'	-8.88	95.08	108.40
1	AP	35	A	C3'-C2'-C1'	8.88	110.18	101.30
3	A1	1350	A	C5'-C4'-C3'	-8.88	102.69	116.00
4	AB	62	ARG	NE-CZ-NH1	8.87	130.37	121.50
32	BI	70	GLU	N-CA-C	8.87	122.11	111.02
25	BB	2179	C	C1'-O4'-C4'	-8.87	101.03	109.90
25	BB	2724	U	O4'-C4'-C3'	8.86	112.86	104.00
10	AI	5	ARG	CD-NE-CZ	8.86	136.80	124.40
23	AX	62	ARG	NE-CZ-NH1	8.86	130.36	121.50
25	BB	2756	U	C2'-C3'-O3'	8.86	122.79	109.50
25	BB	1622	G	C1'-O4'-C4'	-8.86	101.04	109.90
3	A1	402	G	C3'-C2'-C1'	8.86	110.16	101.30
25	BB	1785	A	O4'-C1'-N9	8.86	121.48	108.20
3	A1	38	G	C3'-C2'-C1'	8.85	110.35	101.50
3	A1	70	U	C1'-O4'-C4'	-8.85	100.85	109.70
3	A1	827	U	C1'-O4'-C4'	-8.85	100.85	109.70
3	A1	182	A	C1'-O4'-C4'	-8.85	100.85	109.70
25	BB	117	G	O5'-C5'-C4'	-8.85	98.43	111.70
3	A1	408	A	C5'-C4'-C3'	-8.84	102.74	116.00
25	BB	322	A	O3'-P-O5'	8.84	117.26	104.00
37	BN	146	LYS	CA-C-N	8.84	129.40	119.32
37	BN	146	LYS	C-N-CA	8.84	129.40	119.32
3	A1	1066	C	C3'-C2'-C1'	8.84	110.34	101.50
17	AR	69	ARG	NE-CZ-NH1	8.84	130.34	121.50
3	A1	1122	U	C4'-C3'-C2'	-8.83	93.77	102.60
8	AG	64	ARG	NE-CZ-NH1	8.83	130.33	121.50
3	A1	1228	C	O4'-C4'-C3'	8.82	112.83	104.00
25	BB	2358	A	O5'-C5'-C4'	8.82	124.94	111.70
49	BZ	193	LYS	N-CA-C	8.82	120.83	111.03
10	AI	14	ARG	CD-NE-CZ	8.82	136.75	124.40
1	AA	22	G	C4'-C3'-O3'	8.81	126.22	113.00
25	BB	1813	G	C5'-C4'-C3'	-8.81	102.78	116.00
55	B6	37	ARG	NE-CZ-NH2	8.81	127.13	119.20
9	AH	63	ARG	NE-CZ-NH1	8.80	130.30	121.50
4	AB	172	ILE	CA-C-N	8.80	131.88	120.44
4	AB	172	ILE	C-N-CA	8.80	131.88	120.44
21	AV	50	VAL	CB-CA-C	8.80	120.73	111.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	B2	39	VAL	CA-C-N	8.80	130.81	121.48
51	B2	39	VAL	C-N-CA	8.80	130.81	121.48
29	BF	73	ILE	CA-C-N	8.80	138.34	121.54
29	BF	73	ILE	C-N-CA	8.80	138.34	121.54
3	A1	82	G	C5'-C4'-O4'	8.79	122.99	109.80
14	AN	7	LYS	CA-C-N	8.79	132.06	120.28
14	AN	7	LYS	C-N-CA	8.79	132.06	120.28
3	A1	202	G	O4'-C1'-N9	8.79	121.68	108.50
3	A1	1329	A	O4'-C4'-C3'	8.79	112.79	104.00
28	BE	60	ARG	NE-CZ-NH1	8.79	130.29	121.50
17	AR	151	GLN	OE1-CD-NE2	-8.79	113.81	122.60
42	BS	48	GLN	CA-C-N	8.79	137.51	121.70
42	BS	48	GLN	C-N-CA	8.79	137.51	121.70
25	BB	2380	C	C4'-C3'-C2'	-8.78	93.82	102.60
3	A1	1059	C	O4'-C4'-C3'	8.78	112.78	104.00
3	A1	275	G	O4'-C4'-C3'	8.78	112.78	104.00
3	A1	718	A	C3'-C2'-C1'	8.77	110.27	101.50
8	AG	24	ALA	N-CA-C	8.77	121.80	111.71
25	BB	122	G	C5'-C4'-C3'	-8.77	102.84	116.00
25	BB	1258	U	C4'-C3'-C2'	-8.77	93.83	102.60
44	BU	44	GLN	OE1-CD-NE2	-8.77	113.83	122.60
25	BB	1410	G	C1'-C2'-O2'	-8.77	95.24	108.40
51	B2	20	ASN	N-CA-C	8.77	123.53	111.17
51	B2	127	TYR	N-CA-C	8.76	122.02	108.96
25	BB	143	C	O4'-C4'-C3'	8.76	112.76	104.00
3	A1	173	U	C1'-O4'-C4'	-8.76	100.94	109.70
23	AX	22	THR	CA-CB-CG2	8.76	125.39	110.50
25	BB	2057	G	C5'-C4'-O4'	8.76	122.93	109.80
25	BB	768	G	C1'-O4'-C4'	-8.75	101.15	109.90
25	BB	848	C	C4'-C3'-C2'	-8.75	93.85	102.60
25	BB	2079	U	O4'-C1'-N1	8.75	121.63	108.50
25	BB	2149	U	O5'-C5'-C4'	8.75	124.63	111.50
25	BB	2467	C	C5'-C4'-O4'	-8.75	95.97	109.10
25	BB	2686	G	O4'-C4'-C3'	8.75	112.75	104.00
3	A1	805	C	C1'-C2'-O2'	-8.75	98.67	111.80
25	BB	2049	G	C3'-C2'-C1'	8.75	110.05	101.30
25	BB	2285	C	C2'-C3'-O3'	8.75	126.82	113.70
25	BB	2727	A	C3'-C2'-O2'	8.74	123.81	110.70
50	B1	44	ARG	NE-CZ-NH2	8.74	127.06	119.20
3	A1	474	G	C5'-C4'-C3'	-8.74	102.89	116.00
50	B1	92	HIS	CB-CG-CD2	-8.74	119.84	131.20
25	BB	957	C	C1'-O4'-C4'	-8.73	101.17	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	BT	4	GLN	OE1-CD-NE2	-8.73	113.87	122.60
3	A1	966	G	O3'-P-O5'	8.73	117.10	104.00
13	AL	57	VAL	N-CA-C	8.73	116.58	107.76
25	BB	1519	G	O4'-C1'-N9	8.73	121.60	108.50
25	BB	2453	A	C3'-C2'-O2'	8.73	123.80	110.70
55	B6	10	THR	CA-C-N	8.73	137.69	121.97
55	B6	10	THR	C-N-CA	8.73	137.69	121.97
1	AA	17	U	C3'-C2'-C1'	-8.72	92.58	101.30
25	BB	1774	C	O4'-C1'-C2'	-8.72	97.08	105.80
14	AN	15	LYS	CA-C-O	-8.72	111.92	120.90
17	AR	156	ALA	CA-C-N	8.72	132.16	120.65
17	AR	156	ALA	C-N-CA	8.72	132.16	120.65
1	AP	31	A	O4'-C1'-N9	8.72	125.94	108.50
25	BB	746	U	C2'-C3'-O3'	8.72	122.58	109.50
25	BB	13	A	C5'-C4'-O4'	8.71	122.17	109.10
25	BB	683	U	O4'-C1'-N1	8.71	121.27	108.20
25	BB	1616	A	C5'-C4'-O4'	8.71	122.17	109.10
46	BW	7	ARG	NE-CZ-NH2	8.71	127.04	119.20
3	A1	429	U	N1-C1'-C2'	8.71	127.06	114.00
24	BA	4	C	O4'-C1'-C2'	8.71	116.31	107.60
25	BB	1373	A	C4'-C3'-C2'	-8.71	93.89	102.60
25	BB	2814	A	O4'-C1'-C2'	-8.71	98.89	107.60
10	AI	31	ARG	NE-CZ-NH1	8.71	130.21	121.50
44	BU	5	ARG	CD-NE-CZ	8.71	136.59	124.40
3	A1	1210	C	C3'-C2'-C1'	8.71	110.01	101.30
25	BB	1877	A	O4'-C4'-C3'	8.71	112.71	104.00
25	BB	994	C	C5'-C4'-C3'	-8.70	102.95	116.00
25	BB	1958	C	C1'-C2'-O2'	8.70	124.85	111.80
25	BB	1699	G	C2'-C3'-O3'	8.70	122.55	109.50
25	BB	2620	C	C4'-C3'-O3'	8.70	126.05	113.00
25	BB	797	G	C4'-C3'-C2'	-8.70	93.90	102.60
3	A1	196	A	C1'-O4'-C4'	-8.69	101.21	109.90
25	BB	398	C	C4'-C3'-C2'	-8.70	93.91	102.60
34	BK	78	ARG	NH1-CZ-NH2	-8.69	108.00	119.30
25	BB	1311	G	C5'-C4'-C3'	-8.69	102.96	116.00
3	A1	1089	G	C4'-C3'-C2'	-8.69	93.91	102.60
48	BY	2	ILE	CA-C-N	8.69	131.18	122.66
48	BY	2	ILE	C-N-CA	8.69	131.18	122.66
18	AS	67	ARG	NH1-CZ-NH2	-8.69	108.01	119.30
25	BB	1474	U	O4'-C1'-C2'	-8.69	97.11	105.80
22	AW	17	ARG	NH1-CZ-NH2	-8.69	108.01	119.30
3	A1	681	A	C3'-C2'-O2'	8.68	123.72	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	BN	238	ASN	CA-CB-CG	8.68	121.28	112.60
51	B2	105	ILE	CA-C-O	8.67	128.53	121.68
3	A1	441	A	C2'-C3'-O3'	8.67	126.70	113.70
17	AR	37	PRO	O-C-N	-8.67	110.93	122.64
24	BA	105	G	C5'-C4'-C3'	-8.67	103.00	116.00
25	BB	2074	U	C1'-O4'-C4'	8.67	118.57	109.90
11	AJ	49	ASN	CA-CB-CG	8.66	121.26	112.60
25	BB	1459	G	O4'-C1'-N9	8.66	121.19	108.20
25	BB	2131	U	O4'-C1'-C2'	-8.66	98.94	107.60
25	BB	1278	C	O3'-P-O5'	8.65	116.98	104.00
25	BB	1968	G	O3'-P-O5'	-8.65	91.02	104.00
3	A1	1517	G	C3'-C2'-O2'	8.65	123.67	110.70
44	BU	31	GLU	CA-C-O	8.65	128.56	119.05
3	A1	818	G	C5'-C4'-C3'	-8.65	102.23	115.20
25	BB	118	A	C3'-C2'-C1'	-8.65	92.85	101.50
25	BB	2392	A	C5'-C4'-C3'	-8.65	103.03	116.00
25	BB	601	C	C3'-C2'-C1'	8.64	109.94	101.30
3	A1	415	A	C1'-O4'-C4'	-8.64	101.26	109.90
25	BB	1120	G	C1'-C2'-O2'	8.64	121.36	108.40
3	A1	923	A	C1'-O4'-C4'	-8.64	101.06	109.70
31	BH	67	ASN	CA-CB-CG	8.63	121.23	112.60
3	A1	266	G	O4'-C4'-C3'	8.63	112.63	104.00
25	BB	1023	U	O5'-C5'-C4'	8.63	124.64	111.70
25	BB	2640	G	C1'-O4'-C4'	-8.62	101.28	109.90
25	BB	588	U	C3'-C2'-C1'	8.62	109.92	101.30
27	BD	25	LEU	CA-C-O	-8.62	111.02	121.11
53	B4	135	HIS	CB-CG-CD2	-8.62	119.99	131.20
3	A1	783	C	C5'-C4'-C3'	-8.62	103.07	116.00
25	BB	1982	U	O4'-C4'-C3'	8.62	114.72	106.10
24	BA	113	C	C4'-C3'-O3'	-8.61	100.08	113.00
25	BB	2169	A	C2'-C3'-O3'	8.61	126.62	113.70
27	BD	121	GLU	CA-C-N	8.61	137.20	121.70
27	BD	121	GLU	C-N-CA	8.61	137.20	121.70
3	A1	277	C	C4'-C3'-C2'	-8.61	93.99	102.60
3	A1	933	G	O3'-P-O5'	8.61	116.92	104.00
3	A1	956	U	C4'-C3'-C2'	-8.61	94.00	102.60
18	AS	137	ARG	CD-NE-CZ	8.60	136.44	124.40
25	BB	22	C	O4'-C1'-C2'	-8.60	99.00	107.60
3	A1	372	C	O4'-C1'-N1	8.59	121.39	108.50
21	AV	113	ARG	NE-CZ-NH1	8.59	130.09	121.50
26	BC	21	ARG	CA-C-N	8.59	132.15	120.38
26	BC	21	ARG	C-N-CA	8.59	132.15	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	632	U	O4'-C4'-C3'	8.59	114.69	106.10
1	AE	38	A	O4'-C4'-C3'	8.59	112.58	104.00
2	AM	13	U	O3'-P-O5'	-8.59	91.12	104.00
3	A1	246	A	O4'-C1'-C2'	-8.58	97.22	105.80
25	BB	2346	A	C4'-C3'-C2'	-8.58	94.02	102.60
25	BB	891	G	C1'-C2'-O2'	-8.58	95.53	108.40
25	BB	1721	G	O4'-C4'-C3'	8.58	114.68	106.10
25	BB	541	A	C4'-C3'-C2'	-8.57	94.03	102.60
25	BB	1473	G	C2'-C3'-O3'	8.57	122.36	109.50
33	BJ	89	ILE	N-CA-C	8.57	118.85	111.90
25	BB	2181	U	O3'-P-O5'	8.57	116.86	104.00
25	BB	2061	G	O5'-C5'-C4'	-8.57	98.85	111.70
3	A1	1249	C	C3'-C2'-O2'	8.56	123.55	110.70
26	BC	18	ARG	NE-CZ-NH2	8.56	126.91	119.20
3	A1	943	U	C1'-O4'-C4'	-8.56	101.34	109.90
31	BH	7	ARG	NE-CZ-NH2	8.56	126.91	119.20
18	AS	121	ASN	OD1-CG-ND2	-8.56	114.04	122.60
3	A1	364	A	O4'-C1'-N9	-8.56	95.66	108.50
50	B1	74	LYS	CA-C-N	8.56	137.10	121.70
50	B1	74	LYS	C-N-CA	8.56	137.10	121.70
25	BB	2219	U	C5'-C4'-C3'	-8.55	103.17	116.00
3	A1	1240	U	C3'-C2'-C1'	-8.55	92.95	101.50
25	BB	2472	G	C3'-C2'-C1'	8.55	109.85	101.30
6	AD	82	ARG	NE-CZ-NH1	8.55	130.05	121.50
25	BB	249	C	O4'-C1'-C2'	-8.55	97.25	105.80
3	A1	287	U	C5'-C4'-C3'	-8.54	103.18	116.00
25	BB	2449	U	O4'-C1'-C2'	8.54	114.34	105.80
25	BB	199	A	N9-C1'-C2'	8.54	124.81	112.00
25	BB	1486	U	C5'-C4'-C3'	-8.54	103.19	116.00
25	BB	674	G	C4'-C3'-C2'	-8.54	94.06	102.60
25	BB	1431	A	C1'-O4'-C4'	-8.54	101.36	109.90
39	BP	49	ASN	CA-CB-CG	8.53	121.13	112.60
42	BS	11	GLU	OE1-CD-OE2	-8.54	102.42	122.90
3	A1	1255	G	O3'-P-O5'	-8.53	91.20	104.00
25	BB	2698	U	C4'-C3'-C2'	-8.53	94.07	102.60
47	BX	25	VAL	CA-CB-CG2	8.53	124.90	110.40
38	BO	8	ASP	CA-CB-CG	8.53	121.13	112.60
40	BQ	50	VAL	CA-C-O	-8.53	111.58	121.05
3	A1	644	U	C4'-C3'-C2'	-8.53	94.07	102.60
25	BB	1714	U	C1'-O4'-C4'	-8.53	101.37	109.90
25	BB	2747	G	C4'-C3'-C2'	-8.53	94.07	102.60
25	BB	797	G	C3'-C2'-C1'	8.52	109.82	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	AW	17	ARG	NE-CZ-NH1	8.52	130.02	121.50
18	AS	131	ASN	OD1-CG-ND2	-8.52	114.08	122.60
1	AA	17	U	C5'-C4'-C3'	-8.52	103.23	116.00
17	AR	46	ARG	NH1-CZ-NH2	-8.52	108.23	119.30
3	A1	673	A	C5'-C4'-O4'	8.51	122.57	109.80
20	AU	12	LEU	N-CA-C	8.51	121.55	110.40
25	BB	1262	A	C1'-O4'-C4'	-8.51	101.39	109.90
43	BT	16	ARG	NE-CZ-NH2	8.51	126.86	119.20
25	BB	1435	G	O3'-P-O5'	-8.51	91.24	104.00
21	AV	75	GLN	OE1-CD-NE2	-8.51	114.09	122.60
53	B4	116	ARG	CA-C-N	8.51	132.99	120.83
53	B4	116	ARG	C-N-CA	8.51	132.99	120.83
1	AA	69	U	O4'-C1'-C2'	-8.50	99.10	107.60
25	BB	226	A	O4'-C4'-C3'	8.50	112.50	104.00
25	BB	2491	U	O4'-C4'-C3'	8.50	112.50	104.00
25	BB	1822	C	C5'-C4'-C3'	-8.50	103.25	116.00
3	A1	691	G	C2'-C3'-O3'	8.49	126.44	113.70
3	A1	1175	G	C4'-C3'-C2'	-8.49	94.11	102.60
3	A1	1443	C	C5'-C4'-O4'	8.49	122.54	109.80
10	AI	21	VAL	CA-CB-CG1	8.49	124.84	110.40
25	BB	2666	C	O4'-C4'-C3'	8.49	112.49	104.00
25	BB	2584	U	C1'-C2'-O2'	8.49	121.14	108.40
25	BB	566	U	C3'-C2'-C1'	8.49	109.79	101.30
25	BB	1317	G	C4'-C3'-C2'	-8.49	94.11	102.60
25	BB	1520	U	C3'-C2'-O2'	8.49	123.43	110.70
3	A1	171	A	C5'-C4'-C3'	-8.48	102.47	115.20
25	BB	2621	G	C3'-C2'-C1'	-8.48	93.02	101.50
33	BJ	18	LYS	CA-C-N	8.48	134.79	121.72
33	BJ	18	LYS	C-N-CA	8.48	134.79	121.72
3	A1	1337	G	O4'-C1'-C2'	-8.48	99.12	107.60
1	AA	69	U	C5'-C4'-O4'	8.48	122.52	109.80
25	BB	2038	G	O4'-C4'-C3'	-8.48	95.52	104.00
3	A1	1525	G	C3'-C2'-O2'	8.48	123.42	110.70
25	BB	2276	G	O4'-C1'-N9	8.48	120.92	108.20
34	BK	72	VAL	N-CA-CB	8.48	121.06	111.90
25	BB	705	A	O5'-C5'-C4'	8.48	124.21	111.50
3	A1	713	G	O4'-C4'-C3'	-8.47	95.53	104.00
3	A1	1365	G	O4'-C1'-C2'	-8.47	99.13	107.60
25	BB	1470	A	O4'-C1'-C2'	-8.47	97.33	105.80
48	BY	94	GLN	OE1-CD-NE2	-8.47	114.13	122.60
25	BB	729	G	C3'-C2'-C1'	8.47	109.77	101.30
25	BB	2486	C	C5'-C4'-O4'	8.47	122.51	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	BN	237	ARG	N-CA-C	8.47	120.14	111.07
50	B1	56	GLY	O-C-N	-8.47	116.10	122.71
3	A1	376	G	C2'-C3'-O3'	-8.47	101.00	113.70
3	A1	951	G	C3'-C2'-C1'	-8.47	92.83	101.30
25	BB	2537	U	C3'-C2'-C1'	8.47	109.97	101.50
50	B1	117	ARG	NH1-CZ-NH2	-8.47	108.29	119.30
3	A1	991	U	C1'-C2'-O2'	8.47	124.50	111.80
15	AO	84	GLU	CA-C-N	8.47	131.45	120.44
15	AO	84	GLU	C-N-CA	8.47	131.45	120.44
25	BB	630	G	C3'-C2'-C1'	-8.47	92.83	101.30
16	AQ	34	ARG	NE-CZ-NH2	8.46	126.82	119.20
25	BB	985	C	O4'-C4'-C3'	8.46	112.46	104.00
39	BP	2	HIS	CB-CG-CD2	-8.46	120.20	131.20
3	A1	1368	A	N9-C1'-C2'	8.46	124.68	112.00
3	A1	306	A	O4'-C1'-N9	8.45	120.88	108.20
25	BB	17	G	C4'-C3'-C2'	8.45	111.05	102.60
25	BB	1267	U	O4'-C1'-N1	8.45	120.87	108.20
25	BB	172	A	O4'-C4'-C3'	8.45	112.45	104.00
25	BB	1263	U	C3'-C2'-C1'	-8.45	93.05	101.50
3	A1	199	A	C1'-O4'-C4'	-8.44	101.46	109.90
3	A1	1224	U	O4'-C1'-C2'	-8.45	97.36	105.80
25	BB	2580	U	C1'-O4'-C4'	-8.44	101.26	109.70
25	BB	288	U	O5'-C5'-C4'	-8.44	98.83	111.50
25	BB	186	G	O4'-C1'-N9	-8.44	95.84	108.50
25	BB	1888	G	O4'-C4'-C3'	8.44	112.44	104.00
21	AV	20	ASN	CA-CB-CG	8.44	121.03	112.60
22	AW	109	GLN	OE1-CD-NE2	-8.44	114.17	122.60
3	A1	1257	A	C4'-C3'-C2'	-8.43	94.17	102.60
25	BB	210	C	C5'-C4'-C3'	-8.43	103.35	116.00
25	BB	972	A	P-O3'-C3'	8.43	132.85	120.20
3	A1	73	C	O4'-C4'-C3'	8.43	112.43	104.00
3	A1	390	U	C1'-O4'-C4'	-8.43	101.27	109.70
25	BB	1472	C	C3'-C2'-O2'	8.43	127.24	114.60
42	BS	20	ASN	CA-CB-CG	8.43	121.03	112.60
25	BB	1786	A	O4'-C1'-N9	8.43	120.84	108.20
25	BB	2376	A	C4'-C3'-C2'	-8.43	94.17	102.60
1	AA	47	U	O5'-C5'-C4'	8.42	124.14	111.50
1	AA	75	C	O5'-C5'-C4'	8.42	124.34	111.70
17	AR	150	LYS	CA-C-N	8.42	133.47	120.75
17	AR	150	LYS	C-N-CA	8.42	133.47	120.75
6	AD	97	VAL	CB-CA-C	8.42	121.94	110.99
3	A1	580	C	O4'-C1'-C2'	-8.42	99.18	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	BN	225	ASN	OD1-CG-ND2	-8.42	114.18	122.60
25	BB	1628	G	C4'-C3'-O3'	-8.42	100.37	113.00
25	BB	1973	G	C4'-C3'-C2'	-8.41	94.19	102.60
3	A1	930	C	C4'-C3'-C2'	-8.41	94.19	102.60
25	BB	197	A	O3'-P-O5'	8.41	116.62	104.00
25	BB	2228	G	C3'-C2'-C1'	8.41	109.71	101.30
3	A1	435	A	O4'-C4'-C3'	8.41	112.41	104.00
25	BB	473	G	C4'-C3'-C2'	-8.40	94.20	102.60
25	BB	2083	G	C4'-C3'-O3'	8.40	125.60	113.00
25	BB	205	G	O4'-C1'-C2'	-8.40	97.40	105.80
25	BB	1800	C	C1'-O4'-C4'	-8.40	101.50	109.90
27	BD	3	GLN	OE1-CD-NE2	-8.40	114.20	122.60
25	BB	2695	U	C1'-O4'-C4'	-8.39	101.51	109.90
3	A1	122	G	O4'-C4'-C3'	8.39	112.39	104.00
3	A1	444	G	C5'-C4'-C3'	-8.39	103.42	116.00
25	BB	1939	U	O4'-C1'-N1	8.39	120.78	108.20
3	A1	1408	A	O5'-C5'-C4'	8.39	124.08	111.50
18	AS	19	ARG	NE-CZ-NH2	8.38	126.74	119.20
25	BB	476	G	C2'-C3'-O3'	8.38	122.07	109.50
50	B1	131	THR	CA-CB-CG2	8.38	124.75	110.50
3	A1	1262	C	C4'-C3'-C2'	-8.38	94.22	102.60
25	BB	2195	U	O4'-C1'-C2'	-8.38	99.22	107.60
3	A1	1179	A	C3'-C2'-C1'	8.38	109.67	101.30
25	BB	729	G	O4'-C4'-C3'	8.38	112.38	104.00
31	BH	25	ARG	NH1-CZ-NH2	-8.37	108.41	119.30
39	BP	50	VAL	O-C-N	-8.37	114.00	122.62
25	BB	42	A	C3'-C2'-O2'	8.37	123.26	110.70
35	BL	47	VAL	CA-C-N	8.37	131.32	120.44
35	BL	47	VAL	C-N-CA	8.37	131.32	120.44
24	BA	51	G	C2'-C3'-O3'	8.37	122.05	109.50
25	BB	278	A	C3'-C2'-O2'	8.37	123.25	110.70
25	BB	816	C	C5'-C4'-C3'	-8.37	103.45	116.00
25	BB	1570	A	O4'-C4'-C3'	8.37	112.37	104.00
43	BT	16	ARG	NH1-CZ-NH2	-8.37	108.42	119.30
17	AR	53	GLN	OE1-CD-NE2	-8.37	114.23	122.60
25	BB	780	G	C5'-C4'-O4'	8.37	121.65	109.10
22	AW	79	ARG	NE-CZ-NH1	8.36	129.86	121.50
24	BA	70	C	O4'-C4'-C3'	8.36	112.36	104.00
25	BB	1960	A	C4'-C3'-C2'	-8.36	94.24	102.60
3	A1	1419	G	O5'-C5'-C4'	8.36	124.05	111.50
25	BB	1717	A	C4'-C3'-C2'	-8.36	94.24	102.60
37	BN	69	ASN	OD1-CG-ND2	-8.36	114.24	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	347	G	C3'-C2'-C1'	8.36	109.66	101.30
25	BB	441	U	O3'-P-O5'	-8.36	91.46	104.00
25	BB	1189	A	O4'-C1'-C2'	-8.36	99.24	107.60
25	BB	2229	U	C1'-O4'-C4'	-8.36	101.54	109.90
25	BB	2852	G	O3'-P-O5'	8.36	116.53	104.00
25	BB	2433	A	C3'-C2'-C1'	-8.35	93.15	101.50
25	BB	1116	G	C5'-C4'-C3'	-8.35	103.47	116.00
3	A1	480	U	O4'-C4'-C3'	8.35	112.35	104.00
48	BY	169	ARG	NE-CZ-NH1	8.35	129.85	121.50
51	B2	106	ALA	CA-C-N	8.35	125.50	120.24
51	B2	106	ALA	C-N-CA	8.35	125.50	120.24
53	B4	21	VAL	CA-C-N	8.35	133.96	122.19
53	B4	21	VAL	C-N-CA	8.35	133.96	122.19
25	BB	172	A	C4'-C3'-C2'	-8.35	94.25	102.60
1	AA	20	G	C3'-C2'-C1'	8.35	109.65	101.30
25	BB	1446	C	C4'-C3'-C2'	-8.34	94.26	102.60
17	AR	181	PHE	CA-CB-CG	8.34	122.14	113.80
25	BB	862	G	O3'-P-O5'	8.34	116.51	104.00
25	BB	1754	A	C4'-C3'-O3'	-8.34	100.49	113.00
18	AS	16	ALA	CA-C-N	8.34	134.24	122.23
18	AS	16	ALA	C-N-CA	8.34	134.24	122.23
25	BB	841	G	C3'-C2'-C1'	8.34	109.64	101.30
32	BI	57	ALA	CA-C-N	8.34	131.80	120.38
3	A1	167	A	O4'-C4'-C3'	8.34	112.33	104.00
25	BB	1406	U	C4'-C3'-C2'	-8.34	94.26	102.60
32	BI	57	ALA	C-N-CA	8.34	131.80	120.38
25	BB	619	G	O4'-C4'-C3'	8.33	112.33	104.00
25	BB	2131	U	C4'-C3'-C2'	-8.33	94.27	102.60
28	BE	18	ARG	NH1-CZ-NH2	-8.33	108.47	119.30
50	B1	177	PRO	N-CD-CG	8.33	115.69	103.20
13	AL	36	ARG	CA-C-N	8.32	137.44	121.54
13	AL	36	ARG	C-N-CA	8.32	137.44	121.54
25	BB	1404	C	C4'-C3'-C2'	-8.32	94.28	102.60
33	BJ	1	ALA	CA-C-N	8.32	137.44	121.54
33	BJ	1	ALA	C-N-CA	8.32	137.44	121.54
25	BB	719	C	O4'-C4'-C3'	8.32	112.32	104.00
35	BL	18	ARG	NE-CZ-NH2	-8.32	111.71	119.20
5	AC	83	VAL	N-CA-CB	-8.32	100.98	111.46
3	A1	1160	G	C3'-C2'-C1'	8.31	109.61	101.30
17	AR	138	PRO	N-CA-CB	8.31	110.56	103.25
3	A1	10	A	C1'-O4'-C4'	-8.31	101.39	109.70
3	A1	746	A	C2'-C3'-O3'	-8.31	101.24	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	922	G	C3'-C2'-C1'	8.31	109.81	101.50
30	BG	32	GLU	N-CA-C	8.31	124.52	113.72
23	AX	15	HIS	CB-CG-CD2	-8.30	120.41	131.20
3	A1	907	A	O4'-C4'-C3'	8.30	112.30	104.00
25	BB	1217	U	O4'-C1'-C2'	8.30	114.10	105.80
25	BB	1221	C	C4'-C3'-C2'	-8.30	94.30	102.60
25	BB	2421	G	C4'-C3'-C2'	-8.30	94.30	102.60
4	AB	31	PHE	CA-CB-CG	8.29	122.09	113.80
39	BP	54	ARG	CB-CA-C	8.29	125.14	110.37
45	BV	33	ARG	NE-CZ-NH1	8.29	129.79	121.50
25	BB	1686	C	O4'-C1'-N1	8.29	120.64	108.20
25	BB	1704	C	O4'-C1'-C2'	-8.29	97.51	105.80
5	AC	114	PRO	N-CA-CB	8.29	110.55	103.17
25	BB	1775	U	N1-C1'-C2'	8.29	124.44	112.00
19	AT	89	VAL	CA-C-N	8.29	135.55	122.62
19	AT	89	VAL	C-N-CA	8.29	135.55	122.62
25	BB	1049	C	C1'-O4'-C4'	-8.29	101.61	109.90
25	BB	1338	G	O4'-C4'-C3'	8.28	112.28	104.00
25	BB	2824	C	O3'-P-O5'	-8.28	91.58	104.00
44	BU	27	ARG	NE-CZ-NH2	8.28	126.65	119.20
45	BV	35	ARG	CD-NE-CZ	8.28	135.99	124.40
1	AP	31	A	C4'-C3'-O3'	8.28	129.05	112.50
3	A1	733	G	O4'-C1'-C2'	-8.28	97.53	105.80
39	BP	22	VAL	CA-C-O	-8.28	110.44	120.78
50	B1	29	HIS	CA-C-N	8.28	132.29	122.44
50	B1	29	HIS	C-N-CA	8.28	132.29	122.44
3	A1	129	A	C2'-C3'-O3'	8.27	121.91	109.50
25	BB	1718	G	C4'-C3'-C2'	-8.27	94.33	102.60
25	BB	1046	A	O4'-C4'-C3'	8.27	114.37	106.10
25	BB	2391	G	C3'-C2'-C1'	-8.27	93.23	101.50
25	BB	131	A	O4'-C1'-C2'	-8.27	99.33	107.60
25	BB	2753	A	C4'-C3'-C2'	-8.27	94.33	102.60
3	A1	449	G	O5'-C5'-C4'	-8.26	99.11	111.50
25	BB	1140	C	C5'-C4'-C3'	-8.26	102.81	115.20
3	A1	1211	U	C1'-C2'-O2'	-8.26	96.01	108.40
25	BB	1161	C	O3'-P-O5'	-8.26	91.61	104.00
3	A1	436	C	C3'-C2'-C1'	8.26	109.56	101.30
25	BB	2410	G	C1'-C2'-O2'	8.26	120.79	108.40
25	BB	324	A	C4'-C3'-C2'	-8.25	94.35	102.60
25	BB	2048	G	C1'-C2'-O2'	-8.25	96.02	108.40
25	BB	2379	G	C3'-C2'-O2'	8.25	123.08	110.70
25	BB	2638	G	C4'-C3'-C2'	8.25	110.85	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	BK	32	THR	CA-CB-CG2	8.25	124.53	110.50
3	A1	1285	A	O4'-C1'-C2'	-8.25	97.55	105.80
25	BB	775	G	O3'-P-O5'	-8.25	91.62	104.00
25	BB	1809	A	C3'-C2'-O2'	8.25	123.07	110.70
25	BB	2557	G	C4'-C3'-C2'	-8.25	94.35	102.60
28	BE	7	SER	O-C-N	-8.25	116.03	121.88
3	A1	166	U	C2'-C3'-O3'	-8.24	101.33	113.70
54	B5	21	PRO	N-CA-C	8.24	120.76	110.70
21	AV	63	LYS	N-CA-CB	-8.24	100.06	110.45
3	A1	229	U	O4'-C4'-C3'	8.24	112.24	104.00
25	BB	2240	U	C4'-C3'-O3'	-8.24	100.64	113.00
3	A1	114	U	O4'-C4'-C3'	8.24	112.24	104.00
25	BB	84	A	C4'-C3'-C2'	-8.24	94.36	102.60
3	A1	1268	G	C1'-O4'-C4'	-8.23	101.67	109.90
3	A1	332	G	C3'-C2'-O2'	8.23	123.05	110.70
25	BB	982	C	O4'-C1'-N1	8.23	120.55	108.20
25	BB	2071	A	O5'-C5'-C4'	8.23	124.05	111.70
25	BB	2698	U	O4'-C4'-C3'	8.23	112.23	104.00
3	A1	536	C	O4'-C4'-C3'	8.23	112.23	104.00
3	A1	1272	G	O4'-C1'-C2'	-8.23	99.37	107.60
25	BB	412	A	C3'-C2'-C1'	8.23	109.53	101.30
25	BB	1204	A	C4'-C3'-C2'	-8.23	94.37	102.60
25	BB	2472	G	O4'-C1'-C2'	-8.23	99.37	107.60
25	BB	331	C	C1'-O4'-C4'	-8.22	101.48	109.70
25	BB	2506	U	O3'-P-O5'	-8.22	91.67	104.00
24	BA	41	G	C1'-O4'-C4'	-8.21	101.69	109.90
25	BB	65	U	C4'-C3'-C2'	-8.21	94.39	102.60
25	BB	398	C	C3'-C2'-C1'	8.21	109.51	101.30
25	BB	2447	G	C5'-C4'-C3'	-8.21	102.88	115.20
29	BF	22	GLN	OE1-CD-NE2	-8.21	114.39	122.60
1	AA	74	C	C1'-O4'-C4'	-8.21	101.69	109.90
1	AE	20	G	O4'-C4'-C3'	8.21	112.21	104.00
1	AE	75	C	O4'-C1'-C2'	-8.21	99.39	107.60
2	AM	12	U	C3'-C2'-O2'	8.21	123.01	110.70
25	BB	9	G	C4'-C3'-C2'	-8.21	94.39	102.60
25	BB	911	A	O4'-C4'-C3'	8.21	112.21	104.00
25	BB	756	A	C3'-C2'-O2'	8.21	123.01	110.70
28	BE	54	GLN	OE1-CD-NE2	-8.21	114.39	122.60
1	AE	57	G	O4'-C4'-C3'	8.21	112.20	104.00
5	AC	112	VAL	N-CA-C	8.21	119.97	112.17
27	BD	10	VAL	O-C-N	8.21	131.61	122.67
51	B2	2	LYS	CA-C-N	8.20	137.21	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	B2	2	LYS	C-N-CA	8.20	137.21	121.54
46	BW	26	ALA	CA-C-N	8.20	137.20	121.54
46	BW	26	ALA	C-N-CA	8.20	137.20	121.54
3	A1	892	A	C5'-C4'-C3'	-8.20	103.70	116.00
24	BA	44	G	O4'-C4'-C3'	8.20	112.20	104.00
7	AF	28	ARG	N-CA-C	8.20	120.21	111.28
25	BB	859	G	C3'-C2'-C1'	8.20	109.70	101.50
25	BB	866	A	O4'-C4'-C3'	8.20	112.20	104.00
25	BB	1929	G	C5'-C4'-O4'	8.20	122.09	109.80
25	BB	1949	G	C5'-C4'-C3'	-8.20	103.71	116.00
25	BB	2444	G	O4'-C1'-C2'	-8.20	99.40	107.60
25	BB	967	U	C4'-C3'-O3'	8.19	121.69	109.40
25	BB	2565	A	C1'-O4'-C4'	-8.19	101.51	109.70
33	BJ	35	PHE	CA-CB-CG	8.19	121.99	113.80
25	BB	332	A	C3'-C2'-C1'	8.19	109.69	101.50
25	BB	1668	A	C1'-O4'-C4'	-8.19	101.51	109.70
27	BD	89	ASN	CB-CG-ND2	8.19	128.68	116.40
25	BB	1021	A	C3'-C2'-O2'	8.18	122.98	110.70
3	A1	179	A	O4'-C4'-C3'	-8.18	95.82	104.00
3	A1	484	G	C4'-C3'-O3'	-8.18	97.12	109.40
25	BB	967	U	O5'-C5'-C4'	8.18	123.97	111.70
1	AA	32	C	C4'-C3'-C2'	-8.18	94.42	102.60
25	BB	1193	G	O4'-C1'-N9	8.18	120.77	108.50
54	B5	11	GLN	OE1-CD-NE2	-8.18	114.42	122.60
1	AA	62	A	C5'-C4'-C3'	-8.18	103.74	116.00
3	A1	844	G	C5'-C4'-O4'	8.18	122.06	109.80
3	A1	1021	A	C1'-O4'-C4'	-8.17	101.73	109.90
3	A1	694	A	C1'-O4'-C4'	-8.17	101.53	109.70
25	BB	2642	G	O5'-C5'-C4'	8.17	123.76	111.50
25	BB	1272	A	C3'-C2'-C1'	8.17	109.67	101.50
25	BB	233	A	C4'-C3'-C2'	-8.17	94.43	102.60
3	A1	152	A	C3'-C2'-C1'	8.17	109.47	101.30
3	A1	291	U	C5'-C4'-C3'	-8.17	102.95	115.20
3	A1	1445	U	C5'-C4'-O4'	8.17	122.05	109.80
6	AD	95	HIS	CB-CG-CD2	-8.17	120.58	131.20
24	BA	62	C	O5'-C5'-C4'	-8.17	99.25	111.50
25	BB	2617	U	O4'-C4'-C3'	8.17	114.27	106.10
3	A1	328	C	C1'-O4'-C4'	-8.16	101.74	109.90
25	BB	2394	C	C3'-C2'-C1'	8.16	109.46	101.30
25	BB	2672	U	O4'-C4'-C3'	8.16	112.16	104.00
50	B1	170	ARG	NE-CZ-NH2	8.16	126.55	119.20
51	B2	17	THR	O-C-N	-8.16	111.74	122.59

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	433	C	C4'-C3'-C2'	-8.16	94.44	102.60
25	BB	1999	C	O4'-C4'-C3'	8.16	112.16	104.00
25	BB	2345	G	C2'-C3'-O3'	8.16	121.73	109.50
25	BB	693	A	O4'-C4'-C3'	8.15	112.16	104.00
19	AT	39	LEU	CA-C-N	8.15	133.26	122.42
19	AT	39	LEU	C-N-CA	8.15	133.26	122.42
25	BB	14	A	C4'-C3'-O3'	8.15	125.22	113.00
25	BB	1793	C	C1'-O4'-C4'	-8.15	101.75	109.90
47	BX	19	ARG	NH1-CZ-NH2	-8.15	108.71	119.30
25	BB	1620	G	O3'-P-O5'	8.15	116.22	104.00
25	BB	2556	C	P-O5'-C5'	8.15	133.12	120.90
27	BD	18	ARG	CA-C-N	8.15	134.41	121.95
27	BD	18	ARG	C-N-CA	8.15	134.41	121.95
27	BD	78	ARG	NE-CZ-NH1	8.14	129.64	121.50
3	A1	654	G	O4'-C1'-C2'	-8.14	99.46	107.60
3	A1	785	G	C4'-C3'-C2'	-8.14	94.46	102.60
25	BB	1040	A	O4'-C4'-C3'	8.14	112.14	104.00
25	BB	814	C	C4'-C3'-C2'	-8.13	94.47	102.60
3	A1	134	G	O4'-C4'-C3'	8.13	112.13	104.00
25	BB	1302	A	C3'-C2'-C1'	8.13	109.43	101.30
25	BB	1963	U	O5'-C5'-C4'	-8.13	99.30	111.50
3	A1	28	A	C5'-C4'-C3'	-8.13	103.81	116.00
18	AS	114	LEU	CA-C-N	8.13	131.17	120.28
18	AS	114	LEU	C-N-CA	8.13	131.17	120.28
20	AU	37	THR	CA-C-O	-8.13	111.22	120.24
24	BA	116	G	C4'-C3'-C2'	-8.13	94.47	102.60
19	AT	33	GLU	CA-C-N	8.12	127.72	119.92
19	AT	33	GLU	C-N-CA	8.12	127.72	119.92
21	AV	84	ILE	N-CA-C	8.12	118.69	106.42
25	BB	723	C	O4'-C1'-C2'	-8.12	99.48	107.60
25	BB	1461	C	O4'-C1'-N1	8.12	120.38	108.20
25	BB	2655	G	C4'-C3'-C2'	-8.12	94.48	102.60
52	B3	89	VAL	N-CA-C	8.12	119.48	108.11
25	BB	1002	G	O3'-P-O5'	-8.12	91.82	104.00
25	BB	1110	G	C3'-C2'-O2'	8.12	122.88	110.70
25	BB	2552	U	P-O5'-C5'	8.12	133.08	120.90
54	B5	13	ALA	N-CA-C	8.12	122.20	110.10
3	A1	458	U	O4'-C4'-C3'	8.12	112.11	104.00
3	A1	1340	A	C3'-C2'-O2'	8.12	126.03	109.80
25	BB	194	G	O4'-C4'-C3'	8.12	112.11	104.00
25	BB	275	C	C5'-C4'-C3'	-8.12	103.83	116.00
25	BB	744	U	C4'-C3'-C2'	-8.12	94.48	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	363	A	C1'-C2'-O2'	-8.11	99.63	111.80
3	A1	791	G	O4'-C1'-N9	8.11	120.67	108.50
25	BB	1791	A	C1'-O4'-C4'	-8.11	101.79	109.90
25	BB	2354	C	C4'-C3'-C2'	-8.11	94.49	102.60
32	BI	46	VAL	O-C-N	-8.11	114.40	122.67
49	BZ	100	VAL	CA-C-N	8.11	131.49	120.38
49	BZ	100	VAL	C-N-CA	8.11	131.49	120.38
5	AC	21	HIS	CB-CG-CD2	-8.10	120.67	131.20
49	BZ	159	THR	CA-CB-OG1	-8.10	97.45	109.60
3	A1	861	G	N9-C1'-C2'	8.10	124.15	112.00
25	BB	1739	A	C3'-C2'-C1'	-8.10	93.20	101.30
25	BB	2751	G	O4'-C1'-N9	8.10	120.35	108.20
48	BY	173	GLN	OE1-CD-NE2	-8.10	114.50	122.60
25	BB	933	A	O4'-C4'-C3'	8.10	112.10	104.00
25	BB	2603	G	O3'-P-O5'	8.10	116.15	104.00
25	BB	2822	G	O3'-P-O5'	-8.10	91.85	104.00
33	BJ	50	ARG	NH1-CZ-NH2	-8.10	108.77	119.30
3	A1	176	C	C3'-C2'-O2'	8.10	122.84	110.70
14	AN	45	ALA	O-C-N	-8.10	111.58	122.43
25	BB	2267	A	C4'-C3'-O3'	-8.10	100.86	113.00
17	AR	84	ASN	CA-CB-CG	8.09	120.69	112.60
25	BB	349	U	O4'-C1'-C2'	-8.09	99.51	107.60
25	BB	807	U	C1'-O4'-C4'	-8.09	101.81	109.90
25	BB	108	G	C1'-O4'-C4'	-8.09	101.81	109.90
25	BB	274	C	O4'-C1'-C2'	-8.09	99.51	107.60
35	BL	110	ARG	NE-CZ-NH2	8.09	126.48	119.20
49	BZ	85	ILE	CA-CB-CG1	8.09	124.15	110.40
3	A1	1220	G	C1'-O4'-C4'	8.09	117.99	109.90
25	BB	1647	U	C5'-C4'-C3'	8.09	127.33	115.20
3	A1	715	A	N9-C1'-C2'	8.08	126.13	114.00
6	AD	98	ARG	NE-CZ-NH2	8.08	126.48	119.20
11	AJ	64	ARG	NE-CZ-NH1	8.08	129.58	121.50
3	A1	222	C	C4'-C3'-C2'	-8.08	94.52	102.60
25	BB	1461	C	C2'-C3'-O3'	8.08	121.62	109.50
25	BB	2487	G	O4'-C4'-C3'	8.08	112.08	104.00
37	BN	119	VAL	CA-CB-CG1	8.08	124.13	110.40
3	A1	317	U	O4'-C4'-C3'	-8.08	95.92	104.00
25	BB	2315	G	C4'-C3'-C2'	-8.08	94.52	102.60
48	BY	34	VAL	N-CA-C	8.08	126.14	109.34
48	BY	109	VAL	N-CA-C	8.08	118.26	106.55
25	BB	1266	G	C1'-O4'-C4'	-8.07	101.83	109.90
25	BB	563	A	O4'-C4'-C3'	8.07	112.07	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1102	C	O4'-C1'-N1	8.07	120.61	108.50
25	BB	1114	C	C5'-C4'-C3'	-8.07	103.90	116.00
37	BN	206	LYS	CA-C-N	8.07	136.22	121.70
37	BN	206	LYS	C-N-CA	8.07	136.22	121.70
25	BB	16	C	C3'-C2'-C1'	8.07	109.37	101.30
25	BB	977	G	C2'-C3'-O3'	8.07	125.80	113.70
3	A1	472	U	O4'-C4'-C3'	8.06	112.06	104.00
24	BA	27	C	C4'-C3'-O3'	-8.06	100.91	113.00
25	BB	1959	G	C4'-C3'-O3'	-8.06	100.90	113.00
3	A1	301	G	C1'-O4'-C4'	-8.06	101.84	109.90
25	BB	1279	G	O3'-P-O5'	-8.06	91.91	104.00
37	BN	181	ARG	NE-CZ-NH2	8.06	126.45	119.20
3	A1	965	U	C2'-C3'-O3'	8.06	121.59	109.50
25	BB	2114	A	C5'-C4'-C3'	-8.06	103.91	116.00
25	BB	1680	U	O5'-C5'-C4'	8.06	123.78	111.70
38	BO	38	ILE	CA-C-N	8.06	136.93	121.54
38	BO	38	ILE	C-N-CA	8.06	136.93	121.54
38	BO	97	SER	CA-C-N	8.06	134.25	121.44
38	BO	97	SER	C-N-CA	8.06	134.25	121.44
25	BB	10	A	C2'-C3'-O3'	8.05	121.58	109.50
3	A1	990	C	O4'-C1'-N1	8.05	120.58	108.50
25	BB	2439	A	C3'-C2'-C1'	8.05	109.55	101.50
37	BN	53	ILE	CA-C-N	8.05	137.19	121.41
37	BN	53	ILE	C-N-CA	8.05	137.19	121.41
48	BY	196	ALA	CA-C-N	8.05	136.20	121.70
48	BY	196	ALA	C-N-CA	8.05	136.20	121.70
50	B1	176	ASP	CA-C-N	8.05	129.91	119.84
50	B1	176	ASP	C-N-CA	8.05	129.91	119.84
25	BB	2668	G	O3'-P-O5'	8.05	116.08	104.00
25	BB	988	A	C5'-C4'-O4'	8.05	121.17	109.10
25	BB	1934	C	C4'-C3'-C2'	-8.05	94.55	102.60
43	BT	20	ALA	N-CA-C	8.05	120.17	110.19
25	BB	274	C	C4'-C3'-C2'	-8.05	94.55	102.60
25	BB	825	A	O4'-C4'-C3'	8.05	114.15	106.10
25	BB	983	A	O4'-C4'-C3'	8.05	112.05	104.00
37	BN	269	ARG	NE-CZ-NH2	8.05	126.44	119.20
43	BT	9	ARG	NE-CZ-NH2	8.05	126.44	119.20
3	A1	117	G	C3'-C2'-O2'	8.04	122.77	110.70
50	B1	102	ARG	CA-C-N	8.04	136.18	121.70
50	B1	102	ARG	C-N-CA	8.04	136.18	121.70
3	A1	822	U	C3'-C2'-O2'	8.04	122.76	110.70
31	BH	6	ALA	N-CA-C	8.04	122.52	112.87

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	BL	33	LEU	N-CA-C	8.04	119.67	111.07
3	A1	1446	A	C3'-C2'-C1'	-8.04	93.46	101.50
25	BB	295	G	O4'-C1'-C2'	-8.04	99.56	107.60
1	AA	52	U	C4'-C3'-C2'	-8.04	94.56	102.60
25	BB	2822	G	O4'-C4'-C3'	8.04	112.04	104.00
25	BB	2194	U	C2'-C3'-O3'	8.03	125.75	113.70
55	B6	132	HIS	CB-CG-CD2	-8.03	120.76	131.20
3	A1	246	A	C3'-C2'-C1'	8.03	109.53	101.50
3	A1	1008	U	C1'-O4'-C4'	-8.03	101.87	109.90
18	AS	42	ASN	OD1-CG-ND2	-8.03	114.57	122.60
25	BB	1069	A	C4'-C3'-O3'	-8.03	97.36	109.40
5	AC	30	ILE	O-C-N	-8.03	114.28	122.30
25	BB	1399	C	C3'-C2'-C1'	8.03	109.33	101.30
3	A1	972	C	C3'-C2'-C1'	8.02	109.32	101.30
3	A1	562	U	C5'-C4'-O4'	-8.02	97.07	109.10
25	BB	2837	A	O4'-C4'-C3'	8.02	112.02	104.00
29	BF	50	ARG	NH1-CZ-NH2	-8.02	108.87	119.30
31	BH	85	LYS	CA-C-O	8.02	129.25	119.79
49	BZ	122	ARG	CD-NE-CZ	8.02	135.63	124.40
3	A1	403	C	C4'-C3'-C2'	-8.02	94.58	102.60
25	BB	763	G	C3'-C2'-C1'	8.02	109.52	101.50
25	BB	1905	C	C3'-C2'-C1'	8.02	109.52	101.50
25	BB	269	C	O4'-C1'-C2'	-8.02	99.58	107.60
52	B3	156	TYR	N-CA-C	8.02	121.18	111.40
25	BB	1388	G	N9-C1'-C2'	-8.02	99.98	112.00
3	A1	689	C	C3'-C2'-C1'	8.01	109.31	101.30
26	BC	49	ASN	OD1-CG-ND2	-8.01	114.59	122.60
3	A1	853	C	C4'-C3'-O3'	8.01	125.01	113.00
14	AN	26	MET	CA-C-N	8.01	132.07	120.38
14	AN	26	MET	C-N-CA	8.01	132.07	120.38
25	BB	65	U	O4'-C4'-C3'	8.01	112.01	104.00
25	BB	265	A	C1'-O4'-C4'	-8.01	101.89	109.90
25	BB	2345	G	P-O3'-C3'	8.01	132.22	120.20
25	BB	1189	A	C5'-C4'-C3'	-8.01	103.99	116.00
11	AJ	64	ARG	NH1-CZ-NH2	-8.01	108.89	119.30
35	BL	5	ALA	CA-C-N	8.00	133.41	120.60
35	BL	5	ALA	C-N-CA	8.00	133.41	120.60
25	BB	1462	C	C2'-C3'-O3'	8.00	121.50	109.50
50	B1	87	ALA	CA-C-N	8.00	132.27	120.83
50	B1	87	ALA	C-N-CA	8.00	132.27	120.83
25	BB	826	U	O4'-C1'-N1	8.00	120.50	108.50
5	AC	32	THR	OG1-CB-CG2	-8.00	93.31	109.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	963	U	O4'-C4'-C3'	-8.00	96.00	104.00
25	BB	2495	G	C4'-C3'-O3'	8.00	121.39	109.40
49	BZ	173	ASP	N-CA-C	8.00	122.30	112.23
15	AO	99	GLN	OE1-CD-NE2	-7.99	114.61	122.60
3	A1	1286	U	C5'-C4'-O4'	7.99	121.09	109.10
18	AS	91	SER	CA-C-N	7.99	136.09	121.70
18	AS	91	SER	C-N-CA	7.99	136.09	121.70
3	A1	368	U	C5'-C4'-C3'	-7.99	104.01	116.00
25	BB	694	U	C5'-C4'-O4'	7.99	121.79	109.80
1	AA	31	A	C5'-C4'-O4'	7.99	121.78	109.80
25	BB	2890	G	C5'-C4'-O4'	7.99	121.78	109.80
23	AX	45	ARG	NH1-CZ-NH2	-7.99	108.92	119.30
50	B1	61	ARG	NE-CZ-NH1	7.99	129.49	121.50
25	BB	1388	G	O3'-P-O5'	7.98	115.98	104.00
16	AQ	5	VAL	N-CA-C	7.98	119.37	107.80
25	BB	200	U	C3'-C2'-C1'	7.98	109.28	101.30
25	BB	1178	C	C3'-C2'-C1'	7.98	109.28	101.30
25	BB	2377	A	C5'-C4'-O4'	7.98	121.78	109.80
25	BB	1479	G	C1'-O4'-C4'	-7.98	101.92	109.90
25	BB	2131	U	O4'-C4'-C3'	7.98	111.98	104.00
23	AX	49	PHE	CA-CB-CG	7.98	121.78	113.80
30	BG	109	PRO	CA-C-N	7.98	132.80	120.75
30	BG	109	PRO	C-N-CA	7.98	132.80	120.75
1	AP	65	G	C4'-C3'-C2'	-7.98	94.62	102.60
25	BB	2887	A	C5'-C4'-C3'	-7.98	104.03	116.00
1	AA	16	U	C5'-C4'-O4'	7.97	121.76	109.80
52	B3	47	ASN	OD1-CG-ND2	-7.97	114.63	122.60
25	BB	933	A	C4'-C3'-C2'	-7.97	94.63	102.60
25	BB	1148	U	C4'-C3'-C2'	-7.97	94.63	102.60
26	BC	58	SER	CA-C-N	7.97	132.72	121.24
26	BC	58	SER	C-N-CA	7.97	132.72	121.24
3	A1	1314	C	C5'-C4'-C3'	-7.97	104.04	116.00
3	A1	1335	U	C5'-C4'-O4'	7.97	121.76	109.80
4	AB	177	ASN	OD1-CG-ND2	-7.97	114.63	122.60
25	BB	1457	U	O4'-C1'-N1	7.97	120.46	108.50
25	BB	2386	A	C4'-C3'-C2'	-7.97	94.63	102.60
25	BB	105	C	C2'-C3'-O3'	7.97	121.45	109.50
10	AI	3	THR	CA-C-O	-7.97	112.24	120.84
17	AR	71	PHE	CA-C-N	7.97	134.20	120.58
17	AR	71	PHE	C-N-CA	7.97	134.20	120.58
25	BB	1402	U	C5'-C4'-C3'	-7.96	104.05	116.00
25	BB	2002	G	N9-C1'-C2'	7.96	123.95	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	B2	5	ASP	CA-CB-CG	7.96	120.56	112.60
9	AH	25	GLU	CA-C-N	7.96	131.72	120.42
9	AH	25	GLU	C-N-CA	7.96	131.72	120.42
25	BB	2419	U	C4'-C3'-O3'	7.96	124.94	113.00
25	BB	2714	G	C2'-C3'-O3'	7.96	125.64	113.70
1	AE	46	G	O3'-P-O5'	-7.96	92.06	104.00
25	BB	1576	U	C1'-O4'-C4'	-7.96	101.94	109.90
25	BB	2278	A	C2'-C3'-O3'	7.96	125.64	113.70
25	BB	703	U	O4'-C4'-C3'	7.96	114.06	106.10
3	A1	494	G	O4'-C4'-C3'	7.95	111.95	104.00
37	BN	20	ASN	OD1-CG-ND2	-7.95	114.65	122.60
53	B4	112	LYS	N-CA-C	7.95	120.86	111.71
3	A1	554	A	O4'-C4'-C3'	-7.95	96.05	104.00
3	A1	999	C	O4'-C1'-C2'	-7.95	97.85	105.80
25	BB	47	C	C5'-C4'-C3'	-7.95	104.08	116.00
25	BB	1085	A	C4'-C3'-C2'	-7.95	94.65	102.60
3	A1	825	A	C5'-C4'-C3'	7.95	127.92	116.00
3	A1	1083	U	O4'-C1'-C2'	-7.95	97.85	105.80
3	A1	21	G	O4'-C1'-C2'	-7.95	97.86	105.80
3	A1	1176	A	O4'-C1'-N9	7.95	120.42	108.50
13	AL	39	ILE	N-CA-C	7.95	120.21	108.45
25	BB	1350	C	C3'-C2'-C1'	7.95	109.25	101.30
25	BB	1844	C	C4'-C3'-C2'	-7.95	94.66	102.60
25	BB	2000	C	O3'-P-O5'	-7.95	92.08	104.00
25	BB	1434	A	O4'-C4'-C3'	-7.94	96.06	104.00
3	A1	384	G	C4'-C3'-C2'	-7.94	94.66	102.60
3	A1	1482	G	C1'-O4'-C4'	-7.94	101.76	109.70
25	BB	439	A	O4'-C4'-C3'	7.94	111.94	104.00
47	BX	24	ARG	CD-NE-CZ	7.93	135.51	124.40
3	A1	1418	A	C4'-C3'-O3'	7.93	124.90	113.00
33	BJ	5	ARG	NE-CZ-NH2	7.93	126.34	119.20
1	AE	5	A	O4'-C4'-C3'	7.93	111.93	104.00
3	A1	988	G	C4'-C3'-C2'	-7.93	94.67	102.60
3	A1	1484	C	O4'-C4'-C3'	7.93	114.03	106.10
6	AD	35	ARG	CD-NE-CZ	7.93	135.50	124.40
30	BG	2	ARG	NE-CZ-NH1	7.92	129.43	121.50
3	A1	1196	A	C1'-O4'-C4'	-7.92	101.98	109.90
10	AI	69	ASP	CA-C-N	7.92	134.77	122.49
10	AI	69	ASP	C-N-CA	7.92	134.77	122.49
25	BB	125	A	C4'-C3'-O3'	7.92	121.28	109.40
25	BB	2347	C	O4'-C4'-C3'	7.92	111.92	104.00
48	BY	128	ARG	NH1-CZ-NH2	-7.92	109.00	119.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	B6	39	LYS	CA-C-N	7.92	131.88	121.90
55	B6	39	LYS	C-N-CA	7.92	131.88	121.90
25	BB	433	C	O4'-C4'-C3'	7.92	111.92	104.00
25	BB	2712	C	C5'-C4'-C3'	-7.92	104.12	116.00
25	BB	2215	C	C3'-C2'-C1'	7.92	109.22	101.30
25	BB	2277	G	C1'-O4'-C4'	7.92	117.82	109.90
25	BB	2603	G	C2'-C3'-O3'	-7.92	101.83	113.70
25	BB	1902	C	O4'-C1'-C2'	-7.91	99.69	107.60
25	BB	2651	C	O3'-P-O5'	7.91	115.87	104.00
25	BB	2744	G	C4'-C3'-C2'	-7.91	94.69	102.60
25	BB	318	C	C2'-C3'-O3'	7.91	121.36	109.50
3	A1	1369	C	C2'-C3'-O3'	7.91	121.36	109.50
3	A1	1430	A	C1'-O4'-C4'	-7.91	101.99	109.90
25	BB	74	A	C3'-C2'-C1'	7.91	109.41	101.50
25	BB	1493	C	O4'-C4'-C3'	7.91	114.01	106.10
25	BB	2898	U	C1'-O4'-C4'	-7.90	102.00	109.90
25	BB	340	A	O3'-P-O5'	7.90	115.85	104.00
3	A1	301	G	C4'-C3'-C2'	-7.90	94.70	102.60
3	A1	824	G	C5'-C4'-O4'	7.90	121.65	109.80
25	BB	87	U	O4'-C1'-C2'	-7.90	99.70	107.60
25	BB	2311	A	C4'-C3'-O3'	7.90	124.85	113.00
46	BW	33	THR	OG1-CB-CG2	-7.90	93.50	109.30
54	B5	21	PRO	N-CA-CB	7.90	110.74	103.08
25	BB	921	C	C1'-C2'-O2'	7.90	120.25	108.40
3	A1	663	A	O4'-C1'-N9	7.90	120.35	108.50
25	BB	1132	U	C5'-C4'-C3'	-7.90	104.16	116.00
48	BY	23	PRO	O-C-N	7.90	131.99	123.23
3	A1	1507	A	C4'-C3'-C2'	-7.89	94.70	102.60
25	BB	94	A	O4'-C4'-C3'	7.89	111.89	104.00
35	BL	20	VAL	CA-C-N	7.89	131.90	120.38
35	BL	20	VAL	C-N-CA	7.89	131.90	120.38
25	BB	108	G	C4'-C3'-C2'	-7.89	94.71	102.60
25	BB	381	G	P-O3'-C3'	7.89	132.03	120.20
3	A1	935	A	O5'-C5'-C4'	7.89	123.33	111.50
46	BW	4	LYS	CA-C-N	7.89	136.60	121.54
46	BW	4	LYS	C-N-CA	7.89	136.60	121.54
25	BB	1295	C	C4'-C3'-C2'	-7.88	94.72	102.60
25	BB	2740	A	C4'-C3'-C2'	-7.88	94.72	102.60
3	A1	163	C	C1'-O4'-C4'	-7.88	102.02	109.90
31	BH	33	ARG	NE-CZ-NH2	7.88	126.29	119.20
25	BB	954	G	C1'-C2'-O2'	-7.88	99.98	111.80
25	BB	1494	A	C4'-C3'-C2'	-7.88	94.72	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2590	A	O4'-C1'-C2'	-7.88	97.92	105.80
3	A1	622	A	C2'-C3'-O3'	7.88	125.51	113.70
25	BB	1372	U	C4'-C3'-C2'	-7.88	94.72	102.60
25	BB	1578	U	C5'-C4'-C3'	-7.88	104.19	116.00
25	BB	1998	A	C5'-C4'-C3'	-7.88	104.19	116.00
3	A1	674	G	C4'-C3'-C2'	-7.87	94.73	102.60
25	BB	1126	A	N9-C1'-C2'	7.87	125.81	114.00
25	BB	1873	G	C4'-C3'-O3'	-7.87	101.19	113.00
3	A1	289	G	C2'-C3'-O3'	7.87	121.31	109.50
3	A1	769	G	C3'-C2'-C1'	-7.87	93.43	101.30
3	A1	1233	G	C3'-C2'-C1'	7.87	109.17	101.30
25	BB	508	A	C5'-C4'-C3'	-7.87	104.19	116.00
25	BB	2565	A	O4'-C4'-C3'	7.87	113.97	106.10
25	BB	768	G	C4'-C3'-C2'	-7.87	94.73	102.60
3	A1	551	U	O4'-C4'-C3'	-7.87	96.13	104.00
25	BB	1842	G	C3'-C2'-O2'	7.87	122.50	110.70
25	BB	2894	G	O4'-C4'-C3'	7.87	111.87	104.00
20	AU	2	ARG	NE-CZ-NH1	7.87	129.37	121.50
25	BB	2151	U	C4'-C3'-C2'	-7.87	94.73	102.60
27	BD	61	VAL	CA-C-N	7.87	131.09	120.63
27	BD	61	VAL	C-N-CA	7.87	131.09	120.63
2	AM	18	U	C3'-C2'-C1'	7.86	109.16	101.30
25	BB	62	U	O3'-P-O5'	-7.86	92.21	104.00
40	BQ	41	HIS	CB-CG-CD2	-7.86	120.98	131.20
25	BB	280	U	C3'-C2'-O2'	7.86	122.49	110.70
25	BB	749	A	O4'-C4'-C3'	7.86	111.86	104.00
25	BB	1319	C	C4'-C3'-C2'	-7.86	94.74	102.60
3	A1	45	G	O4'-C4'-C3'	7.86	111.86	104.00
3	A1	436	C	C4'-C3'-C2'	-7.86	94.74	102.60
3	A1	812	G	O4'-C1'-C2'	-7.86	97.94	105.80
25	BB	121	G	C4'-C3'-C2'	-7.85	94.75	102.60
3	A1	698	G	C5'-C4'-C3'	-7.85	104.22	116.00
20	AU	95	ARG	CD-NE-CZ	7.85	135.39	124.40
25	BB	533	G	C3'-C2'-C1'	7.85	109.15	101.30
25	BB	627	A	C4'-C3'-C2'	-7.85	94.75	102.60
25	BB	2538	C	C3'-C2'-O2'	7.85	126.37	114.60
33	BJ	36	GLN	CG-CD-NE2	7.85	128.17	116.40
50	B1	104	ALA	O-C-N	-7.85	112.15	122.59
25	BB	1026	G	C1'-O4'-C4'	-7.85	101.85	109.70
3	A1	447	G	C4'-C3'-C2'	7.84	110.44	102.60
25	BB	583	G	C5'-C4'-C3'	-7.84	104.23	116.00
39	BP	38	ARG	O-C-N	7.84	132.19	123.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	B3	54	ARG	NE-CZ-NH1	7.84	129.34	121.50
26	BC	19	ARG	NE-CZ-NH2	7.84	126.26	119.20
25	BB	152	A	C1'-C2'-O2'	7.84	120.16	108.40
4	AB	22	TRP	CA-C-N	7.84	131.17	120.67
4	AB	22	TRP	C-N-CA	7.84	131.17	120.67
25	BB	1163	G	N9-C1'-C2'	7.84	123.76	112.00
55	B6	22	GLY	O-C-N	-7.84	112.51	122.70
30	BG	3	HIS	CE1-NE2-CD2	-7.83	101.17	109.00
25	BB	973	A	O4'-C4'-C3'	7.83	111.83	104.00
25	BB	2717	C	C4'-C3'-C2'	-7.83	94.77	102.60
25	BB	221	A	O4'-C1'-C2'	-7.83	97.97	105.80
3	A1	708	C	N1-C1'-C2'	7.83	123.75	112.00
25	BB	1824	G	O3'-P-O5'	-7.83	92.25	104.00
3	A1	89	U	C1'-O4'-C4'	-7.83	102.07	109.90
48	BY	130	GLN	N-CA-C	7.83	120.42	109.15
14	AN	60	GLN	CB-CG-CD	7.83	125.91	112.60
25	BB	1839	G	C3'-C2'-C1'	7.83	109.12	101.30
34	BK	49	ILE	CA-C-N	7.83	129.95	122.36
34	BK	49	ILE	C-N-CA	7.83	129.95	122.36
50	B1	176	ASP	CA-CB-CG	-7.82	104.78	112.60
39	BP	49	ASN	OD1-CG-ND2	-7.82	114.78	122.60
20	AU	16	LYS	CA-C-N	7.82	135.16	122.65
20	AU	16	LYS	C-N-CA	7.82	135.16	122.65
3	A1	1479	C	O4'-C4'-C3'	-7.82	96.19	104.00
25	BB	2136	G	C1'-O4'-C4'	-7.82	102.08	109.90
25	BB	2246	G	C2'-C3'-O3'	7.81	125.42	113.70
25	BB	2786	U	C4'-C3'-C2'	-7.81	94.79	102.60
24	BA	100	G	C4'-C3'-O3'	7.81	124.72	113.00
25	BB	2140	G	C5'-C4'-C3'	-7.81	104.28	116.00
1	AE	72	C	C5'-C4'-O4'	7.81	121.51	109.80
25	BB	1212	G	C4'-C3'-O3'	7.81	121.11	109.40
3	A1	44	A	C5'-C4'-O4'	7.81	121.51	109.80
3	A1	77	A	C5'-C4'-O4'	7.81	121.51	109.80
3	A1	1022	A	C1'-C2'-O2'	7.81	120.11	108.40
25	BB	1321	A	C4'-C3'-C2'	-7.81	94.79	102.60
25	BB	1681	G	O4'-C4'-C3'	7.81	111.81	104.00
25	BB	2313	C	O4'-C1'-C2'	7.81	113.61	105.80
51	B2	124	ARG	CD-NE-CZ	7.81	135.33	124.40
3	A1	226	G	C2'-C3'-O3'	7.80	125.41	113.70
3	A1	1195	C	C3'-C2'-C1'	7.80	109.11	101.30
25	BB	198	C	O3'-P-O5'	7.80	115.71	104.00
25	BB	1117	C	C4'-C3'-C2'	-7.80	94.80	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	554	A	O3'-P-O5'	7.80	115.70	104.00
10	AI	35	ARG	CD-NE-CZ	7.80	135.32	124.40
3	A1	1039	G	C3'-C2'-O2'	7.80	122.40	110.70
25	BB	1319	C	C5'-C4'-C3'	-7.80	104.31	116.00
25	BB	1576	U	O4'-C4'-C3'	7.80	111.80	104.00
25	BB	1579	A	C4'-C3'-C2'	-7.80	94.80	102.60
1	AA	22	G	C3'-C2'-C1'	-7.79	93.51	101.30
1	AE	2	C	O4'-C4'-C3'	7.79	111.79	104.00
25	BB	1063	G	C4'-C3'-C2'	-7.79	94.81	102.60
25	BB	1988	G	C5'-C4'-C3'	-7.79	104.31	116.00
16	AQ	20	ARG	NE-CZ-NH2	7.79	126.21	119.20
17	AR	74	TYR	CA-C-N	7.79	130.72	120.28
17	AR	74	TYR	C-N-CA	7.79	130.72	120.28
25	BB	723	C	C3'-C2'-O2'	7.79	122.39	110.70
25	BB	1935	G	C2'-C3'-O3'	7.79	121.19	109.50
48	BY	49	GLN	OE1-CD-NE2	-7.79	114.81	122.60
3	A1	930	C	O5'-C5'-C4'	7.79	123.18	111.50
25	BB	524	G	C4'-C3'-C2'	-7.79	94.81	102.60
25	BB	1826	G	N9-C1'-C2'	7.79	123.68	112.00
44	BU	27	ARG	NH1-CZ-NH2	-7.79	109.18	119.30
55	B6	96	ARG	CD-NE-CZ	7.79	135.30	124.40
10	AI	28	ARG	NH1-CZ-NH2	-7.78	109.18	119.30
25	BB	160	A	C3'-C2'-C1'	-7.78	93.52	101.30
15	AO	173	PRO	O-C-N	7.78	128.25	122.73
23	AX	5	ARG	NE-CZ-NH1	7.78	129.28	121.50
25	BB	530	G	O5'-C5'-C4'	-7.78	100.03	111.70
25	BB	1054	A	O4'-C1'-N9	7.78	120.17	108.50
25	BB	2242	G	C2'-C3'-O3'	7.78	125.37	113.70
25	BB	2372	U	O4'-C4'-C3'	-7.78	98.32	106.10
3	A1	1025	U	O4'-C4'-C3'	7.78	111.78	104.00
24	BA	78	A	C1'-C2'-O2'	-7.78	96.74	108.40
25	BB	179	C	C3'-C2'-O2'	7.78	122.36	110.70
25	BB	1599	U	O4'-C1'-C2'	-7.78	99.82	107.60
25	BB	1905	C	O4'-C4'-C3'	7.78	113.88	106.10
3	A1	68	G	C5'-C4'-O4'	7.77	121.46	109.80
2	AM	20	U	C4'-C3'-C2'	-7.77	94.83	102.60
3	A1	1199	U	C1'-O4'-C4'	-7.77	102.13	109.90
1	AE	35	A	C5'-C4'-C3'	-7.77	104.35	116.00
3	A1	1404	C	O3'-P-O5'	7.77	115.65	104.00
7	AF	10	ASP	N-CA-C	7.77	122.47	107.71
25	BB	50	U	O4'-C4'-C3'	7.77	113.87	106.10
25	BB	149	A	C4'-C3'-C2'	-7.77	94.83	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	449	A	C2'-C3'-O3'	7.77	125.35	113.70
15	AO	10	ARG	NE-CZ-NH2	7.76	126.19	119.20
25	BB	11	C	O4'-C4'-C3'	-7.76	98.34	106.10
25	BB	2212	A	O3'-P-O5'	-7.76	92.35	104.00
3	A1	1098	C	O3'-P-O5'	7.76	115.64	104.00
3	A1	486	U	P-O5'-C5'	7.76	132.54	120.90
12	AK	40	PRO	N-CA-CB	7.76	110.19	103.36
35	BL	8	ARG	NH1-CZ-NH2	-7.76	109.21	119.30
4	AB	173	LYS	O-C-N	-7.76	114.08	122.07
25	BB	2019	A	O4'-C4'-C3'	7.76	111.76	104.00
25	BB	1913	A	C4'-C3'-O3'	7.76	121.04	109.40
25	BB	2837	A	C4'-C3'-C2'	-7.76	94.84	102.60
1	AA	37	G	C3'-C2'-C1'	-7.75	93.55	101.30
25	BB	537	G	C5'-C4'-C3'	-7.75	104.37	116.00
25	BB	1516	G	C4'-C3'-C2'	-7.75	94.85	102.60
25	BB	1189	A	C4'-C3'-O3'	7.75	124.63	113.00
25	BB	1019	U	C3'-C2'-O2'	7.75	122.33	110.70
25	BB	1247	A	C4'-C3'-O3'	-7.75	97.78	109.40
3	A1	1105	A	C1'-O4'-C4'	-7.75	102.15	109.90
3	A1	884	U	C1'-O4'-C4'	-7.75	101.95	109.70
25	BB	1887	C	C2'-C3'-O3'	7.75	125.32	113.70
30	BG	107	ASN	OD1-CG-ND2	-7.75	114.86	122.60
25	BB	2835	A	O4'-C1'-C2'	-7.74	98.06	105.80
37	BN	45	ASN	OD1-CG-ND2	-7.74	114.86	122.60
14	AN	15	LYS	N-CA-C	-7.74	102.44	111.03
25	BB	1013	C	N1-C1'-C2'	-7.74	102.39	114.00
25	BB	1688	U	C4'-C3'-C2'	-7.74	94.86	102.60
51	B2	162	ASP	CA-C-N	7.74	131.16	120.63
51	B2	162	ASP	C-N-CA	7.74	131.16	120.63
3	A1	684	U	C2'-C3'-O3'	7.74	121.11	109.50
3	A1	1288	A	C3'-C2'-C1'	7.74	109.04	101.30
40	BQ	26	PHE	CA-CB-CG	7.74	121.54	113.80
3	A1	1215	G	O4'-C4'-C3'	7.74	111.73	104.00
25	BB	1642	G	C3'-C2'-O2'	7.74	122.30	110.70
3	A1	1072	G	C4'-C3'-C2'	-7.73	94.87	102.60
24	BA	50	A	N9-C1'-C2'	7.73	123.60	112.00
25	BB	1015	U	O4'-C1'-C2'	-7.73	98.07	105.80
25	BB	2834	G	O4'-C4'-C3'	7.73	111.73	104.00
25	BB	614	A	O4'-C1'-C2'	-7.73	98.07	105.80
25	BB	1029	A	C4'-C3'-C2'	-7.73	94.87	102.60
41	BR	8	GLN	OE1-CD-NE2	-7.73	114.87	122.60
50	B1	58	LYS	N-CA-C	7.73	121.45	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1765	U	C3'-C2'-C1'	7.73	109.03	101.30
3	A1	1140	C	O4'-C4'-C3'	7.72	113.83	106.10
25	BB	180	G	O4'-C4'-C3'	7.72	111.72	104.00
25	BB	1066	U	C4'-C3'-C2'	-7.72	94.88	102.60
25	BB	1334	G	O4'-C1'-N9	7.72	119.79	108.20
55	B6	37	ARG	NH1-CZ-NH2	-7.72	109.26	119.30
3	A1	1534	A	C1'-O4'-C4'	-7.72	101.98	109.70
25	BB	743	A	C3'-C2'-O2'	7.72	122.28	110.70
27	BD	110	GLU	CA-C-N	7.72	130.63	120.28
27	BD	110	GLU	C-N-CA	7.72	130.63	120.28
25	BB	2379	G	C5'-C4'-C3'	-7.72	104.42	116.00
48	BY	59	ARG	NE-CZ-NH2	7.72	126.15	119.20
25	BB	416	U	C3'-C2'-C1'	7.72	109.02	101.30
25	BB	1486	U	O3'-P-O5'	7.72	115.58	104.00
25	BB	1204	A	C3'-C2'-C1'	7.72	109.22	101.50
28	BE	60	ARG	NH1-CZ-NH2	-7.72	109.27	119.30
25	BB	1960	A	O4'-C1'-N9	7.72	119.78	108.20
29	BF	88	ASN	OD1-CG-ND2	-7.72	114.88	122.60
33	BJ	68	ALA	CA-C-N	7.72	130.96	120.54
33	BJ	68	ALA	C-N-CA	7.72	130.96	120.54
2	AM	5	U	C2'-C3'-O3'	7.71	125.27	113.70
5	AC	52	ARG	NH1-CZ-NH2	-7.71	109.27	119.30
25	BB	2058	A	O4'-C4'-C3'	7.71	111.72	104.00
23	AX	48	ARG	CD-NE-CZ	7.71	135.20	124.40
24	BA	115	A	C3'-C2'-O2'	7.71	122.27	110.70
25	BB	1203	U	C4'-C3'-O3'	7.71	120.97	109.40
1	AA	75	C	N1-C1'-C2'	7.71	125.56	114.00
3	A1	307	C	C5'-C4'-C3'	-7.71	104.44	116.00
47	BX	24	ARG	CA-C-N	7.71	132.30	121.66
47	BX	24	ARG	C-N-CA	7.71	132.30	121.66
25	BB	1491	G	O3'-P-O5'	-7.71	92.44	104.00
34	BK	81	LYS	CA-C-N	7.71	136.26	121.54
34	BK	81	LYS	C-N-CA	7.71	136.26	121.54
25	BB	510	C	C1'-O4'-C4'	-7.70	102.20	109.90
25	BB	2603	G	C1'-O4'-C4'	7.70	117.60	109.90
3	A1	580	C	N1-C1'-C2'	7.70	123.55	112.00
25	BB	1029	A	O4'-C4'-C3'	7.70	111.70	104.00
48	BY	201	LEU	CA-C-N	7.70	130.73	122.11
48	BY	201	LEU	C-N-CA	7.70	130.73	122.11
17	AR	128	VAL	CA-C-N	7.70	135.82	121.97
17	AR	128	VAL	C-N-CA	7.70	135.82	121.97
22	AW	40	ARG	CA-C-O	7.70	127.32	118.55

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	570	G	O3'-P-O5'	7.70	115.54	104.00
25	BB	1208	C	C3'-C2'-C1'	7.69	108.99	101.30
25	BB	2445	G	O5'-C5'-C4'	-7.69	99.96	111.50
25	BB	1734	G	C4'-C3'-C2'	-7.69	94.91	102.60
25	BB	2461	A	C3'-C2'-C1'	7.69	108.99	101.30
3	A1	510	A	C3'-C2'-C1'	-7.69	93.61	101.30
25	BB	2872	A	O4'-C1'-C2'	7.69	113.49	105.80
25	BB	982	C	C3'-C2'-C1'	7.68	109.19	101.50
25	BB	2021	C	C2'-C3'-O3'	7.68	121.03	109.50
25	BB	2498	C	O3'-P-O5'	-7.68	92.47	104.00
25	BB	164	C	C4'-C3'-C2'	-7.68	94.92	102.60
25	BB	1886	U	C5'-C4'-O4'	7.68	121.33	109.80
26	BC	83	LYS	N-CA-CB	-7.68	100.42	111.25
49	BZ	86	THR	N-CA-C	7.68	120.80	110.35
23	AX	58	ASN	OD1-CG-ND2	-7.68	114.92	122.60
25	BB	330	A	C2'-C3'-O3'	7.68	121.02	109.50
25	BB	929	U	O4'-C1'-N1	7.68	120.02	108.50
15	AO	126	ARG	CD-NE-CZ	7.68	135.15	124.40
25	BB	2109	U	C5'-C4'-C3'	-7.68	104.48	116.00
25	BB	72	U	C4'-C3'-C2'	-7.68	94.92	102.60
25	BB	2067	G	O5'-C5'-C4'	-7.68	100.18	111.70
6	AD	28	GLN	O-C-N	-7.68	114.04	122.79
25	BB	151	C	C2'-C3'-O3'	7.67	125.21	113.70
25	BB	2632	A	C5'-C4'-C3'	-7.67	104.49	116.00
54	B5	55	PRO	N-CA-CB	7.67	110.00	103.17
54	B5	122	GLU	N-CA-C	7.67	121.74	112.38
1	AE	61	C	C5'-C4'-O4'	7.67	121.31	109.80
25	BB	646	U	C3'-C2'-C1'	7.67	108.97	101.30
25	BB	1026	G	O4'-C4'-C3'	7.67	113.77	106.10
15	AO	49	ALA	CA-C-O	7.67	126.86	118.65
25	BB	384	A	N9-C1'-C2'	7.67	123.50	112.00
25	BB	434	U	C4'-C3'-C2'	-7.67	94.93	102.60
25	BB	2406	A	O4'-C4'-C3'	7.67	111.67	104.00
39	BP	58	LEU	N-CA-C	7.66	127.12	110.80
1	AP	36	A	C4'-C3'-C2'	-7.66	94.94	102.60
3	A1	1422	G	O4'-C1'-N9	7.66	119.99	108.50
4	AB	60	ALA	CA-C-O	-7.66	112.78	120.82
3	A1	1334	G	C3'-C2'-C1'	7.66	109.16	101.50
25	BB	2445	G	C4'-C3'-C2'	-7.66	94.94	102.60
3	A1	942	G	O5'-C5'-C4'	-7.66	100.01	111.50
3	A1	1042	A	O5'-C5'-C4'	-7.66	100.02	111.50
24	BA	48	U	O4'-C4'-C3'	7.66	111.66	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1438	U	C4'-C3'-O3'	-7.66	97.92	109.40
28	BE	37	GLY	O-C-N	-7.65	116.53	122.88
3	A1	47	C	C4'-C3'-C2'	-7.65	94.95	102.60
10	AI	38	PHE	CA-C-O	7.65	129.94	121.06
25	BB	2357	G	C1'-O4'-C4'	-7.65	102.25	109.90
3	A1	316	C	O5'-C5'-C4'	7.65	123.18	111.70
8	AG	95	LEU	N-CA-C	7.65	120.50	109.71
37	BN	199	HIS	CA-CB-CG	7.65	121.45	113.80
45	BV	35	ARG	NE-CZ-NH1	7.65	129.15	121.50
3	A1	182	A	O5'-C5'-C4'	-7.65	100.23	111.70
25	BB	2471	A	O4'-C4'-C3'	-7.65	98.45	106.10
25	BB	2896	C	O5'-C5'-C4'	7.65	122.97	111.50
25	BB	240	C	C2'-C3'-O3'	7.64	125.17	113.70
25	BB	1207	C	C2'-C3'-O3'	7.64	120.97	109.50
3	A1	1419	G	C4'-C3'-C2'	-7.64	94.96	102.60
3	A1	454	G	C5'-C4'-C3'	-7.64	104.54	116.00
3	A1	629	A	C2'-C3'-O3'	7.64	125.16	113.70
25	BB	2554	U	C4'-C3'-C2'	-7.64	94.96	102.60
52	B3	52	GLY	N-CA-C	7.64	127.93	112.34
3	A1	818	G	C2'-C3'-O3'	7.64	120.96	109.50
25	BB	2769	U	O5'-C5'-C4'	7.64	122.96	111.50
25	BB	2808	G	O4'-C1'-N9	7.64	119.96	108.50
25	BB	475	C	O5'-C5'-C4'	-7.64	100.05	111.50
25	BB	1387	A	C3'-C2'-C1'	7.64	108.94	101.30
3	A1	365	U	C3'-C2'-O2'	7.63	122.15	110.70
25	BB	1452	G	C4'-C3'-C2'	-7.63	94.97	102.60
25	BB	305	C	C1'-O4'-C4'	-7.63	102.27	109.90
25	BB	408	G	C5'-C4'-C3'	-7.63	104.55	116.00
32	BI	71	ARG	NE-CZ-NH2	-7.63	112.33	119.20
7	AF	11	HIS	CE1-NE2-CD2	-7.63	101.37	109.00
15	AO	197	VAL	N-CA-C	7.63	120.80	108.97
18	AS	72	ASN	CA-CB-CG	7.63	120.23	112.60
25	BB	524	G	O4'-C4'-C3'	7.63	111.63	104.00
25	BB	1627	G	O3'-P-O5'	7.63	115.44	104.00
37	BN	51	ARG	NE-CZ-NH2	7.63	126.06	119.20
3	A1	238	A	C4'-C3'-C2'	-7.63	94.97	102.60
17	AR	113	ALA	CA-C-N	7.63	130.83	120.38
17	AR	113	ALA	C-N-CA	7.63	130.83	120.38
25	BB	103	A	P-O3'-C3'	7.63	131.64	120.20
24	BA	4	C	C1'-O4'-C4'	-7.62	102.28	109.90
3	A1	1039	G	C1'-O4'-C4'	-7.62	102.28	109.90
25	BB	1965	C	C4'-C3'-C2'	-7.62	94.98	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1989	G	C1'-O4'-C4'	-7.62	102.08	109.70
25	BB	2682	A	C2'-C3'-O3'	7.62	120.93	109.50
3	A1	345	C	C2'-C3'-O3'	7.62	120.93	109.50
10	AI	56	ARG	NE-CZ-NH2	-7.62	112.34	119.20
17	AR	53	GLN	CG-CD-NE2	7.62	127.83	116.40
25	BB	1501	G	O4'-C1'-C2'	7.62	115.22	107.60
1	AP	71	G	C5'-C4'-O4'	7.62	121.22	109.80
25	BB	1131	G	C1'-C2'-O2'	7.61	123.22	111.80
25	BB	1150	C	C3'-C2'-C1'	7.61	108.91	101.30
25	BB	2372	U	C4'-C3'-C2'	7.61	110.21	102.60
3	A1	191	G	C5'-C4'-O4'	7.61	121.22	109.80
3	A1	1376	U	C4'-C3'-O3'	-7.61	101.58	113.00
3	A1	1135	U	C1'-O4'-C4'	-7.61	102.29	109.90
24	BA	34	A	C3'-C2'-C1'	-7.61	93.69	101.30
25	BB	2552	U	O4'-C1'-C2'	-7.61	98.19	105.80
25	BB	1597	A	O3'-P-O5'	7.61	115.41	104.00
55	B6	98	GLU	OE1-CD-OE2	-7.61	104.64	122.90
49	BZ	76	ALA	CA-C-N	7.61	130.47	120.28
49	BZ	76	ALA	C-N-CA	7.61	130.47	120.28
21	AV	89	ASP	CA-CB-CG	7.60	120.20	112.60
25	BB	1252	G	O4'-C1'-N9	7.60	119.61	108.20
3	A1	1529	G	O4'-C4'-C3'	7.60	111.60	104.00
25	BB	1833	C	C5'-C4'-C3'	-7.60	104.60	116.00
25	BB	1914	C	C5'-C4'-C3'	-7.60	104.60	116.00
25	BB	2430	A	C3'-C2'-O2'	7.60	122.10	110.70
25	BB	326	G	C3'-C2'-C1'	7.60	108.90	101.30
25	BB	712	G	O4'-C4'-C3'	7.60	111.60	104.00
24	BA	45	A	C4'-C3'-C2'	-7.60	95.00	102.60
25	BB	2191	A	O4'-C4'-C3'	7.60	111.60	104.00
25	BB	2694	G	O4'-C4'-C3'	7.60	113.70	106.10
3	A1	470	C	O4'-C4'-C3'	7.59	111.59	104.00
3	A1	938	A	C5'-C4'-O4'	7.59	121.19	109.80
41	BR	49	ALA	CA-C-N	7.59	133.28	122.72
41	BR	49	ALA	C-N-CA	7.59	133.28	122.72
7	AF	2	ARG	NE-CZ-NH2	7.59	126.03	119.20
25	BB	1041	G	O4'-C4'-C3'	7.59	111.59	104.00
3	A1	1419	G	O3'-P-O5'	-7.59	92.62	104.00
3	A1	325	A	C5'-C4'-C3'	-7.58	104.63	116.00
3	A1	524	G	C4'-C3'-C2'	-7.58	95.02	102.60
24	BA	89	U	C3'-C2'-O2'	7.58	122.08	110.70
25	BB	1516	G	O4'-C4'-C3'	7.58	111.58	104.00
25	BB	2749	A	C2'-C3'-O3'	-7.58	102.32	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	53	G	C5'-C4'-C3'	-7.58	104.63	116.00
3	A1	725	G	C2'-C3'-O3'	7.58	125.07	113.70
3	A1	1262	C	O4'-C4'-C3'	7.58	111.58	104.00
49	BZ	98	ARG	NH1-CZ-NH2	-7.58	109.44	119.30
3	A1	1181	G	C3'-C2'-C1'	7.58	108.88	101.30
25	BB	727	A	C2'-C3'-O3'	7.58	120.87	109.50
25	BB	2444	G	C5'-C4'-C3'	7.58	127.37	116.00
3	A1	260	G	O4'-C1'-N9	7.58	119.57	108.20
3	A1	599	C	C3'-C2'-O2'	7.58	122.06	110.70
25	BB	2332	C	C3'-C2'-C1'	7.58	108.88	101.30
25	BB	793	A	C5'-C4'-O4'	7.58	121.17	109.80
25	BB	2430	A	C5'-C4'-C3'	-7.58	104.64	116.00
30	BG	17	ARG	NH1-CZ-NH2	-7.58	109.45	119.30
55	B6	69	ARG	N-CA-C	7.58	120.50	111.33
1	AA	40	C	C4'-C3'-O3'	-7.57	101.64	113.00
3	A1	803	G	O4'-C1'-C2'	-7.57	100.03	107.60
3	A1	1391	U	C1'-O4'-C4'	-7.57	102.13	109.70
25	BB	2084	C	O4'-C4'-C3'	7.57	111.57	104.00
3	A1	662	U	C3'-C2'-O2'	7.57	122.06	110.70
3	A1	721	G	C5'-C4'-O4'	-7.57	97.74	109.10
3	A1	723	U	O4'-C4'-C3'	7.57	111.57	104.00
3	A1	197	A	P-O3'-C3'	7.57	131.55	120.20
25	BB	1626	A	C2'-C3'-O3'	7.57	120.85	109.50
25	BB	2175	C	C5'-C4'-C3'	-7.57	104.65	116.00
25	BB	2898	U	C4'-C3'-C2'	-7.57	95.03	102.60
3	A1	384	G	C3'-C2'-C1'	7.57	108.87	101.30
18	AS	69	ASN	CA-CB-CG	7.57	120.17	112.60
25	BB	233	A	O4'-C1'-C2'	-7.57	100.03	107.60
25	BB	858	G	O4'-C1'-C2'	7.57	115.17	107.60
25	BB	2201	G	C4'-C3'-O3'	-7.57	101.65	113.00
41	BR	48	ASN	OD1-CG-ND2	-7.57	115.03	122.60
25	BB	625	G	O3'-P-O5'	-7.56	92.65	104.00
24	BA	40	U	C3'-C2'-C1'	7.56	109.06	101.50
36	BM	6	ARG	CD-NE-CZ	7.56	134.99	124.40
3	A1	1028	C	C4'-C3'-C2'	-7.56	95.04	102.60
20	AU	69	ARG	NE-CZ-NH1	7.56	129.06	121.50
25	BB	26	G	O4'-C4'-C3'	7.56	113.66	106.10
25	BB	877	A	C1'-C2'-O2'	7.56	119.74	108.40
25	BB	2749	A	O4'-C4'-C3'	7.56	111.56	104.00
2	AM	18	U	O4'-C1'-C2'	-7.56	100.04	107.60
25	BB	2177	C	C1'-O4'-C4'	-7.56	102.34	109.90
3	A1	12	U	C3'-C2'-C1'	7.55	109.05	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	94	A	C1'-O4'-C4'	-7.55	102.34	109.90
37	BN	120	ASP	CA-C-N	7.55	131.02	120.29
37	BN	120	ASP	C-N-CA	7.55	131.02	120.29
25	BB	2478	A	C5'-C4'-O4'	7.55	121.13	109.80
3	A1	1332	A	C4'-C3'-C2'	-7.55	95.05	102.60
7	AF	9	PRO	CA-C-O	-7.55	112.97	121.43
15	AO	116	ALA	N-CA-C	7.55	121.59	112.38
17	AR	164	ARG	CD-NE-CZ	7.55	134.97	124.40
25	BB	1042	G	C3'-C2'-O2'	7.55	122.03	110.70
3	A1	1317	C	C3'-C2'-O2'	7.55	122.02	110.70
3	A1	1441	A	C1'-O4'-C4'	7.55	117.45	109.90
25	BB	87	U	C3'-C2'-O2'	7.55	122.02	110.70
25	BB	196	A	C5'-C4'-C3'	-7.55	103.88	115.20
25	BB	2325	G	O5'-C5'-C4'	7.55	122.82	111.50
3	A1	328	C	O4'-C1'-N1	7.55	119.82	108.50
5	AC	88	PRO	O-C-N	-7.55	113.46	122.89
13	AL	30	LEU	CA-C-N	7.55	135.35	122.37
13	AL	30	LEU	C-N-CA	7.55	135.35	122.37
3	A1	159	G	C1'-O4'-C4'	-7.54	102.36	109.90
3	A1	941	G	O4'-C4'-C3'	7.54	111.54	104.00
3	A1	1297	G	O3'-P-O5'	-7.54	92.69	104.00
44	BU	10	LEU	O-C-N	-7.54	114.52	123.27
3	A1	1498	U	C3'-C2'-C1'	7.54	108.84	101.30
18	AS	139	THR	N-CA-CB	7.54	121.17	109.94
25	BB	1423	G	O3'-P-O5'	-7.54	92.69	104.00
1	AP	22	G	O4'-C4'-C3'	7.54	111.54	104.00
3	A1	1340	A	C4'-C3'-C2'	-7.54	87.23	102.30
25	BB	615	U	O4'-C4'-C3'	7.54	111.54	104.00
25	BB	1513	U	C3'-C2'-C1'	-7.54	93.96	101.50
8	AG	64	ARG	NH1-CZ-NH2	-7.53	109.51	119.30
25	BB	1614	A	C2'-C3'-O3'	7.53	120.80	109.50
25	BB	2315	G	O4'-C4'-C3'	7.53	111.53	104.00
41	BR	50	VAL	N-CA-C	7.53	120.41	113.10
25	BB	2819	G	O4'-C1'-C2'	-7.53	98.27	105.80
3	A1	347	G	O4'-C4'-C3'	7.53	111.53	104.00
25	BB	2505	G	O4'-C1'-C2'	-7.53	98.27	105.80
44	BU	53	ILE	CB-CA-C	7.53	123.64	111.29
25	BB	1297	C	C5'-C4'-C3'	-7.53	104.71	116.00
25	BB	1855	U	O4'-C4'-C3'	7.53	111.53	104.00
49	BZ	54	LEU	CA-C-N	7.53	127.07	119.24
49	BZ	54	LEU	C-N-CA	7.53	127.07	119.24
1	AE	27	C	O4'-C1'-N1	7.52	119.78	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	671	G	C5'-C4'-C3'	-7.52	104.72	116.00
4	AB	185	ILE	CB-CA-C	7.52	120.06	110.96
31	BH	89	ASP	CA-C-N	7.52	128.72	121.65
31	BH	89	ASP	C-N-CA	7.52	128.72	121.65
40	BQ	47	ARG	CD-NE-CZ	7.52	134.93	124.40
3	A1	403	C	C3'-C2'-C1'	7.52	108.82	101.30
25	BB	1533	C	O4'-C1'-N1	7.52	119.78	108.50
50	B1	90	GLN	OE1-CD-NE2	-7.52	115.08	122.60
3	A1	646	G	C5'-C4'-C3'	-7.52	104.72	116.00
25	BB	754	U	C3'-C2'-O2'	-7.52	103.32	114.60
25	BB	2716	C	C3'-C2'-O2'	7.52	121.98	110.70
47	BX	33	HIS	CA-C-N	7.52	135.90	121.54
47	BX	33	HIS	C-N-CA	7.52	135.90	121.54
51	B2	173	ASP	CA-CB-CG	7.52	120.12	112.60
15	AO	125	ARG	NH1-CZ-NH2	-7.51	109.53	119.30
25	BB	2023	C	C1'-O4'-C4'	7.51	117.21	109.70
47	BX	14	CYS	N-CA-C	7.51	120.45	110.53
3	A1	47	C	C5'-C4'-C3'	-7.51	103.93	115.20
25	BB	1098	A	O5'-C5'-C4'	-7.51	100.23	111.50
25	BB	2124	G	C5'-C4'-C3'	-7.51	104.73	116.00
55	B6	38	GLY	CA-C-N	7.51	135.89	121.54
55	B6	38	GLY	C-N-CA	7.51	135.89	121.54
3	A1	450	G	N9-C1'-C2'	7.51	123.27	112.00
25	BB	1531	C	C4'-C3'-O3'	7.51	124.27	113.00
25	BB	2640	G	C4'-C3'-C2'	-7.51	95.09	102.60
26	BC	75	GLN	OE1-CD-NE2	-7.51	115.09	122.60
3	A1	10	A	C1'-C2'-O2'	7.51	123.06	111.80
3	A1	154	U	C2'-C3'-O3'	7.51	124.96	113.70
25	BB	1474	U	C4'-C3'-O3'	7.51	120.66	109.40
30	BG	51	LEU	CA-C-N	7.51	130.02	120.56
30	BG	51	LEU	C-N-CA	7.51	130.02	120.56
3	A1	487	A	C3'-C2'-O2'	7.51	121.96	110.70
4	AB	203	ASP	CA-CB-CG	7.51	120.11	112.60
25	BB	1289	C	O4'-C4'-C3'	7.51	111.51	104.00
18	AS	143	LEU	N-CA-C	7.51	119.46	111.28
25	BB	2709	G	C3'-C2'-C1'	7.51	108.81	101.30
18	AS	64	GLU	CA-C-N	7.50	130.95	120.29
18	AS	64	GLU	C-N-CA	7.50	130.95	120.29
25	BB	595	C	O4'-C1'-N1	7.50	119.76	108.50
25	BB	1702	G	C3'-C2'-C1'	7.50	108.81	101.30
25	BB	5	A	C5'-C4'-O4'	7.50	121.05	109.80
1	AA	56	C	C1'-O4'-C4'	-7.50	102.40	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AV	76	ARG	NE-CZ-NH1	-7.50	114.00	121.50
25	BB	1868	C	O4'-C1'-C2'	-7.50	100.10	107.60
25	BB	2825	G	C4'-C3'-C2'	-7.50	95.10	102.60
43	BT	17	SER	N-CA-C	7.50	120.41	111.33
44	BU	10	LEU	CA-C-N	7.50	132.43	121.18
44	BU	10	LEU	C-N-CA	7.50	132.43	121.18
50	B1	23	PHE	O-C-N	-7.50	112.61	122.59
50	B1	164	LEU	CA-C-N	7.50	135.87	121.54
50	B1	164	LEU	C-N-CA	7.50	135.87	121.54
11	AJ	50	ASN	OD1-CG-ND2	-7.50	115.10	122.60
25	BB	1622	G	C4'-C3'-C2'	-7.50	95.10	102.60
3	A1	173	U	O4'-C4'-C3'	7.50	113.60	106.10
25	BB	500	G	C5'-C4'-C3'	-7.50	104.75	116.00
25	BB	2051	A	C3'-C2'-C1'	-7.50	93.80	101.30
27	BD	64	ARG	NE-CZ-NH2	-7.50	112.45	119.20
25	BB	782	A	C3'-C2'-C1'	7.49	108.79	101.30
25	BB	1683	U	C4'-C3'-C2'	-7.49	95.11	102.60
25	BB	2039	U	C1'-O4'-C4'	7.49	117.39	109.90
29	BF	45	GLN	OE1-CD-NE2	-7.49	115.11	122.60
3	A1	443	C	C5'-C4'-O4'	7.49	121.03	109.80
25	BB	350	G	O4'-C1'-N9	7.49	119.44	108.20
25	BB	641	U	O4'-C1'-C2'	-7.49	98.31	105.80
3	A1	699	C	C3'-C2'-C1'	7.49	108.79	101.30
25	BB	381	G	C3'-C2'-C1'	7.49	108.79	101.30
25	BB	1768	C	C4'-C3'-C2'	-7.49	95.11	102.60
25	BB	2611	C	C1'-O4'-C4'	7.49	117.19	109.70
3	A1	206	C	C4'-C3'-C2'	-7.49	95.11	102.60
3	A1	405	U	O3'-P-O5'	7.49	115.23	104.00
25	BB	2483	C	O4'-C4'-C3'	-7.49	96.51	104.00
49	BZ	196	VAL	CA-C-N	7.49	135.84	121.54
49	BZ	196	VAL	C-N-CA	7.49	135.84	121.54
3	A1	220	G	C3'-C2'-C1'	7.48	108.78	101.30
3	A1	1299	A	C1'-O4'-C4'	-7.48	102.42	109.90
25	BB	906	U	O4'-C1'-N1	7.48	119.73	108.50
24	BA	68	C	C4'-C3'-C2'	-7.48	95.12	102.60
25	BB	319	G	C4'-C3'-C2'	-7.48	95.12	102.60
35	BL	95	ARG	NE-CZ-NH2	-7.48	112.47	119.20
25	BB	338	G	C5'-C4'-C3'	-7.48	104.78	116.00
8	AG	60	ARG	NE-CZ-NH1	7.48	128.98	121.50
22	AW	44	ARG	N-CA-C	7.48	120.38	111.33
24	BA	79	G	C5'-C4'-C3'	-7.48	103.98	115.20
3	A1	620	C	C5'-C4'-C3'	-7.48	104.78	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	AH	54	GLY	CA-C-O	-7.48	112.07	120.30
25	BB	1270	C	C1'-O4'-C4'	-7.48	102.22	109.70
3	A1	1393	U	O3'-P-O5'	-7.47	92.79	104.00
43	BT	17	SER	CA-CB-OG	7.47	126.05	111.10
55	B6	19	ASP	CA-C-N	7.47	132.66	120.63
55	B6	19	ASP	C-N-CA	7.47	132.66	120.63
5	AC	126	ARG	NH1-CZ-NH2	-7.47	109.59	119.30
25	BB	825	A	C1'-C2'-O2'	-7.47	100.59	111.80
3	A1	204	G	O4'-C4'-C3'	-7.47	96.53	104.00
25	BB	1589	U	C1'-O4'-C4'	-7.47	102.23	109.70
3	A1	218	U	C5'-C4'-C3'	-7.47	104.80	116.00
25	BB	2786	U	C3'-C2'-O2'	7.47	121.90	110.70
44	BU	38	PHE	CA-CB-CG	7.47	121.27	113.80
3	A1	1391	U	O4'-C1'-C2'	7.47	113.27	105.80
24	BA	19	C	C4'-C3'-O3'	-7.47	101.80	113.00
25	BB	1694	C	C4'-C3'-O3'	7.47	120.60	109.40
3	A1	24	U	O4'-C4'-C3'	7.46	111.47	104.00
3	A1	576	C	C3'-C2'-O2'	7.46	121.90	110.70
15	AO	204	GLY	N-CA-C	7.46	122.00	111.10
25	BB	1969	A	C3'-C2'-O2'	7.46	121.90	110.70
3	A1	73	C	C3'-C2'-C1'	7.46	108.76	101.30
13	AL	52	ASN	O-C-N	-7.46	113.09	122.27
25	BB	1251	C	O4'-C1'-N1	7.46	119.39	108.20
37	BN	172	THR	CA-CB-CG2	7.46	123.19	110.50
40	BQ	8	GLU	CA-C-N	7.46	131.31	120.71
40	BQ	8	GLU	C-N-CA	7.46	131.31	120.71
48	BY	135	GLY	CA-C-N	7.46	135.79	121.54
48	BY	135	GLY	C-N-CA	7.46	135.79	121.54
25	BB	764	A	C1'-O4'-C4'	-7.46	102.24	109.70
25	BB	1155	A	O4'-C4'-C3'	7.46	111.46	104.00
49	BZ	99	PRO	CA-C-N	7.46	130.02	120.70
49	BZ	99	PRO	C-N-CA	7.46	130.02	120.70
3	A1	1150	A	C4'-C3'-C2'	-7.45	95.15	102.60
25	BB	321	U	C4'-C3'-C2'	-7.45	95.15	102.60
25	BB	391	A	C3'-C2'-C1'	7.45	108.75	101.30
25	BB	1657	U	O3'-P-O5'	-7.45	92.82	104.00
29	BF	110	GLU	CA-C-N	7.45	130.27	120.28
29	BF	110	GLU	C-N-CA	7.45	130.27	120.28
33	BJ	50	ARG	CA-C-N	7.45	131.26	120.38
33	BJ	50	ARG	C-N-CA	7.45	131.26	120.38
55	B6	12	LYS	N-CA-CB	-7.45	98.64	110.79
25	BB	2687	U	C3'-C2'-O2'	7.45	121.88	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	547	A	O4'-C4'-C3'	7.45	113.55	106.10
3	A1	1121	U	C5'-C4'-C3'	-7.45	104.83	116.00
15	AO	163	ARG	O-C-N	7.45	132.35	122.96
25	BB	75	G	C3'-C2'-O2'	7.45	121.88	110.70
25	BB	1604	C	O4'-C1'-C2'	7.45	115.05	107.60
30	BG	75	ILE	CA-C-N	7.45	130.67	120.46
30	BG	75	ILE	C-N-CA	7.45	130.67	120.46
31	BH	93	ASP	CA-C-O	7.45	129.68	121.56
3	A1	1023	U	O4'-C4'-C3'	7.45	111.45	104.00
3	A1	1039	G	O4'-C1'-C2'	7.45	115.05	107.60
3	A1	771	G	C3'-C2'-C1'	7.45	108.95	101.50
3	A1	1365	G	N9-C1'-C2'	7.45	123.17	112.00
3	A1	463	U	C3'-C2'-C1'	7.45	108.75	101.30
25	BB	384	A	O5'-C5'-C4'	-7.45	100.33	111.50
25	BB	1630	A	C3'-C2'-C1'	7.45	108.75	101.30
49	BZ	192	ASN	CA-C-N	7.44	130.75	120.63
49	BZ	192	ASN	C-N-CA	7.44	130.75	120.63
3	A1	730	G	C3'-C2'-C1'	7.44	108.74	101.30
3	A1	1176	A	O4'-C1'-C2'	-7.44	100.16	107.60
49	BZ	114	GLN	N-CA-C	7.44	121.28	111.75
25	BB	101	A	C1'-O4'-C4'	-7.44	102.26	109.70
3	A1	611	C	C2'-C3'-O3'	-7.44	102.54	113.70
5	AC	46	ALA	CA-C-N	7.44	128.20	119.94
5	AC	46	ALA	C-N-CA	7.44	128.20	119.94
25	BB	1365	A	O3'-P-O5'	-7.44	92.84	104.00
25	BB	1251	C	O4'-C4'-C3'	7.44	113.54	106.10
55	B6	126	ALA	O-C-N	-7.44	114.57	123.27
3	A1	1366	C	O3'-P-O5'	-7.44	92.85	104.00
18	AS	122	VAL	CA-CB-CG1	7.44	123.04	110.40
3	A1	924	C	O4'-C1'-N1	7.43	119.35	108.20
17	AR	152	SER	CA-C-N	7.43	130.99	120.28
17	AR	152	SER	C-N-CA	7.43	130.99	120.28
26	BC	56	PHE	CA-CB-CG	7.43	121.23	113.80
3	A1	760	G	C4'-C3'-C2'	-7.43	95.17	102.60
25	BB	201	C	O3'-P-O5'	7.43	115.15	104.00
25	BB	1387	A	O4'-C4'-C3'	7.43	111.43	104.00
3	A1	422	C	C3'-C2'-C1'	7.43	108.73	101.30
5	AC	108	ASN	CA-C-N	7.43	135.34	121.97
5	AC	108	ASN	C-N-CA	7.43	135.34	121.97
50	B1	177	PRO	CA-N-CD	-7.43	101.60	112.00
3	A1	577	G	C5'-C4'-O4'	7.43	120.94	109.80
3	A1	139	A	C4'-C3'-C2'	-7.43	95.17	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	595	A	O4'-C1'-N9	7.43	119.34	108.20
25	BB	1286	A	C4'-C3'-C2'	7.43	110.03	102.60
34	BK	53	PHE	N-CA-C	7.43	118.41	108.38
52	B3	55	ASP	N-CA-C	7.43	120.45	109.24
24	BA	17	C	C5'-C4'-O4'	7.42	120.94	109.80
25	BB	543	G	C5'-C4'-O4'	7.42	120.94	109.80
25	BB	1217	U	O4'-C4'-C3'	7.42	113.52	106.10
25	BB	2344	U	C4'-C3'-C2'	-7.42	95.18	102.60
52	B3	44	HIS	CB-CG-CD2	-7.42	121.55	131.20
3	A1	424	G	C4'-C3'-C2'	-7.42	95.18	102.60
55	B6	78	THR	N-CA-C	7.42	121.99	112.34
3	A1	847	G	C3'-C2'-O2'	7.42	121.83	110.70
12	AK	64	LEU	CA-C-N	7.42	135.72	121.54
12	AK	64	LEU	C-N-CA	7.42	135.72	121.54
22	AW	37	TYR	N-CA-C	-7.42	104.84	114.04
3	A1	472	U	C3'-C2'-C1'	7.42	108.72	101.30
21	AV	76	ARG	CD-NE-CZ	7.42	134.78	124.40
25	BB	2430	A	O5'-C5'-C4'	-7.42	100.37	111.50
1	AA	16	U	C5'-C4'-C3'	-7.42	104.88	116.00
3	A1	270	A	C4'-C3'-C2'	-7.42	95.18	102.60
25	BB	225	C	O4'-C1'-C2'	-7.42	100.18	107.60
25	BB	1301	A	O4'-C1'-N9	7.42	119.63	108.50
49	BZ	98	ARG	NE-CZ-NH2	7.42	125.87	119.20
3	A1	353	A	O4'-C4'-C3'	-7.41	96.59	104.00
25	BB	5	A	C3'-C2'-C1'	7.41	108.71	101.30
3	A1	388	G	C4'-C3'-C2'	-7.41	95.19	102.60
25	BB	2086	U	O4'-C4'-C3'	-7.41	96.59	104.00
24	BA	29	A	C5'-C4'-O4'	7.41	120.92	109.80
25	BB	2264	C	O4'-C1'-N1	7.41	119.61	108.50
1	AA	5	A	C3'-C2'-O2'	7.41	121.81	110.70
25	BB	499	U	C4'-C3'-C2'	-7.41	95.19	102.60
25	BB	836	G	C4'-C3'-O3'	7.41	120.51	109.40
25	BB	2438	U	O4'-C1'-C2'	-7.41	98.39	105.80
25	BB	1341	G	O3'-P-O5'	-7.41	92.89	104.00
25	BB	1478	G	C3'-C2'-C1'	7.41	108.71	101.30
25	BB	1620	G	C3'-C2'-C1'	7.41	108.70	101.30
40	BQ	9	LYS	CA-C-O	-7.41	113.04	121.19
3	A1	581	G	C4'-C3'-C2'	-7.40	95.20	102.60
25	BB	707	G	O4'-C1'-C2'	7.40	115.00	107.60
3	A1	431	A	C1'-C2'-O2'	7.40	119.50	108.40
9	AH	62	ARG	NE-CZ-NH1	7.40	128.90	121.50
25	BB	337	C	O4'-C4'-C3'	7.40	111.40	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	581	C	O4'-C1'-C2'	-7.40	98.40	105.80
36	BM	74	ILE	CA-C-O	7.40	128.83	121.72
7	AF	7	ASN	CA-C-O	-7.40	113.52	121.88
25	BB	1890	A	C2'-C3'-O3'	-7.40	102.60	113.70
33	BJ	2	ARG	CA-C-N	7.40	135.29	121.97
33	BJ	2	ARG	C-N-CA	7.40	135.29	121.97
3	A1	1016	A	C5'-C4'-O4'	7.40	120.90	109.80
3	A1	1169	A	C3'-C2'-O2'	7.40	121.80	110.70
34	BK	80	ARG	NH1-CZ-NH2	-7.40	109.68	119.30
3	A1	682	G	O4'-C1'-N9	7.40	119.30	108.20
3	A1	918	A	O4'-C4'-C3'	-7.40	96.60	104.00
3	A1	1477	U	O4'-C4'-C3'	-7.40	96.60	104.00
25	BB	473	G	C4'-C3'-O3'	7.40	124.09	113.00
25	BB	2262	U	O4'-C4'-C3'	7.40	111.40	104.00
25	BB	2521	C	C5'-C4'-O4'	7.40	120.90	109.80
37	BN	54	GLY	CA-C-N	7.40	135.45	120.80
37	BN	54	GLY	C-N-CA	7.40	135.45	120.80
48	BY	158	GLY	CA-C-N	7.40	135.67	121.54
48	BY	158	GLY	C-N-CA	7.40	135.67	121.54
5	AC	24	ALA	CA-C-O	-7.40	113.05	120.82
25	BB	2013	A	C2'-C3'-O3'	7.40	120.59	109.50
25	BB	908	C	O4'-C1'-C2'	7.39	113.19	105.80
3	A1	650	G	C1'-O4'-C4'	-7.39	102.51	109.90
3	A1	682	G	O4'-C1'-C2'	7.39	113.19	105.80
3	A1	1277	C	C4'-C3'-C2'	-7.39	95.21	102.60
14	AN	57	VAL	N-CA-C	7.39	124.72	109.34
25	BB	2765	A	C2'-C3'-O3'	7.39	120.59	109.50
37	BN	268	ARG	NE-CZ-NH2	7.39	125.85	119.20
25	BB	55	G	O4'-C1'-C2'	-7.39	100.21	107.60
25	BB	205	G	O3'-P-O5'	-7.39	92.92	104.00
25	BB	847	U	C5'-C4'-C3'	-7.39	104.92	116.00
25	BB	2752	C	C1'-O4'-C4'	-7.39	102.31	109.70
50	B1	50	ALA	N-CA-C	7.39	119.33	111.28
3	A1	1278	G	O4'-C4'-C3'	7.39	111.39	104.00
25	BB	45	G	O3'-P-O5'	-7.39	92.92	104.00
25	BB	1172	C	C5'-C4'-O4'	7.39	120.88	109.80
25	BB	1210	G	C3'-C2'-C1'	7.39	108.89	101.50
26	BC	19	ARG	NH1-CZ-NH2	-7.39	109.70	119.30
8	AG	86	ALA	CA-C-N	7.38	135.65	121.54
8	AG	86	ALA	C-N-CA	7.38	135.65	121.54
24	BA	15	A	C5'-C4'-C3'	-7.38	104.92	116.00
25	BB	1008	A	C4'-C3'-O3'	7.38	120.48	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1211	C	C2'-C3'-O3'	7.38	120.58	109.50
25	BB	2400	G	O4'-C4'-C3'	7.38	111.39	104.00
3	A1	718	A	C4'-C3'-C2'	-7.38	95.22	102.60
3	A1	1310	G	O4'-C1'-C2'	-7.38	100.22	107.60
3	A1	159	G	O3'-P-O5'	-7.38	92.93	104.00
25	BB	766	U	C4'-C3'-C2'	-7.38	95.22	102.60
25	BB	971	G	O4'-C1'-N9	7.38	119.27	108.20
53	B4	28	ASN	CB-CA-C	7.38	121.38	109.27
25	BB	539	G	C5'-C4'-O4'	7.38	120.17	109.10
3	A1	997	U	C5'-C4'-O4'	7.38	120.17	109.10
7	AF	17	ALA	CA-C-N	7.38	130.50	120.54
7	AF	17	ALA	C-N-CA	7.38	130.50	120.54
25	BB	765	C	O4'-C1'-C2'	-7.38	98.42	105.80
25	BB	1123	C	O3'-P-O5'	-7.38	92.93	104.00
25	BB	2015	A	C1'-C2'-O2'	-7.38	97.33	108.40
11	AJ	32	ILE	CA-CB-CG1	7.38	122.94	110.40
26	BC	43	ASP	CA-CB-CG	-7.38	105.22	112.60
1	AE	24	G	O5'-C5'-C4'	-7.38	100.44	111.50
3	A1	974	A	C3'-C2'-O2'	-7.38	103.54	114.60
21	AV	29	SER	CA-C-N	7.38	135.63	121.54
21	AV	29	SER	C-N-CA	7.38	135.63	121.54
25	BB	657	U	C4'-C3'-C2'	-7.38	95.22	102.60
10	AI	59	HIS	CB-CG-CD2	-7.37	121.61	131.20
47	BX	19	ARG	N-CA-C	7.37	118.96	111.07
51	B2	155	ILE	N-CA-CB	-7.37	102.68	110.72
25	BB	50	U	C4'-C3'-C2'	-7.37	95.23	102.60
49	BZ	150	ARG	CD-NE-CZ	7.37	134.72	124.40
25	BB	90	U	O5'-C5'-C4'	7.37	122.75	111.70
25	BB	522	A	C4'-C3'-C2'	-7.37	95.23	102.60
25	BB	2477	U	C2'-C3'-O3'	7.37	120.55	109.50
48	BY	124	ARG	NE-CZ-NH2	7.37	125.83	119.20
3	A1	295	C	O4'-C4'-C3'	7.37	111.37	104.00
3	A1	1256	A	O4'-C4'-C3'	7.37	111.37	104.00
3	A1	1251	A	C3'-C2'-C1'	7.37	108.67	101.30
20	AU	40	SER	O-C-N	-7.37	114.31	122.12
25	BB	268	C	O4'-C4'-C3'	7.37	111.36	104.00
3	A1	228	A	N9-C1'-C2'	7.36	123.05	112.00
25	BB	1809	A	O3'-P-O5'	7.36	115.05	104.00
25	BB	1417	C	C4'-C3'-C2'	-7.36	95.24	102.60
1	AA	55	U	O3'-P-O5'	-7.36	92.96	104.00
3	A1	484	G	C3'-C2'-C1'	-7.36	94.14	101.50
3	A1	550	G	C4'-C3'-O3'	-7.36	101.96	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	915	A	O4'-C1'-C2'	-7.36	98.44	105.80
24	BA	88	C	C5'-C4'-C3'	-7.36	104.16	115.20
1	AA	17	U	O3'-P-O5'	7.36	115.04	104.00
3	A1	1397	C	O4'-C1'-C2'	7.36	113.16	105.80
8	AG	89	ARG	NH1-CZ-NH2	-7.36	109.73	119.30
19	AT	22	ILE	CA-C-N	7.36	130.47	120.54
19	AT	22	ILE	C-N-CA	7.36	130.47	120.54
25	BB	2155	U	C1'-O4'-C4'	-7.36	102.54	109.90
24	BA	27	C	C5'-C4'-O4'	7.36	120.84	109.80
25	BB	785	G	O3'-P-O5'	7.36	115.04	104.00
25	BB	2785	C	O3'-P-O5'	7.36	115.04	104.00
27	BD	16	ALA	CA-C-N	7.36	135.59	121.54
27	BD	16	ALA	C-N-CA	7.36	135.59	121.54
33	BJ	113	LYS	N-CA-C	7.36	120.23	111.33
3	A1	378	G	C3'-C2'-C1'	-7.36	93.94	101.30
25	BB	1501	G	C3'-C2'-C1'	-7.36	93.94	101.30
25	BB	2887	A	C5'-C4'-O4'	7.36	120.83	109.80
3	A1	181	A	C4'-C3'-C2'	7.35	109.95	102.60
4	AB	125	PHE	CA-CB-CG	7.35	121.15	113.80
25	BB	1839	G	O3'-P-O5'	7.35	115.03	104.00
3	A1	976	G	C2'-C3'-O3'	7.35	120.53	109.50
25	BB	1410	G	C1'-O4'-C4'	-7.35	102.55	109.90
25	BB	2396	G	C3'-C2'-C1'	7.35	108.65	101.30
25	BB	2672	U	C1'-O4'-C4'	-7.35	102.55	109.90
54	B5	104	GLN	CA-C-O	-7.35	113.10	120.82
3	A1	350	G	O4'-C4'-C3'	7.35	111.35	104.00
3	A1	667	G	C5'-C4'-C3'	-7.35	104.98	116.00
9	AH	41	HIS	CA-CB-CG	7.35	121.15	113.80
25	BB	386	G	C3'-C2'-C1'	-7.35	94.15	101.50
25	BB	2060	A	C1'-C2'-O2'	-7.35	97.38	108.40
25	BB	2598	A	O5'-C5'-C4'	7.35	122.72	111.70
25	BB	792	A	O4'-C1'-N9	7.34	119.22	108.20
3	A1	620	C	C4'-C3'-C2'	-7.34	95.26	102.60
25	BB	1525	A	C2'-C3'-O3'	7.34	124.71	113.70
25	BB	2005	A	O3'-P-O5'	7.34	115.01	104.00
25	BB	2408	U	C4'-C3'-C2'	-7.34	95.26	102.60
3	A1	609	A	O4'-C4'-C3'	7.34	111.34	104.00
25	BB	1488	C	O4'-C4'-C3'	-7.34	96.66	104.00
25	BB	2692	G	C1'-O4'-C4'	-7.34	102.56	109.90
7	AF	92	ARG	NE-CZ-NH1	7.34	128.84	121.50
8	AG	42	ASN	OD1-CG-ND2	-7.34	115.26	122.60
25	BB	194	G	C3'-C2'-C1'	7.34	108.64	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	924	C	C2'-C3'-O3'	7.33	120.50	109.50
4	AB	50	ASN	CA-C-N	7.33	130.11	120.28
4	AB	50	ASN	C-N-CA	7.33	130.11	120.28
1	AA	74	C	O4'-C4'-C3'	7.33	111.33	104.00
17	AR	144	ILE	N-CA-CB	7.33	118.52	110.53
48	BY	149	ASN	CA-C-N	7.33	130.43	120.38
48	BY	149	ASN	C-N-CA	7.33	130.43	120.38
3	A1	1381	U	C3'-C2'-O2'	7.33	121.70	110.70
25	BB	117	G	C5'-C4'-C3'	-7.33	104.20	115.20
3	A1	364	A	C2'-C3'-O3'	-7.33	102.71	113.70
25	BB	86	G	C3'-C2'-O2'	7.33	121.69	110.70
25	BB	2750	A	C1'-O4'-C4'	-7.33	102.37	109.70
3	A1	1309	G	O3'-P-O5'	-7.33	93.01	104.00
25	BB	179	C	O4'-C1'-N1	7.33	119.49	108.50
48	BY	146	ILE	CB-CA-C	7.33	123.30	111.29
53	B4	43	ASN	CA-CB-CG	7.33	119.93	112.60
4	AB	27	LYS	CA-C-N	7.32	127.03	119.56
4	AB	27	LYS	C-N-CA	7.32	127.03	119.56
24	BA	110	C	C1'-O4'-C4'	-7.32	102.58	109.90
25	BB	2229	U	C3'-C2'-O2'	7.32	121.69	110.70
3	A1	957	U	O4'-C4'-C3'	-7.32	96.68	104.00
25	BB	600	G	O4'-C1'-C2'	-7.32	100.28	107.60
25	BB	1319	C	C3'-C2'-C1'	7.32	108.62	101.30
25	BB	2126	A	O4'-C1'-C2'	-7.32	98.48	105.80
25	BB	2868	A	C5'-C4'-C3'	-7.32	105.02	116.00
3	A1	1104	G	P-O5'-C5'	7.32	131.88	120.90
6	AD	95	HIS	CA-CB-CG	7.32	121.12	113.80
8	AG	78	LEU	CA-C-N	7.32	132.43	120.94
8	AG	78	LEU	C-N-CA	7.32	132.43	120.94
25	BB	46	G	O4'-C4'-C3'	7.32	111.32	104.00
25	BB	849	A	C3'-C2'-C1'	7.32	108.62	101.30
3	A1	1476	A	C2'-C3'-O3'	7.32	124.68	113.70
24	BA	18	G	C5'-C4'-C3'	-7.32	105.02	116.00
3	A1	1505	G	N9-C1'-C2'	7.32	122.98	112.00
7	AF	36	ALA	CA-C-N	7.32	134.87	121.70
7	AF	36	ALA	C-N-CA	7.32	134.87	121.70
19	AT	57	ALA	N-CA-CB	-7.32	97.55	110.14
25	BB	912	C	O3'-P-O5'	-7.32	93.02	104.00
25	BB	2270	A	C2'-C3'-O3'	7.32	120.48	109.50
25	BB	2058	A	C3'-C2'-C1'	7.32	108.61	101.30
3	A1	1530	G	O3'-P-O5'	7.31	114.97	104.00
25	BB	2584	U	O4'-C4'-C3'	7.31	111.31	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2753	A	C3'-C2'-C1'	7.31	108.61	101.30
15	AO	139	ASN	CA-CB-CG	7.31	119.91	112.60
16	AQ	20	ARG	NH1-CZ-NH2	-7.31	109.79	119.30
25	BB	632	A	C3'-C2'-C1'	7.31	108.61	101.30
30	BG	112	TYR	N-CA-C	7.31	117.66	108.45
3	A1	925	G	O4'-C1'-C2'	7.31	114.91	107.60
24	BA	39	A	C4'-C3'-O3'	7.31	120.36	109.40
25	BB	254	G	C4'-C3'-C2'	-7.31	95.29	102.60
25	BB	615	U	C4'-C3'-C2'	-7.31	95.29	102.60
1	AP	45	G	C3'-C2'-C1'	7.31	108.61	101.30
24	BA	92	C	O4'-C4'-C3'	-7.31	96.69	104.00
11	AJ	36	PHE	O-C-N	-7.30	114.20	122.75
48	BY	33	ARG	CD-NE-CZ	7.30	134.62	124.40
25	BB	1617	C	O4'-C4'-C3'	-7.30	98.80	106.10
3	A1	1157	A	C2'-C3'-O3'	7.30	120.45	109.50
24	BA	19	C	C3'-C2'-C1'	-7.30	94.00	101.30
1	AE	1	G	C1'-O4'-C4'	-7.30	102.60	109.90
3	A1	1372	U	C3'-C2'-C1'	7.30	108.60	101.30
25	BB	1049	C	C4'-C3'-C2'	-7.30	95.30	102.60
25	BB	1605	C	C5'-C4'-C3'	-7.30	105.05	116.00
32	BI	102	ARG	NE-CZ-NH1	7.30	128.80	121.50
32	BI	104	GLY	N-CA-C	7.30	122.70	114.67
25	BB	331	C	O4'-C1'-C2'	-7.30	98.50	105.80
25	BB	2524	G	O4'-C1'-N9	7.30	119.45	108.50
25	BB	537	G	C5'-C4'-O4'	7.30	120.75	109.80
3	A1	108	G	O4'-C4'-C3'	7.29	111.29	104.00
25	BB	1499	C	C4'-C3'-C2'	-7.29	95.31	102.60
33	BJ	29	ARG	NE-CZ-NH2	7.29	125.76	119.20
3	A1	691	G	C3'-C2'-C1'	7.29	108.59	101.30
22	AW	44	ARG	NE-CZ-NH1	7.29	128.79	121.50
3	A1	213	G	C4'-C3'-O3'	-7.29	102.07	113.00
25	BB	1790	C	O4'-C1'-N1	7.29	119.43	108.50
51	B2	136	ILE	N-CA-C	7.29	124.50	109.34
25	BB	1158	C	C4'-C3'-C2'	-7.29	95.31	102.60
25	BB	2384	U	C4'-C3'-O3'	7.29	120.33	109.40
3	A1	625	U	O5'-C5'-C4'	-7.28	100.57	111.50
3	A1	1281	C	C5'-C4'-C3'	-7.28	104.28	115.20
25	BB	2060	A	C3'-C2'-O2'	7.28	121.62	110.70
51	B2	22	ASN	OD1-CG-ND2	-7.28	115.32	122.60
54	B5	44	LYS	CA-CB-CG	7.28	128.67	114.10
8	AG	20	PHE	CA-CB-CG	7.28	121.08	113.80
25	BB	645	C	C1'-O4'-C4'	-7.28	102.42	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2681	C	O4'-C1'-C2'	-7.28	98.52	105.80
1	AP	18	G	O4'-C1'-C2'	7.28	113.08	105.80
3	A1	1398	A	O5'-C5'-C4'	-7.28	100.78	111.70
3	A1	1470	U	C4'-C3'-C2'	-7.28	95.32	102.60
25	BB	823	C	O4'-C4'-C3'	-7.28	98.82	106.10
25	BB	1721	G	O4'-C1'-N9	7.28	119.12	108.20
25	BB	2450	A	C4'-C3'-C2'	-7.28	95.32	102.60
29	BF	26	VAL	CA-C-N	7.28	135.45	121.54
29	BF	26	VAL	C-N-CA	7.28	135.45	121.54
32	BI	35	SER	CA-C-N	7.28	133.22	122.74
32	BI	35	SER	C-N-CA	7.28	133.22	122.74
35	BL	53	SER	CA-C-N	7.28	130.26	120.65
35	BL	53	SER	C-N-CA	7.28	130.26	120.65
25	BB	1756	G	C5'-C4'-C3'	-7.28	105.08	116.00
25	BB	26	G	C1'-O4'-C4'	-7.28	102.42	109.70
25	BB	453	A	O4'-C4'-C3'	-7.28	98.82	106.10
25	BB	2663	G	O5'-C5'-C4'	7.28	122.42	111.50
26	BC	21	ARG	CD-NE-CZ	7.28	134.59	124.40
25	BB	1471	G	C4'-C3'-O3'	-7.28	98.49	109.40
25	BB	1710	G	O5'-C5'-C4'	7.28	122.41	111.50
25	BB	546	U	C1'-O4'-C4'	-7.27	102.43	109.70
1	AP	7	U	C4'-C3'-C2'	-7.27	95.33	102.60
14	AN	7	LYS	O-C-N	-7.27	114.58	122.07
25	BB	57	C	O4'-C1'-C2'	-7.27	100.33	107.60
25	BB	1003	G	O3'-P-O5'	7.27	114.91	104.00
25	BB	2239	G	O4'-C1'-C2'	-7.27	100.33	107.60
25	BB	2581	G	O4'-C1'-N9	7.27	119.11	108.20
25	BB	181	A	O5'-C5'-C4'	-7.27	100.59	111.50
25	BB	638	G	O4'-C4'-C3'	7.27	111.27	104.00
25	BB	742	A	C1'-O4'-C4'	-7.27	102.63	109.90
25	BB	2886	A	C2'-C3'-O3'	7.27	120.40	109.50
8	AG	58	ARG	NE-CZ-NH2	7.27	125.74	119.20
3	A1	880	C	P-O3'-C3'	7.26	131.10	120.20
20	AU	144	ALA	N-CA-CB	-7.26	99.43	110.33
25	BB	907	G	C5'-C4'-C3'	-7.26	105.10	116.00
25	BB	1875	G	O4'-C1'-C2'	-7.26	100.34	107.60
25	BB	1987	A	C5'-C4'-C3'	-7.26	105.10	116.00
50	B1	181	ILE	CA-C-N	7.26	134.78	121.70
50	B1	181	ILE	C-N-CA	7.26	134.78	121.70
25	BB	2736	A	C4'-C3'-O3'	-7.26	102.11	113.00
3	A1	352	C	O4'-C1'-N1	-7.26	97.61	108.50
25	BB	72	U	O4'-C1'-C2'	-7.26	98.54	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1944	U	C5'-C4'-C3'	7.26	126.89	116.00
25	BB	136	G	C3'-C2'-O2'	7.26	121.58	110.70
25	BB	1135	C	C4'-C3'-C2'	-7.26	95.34	102.60
25	BB	2426	A	O4'-C4'-C3'	7.26	111.26	104.00
3	A1	1206	G	C5'-C4'-C3'	-7.25	105.12	116.00
25	BB	47	C	C4'-C3'-C2'	7.25	109.86	102.60
32	BI	58	PHE	N-CA-C	7.25	120.11	111.33
19	AT	94	HIS	CB-CG-CD2	-7.25	121.77	131.20
25	BB	2213	U	C3'-C2'-O2'	7.25	125.48	114.60
6	AD	24	GLU	OE1-CD-OE2	-7.25	105.50	122.90
13	AL	52	ASN	N-CA-C	7.25	120.23	111.82
18	AS	120	HIS	CB-CG-CD2	-7.25	121.77	131.20
25	BB	55	G	C4'-C3'-C2'	-7.25	95.35	102.60
25	BB	1758	U	C5'-C4'-C3'	-7.25	104.32	115.20
19	AT	38	ARG	NH1-CZ-NH2	-7.25	109.88	119.30
48	BY	13	ARG	N-CA-C	7.25	123.02	113.30
10	AI	38	PHE	O-C-N	-7.25	114.86	123.27
20	AU	72	VAL	CA-C-O	-7.25	112.87	121.28
25	BB	2379	G	O4'-C1'-C2'	7.25	114.85	107.60
27	BD	37	ASP	CA-CB-CG	-7.25	105.35	112.60
2	AM	1	U	C4'-C3'-O3'	7.25	120.27	109.40
3	A1	934	C	C4'-C3'-C2'	-7.25	95.35	102.60
24	BA	60	C	C2'-C3'-O3'	7.25	124.57	113.70
25	BB	2868	A	O5'-C5'-C4'	7.25	122.37	111.50
51	B2	176	PHE	CA-C-N	7.25	135.38	121.54
51	B2	176	PHE	C-N-CA	7.25	135.38	121.54
7	AF	80	MET	N-CA-C	7.25	122.12	113.28
25	BB	2742	G	O3'-P-O5'	7.25	114.87	104.00
3	A1	1507	A	N9-C1'-C2'	7.24	122.86	112.00
22	AW	125	GLN	OE1-CD-NE2	-7.24	115.36	122.60
42	BS	8	LYS	N-CA-C	7.24	120.46	109.23
47	BX	31	PRO	CA-C-N	7.24	131.69	120.82
47	BX	31	PRO	C-N-CA	7.24	131.69	120.82
3	A1	71	A	O4'-C4'-C3'	7.24	113.34	106.10
25	BB	451	U	C1'-C2'-O2'	-7.24	97.54	108.40
25	BB	2234	G	O4'-C4'-C3'	7.24	111.24	104.00
25	BB	1656	C	C3'-C2'-C1'	7.24	108.74	101.50
3	A1	1173	U	C3'-C2'-O2'	7.24	121.56	110.70
17	AR	62	ARG	NE-CZ-NH2	-7.24	112.69	119.20
25	BB	2259	U	O5'-C5'-C4'	-7.24	100.85	111.70
25	BB	79	C	O4'-C1'-C2'	-7.23	100.37	107.60
3	A1	13	U	N1-C1'-C2'	7.23	122.85	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
14	AN	15	LYS	O-C-N	7.23	129.84	122.03
19	AT	84	VAL	N-CA-C	7.23	118.21	107.15
23	AX	99	GLN	OE1-CD-NE2	-7.23	115.37	122.60
25	BB	2446	G	C1'-C2'-O2'	-7.23	100.95	111.80
28	BE	77	ILE	O-C-N	-7.23	113.53	122.57
53	B4	80	ILE	N-CA-C	7.23	118.73	108.17
55	B6	79	GLY	N-CA-C	7.23	116.79	110.21
3	A1	718	A	O4'-C1'-C2'	-7.23	98.57	105.80
3	A1	1141	C	O3'-P-O5'	-7.23	93.16	104.00
25	BB	1948	G	C4'-C3'-C2'	-7.23	95.37	102.60
25	BB	2460	U	C2'-C3'-O3'	7.23	120.34	109.50
1	AP	23	A	C4'-C3'-C2'	-7.23	95.37	102.60
25	BB	2185	U	C1'-O4'-C4'	-7.23	102.67	109.90
3	A1	315	A	O4'-C4'-C3'	7.23	113.33	106.10
12	AK	31	TYR	CA-C-N	7.23	132.61	123.14
12	AK	31	TYR	C-N-CA	7.23	132.61	123.14
25	BB	305	C	O4'-C4'-C3'	7.23	111.23	104.00
25	BB	434	U	C4'-C3'-O3'	-7.23	98.56	109.40
25	BB	971	G	C4'-C3'-O3'	7.23	120.24	109.40
3	A1	199	A	C4'-C3'-C2'	-7.23	95.37	102.60
7	AF	2	ARG	NH1-CZ-NH2	-7.23	109.91	119.30
25	BB	2436	G	O4'-C1'-N9	7.23	119.04	108.20
5	AC	121	ARG	NH1-CZ-NH2	-7.22	109.91	119.30
25	BB	1065	U	O4'-C1'-N1	7.22	119.34	108.50
25	BB	1834	U	C4'-C3'-O3'	7.22	123.83	113.00
39	BP	10	ARG	NE-CZ-NH2	7.22	125.70	119.20
3	A1	105	G	C1'-O4'-C4'	-7.22	102.68	109.90
3	A1	479	U	C3'-C2'-O2'	7.22	121.53	110.70
3	A1	507	C	O4'-C4'-C3'	7.22	111.22	104.00
3	A1	978	A	C5'-C4'-C3'	-7.22	105.17	116.00
25	BB	1981	A	O4'-C1'-N9	7.22	119.03	108.20
25	BB	2694	G	C4'-C3'-C2'	-7.22	95.38	102.60
50	B1	136	GLN	OE1-CD-NE2	-7.22	115.38	122.60
55	B6	36	LEU	CA-C-N	7.22	134.36	121.66
55	B6	36	LEU	C-N-CA	7.22	134.36	121.66
3	A1	272	C	O4'-C1'-C2'	-7.22	100.38	107.60
6	AD	3	VAL	N-CA-C	7.22	117.98	110.62
25	BB	1084	A	C3'-C2'-C1'	7.22	108.52	101.30
25	BB	1556	C	C3'-C2'-C1'	7.22	108.52	101.30
25	BB	1091	G	C3'-C2'-C1'	7.21	108.52	101.30
37	BN	9	SER	CA-C-N	7.21	127.14	119.85
37	BN	9	SER	C-N-CA	7.21	127.14	119.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
17	AR	127	ARG	CD-NE-CZ	7.21	134.50	124.40
25	BB	2043	C	C2'-C3'-O3'	7.21	124.52	113.70
25	BB	2194	U	C3'-C2'-C1'	7.21	108.51	101.30
3	A1	420	U	C1'-O4'-C4'	-7.21	102.49	109.70
5	AC	15	VAL	CA-C-N	7.21	135.31	121.54
5	AC	15	VAL	C-N-CA	7.21	135.31	121.54
10	AI	82	ALA	N-CA-CB	-7.21	99.58	110.40
25	BB	1107	G	C3'-C2'-O2'	7.21	121.52	110.70
1	AP	10	G	O4'-C1'-C2'	-7.21	100.39	107.60
3	A1	218	U	O3'-P-O5'	7.21	114.81	104.00
8	AG	89	ARG	NE-CZ-NH2	7.21	125.69	119.20
11	AJ	38	LYS	CA-C-N	7.21	133.90	121.64
11	AJ	38	LYS	C-N-CA	7.21	133.90	121.64
11	AJ	48	GLU	CB-CA-C	7.21	118.46	109.16
25	BB	278	A	C4'-C3'-C2'	7.21	109.81	102.60
25	BB	622	G	C1'-O4'-C4'	-7.21	102.69	109.90
25	BB	807	U	C2'-C3'-O3'	-7.21	102.89	113.70
47	BX	12	ARG	NH1-CZ-NH2	-7.21	109.93	119.30
3	A1	49	U	C3'-C2'-C1'	7.21	108.51	101.30
3	A1	402	G	O3'-P-O5'	7.21	114.81	104.00
3	A1	1191	A	C4'-C3'-C2'	-7.21	95.39	102.60
25	BB	1451	C	C5'-C4'-O4'	-7.21	98.29	109.10
25	BB	2301	C	C1'-C2'-O2'	-7.21	97.59	108.40
30	BG	69	ARG	NH1-CZ-NH2	-7.21	109.93	119.30
25	BB	2089	C	O4'-C4'-C3'	7.21	111.20	104.00
3	A1	99	C	C5'-C4'-C3'	-7.20	104.39	115.20
25	BB	15	G	C5'-C4'-C3'	-7.20	105.19	116.00
33	BJ	112	ALA	CA-C-N	7.20	130.25	120.38
33	BJ	112	ALA	C-N-CA	7.20	130.25	120.38
39	BP	1	ALA	CB-CA-C	7.20	121.31	110.50
25	BB	2680	U	C1'-O4'-C4'	7.20	116.90	109.70
25	BB	2726	A	O4'-C1'-N9	7.20	119.30	108.50
13	AL	69	LYS	N-CA-C	7.20	119.60	110.24
5	AC	113	THR	CA-CB-CG2	7.20	122.73	110.50
20	AU	40	SER	CA-C-N	7.20	130.64	120.42
20	AU	40	SER	C-N-CA	7.20	130.64	120.42
25	BB	301	G	C3'-C2'-C1'	-7.20	94.30	101.50
31	BH	55	GLU	N-CA-C	7.20	121.75	113.19
49	BZ	53	PRO	CA-C-N	7.20	130.94	120.51
49	BZ	53	PRO	C-N-CA	7.20	130.94	120.51
49	BZ	121	GLY	CA-C-N	7.20	132.53	120.88
49	BZ	121	GLY	C-N-CA	7.20	132.53	120.88

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1960	A	O4'-C1'-C2'	-7.19	98.61	105.80
3	A1	321	A	C1'-C2'-O2'	-7.19	97.61	108.40
25	BB	1330	C	O4'-C4'-C3'	7.19	111.19	104.00
25	BB	1340	U	C5'-C4'-C3'	-7.19	105.21	116.00
25	BB	1981	A	C2'-C3'-O3'	7.19	120.29	109.50
25	BB	2087	G	C1'-O4'-C4'	-7.19	102.51	109.70
25	BB	1338	G	C1'-O4'-C4'	-7.19	102.71	109.90
29	BF	109	PRO	CA-C-N	7.19	129.79	120.44
29	BF	109	PRO	C-N-CA	7.19	129.79	120.44
51	B2	126	ASN	CA-CB-CG	-7.19	105.41	112.60
3	A1	65	A	C4'-C3'-O3'	7.19	120.18	109.40
25	BB	2827	C	O4'-C4'-C3'	-7.19	98.91	106.10
50	B1	21	ARG	CD-NE-CZ	7.19	134.46	124.40
3	A1	366	A	O4'-C1'-N9	7.19	118.98	108.20
25	BB	735	A	O4'-C4'-C3'	7.19	111.19	104.00
33	BJ	47	ARG	CD-NE-CZ	7.19	134.46	124.40
3	A1	891	U	C1'-O4'-C4'	-7.19	102.51	109.70
3	A1	138	G	O3'-P-O5'	-7.18	93.22	104.00
25	BB	1119	U	O5'-C5'-C4'	-7.18	100.72	111.50
3	A1	251	G	C3'-C2'-O2'	7.18	121.47	110.70
14	AN	71	ALA	N-CA-C	7.18	119.19	111.36
25	BB	157	C	O4'-C1'-N1	7.18	119.27	108.50
25	BB	1484	U	C1'-O4'-C4'	-7.18	102.72	109.90
3	A1	280	C	O4'-C4'-C3'	7.18	113.28	106.10
34	BK	18	GLN	OE1-CD-NE2	-7.18	115.42	122.60
25	BB	130	C	O4'-C4'-C3'	7.18	113.28	106.10
28	BE	5	THR	N-CA-C	7.18	121.73	113.19
43	BT	39	ARG	NE-CZ-NH2	7.18	125.66	119.20
25	BB	2155	U	O4'-C4'-C3'	7.17	111.17	104.00
25	BB	992	C	N1-C1'-C2'	7.17	124.76	114.00
3	A1	1022	A	O4'-C4'-C3'	7.17	111.17	104.00
6	AD	67	GLY	CA-C-N	7.17	130.81	120.91
6	AD	67	GLY	C-N-CA	7.17	130.81	120.91
25	BB	449	A	O4'-C1'-N9	7.17	119.26	108.50
25	BB	1193	G	C3'-C2'-C1'	7.17	108.47	101.30
25	BB	2394	C	C5'-C4'-O4'	7.17	120.56	109.80
9	AH	25	GLU	N-CA-C	7.17	119.17	111.36
37	BN	243	PRO	N-CD-CG	7.17	113.95	103.20
25	BB	88	G	C4'-C3'-C2'	-7.17	95.43	102.60
25	BB	499	U	O4'-C4'-C3'	7.17	111.17	104.00
25	BB	2054	A	C3'-C2'-C1'	7.17	108.67	101.50
39	BP	58	LEU	CA-C-N	7.17	132.17	120.63

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
39	BP	58	LEU	C-N-CA	7.17	132.17	120.63
25	BB	1104	C	C3'-C2'-O2'	7.17	121.45	110.70
25	BB	1301	A	C1'-O4'-C4'	7.17	117.06	109.90
3	A1	7	A	C3'-C2'-C1'	-7.16	94.34	101.50
3	A1	1339	A	C5'-C4'-C3'	-7.16	105.25	116.00
15	AO	75	VAL	CB-CA-C	7.16	117.67	110.65
25	BB	271	G	N9-C1'-C2'	7.16	124.74	114.00
25	BB	826	U	O4'-C1'-C2'	-7.16	100.44	107.60
25	BB	1273	U	C1'-O4'-C4'	-7.16	102.54	109.70
54	B5	126	ARG	NE-CZ-NH1	7.16	128.66	121.50
25	BB	2253	G	C5'-C4'-O4'	-7.16	99.06	109.80
25	BB	2642	G	C5'-C4'-C3'	-7.16	105.26	116.00
3	A1	800	G	O5'-C5'-C4'	-7.16	100.76	111.50
25	BB	720	U	C3'-C2'-O2'	7.16	121.44	110.70
25	BB	800	A	C3'-C2'-C1'	7.16	108.66	101.50
25	BB	1547	C	O5'-C5'-C4'	7.16	122.24	111.50
51	B2	80	GLN	OE1-CD-NE2	-7.16	115.44	122.60
3	A1	617	G	C4'-C3'-O3'	-7.16	102.26	113.00
3	A1	200	G	C4'-C3'-C2'	-7.15	95.45	102.60
3	A1	239	U	P-O3'-C3'	7.15	130.93	120.20
5	AC	113	THR	CA-CB-OG1	-7.15	98.87	109.60
25	BB	1475	G	P-O3'-C3'	7.15	130.93	120.20
3	A1	435	A	C4'-C3'-C2'	-7.15	95.45	102.60
25	BB	1396	U	C4'-C3'-C2'	-7.15	95.45	102.60
3	A1	717	U	C4'-C3'-O3'	7.15	120.12	109.40
45	BV	41	ARG	NE-CZ-NH2	7.15	125.64	119.20
25	BB	1410	G	O4'-C4'-C3'	7.15	111.15	104.00
25	BB	1477	A	C1'-C2'-O2'	-7.15	101.08	111.80
52	B3	37	ASN	N-CA-CB	-7.15	99.42	110.29
25	BB	760	G	C1'-O4'-C4'	7.15	117.05	109.90
55	B6	13	ARG	NH1-CZ-NH2	-7.15	110.01	119.30
29	BF	37	GLY	CA-C-N	7.14	135.19	121.54
29	BF	37	GLY	C-N-CA	7.14	135.19	121.54
34	BK	66	HIS	CB-CG-CD2	-7.14	121.91	131.20
55	B6	40	HIS	CE1-NE2-CD2	-7.14	101.86	109.00
7	AF	43	LYS	CA-C-N	7.14	134.83	121.97
7	AF	43	LYS	C-N-CA	7.14	134.83	121.97
20	AU	108	ARG	NE-CZ-NH1	7.14	128.64	121.50
25	BB	893	C	C1'-O4'-C4'	-7.14	102.76	109.90
3	A1	803	G	O4'-C1'-N9	7.14	119.21	108.50
7	AF	106	ARG	CA-C-N	7.14	130.15	120.44
7	AF	106	ARG	C-N-CA	7.14	130.15	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	49	A	O4'-C4'-C3'	-7.14	98.96	106.10
25	BB	2283	C	C5'-C4'-C3'	-7.14	105.29	116.00
35	BL	11	ARG	CB-CA-C	7.14	121.86	109.15
25	BB	1803	A	O5'-C5'-C4'	-7.14	100.79	111.50
40	BQ	23	ARG	CA-C-N	7.14	130.18	120.54
40	BQ	23	ARG	C-N-CA	7.14	130.18	120.54
43	BT	35	GLU	CA-C-N	7.14	135.51	122.02
43	BT	35	GLU	C-N-CA	7.14	135.51	122.02
1	AA	2	C	O4'-C4'-C3'	7.13	111.14	104.00
3	A1	47	C	O4'-C1'-C2'	-7.13	98.67	105.80
20	AU	42	VAL	O-C-N	-7.13	114.95	121.87
25	BB	168	G	C4'-C3'-C2'	-7.13	95.47	102.60
33	BJ	57	ARG	NE-CZ-NH2	7.13	125.62	119.20
21	AV	116	ARG	CD-NE-CZ	7.13	134.39	124.40
25	BB	2713	U	C2'-C3'-O3'	7.13	120.20	109.50
25	BB	1656	C	C1'-C2'-O2'	-7.13	101.10	111.80
3	A1	1161	C	O4'-C4'-C3'	7.13	113.23	106.10
1	AA	72	C	O4'-C1'-C2'	-7.13	100.47	107.60
24	BA	113	C	C3'-C2'-O2'	7.13	121.39	110.70
49	BZ	105	ARG	CA-C-O	-7.13	113.36	120.70
3	A1	581	G	C2'-C3'-O3'	7.13	120.19	109.50
3	A1	938	A	P-O5'-C5'	7.13	131.59	120.90
25	BB	1171	G	O4'-C4'-C3'	7.13	111.13	104.00
25	BB	1819	A	C3'-C2'-C1'	7.13	108.63	101.50
24	BA	96	G	C3'-C2'-O2'	7.12	121.38	110.70
25	BB	1366	A	C3'-C2'-C1'	-7.12	94.18	101.30
3	A1	574	A	C2'-C3'-O3'	7.12	120.18	109.50
24	BA	110	C	C4'-C3'-C2'	-7.12	95.48	102.60
25	BB	208	C	C1'-O4'-C4'	-7.12	102.78	109.90
25	BB	1448	G	O4'-C1'-N9	7.12	119.18	108.50
55	B6	49	ASP	OD1-CG-OD2	-7.12	105.81	122.90
25	BB	1159	U	C4'-C3'-C2'	-7.12	95.48	102.60
3	A1	420	U	C3'-C2'-C1'	-7.12	94.38	101.50
5	AC	12	ARG	CD-NE-CZ	7.12	134.37	124.40
9	AH	13	GLU	N-CA-C	7.12	121.79	113.18
25	BB	1024	G	C4'-C3'-O3'	-7.12	98.72	109.40
25	BB	2129	C	C4'-C3'-C2'	-7.12	95.48	102.60
3	A1	124	C	O4'-C4'-C3'	7.12	113.22	106.10
25	BB	2863	C	C4'-C3'-C2'	-7.12	95.48	102.60
1	AE	21	A	C3'-C2'-C1'	-7.12	94.18	101.30
3	A1	528	C	C4'-C3'-C2'	-7.12	95.48	102.60
3	A1	1041	G	C3'-C2'-O2'	7.12	121.38	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1111	A	C1'-C2'-O2'	7.12	122.47	111.80
25	BB	503	A	O5'-C5'-C4'	7.12	122.37	111.70
25	BB	1314	C	O3'-P-O5'	-7.12	93.33	104.00
37	BN	228	ASP	OD1-CG-OD2	-7.12	105.83	122.90
5	AC	26	PHE	N-CA-C	7.11	125.95	110.80
22	AW	83	THR	CA-CB-CG2	7.11	122.59	110.50
50	B1	92	HIS	CA-CB-CG	-7.11	106.69	113.80
25	BB	1157	G	C4'-C3'-O3'	7.11	123.67	113.00
25	BB	2212	A	C4'-C3'-C2'	7.11	109.71	102.60
25	BB	2834	G	C1'-O4'-C4'	-7.11	102.79	109.90
49	BZ	162	GLN	N-CA-CB	-7.11	99.58	109.82
3	A1	722	G	C5'-C4'-O4'	7.11	120.47	109.80
23	AX	53	ILE	O-C-N	-7.11	113.68	122.57
24	BA	76	G	C5'-C4'-O4'	7.11	120.47	109.80
25	BB	246	C	C3'-C2'-O2'	7.11	121.36	110.70
49	BZ	180	ALA	CA-C-N	7.11	130.39	120.29
49	BZ	180	ALA	C-N-CA	7.11	130.39	120.29
27	BD	52	VAL	CA-C-N	7.11	133.60	122.94
27	BD	52	VAL	C-N-CA	7.11	133.60	122.94
40	BQ	41	HIS	CA-C-N	7.11	135.12	121.54
40	BQ	41	HIS	C-N-CA	7.11	135.12	121.54
23	AX	45	ARG	CA-C-N	7.11	135.12	121.54
23	AX	45	ARG	C-N-CA	7.11	135.12	121.54
3	A1	627	G	C3'-C2'-O2'	7.10	121.36	110.70
3	A1	1526	G	C2'-C3'-O3'	7.10	124.36	113.70
25	BB	359	G	O4'-C4'-C3'	7.10	111.10	104.00
25	BB	888	C	N1-C1'-C2'	7.10	124.66	114.00
25	BB	2499	C	C3'-C2'-O2'	7.10	121.36	110.70
3	A1	716	A	C4'-C3'-C2'	-7.10	95.50	102.60
25	BB	569	U	C3'-C2'-O2'	7.10	125.25	114.60
25	BB	1639	C	C2'-C3'-O3'	7.10	120.15	109.50
3	A1	1331	G	C1'-O4'-C4'	-7.10	102.60	109.70
25	BB	1475	G	O4'-C1'-C2'	-7.10	98.70	105.80
25	BB	2622	U	C4'-C3'-O3'	7.10	123.65	113.00
25	BB	2820	A	O4'-C1'-C2'	-7.10	98.70	105.80
25	BB	29	U	C2'-C3'-O3'	7.10	124.35	113.70
25	BB	1030	C	C2'-C3'-O3'	7.10	124.35	113.70
25	BB	2172	U	O4'-C4'-C3'	7.10	113.20	106.10
3	A1	400	C	N1-C1'-C2'	7.10	124.65	114.00
19	AT	27	ALA	N-CA-C	7.10	123.08	111.37
25	BB	564	C	P-O5'-C5'	7.10	131.54	120.90
25	BB	1501	G	C1'-C2'-O2'	7.09	119.04	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2505	G	C4'-C3'-C2'	-7.09	95.51	102.60
25	BB	2514	U	O4'-C4'-C3'	-7.09	96.91	104.00
25	BB	2702	G	O3'-P-O5'	-7.09	93.36	104.00
30	BG	104	ALA	CA-C-N	7.09	132.37	122.29
30	BG	104	ALA	C-N-CA	7.09	132.37	122.29
37	BN	269	ARG	NH1-CZ-NH2	-7.09	110.08	119.30
1	AE	41	U	O4'-C1'-N1	7.09	119.14	108.50
14	AN	8	LYS	CA-C-O	-7.09	113.03	120.55
25	BB	1820	U	C4'-C3'-C2'	-7.09	95.51	102.60
25	BB	2079	U	C1'-O4'-C4'	-7.09	102.81	109.90
1	AA	21	A	C1'-O4'-C4'	-7.09	102.81	109.90
3	A1	1376	U	O4'-C1'-C2'	-7.09	100.51	107.60
3	A1	1444	U	O3'-P-O5'	-7.09	93.36	104.00
25	BB	1876	A	O4'-C4'-C3'	7.09	111.09	104.00
25	BB	2006	C	O4'-C4'-C3'	7.09	111.09	104.00
45	BV	19	ARG	O-C-N	-7.09	114.60	122.12
3	A1	71	A	C1'-O4'-C4'	-7.09	102.61	109.70
25	BB	1228	G	C3'-C2'-O2'	7.09	121.33	110.70
25	BB	2255	G	O4'-C4'-C3'	7.09	111.09	104.00
48	BY	204	LYS	CA-C-N	7.09	126.77	119.82
48	BY	204	LYS	C-N-CA	7.09	126.77	119.82
25	BB	362	A	O4'-C1'-N9	7.09	119.13	108.50
29	BF	10	ARG	NE-CZ-NH1	7.09	128.59	121.50
48	BY	82	PHE	CA-CB-CG	7.09	120.89	113.80
3	A1	225	C	C4'-C3'-C2'	-7.09	95.51	102.60
25	BB	1240	U	O4'-C1'-C2'	-7.09	98.71	105.80
11	AJ	76	ARG	NH1-CZ-NH2	-7.08	110.09	119.30
24	BA	30	C	O4'-C4'-C3'	7.08	111.08	104.00
25	BB	1885	A	C1'-O4'-C4'	-7.08	102.81	109.90
25	BB	2284	A	O5'-C5'-C4'	-7.08	100.87	111.50
3	A1	44	A	O5'-C5'-C4'	-7.08	100.88	111.50
3	A1	147	G	C1'-C2'-O2'	-7.08	97.78	108.40
3	A1	392	C	C3'-C2'-C1'	7.08	108.38	101.30
29	BF	67	VAL	O-C-N	-7.08	115.74	123.18
3	A1	358	U	C2'-C3'-O3'	7.08	120.12	109.50
3	A1	1161	C	C1'-O4'-C4'	-7.08	102.62	109.70
5	AC	112	VAL	CB-CA-C	-7.08	102.86	111.85
15	AO	125	ARG	NE-CZ-NH1	7.08	128.58	121.50
25	BB	584	C	C2'-C3'-O3'	7.08	120.12	109.50
25	BB	835	C	O4'-C4'-C3'	7.08	111.08	104.00
39	BP	18	LYS	CA-C-N	7.08	130.63	120.79
39	BP	18	LYS	C-N-CA	7.08	130.63	120.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	47	U	C1'-C2'-O2'	7.08	119.02	108.40
41	BR	12	ALA	CA-C-N	7.08	134.71	121.97
41	BR	12	ALA	C-N-CA	7.08	134.71	121.97
3	A1	940	C	C4'-C3'-C2'	-7.08	95.52	102.60
4	AB	43	GLU	CA-C-N	7.08	131.92	120.60
4	AB	43	GLU	C-N-CA	7.08	131.92	120.60
21	AV	53	ASP	N-CA-C	7.08	125.87	110.80
48	BY	149	ASN	CB-CG-ND2	7.08	127.01	116.40
4	AB	163	ILE	N-CA-C	7.07	121.70	113.42
25	BB	315	G	C5'-C4'-O4'	-7.07	99.19	109.80
25	BB	854	C	C4'-C3'-C2'	-7.07	95.53	102.60
1	AP	43	G	C3'-C2'-O2'	7.07	121.31	110.70
1	AE	48	C	C4'-C3'-C2'	-7.07	95.53	102.60
3	A1	597	G	O4'-C1'-C2'	-7.07	100.53	107.60
25	BB	333	G	C3'-C2'-C1'	7.07	108.57	101.50
25	BB	2521	C	C3'-C2'-O2'	7.07	121.31	110.70
9	AH	83	ARG	NE-CZ-NH1	7.07	128.57	121.50
19	AT	53	LYS	CA-C-O	-7.07	112.22	119.78
3	A1	568	G	C1'-O4'-C4'	-7.07	102.83	109.90
25	BB	11	C	C1'-O4'-C4'	7.07	116.77	109.70
25	BB	35	G	O4'-C4'-C3'	7.07	111.07	104.00
25	BB	624	C	O3'-P-O5'	-7.07	93.40	104.00
25	BB	2898	U	C5'-C4'-C3'	-7.07	105.40	116.00
31	BH	116	GLN	CA-C-N	7.07	134.42	121.70
31	BH	116	GLN	C-N-CA	7.07	134.42	121.70
3	A1	246	A	C1'-O4'-C4'	7.07	116.77	109.70
10	AI	29	ASN	OD1-CG-ND2	-7.07	115.53	122.60
24	BA	66	A	C4'-C3'-C2'	-7.07	95.53	102.60
33	BJ	63	ARG	NE-CZ-NH1	7.07	128.56	121.50
50	B1	81	GLY	O-C-N	-7.07	115.39	123.51
3	A1	654	G	C1'-O4'-C4'	7.06	116.96	109.90
3	A1	1053	G	C2'-C3'-O3'	7.06	120.09	109.50
4	AB	204	ASP	CA-C-N	7.06	135.03	121.54
4	AB	204	ASP	C-N-CA	7.06	135.03	121.54
25	BB	800	A	C4'-C3'-C2'	-7.06	95.54	102.60
25	BB	996	A	O4'-C4'-C3'	-7.06	96.94	104.00
25	BB	2405	G	C4'-C3'-C2'	-7.06	95.54	102.60
8	AG	69	PRO	N-CA-CB	7.06	107.45	102.65
25	BB	574	A	C2'-C3'-O3'	7.06	120.08	109.50
25	BB	1793	C	O4'-C1'-C2'	7.06	114.66	107.60
25	BB	1825	U	O5'-C5'-C4'	7.06	122.29	111.70
55	B6	128	ASN	CB-CA-C	7.06	124.19	115.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1934	C	O4'-C1'-C2'	-7.06	98.74	105.80
3	A1	349	A	O4'-C4'-C3'	7.05	111.06	104.00
3	A1	913	A	O4'-C1'-N9	7.05	118.78	108.20
17	AR	187	ARG	NE-CZ-NH2	7.05	125.55	119.20
25	BB	1628	G	C2'-C3'-O3'	7.05	124.28	113.70
25	BB	1834	U	C3'-C2'-O2'	7.05	121.28	110.70
1	AE	43	G	C2'-C3'-O3'	7.05	124.28	113.70
3	A1	895	G	C1'-O4'-C4'	7.05	116.75	109.70
25	BB	1241	A	C5'-C4'-C3'	-7.05	105.42	116.00
25	BB	1749	A	C5'-C4'-C3'	-7.05	105.42	116.00
3	A1	1059	C	C4'-C3'-C2'	-7.05	95.55	102.60
5	AC	24	ALA	N-CA-C	7.05	118.61	111.07
10	AI	47	GLU	CA-C-O	7.05	129.41	121.51
25	BB	1847	A	O4'-C4'-C3'	7.05	111.05	104.00
25	BB	2311	A	C4'-C3'-C2'	-7.05	95.55	102.60
25	BB	2469	A	C3'-C2'-O2'	7.05	121.28	110.70
25	BB	1507	C	C4'-C3'-C2'	-7.05	95.55	102.60
25	BB	2388	A	C5'-C4'-C3'	-7.05	105.43	116.00
3	A1	1401	G	O3'-P-O5'	7.05	114.57	104.00
34	BK	78	ARG	CA-C-N	7.05	134.17	122.33
34	BK	78	ARG	C-N-CA	7.05	134.17	122.33
37	BN	193	GLU	N-CA-C	7.05	121.47	113.01
1	AP	11	C	O5'-C5'-C4'	-7.04	100.93	111.50
7	AF	105	ALA	N-CA-C	7.04	121.32	112.87
39	BP	60	ALA	CA-C-N	7.04	134.99	121.54
39	BP	60	ALA	C-N-CA	7.04	134.99	121.54
48	BY	67	HIS	ND1-CE1-NE2	7.04	115.44	108.40
25	BB	636	G	O3'-P-O5'	7.04	114.56	104.00
25	BB	912	C	C2'-C3'-O3'	7.04	124.26	113.70
25	BB	2543	G	C4'-C3'-O3'	7.04	119.96	109.40
37	BN	242	HIS	ND1-CE1-NE2	7.04	115.44	108.40
3	A1	137	U	C3'-C2'-C1'	7.04	108.34	101.30
49	BZ	134	PHE	N-CA-C	7.04	120.72	108.82
3	A1	1254	A	C5'-C4'-O4'	7.04	120.36	109.80
11	AJ	59	GLU	CA-C-O	-7.04	112.71	120.38
17	AR	62	ARG	NE-CZ-NH1	7.04	128.54	121.50
3	A1	202	G	O4'-C4'-C3'	7.04	111.04	104.00
3	A1	841	C	C1'-O4'-C4'	-7.04	102.86	109.90
25	BB	1904	G	C3'-C2'-O2'	7.04	121.25	110.70
25	BB	2509	G	O4'-C1'-C2'	-7.04	100.56	107.60
3	A1	414	A	C4'-C3'-O3'	-7.04	102.45	113.00
3	A1	1368	A	O4'-C4'-C3'	7.04	111.04	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	AI	51	ARG	NE-CZ-NH1	7.04	128.54	121.50
25	BB	1209	U	C4'-C3'-C2'	-7.04	95.56	102.60
3	A1	140	U	C4'-C3'-C2'	-7.03	95.57	102.60
23	AX	14	ASP	CA-CB-CG	7.03	119.63	112.60
39	BP	38	ARG	CA-C-O	-7.03	113.12	120.99
1	AP	15	G	O5'-C5'-C4'	-7.03	100.96	111.50
3	A1	668	G	C4'-C3'-C2'	-7.03	95.57	102.60
25	BB	114	U	O4'-C4'-C3'	-7.03	96.97	104.00
53	B4	51	ARG	CD-NE-CZ	7.03	134.24	124.40
4	AB	80	LYS	N-CA-C	7.03	118.59	111.07
25	BB	2850	A	C4'-C3'-C2'	-7.03	95.57	102.60
38	BO	23	LYS	CA-C-N	7.03	134.62	121.97
38	BO	23	LYS	C-N-CA	7.03	134.62	121.97
3	A1	60	A	C3'-C2'-C1'	-7.03	94.47	101.50
3	A1	1133	G	C1'-O4'-C4'	-7.03	102.88	109.90
3	A1	1351	U	C4'-C3'-O3'	-7.03	102.46	113.00
25	BB	157	C	C4'-C3'-C2'	-7.03	95.57	102.60
25	BB	2053	G	C4'-C3'-O3'	7.03	123.54	113.00
26	BC	93	ARG	CD-NE-CZ	7.03	134.24	124.40
25	BB	2716	C	C1'-O4'-C4'	-7.02	102.88	109.90
3	A1	491	G	C5'-C4'-C3'	-7.02	105.47	116.00
3	A1	1327	C	C2'-C3'-O3'	7.02	124.23	113.70
25	BB	810	U	C1'-O4'-C4'	-7.02	102.88	109.90
25	BB	2440	C	C5'-C4'-C3'	-7.02	105.47	116.00
25	BB	967	U	P-O3'-C3'	7.02	130.73	120.20
25	BB	1358	G	C3'-C2'-C1'	-7.02	94.28	101.30
25	BB	1834	U	C2'-C3'-O3'	-7.01	103.18	113.70
25	BB	1885	A	O4'-C1'-C2'	7.01	114.61	107.60
25	BB	2066	C	C2'-C3'-O3'	7.01	120.02	109.50
25	BB	2195	U	O3'-P-O5'	7.01	114.52	104.00
1	AE	2	C	C4'-C3'-C2'	-7.01	95.59	102.60
1	AE	5	A	O3'-P-O5'	7.01	114.52	104.00
3	A1	1525	G	O3'-P-O5'	7.01	114.52	104.00
25	BB	50	U	O4'-C1'-N1	7.01	118.72	108.20
25	BB	66	C	O4'-C4'-C3'	7.01	111.01	104.00
4	AB	20	ARG	NH1-CZ-NH2	-7.01	110.19	119.30
4	AB	173	LYS	CA-C-N	7.01	130.01	120.54
4	AB	173	LYS	C-N-CA	7.01	130.01	120.54
25	BB	225	C	O4'-C4'-C3'	-7.01	96.99	104.00
25	BB	462	C	C5'-C4'-O4'	7.01	120.32	109.80
25	BB	675	A	O5'-C5'-C4'	7.01	122.02	111.50
3	A1	851	G	C3'-C2'-O2'	7.01	121.22	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
7	AF	78	ARG	CA-C-N	7.01	133.53	122.60
7	AF	78	ARG	C-N-CA	7.01	133.53	122.60
18	AS	17	VAL	CA-C-N	7.01	132.07	122.19
18	AS	17	VAL	C-N-CA	7.01	132.07	122.19
25	BB	2371	G	O4'-C4'-C3'	7.01	111.01	104.00
25	BB	2523	G	O4'-C1'-C2'	-7.01	100.59	107.60
3	A1	826	C	O4'-C1'-C2'	-7.01	98.79	105.80
25	BB	2799	A	N9-C1'-C2'	7.01	124.51	114.00
31	BH	93	ASP	CA-C-N	7.01	134.02	120.99
31	BH	93	ASP	C-N-CA	7.01	134.02	120.99
3	A1	944	G	C1'-O4'-C4'	-7.00	102.89	109.90
25	BB	225	C	C1'-O4'-C4'	7.00	116.90	109.90
25	BB	731	C	N1-C1'-C2'	7.00	122.50	112.00
25	BB	1487	U	C5'-C4'-C3'	-7.00	105.50	116.00
43	BT	24	VAL	N-CA-C	7.00	119.53	109.51
3	A1	926	G	C4'-C3'-C2'	-7.00	95.60	102.60
23	AX	95	GLY	CA-C-O	-7.00	112.67	119.04
25	BB	444	C	C1'-O4'-C4'	-7.00	102.90	109.90
25	BB	1382	G	C5'-C4'-C3'	-7.00	105.50	116.00
25	BB	92	U	C4'-C3'-C2'	-7.00	95.60	102.60
25	BB	342	A	C1'-C2'-O2'	-7.00	97.90	108.40
25	BB	953	G	C4'-C3'-C2'	-7.00	95.60	102.60
25	BB	1687	G	N9-C1'-C2'	7.00	122.50	112.00
37	BN	236	GLY	CA-C-O	7.00	125.88	118.95
17	AR	110	ARG	N-CA-C	7.00	119.94	111.82
25	BB	690	G	C1'-O4'-C4'	-7.00	102.90	109.90
25	BB	2809	A	C1'-O4'-C4'	-7.00	102.90	109.90
34	BK	87	GLN	OE1-CD-NE2	-7.00	115.60	122.60
20	AU	78	ARG	NE-CZ-NH2	7.00	125.50	119.20
49	BZ	57	GLN	N-CA-C	7.00	118.17	109.57
3	A1	169	C	C5'-C4'-C3'	-6.99	105.51	116.00
3	A1	646	G	O4'-C1'-C2'	-6.99	100.61	107.60
3	A1	663	A	O3'-P-O5'	-6.99	93.51	104.00
3	A1	801	U	C5'-C4'-C3'	-6.99	105.51	116.00
25	BB	730	A	C4'-C3'-C2'	-6.99	95.61	102.60
25	BB	869	G	O4'-C1'-C2'	-6.99	100.61	107.60
25	BB	1368	G	N9-C1'-C2'	6.99	122.49	112.00
25	BB	1774	C	C1'-O4'-C4'	-6.99	102.71	109.70
1	AE	71	G	O4'-C1'-C2'	-6.99	100.61	107.60
3	A1	1094	G	N9-C1'-C2'	6.99	124.48	114.00
20	AU	141	HIS	CB-CG-CD2	-6.99	122.11	131.20
25	BB	2262	U	C4'-C3'-C2'	-6.99	95.61	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	BE	81	ASP	CA-CB-CG	6.99	119.59	112.60
35	BL	29	VAL	N-CA-C	6.99	120.82	111.17
3	A1	1067	A	O5'-C5'-C4'	-6.99	101.22	111.70
19	AT	28	ALA	CB-CA-C	6.99	121.85	110.88
25	BB	2644	G	C3'-C2'-C1'	6.99	108.29	101.30
26	BC	25	LYS	O-C-N	-6.99	112.89	122.81
48	BY	67	HIS	CE1-NE2-CD2	-6.99	102.01	109.00
3	A1	468	A	C3'-C2'-C1'	6.99	108.29	101.30
21	AV	122	GLY	CA-C-N	6.99	130.79	120.87
21	AV	122	GLY	C-N-CA	6.99	130.79	120.87
9	AH	23	SER	CA-C-N	6.99	129.95	120.38
9	AH	23	SER	C-N-CA	6.99	129.95	120.38
25	BB	609	A	O3'-P-O5'	-6.99	93.52	104.00
25	BB	2110	G	O4'-C4'-C3'	6.99	110.98	104.00
25	BB	2416	C	C1'-O4'-C4'	6.99	116.89	109.90
37	BN	242	HIS	CB-CG-CD2	-6.99	122.12	131.20
52	B3	34	ARG	N-CA-C	6.99	119.80	108.34
3	A1	730	G	C4'-C3'-C2'	-6.98	95.62	102.60
17	AR	167	PRO	CA-C-N	6.98	130.93	120.31
17	AR	167	PRO	C-N-CA	6.98	130.93	120.31
25	BB	2592	G	C4'-C3'-C2'	-6.98	95.62	102.60
2	AM	20	U	C5'-C4'-O4'	-6.98	99.33	109.80
25	BB	702	U	C5'-C4'-O4'	6.98	120.27	109.80
25	BB	806	C	C2'-C3'-O3'	6.98	119.97	109.50
25	BB	1245	G	C3'-C2'-C1'	-6.98	94.32	101.30
33	BJ	80	ASN	CA-CB-CG	6.98	119.58	112.60
37	BN	231	HIS	CA-C-N	6.98	134.27	121.70
37	BN	231	HIS	C-N-CA	6.98	134.27	121.70
4	AB	73	ARG	NE-CZ-NH2	-6.98	112.92	119.20
25	BB	1203	U	C5'-C4'-O4'	6.98	119.57	109.10
25	BB	1449	G	C4'-C3'-C2'	-6.98	95.62	102.60
50	B1	21	ARG	NH1-CZ-NH2	-6.98	110.23	119.30
25	BB	1575	C	C1'-O4'-C4'	-6.98	102.92	109.90
25	BB	1866	A	C3'-C2'-C1'	6.98	108.28	101.30
26	BC	18	ARG	CA-C-N	6.98	129.94	120.38
26	BC	18	ARG	C-N-CA	6.98	129.94	120.38
49	BZ	111	LEU	O-C-N	-6.98	115.11	123.13
1	AA	67	A	O3'-P-O5'	6.98	114.46	104.00
3	A1	1321	U	O4'-C4'-C3'	6.98	110.98	104.00
3	A1	1350	A	C4'-C3'-O3'	-6.98	102.54	113.00
24	BA	66	A	C2'-C3'-O3'	6.98	119.96	109.50
25	BB	917	A	C3'-C2'-O2'	6.98	121.16	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BC	90	ASP	CA-CB-CG	6.98	119.58	112.60
1	AE	65	G	O4'-C4'-C3'	6.97	110.97	104.00
22	AW	77	ALA	CA-C-N	6.97	130.32	120.42
22	AW	77	ALA	C-N-CA	6.97	130.32	120.42
25	BB	791	C	O4'-C1'-N1	6.97	118.96	108.50
27	BD	90	ASN	CA-CB-CG	-6.97	105.63	112.60
29	BF	42	THR	N-CA-CB	6.97	119.77	110.29
3	A1	308	C	O5'-C5'-C4'	-6.97	101.04	111.50
3	A1	726	C	N1-C1'-C2'	6.97	122.46	112.00
25	BB	684	G	O4'-C1'-C2'	6.97	114.57	107.60
25	BB	2691	C	O4'-C1'-N1	6.97	118.96	108.50
25	BB	55	G	C3'-C2'-C1'	6.97	108.27	101.30
25	BB	2875	C	O4'-C4'-C3'	-6.97	97.03	104.00
33	BJ	63	ARG	CA-CB-CG	6.97	128.04	114.10
25	BB	73	A	C5'-C4'-C3'	-6.97	104.75	115.20
1	AP	12	U	O3'-P-O5'	-6.97	93.55	104.00
3	A1	1161	C	C4'-C3'-C2'	-6.97	95.63	102.60
17	AR	35	GLN	OE1-CD-NE2	-6.97	115.63	122.60
25	BB	402	A	C3'-C2'-C1'	-6.97	94.33	101.30
25	BB	2261	C	C1'-O4'-C4'	-6.97	102.93	109.90
25	BB	2645	G	C2'-C3'-O3'	6.97	119.95	109.50
40	BQ	38	GLN	N-CA-C	6.96	122.44	113.18
50	B1	104	ALA	CA-C-N	6.96	134.84	121.54
50	B1	104	ALA	C-N-CA	6.96	134.84	121.54
52	B3	126	THR	CA-CB-CG2	6.96	122.34	110.50
3	A1	987	G	O5'-C5'-C4'	-6.96	101.06	111.50
3	A1	1177	G	C5'-C4'-C3'	-6.96	105.56	116.00
25	BB	577	G	O4'-C4'-C3'	-6.96	97.04	104.00
25	BB	1484	U	O4'-C4'-C3'	6.96	110.96	104.00
25	BB	2295	C	C4'-C3'-C2'	-6.96	95.64	102.60
3	A1	315	A	C4'-C3'-C2'	-6.96	95.64	102.60
10	AI	46	LYS	N-CA-C	6.96	120.87	112.38
11	AJ	18	LYS	CA-C-N	6.96	135.00	121.63
11	AJ	18	LYS	C-N-CA	6.96	135.00	121.63
25	BB	469	G	O4'-C1'-N9	6.96	118.64	108.20
25	BB	1646	C	C5'-C4'-C3'	-6.96	105.56	116.00
25	BB	1981	A	C1'-O4'-C4'	-6.96	102.74	109.70
1	AA	50	U	C5'-C4'-C3'	-6.96	105.56	116.00
7	AF	19	THR	CA-CB-CG2	6.96	122.33	110.50
17	AR	58	GLN	OE1-CD-NE2	-6.96	115.64	122.60
25	BB	956	G	C1'-O4'-C4'	-6.96	102.94	109.90
25	BB	1254	A	O5'-C5'-C4'	-6.96	101.06	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1384	A	C1'-O4'-C4'	-6.96	102.74	109.70
54	B5	4	VAL	CA-C-O	6.96	129.48	120.78
25	BB	760	G	O4'-C1'-C2'	-6.96	100.64	107.60
27	BD	108	ARG	CA-C-N	6.96	130.69	120.95
27	BD	108	ARG	C-N-CA	6.96	130.69	120.95
3	A1	1103	C	O3'-P-O5'	6.96	114.43	104.00
19	AT	22	ILE	O-C-N	-6.96	114.67	121.90
25	BB	219	A	O4'-C4'-C3'	6.96	110.95	104.00
51	B2	114	ARG	NE-CZ-NH1	6.96	128.46	121.50
3	A1	372	C	C5'-C4'-C3'	6.95	126.43	116.00
3	A1	715	A	C4'-C3'-C2'	-6.95	95.65	102.60
25	BB	701	G	O4'-C1'-N9	-6.95	98.07	108.50
15	AO	64	ARG	NH1-CZ-NH2	-6.95	110.26	119.30
25	BB	673	C	C4'-C3'-C2'	6.95	109.55	102.60
25	BB	2516	A	C5'-C4'-O4'	6.95	119.53	109.10
3	A1	506	G	C4'-C3'-C2'	-6.95	95.65	102.60
25	BB	1590	A	C3'-C2'-C1'	6.95	108.25	101.30
25	BB	2621	G	C2'-C3'-O3'	6.95	119.92	109.50
28	BE	123	ARG	CD-NE-CZ	6.95	134.13	124.40
51	B2	70	ARG	CD-NE-CZ	6.95	134.13	124.40
3	A1	195	A	C3'-C2'-C1'	6.95	108.25	101.30
25	BB	1680	U	O4'-C1'-N1	6.95	118.62	108.20
25	BB	2288	A	O4'-C1'-C2'	-6.95	100.65	107.60
42	BS	63	ARG	NE-CZ-NH1	6.95	128.45	121.50
25	BB	1954	G	C4'-C3'-O3'	6.95	119.82	109.40
25	BB	2415	G	C4'-C3'-O3'	6.95	123.42	113.00
38	BO	96	LYS	CA-C-N	6.95	134.81	121.54
38	BO	96	LYS	C-N-CA	6.95	134.81	121.54
3	A1	588	G	O3'-P-O5'	-6.95	93.58	104.00
25	BB	965	C	C4'-C3'-C2'	-6.95	95.66	102.60
25	BB	1199	U	C4'-C3'-O3'	-6.95	98.98	109.40
25	BB	1258	U	C1'-O4'-C4'	-6.95	102.95	109.90
25	BB	2837	A	N9-C1'-C2'	6.95	122.42	112.00
3	A1	348	G	C4'-C3'-C2'	-6.94	95.66	102.60
25	BB	1406	U	C3'-C2'-C1'	6.94	108.24	101.30
25	BB	1746	A	O5'-C5'-C4'	-6.94	101.08	111.50
1	AA	22	G	C3'-C2'-O2'	6.94	121.11	110.70
3	A1	223	A	C3'-C2'-C1'	6.94	108.24	101.30
3	A1	956	U	O4'-C1'-C2'	-6.94	98.86	105.80
25	BB	2750	A	O4'-C1'-C2'	6.94	112.74	105.80
25	BB	1728	C	O4'-C1'-C2'	-6.94	100.66	107.60
29	BF	107	GLY	CA-C-O	-6.94	114.86	121.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	B5	128	ILE	CA-C-O	-6.94	113.81	121.17
25	BB	670	A	C1'-O4'-C4'	-6.94	102.76	109.70
25	BB	2575	C	O4'-C4'-C3'	6.94	113.04	106.10
3	A1	229	U	O4'-C1'-N1	6.94	118.91	108.50
3	A1	717	U	C3'-C2'-C1'	-6.94	94.56	101.50
25	BB	1857	G	O4'-C1'-N9	-6.94	98.09	108.50
49	BZ	153	ARG	N-CA-C	6.94	121.73	112.30
21	AV	104	SER	O-C-N	-6.94	115.16	123.27
25	BB	1497	U	C1'-O4'-C4'	-6.94	102.76	109.70
29	BF	83	GLY	CA-C-N	6.94	131.80	120.63
29	BF	83	GLY	C-N-CA	6.94	131.80	120.63
3	A1	496	A	C1'-O4'-C4'	-6.93	102.97	109.90
15	AO	178	ARG	NE-CZ-NH1	6.93	128.44	121.50
25	BB	144	A	O5'-C5'-C4'	6.93	121.90	111.50
3	A1	451	A	O4'-C1'-C2'	6.93	112.73	105.80
25	BB	1759	A	O5'-C5'-C4'	-6.93	101.10	111.50
9	AH	76	ARG	CD-NE-CZ	6.93	134.10	124.40
25	BB	454	A	C4'-C3'-O3'	6.93	119.80	109.40
3	A1	106	C	C5'-C4'-C3'	-6.93	105.61	116.00
3	A1	1421	G	O4'-C4'-C3'	6.93	110.93	104.00
11	AJ	61	ARG	CD-NE-CZ	6.93	134.10	124.40
25	BB	1152	C	C5'-C4'-O4'	6.93	120.20	109.80
25	BB	2579	C	C2'-C3'-O3'	6.93	119.89	109.50
11	AJ	50	ASN	CA-CB-CG	6.93	119.53	112.60
25	BB	878	A	N9-C1'-C2'	6.93	124.39	114.00
25	BB	2168	G	C3'-C2'-O2'	6.93	121.09	110.70
25	BB	2707	U	C3'-C2'-C1'	-6.93	94.57	101.50
33	BJ	86	SER	N-CA-C	6.93	121.18	112.87
47	BX	9	LYS	CA-C-N	6.93	134.77	121.54
47	BX	9	LYS	C-N-CA	6.93	134.77	121.54
3	A1	464	U	O4'-C1'-N1	6.92	118.89	108.50
3	A1	991	U	O3'-P-O5'	-6.92	93.61	104.00
42	BS	26	SER	N-CA-C	6.92	121.56	113.18
25	BB	403	U	C2'-C3'-O3'	6.92	119.88	109.50
25	BB	438	G	C1'-O4'-C4'	-6.92	102.98	109.90
25	BB	2208	C	C1'-C2'-O2'	-6.92	98.02	108.40
1	AA	45	G	O4'-C1'-N9	-6.92	98.12	108.50
3	A1	165	G	O4'-C1'-N9	6.92	118.88	108.50
3	A1	1514	G	C3'-C2'-O2'	6.92	121.08	110.70
25	BB	2036	C	C5'-C4'-O4'	6.92	120.18	109.80
25	BB	2411	A	C3'-C2'-C1'	-6.92	94.38	101.30
3	A1	71	A	C4'-C3'-C2'	-6.92	95.68	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	201	G	O4'-C4'-C3'	6.92	110.92	104.00
3	A1	889	A	O4'-C4'-C3'	-6.92	99.18	106.10
25	BB	2708	G	C3'-C2'-C1'	-6.92	94.38	101.30
3	A1	118	U	C3'-C2'-C1'	6.92	108.22	101.30
24	BA	116	G	C1'-O4'-C4'	-6.92	102.98	109.90
25	BB	97	C	C1'-O4'-C4'	6.92	116.82	109.90
25	BB	2024	G	N9-C1'-C2'	-6.92	101.62	112.00
25	BB	2241	A	C5'-C4'-C3'	-6.92	105.63	116.00
25	BB	2718	G	O4'-C4'-C3'	6.92	110.92	104.00
37	BN	105	ALA	N-CA-C	6.92	120.68	110.10
3	A1	893	C	C3'-C2'-C1'	6.91	108.41	101.50
3	A1	1050	G	C1'-O4'-C4'	-6.91	102.99	109.90
24	BA	105	G	O4'-C1'-N9	6.91	118.87	108.50
25	BB	1973	G	C3'-C2'-C1'	6.91	108.21	101.30
25	BB	2262	U	C3'-C2'-C1'	6.91	108.21	101.30
3	A1	682	G	C1'-O4'-C4'	-6.91	102.79	109.70
3	A1	1530	G	C1'-O4'-C4'	-6.91	102.79	109.70
25	BB	261	G	O4'-C4'-C3'	6.91	110.91	104.00
25	BB	2539	C	O4'-C4'-C3'	6.91	113.01	106.10
28	BE	60	ARG	N-CA-C	6.91	118.89	111.36
46	BW	21	PHE	CA-C-N	6.91	134.74	121.54
46	BW	21	PHE	C-N-CA	6.91	134.74	121.54
11	AJ	66	LEU	O-C-N	-6.91	113.41	122.39
25	BB	2533	U	C3'-C2'-C1'	6.91	108.21	101.30
5	AC	124	LYS	CA-C-O	-6.91	112.03	119.97
3	A1	413	G	C4'-C3'-O3'	6.91	123.36	113.00
3	A1	1503	A	C4'-C3'-O3'	6.91	119.76	109.40
24	BA	15	A	O4'-C1'-N9	6.91	118.86	108.50
25	BB	1701	A	C5'-C4'-C3'	-6.91	105.64	116.00
25	BB	2355	G	C4'-C3'-C2'	-6.91	95.69	102.60
3	A1	542	G	C1'-C2'-O2'	-6.90	98.05	108.40
3	A1	177	G	O4'-C4'-C3'	-6.90	97.10	104.00
3	A1	896	C	C3'-C2'-O2'	6.90	121.05	110.70
25	BB	383	C	C3'-C2'-C1'	6.90	108.20	101.30
25	BB	684	G	O4'-C4'-C3'	6.90	110.90	104.00
25	BB	781	A	C1'-C2'-O2'	-6.90	101.45	111.80
3	A1	99	C	C3'-C2'-C1'	-6.90	94.60	101.50
3	A1	384	G	O4'-C1'-N9	6.90	118.85	108.50
3	A1	891	U	O3'-P-O5'	6.90	114.35	104.00
25	BB	324	A	O4'-C1'-N9	6.90	118.85	108.50
25	BB	395	U	C4'-C3'-C2'	-6.90	95.70	102.60
25	BB	2157	G	C2'-C3'-O3'	6.90	119.85	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	BN	135	PRO	CA-N-CD	-6.90	102.34	112.00
3	A1	190	A	O4'-C4'-C3'	6.90	110.90	104.00
25	BB	31	C	C5'-C4'-O4'	6.90	120.15	109.80
25	BB	2288	A	C3'-C2'-C1'	6.90	108.20	101.30
1	AP	21	A	C4'-C3'-O3'	-6.90	102.65	113.00
3	A1	256	U	C3'-C2'-C1'	6.90	108.20	101.30
3	A1	628	G	C4'-C3'-C2'	-6.90	95.70	102.60
52	B3	44	HIS	ND1-CE1-NE2	6.90	115.30	108.40
25	BB	92	U	C1'-O4'-C4'	-6.90	103.00	109.90
25	BB	2301	C	C3'-C2'-O2'	6.90	121.04	110.70
46	BW	62	PRO	CA-C-N	6.90	134.71	121.54
46	BW	62	PRO	C-N-CA	6.90	134.71	121.54
3	A1	1466	C	C3'-C2'-C1'	6.89	108.19	101.30
19	AT	32	ALA	N-CA-C	6.89	121.86	113.17
25	BB	851	C	O3'-P-O5'	-6.89	93.66	104.00
25	BB	1186	G	C4'-C3'-C2'	-6.89	95.71	102.60
1	AP	66	A	C4'-C3'-C2'	-6.89	95.71	102.60
25	BB	303	G	C3'-C2'-O2'	6.89	121.04	110.70
25	BB	837	C	C1'-C2'-O2'	6.89	122.14	111.80
25	BB	896	A	C5'-C4'-O4'	6.89	120.14	109.80
25	BB	970	U	O4'-C1'-N1	6.89	118.54	108.20
25	BB	1505	A	C4'-C3'-C2'	-6.89	95.71	102.60
25	BB	2593	U	C2'-C3'-O3'	6.89	124.04	113.70
1	AE	4	G	O4'-C4'-C3'	6.89	110.89	104.00
24	BA	79	G	C1'-O4'-C4'	-6.89	102.81	109.70
38	BO	81	ARG	CD-NE-CZ	6.89	134.05	124.40
3	A1	227	G	C4'-C3'-C2'	-6.89	95.71	102.60
3	A1	976	G	C4'-C3'-C2'	-6.89	95.71	102.60
25	BB	138	U	C3'-C2'-C1'	6.89	108.19	101.30
25	BB	696	G	C4'-C3'-C2'	-6.89	95.71	102.60
31	BH	53	THR	CA-C-N	6.89	134.37	121.97
31	BH	53	THR	C-N-CA	6.89	134.37	121.97
3	A1	61	G	O4'-C1'-N9	6.89	118.83	108.50
25	BB	1889	A	O4'-C1'-C2'	-6.89	98.91	105.80
25	BB	2825	G	O4'-C1'-N9	6.89	118.83	108.50
3	A1	722	G	O4'-C1'-N9	6.89	118.83	108.50
3	A1	887	G	O3'-P-O5'	-6.89	93.67	104.00
3	A1	1021	A	O4'-C1'-C2'	6.89	114.49	107.60
9	AH	62	ARG	NH1-CZ-NH2	-6.89	110.35	119.30
25	BB	715	A	O4'-C4'-C3'	6.89	110.89	104.00
25	BB	1482	G	C5'-C4'-C3'	-6.89	105.67	116.00
33	BJ	100	PHE	CA-CB-CG	6.89	120.69	113.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
52	B3	25	ILE	N-CA-C	6.89	118.72	108.46
21	AV	39	LEU	CA-C-N	6.88	130.07	120.29
21	AV	39	LEU	C-N-CA	6.88	130.07	120.29
25	BB	384	A	C5'-C4'-C3'	-6.88	105.67	116.00
25	BB	1084	A	O4'-C1'-N9	6.88	118.83	108.50
35	BL	76	VAL	CA-C-O	6.88	127.66	120.36
3	A1	822	U	C5'-C4'-O4'	6.88	120.12	109.80
25	BB	596	U	C4'-C3'-C2'	-6.88	95.72	102.60
25	BB	823	C	O4'-C1'-N1	6.88	118.52	108.20
25	BB	894	U	O3'-P-O5'	6.88	114.33	104.00
1	AA	16	U	C3'-C2'-O2'	6.88	121.02	110.70
3	A1	757	U	O4'-C4'-C3'	6.88	110.88	104.00
25	BB	1374	G	O4'-C1'-C2'	6.88	112.68	105.80
25	BB	1740	G	C4'-C3'-C2'	-6.88	95.72	102.60
31	BH	20	GLU	CA-C-N	6.88	133.35	122.61
31	BH	20	GLU	C-N-CA	6.88	133.35	122.61
34	BK	58	VAL	O-C-N	-6.88	116.18	121.96
2	AM	18	U	C1'-O4'-C4'	6.88	116.78	109.90
3	A1	126	G	O4'-C4'-C3'	6.88	110.88	104.00
24	BA	41	G	C5'-C4'-C3'	-6.88	105.68	116.00
25	BB	1404	C	C2'-C3'-O3'	6.88	119.82	109.50
25	BB	1719	G	C4'-C3'-C2'	-6.88	95.72	102.60
25	BB	2878	U	O4'-C4'-C3'	6.88	110.88	104.00
42	BS	7	PRO	N-CA-C	6.88	126.64	112.47
50	B1	83	VAL	CA-CB-CG1	6.88	122.09	110.40
25	BB	1596	A	O4'-C4'-C3'	6.88	110.88	104.00
25	BB	1944	U	C4'-C3'-C2'	-6.88	95.72	102.60
25	BB	2713	U	C3'-C2'-C1'	-6.88	94.62	101.50
25	BB	1854	A	C3'-C2'-O2'	6.87	121.01	110.70
25	BB	1090	A	C2'-C3'-O3'	6.87	119.81	109.50
25	BB	1602	U	O4'-C4'-C3'	6.87	110.87	104.00
25	BB	2779	U	O4'-C4'-C3'	6.87	112.97	106.10
55	B6	50	THR	N-CA-C	6.87	118.86	110.41
3	A1	411	A	O4'-C1'-C2'	6.87	112.67	105.80
17	AR	33	ILE	CA-C-N	6.87	134.66	121.54
17	AR	33	ILE	C-N-CA	6.87	134.66	121.54
25	BB	878	A	O4'-C1'-C2'	-6.87	98.93	105.80
1	AP	7	U	O4'-C4'-C3'	6.87	110.87	104.00
3	A1	952	U	O4'-C1'-N1	6.87	118.80	108.50
25	BB	2740	A	C1'-O4'-C4'	-6.87	103.03	109.90
29	BF	70	ASP	CA-C-N	6.87	129.29	122.28
29	BF	70	ASP	C-N-CA	6.87	129.29	122.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BZ	33	ILE	N-CA-CB	-6.87	101.93	111.41
25	BB	1194	A	O3'-P-O5'	6.87	114.30	104.00
3	A1	130	A	C2'-C3'-O3'	6.87	119.80	109.50
3	A1	515	G	O4'-C4'-C3'	-6.87	97.13	104.00
22	AW	11	ARG	NE-CZ-NH1	-6.87	114.63	121.50
25	BB	1004	U	O3'-P-O5'	6.87	114.30	104.00
25	BB	2506	U	C4'-C3'-O3'	6.87	123.30	113.00
40	BQ	11	VAL	CA-CB-CG1	6.87	122.07	110.40
15	AO	5	HIS	CB-CG-CD2	-6.86	122.28	131.20
25	BB	236	C	C5'-C4'-C3'	-6.86	105.71	116.00
25	BB	2456	C	C4'-C3'-O3'	-6.86	102.70	113.00
25	BB	2845	U	C3'-C2'-O2'	6.86	121.00	110.70
4	AB	111	LYS	CA-C-O	-6.86	113.28	120.55
3	A1	643	C	C3'-C2'-C1'	-6.86	94.44	101.30
3	A1	656	G	O4'-C1'-C2'	-6.86	100.74	107.60
16	AQ	16	ARG	NE-CZ-NH2	6.86	125.38	119.20
25	BB	2325	G	C5'-C4'-O4'	6.86	120.09	109.80
3	A1	22	G	C3'-C2'-O2'	6.86	120.99	110.70
25	BB	2598	A	C4'-C3'-O3'	6.86	119.69	109.40
44	BU	40	PRO	CA-C-N	6.86	131.65	121.77
44	BU	40	PRO	C-N-CA	6.86	131.65	121.77
3	A1	1322	C	O5'-C5'-C4'	6.86	121.98	111.70
25	BB	2275	C	C4'-C3'-C2'	6.86	109.46	102.60
26	BC	24	ASN	OD1-CG-ND2	-6.86	115.74	122.60
3	A1	883	C	C4'-C3'-C2'	-6.86	95.74	102.60
28	BE	54	GLN	O-C-N	-6.86	113.47	122.59
41	BR	41	PRO	N-CA-C	6.86	122.75	113.84
49	BZ	208	THR	CA-CB-OG1	-6.86	99.32	109.60
1	AA	70	C	O3'-P-O5'	-6.85	93.72	104.00
3	A1	325	A	O4'-C4'-C3'	6.85	110.85	104.00
25	BB	555	G	N9-C1'-C2'	6.85	122.28	112.00
25	BB	890	C	O4'-C4'-C3'	6.85	110.85	104.00
30	BG	63	ARG	NH1-CZ-NH2	-6.85	110.39	119.30
4	AB	68	PHE	CA-CB-CG	6.85	120.65	113.80
25	BB	1296	G	C5'-C4'-O4'	6.85	120.08	109.80
25	BB	2431	U	C3'-C2'-O2'	6.85	120.98	110.70
49	BZ	18	THR	N-CA-C	6.85	121.25	112.34
51	B2	136	ILE	CA-C-N	6.85	132.27	121.17
51	B2	136	ILE	C-N-CA	6.85	132.27	121.17
17	AR	39	GLN	CA-C-N	6.85	130.31	120.79
17	AR	39	GLN	C-N-CA	6.85	130.31	120.79
40	BQ	37	LEU	CA-C-O	6.85	126.53	118.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	220	G	C5'-C4'-C3'	-6.85	105.72	116.00
13	AL	26	ASP	CA-C-N	6.85	132.44	120.87
13	AL	26	ASP	C-N-CA	6.85	132.44	120.87
25	BB	227	A	O4'-C1'-C2'	6.85	112.65	105.80
25	BB	923	G	O5'-C5'-C4'	6.85	121.77	111.50
25	BB	1228	G	O4'-C4'-C3'	6.85	110.85	104.00
25	BB	1235	G	O4'-C4'-C3'	6.85	110.85	104.00
31	BH	98	GLN	OE1-CD-NE2	-6.85	115.75	122.60
11	AJ	30	HIS	CA-C-N	6.85	128.40	119.84
11	AJ	30	HIS	C-N-CA	6.85	128.40	119.84
25	BB	1068	G	O4'-C1'-C2'	-6.85	100.75	107.60
50	B1	49	ARG	CD-NE-CZ	6.85	133.99	124.40
50	B1	110	SER	CA-C-N	6.85	129.75	120.44
50	B1	110	SER	C-N-CA	6.85	129.75	120.44
3	A1	64	G	C3'-C2'-C1'	6.85	108.35	101.50
3	A1	452	A	O4'-C4'-C3'	-6.85	97.15	104.00
15	AO	17	TRP	CA-CB-CG	6.85	126.61	113.60
24	BA	107	G	O5'-C5'-C4'	-6.85	101.43	111.70
25	BB	1641	A	O3'-P-O5'	6.85	114.27	104.00
3	A1	397	A	O5'-C5'-C4'	-6.84	101.43	111.70
3	A1	466	A	O4'-C4'-C3'	-6.84	99.26	106.10
25	BB	83	A	C3'-C2'-C1'	-6.84	94.66	101.50
25	BB	581	C	C2'-C3'-O3'	6.84	119.77	109.50
25	BB	1536	C	N1-C1'-C2'	-6.84	103.73	114.00
31	BH	104	GLN	OE1-CD-NE2	-6.84	115.75	122.60
52	B3	105	SER	CB-CA-C	-6.84	100.27	110.67
3	A1	1264	U	C4'-C3'-C2'	-6.84	95.76	102.60
25	BB	177	G	C5'-C4'-O4'	-6.84	99.54	109.80
25	BB	2487	G	C3'-C2'-O2'	6.84	120.96	110.70
3	A1	47	C	O4'-C4'-C3'	6.84	112.94	106.10
3	A1	475	C	C5'-C4'-O4'	6.84	120.06	109.80
25	BB	146	A	O5'-C5'-C4'	6.84	121.76	111.50
25	BB	1192	G	O4'-C4'-C3'	6.84	110.84	104.00
25	BB	1439	A	C3'-C2'-C1'	6.84	108.14	101.30
28	BE	106	GLU	N-CA-C	6.84	118.74	111.28
50	B1	195	GLN	OE1-CD-NE2	-6.84	115.76	122.60
1	AP	47	U	O4'-C1'-C2'	6.84	112.64	105.80
3	A1	1486	G	C1'-C2'-O2'	-6.84	98.14	108.40
25	BB	362	A	C4'-C3'-C2'	-6.84	95.76	102.60
25	BB	1898	U	C4'-C3'-C2'	-6.84	95.76	102.60
25	BB	2830	C	C1'-C2'-O2'	-6.84	98.14	108.40
50	B1	16	GLU	CA-C-N	6.84	134.60	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
50	B1	16	GLU	C-N-CA	6.84	134.60	121.54
53	B4	108	VAL	N-CA-C	6.84	117.85	109.30
3	A1	1270	G	N9-C1'-C2'	-6.84	101.74	112.00
47	BX	22	VAL	CA-C-N	6.84	131.67	123.19
47	BX	22	VAL	C-N-CA	6.84	131.67	123.19
3	A1	1293	C	P-O3'-C3'	6.84	130.46	120.20
25	BB	773	U	C4'-C3'-O3'	6.84	119.65	109.40
25	BB	1599	U	O4'-C1'-N1	6.84	118.75	108.50
25	BB	1689	A	O3'-P-O5'	-6.84	93.75	104.00
3	A1	459	A	C4'-C3'-O3'	-6.83	102.75	113.00
15	AO	194	VAL	N-CA-C	6.83	117.93	110.21
25	BB	2669	G	C5'-C4'-C3'	-6.83	105.75	116.00
30	BG	98	LEU	CA-C-N	6.83	134.59	121.54
30	BG	98	LEU	C-N-CA	6.83	134.59	121.54
3	A1	591	U	O4'-C4'-C3'	6.83	110.83	104.00
23	AX	62	ARG	NH1-CZ-NH2	-6.83	110.42	119.30
25	BB	253	C	C3'-C2'-O2'	6.83	120.95	110.70
25	BB	907	G	O4'-C4'-C3'	6.83	110.83	104.00
25	BB	2083	G	O5'-C5'-C4'	-6.83	101.25	111.50
25	BB	2243	U	O4'-C1'-N1	6.83	118.45	108.20
3	A1	329	A	N9-C1'-C2'	6.83	124.25	114.00
3	A1	346	G	C4'-C3'-C2'	-6.83	95.77	102.60
3	A1	624	C	O4'-C1'-C2'	-6.83	100.77	107.60
3	A1	867	G	C3'-C2'-C1'	-6.83	94.47	101.30
3	A1	1216	A	O4'-C4'-C3'	-6.83	99.27	106.10
25	BB	864	G	C2'-C3'-O3'	6.83	123.95	113.70
54	B5	36	GLU	CA-C-O	-6.83	113.31	120.55
24	BA	56	G	O4'-C1'-N9	6.83	118.44	108.20
25	BB	2166	U	O3'-P-O5'	6.83	114.24	104.00
25	BB	2540	C	O3'-P-O5'	6.83	114.24	104.00
55	B6	24	THR	CA-C-N	6.83	134.58	121.54
55	B6	24	THR	C-N-CA	6.83	134.58	121.54
3	A1	88	U	O3'-P-O5'	-6.83	93.76	104.00
3	A1	323	U	C3'-C2'-C1'	-6.83	94.47	101.30
3	A1	1409	C	C4'-C3'-O3'	-6.83	102.76	113.00
25	BB	1528	A	O4'-C4'-C3'	6.83	110.83	104.00
25	BB	2862	G	O3'-P-O5'	-6.83	93.76	104.00
2	AM	8	U	C4'-C3'-C2'	-6.83	95.78	102.60
3	A1	444	G	O4'-C4'-C3'	6.83	110.83	104.00
3	A1	50	A	O5'-C5'-C4'	6.82	121.73	111.50
3	A1	1526	G	C4'-C3'-O3'	-6.82	102.76	113.00
9	AH	68	TYR	N-CA-C	6.82	118.72	111.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	AU	8	GLN	CA-C-N	6.82	130.44	120.82
20	AU	8	GLN	C-N-CA	6.82	130.44	120.82
25	BB	576	U	C4'-C3'-O3'	-6.82	99.17	109.40
25	BB	998	C	O5'-C5'-C4'	-6.82	101.47	111.70
27	BD	113	MET	CA-C-O	-6.82	112.56	120.20
42	BS	13	THR	CA-C-O	-6.82	113.87	121.51
25	BB	65	U	C3'-C2'-O2'	6.82	120.93	110.70
25	BB	476	G	C1'-C2'-O2'	-6.82	101.57	111.80
25	BB	1495	A	C1'-O4'-C4'	6.82	116.72	109.90
25	BB	2243	U	O3'-P-O5'	6.82	114.23	104.00
25	BB	2301	C	O4'-C4'-C3'	6.82	110.82	104.00
1	AA	57	G	C1'-C2'-O2'	6.82	118.63	108.40
28	BE	65	GLY	O-C-N	-6.82	117.78	122.62
48	BY	41	ALA	N-CA-C	6.82	125.33	110.80
49	BZ	153	ARG	NE-CZ-NH2	6.82	125.34	119.20
15	AO	87	ARG	NE-CZ-NH2	6.82	125.33	119.20
25	BB	5	A	C5'-C4'-C3'	-6.82	105.77	116.00
25	BB	230	G	C5'-C4'-C3'	-6.82	105.77	116.00
29	BF	89	VAL	O-C-N	-6.82	115.84	123.20
3	A1	883	C	C5'-C4'-C3'	-6.82	105.78	116.00
3	A1	898	G	C4'-C3'-C2'	-6.82	95.78	102.60
25	BB	20	C	O4'-C4'-C3'	6.82	110.82	104.00
25	BB	1821	A	O4'-C4'-C3'	6.82	110.81	104.00
25	BB	2081	U	C4'-C3'-O3'	6.82	123.22	113.00
25	BB	2746	U	O4'-C4'-C3'	6.82	110.82	104.00
25	BB	590	A	C1'-O4'-C4'	-6.81	103.09	109.90
25	BB	1915	U	O5'-C5'-C4'	-6.81	101.28	111.50
3	A1	768	A	C2'-C3'-O3'	6.81	123.92	113.70
3	A1	1126	U	O4'-C4'-C3'	6.81	112.91	106.10
3	A1	1392	G	O5'-C5'-C4'	-6.81	101.28	111.50
6	AD	13	ARG	NE-CZ-NH2	6.81	125.33	119.20
24	BA	39	A	O4'-C1'-N9	6.81	118.42	108.20
25	BB	178	G	C4'-C3'-C2'	-6.81	95.79	102.60
25	BB	1458	U	C3'-C2'-C1'	-6.81	94.69	101.50
25	BB	2053	G	O4'-C1'-N9	6.81	118.72	108.50
36	BM	95	PHE	O-C-N	6.81	130.29	122.25
46	BW	59	ALA	CA-C-N	6.81	133.22	121.64
46	BW	59	ALA	C-N-CA	6.81	133.22	121.64
3	A1	95	C	C3'-C2'-C1'	6.81	108.31	101.50
44	BU	43	ARG	NH1-CZ-NH2	-6.81	110.44	119.30
25	BB	937	C	C2'-C3'-O3'	-6.81	103.49	113.70
25	BB	1857	G	C1'-C2'-O2'	-6.81	98.19	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2444	G	C4'-C3'-C2'	-6.81	95.79	102.60
50	B1	143	LEU	N-CA-C	6.81	121.04	112.87
3	A1	166	U	C3'-C2'-O2'	6.81	120.91	110.70
3	A1	1281	C	C5'-C4'-O4'	6.81	119.31	109.10
3	A1	1283	U	C5'-C4'-C3'	-6.81	105.79	116.00
1	AA	56	C	C2'-C3'-O3'	-6.81	103.49	113.70
1	AP	6	U	C5'-C4'-C3'	-6.81	105.79	116.00
25	BB	1853	A	O5'-C5'-C4'	6.81	121.71	111.50
3	A1	965	U	C4'-C3'-O3'	6.80	119.61	109.40
3	A1	542	G	O4'-C4'-C3'	-6.80	97.20	104.00
3	A1	922	G	C3'-C2'-O2'	-6.80	104.40	114.60
3	A1	976	G	O4'-C1'-N9	6.80	118.40	108.20
3	A1	1509	C	C5'-C4'-C3'	-6.80	105.00	115.20
20	AU	123	LEU	CA-C-N	6.80	129.72	120.54
20	AU	123	LEU	C-N-CA	6.80	129.72	120.54
25	BB	1073	A	C1'-O4'-C4'	-6.80	103.10	109.90
25	BB	1343	G	P-O3'-C3'	6.80	130.40	120.20
25	BB	1959	G	C1'-O4'-C4'	-6.80	103.10	109.90
28	BE	135	ILE	CA-C-N	6.80	129.39	120.28
28	BE	135	ILE	C-N-CA	6.80	129.39	120.28
30	BG	70	THR	N-CA-C	6.80	119.51	109.24
3	A1	197	A	C4'-C3'-O3'	6.80	119.60	109.40
18	AS	82	HIS	CB-CA-C	6.80	119.40	109.20
25	BB	267	C	C3'-C2'-O2'	6.80	120.90	110.70
25	BB	417	C	O4'-C1'-N1	6.80	118.70	108.50
29	BF	20	LEU	N-CA-C	6.80	120.34	110.28
49	BZ	58	PRO	CA-C-N	6.80	130.31	120.38
49	BZ	58	PRO	C-N-CA	6.80	130.31	120.38
19	AT	4	TYR	CA-C-N	6.80	133.00	123.07
19	AT	4	TYR	C-N-CA	6.80	133.00	123.07
25	BB	2107	G	N9-C1'-C2'	-6.80	103.80	114.00
3	A1	109	A	O4'-C1'-C2'	-6.80	99.00	105.80
3	A1	448	A	C2'-C3'-O3'	6.80	123.89	113.70
3	A1	552	U	C3'-C2'-O2'	6.80	120.89	110.70
3	A1	1329	A	C5'-C4'-C3'	-6.80	105.81	116.00
3	A1	1470	U	C5'-C4'-C3'	-6.80	105.00	115.20
25	BB	1927	A	O4'-C4'-C3'	6.80	110.80	104.00
25	BB	2672	U	C3'-C2'-C1'	6.80	108.10	101.30
33	BJ	56	PHE	CA-CB-CG	6.80	120.60	113.80
45	BV	16	HIS	ND1-CG-CD2	6.80	112.90	106.10
3	A1	1046	A	C3'-C2'-C1'	6.79	108.09	101.30
25	BB	775	G	O4'-C1'-N9	6.79	118.39	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	891	G	O4'-C1'-N9	6.79	118.69	108.50
25	BB	495	G	C3'-C2'-O2'	6.79	120.89	110.70
25	BB	1319	C	O4'-C1'-C2'	-6.79	100.81	107.60
25	BB	1606	C	N1-C1'-C2'	6.79	122.19	112.00
25	BB	1685	C	O4'-C4'-C3'	6.79	110.79	104.00
51	B2	132	ARG	NH1-CZ-NH2	-6.79	110.47	119.30
3	A1	73	C	C4'-C3'-C2'	-6.79	95.81	102.60
25	BB	1965	C	O4'-C1'-N1	6.79	118.68	108.50
25	BB	2002	G	C1'-C2'-O2'	-6.79	98.22	108.40
3	A1	1347	G	P-O5'-C5'	6.79	131.08	120.90
3	A1	1527	U	O4'-C4'-C3'	6.79	110.79	104.00
8	AG	13	VAL	O-C-N	-6.79	115.28	121.87
25	BB	16	C	N1-C1'-C2'	6.79	122.18	112.00
25	BB	579	G	C4'-C3'-C2'	-6.79	95.81	102.60
25	BB	2547	A	O4'-C1'-N9	-6.79	98.32	108.50
25	BB	86	G	O3'-P-O5'	6.79	114.18	104.00
1	AA	22	G	O4'-C4'-C3'	-6.79	97.21	104.00
3	A1	597	G	C3'-C2'-O2'	6.79	120.88	110.70
25	BB	2284	A	C4'-C3'-C2'	-6.79	95.81	102.60
25	BB	2389	G	O3'-P-O5'	6.79	114.18	104.00
25	BB	2869	G	O4'-C4'-C3'	6.79	110.79	104.00
3	A1	586	C	C1'-C2'-O2'	6.78	118.57	108.40
20	AU	141	HIS	ND1-CG-CD2	6.78	112.88	106.10
25	BB	1634	A	C5'-C4'-O4'	-6.78	99.62	109.80
3	A1	735	C	C5'-C4'-C3'	-6.78	105.03	115.20
25	BB	1092	C	C3'-C2'-O2'	6.78	120.87	110.70
25	BB	2174	C	C3'-C2'-O2'	6.78	120.87	110.70
3	A1	69	G	O3'-P-O5'	-6.78	93.83	104.00
3	A1	173	U	O4'-C1'-C2'	6.78	112.58	105.80
3	A1	878	A	O4'-C4'-C3'	6.78	110.78	104.00
25	BB	770	G	C1'-O4'-C4'	-6.78	103.12	109.90
25	BB	1597	A	C4'-C3'-O3'	-6.78	99.23	109.40
25	BB	1633	G	O4'-C4'-C3'	6.78	110.78	104.00
25	BB	1736	U	C3'-C2'-C1'	6.78	108.08	101.30
27	BD	71	ARG	NH1-CZ-NH2	-6.78	110.49	119.30
3	A1	378	G	O4'-C1'-C2'	6.78	114.38	107.60
3	A1	925	G	C4'-C3'-O3'	-6.78	102.83	113.00
25	BB	2629	U	P-O3'-C3'	6.78	130.37	120.20
3	A1	1130	A	O3'-P-O5'	6.78	114.17	104.00
19	AT	38	ARG	NE-CZ-NH2	6.78	125.30	119.20
21	AV	83	ARG	N-CA-C	6.78	119.31	110.43
25	BB	1820	U	O4'-C4'-C3'	6.78	112.88	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	B6	94	ALA	CA-C-N	6.78	130.04	120.28
55	B6	94	ALA	C-N-CA	6.78	130.04	120.28
3	A1	1395	C	C2'-C3'-O3'	6.78	119.66	109.50
3	A1	1472	U	C2'-C3'-O3'	6.78	123.86	113.70
25	BB	867	C	C2'-C3'-O3'	6.78	123.86	113.70
25	BB	2443	C	C1'-O4'-C4'	-6.78	103.12	109.90
3	A1	197	A	C2'-C3'-O3'	6.77	119.66	109.50
25	BB	431	U	O4'-C4'-C3'	6.77	110.77	104.00
39	BP	49	ASN	CA-C-N	6.77	129.77	120.35
39	BP	49	ASN	C-N-CA	6.77	129.77	120.35
1	AE	16	U	C2'-C3'-O3'	6.77	119.66	109.50
3	A1	402	G	O4'-C4'-C3'	6.77	110.77	104.00
25	BB	2116	G	N9-C1'-C2'	-6.77	103.84	114.00
25	BB	2177	C	C4'-C3'-O3'	6.77	123.16	113.00
25	BB	2209	G	C4'-C3'-C2'	-6.77	95.83	102.60
25	BB	2228	G	O4'-C4'-C3'	6.77	110.77	104.00
52	B3	19	ASN	OD1-CG-ND2	-6.77	115.83	122.60
1	AE	26	G	C4'-C3'-O3'	-6.77	102.84	113.00
25	BB	1120	G	C5'-C4'-C3'	-6.77	105.85	116.00
25	BB	2298	A	C5'-C4'-C3'	-6.77	105.85	116.00
3	A1	546	A	C5'-C4'-C3'	-6.77	105.85	116.00
3	A1	726	C	O3'-P-O5'	6.77	114.15	104.00
16	AQ	32	ARG	CA-CB-CG	6.77	127.64	114.10
25	BB	568	U	C1'-O4'-C4'	-6.77	102.93	109.70
25	BB	20	C	C3'-C2'-C1'	6.77	108.07	101.30
46	BW	12	ARG	CA-C-N	6.76	134.46	121.54
46	BW	12	ARG	C-N-CA	6.76	134.46	121.54
43	BT	43	THR	N-CA-C	6.76	121.13	113.01
55	B6	136	GLN	OE1-CD-NE2	-6.76	115.84	122.60
3	A1	561	U	C5'-C4'-C3'	-6.76	105.86	116.00
14	AN	32	LYS	CA-C-N	6.76	130.01	120.28
14	AN	32	LYS	C-N-CA	6.76	130.01	120.28
25	BB	5	A	O4'-C1'-C2'	-6.76	100.84	107.60
25	BB	968	C	O4'-C1'-C2'	-6.76	99.04	105.80
25	BB	1188	U	O4'-C1'-N1	6.76	118.34	108.20
25	BB	2672	U	C4'-C3'-C2'	-6.76	95.84	102.60
52	B3	23	ILE	CA-CB-CG2	6.76	121.99	110.50
25	BB	1334	G	O5'-C5'-C4'	6.76	121.84	111.70
25	BB	2639	A	C3'-C2'-O2'	6.76	120.84	110.70
25	BB	1139	G	O3'-P-O5'	-6.76	93.86	104.00
25	BB	2042	A	C4'-C3'-C2'	-6.76	95.84	102.60
3	A1	724	G	C2'-C3'-O3'	6.76	123.83	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1256	G	C2'-C3'-O3'	6.76	119.63	109.50
3	A1	436	C	O4'-C4'-C3'	6.75	110.75	104.00
25	BB	1931	U	O4'-C1'-C2'	-6.75	100.84	107.60
25	BB	2371	G	N9-C1'-C2'	6.75	122.13	112.00
3	A1	750	C	O4'-C4'-C3'	6.75	110.75	104.00
25	BB	332	A	O4'-C1'-C2'	-6.75	99.05	105.80
25	BB	1346	G	C1'-C2'-O2'	6.75	118.53	108.40
25	BB	1789	A	O4'-C1'-C2'	-6.75	100.85	107.60
1	AE	63	C	O4'-C4'-C3'	6.75	110.75	104.00
3	A1	527	G	O5'-C5'-C4'	6.75	121.63	111.50
25	BB	85	G	C5'-C4'-O4'	6.75	119.93	109.80
48	BY	156	PHE	CA-CB-CG	6.75	120.55	113.80
1	AA	56	C	O4'-C4'-C3'	6.75	110.75	104.00
2	AM	4	U	C5'-C4'-C3'	6.75	126.12	116.00
20	AU	46	LEU	O-C-N	-6.75	113.61	122.39
25	BB	1192	G	P-O3'-C3'	6.75	130.32	120.20
25	BB	2453	A	O4'-C1'-N9	-6.75	98.38	108.50
36	BM	74	ILE	N-CA-C	6.75	118.88	109.29
50	B1	114	ARG	NH1-CZ-NH2	-6.75	110.52	119.30
3	A1	755	G	C5'-C4'-O4'	6.75	119.92	109.80
7	AF	87	GLY	N-CA-C	6.75	118.89	112.08
25	BB	1164	C	C5'-C4'-O4'	6.75	119.92	109.80
25	BB	1210	G	C4'-C3'-O3'	6.75	119.52	109.40
25	BB	2578	G	N9-C1'-C2'	6.75	122.12	112.00
55	B6	6	ALA	O-C-N	-6.75	114.85	122.75
25	BB	630	G	C4'-C3'-O3'	-6.75	102.88	113.00
25	BB	1411	U	C3'-C2'-C1'	6.75	108.05	101.30
25	BB	2694	G	C1'-O4'-C4'	-6.75	102.95	109.70
51	B2	48	LEU	CA-C-O	-6.75	114.21	121.36
25	BB	643	A	C5'-C4'-C3'	-6.75	105.08	115.20
25	BB	965	C	C5'-C4'-C3'	-6.75	105.08	115.20
25	BB	1006	C	O4'-C1'-C2'	-6.74	100.86	107.60
25	BB	2433	A	O3'-P-O5'	-6.74	93.89	104.00
25	BB	2820	A	C3'-C2'-C1'	6.74	108.24	101.50
3	A1	1073	U	N1-C1'-C2'	-6.74	101.89	112.00
3	A1	1227	A	O3'-P-O5'	6.74	114.11	104.00
25	BB	1660	G	O4'-C1'-C2'	-6.74	99.06	105.80
31	BH	12	THR	CA-CB-OG1	6.74	119.71	109.60
3	A1	142	G	O4'-C1'-C2'	-6.74	99.06	105.80
25	BB	919	U	C3'-C2'-O2'	-6.74	100.59	110.70
27	BD	66	LYS	CA-C-N	6.74	132.11	120.58
27	BD	66	LYS	C-N-CA	6.74	132.11	120.58

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	76	G	C3'-C2'-C1'	6.74	108.04	101.30
3	A1	904	U	C3'-C2'-O2'	6.74	120.81	110.70
3	A1	1078	U	O4'-C4'-C3'	6.74	110.74	104.00
7	AF	62	PHE	CA-CB-CG	6.74	120.54	113.80
25	BB	1864	U	C4'-C3'-O3'	-6.74	102.89	113.00
33	BJ	57	ARG	N-CA-C	-6.74	104.02	111.36
25	BB	2637	U	O4'-C4'-C3'	6.74	112.84	106.10
4	AB	114	LYS	N-CA-C	6.74	119.19	111.11
14	AN	17	ARG	NE-CZ-NH1	6.74	128.24	121.50
25	BB	295	G	C4'-C3'-C2'	-6.74	95.86	102.60
25	BB	745	G	O3'-P-O5'	6.74	114.11	104.00
25	BB	1480	C	O4'-C1'-C2'	6.74	114.34	107.60
25	BB	1493	C	C3'-C2'-C1'	6.74	108.23	101.50
50	B1	88	ARG	NE-CZ-NH1	6.74	128.24	121.50
3	A1	1061	G	C3'-C2'-C1'	6.73	108.23	101.50
25	BB	2151	U	C3'-C2'-C1'	6.73	108.03	101.30
25	BB	2886	A	P-O3'-C3'	6.73	130.30	120.20
3	A1	49	U	O4'-C4'-C3'	6.73	110.73	104.00
3	A1	311	C	O4'-C1'-N1	6.73	118.60	108.50
3	A1	786	G	O4'-C4'-C3'	6.73	110.73	104.00
3	A1	1038	C	O4'-C1'-C2'	-6.73	100.87	107.60
3	A1	1305	G	O4'-C1'-N9	6.73	118.30	108.20
20	AU	78	ARG	CD-NE-CZ	6.73	133.83	124.40
25	BB	2157	G	C3'-C2'-C1'	6.73	108.23	101.50
31	BH	98	GLN	N-CA-C	6.73	119.42	110.53
3	A1	780	A	O4'-C4'-C3'	6.73	110.73	104.00
40	BQ	36	GLN	OE1-CD-NE2	-6.73	115.87	122.60
25	BB	565	C	O3'-P-O5'	6.73	114.09	104.00
3	A1	991	U	N1-C1'-C2'	6.73	124.09	114.00
3	A1	1281	C	O3'-P-O5'	-6.73	93.91	104.00
3	A1	1474	U	O4'-C4'-C3'	-6.73	97.27	104.00
6	AD	15	VAL	N-CA-C	6.73	123.33	109.34
15	AO	173	PRO	N-CA-CB	6.73	106.69	102.92
25	BB	15	G	C4'-C3'-O3'	-6.73	102.91	113.00
38	BO	81	ARG	CA-C-O	-6.73	113.70	120.90
3	A1	85	U	O4'-C1'-N1	-6.73	98.11	108.20
23	AX	48	ARG	NH1-CZ-NH2	-6.73	110.56	119.30
22	AW	6	TYR	CB-CG-CD2	-6.72	110.71	120.80
23	AX	28	THR	N-CA-C	6.72	119.18	111.11
25	BB	437	U	C3'-C2'-C1'	-6.72	94.78	101.50
25	BB	773	U	C3'-C2'-C1'	-6.72	94.78	101.50
25	BB	1033	U	C4'-C3'-O3'	-6.72	102.92	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1111	A	C2'-C3'-O3'	6.72	119.58	109.50
3	A1	355	C	C3'-C2'-O2'	6.72	120.78	110.70
3	A1	1350	A	P-O3'-C3'	6.72	130.28	120.20
25	BB	168	G	O4'-C4'-C3'	6.72	110.72	104.00
25	BB	356	G	C3'-C2'-O2'	6.72	120.78	110.70
25	BB	2077	A	O4'-C1'-C2'	-6.72	100.88	107.60
50	B1	127	GLU	O-C-N	-6.72	115.04	122.03
3	A1	980	C	O4'-C1'-C2'	-6.72	99.08	105.80
3	A1	1200	C	C4'-C3'-C2'	-6.72	95.88	102.60
24	BA	17	C	O4'-C1'-C2'	-6.72	100.88	107.60
25	BB	400	G	C1'-C2'-O2'	6.72	118.48	108.40
3	A1	1260	G	C4'-C3'-O3'	-6.72	102.92	113.00
3	A1	1495	U	N1-C1'-C2'	6.72	122.08	112.00
2	AM	14	U	N1-C1'-C2'	6.72	124.08	114.00
3	A1	125	U	O4'-C1'-C2'	6.72	112.52	105.80
3	A1	1200	C	O4'-C1'-C2'	-6.72	99.08	105.80
25	BB	25	U	P-O5'-C5'	6.72	130.97	120.90
25	BB	334	C	N1-C1'-C2'	6.72	122.08	112.00
25	BB	480	A	C5'-C4'-C3'	-6.72	105.92	116.00
25	BB	1889	A	C4'-C3'-O3'	6.72	119.47	109.40
25	BB	2615	U	O4'-C1'-C2'	6.72	112.52	105.80
3	A1	594	U	C5'-C4'-C3'	-6.71	105.93	116.00
21	AV	20	ASN	CA-C-N	6.71	130.24	120.71
21	AV	20	ASN	C-N-CA	6.71	130.24	120.71
37	BN	47	ARG	NE-CZ-NH2	6.71	125.24	119.20
40	BQ	41	HIS	CE1-NE2-CD2	-6.71	102.29	109.00
3	A1	275	G	C5'-C4'-C3'	-6.71	105.93	116.00
3	A1	1051	C	P-O3'-C3'	6.71	130.27	120.20
49	BZ	66	VAL	N-CA-C	6.71	120.04	108.90
25	BB	272	A	C5'-C4'-O4'	6.71	119.87	109.80
25	BB	645	C	C3'-C2'-C1'	-6.71	94.79	101.50
25	BB	1951	U	O3'-P-O5'	6.71	114.07	104.00
26	BC	9	ARG	CA-C-N	6.71	131.92	120.71
26	BC	9	ARG	C-N-CA	6.71	131.92	120.71
25	BB	667	U	C1'-O4'-C4'	-6.71	103.19	109.90
25	BB	1025	G	C3'-C2'-C1'	6.71	108.21	101.50
25	BB	1735	A	O4'-C4'-C3'	6.71	110.71	104.00
25	BB	269	C	C1'-C2'-O2'	-6.71	98.34	108.40
25	BB	2383	G	C4'-C3'-C2'	-6.71	95.89	102.60
25	BB	49	A	C5'-C4'-O4'	6.71	119.16	109.10
3	A1	437	U	C3'-C2'-C1'	6.70	108.00	101.30
12	AK	61	ALA	CA-C-N	6.70	129.16	120.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AK	61	ALA	C-N-CA	6.70	129.16	120.44
25	BB	112	U	C5'-C4'-C3'	-6.70	105.14	115.20
25	BB	371	A	C1'-C2'-O2'	6.70	118.45	108.40
25	BB	859	G	C2'-C3'-O3'	6.70	119.56	109.50
30	BG	22	ARG	CD-NE-CZ	6.70	133.78	124.40
23	AX	52	LEU	CB-CA-C	6.70	122.38	111.05
25	BB	487	C	C1'-C2'-O2'	-6.70	98.35	108.40
25	BB	890	C	C4'-C3'-C2'	-6.70	95.90	102.60
25	BB	2643	G	O4'-C4'-C3'	6.70	110.70	104.00
28	BE	111	ILE	CA-C-O	-6.70	113.80	121.44
3	A1	46	G	C2'-C3'-O3'	6.70	119.55	109.50
3	A1	173	U	P-O3'-C3'	6.70	130.25	120.20
3	A1	315	A	C1'-O4'-C4'	-6.70	103.00	109.70
25	BB	481	G	C1'-O4'-C4'	-6.70	103.20	109.90
25	BB	1508	A	O4'-C1'-C2'	-6.70	99.10	105.80
25	BB	1777	U	N1-C1'-C2'	6.70	124.05	114.00
25	BB	2197	U	O4'-C1'-N1	6.70	118.25	108.20
49	BZ	9	ILE	CB-CA-C	-6.70	103.30	111.88
3	A1	376	G	O4'-C4'-C3'	6.70	110.70	104.00
3	A1	1207	G	C4'-C3'-O3'	-6.70	102.95	113.00
25	BB	2873	A	C1'-O4'-C4'	-6.70	103.20	109.90
3	A1	10	A	C4'-C3'-C2'	-6.70	95.90	102.60
25	BB	798	G	C3'-C2'-O2'	6.70	120.75	110.70
25	BB	2286	G	O4'-C4'-C3'	6.70	110.69	104.00
17	AR	23	GLY	CA-C-N	6.69	131.47	122.90
17	AR	23	GLY	C-N-CA	6.69	131.47	122.90
24	BA	61	G	C4'-C3'-C2'	-6.69	95.91	102.60
25	BB	2087	G	C3'-C2'-O2'	6.69	124.64	114.60
25	BB	2260	C	O4'-C1'-C2'	-6.69	99.11	105.80
41	BR	29	ARG	NE-CZ-NH2	6.69	125.22	119.20
1	AA	35	A	O4'-C4'-C3'	6.69	110.69	104.00
3	A1	216	U	C3'-C2'-O2'	6.69	120.74	110.70
3	A1	1418	A	C5'-C4'-C3'	-6.69	105.96	116.00
22	AW	33	SER	CA-C-N	6.69	129.57	120.54
22	AW	33	SER	C-N-CA	6.69	129.57	120.54
25	BB	103	A	C3'-C2'-O2'	6.69	120.74	110.70
25	BB	2399	G	C1'-O4'-C4'	-6.69	103.21	109.90
25	BB	2747	G	O4'-C4'-C3'	6.69	110.69	104.00
1	AE	45	G	C3'-C2'-C1'	6.69	107.99	101.30
5	AC	13	LYS	CB-CA-C	6.69	118.18	109.28
18	AS	123	LEU	CA-C-N	6.69	134.32	121.54
18	AS	123	LEU	C-N-CA	6.69	134.32	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	118	A	C1'-C2'-O2'	6.69	121.83	111.80
25	BB	385	C	N1-C1'-C2'	6.69	122.03	112.00
25	BB	2013	A	O4'-C4'-C3'	6.69	112.79	106.10
39	BP	63	ASP	CA-C-N	6.69	134.52	121.41
39	BP	63	ASP	C-N-CA	6.69	134.52	121.41
25	BB	484	C	O5'-C5'-C4'	-6.69	101.47	111.50
25	BB	861	A	P-O3'-C3'	6.69	130.23	120.20
25	BB	1073	A	O4'-C4'-C3'	6.69	110.69	104.00
25	BB	1506	U	O3'-P-O5'	-6.69	93.97	104.00
25	BB	2626	C	C3'-C2'-O2'	6.69	120.73	110.70
26	BC	8	VAL	CA-C-N	6.69	133.54	121.97
26	BC	8	VAL	C-N-CA	6.69	133.54	121.97
3	A1	921	U	C4'-C3'-C2'	-6.69	95.91	102.60
25	BB	1191	G	C4'-C3'-C2'	-6.69	95.91	102.60
25	BB	1454	C	O4'-C1'-N1	6.69	118.23	108.20
50	B1	32	VAL	CA-CB-CG1	6.69	121.77	110.40
25	BB	182	A	O3'-P-O5'	-6.69	93.97	104.00
25	BB	1009	A	C1'-O4'-C4'	6.69	116.59	109.90
25	BB	1351	C	C4'-C3'-C2'	6.69	109.29	102.60
25	BB	1429	G	O5'-C5'-C4'	6.69	121.53	111.50
25	BB	1509	A	O3'-P-O5'	6.69	114.03	104.00
3	A1	40	C	C1'-O4'-C4'	-6.68	103.22	109.90
25	BB	1001	A	O3'-P-O5'	6.68	114.03	104.00
25	BB	1178	C	O4'-C1'-C2'	-6.68	100.92	107.60
25	BB	2679	A	C5'-C4'-C3'	-6.68	105.97	116.00
20	AU	28	ILE	CA-C-N	6.68	132.84	121.14
20	AU	28	ILE	C-N-CA	6.68	132.84	121.14
21	AV	64	TYR	CA-C-N	6.68	130.61	121.05
21	AV	64	TYR	C-N-CA	6.68	130.61	121.05
25	BB	125	A	P-O3'-C3'	6.68	130.22	120.20
25	BB	402	A	O4'-C1'-C2'	6.68	114.28	107.60
25	BB	1959	G	O4'-C4'-C3'	6.68	110.68	104.00
42	BS	30	HIS	CB-CG-CD2	-6.68	122.51	131.20
53	B4	142	VAL	N-CA-C	6.68	116.68	108.53
3	A1	838	G	O3'-P-O5'	6.68	114.02	104.00
25	BB	383	C	C4'-C3'-O3'	-6.68	102.98	113.00
25	BB	596	U	C1'-O4'-C4'	-6.68	103.22	109.90
25	BB	2303	G	O4'-C4'-C3'	-6.68	97.32	104.00
38	BO	65	GLN	CA-C-N	6.68	133.99	121.97
38	BO	65	GLN	C-N-CA	6.68	133.99	121.97
45	BV	22	MET	CA-C-N	6.68	129.47	120.65
45	BV	22	MET	C-N-CA	6.68	129.47	120.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BZ	135	PRO	N-CA-CB	6.68	110.47	102.72
53	B4	54	LEU	N-CA-C	6.68	120.88	112.87
55	B6	80	HIS	CE1-NE2-CD2	-6.68	102.32	109.00
3	A1	44	A	C3'-C2'-O2'	6.68	120.72	110.70
25	BB	681	G	C3'-C2'-O2'	6.68	120.72	110.70
25	BB	1963	U	O4'-C1'-N1	6.68	118.52	108.50
3	A1	416	G	C4'-C3'-C2'	-6.68	95.92	102.60
3	A1	1462	C	C3'-C2'-C1'	6.68	107.98	101.30
8	AG	74	ARG	NE-CZ-NH2	6.68	125.21	119.20
25	BB	204	A	C3'-C2'-C1'	6.68	108.18	101.50
25	BB	2749	A	C3'-C2'-O2'	6.68	120.71	110.70
3	A1	631	C	C4'-C3'-C2'	-6.67	95.92	102.60
25	BB	1367	A	O3'-P-O5'	6.67	114.01	104.00
25	BB	2371	G	C5'-C4'-C3'	-6.67	105.99	116.00
25	BB	2272	U	O4'-C1'-N1	6.67	118.21	108.20
3	A1	1241	G	C5'-C4'-C3'	-6.67	105.99	116.00
5	AC	52	ARG	CA-C-N	6.67	131.04	120.97
5	AC	52	ARG	C-N-CA	6.67	131.04	120.97
25	BB	1282	U	C1'-O4'-C4'	-6.67	103.23	109.90
25	BB	1334	G	O4'-C1'-C2'	-6.67	99.13	105.80
25	BB	2561	U	O4'-C1'-N1	6.67	118.51	108.50
1	AP	49	C	O4'-C1'-N1	6.67	118.50	108.50
3	A1	754	C	C1'-O4'-C4'	-6.67	103.23	109.90
25	BB	1088	A	O4'-C1'-N9	6.67	118.50	108.50
25	BB	2517	C	C4'-C3'-C2'	-6.67	95.93	102.60
45	BV	27	GLY	CA-C-O	-6.67	113.88	120.75
25	BB	2497	A	O3'-P-O5'	6.67	114.00	104.00
32	BI	106	ALA	CA-C-N	6.67	129.54	120.54
32	BI	106	ALA	C-N-CA	6.67	129.54	120.54
25	BB	1794	A	O4'-C4'-C3'	6.66	110.66	104.00
25	BB	2591	C	O3'-P-O5'	6.66	114.00	104.00
25	BB	1337	G	C2'-C3'-O3'	-6.66	103.71	113.70
25	BB	1968	G	C2'-C3'-O3'	6.66	123.69	113.70
45	BV	13	ASN	CA-CB-CG	-6.66	105.94	112.60
3	A1	30	U	O4'-C1'-C2'	-6.66	99.14	105.80
3	A1	197	A	C4'-C3'-C2'	-6.66	95.94	102.60
3	A1	742	G	C4'-C3'-O3'	6.66	122.99	113.00
3	A1	821	G	C2'-C3'-O3'	6.66	119.49	109.50
24	BA	27	C	C2'-C3'-O3'	6.66	123.69	113.70
25	BB	937	C	N1-C1'-C2'	6.66	121.99	112.00
25	BB	2063	C	O4'-C4'-C3'	-6.66	97.34	104.00
25	BB	2324	U	C4'-C3'-C2'	-6.66	95.94	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2890	G	O4'-C1'-C2'	-6.66	100.94	107.60
3	A1	267	C	C1'-C2'-O2'	-6.66	98.41	108.40
3	A1	484	G	O3'-P-O5'	-6.66	94.01	104.00
18	AS	156	ARG	NH1-CZ-NH2	-6.66	110.64	119.30
25	BB	37	C	P-O3'-C3'	6.66	130.19	120.20
25	BB	575	A	O5'-C5'-C4'	6.66	121.69	111.70
25	BB	1252	G	C2'-C3'-O3'	6.66	119.49	109.50
25	BB	1716	U	C1'-O4'-C4'	-6.66	103.24	109.90
25	BB	2817	U	C5'-C4'-C3'	-6.66	106.01	116.00
3	A1	640	A	C4'-C3'-C2'	-6.66	95.94	102.60
9	AH	48	ASP	CA-C-N	6.66	129.50	120.38
9	AH	48	ASP	C-N-CA	6.66	129.50	120.38
15	AO	40	GLN	OE1-CD-NE2	-6.66	115.94	122.60
25	BB	179	C	C5'-C4'-O4'	6.66	119.78	109.80
25	BB	619	G	C3'-C2'-C1'	6.66	107.96	101.30
25	BB	2309	A	C3'-C2'-O2'	6.66	120.68	110.70
43	BT	35	GLU	CA-C-O	6.66	127.48	119.43
55	B6	46	PRO	N-CA-CB	6.66	110.24	103.25
21	AV	77	VAL	N-CA-C	6.65	116.78	110.53
35	BL	85	ILE	CA-CB-CG1	6.65	121.71	110.40
3	A1	244	U	O4'-C1'-N1	6.65	118.48	108.50
3	A1	676	A	O4'-C1'-N9	6.65	118.48	108.50
25	BB	1057	A	C4'-C3'-C2'	-6.65	95.95	102.60
3	A1	973	G	C1'-O4'-C4'	-6.65	103.25	109.90
5	AC	19	VAL	CA-C-O	6.65	127.75	120.64
25	BB	639	U	C5'-C4'-C3'	-6.65	106.03	116.00
47	BX	36	ARG	NH1-CZ-NH2	-6.65	110.65	119.30
24	BA	40	U	C5'-C4'-C3'	-6.65	105.23	115.20
25	BB	2312	U	O5'-C5'-C4'	-6.65	101.53	111.50
49	BZ	203	ILE	N-CA-CB	6.65	120.98	112.34
53	B4	39	ALA	O-C-N	-6.65	113.75	122.39
25	BB	1745	A	C3'-C2'-O2'	6.65	120.67	110.70
39	BP	10	ARG	CA-C-N	6.65	130.09	120.38
39	BP	10	ARG	C-N-CA	6.65	130.09	120.38
55	B6	130	HIS	CB-CG-ND1	6.65	132.67	122.70
11	AJ	64	ARG	O-C-N	-6.65	116.29	121.47
25	BB	1863	G	O4'-C1'-N9	6.65	118.47	108.50
25	BB	2327	A	P-O3'-C3'	6.65	130.17	120.20
51	B2	140	ILE	N-CA-CB	-6.65	104.49	112.07
25	BB	761	A	C4'-C3'-O3'	6.64	119.37	109.40
25	BB	2221	G	O4'-C1'-C2'	6.64	114.25	107.60
25	BB	2467	C	C4'-C3'-C2'	-6.64	95.96	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BD	93	GLN	CB-CA-C	6.64	124.32	110.50
1	AE	63	C	C3'-C2'-C1'	6.64	107.94	101.30
3	A1	498	A	O3'-P-O5'	-6.64	94.04	104.00
3	A1	584	G	C3'-C2'-C1'	-6.64	94.66	101.30
25	BB	571	U	C3'-C2'-O2'	6.64	120.66	110.70
35	BL	31	GLN	OE1-CD-NE2	-6.64	115.96	122.60
39	BP	38	ARG	NH1-CZ-NH2	-6.64	110.67	119.30
3	A1	437	U	C4'-C3'-C2'	-6.64	95.96	102.60
25	BB	1623	G	O5'-C5'-C4'	-6.64	101.54	111.50
30	BG	118	ARG	NE-CZ-NH2	6.64	125.18	119.20
3	A1	507	C	C4'-C3'-C2'	-6.64	95.96	102.60
23	AX	48	ARG	NE-CZ-NH2	6.64	125.18	119.20
25	BB	70	G	C3'-C2'-C1'	6.64	107.94	101.30
25	BB	649	G	O4'-C4'-C3'	6.64	110.64	104.00
25	BB	652	U	C4'-C3'-C2'	-6.64	95.96	102.60
25	BB	1448	G	O4'-C1'-C2'	-6.64	100.96	107.60
25	BB	2263	C	C1'-C2'-O2'	-6.64	98.44	108.40
25	BB	2514	U	C4'-C3'-O3'	-6.64	103.04	113.00
47	BX	8	LYS	CA-CB-CG	-6.64	100.82	114.10
1	AE	39	U	C5'-C4'-C3'	-6.64	106.04	116.00
1	AE	54	U	O4'-C1'-N1	6.64	118.46	108.50
25	BB	2296	U	C5'-C4'-O4'	6.64	119.06	109.10
33	BJ	40	LYS	CA-C-N	6.64	131.22	120.60
33	BJ	40	LYS	C-N-CA	6.64	131.22	120.60
25	BB	1839	G	C5'-C4'-O4'	6.64	119.76	109.80
37	BN	106	PRO	CA-C-N	6.64	134.22	121.54
37	BN	106	PRO	C-N-CA	6.64	134.22	121.54
3	A1	938	A	C2'-C3'-O3'	6.63	123.65	113.70
18	AS	68	ARG	CD-NE-CZ	6.63	133.69	124.40
25	BB	1364	G	O3'-P-O5'	6.63	113.95	104.00
54	B5	106	GLN	CA-C-N	6.63	129.17	120.28
54	B5	106	GLN	C-N-CA	6.63	129.17	120.28
3	A1	849	G	O4'-C1'-C2'	-6.63	100.97	107.60
3	A1	960	U	O4'-C1'-N1	6.63	118.15	108.20
4	AB	23	ASN	OD1-CG-ND2	-6.63	115.97	122.60
22	AW	71	ILE	N-CA-C	6.63	117.33	110.36
51	B2	150	GLY	CA-C-N	6.63	132.50	122.95
51	B2	150	GLY	C-N-CA	6.63	132.50	122.95
1	AA	43	G	C1'-O4'-C4'	-6.63	103.27	109.90
25	BB	992	C	O4'-C1'-C2'	-6.63	99.17	105.80
25	BB	1808	A	C3'-C2'-C1'	6.63	108.13	101.50
25	BB	1846	G	O4'-C1'-N9	6.63	118.15	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1994	C	P-O3'-C3'	6.63	130.15	120.20
25	BB	2083	G	O4'-C1'-C2'	-6.63	100.97	107.60
3	A1	553	A	C2'-C3'-O3'	6.63	119.44	109.50
3	A1	1509	C	C4'-C3'-C2'	-6.63	95.97	102.60
25	BB	2515	C	C3'-C2'-C1'	6.63	107.93	101.30
40	BQ	57	LEU	CA-C-N	6.63	129.16	120.28
40	BQ	57	LEU	C-N-CA	6.63	129.16	120.28
2	AM	15	U	O4'-C4'-C3'	-6.63	97.37	104.00
3	A1	79	G	O4'-C4'-C3'	-6.63	97.37	104.00
3	A1	377	G	C3'-C2'-C1'	-6.63	94.67	101.30
3	A1	525	C	C3'-C2'-C1'	6.63	107.93	101.30
3	A1	1020	G	C4'-C3'-C2'	-6.63	95.97	102.60
3	A1	1293	C	O4'-C4'-C3'	6.63	110.63	104.00
21	AV	37	ASN	CA-CB-CG	-6.63	105.97	112.60
25	BB	200	U	O4'-C4'-C3'	6.63	110.63	104.00
50	B1	142	ALA	N-CA-C	6.63	124.92	110.80
1	AA	16	U	C2'-C3'-O3'	6.63	123.64	113.70
1	AP	18	G	C3'-C2'-C1'	-6.63	94.87	101.50
1	AP	32	C	O4'-C1'-C2'	-6.63	100.97	107.60
3	A1	755	G	C3'-C2'-O2'	6.63	120.64	110.70
3	A1	1397	C	C4'-C3'-O3'	6.63	119.34	109.40
20	AU	136	LYS	N-CA-C	6.63	119.35	111.33
25	BB	713	G	C4'-C3'-C2'	-6.63	95.97	102.60
25	BB	2365	G	O3'-P-O5'	-6.63	94.06	104.00
25	BB	2546	U	O4'-C1'-N1	6.63	118.44	108.50
39	BP	56	HIS	N-CA-C	6.63	119.63	108.23
50	B1	117	ARG	CA-C-N	6.63	134.20	121.54
50	B1	117	ARG	C-N-CA	6.63	134.20	121.54
25	BB	1008	A	O4'-C1'-C2'	-6.62	99.17	105.80
3	A1	233	C	C3'-C2'-C1'	6.62	107.92	101.30
3	A1	1230	C	C4'-C3'-O3'	6.62	119.33	109.40
22	AW	113	LYS	CA-C-N	6.62	134.19	121.54
22	AW	113	LYS	C-N-CA	6.62	134.19	121.54
25	BB	1472	C	C4'-C3'-O3'	-6.62	99.47	109.40
25	BB	1553	A	C5'-C4'-C3'	-6.62	106.07	116.00
25	BB	2284	A	C4'-C3'-O3'	-6.62	103.07	113.00
37	BN	146	LYS	CA-C-O	-6.62	113.97	120.26
3	A1	501	C	C3'-C2'-O2'	6.62	120.63	110.70
25	BB	465	G	O4'-C4'-C3'	-6.62	97.38	104.00
25	BB	1205	A	C1'-C2'-O2'	6.62	121.73	111.80
25	BB	1268	A	O4'-C4'-C3'	6.62	112.72	106.10
25	BB	2224	G	C4'-C3'-O3'	-6.62	103.07	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2748	A	O4'-C1'-C2'	-6.62	100.98	107.60
53	B4	44	ILE	N-CA-C	6.62	119.33	111.05
3	A1	1230	C	O4'-C1'-N1	6.62	118.13	108.20
25	BB	2617	U	C5'-C4'-C3'	-6.62	105.27	115.20
3	A1	118	U	O4'-C4'-C3'	6.62	110.62	104.00
25	BB	708	G	C1'-C2'-O2'	-6.62	98.47	108.40
25	BB	835	C	C3'-C2'-C1'	6.62	107.92	101.30
25	BB	2188	U	C5'-C4'-C3'	-6.62	106.07	116.00
37	BN	181	ARG	NE-CZ-NH1	-6.62	114.88	121.50
3	A1	1074	G	O3'-P-O5'	6.62	113.93	104.00
3	A1	1439	G	C5'-C4'-C3'	-6.62	106.08	116.00
13	AL	56	HIS	CA-C-N	6.62	127.35	122.59
13	AL	56	HIS	C-N-CA	6.62	127.35	122.59
25	BB	588	U	C4'-C3'-C2'	-6.62	95.98	102.60
25	BB	1140	C	C3'-C2'-O2'	6.62	124.52	114.60
25	BB	2025	C	C4'-C3'-O3'	6.62	122.92	113.00
52	B3	151	ARG	NE-CZ-NH1	-6.62	114.89	121.50
3	A1	926	G	C2'-C3'-O3'	6.61	119.42	109.50
15	AO	27	GLU	N-CA-C	6.61	122.53	112.54
25	BB	971	G	P-O3'-C3'	6.61	130.12	120.20
25	BB	1126	A	C1'-C2'-O2'	-6.61	101.88	111.80
25	BB	1167	C	C5'-C4'-O4'	-6.61	99.88	109.80
25	BB	1629	U	C3'-C2'-C1'	6.61	107.91	101.30
25	BB	2586	U	O3'-P-O5'	-6.61	94.08	104.00
25	BB	2612	C	C3'-C2'-C1'	6.61	108.11	101.50
50	B1	29	HIS	CA-CB-CG	6.61	120.41	113.80
50	B1	154	ASP	N-CA-C	6.61	119.93	109.81
3	A1	673	A	O4'-C1'-C2'	-6.61	100.99	107.60
3	A1	1410	A	O3'-P-O5'	6.61	113.92	104.00
3	A1	98	A	C4'-C3'-C2'	6.61	109.21	102.60
3	A1	727	G	C3'-C2'-O2'	6.61	120.61	110.70
25	BB	157	C	O4'-C1'-C2'	-6.61	100.99	107.60
25	BB	980	A	O4'-C1'-C2'	-6.61	100.99	107.60
25	BB	1973	G	C1'-C2'-O2'	-6.61	98.48	108.40
25	BB	2076	U	O4'-C1'-N1	6.61	118.11	108.20
25	BB	2319	G	C3'-C2'-O2'	6.61	120.61	110.70
37	BN	94	LEU	CA-C-O	6.61	127.98	120.84
52	B3	110	HIS	CA-C-N	6.61	128.10	119.84
52	B3	110	HIS	C-N-CA	6.61	128.10	119.84
4	AB	161	PHE	CA-CB-CG	6.61	120.41	113.80
18	AS	111	ARG	NH1-CZ-NH2	-6.61	110.71	119.30
25	BB	48	G	C2'-C3'-O3'	-6.61	99.59	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1831	G	C4'-C3'-C2'	-6.61	95.99	102.60
53	B4	68	ARG	NE-CZ-NH1	6.61	128.11	121.50
4	AB	87	ASP	N-CA-C	6.61	120.53	111.54
25	BB	913	U	C4'-C3'-C2'	-6.61	95.99	102.60
25	BB	1852	U	N1-C1'-C2'	6.61	123.91	114.00
23	AX	58	ASN	N-CA-C	6.61	118.38	110.19
8	AG	40	ARG	N-CA-C	6.60	123.65	113.28
25	BB	1758	U	C1'-O4'-C4'	-6.60	103.10	109.70
37	BN	237	ARG	NE-CZ-NH2	6.60	125.14	119.20
3	A1	1333	A	C4'-C3'-C2'	-6.60	96.00	102.60
3	A1	1531	A	C5'-C4'-C3'	-6.60	106.10	116.00
25	BB	756	A	C1'-O4'-C4'	-6.60	103.30	109.90
25	BB	1501	G	C5'-C4'-C3'	-6.60	106.10	116.00
25	BB	2746	U	C1'-O4'-C4'	-6.60	103.30	109.90
25	BB	2776	A	C4'-C3'-C2'	6.60	109.20	102.60
25	BB	835	C	C4'-C3'-C2'	-6.60	96.00	102.60
1	AA	52	U	O4'-C1'-N1	6.60	118.40	108.50
3	A1	894	G	O4'-C1'-C2'	6.60	114.20	107.60
11	AJ	62	GLU	O-C-N	6.60	131.37	122.59
13	AL	68	HIS	CA-CB-CG	-6.60	107.20	113.80
22	AW	79	ARG	NH1-CZ-NH2	-6.60	110.72	119.30
25	BB	930	G	O4'-C1'-C2'	-6.60	101.00	107.60
25	BB	2619	C	N3-C2-O2	-6.60	102.10	121.90
3	A1	46	G	O4'-C4'-C3'	6.60	112.70	106.10
3	A1	395	C	O4'-C1'-C2'	-6.60	101.00	107.60
3	A1	786	G	C3'-C2'-C1'	6.60	107.90	101.30
25	BB	98	G	C3'-C2'-O2'	6.60	120.60	110.70
25	BB	1121	C	C5'-C4'-C3'	-6.60	106.10	116.00
25	BB	1584	U	C4'-C3'-O3'	-6.60	103.11	113.00
25	BB	2633	G	O3'-P-O5'	-6.60	94.11	104.00
31	BH	102	ARG	CD-NE-CZ	6.60	133.64	124.40
52	B3	127	GLN	N-CA-C	6.60	120.19	111.75
25	BB	2244	U	C1'-O4'-C4'	-6.60	103.10	109.70
25	BB	2498	C	C5'-C4'-O4'	6.60	118.99	109.10
3	A1	1392	G	O3'-P-O5'	-6.59	94.11	104.00
21	AV	14	ARG	NE-CZ-NH2	6.59	125.14	119.20
22	AW	56	MET	CA-C-N	6.59	129.83	120.53
22	AW	56	MET	C-N-CA	6.59	129.83	120.53
25	BB	948	C	O4'-C1'-C2'	6.59	114.19	107.60
25	BB	233	A	C5'-C4'-C3'	-6.59	106.11	116.00
25	BB	2453	A	C2'-C3'-O3'	-6.59	103.81	113.70
31	BH	36	TYR	CA-C-N	6.59	131.28	121.72

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	BH	36	TYR	C-N-CA	6.59	131.28	121.72
3	A1	56	U	C5'-C4'-C3'	-6.59	106.11	116.00
9	AH	36	ASN	CA-C-N	6.59	129.01	120.44
9	AH	36	ASN	C-N-CA	6.59	129.01	120.44
13	AL	69	LYS	CA-C-N	6.59	131.15	120.60
13	AL	69	LYS	C-N-CA	6.59	131.15	120.60
25	BB	890	C	C5'-C4'-C3'	-6.59	106.11	116.00
25	BB	320	A	O5'-C5'-C4'	-6.59	101.82	111.70
25	BB	678	C	C3'-C2'-O2'	6.59	120.58	110.70
25	BB	2632	A	C3'-C2'-O2'	6.59	120.58	110.70
5	AC	126	ARG	CD-NE-CZ	6.59	133.62	124.40
25	BB	189	G	C5'-C4'-C3'	-6.59	106.12	116.00
25	BB	525	U	O3'-P-O5'	-6.59	94.12	104.00
25	BB	620	G	C1'-O4'-C4'	6.59	116.29	109.70
25	BB	1024	G	C1'-O4'-C4'	6.59	116.29	109.70
25	BB	1741	C	C3'-C2'-C1'	-6.59	94.71	101.30
22	AW	99	LYS	CA-C-N	6.59	133.89	122.56
22	AW	99	LYS	C-N-CA	6.59	133.89	122.56
25	BB	762	U	O4'-C1'-C2'	-6.59	99.21	105.80
25	BB	1830	C	N1-C1'-C2'	6.59	121.88	112.00
25	BB	2540	C	C5'-C4'-C3'	6.59	125.88	116.00
5	AC	54	SER	CA-C-N	6.58	133.46	121.41
5	AC	54	SER	C-N-CA	6.58	133.46	121.41
3	A1	427	U	O4'-C1'-C2'	-6.58	99.22	105.80
3	A1	846	G	O3'-P-O5'	-6.58	94.12	104.00
4	AB	213	LEU	CA-C-O	-6.58	111.52	119.49
25	BB	1150	C	C2'-C3'-O3'	6.58	123.58	113.70
25	BB	1895	C	O4'-C1'-N1	-6.58	98.62	108.50
25	BB	2398	U	O3'-P-O5'	-6.58	94.12	104.00
3	A1	516	U	C5'-C4'-C3'	-6.58	106.13	116.00
3	A1	836	G	C5'-C4'-C3'	6.58	125.87	116.00
25	BB	869	G	C3'-C2'-C1'	6.58	107.88	101.30
25	BB	1492	G	O3'-P-O5'	-6.58	94.13	104.00
25	BB	1656	C	C4'-C3'-C2'	-6.58	96.02	102.60
25	BB	2237	G	O3'-P-O5'	6.58	113.87	104.00
37	BN	34	GLU	OE1-CD-OE2	-6.58	107.10	122.90
3	A1	212	G	C4'-C3'-C2'	-6.58	96.02	102.60
25	BB	177	G	C3'-C2'-O2'	6.58	120.57	110.70
25	BB	1661	G	O4'-C1'-N9	6.58	118.07	108.20
25	BB	2007	U	O5'-C5'-C4'	6.58	121.37	111.50
37	BN	87	SER	CA-C-N	6.58	130.09	120.82
37	BN	87	SER	C-N-CA	6.58	130.09	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AP	9	A	O4'-C1'-C2'	6.58	112.38	105.80
3	A1	875	U	C3'-C2'-O2'	6.58	120.56	110.70
22	AW	108	ARG	N-CA-C	6.58	119.66	109.07
25	BB	1675	C	N1-C1'-C2'	6.58	121.86	112.00
25	BB	2500	U	C5'-C4'-C3'	6.58	125.86	116.00
3	A1	25	C	O3'-P-O5'	-6.57	94.14	104.00
3	A1	388	G	C3'-C2'-C1'	-6.57	94.93	101.50
22	AW	129	ARG	CD-NE-CZ	6.57	133.60	124.40
25	BB	614	A	C1'-C2'-O2'	6.57	121.66	111.80
25	BB	1477	A	C4'-C3'-C2'	-6.57	96.03	102.60
25	BB	1810	A	C2'-C3'-O3'	6.57	123.56	113.70
25	BB	2014	A	C3'-C2'-C1'	-6.57	94.93	101.50
25	BB	2193	G	O4'-C1'-C2'	-6.57	101.03	107.60
25	BB	2643	G	O3'-P-O5'	-6.57	94.14	104.00
52	B3	75	VAL	CA-C-O	-6.57	113.15	120.25
25	BB	2712	C	C3'-C2'-C1'	6.57	107.87	101.30
51	B2	177	ARG	CD-NE-CZ	6.57	133.60	124.40
3	A1	952	U	C4'-C3'-O3'	-6.57	103.14	113.00
18	AS	77	ASN	OD1-CG-ND2	-6.57	116.03	122.60
25	BB	1156	A	O4'-C1'-N9	6.57	118.06	108.20
25	BB	2303	G	C3'-C2'-O2'	6.57	120.56	110.70
34	BK	32	THR	CA-C-O	6.57	128.35	120.99
39	BP	13	ARG	NE-CZ-NH2	-6.57	113.29	119.20
52	B3	25	ILE	CA-C-N	6.57	132.26	123.00
52	B3	25	ILE	C-N-CA	6.57	132.26	123.00
3	A1	680	C	C2'-C3'-O3'	6.57	123.55	113.70
25	BB	1344	U	C5'-C4'-C3'	-6.57	106.15	116.00
25	BB	1522	A	C4'-C3'-C2'	-6.57	96.03	102.60
24	BA	105	G	C5'-C4'-O4'	6.57	119.65	109.80
53	B4	127	GLU	N-CA-C	6.57	120.00	110.28
54	B5	45	THR	N-CA-CB	6.57	121.49	110.32
11	AJ	50	ASN	CA-C-N	6.57	131.10	120.60
11	AJ	50	ASN	C-N-CA	6.57	131.10	120.60
25	BB	863	A	O4'-C1'-C2'	-6.57	101.03	107.60
25	BB	1117	C	C1'-O4'-C4'	6.57	116.47	109.90
25	BB	1736	U	P-O3'-C3'	6.57	130.05	120.20
25	BB	1987	A	C3'-C2'-O2'	6.57	120.55	110.70
25	BB	2603	G	O4'-C1'-C2'	-6.57	101.03	107.60
25	BB	2613	U	C3'-C2'-C1'	-6.57	94.93	101.50
35	BL	8	ARG	NE-CZ-NH1	6.57	128.07	121.50
11	AJ	10	ARG	N-CA-C	6.56	119.74	109.96
25	BB	1873	G	C1'-O4'-C4'	-6.56	103.34	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BD	31	ARG	CA-C-N	6.56	134.07	121.54
27	BD	31	ARG	C-N-CA	6.56	134.07	121.54
55	B6	21	THR	CA-CB-OG1	-6.56	99.76	109.60
3	A1	503	C	C2'-C3'-O3'	6.56	123.54	113.70
19	AT	68	GLN	CA-C-N	6.56	134.07	121.54
19	AT	68	GLN	C-N-CA	6.56	134.07	121.54
25	BB	114	U	O4'-C1'-N1	6.56	118.34	108.50
25	BB	1580	A	C2'-C3'-O3'	6.56	123.54	113.70
3	A1	853	C	C4'-C3'-C2'	-6.56	96.04	102.60
3	A1	1347	G	C5'-C4'-C3'	-6.56	105.36	115.20
25	BB	453	A	C5'-C4'-C3'	6.56	125.04	115.20
25	BB	938	G	N9-C1'-C2'	-6.56	102.16	112.00
25	BB	2147	A	N9-C1'-C2'	6.56	121.84	112.00
1	AP	35	A	C5'-C4'-C3'	-6.56	106.16	116.00
3	A1	12	U	N1-C1'-C2'	6.56	123.84	114.00
3	A1	1141	C	C2'-C3'-O3'	6.56	119.33	109.50
25	BB	507	A	C5'-C4'-O4'	6.56	119.64	109.80
27	BD	116	ILE	CA-CB-CG1	6.56	121.55	110.40
39	BP	38	ARG	NE-CZ-NH2	6.56	125.10	119.20
1	AP	59	U	C3'-C2'-C1'	6.56	107.86	101.30
51	B2	141	ASP	N-CA-C	6.56	118.51	111.36
3	A1	321	A	C3'-C2'-C1'	6.55	107.85	101.30
3	A1	727	G	O5'-C5'-C4'	-6.55	101.67	111.50
22	AW	62	LEU	O-C-N	-6.55	115.67	123.27
25	BB	1647	U	N1-C1'-C2'	-6.55	104.17	114.00
25	BB	1647	U	O4'-C1'-N1	6.55	118.03	108.20
25	BB	1827	U	C3'-C2'-C1'	6.55	108.06	101.50
25	BB	1985	C	C4'-C3'-C2'	-6.55	96.05	102.60
25	BB	2235	G	C2'-C3'-O3'	6.55	119.33	109.50
27	BD	108	ARG	CD-NE-CZ	6.55	133.58	124.40
25	BB	140	C	O5'-C5'-C4'	6.55	121.53	111.70
24	BA	28	C	C5'-C4'-C3'	-6.55	106.17	116.00
25	BB	819	A	O4'-C1'-N9	6.55	118.33	108.50
28	BE	85	VAL	N-CA-C	6.55	120.22	111.44
50	B1	11	ALA	CA-C-N	6.55	131.13	122.42
50	B1	11	ALA	C-N-CA	6.55	131.13	122.42
3	A1	1488	G	C4'-C3'-C2'	-6.55	96.05	102.60
19	AT	27	ALA	CA-C-N	6.55	128.96	120.44
19	AT	27	ALA	C-N-CA	6.55	128.96	120.44
25	BB	64	A	C4'-C3'-O3'	-6.55	99.58	109.40
25	BB	1472	C	O4'-C1'-N1	6.55	118.02	108.20
25	BB	2380	C	C5'-C4'-C3'	-6.55	106.18	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	BH	51	ALA	N-CA-C	6.55	122.88	114.56
25	BB	871	U	O5'-C5'-C4'	-6.55	101.68	111.50
25	BB	1088	A	O4'-C1'-C2'	-6.55	101.05	107.60
25	BB	817	C	O4'-C1'-C2'	-6.55	101.05	107.60
25	BB	927	A	O4'-C4'-C3'	6.55	110.55	104.00
25	BB	1412	U	O4'-C4'-C3'	6.55	110.55	104.00
38	BO	64	ILE	CA-CB-CG2	6.55	121.63	110.50
1	AA	39	U	C4'-C3'-O3'	-6.54	103.18	113.00
3	A1	1168	U	O4'-C4'-C3'	6.54	112.64	106.10
6	AD	79	ILE	CA-CB-CG1	6.54	121.53	110.40
25	BB	2659	G	C1'-C2'-O2'	6.54	118.22	108.40
43	BT	33	SER	N-CA-C	6.54	119.41	111.82
3	A1	52	C	N1-C1'-C2'	6.54	121.81	112.00
25	BB	1999	C	N1-C1'-C2'	6.54	121.81	112.00
25	BB	2787	C	O4'-C1'-N1	6.54	118.31	108.50
27	BD	50	GLY	CA-C-N	6.54	134.04	121.54
27	BD	50	GLY	C-N-CA	6.54	134.04	121.54
1	AP	61	C	C2'-C3'-O3'	-6.54	103.89	113.70
3	A1	593	U	C3'-C2'-O2'	6.54	120.51	110.70
3	A1	625	U	C1'-O4'-C4'	-6.54	103.36	109.90
5	AC	17	ASP	O-C-N	-6.54	114.66	123.10
7	AF	70	ARG	NH1-CZ-NH2	-6.54	110.80	119.30
25	BB	81	G	C3'-C2'-O2'	6.54	120.51	110.70
25	BB	655	A	C3'-C2'-O2'	6.54	124.41	114.60
25	BB	825	A	C4'-C3'-C2'	-6.54	96.06	102.60
25	BB	1500	G	O4'-C4'-C3'	6.54	110.54	104.00
25	BB	1654	A	C4'-C3'-C2'	-6.54	96.06	102.60
37	BN	110	LYS	CA-C-N	6.54	134.03	121.54
37	BN	110	LYS	C-N-CA	6.54	134.03	121.54
49	BZ	57	GLN	CA-C-O	-6.54	114.22	119.71
3	A1	132	C	O4'-C4'-C3'	6.54	110.54	104.00
25	BB	9	G	C2'-C3'-O3'	6.54	119.31	109.50
25	BB	1646	C	C4'-C3'-C2'	-6.54	96.06	102.60
29	BF	106	ASP	CA-CB-CG	6.54	119.14	112.60
51	B2	152	ASP	CA-CB-CG	6.54	119.14	112.60
3	A1	76	G	O4'-C1'-C2'	-6.54	101.06	107.60
25	BB	2381	A	C5'-C4'-C3'	-6.54	106.19	116.00
25	BB	2571	U	O5'-C5'-C4'	6.54	121.51	111.70
50	B1	62	GLN	N-CA-C	6.54	124.73	110.80
1	AE	52	U	O4'-C4'-C3'	6.54	110.54	104.00
25	BB	2209	G	O4'-C4'-C3'	6.54	110.54	104.00
25	BB	2252	G	C5'-C4'-C3'	-6.54	105.39	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AE	9	A	O4'-C1'-C2'	6.54	112.34	105.80
3	A1	1052	U	C1'-O4'-C4'	-6.54	103.36	109.90
3	A1	1183	U	C1'-O4'-C4'	-6.54	103.36	109.90
19	AT	55	HIS	CB-CG-CD2	-6.54	122.70	131.20
25	BB	2212	A	C4'-C3'-O3'	-6.54	99.60	109.40
25	BB	2639	A	O4'-C1'-C2'	-6.54	101.06	107.60
25	BB	2682	A	C4'-C3'-C2'	-6.54	96.06	102.60
25	BB	2781	A	O4'-C4'-C3'	6.54	110.53	104.00
3	A1	1404	C	O4'-C1'-N1	6.53	118.30	108.50
7	AF	11	HIS	ND1-CE1-NE2	6.53	114.93	108.40
25	BB	805	G	O4'-C4'-C3'	6.53	110.53	104.00
30	BG	115	LEU	CA-C-O	6.53	128.34	121.15
37	BN	22	GLU	N-CA-CB	-6.53	98.57	109.28
25	BB	1315	C	C5'-C4'-C3'	-6.53	105.40	115.20
3	A1	1425	U	C5'-C4'-O4'	6.53	119.59	109.80
13	AL	33	TRP	CA-C-N	6.53	134.01	121.54
13	AL	33	TRP	C-N-CA	6.53	134.01	121.54
17	AR	112	GLU	O-C-N	6.53	128.82	122.03
22	AW	4	GLN	OE1-CD-NE2	-6.53	116.07	122.60
25	BB	1540	G	O4'-C1'-N9	6.53	118.30	108.50
25	BB	2223	G	C3'-C2'-O2'	6.53	120.50	110.70
25	BB	2640	G	O3'-P-O5'	-6.53	94.21	104.00
45	BV	3	ARG	CA-C-N	6.53	133.46	121.70
45	BV	3	ARG	C-N-CA	6.53	133.46	121.70
3	A1	568	G	C4'-C3'-O3'	6.53	122.79	113.00
25	BB	233	A	C3'-C2'-C1'	6.53	107.83	101.30
25	BB	1346	G	C5'-C4'-C3'	-6.53	106.21	116.00
25	BB	2815	C	C2'-C3'-O3'	-6.53	103.91	113.70
46	BW	7	ARG	NH1-CZ-NH2	-6.53	110.81	119.30
52	B3	111	PRO	N-CA-CB	6.53	110.11	103.25
1	AE	6	U	C4'-C3'-O3'	-6.53	103.21	113.00
3	A1	313	A	O5'-C5'-C4'	-6.53	101.71	111.50
3	A1	980	C	C3'-C2'-O2'	-6.53	104.81	114.60
16	AQ	23	GLU	CA-C-N	6.53	131.78	120.68
16	AQ	23	GLU	C-N-CA	6.53	131.78	120.68
25	BB	2482	A	O4'-C4'-C3'	6.53	110.53	104.00
25	BB	2556	C	C2'-C3'-O3'	6.53	123.49	113.70
34	BK	95	ASP	CA-C-O	6.53	129.08	121.44
37	BN	206	LYS	O-C-N	-6.53	113.11	121.92
38	BO	101	THR	CA-CB-CG2	6.53	121.60	110.50
3	A1	743	A	C5'-C4'-C3'	-6.53	105.41	115.20
19	AT	20	GLY	CA-C-O	-6.53	113.35	120.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2281	A	C1'-C2'-O2'	6.53	118.19	108.40
25	BB	2544	G	C4'-C3'-O3'	-6.53	103.21	113.00
25	BB	182	A	P-O5'-C5'	6.52	130.69	120.90
25	BB	2239	G	O4'-C4'-C3'	6.52	110.52	104.00
3	A1	743	A	O3'-P-O5'	-6.52	94.22	104.00
3	A1	1054	C	O5'-C5'-C4'	6.52	121.48	111.70
10	AI	23	ASP	OD1-CG-OD2	-6.52	107.24	122.90
15	AO	126	ARG	NE-CZ-NH2	6.52	125.07	119.20
25	BB	692	C	C3'-C2'-C1'	6.52	107.82	101.30
25	BB	2094	A	C5'-C4'-C3'	-6.52	105.42	115.20
25	BB	2189	U	O5'-C5'-C4'	-6.52	101.72	111.50
25	BB	2362	C	C3'-C2'-O2'	6.52	120.48	110.70
33	BJ	42	GLY	O-C-N	-6.52	114.22	122.70
3	A1	400	C	C2'-C3'-O3'	6.52	119.28	109.50
25	BB	1377	G	C4'-C3'-O3'	6.52	122.78	113.00
15	AO	57	GLU	O-C-N	-6.52	115.64	122.94
25	BB	187	G	C3'-C2'-O2'	6.52	120.48	110.70
25	BB	266	G	P-O3'-C3'	-6.52	110.42	120.20
25	BB	2849	U	O3'-P-O5'	-6.52	94.22	104.00
37	BN	203	VAL	N-CA-CB	6.52	118.33	110.31
51	B2	113	PHE	CA-C-N	6.52	132.41	122.37
51	B2	113	PHE	C-N-CA	6.52	132.41	122.37
1	AA	75	C	C5'-C4'-O4'	6.52	118.88	109.10
3	A1	1400	C	C1'-C2'-O2'	6.52	121.58	111.80
4	AB	64	GLY	O-C-N	6.52	128.70	123.49
25	BB	1503	A	N9-C1'-C2'	-6.52	102.22	112.00
25	BB	2435	A	C3'-C2'-O2'	6.52	120.48	110.70
25	BB	1194	A	C5'-C4'-C3'	-6.52	106.23	116.00
1	AA	40	C	O3'-P-O5'	-6.51	94.23	104.00
1	AA	75	C	O4'-C4'-C3'	6.51	112.61	106.10
3	A1	675	A	C5'-C4'-C3'	-6.51	106.23	116.00
25	BB	296	U	O3'-P-O5'	6.51	113.77	104.00
25	BB	1078	U	O4'-C4'-C3'	6.51	110.51	104.00
3	A1	767	A	C1'-O4'-C4'	-6.51	103.39	109.90
3	A1	904	U	P-O5'-C5'	6.51	130.67	120.90
3	A1	1013	G	O4'-C1'-C2'	6.51	114.11	107.60
6	AD	39	THR	CA-C-O	-6.51	114.17	121.40
24	BA	51	G	C1'-C2'-O2'	-6.51	102.03	111.80
25	BB	1200	C	C2'-C3'-O3'	6.51	119.27	109.50
25	BB	1408	G	C5'-C4'-C3'	-6.51	106.23	116.00
1	AP	3	G	C4'-C3'-C2'	-6.51	96.09	102.60
3	A1	122	G	C2'-C3'-O3'	-6.51	103.94	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	47	C	O4'-C1'-C2'	-6.51	101.09	107.60
25	BB	131	A	O4'-C1'-N9	6.51	118.27	108.50
7	AF	55	LEU	CA-C-N	6.51	129.29	120.38
7	AF	55	LEU	C-N-CA	6.51	129.29	120.38
25	BB	1326	U	C5'-C4'-O4'	6.51	119.56	109.80
51	B2	76	PHE	CA-C-N	6.51	133.97	121.54
51	B2	76	PHE	C-N-CA	6.51	133.97	121.54
14	AN	58	ASP	CA-C-N	6.50	131.01	120.60
14	AN	58	ASP	C-N-CA	6.50	131.01	120.60
25	BB	2312	U	O3'-P-O5'	-6.50	94.24	104.00
25	BB	2553	G	C2'-C3'-O3'	6.50	123.46	113.70
3	A1	160	A	C3'-C2'-C1'	6.50	107.80	101.30
3	A1	780	A	C3'-C2'-C1'	6.50	107.80	101.30
3	A1	1181	G	O4'-C4'-C3'	6.50	110.50	104.00
24	BA	64	G	O4'-C4'-C3'	6.50	110.50	104.00
25	BB	723	C	C3'-C2'-C1'	6.50	107.80	101.30
25	BB	1474	U	C2'-C3'-O3'	6.50	119.26	109.50
25	BB	2159	G	C3'-C2'-O2'	6.50	120.45	110.70
35	BL	29	VAL	CA-C-N	6.50	129.29	120.38
35	BL	29	VAL	C-N-CA	6.50	129.29	120.38
25	BB	2496	C	C2'-C3'-O3'	6.50	123.45	113.70
25	BB	2538	C	N1-C1'-C2'	6.50	123.75	114.00
26	BC	57	TYR	N-CA-C	6.50	120.42	112.23
1	AP	11	C	O4'-C4'-C3'	6.50	110.50	104.00
25	BB	131	A	C3'-C2'-O2'	6.50	120.45	110.70
37	BN	86	ARG	NE-CZ-NH2	6.50	125.05	119.20
3	A1	240	G	N9-C1'-C2'	6.50	121.75	112.00
3	A1	1032	G	N9-C1'-C2'	-6.50	102.25	112.00
3	A1	1492	A	C4'-C3'-C2'	-6.50	96.10	102.60
25	BB	1512	C	C5'-C4'-O4'	6.50	119.55	109.80
25	BB	2378	A	O4'-C4'-C3'	6.50	110.50	104.00
3	A1	137	U	C4'-C3'-C2'	-6.50	96.10	102.60
3	A1	839	C	C5'-C4'-O4'	6.50	119.55	109.80
3	A1	954	G	O3'-P-O5'	6.50	113.74	104.00
25	BB	804	A	C5'-C4'-C3'	-6.50	105.45	115.20
25	BB	936	A	O4'-C1'-C2'	-6.50	101.10	107.60
25	BB	1404	C	O3'-P-O5'	-6.50	94.25	104.00
50	B1	114	ARG	NE-CZ-NH2	6.50	125.05	119.20
3	A1	1287	A	C4'-C3'-C2'	-6.50	96.11	102.60
24	BA	104	A	C3'-C2'-C1'	6.50	107.80	101.30
25	BB	1198	U	C3'-C2'-C1'	6.50	107.80	101.30
25	BB	2026	U	N1-C1'-C2'	6.50	121.74	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BC	78	GLN	N-CA-CB	-6.50	100.04	110.63
24	BA	41	G	C4'-C3'-C2'	-6.49	96.11	102.60
25	BB	231	A	C5'-C4'-O4'	-6.49	100.06	109.80
25	BB	809	G	C1'-O4'-C4'	-6.49	103.41	109.90
25	BB	2220	U	C5'-C4'-C3'	-6.49	106.26	116.00
25	BB	2283	C	C3'-C2'-C1'	-6.49	94.81	101.30
32	BI	110	LYS	N-CA-CB	-6.49	100.80	110.60
25	BB	568	U	O5'-C5'-C4'	-6.49	101.96	111.70
29	BF	49	ALA	CA-C-N	6.49	132.73	122.60
29	BF	49	ALA	C-N-CA	6.49	132.73	122.60
3	A1	1483	A	C3'-C2'-C1'	6.49	107.79	101.30
25	BB	380	G	C3'-C2'-O2'	6.49	120.44	110.70
25	BB	511	U	O4'-C1'-C2'	-6.49	101.11	107.60
25	BB	1217	U	C1'-O4'-C4'	-6.49	103.21	109.70
25	BB	2054	A	C4'-C3'-O3'	6.49	119.14	109.40
25	BB	2408	U	C3'-C2'-C1'	6.49	107.99	101.50
49	BZ	154	SER	O-C-N	-6.49	115.26	123.24
3	A1	259	G	C3'-C2'-O2'	6.49	120.43	110.70
3	A1	912	C	P-O3'-C3'	6.49	129.93	120.20
23	AX	5	ARG	NE-CZ-NH2	-6.49	113.36	119.20
25	BB	1865	U	C5'-C4'-C3'	-6.49	106.27	116.00
44	BU	22	THR	N-CA-C	6.49	118.00	108.14
4	AB	189	ASN	N-CA-C	6.49	121.05	113.20
3	A1	666	G	O3'-P-O5'	6.49	113.73	104.00
3	A1	704	A	C4'-C3'-O3'	6.49	122.73	113.00
22	AW	66	VAL	CA-CB-CG2	6.49	121.43	110.40
25	BB	412	A	O3'-P-O5'	6.49	113.73	104.00
25	BB	1384	A	O4'-C4'-C3'	6.49	112.58	106.10
25	BB	1850	G	C2'-C3'-O3'	6.48	123.42	113.70
3	A1	1203	C	C3'-C2'-O2'	6.48	120.42	110.70
25	BB	371	A	C4'-C3'-O3'	-6.48	103.28	113.00
3	A1	168	G	C4'-C3'-C2'	-6.48	96.12	102.60
25	BB	33	C	N1-C1'-C2'	6.48	123.72	114.00
25	BB	2320	U	C3'-C2'-C1'	6.48	107.78	101.30
20	AU	108	ARG	CA-C-N	6.48	133.23	122.54
20	AU	108	ARG	C-N-CA	6.48	133.23	122.54
25	BB	2026	U	C3'-C2'-C1'	6.48	107.78	101.30
25	BB	2867	G	C4'-C3'-C2'	6.48	109.08	102.60
28	BE	101	ILE	CB-CA-C	6.48	121.92	111.29
7	AF	4	ALA	N-CA-CB	-6.48	101.50	110.38
20	AU	71	THR	CA-C-N	6.48	132.99	122.69
20	AU	71	THR	C-N-CA	6.48	132.99	122.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2003	A	C4'-C3'-O3'	6.48	119.12	109.40
49	BZ	99	PRO	O-C-N	-6.48	115.19	122.18
14	AN	81	GLN	CA-C-O	-6.48	113.05	120.24
25	BB	2311	A	C3'-C2'-O2'	6.48	120.41	110.70
27	BD	57	VAL	CA-C-O	-6.48	113.50	120.36
48	BY	77	ARG	NE-CZ-NH1	6.48	127.98	121.50
3	A1	868	C	C5'-C4'-C3'	-6.47	106.29	116.00
24	BA	78	A	C4'-C3'-C2'	6.47	109.07	102.60
25	BB	841	G	C4'-C3'-C2'	-6.47	96.12	102.60
25	BB	2726	A	C3'-C2'-C1'	6.47	107.78	101.30
3	A1	674	G	O4'-C1'-C2'	-6.47	101.13	107.60
15	AO	200	TRP	CZ3-CH2-CZ2	-6.47	113.08	121.50
25	BB	1114	C	O5'-C5'-C4'	-6.47	101.79	111.50
25	BB	1437	C	C4'-C3'-C2'	-6.47	96.13	102.60
25	BB	2248	C	C4'-C3'-O3'	-6.47	103.29	113.00
48	BY	113	SER	N-CA-C	6.47	118.65	110.24
52	B3	130	ILE	CA-C-N	6.47	131.53	123.12
52	B3	130	ILE	C-N-CA	6.47	131.53	123.12
3	A1	835	U	C1'-O4'-C4'	-6.47	103.43	109.90
25	BB	1638	C	C5'-C4'-O4'	6.47	119.51	109.80
3	A1	468	A	O4'-C4'-C3'	6.47	110.47	104.00
3	A1	1084	G	O5'-C5'-C4'	6.47	121.20	111.50
3	A1	1300	G	C5'-C4'-C3'	-6.47	105.50	115.20
25	BB	166	U	O4'-C4'-C3'	6.47	110.47	104.00
25	BB	468	G	C5'-C4'-O4'	6.47	119.50	109.80
25	BB	571	U	C5'-C4'-O4'	6.47	119.50	109.80
25	BB	1284	A	C1'-O4'-C4'	-6.47	103.23	109.70
29	BF	109	PRO	N-CA-C	6.47	123.19	113.81
35	BL	50	VAL	N-CA-C	6.47	116.96	110.23
3	A1	277	C	O5'-C5'-C4'	-6.47	101.80	111.50
3	A1	1013	G	C1'-O4'-C4'	-6.47	103.43	109.90
3	A1	1425	U	C5'-C4'-C3'	-6.47	106.30	116.00
25	BB	1187	G	O3'-P-O5'	-6.47	94.30	104.00
12	AK	20	ILE	CA-C-N	6.47	132.71	122.36
12	AK	20	ILE	C-N-CA	6.47	132.71	122.36
25	BB	29	U	O4'-C4'-C3'	6.47	110.47	104.00
25	BB	647	G	C3'-C2'-O2'	6.47	120.40	110.70
25	BB	2277	G	C4'-C3'-O3'	6.47	122.70	113.00
53	B4	61	VAL	N-CA-C	6.47	116.63	110.42
1	AP	50	U	C4'-C3'-C2'	-6.46	96.14	102.60
1	AE	18	G	O4'-C1'-N9	6.46	117.90	108.20
1	AE	51	G	O5'-C5'-C4'	6.46	121.20	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1079	G	C1'-C2'-O2'	-6.46	98.70	108.40
3	A1	1522	U	C3'-C2'-O2'	6.46	120.40	110.70
25	BB	135	U	C1'-O4'-C4'	-6.46	103.44	109.90
25	BB	254	G	C1'-O4'-C4'	-6.46	103.44	109.90
25	BB	2445	G	O4'-C1'-N9	6.46	118.20	108.50
25	BB	2692	G	O5'-C5'-C4'	-6.46	101.80	111.50
26	BC	44	HIS	CA-CB-CG	6.46	120.27	113.80
35	BL	99	ARG	N-CA-C	6.46	124.57	110.80
3	A1	512	U	C5'-C4'-O4'	6.46	119.49	109.80
3	A1	1279	G	C3'-C2'-O2'	-6.46	104.91	114.60
3	A1	1481	U	C5'-C4'-O4'	6.46	119.49	109.80
25	BB	2052	A	C1'-O4'-C4'	-6.46	103.24	109.70
54	B5	4	VAL	O-C-N	-6.46	114.49	122.57
6	AD	73	LEU	CA-C-N	6.46	130.74	121.50
6	AD	73	LEU	C-N-CA	6.46	130.74	121.50
13	AL	3	SER	N-CA-C	6.46	122.29	113.37
24	BA	117	G	C5'-C4'-C3'	-6.46	106.31	116.00
25	BB	174	U	C1'-O4'-C4'	-6.46	103.44	109.90
25	BB	423	A	C1'-O4'-C4'	-6.46	103.24	109.70
25	BB	1954	G	C4'-C3'-C2'	-6.46	96.14	102.60
25	BB	2251	G	C3'-C2'-O2'	6.46	120.39	110.70
25	BB	2839	G	C4'-C3'-O3'	-6.46	103.31	113.00
35	BL	67	ASP	N-CA-C	6.46	119.32	111.82
25	BB	827	U	C3'-C2'-C1'	6.46	107.76	101.30
25	BB	865	C	C4'-C3'-C2'	-6.46	96.14	102.60
25	BB	1135	C	C3'-C2'-C1'	6.46	107.76	101.30
25	BB	1390	U	C3'-C2'-C1'	-6.46	95.04	101.50
25	BB	2824	C	C4'-C3'-C2'	-6.46	96.14	102.60
25	BB	682	G	C5'-C4'-C3'	-6.46	105.51	115.20
25	BB	1503	A	C1'-C2'-O2'	-6.46	98.71	108.40
3	A1	103	U	C2'-C3'-O3'	6.46	123.39	113.70
25	BB	401	A	O4'-C4'-C3'	6.46	110.46	104.00
25	BB	2072	C	O4'-C4'-C3'	-6.46	97.54	104.00
28	BE	74	THR	CA-C-N	6.46	133.87	121.54
28	BE	74	THR	C-N-CA	6.46	133.87	121.54
5	AC	69	CYS	CA-C-N	6.46	129.22	120.38
5	AC	69	CYS	C-N-CA	6.46	129.22	120.38
25	BB	553	G	C3'-C2'-C1'	-6.46	95.05	101.50
25	BB	1776	G	O3'-P-O5'	-6.46	94.32	104.00
52	B3	69	ALA	CA-C-N	6.46	133.87	121.54
52	B3	69	ALA	C-N-CA	6.46	133.87	121.54
3	A1	354	G	C1'-C2'-O2'	-6.45	98.72	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	390	U	C2'-C3'-O3'	6.45	119.18	109.50
3	A1	470	C	C2'-C3'-O3'	6.45	123.38	113.70
5	AC	21	HIS	ND1-CG-CD2	6.45	112.55	106.10
21	AV	116	ARG	NE-CZ-NH2	6.45	125.01	119.20
35	BL	8	ARG	O-C-N	-6.45	114.10	122.94
51	B2	144	LYS	CA-C-N	6.45	133.59	121.97
51	B2	144	LYS	C-N-CA	6.45	133.59	121.97
3	A1	1330	U	O4'-C4'-C3'	6.45	110.45	104.00
25	BB	886	A	C1'-O4'-C4'	-6.45	103.45	109.90
43	BT	36	LYS	O-C-N	-6.45	114.20	122.20
25	BB	2419	U	C3'-C2'-O2'	6.45	120.38	110.70
25	BB	2424	C	C1'-O4'-C4'	-6.45	103.45	109.90
37	BN	40	GLY	O-C-N	-6.45	117.55	123.42
1	AA	60	C	C1'-C2'-O2'	-6.45	102.13	111.80
1	AE	35	A	C4'-C3'-C2'	-6.45	96.15	102.60
3	A1	1166	G	O4'-C1'-C2'	-6.45	101.15	107.60
18	AS	61	LYS	CG-CD-CE	6.45	126.13	111.30
22	AW	10	ARG	NH1-CZ-NH2	-6.45	110.92	119.30
25	BB	1211	C	C5'-C4'-O4'	6.45	118.77	109.10
25	BB	2179	C	C3'-C2'-O2'	6.45	120.37	110.70
25	BB	2495	G	P-O3'-C3'	6.45	129.87	120.20
25	BB	2812	G	C5'-C4'-C3'	-6.45	106.33	116.00
46	BW	11	LYS	N-CA-C	6.45	122.10	113.72
48	BY	84	LEU	CA-C-N	6.45	133.86	121.54
48	BY	84	LEU	C-N-CA	6.45	133.86	121.54
25	BB	409	G	O4'-C1'-C2'	-6.45	101.15	107.60
3	A1	938	A	C3'-C2'-O2'	6.45	120.37	110.70
3	A1	1055	A	C4'-C3'-O3'	6.45	122.67	113.00
3	A1	1459	G	N9-C1'-C2'	-6.45	102.33	112.00
9	AH	63	ARG	NH1-CZ-NH2	-6.45	110.92	119.30
24	BA	48	U	C5'-C4'-C3'	-6.45	106.33	116.00
25	BB	361	G	O5'-C5'-C4'	-6.45	102.03	111.70
25	BB	889	C	C5'-C4'-C3'	-6.45	106.33	116.00
37	BN	40	GLY	CA-C-N	6.45	130.51	120.00
37	BN	40	GLY	C-N-CA	6.45	130.51	120.00
40	BQ	15	ASN	CA-CB-CG	6.45	119.05	112.60
43	BT	38	LEU	CA-C-N	6.45	133.94	121.63
43	BT	38	LEU	C-N-CA	6.45	133.94	121.63
3	A1	620	C	C3'-C2'-C1'	6.44	107.74	101.30
18	AS	91	SER	N-CA-C	6.44	119.61	111.69
25	BB	65	U	N1-C1'-C2'	6.44	121.66	112.00
25	BB	954	G	C2'-C3'-O3'	6.44	119.16	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	995	C	O5'-C5'-C4'	-6.44	102.03	111.70
25	BB	1145	C	O4'-C4'-C3'	6.44	110.44	104.00
3	A1	1045	C	C2'-C3'-O3'	6.44	123.36	113.70
3	A1	1150	A	C3'-C2'-C1'	6.44	107.74	101.30
25	BB	374	A	C4'-C3'-C2'	-6.44	96.16	102.60
27	BD	5	GLN	OE1-CD-NE2	-6.44	116.16	122.60
28	BE	55	MET	CA-C-O	-6.44	111.33	120.16
3	A1	558	G	C3'-C2'-O2'	6.44	120.36	110.70
15	AO	161	ILE	N-CA-C	6.44	117.34	108.84
25	BB	510	C	C5'-C4'-O4'	6.44	119.46	109.80
25	BB	2272	U	C4'-C3'-O3'	6.44	119.06	109.40
49	BZ	149	ASN	CA-CB-CG	6.44	119.04	112.60
3	A1	528	C	C3'-C2'-C1'	6.44	107.74	101.30
3	A1	563	A	C1'-C2'-O2'	6.44	118.06	108.40
3	A1	1478	U	O4'-C1'-C2'	6.44	114.04	107.60
4	AB	47	PRO	CA-C-N	6.44	129.55	120.28
4	AB	47	PRO	C-N-CA	6.44	129.55	120.28
14	AN	30	PHE	O-C-N	6.44	128.94	122.12
25	BB	578	G	C1'-O4'-C4'	-6.44	103.46	109.90
25	BB	982	C	C2'-C3'-O3'	6.44	119.16	109.50
25	BB	1073	A	C3'-C2'-C1'	-6.44	94.86	101.30
25	BB	1150	C	O3'-P-O5'	-6.44	94.34	104.00
25	BB	2837	A	C3'-C2'-C1'	6.44	107.74	101.30
37	BN	4	LYS	CA-C-N	6.44	134.02	121.66
37	BN	4	LYS	C-N-CA	6.44	134.02	121.66
37	BN	229	HIS	ND1-CG-CD2	6.44	112.54	106.10
50	B1	27	LEU	CA-C-N	6.44	129.28	120.46
50	B1	27	LEU	C-N-CA	6.44	129.28	120.46
18	AS	53	ARG	NE-CZ-NH2	-6.43	113.41	119.20
25	BB	1800	C	O4'-C1'-N1	6.43	118.15	108.50
25	BB	2663	G	C3'-C2'-O2'	6.43	120.35	110.70
37	BN	124	LYS	CA-C-O	-6.43	113.42	120.69
44	BU	18	HIS	CA-C-N	6.43	133.83	121.54
44	BU	18	HIS	C-N-CA	6.43	133.83	121.54
49	BZ	181	GLU	O-C-N	-6.43	114.81	122.15
3	A1	890	G	C2'-C3'-O3'	6.43	123.35	113.70
3	A1	938	A	P-O3'-C3'	6.43	129.85	120.20
23	AX	20	GLN	OE1-CD-NE2	-6.43	116.17	122.60
25	BB	97	C	C1'-C2'-O2'	-6.43	98.75	108.40
25	BB	884	U	N1-C1'-C2'	-6.43	102.35	112.00
25	BB	1940	U	O4'-C4'-C3'	-6.43	99.67	106.10
23	AX	72	ARG	NE-CZ-NH2	6.43	124.99	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1422	G	C4'-C3'-C2'	-6.43	96.17	102.60
1	AE	47	U	O4'-C4'-C3'	6.43	112.53	106.10
3	A1	1280	A	O4'-C1'-N9	6.43	118.15	108.50
18	AS	102	THR	N-CA-C	6.43	123.06	114.12
25	BB	34	U	O4'-C1'-N1	6.43	118.14	108.50
25	BB	597	G	C3'-C2'-C1'	6.43	107.73	101.30
25	BB	719	C	C3'-C2'-O2'	6.43	120.34	110.70
25	BB	1603	A	C2'-C3'-O3'	-6.43	104.06	113.70
25	BB	459	U	O5'-C5'-C4'	6.43	121.14	111.50
25	BB	2491	U	C1'-O4'-C4'	-6.43	103.47	109.90
50	B1	3	LEU	CA-C-N	6.43	133.54	121.97
50	B1	3	LEU	C-N-CA	6.43	133.54	121.97
3	A1	1380	U	C4'-C3'-O3'	6.43	119.04	109.40
17	AR	80	ARG	N-CA-C	6.43	121.32	112.90
25	BB	1241	A	C4'-C3'-C2'	-6.43	96.17	102.60
25	BB	1986	C	C1'-O4'-C4'	-6.43	103.47	109.90
32	BI	51	ASN	CA-C-N	6.43	135.28	122.62
32	BI	51	ASN	C-N-CA	6.43	135.28	122.62
3	A1	1432	G	C1'-C2'-O2'	-6.42	98.76	108.40
5	AC	68	ARG	NE-CZ-NH1	6.42	127.92	121.50
24	BA	94	A	C4'-C3'-C2'	-6.42	96.17	102.60
25	BB	703	U	C5'-C4'-C3'	-6.42	105.56	115.20
25	BB	1378	A	C1'-O4'-C4'	6.42	116.12	109.70
25	BB	1771	C	C3'-C2'-O2'	6.42	124.24	114.60
25	BB	2218	G	C4'-C3'-C2'	-6.42	96.17	102.60
25	BB	2393	U	C5'-C4'-C3'	-6.42	105.56	115.20
25	BB	2446	G	C4'-C3'-O3'	6.42	119.04	109.40
25	BB	2574	G	O4'-C1'-N9	6.42	117.84	108.20
3	A1	1200	C	C3'-C2'-C1'	6.42	107.92	101.50
25	BB	23	G	P-O3'-C3'	6.42	129.83	120.20
25	BB	1186	G	C3'-C2'-C1'	6.42	107.92	101.50
25	BB	1363	C	O3'-P-O5'	6.42	113.63	104.00
3	A1	258	G	O4'-C4'-C3'	6.42	110.42	104.00
3	A1	1008	U	O4'-C1'-C2'	6.42	114.02	107.60
3	A1	1218	C	C1'-O4'-C4'	-6.42	103.48	109.90
24	BA	114	C	C4'-C3'-C2'	-6.42	96.18	102.60
25	BB	3	U	O4'-C1'-N1	6.42	117.83	108.20
25	BB	88	G	O4'-C1'-C2'	-6.42	101.18	107.60
25	BB	265	A	C5'-C4'-C3'	-6.42	106.37	116.00
37	BN	86	ARG	NH1-CZ-NH2	-6.42	110.95	119.30
50	B1	64	GLY	CA-C-N	6.42	132.69	121.52
50	B1	64	GLY	C-N-CA	6.42	132.69	121.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	B2	117	SER	O-C-N	-6.42	114.91	122.81
3	A1	127	G	O3'-P-O5'	-6.42	94.37	104.00
3	A1	466	A	O4'-C1'-C2'	-6.42	99.38	105.80
3	A1	1509	C	C5'-C4'-O4'	6.42	118.73	109.10
27	BD	93	GLN	OE1-CD-NE2	-6.42	116.18	122.60
30	BG	50	PRO	N-CA-CB	6.42	110.32	103.39
3	A1	1158	C	N1-C1'-C2'	6.42	121.63	112.00
4	AB	88	GLN	OE1-CD-NE2	-6.42	116.18	122.60
7	AF	101	THR	N-CA-C	6.42	119.97	111.75
19	AT	68	GLN	OE1-CD-NE2	-6.42	116.18	122.60
25	BB	433	C	O4'-C1'-N1	6.42	118.13	108.50
25	BB	2501	C	C1'-C2'-O2'	-6.42	102.17	111.80
48	BY	148	GLN	OE1-CD-NE2	-6.42	116.18	122.60
49	BZ	63	ARG	CA-C-N	6.42	130.52	122.43
49	BZ	63	ARG	C-N-CA	6.42	130.52	122.43
3	A1	83	C	C4'-C3'-C2'	-6.42	96.18	102.60
11	AJ	46	HIS	CB-CG-CD2	-6.42	122.86	131.20
25	BB	177	G	O4'-C1'-N9	6.42	118.12	108.50
25	BB	232	G	C3'-C2'-C1'	-6.42	95.08	101.50
25	BB	1142	A	O4'-C4'-C3'	-6.42	97.58	104.00
25	BB	1261	C	O5'-C5'-C4'	6.42	121.12	111.50
25	BB	1965	C	C3'-C2'-C1'	6.42	107.72	101.30
25	BB	2588	G	C4'-C3'-O3'	6.42	122.62	113.00
25	BB	2602	A	C5'-C4'-O4'	6.42	118.72	109.10
48	BY	197	THR	CB-CA-C	-6.42	94.98	109.10
54	B5	85	ILE	O-C-N	-6.42	116.10	122.97
3	A1	617	G	O3'-P-O5'	-6.41	94.38	104.00
8	AG	18	LYS	N-CA-C	6.41	121.30	112.90
25	BB	1199	U	C1'-O4'-C4'	-6.41	103.29	109.70
25	BB	1673	G	O4'-C1'-N9	6.41	118.12	108.50
25	BB	1847	A	C3'-C2'-O2'	6.41	120.32	110.70
25	BB	2270	A	O5'-C5'-C4'	-6.41	102.08	111.70
25	BB	2415	G	C4'-C3'-C2'	-6.41	96.19	102.60
39	BP	73	PRO	O-C-N	-6.41	115.34	123.04
3	A1	6	G	C4'-C3'-O3'	6.41	119.02	109.40
24	BA	54	G	C5'-C4'-C3'	-6.41	106.38	116.00
25	BB	2191	A	C1'-O4'-C4'	-6.41	103.49	109.90
1	AA	36	A	C4'-C3'-C2'	-6.41	96.19	102.60
1	AE	57	G	C1'-O4'-C4'	-6.41	103.49	109.90
3	A1	140	U	C5'-C4'-C3'	-6.41	106.38	116.00
25	BB	280	U	C3'-C2'-C1'	6.41	107.71	101.30
25	BB	807	U	C3'-C2'-C1'	-6.41	94.89	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1701	A	C3'-C2'-C1'	-6.41	94.89	101.30
25	BB	1923	U	C1'-O4'-C4'	6.41	116.31	109.90
25	BB	1942	C	C4'-C3'-O3'	6.41	119.02	109.40
25	BB	2285	C	C5'-C4'-O4'	6.41	119.42	109.80
45	BV	18	PHE	CA-CB-CG	6.41	120.21	113.80
20	AU	118	ARG	NE-CZ-NH2	6.41	124.97	119.20
25	BB	883	G	O4'-C1'-N9	6.41	118.11	108.50
25	BB	1497	U	O4'-C1'-C2'	6.41	112.21	105.80
25	BB	2491	U	C4'-C3'-C2'	-6.41	96.19	102.60
25	BB	2630	G	C5'-C4'-O4'	6.41	119.41	109.80
45	BV	27	GLY	N-CA-C	6.41	120.42	112.73
3	A1	366	A	C2'-C3'-O3'	6.41	119.11	109.50
3	A1	422	C	N1-C1'-C2'	6.41	121.61	112.00
5	AC	21	HIS	ND1-CE1-NE2	6.41	114.81	108.40
25	BB	2589	A	C3'-C2'-O2'	6.41	120.31	110.70
51	B2	46	LYS	CB-CG-CD	6.41	126.04	111.30
4	AB	73	ARG	NE-CZ-NH1	6.41	127.91	121.50
25	BB	1817	G	O5'-C5'-C4'	6.41	121.11	111.50
38	BO	88	ASP	O-C-N	-6.41	115.25	122.23
44	BU	4	ILE	CA-CB-CG1	6.41	121.29	110.40
54	B5	31	GLY	CA-C-N	6.41	129.33	120.49
54	B5	31	GLY	C-N-CA	6.41	129.33	120.49
3	A1	72	A	C3'-C2'-O2'	6.40	120.31	110.70
3	A1	828	U	C2'-C3'-O3'	-6.40	104.09	113.70
25	BB	804	A	C1'-O4'-C4'	6.40	116.10	109.70
25	BB	1902	C	C3'-C2'-C1'	6.40	107.70	101.30
25	BB	2148	G	C2'-C3'-O3'	-6.40	104.09	113.70
3	A1	335	C	O4'-C1'-N1	6.40	118.10	108.50
3	A1	889	A	C5'-C4'-O4'	6.40	118.70	109.10
24	BA	98	G	C5'-C4'-C3'	-6.40	106.40	116.00
25	BB	1573	G	C5'-C4'-C3'	-6.40	106.40	116.00
25	BB	2002	G	C1'-O4'-C4'	-6.40	103.50	109.90
25	BB	2877	G	O3'-P-O5'	6.40	113.60	104.00
3	A1	1492	A	C3'-C2'-C1'	-6.40	95.10	101.50
25	BB	800	A	O3'-P-O5'	-6.40	94.40	104.00
25	BB	1052	C	O4'-C4'-C3'	6.40	110.40	104.00
32	BI	93	LYS	N-CA-CB	-6.40	101.73	110.95
45	BV	5	PHE	N-CA-C	6.40	120.69	113.01
48	BY	153	GLY	CA-C-N	6.40	133.76	121.54
48	BY	153	GLY	C-N-CA	6.40	133.76	121.54
51	B2	78	ILE	N-CA-CB	-6.40	103.92	111.60
1	AP	67	A	C3'-C2'-O2'	6.40	120.30	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	471	U	O4'-C4'-C3'	6.40	110.40	104.00
6	AD	120	ARG	NH1-CZ-NH2	-6.40	110.98	119.30
25	BB	1356	G	O4'-C4'-C3'	6.40	110.40	104.00
25	BB	1521	G	C5'-C4'-C3'	-6.40	106.40	116.00
25	BB	2462	C	C1'-O4'-C4'	-6.40	103.50	109.90
40	BQ	7	ARG	NH1-CZ-NH2	-6.40	110.98	119.30
45	BV	30	VAL	CA-C-N	6.40	128.76	120.44
45	BV	30	VAL	C-N-CA	6.40	128.76	120.44
51	B2	111	ARG	NE-CZ-NH2	6.40	124.96	119.20
3	A1	330	C	C5'-C4'-C3'	-6.40	106.41	116.00
25	BB	1588	G	P-O3'-C3'	6.40	129.79	120.20
25	BB	2807	U	C3'-C2'-O2'	6.40	120.30	110.70
22	AW	9	GLY	CA-C-N	6.39	132.06	122.47
22	AW	9	GLY	C-N-CA	6.39	132.06	122.47
25	BB	214	G	O3'-P-O5'	6.39	113.59	104.00
25	BB	877	A	C5'-C4'-C3'	-6.39	106.41	116.00
3	A1	362	G	C5'-C4'-O4'	6.39	119.39	109.80
3	A1	1017	U	C4'-C3'-O3'	6.39	122.59	113.00
3	A1	1026	G	C1'-C2'-O2'	6.39	121.39	111.80
24	BA	15	A	C5'-C4'-O4'	6.39	119.39	109.80
25	BB	152	A	C3'-C2'-C1'	-6.39	94.91	101.30
25	BB	1596	A	C4'-C3'-C2'	-6.39	96.21	102.60
25	BB	1911	U	C4'-C3'-O3'	6.39	122.59	113.00
25	BB	2321	U	C1'-O4'-C4'	-6.39	103.31	109.70
25	BB	2659	G	C4'-C3'-C2'	-6.39	96.21	102.60
33	BJ	80	ASN	OD1-CG-ND2	-6.39	116.21	122.60
3	A1	1188	A	C2'-C3'-O3'	6.39	123.29	113.70
3	A1	1201	A	C1'-O4'-C4'	-6.39	103.31	109.70
25	BB	450	G	C3'-C2'-C1'	6.39	107.69	101.30
25	BB	2070	A	O3'-P-O5'	6.39	113.59	104.00
45	BV	33	ARG	NH1-CZ-NH2	-6.39	110.99	119.30
49	BZ	206	LYS	O-C-N	-6.39	116.58	123.42
3	A1	624	C	O4'-C1'-N1	6.39	118.08	108.50
3	A1	795	C	O4'-C1'-N1	6.39	117.78	108.20
3	A1	1314	C	C4'-C3'-C2'	-6.39	96.21	102.60
4	AB	136	ARG	CA-C-O	-6.39	112.19	119.41
25	BB	546	U	O4'-C4'-C3'	6.39	112.49	106.10
25	BB	1822	C	C4'-C3'-C2'	-6.39	96.21	102.60
25	BB	2067	G	O3'-P-O5'	-6.39	94.42	104.00
25	BB	2170	A	C3'-C2'-C1'	6.39	107.69	101.30
52	B3	25	ILE	O-C-N	6.39	129.94	123.10
52	B3	152	ARG	NE-CZ-NH2	6.39	124.95	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	110	C	C5'-C4'-C3'	-6.39	106.42	116.00
39	BP	40	ARG	NE-CZ-NH1	6.39	127.89	121.50
25	BB	673	C	O3'-P-O5'	-6.39	94.42	104.00
25	BB	1755	A	O4'-C1'-C2'	-6.39	101.21	107.60
25	BB	2487	G	C3'-C2'-C1'	6.39	107.69	101.30
1	AP	9	A	N9-C1'-C2'	-6.38	104.42	114.00
3	A1	410	G	C4'-C3'-O3'	-6.38	103.42	113.00
3	A1	699	C	O4'-C4'-C3'	6.38	110.39	104.00
5	AC	124	LYS	O-C-N	6.38	130.12	122.27
25	BB	1353	A	O3'-P-O5'	6.38	113.58	104.00
32	BI	78	PRO	CA-C-N	6.38	133.46	121.97
32	BI	78	PRO	C-N-CA	6.38	133.46	121.97
1	AE	12	U	O3'-P-O5'	6.38	113.58	104.00
3	A1	484	G	C1'-C2'-O2'	6.38	121.37	111.80
25	BB	1669	A	C4'-C3'-C2'	6.38	108.98	102.60
25	BB	2558	C	C5'-C4'-C3'	-6.38	105.63	115.20
1	AA	16	U	O3'-P-O5'	6.38	113.57	104.00
1	AA	20	G	C4'-C3'-C2'	-6.38	96.22	102.60
1	AP	21	A	C3'-C2'-O2'	6.38	120.27	110.70
3	A1	687	A	C1'-C2'-O2'	6.38	121.37	111.80
3	A1	1079	G	C3'-C2'-O2'	6.38	120.27	110.70
5	AC	84	MET	CA-C-O	6.38	127.98	120.70
15	AO	148	ILE	CA-C-N	6.38	132.18	122.93
15	AO	148	ILE	C-N-CA	6.38	132.18	122.93
25	BB	597	G	C4'-C3'-O3'	6.38	122.57	113.00
25	BB	1479	G	C3'-C2'-O2'	6.38	120.27	110.70
25	BB	2375	G	C4'-C3'-C2'	-6.38	96.22	102.60
16	AQ	52	VAL	CA-C-O	-6.38	113.69	120.64
21	AV	20	ASN	OD1-CG-ND2	-6.38	116.22	122.60
25	BB	1551	A	C1'-O4'-C4'	-6.38	103.52	109.90
25	BB	1782	U	C4'-C3'-C2'	-6.38	96.22	102.60
25	BB	2547	A	C4'-C3'-C2'	-6.38	96.22	102.60
48	BY	128	ARG	NE-CZ-NH2	6.38	124.94	119.20
3	A1	1013	G	C3'-C2'-C1'	-6.38	94.92	101.30
3	A1	1195	C	O4'-C4'-C3'	6.38	110.38	104.00
3	A1	1346	A	O4'-C4'-C3'	6.38	112.48	106.10
25	BB	1237	A	C4'-C3'-O3'	6.38	118.97	109.40
25	BB	1449	G	C3'-C2'-C1'	6.38	107.68	101.30
25	BB	1944	U	C3'-C2'-C1'	6.38	107.68	101.30
3	A1	741	G	O4'-C4'-C3'	6.38	110.38	104.00
12	AK	60	ARG	N-CA-C	6.38	119.05	111.33
25	BB	1433	A	C4'-C3'-C2'	6.38	108.98	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
42	BS	52	ALA	CA-C-O	-6.38	113.79	120.55
45	BV	17	GLY	O-C-N	-6.38	118.63	123.35
25	BB	1028	A	C4'-C3'-O3'	-6.38	99.84	109.40
37	BN	8	THR	CA-CB-CG2	6.38	121.34	110.50
37	BN	13	ARG	NE-CZ-NH1	6.38	127.88	121.50
3	A1	15	G	C4'-C3'-O3'	6.37	122.56	113.00
3	A1	175	C	O4'-C1'-C2'	-6.37	99.43	105.80
37	BN	112	GLY	CA-C-N	6.37	133.71	121.54
37	BN	112	GLY	C-N-CA	6.37	133.71	121.54
3	A1	779	C	C3'-C2'-C1'	6.37	107.67	101.30
3	A1	920	U	O4'-C1'-C2'	-6.37	101.23	107.60
12	AK	56	ARG	NH1-CZ-NH2	-6.37	111.02	119.30
25	BB	20	C	C4'-C3'-C2'	-6.37	96.23	102.60
25	BB	1690	A	C3'-C2'-O2'	6.37	120.26	110.70
25	BB	1873	G	O5'-C5'-C4'	-6.37	101.94	111.50
33	BJ	32	ARG	NH1-CZ-NH2	-6.37	111.02	119.30
51	B2	94	ARG	CD-NE-CZ	6.37	133.32	124.40
4	AB	203	ASP	N-CA-C	6.37	121.88	111.37
3	A1	530	G	O3'-P-O5'	-6.37	94.45	104.00
3	A1	857	C	C5'-C4'-C3'	-6.37	105.65	115.20
3	A1	1195	C	O3'-P-O5'	6.37	113.55	104.00
3	A1	1347	G	C3'-C2'-C1'	-6.37	95.13	101.50
25	BB	1662	U	C5'-C4'-O4'	6.37	119.35	109.80
51	B2	146	ASP	CA-C-N	6.37	133.71	121.54
51	B2	146	ASP	C-N-CA	6.37	133.71	121.54
25	BB	11	C	O4'-C1'-C2'	-6.37	99.43	105.80
25	BB	536	G	O4'-C1'-N9	6.37	118.05	108.50
25	BB	1467	U	C4'-C3'-C2'	-6.37	96.23	102.60
25	BB	2313	C	C4'-C3'-C2'	6.37	108.97	102.60
25	BB	2751	G	O3'-P-O5'	6.37	113.55	104.00
29	BF	89	VAL	CA-C-O	6.37	127.11	120.36
3	A1	499	A	O5'-C5'-C4'	-6.37	102.15	111.70
8	AG	58	ARG	NH1-CZ-NH2	-6.37	111.03	119.30
16	AQ	46	ARG	CD-NE-CZ	6.37	133.31	124.40
17	AR	130	ASN	OD1-CG-ND2	-6.37	116.23	122.60
25	BB	1583	A	C5'-C4'-O4'	6.37	119.35	109.80
25	BB	2071	A	OP1-P-OP2	-6.37	100.50	119.60
51	B2	155	ILE	CB-CA-C	6.37	118.80	110.91
53	B4	26	ALA	N-CA-C	6.37	119.20	111.82
3	A1	325	A	C1'-O4'-C4'	-6.36	103.54	109.90
3	A1	830	G	O5'-C5'-C4'	-6.36	101.95	111.50
3	A1	1197	A	C4'-C3'-O3'	-6.36	103.45	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	AG	70	HIS	CA-C-N	6.36	131.25	121.45
8	AG	70	HIS	C-N-CA	6.36	131.25	121.45
25	BB	2466	C	C5'-C4'-C3'	-6.36	106.45	116.00
25	BB	2675	A	O4'-C1'-N9	6.36	117.75	108.20
26	BC	20	LEU	CA-C-N	6.36	131.97	122.17
26	BC	20	LEU	C-N-CA	6.36	131.97	122.17
30	BG	12	ARG	CA-C-N	6.36	129.79	120.82
30	BG	12	ARG	C-N-CA	6.36	129.79	120.82
36	BM	87	LEU	CA-C-N	6.36	133.69	121.54
36	BM	87	LEU	C-N-CA	6.36	133.69	121.54
52	B3	142	GLN	OE1-CD-NE2	-6.36	116.24	122.60
7	AF	108	ARG	NE-CZ-NH2	-6.36	113.47	119.20
22	AW	36	GLN	OE1-CD-NE2	-6.36	116.24	122.60
25	BB	146	A	O4'-C4'-C3'	6.36	110.36	104.00
25	BB	1012	U	O4'-C1'-C2'	-6.36	99.44	105.80
25	BB	2880	C	C4'-C3'-O3'	-6.36	103.46	113.00
1	AA	61	C	O4'-C4'-C3'	6.36	110.36	104.00
1	AA	73	A	O3'-P-O5'	6.36	113.54	104.00
2	AM	19	U	O4'-C1'-C2'	-6.36	101.24	107.60
24	BA	49	C	C4'-C3'-O3'	-6.36	103.46	113.00
25	BB	1507	C	O4'-C4'-C3'	6.36	110.36	104.00
25	BB	1538	G	O4'-C4'-C3'	6.36	110.36	104.00
25	BB	2338	C	O5'-C5'-C4'	-6.36	102.16	111.70
25	BB	2699	C	C4'-C3'-C2'	6.36	108.96	102.60
25	BB	2768	U	C4'-C3'-C2'	-6.36	96.24	102.60
48	BY	199	SER	O-C-N	-6.36	115.37	123.26
3	A1	717	U	C1'-O4'-C4'	-6.36	103.34	109.70
3	A1	838	G	O4'-C1'-C2'	6.36	113.96	107.60
25	BB	207	A	C4'-C3'-O3'	6.36	122.54	113.00
25	BB	2683	C	C3'-C2'-C1'	6.36	107.66	101.30
25	BB	469	G	O3'-P-O5'	6.36	113.53	104.00
25	BB	1027	A	C4'-C3'-C2'	-6.36	96.24	102.60
25	BB	1254	A	O3'-P-O5'	6.36	113.54	104.00
25	BB	2353	G	C4'-C3'-C2'	-6.36	96.24	102.60
3	A1	391	G	O4'-C4'-C3'	6.36	110.36	104.00
16	AQ	6	ARG	NH1-CZ-NH2	-6.36	111.04	119.30
25	BB	2491	U	N1-C1'-C2'	6.36	121.53	112.00
25	BB	2555	U	C4'-C3'-C2'	6.36	108.95	102.60
1	AE	38	A	C1'-O4'-C4'	-6.35	103.55	109.90
3	A1	318	G	C3'-C2'-O2'	6.35	120.23	110.70
3	A1	800	G	C4'-C3'-O3'	-6.35	103.47	113.00
8	AG	68	ARG	NE-CZ-NH2	6.35	124.92	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	99	A	O3'-P-O5'	-6.35	94.47	104.00
3	A1	874	G	C5'-C4'-C3'	-6.35	106.47	116.00
15	AO	58	ARG	O-C-N	6.35	126.38	121.23
1	AA	37	G	C4'-C3'-C2'	6.35	108.95	102.60
3	A1	1340	A	C4'-C3'-O3'	6.35	125.20	112.50
25	BB	935	C	N1-C1'-C2'	-6.35	102.47	112.00
25	BB	975	A	C1'-C2'-O2'	-6.35	102.27	111.80
25	BB	2131	U	C3'-C2'-C1'	6.35	107.65	101.30
25	BB	2216	G	C1'-C2'-O2'	6.35	117.93	108.40
25	BB	2899	A	O4'-C4'-C3'	6.35	110.35	104.00
1	AA	8	U	C2'-C3'-O3'	6.35	123.22	113.70
3	A1	169	C	O4'-C1'-N1	6.35	118.02	108.50
25	BB	2177	C	C4'-C3'-C2'	-6.35	96.25	102.60
29	BF	54	THR	N-CA-CB	6.35	121.22	110.49
37	BN	211	ARG	NH1-CZ-NH2	-6.35	111.05	119.30
25	BB	1168	G	O4'-C1'-C2'	-6.35	101.25	107.60
25	BB	1214	A	C1'-O4'-C4'	-6.35	103.55	109.90
25	BB	2013	A	O3'-P-O5'	-6.35	94.48	104.00
48	BY	161	MET	N-CA-C	6.35	120.28	112.54
9	AH	2	LEU	N-CA-C	6.35	118.06	110.19
17	AR	180	THR	O-C-N	-6.35	115.80	123.10
25	BB	2804	U	C5'-C4'-C3'	-6.35	106.48	116.00
28	BE	98	ALA	CA-C-N	6.35	128.78	120.28
28	BE	98	ALA	C-N-CA	6.35	128.78	120.28
37	BN	199	HIS	CA-C-N	6.35	133.66	121.54
37	BN	199	HIS	C-N-CA	6.35	133.66	121.54
21	AV	124	ILE	CA-C-N	6.34	129.08	120.77
21	AV	124	ILE	C-N-CA	6.34	129.08	120.77
23	AX	7	ARG	N-CA-C	6.34	118.78	108.63
27	BD	12	ASP	CA-CB-CG	6.34	118.94	112.60
42	BS	4	ASP	N-CA-C	6.34	120.48	112.87
53	B4	39	ALA	CA-C-O	6.34	127.17	119.49
25	BB	1280	G	O4'-C4'-C3'	6.34	110.34	104.00
25	BB	1467	U	O5'-C5'-C4'	-6.34	101.98	111.50
25	BB	2018	G	O4'-C1'-C2'	-6.34	99.46	105.80
36	BM	88	LYS	CA-C-N	6.34	129.02	120.65
36	BM	88	LYS	C-N-CA	6.34	129.02	120.65
25	BB	685	A	O4'-C1'-C2'	-6.34	101.26	107.60
25	BB	1282	U	C4'-C3'-C2'	-6.34	96.26	102.60
25	BB	1323	C	C1'-C2'-O2'	-6.34	102.29	111.80
25	BB	2104	C	C4'-C3'-C2'	-6.34	96.26	102.60
3	A1	343	U	C3'-C2'-O2'	6.34	120.21	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	821	G	O4'-C1'-N9	6.34	117.71	108.20
11	AJ	61	ARG	N-CA-C	6.34	119.86	109.72
15	AO	39	ARG	CA-C-N	6.34	129.06	120.44
15	AO	39	ARG	C-N-CA	6.34	129.06	120.44
22	AW	49	GLN	CA-C-N	6.34	126.03	119.56
22	AW	49	GLN	C-N-CA	6.34	126.03	119.56
25	BB	399	U	C1'-O4'-C4'	-6.34	103.56	109.90
25	BB	760	G	O5'-C5'-C4'	6.34	121.01	111.50
25	BB	1078	U	C3'-C2'-O2'	6.34	120.21	110.70
25	BB	1248	G	P-O3'-C3'	6.34	129.71	120.20
25	BB	2743	U	C5'-C4'-C3'	-6.34	106.49	116.00
3	A1	1501	C	C3'-C2'-C1'	6.34	107.84	101.50
12	AK	42	ARG	NH1-CZ-NH2	-6.34	111.06	119.30
20	AU	110	ARG	NE-CZ-NH1	6.34	127.84	121.50
24	BA	99	A	N1-C6-N6	-6.34	99.59	118.60
25	BB	34	U	C3'-C2'-C1'	6.34	107.64	101.30
25	BB	202	U	O4'-C4'-C3'	-6.34	97.66	104.00
25	BB	1604	C	O4'-C4'-C3'	6.34	110.34	104.00
45	BV	19	ARG	NE-CZ-NH2	6.34	124.90	119.20
15	AO	93	ILE	N-CA-C	6.34	116.49	110.53
17	AR	84	ASN	CA-C-N	6.34	130.32	120.82
17	AR	84	ASN	C-N-CA	6.34	130.32	120.82
25	BB	759	G	C2'-C3'-O3'	6.34	119.00	109.50
25	BB	1364	G	C5'-C4'-C3'	-6.34	106.50	116.00
25	BB	1420	A	C2'-C3'-O3'	6.34	119.01	109.50
25	BB	1634	A	C4'-C3'-C2'	-6.34	96.26	102.60
25	BB	1735	A	P-O5'-C5'	6.34	130.41	120.90
30	BG	57	THR	CA-CB-OG1	6.34	119.10	109.60
55	B6	124	VAL	CA-CB-CG2	6.34	121.17	110.40
25	BB	2480	C	C1'-O4'-C4'	-6.33	103.56	109.90
25	BB	2676	C	C1'-O4'-C4'	-6.33	103.56	109.90
25	BB	2804	U	C3'-C2'-O2'	6.33	120.20	110.70
28	BE	87	GLY	CA-C-O	6.33	126.94	119.46
53	B4	38	PRO	CB-CA-C	-6.33	103.59	111.64
3	A1	395	C	C4'-C3'-C2'	-6.33	96.27	102.60
3	A1	481	G	C3'-C2'-C1'	6.33	107.63	101.30
3	A1	601	G	O4'-C4'-C3'	-6.33	97.67	104.00
3	A1	936	C	O4'-C4'-C3'	6.33	110.33	104.00
5	AC	39	ASN	OD1-CG-ND2	-6.33	116.27	122.60
24	BA	84	G	C3'-C2'-C1'	6.33	107.63	101.30
25	BB	1384	A	C5'-C4'-C3'	-6.33	105.70	115.20
25	BB	1987	A	O4'-C4'-C3'	6.33	110.33	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2366	A	O4'-C4'-C3'	6.33	110.33	104.00
29	BF	50	ARG	NE-CZ-NH2	6.33	124.90	119.20
39	BP	65	LYS	CB-CA-C	6.33	123.03	110.42
52	B3	168	VAL	O-C-N	-6.33	116.22	123.00
1	AA	2	C	O3'-P-O5'	-6.33	94.50	104.00
3	A1	64	G	C2'-C3'-O3'	6.33	119.00	109.50
3	A1	703	G	C3'-C2'-O2'	6.33	124.10	114.60
21	AV	19	ALA	CA-C-N	6.33	133.63	121.54
21	AV	19	ALA	C-N-CA	6.33	133.63	121.54
25	BB	239	C	O5'-C5'-C4'	6.33	121.00	111.50
25	BB	376	G	C2'-C3'-O3'	6.33	119.00	109.50
25	BB	1061	U	C4'-C3'-O3'	-6.33	99.90	109.40
25	BB	1669	A	P-O3'-C3'	6.33	129.70	120.20
1	AE	52	U	N1-C1'-C2'	6.33	121.50	112.00
14	AN	5	SER	N-CA-CB	6.33	119.56	110.06
25	BB	2381	A	C3'-C2'-O2'	6.33	120.19	110.70
25	BB	2704	C	O3'-P-O5'	-6.33	94.51	104.00
1	AP	28	C	C4'-C3'-C2'	-6.33	96.27	102.60
3	A1	177	G	C1'-O4'-C4'	-6.33	103.57	109.90
3	A1	904	U	C1'-O4'-C4'	-6.33	103.57	109.90
25	BB	2520	C	O3'-P-O5'	6.33	113.49	104.00
30	BG	35	LYS	CA-C-O	6.33	125.97	118.69
25	BB	862	G	C4'-C3'-C2'	-6.33	96.27	102.60
33	BJ	33	VAL	N-CA-C	6.33	120.90	112.04
1	AE	42	G	P-O5'-C5'	6.33	130.39	120.90
25	BB	806	C	C3'-C2'-C1'	-6.33	95.17	101.50
25	BB	2369	A	O4'-C1'-C2'	-6.33	101.27	107.60
25	BB	2806	C	C3'-C2'-O2'	6.33	120.19	110.70
50	B1	42	GLY	CA-C-N	6.33	133.62	121.54
50	B1	42	GLY	C-N-CA	6.33	133.62	121.54
3	A1	789	U	C4'-C3'-O3'	-6.32	103.52	113.00
18	AS	58	ALA	CA-C-O	-6.32	112.33	119.79
23	AX	22	THR	N-CA-C	6.32	118.98	111.71
24	BA	104	A	O4'-C4'-C3'	6.32	110.32	104.00
25	BB	372	G	O3'-P-O5'	-6.32	94.51	104.00
25	BB	596	U	C5'-C4'-C3'	-6.32	106.52	116.00
25	BB	997	G	C1'-O4'-C4'	-6.32	103.58	109.90
25	BB	2246	G	N9-C1'-C2'	6.32	121.49	112.00
55	B6	40	HIS	CA-CB-CG	6.32	120.12	113.80
13	AL	52	ASN	CA-CB-CG	6.32	118.92	112.60
25	BB	1059	G	C5'-C4'-C3'	-6.32	106.52	116.00
25	BB	2565	A	C3'-C2'-O2'	6.32	124.08	114.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	B2	147	ARG	CA-C-O	-6.32	111.47	120.51
55	B6	64	VAL	N-CA-C	6.32	122.49	109.34
2	AM	5	U	P-O3'-C3'	6.32	129.68	120.20
3	A1	389	A	C3'-C2'-C1'	6.32	107.62	101.30
3	A1	1268	G	C2'-C3'-O3'	6.32	123.18	113.70
25	BB	1320	C	C1'-C2'-O2'	6.32	121.28	111.80
25	BB	1955	U	O5'-C5'-C4'	-6.32	102.22	111.70
28	BE	112	LEU	N-CA-C	6.32	118.38	108.96
33	BJ	27	ARG	NE-CZ-NH2	6.32	124.89	119.20
3	A1	1466	C	O4'-C4'-C3'	6.32	110.32	104.00
25	BB	2077	A	C4'-C3'-O3'	6.32	122.48	113.00
1	AA	54	U	O3'-P-O5'	-6.32	94.53	104.00
15	AO	64	ARG	NE-CZ-NH1	6.32	127.82	121.50
25	BB	613	A	O4'-C1'-C2'	-6.32	99.48	105.80
25	BB	1588	G	C4'-C3'-C2'	-6.32	96.28	102.60
25	BB	1678	A	C3'-C2'-O2'	6.32	120.18	110.70
33	BJ	91	ARG	NH1-CZ-NH2	-6.32	111.09	119.30
48	BY	59	ARG	NH1-CZ-NH2	-6.32	111.09	119.30
51	B2	34	THR	N-CA-CB	6.32	120.75	110.90
3	A1	1477	U	C4'-C3'-C2'	6.32	108.92	102.60
15	AO	85	LYS	CA-C-N	6.32	129.38	120.28
15	AO	85	LYS	C-N-CA	6.32	129.38	120.28
25	BB	960	A	C1'-O4'-C4'	-6.32	103.58	109.90
25	BB	971	G	P-O5'-C5'	6.32	130.37	120.90
25	BB	983	A	O4'-C1'-C2'	-6.32	101.28	107.60
25	BB	1113	U	O4'-C1'-C2'	-6.32	101.28	107.60
25	BB	2680	U	O5'-C5'-C4'	-6.32	102.23	111.70
1	AP	3	G	C3'-C2'-O2'	6.31	120.17	110.70
3	A1	290	C	O4'-C1'-C2'	-6.31	99.49	105.80
13	AL	21	ALA	N-CA-CB	-6.31	99.80	110.41
25	BB	2487	G	O4'-C1'-N9	6.31	117.97	108.50
3	A1	188	C	C4'-C3'-C2'	-6.31	96.29	102.60
4	AB	143	LEU	O-C-N	-6.31	113.44	122.03
24	BA	37	C	C3'-C2'-C1'	6.31	107.61	101.30
25	BB	697	G	O3'-P-O5'	-6.31	94.53	104.00
25	BB	1322	A	C4'-C3'-O3'	-6.31	99.93	109.40
25	BB	1809	A	C3'-C2'-C1'	-6.31	94.99	101.30
25	BB	2295	C	O3'-P-O5'	-6.31	94.53	104.00
25	BB	2799	A	C1'-C2'-O2'	6.31	121.27	111.80
25	BB	1006	C	C5'-C4'-O4'	6.31	119.27	109.80
34	BK	93	PHE	CA-CB-CG	6.31	120.11	113.80
1	AP	3	G	C5'-C4'-C3'	-6.31	106.54	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	128	G	C4'-C3'-C2'	-6.31	96.29	102.60
3	A1	498	A	C1'-O4'-C4'	-6.31	103.59	109.90
17	AR	149	LYS	CA-C-O	-6.31	113.85	120.92
23	AX	70	HIS	CB-CG-CD2	-6.31	123.00	131.20
25	BB	834	G	O3'-P-O5'	-6.31	94.53	104.00
25	BB	854	C	C1'-O4'-C4'	-6.31	103.59	109.90
25	BB	1191	G	O5'-C5'-C4'	-6.31	102.04	111.50
25	BB	2551	C	C3'-C2'-O2'	6.31	124.06	114.60
25	BB	2855	C	O4'-C1'-N1	6.31	117.96	108.50
50	B1	26	ALA	CA-C-N	6.31	128.98	120.65
50	B1	26	ALA	C-N-CA	6.31	128.98	120.65
7	AF	92	ARG	NE-CZ-NH2	-6.31	113.52	119.20
9	AH	57	ARG	CD-NE-CZ	6.31	133.23	124.40
20	AU	108	ARG	O-C-N	-6.31	115.57	122.07
25	BB	1555	G	O4'-C1'-N9	6.31	117.96	108.50
52	B3	163	TYR	CA-CB-CG	6.31	125.25	113.90
25	BB	965	C	C2'-C3'-O3'	6.31	118.96	109.50
25	BB	2120	G	C5'-C4'-C3'	-6.31	106.54	116.00
3	A1	119	A	N9-C1'-C2'	6.30	121.46	112.00
3	A1	973	G	O4'-C1'-N9	6.30	117.96	108.50
25	BB	853	C	O4'-C1'-C2'	-6.30	101.30	107.60
25	BB	861	A	C2'-C3'-O3'	6.30	123.16	113.70
25	BB	2094	A	C4'-C3'-C2'	-6.30	96.30	102.60
3	A1	1046	A	O4'-C4'-C3'	6.30	110.30	104.00
24	BA	101	A	C5'-C4'-C3'	-6.30	106.55	116.00
25	BB	69	C	O4'-C1'-C2'	-6.30	99.50	105.80
25	BB	1603	A	O4'-C1'-C2'	-6.30	101.30	107.60
25	BB	1811	G	O5'-C5'-C4'	6.30	121.15	111.70
25	BB	2404	U	O4'-C1'-C2'	-6.30	101.30	107.60
3	A1	294	U	N1-C1'-C2'	-6.30	104.55	114.00
3	A1	935	A	C5'-C4'-C3'	-6.30	106.55	116.00
17	AR	148	ALA	CA-C-N	6.30	130.27	120.82
17	AR	148	ALA	C-N-CA	6.30	130.27	120.82
25	BB	1719	G	O4'-C4'-C3'	6.30	110.30	104.00
25	BB	245	G	C3'-C2'-O2'	6.30	120.15	110.70
25	BB	999	U	C2'-C3'-O3'	6.30	123.14	113.70
25	BB	1184	U	C1'-O4'-C4'	-6.30	103.60	109.90
25	BB	2517	C	C1'-O4'-C4'	-6.30	103.40	109.70
34	BK	82	HIS	CB-CG-CD2	-6.29	123.02	131.20
3	A1	156	C	O3'-P-O5'	6.29	113.44	104.00
15	AO	78	LYS	CA-C-N	6.29	133.56	121.54
15	AO	78	LYS	C-N-CA	6.29	133.56	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	AT	94	HIS	CA-CB-CG	6.29	120.09	113.80
25	BB	1423	G	O4'-C4'-C3'	6.29	110.29	104.00
25	BB	2444	G	C3'-C2'-C1'	6.29	107.59	101.30
3	A1	545	C	C5'-C4'-C3'	-6.29	106.56	116.00
3	A1	698	G	N9-C1'-C2'	6.29	121.44	112.00
3	A1	702	A	C5'-C4'-O4'	6.29	118.54	109.10
3	A1	1059	C	C5'-C4'-O4'	6.29	119.24	109.80
3	A1	1088	G	C3'-C2'-O2'	6.29	120.14	110.70
25	BB	342	A	O4'-C4'-C3'	6.29	110.29	104.00
25	BB	360	U	N1-C1'-C2'	-6.29	104.56	114.00
25	BB	2407	A	C1'-O4'-C4'	6.29	116.19	109.90
6	AD	82	ARG	NH1-CZ-NH2	-6.29	111.12	119.30
25	BB	387	U	C1'-O4'-C4'	-6.29	103.41	109.70
25	BB	2062	A	P-O3'-C3'	6.29	129.63	120.20
3	A1	271	C	O4'-C4'-C3'	6.29	110.29	104.00
3	A1	306	A	O3'-P-O5'	6.29	113.43	104.00
3	A1	688	G	C4'-C3'-C2'	-6.29	96.31	102.60
3	A1	1343	G	O4'-C1'-C2'	-6.29	101.31	107.60
25	BB	1085	A	C3'-C2'-C1'	6.29	107.59	101.30
25	BB	2030	A	C1'-O4'-C4'	-6.29	103.61	109.90
33	BJ	4	LYS	CA-C-N	6.29	133.55	121.54
33	BJ	4	LYS	C-N-CA	6.29	133.55	121.54
37	BN	261	ARG	NE-CZ-NH2	6.29	124.86	119.20
3	A1	667	G	C3'-C2'-O2'	6.29	120.13	110.70
12	AK	42	ARG	NE-CZ-NH2	6.29	124.86	119.20
25	BB	1175	A	C3'-C2'-O2'	-6.29	101.27	110.70
1	AA	54	U	C4'-C3'-C2'	-6.29	96.31	102.60
3	A1	38	G	C4'-C3'-C2'	-6.29	96.31	102.60
3	A1	766	A	O3'-P-O5'	-6.29	94.57	104.00
25	BB	150	U	C1'-C2'-O2'	-6.29	98.97	108.40
25	BB	162	U	O4'-C1'-C2'	6.29	112.09	105.80
25	BB	1018	U	O4'-C1'-N1	6.29	117.93	108.50
25	BB	1723	G	C5'-C4'-O4'	6.29	119.23	109.80
25	BB	2774	C	N1-C1'-C2'	6.29	121.43	112.00
28	BE	91	ASP	N-CA-C	6.29	120.55	113.01
47	BX	16	ILE	CA-C-N	6.29	133.28	121.97
47	BX	16	ILE	C-N-CA	6.29	133.28	121.97
52	B3	170	THR	N-CA-C	6.29	119.73	110.30
25	BB	130	C	C1'-O4'-C4'	-6.28	103.42	109.70
25	BB	541	A	C3'-C2'-C1'	6.28	107.58	101.30
25	BB	1421	G	O4'-C1'-C2'	-6.28	101.32	107.60
25	BB	2123	G	C5'-C4'-O4'	6.28	119.23	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2386	A	C2'-C3'-O3'	6.28	118.92	109.50
25	BB	2682	A	C5'-C4'-C3'	-6.28	105.77	115.20
33	BJ	5	ARG	NE-CZ-NH1	-6.28	115.22	121.50
49	BZ	200	LEU	CA-C-O	6.28	128.20	121.16
22	AW	125	GLN	CA-C-O	6.28	128.21	121.11
50	B1	165	HIS	CA-C-N	6.28	133.54	121.54
50	B1	165	HIS	C-N-CA	6.28	133.54	121.54
25	BB	2064	C	O4'-C4'-C3'	-6.28	99.82	106.10
25	BB	2558	C	O4'-C4'-C3'	6.28	112.38	106.10
25	BB	2579	C	C4'-C3'-O3'	6.28	118.82	109.40
38	BO	8	ASP	N-CA-CB	-6.28	101.03	111.20
3	A1	783	C	C1'-O4'-C4'	-6.28	103.62	109.90
15	AO	39	ARG	CA-C-O	-6.28	112.75	119.97
25	BB	858	G	C1'-O4'-C4'	-6.28	103.62	109.90
25	BB	941	A	C4'-C3'-C2'	-6.28	96.32	102.60
49	BZ	32	ILE	CA-CB-CG1	6.28	121.07	110.40
3	A1	1069	C	C4'-C3'-C2'	-6.28	96.32	102.60
3	A1	1106	G	O4'-C1'-C2'	-6.28	99.52	105.80
7	AF	64	VAL	CA-C-N	6.28	133.53	121.54
7	AF	64	VAL	C-N-CA	6.28	133.53	121.54
25	BB	597	G	O4'-C4'-C3'	6.28	110.28	104.00
25	BB	936	A	C4'-C3'-O3'	-6.28	103.58	113.00
55	B6	13	ARG	NE-CZ-NH1	6.28	127.78	121.50
1	AP	49	C	C3'-C2'-O2'	6.28	120.11	110.70
3	A1	494	G	C4'-C3'-C2'	-6.28	96.32	102.60
3	A1	728	A	C3'-C2'-C1'	6.28	107.58	101.30
18	AS	111	ARG	NE-CZ-NH2	6.28	124.85	119.20
20	AU	110	ARG	NE-CZ-NH2	-6.28	113.55	119.20
21	AV	15	ASN	OD1-CG-ND2	-6.28	116.33	122.60
25	BB	484	C	C2'-C3'-O3'	6.28	123.11	113.70
25	BB	848	C	C3'-C2'-C1'	6.28	107.58	101.30
53	B4	64	ALA	CA-C-O	-6.28	113.77	120.42
3	A1	1350	A	C3'-C2'-C1'	6.27	107.57	101.30
25	BB	1934	C	C2'-C3'-O3'	6.27	118.91	109.50
29	BF	55	ARG	NE-CZ-NH2	6.27	124.85	119.20
1	AP	70	C	N1-C1'-C2'	-6.27	102.59	112.00
25	BB	187	G	C2'-C3'-O3'	-6.27	104.29	113.70
25	BB	578	G	O4'-C1'-C2'	6.27	113.87	107.60
25	BB	1656	C	C2'-C3'-O3'	6.27	118.91	109.50
25	BB	1955	U	C5'-C4'-C3'	6.27	124.61	115.20
25	BB	2048	G	C3'-C2'-O2'	6.27	120.11	110.70
25	BB	2171	A	O4'-C1'-C2'	6.27	112.07	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
32	BI	111	GLU	CA-C-N	6.27	133.52	121.54
32	BI	111	GLU	C-N-CA	6.27	133.52	121.54
39	BP	75	ASN	CA-CB-CG	6.27	118.87	112.60
48	BY	120	GLY	CA-C-N	6.27	131.34	120.68
48	BY	120	GLY	C-N-CA	6.27	131.34	120.68
54	B5	113	ALA	O-C-N	-6.27	114.25	122.59
3	A1	233	C	O4'-C4'-C3'	6.27	110.27	104.00
3	A1	1413	A	C4'-C3'-C2'	-6.27	96.33	102.60
24	BA	81	G	O4'-C1'-C2'	-6.27	99.53	105.80
25	BB	1245	G	C5'-C4'-O4'	6.27	119.21	109.80
1	AP	45	G	O4'-C1'-C2'	-6.27	101.33	107.60
3	A1	1180	A	O5'-C5'-C4'	-6.27	102.10	111.50
4	AB	17	HIS	ND1-CG-CD2	6.27	112.37	106.10
5	AC	98	ALA	N-CA-C	6.27	118.11	111.28
18	AS	84	VAL	O-C-N	-6.27	116.04	122.75
25	BB	370	G	N9-C1'-C2'	6.27	121.40	112.00
25	BB	834	G	N9-C1'-C2'	6.27	121.41	112.00
25	BB	2666	C	C5'-C4'-C3'	-6.27	106.60	116.00
37	BN	218	THR	CA-CB-CG2	6.27	121.16	110.50
52	B3	140	ILE	CA-C-N	6.27	126.94	119.98
52	B3	140	ILE	C-N-CA	6.27	126.94	119.98
7	AF	7	ASN	OD1-CG-ND2	-6.27	116.33	122.60
25	BB	2572	A	C3'-C2'-O2'	6.27	124.00	114.60
29	BF	127	LYS	CA-C-N	6.27	131.37	122.09
29	BF	127	LYS	C-N-CA	6.27	131.37	122.09
37	BN	200	MET	CA-C-N	6.27	130.63	120.60
37	BN	200	MET	C-N-CA	6.27	130.63	120.60
45	BV	40	ALA	CA-C-N	6.27	133.09	121.62
45	BV	40	ALA	C-N-CA	6.27	133.09	121.62
3	A1	1365	G	C3'-C2'-C1'	6.27	107.57	101.30
25	BB	131	A	C4'-C3'-C2'	-6.27	96.33	102.60
26	BC	18	ARG	CD-NE-CZ	6.27	133.17	124.40
52	B3	138	GLN	O-C-N	-6.27	114.08	122.23
1	AE	25	C	O4'-C4'-C3'	6.26	110.27	104.00
17	AR	131	ILE	CA-C-N	6.26	130.62	120.60
17	AR	131	ILE	C-N-CA	6.26	130.62	120.60
25	BB	819	A	C1'-O4'-C4'	-6.26	103.64	109.90
25	BB	915	C	C4'-C3'-C2'	-6.26	96.34	102.60
25	BB	1762	A	C3'-C2'-O2'	6.26	120.10	110.70
25	BB	2407	A	O4'-C1'-C2'	-6.26	101.33	107.60
25	BB	2537	U	C5'-C4'-O4'	6.26	118.49	109.10
1	AE	39	U	C3'-C2'-C1'	6.26	107.56	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
10	AI	37	GLY	CA-C-N	6.26	132.62	122.29
10	AI	37	GLY	C-N-CA	6.26	132.62	122.29
24	BA	66	A	C3'-C2'-C1'	6.26	107.76	101.50
25	BB	2188	U	O4'-C1'-N1	6.26	117.89	108.50
25	BB	2452	C	C2'-C3'-O3'	6.26	118.89	109.50
25	BB	183	C	O4'-C4'-C3'	6.26	110.26	104.00
25	BB	520	G	C3'-C2'-O2'	6.26	120.09	110.70
25	BB	629	G	C4'-C3'-C2'	-6.26	96.34	102.60
51	B2	177	ARG	NE-CZ-NH2	6.26	124.83	119.20
7	AF	92	ARG	N-CA-C	6.26	120.47	112.34
8	AG	32	ASP	N-CA-CB	-6.26	100.94	110.45
25	BB	6	A	C5'-C4'-C3'	-6.26	106.61	116.00
25	BB	1716	U	C3'-C2'-O2'	6.26	120.08	110.70
25	BB	2878	U	C2'-C3'-O3'	6.26	123.09	113.70
29	BF	16	ARG	NE-CZ-NH1	6.26	127.76	121.50
3	A1	875	U	C1'-O4'-C4'	-6.25	103.64	109.90
3	A1	1125	U	O4'-C1'-C2'	-6.25	99.55	105.80
3	A1	1420	U	C5'-C4'-O4'	6.25	119.18	109.80
25	BB	658	U	C1'-O4'-C4'	-6.25	103.64	109.90
25	BB	729	G	C2'-C3'-O3'	6.25	123.08	113.70
25	BB	730	A	C5'-C4'-C3'	-6.25	106.62	116.00
1	AP	46	G	C3'-C2'-C1'	-6.25	95.25	101.50
25	BB	229	C	O3'-P-O5'	6.25	113.38	104.00
25	BB	1258	U	N1-C1'-C2'	6.25	121.38	112.00
25	BB	1296	G	C4'-C3'-O3'	-6.25	103.62	113.00
37	BN	62	ARG	CA-C-N	6.25	128.95	120.63
37	BN	62	ARG	C-N-CA	6.25	128.95	120.63
52	B3	156	TYR	CA-C-O	-6.25	113.86	120.55
3	A1	817	C	P-O5'-C5'	6.25	130.28	120.90
14	AN	63	LYS	O-C-N	6.25	128.59	122.09
15	AO	204	GLY	CA-C-N	6.25	129.81	120.31
15	AO	204	GLY	C-N-CA	6.25	129.81	120.31
21	AV	85	TYR	O-C-N	-6.25	115.88	123.19
25	BB	2	G	C2'-C3'-O3'	6.25	118.88	109.50
25	BB	718	A	C2'-C3'-O3'	-6.25	104.32	113.70
25	BB	1947	C	O4'-C1'-C2'	-6.25	101.35	107.60
25	BB	2083	G	C5'-C4'-C3'	-6.25	106.62	116.00
25	BB	2762	C	C4'-C3'-C2'	-6.25	96.35	102.60
36	BM	85	VAL	N-CA-C	6.25	116.16	108.53
49	BZ	87	ARG	CA-C-N	6.25	129.13	120.63
49	BZ	87	ARG	C-N-CA	6.25	129.13	120.63
3	A1	175	C	C2'-C3'-O3'	6.25	118.88	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	473	U	C1'-O4'-C4'	-6.25	103.65	109.90
3	A1	1462	C	C4'-C3'-C2'	-6.25	96.35	102.60
16	AQ	8	ASN	O-C-N	-6.25	116.30	123.42
25	BB	800	A	C3'-C2'-O2'	-6.25	105.22	114.60
25	BB	2791	G	C5'-C4'-O4'	6.25	119.17	109.80
24	BA	111	U	C3'-C2'-O2'	6.25	120.07	110.70
25	BB	2583	G	O4'-C4'-C3'	6.25	110.25	104.00
25	BB	2744	G	O4'-C4'-C3'	6.25	112.35	106.10
27	BD	98	ARG	NH1-CZ-NH2	-6.25	111.18	119.30
30	BG	16	HIS	ND1-CE1-NE2	6.25	114.65	108.40
31	BH	40	ILE	CA-CB-CG2	6.25	121.12	110.50
3	A1	892	A	C3'-C2'-C1'	6.25	107.55	101.30
20	AU	58	LEU	CA-C-N	6.25	131.26	120.58
20	AU	58	LEU	C-N-CA	6.25	131.26	120.58
25	BB	37	C	O3'-P-O5'	-6.25	94.63	104.00
25	BB	2291	U	C5'-C4'-C3'	-6.25	106.63	116.00
25	BB	2529	G	N9-C1'-C2'	6.25	121.37	112.00
25	BB	2683	C	O4'-C1'-C2'	-6.25	101.35	107.60
25	BB	2818	U	O3'-P-O5'	-6.25	94.63	104.00
53	B4	135	HIS	CB-CG-ND1	6.25	132.07	122.70
25	BB	1947	C	O4'-C4'-C3'	6.25	110.25	104.00
51	B2	27	VAL	CA-C-N	6.25	127.19	120.13
51	B2	27	VAL	C-N-CA	6.25	127.19	120.13
3	A1	1513	A	O3'-P-O5'	6.24	113.37	104.00
25	BB	1316	U	C1'-O4'-C4'	-6.24	103.66	109.90
25	BB	1364	G	P-O3'-C3'	6.24	129.56	120.20
25	BB	1769	U	C3'-C2'-O2'	6.24	120.06	110.70
25	BB	2663	G	O3'-P-O5'	6.24	113.36	104.00
28	BE	10	GLU	CA-C-N	6.24	133.65	121.41
28	BE	10	GLU	C-N-CA	6.24	133.65	121.41
39	BP	75	ASN	OD1-CG-ND2	-6.24	116.36	122.60
53	B4	76	GLU	CA-C-N	6.24	133.47	121.54
53	B4	76	GLU	C-N-CA	6.24	133.47	121.54
54	B5	110	GLN	OE1-CD-NE2	-6.24	116.36	122.60
3	A1	340	U	O4'-C4'-C3'	-6.24	97.76	104.00
9	AH	41	HIS	CB-CG-CD2	-6.24	123.09	131.20
25	BB	1519	G	O4'-C1'-C2'	-6.24	101.36	107.60
25	BB	2108	A	C5'-C4'-O4'	6.24	118.46	109.10
3	A1	524	G	C5'-C4'-O4'	6.24	119.16	109.80
25	BB	646	U	C3'-C2'-O2'	6.24	120.06	110.70
25	BB	1741	C	C5'-C4'-O4'	6.24	119.16	109.80
25	BB	2291	U	C4'-C3'-C2'	-6.24	96.36	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2491	U	C2'-C3'-O3'	6.24	123.06	113.70
25	BB	2890	G	C1'-O4'-C4'	6.24	116.14	109.90
30	BG	33	ILE	CB-CA-C	6.24	118.42	111.80
37	BN	243	PRO	CA-C-N	6.24	133.20	121.97
37	BN	243	PRO	C-N-CA	6.24	133.20	121.97
43	BT	5	ASN	CA-C-N	6.24	137.03	121.80
43	BT	5	ASN	C-N-CA	6.24	137.03	121.80
1	AP	41	U	C1'-O4'-C4'	-6.24	103.66	109.90
3	A1	9	G	C2'-C3'-O3'	6.24	118.86	109.50
4	AB	94	ARG	CB-CA-C	6.24	119.74	109.70
25	BB	1223	G	N9-C1'-C2'	6.24	121.36	112.00
25	BB	2553	G	O5'-C5'-C4'	6.24	120.86	111.50
36	BM	6	ARG	N-CA-C	6.24	120.45	112.34
54	B5	102	ARG	CA-C-O	-6.24	113.89	120.63
3	A1	1390	U	O3'-P-O5'	6.24	113.36	104.00
23	AX	52	LEU	N-CA-CB	-6.24	101.20	110.24
3	A1	287	U	C4'-C3'-C2'	-6.24	96.36	102.60
25	BB	204	A	O3'-P-O5'	-6.24	94.65	104.00
25	BB	821	A	C5'-C4'-C3'	-6.24	106.65	116.00
36	BM	73	ARG	NE-CZ-NH2	6.24	124.81	119.20
12	AK	47	ARG	CA-C-N	6.23	128.63	120.28
12	AK	47	ARG	C-N-CA	6.23	128.63	120.28
25	BB	806	C	O5'-C5'-C4'	-6.23	102.35	111.70
25	BB	1942	C	O4'-C1'-N1	6.23	117.55	108.20
30	BG	75	ILE	CA-CB-CG1	6.23	121.00	110.40
3	A1	604	G	O3'-P-O5'	-6.23	94.65	104.00
3	A1	1091	U	C5'-C4'-C3'	-6.23	106.65	116.00
3	A1	1453	G	C5'-C4'-C3'	-6.23	106.65	116.00
25	BB	1773	A	C4'-C3'-C2'	-6.23	96.37	102.60
25	BB	2495	G	C3'-C2'-C1'	6.23	107.73	101.50
36	BM	9	LYS	O-C-N	-6.23	114.70	122.24
53	B4	125	THR	N-CA-C	6.23	118.34	110.24
3	A1	1397	C	C2'-C3'-O3'	6.23	118.84	109.50
25	BB	1500	G	C1'-O4'-C4'	-6.23	103.67	109.90
25	BB	1972	G	C4'-C3'-C2'	-6.23	96.37	102.60
25	BB	2428	G	O4'-C1'-N9	6.23	117.54	108.20
25	BB	2720	U	C3'-C2'-C1'	-6.23	95.27	101.50
24	BA	36	C	C5'-C4'-C3'	-6.23	105.86	115.20
25	BB	2227	A	C1'-C2'-O2'	-6.23	102.46	111.80
3	A1	733	G	O4'-C1'-N9	6.23	117.54	108.20
3	A1	1110	A	O4'-C4'-C3'	6.23	112.33	106.10
25	BB	116	C	O3'-P-O5'	6.23	113.34	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	331	C	C3'-C2'-C1'	-6.23	95.27	101.50
34	BK	79	ARG	NH1-CZ-NH2	-6.23	111.20	119.30
49	BZ	12	LEU	N-CA-C	6.23	118.87	111.33
37	BN	176	ARG	NH1-CZ-NH2	-6.23	111.21	119.30
42	BS	10	GLU	CA-C-N	6.23	130.72	120.94
42	BS	10	GLU	C-N-CA	6.23	130.72	120.94
3	A1	8	A	C3'-C2'-C1'	-6.22	95.28	101.50
37	BN	196	ASN	CA-CB-CG	6.22	118.82	112.60
25	BB	975	A	C3'-C2'-O2'	6.22	123.93	114.60
25	BB	612	G	N9-C1'-C2'	-6.22	102.67	112.00
37	BN	15	VAL	CA-C-N	6.22	130.66	122.51
37	BN	15	VAL	C-N-CA	6.22	130.66	122.51
49	BZ	10	GLU	CB-CG-CD	6.22	123.17	112.60
17	AR	121	ALA	N-CA-C	6.22	118.86	111.71
25	BB	330	A	O5'-C5'-C4'	-6.22	102.37	111.70
25	BB	389	G	C5'-C4'-C3'	-6.22	105.87	115.20
25	BB	413	C	C1'-O4'-C4'	-6.22	103.68	109.90
25	BB	2193	G	C3'-C2'-O2'	6.22	120.03	110.70
25	BB	2443	C	C2'-C3'-O3'	6.22	123.03	113.70
25	BB	2625	G	O4'-C4'-C3'	6.22	110.22	104.00
37	BN	47	ARG	CD-NE-CZ	6.22	133.11	124.40
25	BB	58	G	C5'-C4'-O4'	6.22	118.43	109.10
25	BB	2364	C	C1'-O4'-C4'	-6.22	103.68	109.90
3	A1	440	C	C4'-C3'-O3'	6.22	122.33	113.00
3	A1	510	A	O3'-P-O5'	6.22	113.33	104.00
7	AF	86	ARG	NE-CZ-NH1	6.22	127.72	121.50
25	BB	322	A	O4'-C4'-C3'	6.22	110.22	104.00
25	BB	716	A	O4'-C4'-C3'	6.22	110.22	104.00
25	BB	2541	A	C4'-C3'-O3'	6.22	122.32	113.00
50	B1	165	HIS	CE1-NE2-CD2	-6.22	102.78	109.00
7	AF	8	ILE	N-CA-CB	6.21	118.29	111.64
21	AV	19	ALA	N-CA-CB	-6.21	99.99	110.49
25	BB	1140	C	C1'-O4'-C4'	-6.21	103.49	109.70
25	BB	1272	A	O4'-C1'-N9	6.21	117.52	108.20
25	BB	2184	A	O5'-C5'-C4'	6.21	120.82	111.50
25	BB	2332	C	C2'-C3'-O3'	6.21	123.02	113.70
29	BF	22	GLN	N-CA-CB	-6.21	101.28	111.66
37	BN	221	GLY	CA-C-N	6.21	133.41	121.54
37	BN	221	GLY	C-N-CA	6.21	133.41	121.54
38	BO	23	LYS	CA-CB-CG	6.21	126.53	114.10
50	B1	97	ASN	CA-C-N	6.21	130.14	120.82
50	B1	97	ASN	C-N-CA	6.21	130.14	120.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	B5	94	LYS	N-CA-C	6.21	119.33	111.69
1	AP	1	G	C4'-C3'-C2'	-6.21	96.39	102.60
3	A1	827	U	C5'-C4'-O4'	6.21	118.42	109.10
4	AB	166	ASP	CA-C-N	6.21	129.75	120.31
4	AB	166	ASP	C-N-CA	6.21	129.75	120.31
17	AR	63	ILE	O-C-N	6.21	128.23	121.83
25	BB	755	U	C4'-C3'-C2'	-6.21	96.39	102.60
25	BB	895	U	C1'-O4'-C4'	-6.21	103.69	109.90
25	BB	2087	G	O4'-C4'-C3'	6.21	112.31	106.10
25	BB	2311	A	C1'-C2'-O2'	-6.21	99.08	108.40
1	AE	55	U	C5'-C4'-O4'	6.21	119.12	109.80
3	A1	500	G	P-O3'-C3'	6.21	129.52	120.20
8	AG	78	LEU	N-CA-CB	-6.21	101.29	111.66
13	AL	46	LEU	N-CA-C	6.21	118.00	109.18
20	AU	21	LEU	CA-C-N	6.21	130.63	120.63
20	AU	21	LEU	C-N-CA	6.21	130.63	120.63
1	AP	13	C	O3'-P-O5'	-6.21	94.69	104.00
24	BA	91	C	C4'-C3'-O3'	-6.21	103.68	113.00
25	BB	2770	G	O4'-C1'-N9	6.21	117.81	108.50
32	BI	71	ARG	NE-CZ-NH1	6.21	127.71	121.50
3	A1	718	A	C4'-C3'-O3'	6.21	118.71	109.40
3	A1	1158	C	C3'-C2'-O2'	-6.21	101.39	110.70
3	A1	1318	A	C5'-C4'-C3'	-6.21	106.69	116.00
25	BB	2475	C	C3'-C2'-O2'	6.21	120.01	110.70
29	BF	76	LYS	CA-C-N	6.21	127.60	119.84
29	BF	76	LYS	C-N-CA	6.21	127.60	119.84
3	A1	422	C	O4'-C4'-C3'	6.21	110.21	104.00
25	BB	390	U	C5'-C4'-C3'	-6.21	105.89	115.20
25	BB	2210	U	C5'-C4'-C3'	6.21	124.51	115.20
25	BB	2444	G	O5'-C5'-C4'	-6.21	102.19	111.50
25	BB	2725	A	C4'-C3'-C2'	-6.21	96.39	102.60
31	BH	87	ILE	CA-CB-CG1	6.21	120.95	110.40
3	A1	61	G	N9-C1'-C2'	-6.21	102.69	112.00
3	A1	996	A	C1'-O4'-C4'	-6.21	103.69	109.90
3	A1	1332	A	O4'-C4'-C3'	6.21	110.20	104.00
25	BB	320	A	O4'-C1'-C2'	-6.21	99.59	105.80
36	BM	89	GLU	N-CA-C	6.21	117.73	110.97
1	AA	20	G	N9-C1'-C2'	-6.20	102.70	112.00
4	AB	85	SER	N-CA-C	6.20	118.84	111.71
20	AU	81	GLY	CA-C-N	6.20	132.97	121.62
20	AU	81	GLY	C-N-CA	6.20	132.97	121.62
25	BB	676	A	N9-C1'-C2'	6.20	121.31	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	744	U	O3'-P-O5'	6.20	113.30	104.00
25	BB	1810	A	O4'-C4'-C3'	-6.20	97.80	104.00
30	BG	10	LEU	CA-C-N	6.20	133.39	121.54
30	BG	10	LEU	C-N-CA	6.20	133.39	121.54
33	BJ	112	ALA	O-C-N	-6.20	115.33	122.09
48	BY	131	ASP	N-CA-C	6.20	124.02	110.80
17	AR	195	ASN	CA-C-N	6.20	130.12	120.82
17	AR	195	ASN	C-N-CA	6.20	130.12	120.82
25	BB	427	U	O5'-C5'-C4'	-6.20	102.40	111.70
1	AE	1	G	C5'-C4'-O4'	6.20	119.10	109.80
22	AW	55	ASP	CA-CB-CG	6.20	118.80	112.60
24	BA	60	C	C3'-C2'-C1'	6.20	107.50	101.30
25	BB	465	G	C3'-C2'-O2'	6.20	120.00	110.70
25	BB	2022	U	O4'-C4'-C3'	6.20	110.20	104.00
48	BY	78	GLY	CA-C-N	6.20	134.72	121.45
48	BY	78	GLY	C-N-CA	6.20	134.72	121.45
15	AO	96	VAL	CA-C-O	-6.20	113.03	120.90
25	BB	1605	C	C5'-C4'-O4'	6.20	119.10	109.80
25	BB	2266	A	C1'-O4'-C4'	-6.20	103.70	109.90
25	BB	2582	G	C3'-C2'-O2'	6.20	120.00	110.70
25	BB	2710	C	C4'-C3'-C2'	-6.20	96.40	102.60
27	BD	103	VAL	CA-C-O	-6.20	115.57	121.64
28	BE	99	ASN	CA-CB-CG	6.20	118.80	112.60
7	AF	51	GLN	CG-CD-NE2	6.20	125.69	116.40
25	BB	2170	A	O4'-C4'-C3'	6.20	110.20	104.00
42	BS	6	HIS	CA-CB-CG	6.20	120.00	113.80
50	B1	63	LYS	N-CA-C	6.20	119.58	110.59
3	A1	344	A	N1-C6-N6	-6.20	100.01	118.60
3	A1	1144	G	O4'-C1'-N9	6.20	117.79	108.50
10	AI	63	GLN	OE1-CD-NE2	-6.20	116.40	122.60
25	BB	1038	G	C4'-C3'-C2'	-6.20	96.41	102.60
52	B3	169	ARG	NH1-CZ-NH2	-6.20	111.25	119.30
3	A1	327	A	C5'-C4'-C3'	-6.19	105.91	115.20
3	A1	853	C	C5'-C4'-C3'	-6.19	106.71	116.00
25	BB	2739	U	C4'-C3'-C2'	-6.19	96.41	102.60
3	A1	69	G	C3'-C2'-O2'	6.19	123.89	114.60
3	A1	439	U	N1-C1'-C2'	6.19	121.29	112.00
4	AB	69	VAL	CA-CB-CG2	6.19	120.93	110.40
10	AI	28	ARG	CA-C-N	6.19	132.10	122.26
10	AI	28	ARG	C-N-CA	6.19	132.10	122.26
14	AN	48	LYS	N-CA-C	6.19	120.44	113.01
25	BB	289	G	O4'-C1'-C2'	6.19	113.79	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1191	G	O4'-C1'-C2'	-6.19	101.41	107.60
25	BB	1645	G	C4'-C3'-O3'	6.19	122.29	113.00
25	BB	1731	G	C3'-C2'-C1'	-6.19	95.31	101.50
25	BB	2375	G	C5'-C4'-O4'	6.19	119.09	109.80
26	BC	80	HIS	CA-C-O	-6.19	113.56	120.25
30	BG	31	HIS	CA-CB-CG	6.19	119.99	113.80
33	BJ	53	LYS	N-CA-C	6.19	118.83	111.71
51	B2	8	LYS	N-CA-C	6.19	117.69	111.07
52	B3	109	SER	N-CA-C	6.19	121.59	111.37
1	AA	75	C	O4'-C1'-N1	-6.19	98.91	108.20
3	A1	107	G	C4'-C3'-O3'	6.19	122.29	113.00
3	A1	709	U	C4'-C3'-C2'	-6.19	96.41	102.60
3	A1	1321	U	P-O3'-C3'	6.19	129.49	120.20
3	A1	1479	C	O5'-C5'-C4'	-6.19	102.21	111.50
24	BA	57	A	C3'-C2'-C1'	6.19	107.49	101.30
24	BA	87	U	C4'-C3'-O3'	-6.19	103.71	113.00
25	BB	991	C	C4'-C3'-C2'	-6.19	96.41	102.60
25	BB	1875	G	C1'-O4'-C4'	6.19	116.09	109.90
25	BB	2272	U	C1'-C2'-O2'	-6.19	102.52	111.80
40	BQ	20	ASN	OD1-CG-ND2	-6.19	116.41	122.60
54	B5	78	LEU	CA-C-N	6.19	128.82	120.65
54	B5	78	LEU	C-N-CA	6.19	128.82	120.65
15	AO	68	HIS	CE1-NE2-CD2	-6.19	102.81	109.00
25	BB	632	A	O4'-C1'-N9	6.19	117.78	108.50
25	BB	1905	C	C5'-C4'-O4'	-6.19	99.82	109.10
25	BB	2298	A	C2'-C3'-O3'	6.19	122.98	113.70
25	BB	2674	G	C3'-C2'-C1'	6.19	107.49	101.30
1	AE	40	C	C4'-C3'-C2'	-6.19	96.41	102.60
3	A1	858	G	C4'-C3'-C2'	-6.19	96.41	102.60
3	A1	1084	G	C1'-O4'-C4'	-6.19	103.71	109.90
3	A1	1210	C	O4'-C4'-C3'	6.19	110.19	104.00
17	AR	2	ARG	CD-NE-CZ	6.19	133.06	124.40
25	BB	1446	C	O4'-C1'-C2'	-6.19	101.41	107.60
25	BB	2364	C	C3'-C2'-O2'	6.19	119.98	110.70
3	A1	1178	G	O3'-P-O5'	6.19	113.28	104.00
25	BB	1980	G	C1'-O4'-C4'	-6.19	103.51	109.70
19	AT	91	ARG	CD-NE-CZ	6.18	133.06	124.40
25	BB	22	C	C1'-O4'-C4'	6.18	116.08	109.90
25	BB	453	A	N1-C6-N6	-6.18	100.05	118.60
25	BB	950	G	O3'-P-O5'	6.18	113.28	104.00
25	BB	1739	A	C4'-C3'-C2'	6.18	108.78	102.60
25	BB	2246	G	C3'-C2'-O2'	6.18	119.97	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2463	C	C4'-C3'-O3'	-6.18	103.72	113.00
25	BB	354	A	C3'-C2'-C1'	-6.18	95.12	101.30
25	BB	433	C	C3'-C2'-C1'	6.18	107.48	101.30
25	BB	1176	U	C1'-O4'-C4'	-6.18	103.72	109.90
25	BB	1457	U	C3'-C2'-O2'	6.18	119.97	110.70
32	BI	50	ARG	NE-CZ-NH1	6.18	127.68	121.50
35	BL	99	ARG	NH1-CZ-NH2	-6.18	111.26	119.30
53	B4	115	VAL	N-CA-C	6.18	116.40	108.12
3	A1	843	U	C3'-C2'-C1'	6.18	107.48	101.30
25	BB	546	U	C4'-C3'-O3'	6.18	118.67	109.40
25	BB	2347	C	C3'-C2'-O2'	6.18	119.97	110.70
26	BC	70	ILE	CA-C-N	6.18	132.26	122.93
26	BC	70	ILE	C-N-CA	6.18	132.26	122.93
27	BD	69	VAL	CA-CB-CG2	6.18	120.91	110.40
1	AA	58	A	C1'-O4'-C4'	-6.18	103.52	109.70
3	A1	290	C	C5'-C4'-O4'	6.18	118.37	109.10
3	A1	919	A	C3'-C2'-C1'	6.18	107.48	101.30
3	A1	1320	C	C4'-C3'-C2'	-6.18	96.42	102.60
25	BB	580	U	O3'-P-O5'	6.18	113.27	104.00
25	BB	810	U	C4'-C3'-C2'	-6.18	96.42	102.60
25	BB	1027	A	C1'-O4'-C4'	-6.18	103.52	109.70
25	BB	1099	G	C4'-C3'-O3'	-6.18	103.73	113.00
25	BB	1698	A	O4'-C1'-N9	6.18	117.47	108.20
25	BB	2042	A	C3'-C2'-C1'	6.18	107.48	101.30
27	BD	79	PHE	N-CA-C	6.18	116.44	108.34
30	BG	112	TYR	CA-C-O	-6.18	114.77	121.14
33	BJ	88	GLU	N-CA-CB	6.18	117.27	110.35
38	BO	55	GLY	CA-C-N	6.18	127.51	120.53
38	BO	55	GLY	C-N-CA	6.18	127.51	120.53
39	BP	72	GLY	CA-C-N	6.18	126.64	120.52
39	BP	72	GLY	C-N-CA	6.18	126.64	120.52
1	AE	10	G	C3'-C2'-O2'	6.18	119.97	110.70
3	A1	127	G	C4'-C3'-C2'	-6.18	96.42	102.60
25	BB	2705	A	C3'-C2'-C1'	6.18	107.48	101.30
3	A1	444	G	N9-C1'-C2'	-6.18	102.74	112.00
3	A1	668	G	O4'-C1'-C2'	-6.18	101.42	107.60
3	A1	1260	G	C2'-C3'-O3'	6.18	122.97	113.70
20	AU	108	ARG	NH1-CZ-NH2	-6.18	111.27	119.30
25	BB	518	G	N9-C1'-C2'	6.18	121.26	112.00
25	BB	1229	C	O4'-C4'-C3'	-6.18	97.82	104.00
25	BB	1480	C	O5'-C5'-C4'	-6.18	102.24	111.50
25	BB	1820	U	C3'-C2'-C1'	6.18	107.68	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1966	A	C1'-C2'-O2'	6.18	121.06	111.80
38	BO	76	THR	CA-C-O	6.18	127.76	120.66
49	BZ	91	GLN	OE1-CD-NE2	-6.18	116.42	122.60
49	BZ	98	ARG	CB-CA-C	6.18	122.34	110.17
55	B6	116	ARG	NE-CZ-NH2	6.18	124.76	119.20
3	A1	339	C	O4'-C4'-C3'	-6.17	97.83	104.00
3	A1	523	A	C3'-C2'-O2'	6.17	119.96	110.70
3	A1	890	G	O4'-C1'-C2'	6.17	113.78	107.60
3	A1	1410	A	C4'-C3'-C2'	-6.17	96.42	102.60
21	AV	111	THR	CA-CB-OG1	6.17	118.86	109.60
25	BB	466	A	C3'-C2'-C1'	-6.17	95.13	101.30
25	BB	478	A	C2'-C3'-O3'	-6.17	104.44	113.70
25	BB	1221	C	O4'-C1'-N1	6.17	117.46	108.20
25	BB	2695	U	C2'-C3'-O3'	-6.17	104.44	113.70
31	BH	93	ASP	CA-CB-CG	6.17	118.78	112.60
37	BN	116	GLN	CA-C-N	6.17	130.31	122.16
37	BN	116	GLN	C-N-CA	6.17	130.31	122.16
39	BP	12	GLY	CA-C-N	6.17	130.07	120.75
39	BP	12	GLY	C-N-CA	6.17	130.07	120.75
3	A1	228	A	C1'-O4'-C4'	-6.17	103.73	109.90
25	BB	227	A	C1'-O4'-C4'	-6.17	103.53	109.70
25	BB	378	C	O3'-P-O5'	-6.17	94.74	104.00
25	BB	2196	C	O4'-C1'-C2'	-6.17	99.63	105.80
53	B4	15	LEU	N-CA-CB	-6.17	104.58	113.65
3	A1	48	C	C2'-C3'-O3'	6.17	118.76	109.50
3	A1	615	G	C1'-C2'-O2'	6.17	117.66	108.40
3	A1	712	A	C1'-O4'-C4'	-6.17	103.73	109.90
3	A1	1359	C	O3'-P-O5'	-6.17	94.74	104.00
7	AF	90	HIS	CE1-NE2-CD2	-6.17	102.83	109.00
25	BB	2202	U	C1'-O4'-C4'	-6.17	103.73	109.90
1	AA	72	C	C3'-C2'-O2'	6.17	119.95	110.70
3	A1	118	U	C5'-C4'-C3'	-6.17	106.75	116.00
3	A1	720	C	O4'-C1'-C2'	-6.17	101.43	107.60
20	AU	98	LEU	CA-C-N	6.17	128.55	120.28
20	AU	98	LEU	C-N-CA	6.17	128.55	120.28
25	BB	733	G	C3'-C2'-C1'	6.17	107.47	101.30
25	BB	1704	C	C2'-C3'-O3'	6.17	118.75	109.50
46	BW	17	GLY	CA-C-N	6.17	132.23	122.11
46	BW	17	GLY	C-N-CA	6.17	132.23	122.11
3	A1	485	U	C5'-C4'-C3'	-6.17	106.75	116.00
7	AF	11	HIS	N-CA-C	6.17	123.94	110.80
25	BB	302	C	O4'-C1'-N1	6.17	117.75	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1102	C	C1'-O4'-C4'	-6.17	103.73	109.90
25	BB	2238	G	OP1-P-OP2	-6.17	101.09	119.60
45	BV	26	ASN	CA-C-N	6.17	126.83	119.98
45	BV	26	ASN	C-N-CA	6.17	126.83	119.98
50	B1	156	ASN	OD1-CG-ND2	-6.17	116.43	122.60
3	A1	523	A	C4'-C3'-O3'	6.17	122.25	113.00
3	A1	955	U	C1'-O4'-C4'	-6.17	103.73	109.90
15	AO	203	LYS	CA-C-O	-6.17	113.95	120.55
24	BA	114	C	O4'-C4'-C3'	6.17	110.17	104.00
25	BB	1350	C	C2'-C3'-O3'	6.17	122.95	113.70
25	BB	1638	C	O4'-C4'-C3'	-6.17	97.83	104.00
25	BB	1931	U	C1'-O4'-C4'	6.17	116.07	109.90
37	BN	90	ILE	O-C-N	-6.17	115.66	122.69
43	BT	25	THR	CA-CB-CG2	-6.17	100.02	110.50
3	A1	980	C	C5'-C4'-O4'	6.17	118.35	109.10
5	AC	39	ASN	CA-CB-CG	6.17	118.77	112.60
25	BB	170	U	O4'-C1'-N1	6.17	117.75	108.50
25	BB	628	G	C3'-C2'-O2'	6.17	119.95	110.70
25	BB	2755	C	C1'-O4'-C4'	-6.17	103.73	109.90
3	A1	613	C	C5'-C4'-C3'	-6.16	106.76	116.00
24	BA	62	C	C3'-C2'-O2'	6.16	119.94	110.70
25	BB	1437	C	C3'-C2'-O2'	6.16	119.94	110.70
25	BB	1769	U	O4'-C1'-C2'	-6.16	101.44	107.60
25	BB	2199	A	N9-C1'-C2'	6.16	121.25	112.00
25	BB	2323	G	C2'-C3'-O3'	-6.16	104.45	113.70
53	B4	143	ILE	N-CA-C	6.16	117.99	108.44
3	A1	557	G	C5'-C4'-C3'	-6.16	105.96	115.20
25	BB	740	C	C2'-C3'-O3'	6.16	122.94	113.70
25	BB	1365	A	C1'-C2'-O2'	-6.16	99.16	108.40
25	BB	1523	U	C3'-C2'-O2'	6.16	119.94	110.70
25	BB	2780	G	C4'-C3'-O3'	6.16	118.64	109.40
34	BK	68	ARG	NE-CZ-NH2	6.16	124.75	119.20
49	BZ	190	ILE	N-CA-C	6.16	116.21	110.42
3	A1	1078	U	C3'-C2'-C1'	6.16	107.46	101.30
13	AL	77	ARG	NH1-CZ-NH2	-6.16	111.29	119.30
25	BB	529	A	C3'-C2'-C1'	6.16	107.66	101.50
25	BB	1025	G	C4'-C3'-C2'	-6.16	96.44	102.60
25	BB	1917	U	O4'-C4'-C3'	6.16	110.16	104.00
2	AM	4	U	C4'-C3'-O3'	6.16	122.24	113.00
3	A1	582	C	C5'-C4'-C3'	-6.16	106.76	116.00
3	A1	1526	G	N9-C1'-C2'	6.16	121.24	112.00
15	AO	132	ALA	N-CA-CB	-6.16	101.69	110.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	AX	68	ARG	NE-CZ-NH1	6.16	127.66	121.50
25	BB	2052	A	N9-C1'-C2'	6.16	123.24	114.00
49	BZ	139	PRO	O-C-N	-6.16	115.46	122.91
3	A1	29	U	O4'-C1'-N1	6.16	117.73	108.50
25	BB	482	A	C4'-C3'-O3'	6.16	118.64	109.40
25	BB	1471	G	C2'-C3'-O3'	6.16	118.74	109.50
34	BK	58	VAL	N-CA-C	6.16	112.80	106.21
3	A1	1132	C	O4'-C1'-N1	6.16	117.43	108.20
4	AB	103	TRP	CA-C-N	6.16	128.81	120.38
4	AB	103	TRP	C-N-CA	6.16	128.81	120.38
25	BB	606	U	O4'-C1'-C2'	-6.16	101.44	107.60
25	BB	919	U	C1'-O4'-C4'	-6.16	103.75	109.90
25	BB	1954	G	O3'-P-O5'	6.16	113.23	104.00
25	BB	2341	G	C4'-C3'-C2'	-6.16	96.44	102.60
25	BB	2731	G	C5'-C4'-C3'	-6.16	106.77	116.00
52	B3	118	ALA	CB-CA-C	6.16	119.74	109.89
1	AP	69	U	C4'-C3'-C2'	-6.15	96.45	102.60
3	A1	289	G	C4'-C3'-C2'	-6.15	96.45	102.60
3	A1	938	A	N9-C1'-C2'	-6.15	102.77	112.00
25	BB	660	C	O4'-C1'-N1	6.15	117.73	108.50
25	BB	1145	C	C2'-C3'-O3'	6.15	122.93	113.70
25	BB	1374	G	O4'-C4'-C3'	6.15	112.25	106.10
25	BB	2876	G	C3'-C2'-C1'	6.15	107.45	101.30
3	A1	803	G	C1'-C2'-O2'	6.15	117.63	108.40
3	A1	1531	A	O4'-C1'-N9	6.15	117.73	108.50
15	AO	96	VAL	N-CA-C	6.15	114.67	107.84
24	BA	11	C	O4'-C4'-C3'	6.15	110.15	104.00
37	BN	266	ILE	N-CA-C	6.15	122.14	109.34
2	AM	20	U	C4'-C3'-O3'	6.15	122.23	113.00
3	A1	665	A	C4'-C3'-C2'	-6.15	96.45	102.60
25	BB	1525	A	C4'-C3'-O3'	-6.15	103.78	113.00
49	BZ	188	ASN	CA-CB-CG	-6.15	106.45	112.60
3	A1	360	G	P-O5'-C5'	6.15	130.12	120.90
9	AH	42	PHE	N-CA-C	6.15	118.78	111.71
25	BB	1172	C	C3'-C2'-C1'	6.15	107.45	101.30
25	BB	1325	U	C4'-C3'-C2'	-6.15	96.45	102.60
25	BB	1736	U	O4'-C4'-C3'	6.15	110.15	104.00
25	BB	2091	C	C4'-C3'-O3'	-6.15	103.78	113.00
54	B5	52	LEU	CA-C-N	6.15	126.11	120.21
54	B5	52	LEU	C-N-CA	6.15	126.11	120.21
3	A1	717	U	O4'-C1'-C2'	6.15	111.95	105.80
3	A1	1153	G	C4'-C3'-C2'	-6.15	96.45	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1456	A	C4'-C3'-O3'	-6.15	103.78	113.00
4	AB	38	HIS	ND1-CE1-NE2	6.15	114.55	108.40
25	BB	164	C	O4'-C1'-N1	6.15	117.72	108.50
25	BB	1338	G	C2'-C3'-O3'	6.15	122.92	113.70
25	BB	2001	C	P-O3'-C3'	6.15	129.42	120.20
25	BB	2392	A	C5'-C4'-O4'	6.15	119.02	109.80
53	B4	133	GLN	OE1-CD-NE2	-6.15	116.45	122.60
3	A1	60	A	C1'-O4'-C4'	-6.15	103.55	109.70
3	A1	1339	A	C3'-C2'-C1'	6.15	107.45	101.30
25	BB	1856	U	C1'-O4'-C4'	-6.15	103.75	109.90
25	BB	1991	U	C5'-C4'-C3'	-6.15	105.98	115.20
3	A1	298	A	C5'-C4'-C3'	-6.14	105.98	115.20
3	A1	846	G	C1'-C2'-O2'	6.14	121.02	111.80
9	AH	53	ARG	NH1-CZ-NH2	-6.14	111.31	119.30
14	AN	69	ASN	CA-C-N	6.14	128.43	120.44
14	AN	69	ASN	C-N-CA	6.14	128.43	120.44
25	BB	2810	A	O4'-C4'-C3'	6.14	110.14	104.00
25	BB	2897	U	O4'-C4'-C3'	6.14	110.14	104.00
3	A1	337	G	N9-C1'-C2'	6.14	121.21	112.00
3	A1	536	C	C5'-C4'-C3'	-6.14	106.79	116.00
3	A1	1320	C	O4'-C1'-C2'	-6.14	99.66	105.80
15	AO	136	ALA	CA-C-N	6.14	128.38	120.70
15	AO	136	ALA	C-N-CA	6.14	128.38	120.70
39	BP	8	SER	CA-C-N	6.14	133.27	121.54
39	BP	8	SER	C-N-CA	6.14	133.27	121.54
3	A1	198	G	C4'-C3'-C2'	-6.14	96.46	102.60
3	A1	395	C	C3'-C2'-C1'	6.14	107.44	101.30
3	A1	979	C	O3'-P-O5'	6.14	113.21	104.00
3	A1	1506	U	C1'-O4'-C4'	-6.14	103.76	109.90
21	AV	79	ARG	N-CA-CB	-6.14	99.44	110.37
25	BB	871	U	O3'-P-O5'	-6.14	94.79	104.00
25	BB	1313	U	C1'-O4'-C4'	-6.14	103.56	109.70
1	AE	54	U	O4'-C4'-C3'	6.14	110.14	104.00
3	A1	1317	C	C4'-C3'-O3'	-6.14	103.79	113.00
11	AJ	36	PHE	CA-C-N	6.14	133.02	121.97
11	AJ	36	PHE	C-N-CA	6.14	133.02	121.97
22	AW	118	ARG	NE-CZ-NH2	-6.14	113.67	119.20
25	BB	1780	A	O4'-C1'-N9	6.14	117.71	108.50
25	BB	2604	U	C2'-C3'-O3'	6.14	118.71	109.50
29	BF	71	LYS	CA-C-N	6.14	126.60	120.52
29	BF	71	LYS	C-N-CA	6.14	126.60	120.52
3	A1	828	U	O3'-P-O5'	6.14	113.21	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1508	A	C4'-C3'-C2'	-6.14	96.46	102.60
25	BB	1608	A	C5'-C4'-O4'	-6.14	99.89	109.10
3	A1	302	G	C1'-C2'-O2'	-6.14	99.19	108.40
8	AG	19	TYR	CA-C-O	-6.14	112.55	119.79
25	BB	1368	G	C4'-C3'-C2'	-6.14	96.46	102.60
25	BB	1763	G	C3'-C2'-C1'	-6.14	95.36	101.50
27	BD	49	ARG	CD-NE-CZ	6.14	132.99	124.40
33	BJ	48	ASP	N-CA-C	6.14	120.60	113.18
33	BJ	49	ARG	NH1-CZ-NH2	-6.14	111.32	119.30
53	B4	18	GLN	OE1-CD-NE2	-6.14	116.46	122.60
3	A1	1237	C	C4'-C3'-C2'	-6.13	96.47	102.60
24	BA	41	G	O4'-C1'-N9	6.13	117.70	108.50
25	BB	1632	A	C4'-C3'-C2'	-6.13	96.47	102.60
37	BN	218	THR	CA-C-N	6.13	133.01	121.97
37	BN	218	THR	C-N-CA	6.13	133.01	121.97
55	B6	33	ALA	CA-C-N	6.13	129.34	120.38
55	B6	33	ALA	C-N-CA	6.13	129.34	120.38
1	AA	9	A	O4'-C4'-C3'	6.13	112.23	106.10
3	A1	632	U	C3'-C2'-C1'	6.13	107.63	101.50
3	A1	1476	A	O5'-C5'-C4'	6.13	120.70	111.50
21	AV	56	PRO	N-CA-C	6.13	119.81	111.22
24	BA	82	U	C4'-C3'-O3'	6.13	122.20	113.00
1	AA	47	U	C5'-C4'-C3'	-6.13	106.80	116.00
3	A1	432	A	C2'-C3'-O3'	6.13	122.90	113.70
3	A1	557	G	O5'-C5'-C4'	-6.13	102.50	111.70
3	A1	1132	C	C4'-C3'-C2'	-6.13	96.47	102.60
6	AD	94	TYR	O-C-N	-6.13	116.26	123.25
25	BB	1405	U	O4'-C4'-C3'	6.13	110.13	104.00
25	BB	1498	C	O3'-P-O5'	6.13	113.20	104.00
25	BB	1515	A	N1-C6-N6	-6.13	100.21	118.60
25	BB	1918	A	C3'-C2'-C1'	-6.13	95.37	101.50
26	BC	75	GLN	N-CA-C	6.13	118.93	111.82
28	BE	64	PHE	CA-C-N	6.13	126.50	120.98
28	BE	64	PHE	C-N-CA	6.13	126.50	120.98
37	BN	242	HIS	CE1-NE2-CD2	-6.13	102.87	109.00
3	A1	537	G	C4'-C3'-O3'	6.13	122.19	113.00
3	A1	1011	C	C1'-O4'-C4'	-6.13	103.77	109.90
15	AO	163	ARG	CA-C-O	-6.13	114.64	121.51
16	AQ	9	GLU	CA-C-N	6.13	127.50	119.84
16	AQ	9	GLU	C-N-CA	6.13	127.50	119.84
25	BB	500	G	C5'-C4'-O4'	6.13	118.99	109.80
25	BB	547	A	C4'-C3'-C2'	-6.13	96.47	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	729	G	O4'-C1'-N9	6.13	117.69	108.50
25	BB	1878	G	C4'-C3'-C2'	-6.13	96.47	102.60
25	BB	1919	A	C2'-C3'-O3'	6.13	122.89	113.70
25	BB	2506	U	C4'-C3'-C2'	-6.13	96.47	102.60
30	BG	103	ARG	CA-C-N	6.13	133.25	121.54
30	BG	103	ARG	C-N-CA	6.13	133.25	121.54
3	A1	1063	C	C1'-O4'-C4'	-6.13	103.77	109.90
3	A1	1280	A	O3'-P-O5'	6.13	113.19	104.00
15	AO	120	THR	CA-C-N	6.13	128.41	120.44
15	AO	120	THR	C-N-CA	6.13	128.41	120.44
25	BB	193	U	O4'-C1'-C2'	6.13	113.73	107.60
25	BB	897	C	O4'-C4'-C3'	6.13	110.13	104.00
25	BB	1470	A	C4'-C3'-O3'	6.13	118.59	109.40
1	AA	70	C	C2'-C3'-O3'	6.13	122.89	113.70
22	AW	41	GLU	CA-C-N	6.13	133.24	121.54
22	AW	41	GLU	C-N-CA	6.13	133.24	121.54
25	BB	505	A	O4'-C1'-C2'	-6.13	101.47	107.60
25	BB	912	C	C5'-C4'-C3'	-6.13	106.81	116.00
25	BB	2499	C	C4'-C3'-C2'	-6.13	96.47	102.60
25	BB	2575	C	O4'-C1'-C2'	6.13	111.93	105.80
25	BB	2629	U	C4'-C3'-O3'	6.13	118.59	109.40
25	BB	2868	A	N1-C6-N6	-6.13	100.22	118.60
25	BB	1052	C	C5'-C4'-O4'	6.12	118.99	109.80
14	AN	2	ASN	CA-C-N	6.12	131.58	121.54
14	AN	2	ASN	C-N-CA	6.12	131.58	121.54
25	BB	72	U	O4'-C1'-N1	6.12	117.39	108.20
25	BB	875	G	O4'-C1'-N9	6.12	117.69	108.50
25	BB	2162	G	C1'-O4'-C4'	-6.12	103.78	109.90
33	BJ	111	LYS	N-CA-C	6.12	118.75	111.71
43	BT	54	ILE	CA-C-O	6.12	124.23	119.46
3	A1	879	C	C3'-C2'-C1'	6.12	107.42	101.30
3	A1	1193	G	C1'-C2'-O2'	-6.12	99.22	108.40
25	BB	1588	G	C2'-C3'-O3'	6.12	118.68	109.50
3	A1	711	G	C3'-C2'-O2'	6.12	119.88	110.70
22	AW	53	LEU	CA-C-O	-6.12	114.58	121.00
25	BB	113	U	O4'-C4'-C3'	6.12	112.22	106.10
25	BB	149	A	C4'-C3'-O3'	6.12	122.18	113.00
25	BB	1422	G	O4'-C4'-C3'	6.12	110.12	104.00
25	BB	1892	C	C3'-C2'-O2'	6.12	119.88	110.70
25	BB	2202	U	C4'-C3'-C2'	-6.12	96.48	102.60
32	BI	26	GLU	N-CA-C	6.12	123.83	110.80
35	BL	11	ARG	NE-CZ-NH2	6.12	124.71	119.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	BN	114	GLN	OE1-CD-NE2	-6.12	116.48	122.60
1	AE	73	A	C1'-O4'-C4'	-6.12	103.78	109.90
3	A1	43	C	C5'-C4'-C3'	-6.12	106.83	116.00
3	A1	441	A	N9-C1'-C2'	6.12	121.17	112.00
3	A1	846	G	C3'-C2'-C1'	-6.12	95.38	101.50
24	BA	50	A	C4'-C3'-C2'	-6.12	96.48	102.60
25	BB	67	U	C4'-C3'-O3'	6.12	122.17	113.00
25	BB	1754	A	O4'-C1'-N9	6.12	117.68	108.50
25	BB	2827	C	C4'-C3'-O3'	6.12	118.58	109.40
3	A1	924	C	C4'-C3'-C2'	-6.12	96.48	102.60
3	A1	1392	G	P-O3'-C3'	6.12	129.37	120.20
5	AC	36	ARG	NE-CZ-NH2	6.12	124.70	119.20
25	BB	773	U	C5'-C4'-O4'	6.12	118.27	109.10
25	BB	1237	A	N9-C1'-C2'	-6.12	104.83	114.00
25	BB	2185	U	C4'-C3'-C2'	-6.12	96.48	102.60
25	BB	2547	A	O4'-C4'-C3'	6.12	110.12	104.00
25	BB	2759	G	O5'-C5'-C4'	-6.12	102.33	111.50
42	BS	25	ARG	NH1-CZ-NH2	-6.12	111.35	119.30
3	A1	237	G	P-O3'-C3'	6.11	129.37	120.20
3	A1	342	C	C4'-C3'-C2'	-6.11	96.49	102.60
3	A1	861	G	C3'-C2'-C1'	-6.11	95.19	101.30
3	A1	1473	G	C4'-C3'-O3'	6.11	122.17	113.00
24	BA	32	U	C5'-C4'-C3'	-6.11	106.83	116.00
25	BB	1590	A	O4'-C1'-N9	6.11	117.67	108.50
25	BB	2117	A	O4'-C1'-C2'	6.11	113.71	107.60
25	BB	2542	A	O3'-P-O5'	-6.11	94.83	104.00
30	BG	10	LEU	N-CA-CB	-6.11	103.09	111.65
35	BL	68	ASP	CA-CB-CG	6.11	118.71	112.60
3	A1	483	C	O4'-C1'-N1	6.11	117.67	108.50
3	A1	497	G	C4'-C3'-C2'	6.11	108.71	102.60
14	AN	16	ALA	CA-C-N	6.11	129.29	120.79
14	AN	16	ALA	C-N-CA	6.11	129.29	120.79
21	AV	112	ASP	CA-C-N	6.11	128.38	120.44
21	AV	112	ASP	C-N-CA	6.11	128.38	120.44
25	BB	51	G	C5'-C4'-C3'	6.11	124.37	115.20
25	BB	1301	A	C4'-C3'-C2'	6.11	108.71	102.60
25	BB	2191	A	C4'-C3'-C2'	-6.11	96.49	102.60
25	BB	2478	A	C5'-C4'-C3'	-6.11	106.83	116.00
54	B5	115	ASP	CA-C-N	6.11	132.76	123.04
54	B5	115	ASP	C-N-CA	6.11	132.76	123.04
1	AP	28	C	C1'-O4'-C4'	-6.11	103.79	109.90
3	A1	496	A	C3'-C2'-O2'	6.11	119.86	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	633	G	O3'-P-O5'	6.11	113.17	104.00
3	A1	819	A	C4'-C3'-C2'	-6.11	96.49	102.60
5	AC	117	HIS	CA-C-N	6.11	133.21	121.54
5	AC	117	HIS	C-N-CA	6.11	133.21	121.54
6	AD	29	LYS	CA-C-N	6.11	130.16	121.42
6	AD	29	LYS	C-N-CA	6.11	130.16	121.42
25	BB	37	C	P-O5'-C5'	6.11	130.06	120.90
25	BB	283	G	C1'-O4'-C4'	-6.11	103.79	109.90
25	BB	556	A	O4'-C4'-C3'	6.11	110.11	104.00
25	BB	1137	G	O3'-P-O5'	6.11	113.17	104.00
25	BB	2751	G	O4'-C1'-C2'	-6.11	99.69	105.80
3	A1	15	G	C3'-C2'-C1'	-6.11	95.19	101.30
49	BZ	122	ARG	NE-CZ-NH1	6.11	127.61	121.50
51	B2	9	ASP	CA-C-O	-6.11	111.87	119.38
3	A1	203	G	C1'-O4'-C4'	-6.11	103.79	109.90
3	A1	1252	A	O4'-C4'-C3'	6.11	110.11	104.00
3	A1	1523	G	C4'-C3'-C2'	-6.11	96.49	102.60
25	BB	2440	C	O4'-C4'-C3'	6.11	110.11	104.00
3	A1	347	G	C4'-C3'-O3'	6.11	122.16	113.00
19	AT	86	ARG	NE-CZ-NH2	6.11	124.69	119.20
25	BB	524	G	O4'-C1'-N9	6.11	117.66	108.50
25	BB	1368	G	C5'-C4'-C3'	-6.11	106.84	116.00
25	BB	1927	A	C3'-C2'-O2'	6.11	119.86	110.70
25	BB	2604	U	O5'-C5'-C4'	6.11	120.86	111.70
36	BM	60	THR	CA-CB-CG2	6.11	120.88	110.50
44	BU	53	ILE	CA-C-N	6.11	132.69	121.70
44	BU	53	ILE	C-N-CA	6.11	132.69	121.70
51	B2	94	ARG	NH1-CZ-NH2	-6.11	111.36	119.30
3	A1	452	A	O4'-C1'-C2'	6.10	113.70	107.60
3	A1	1363	A	C5'-C4'-O4'	6.10	118.95	109.80
21	AV	11	THR	N-CA-CB	6.10	118.86	110.01
25	BB	680	C	C4'-C3'-C2'	-6.10	96.50	102.60
25	BB	1337	G	C4'-C3'-C2'	-6.10	96.50	102.60
3	A1	321	A	O4'-C4'-C3'	6.10	110.10	104.00
17	AR	46	ARG	NE-CZ-NH1	6.10	127.60	121.50
20	AU	150	PHE	CA-C-N	6.10	132.69	121.70
20	AU	150	PHE	C-N-CA	6.10	132.69	121.70
25	BB	129	C	C2'-C3'-O3'	6.10	118.65	109.50
25	BB	180	G	C4'-C3'-C2'	-6.10	96.50	102.60
25	BB	494	G	C3'-C2'-C1'	6.10	107.40	101.30
25	BB	1928	A	C4'-C3'-C2'	-6.10	96.50	102.60
50	B1	112	LEU	CA-C-N	6.10	132.95	121.97

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
50	B1	112	LEU	C-N-CA	6.10	132.95	121.97
3	A1	871	U	C4'-C3'-C2'	-6.10	96.50	102.60
25	BB	1663	G	C3'-C2'-C1'	-6.10	95.20	101.30
25	BB	2192	U	C5'-C4'-C3'	-6.10	106.85	116.00
41	BR	54	VAL	N-CA-CB	6.10	119.83	111.41
7	AF	42	VAL	CA-CB-CG1	6.10	120.77	110.40
25	BB	1022	G	O5'-C5'-C4'	-6.10	102.55	111.70
25	BB	1516	G	C1'-O4'-C4'	-6.10	103.80	109.90
32	BI	60	VAL	N-CA-C	6.10	122.03	109.34
48	BY	180	VAL	CA-CB-CG1	6.10	120.77	110.40
49	BZ	213	VAL	N-CA-C	6.10	116.65	108.11
1	AA	28	C	C4'-C3'-C2'	-6.10	96.50	102.60
1	AP	72	C	C5'-C4'-O4'	6.10	118.95	109.80
3	A1	245	U	C2'-C3'-O3'	6.10	118.65	109.50
3	A1	804	U	O4'-C1'-N1	6.10	117.34	108.20
3	A1	1349	A	C5'-C4'-C3'	-6.10	106.86	116.00
8	AG	45	LEU	CA-C-N	6.10	133.19	121.54
8	AG	45	LEU	C-N-CA	6.10	133.19	121.54
22	AW	82	ILE	CA-C-N	6.10	128.37	120.44
22	AW	82	ILE	C-N-CA	6.10	128.37	120.44
23	AX	11	LYS	N-CA-C	6.10	119.45	108.48
25	BB	464	U	C5'-C4'-O4'	6.10	118.25	109.10
25	BB	1417	C	O4'-C4'-C3'	6.10	110.10	104.00
25	BB	2203	U	O4'-C1'-C2'	6.10	113.70	107.60
25	BB	2340	A	O4'-C4'-C3'	6.10	110.10	104.00
55	B6	137	PRO	N-CA-CB	6.10	109.65	103.25
3	A1	224	U	C4'-C3'-O3'	6.09	122.14	113.00
25	BB	1361	G	C2'-C3'-O3'	6.09	122.84	113.70
25	BB	1768	C	O4'-C4'-C3'	6.09	112.19	106.10
25	BB	2336	A	C4'-C3'-C2'	-6.09	96.50	102.60
35	BL	6	LYS	N-CA-C	6.09	119.81	112.38
47	BX	34	LYS	N-CA-C	6.09	123.78	110.80
55	B6	105	VAL	CA-C-N	6.09	129.96	120.82
55	B6	105	VAL	C-N-CA	6.09	129.96	120.82
1	AE	11	C	C1'-O4'-C4'	-6.09	103.81	109.90
25	BB	2841	C	C4'-C3'-C2'	-6.09	96.51	102.60
43	BT	30	ASP	CA-CB-CG	6.09	118.69	112.60
50	B1	13	THR	O-C-N	-6.09	116.12	122.94
52	B3	54	ARG	CD-NE-CZ	6.09	132.93	124.40
3	A1	1155	A	O4'-C1'-C2'	6.09	113.69	107.60
3	A1	1355	G	C4'-C3'-O3'	-6.09	103.86	113.00
25	BB	372	G	C5'-C4'-C3'	-6.09	106.06	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	511	U	N1-C1'-C2'	6.09	121.14	112.00
25	BB	1318	U	N1-C1'-C2'	-6.09	102.86	112.00
25	BB	1503	A	C4'-C3'-C2'	-6.09	96.51	102.60
25	BB	1624	U	C5'-C4'-C3'	-6.09	106.86	116.00
25	BB	1700	A	C2'-C3'-O3'	-6.09	104.56	113.70
25	BB	2055	C	C2'-C3'-O3'	-6.09	104.56	113.70
43	BT	55	ALA	CA-C-O	-6.09	115.09	121.55
3	A1	37	U	N1-C1'-C2'	6.09	121.13	112.00
3	A1	633	G	O4'-C1'-C2'	-6.09	101.51	107.60
3	A1	1482	G	O4'-C4'-C3'	6.09	112.19	106.10
6	AD	14	LYS	N-CA-C	6.09	118.71	111.71
13	AL	76	THR	OG1-CB-CG2	-6.09	97.12	109.30
17	AR	15	GLY	CA-C-O	6.09	128.98	121.55
25	BB	958	U	C3'-C2'-C1'	-6.09	95.41	101.50
25	BB	1402	U	O4'-C1'-N1	6.09	117.63	108.50
25	BB	2600	A	C3'-C2'-C1'	6.09	107.39	101.30
37	BN	28	PRO	CA-N-CD	-6.09	103.47	112.00
55	B6	9	GLU	O-C-N	-6.09	114.49	122.59
3	A1	1061	G	O5'-C5'-C4'	-6.09	102.57	111.70
22	AW	80	HIS	N-CA-C	6.09	117.58	111.07
25	BB	425	G	C2'-C3'-O3'	6.09	118.63	109.50
31	BH	25	ARG	NE-CZ-NH1	6.09	127.59	121.50
3	A1	1000	A	C4'-C3'-C2'	-6.09	96.51	102.60
5	AC	110	THR	CA-CB-CG2	6.09	120.85	110.50
19	AT	48	ALA	N-CA-CB	-6.09	100.93	110.30
21	AV	69	ALA	N-CA-C	6.09	119.17	110.10
25	BB	745	G	C5'-C4'-O4'	6.09	118.93	109.80
25	BB	996	A	O4'-C1'-N9	6.09	117.63	108.50
25	BB	1550	C	C5'-C4'-C3'	-6.09	106.87	116.00
25	BB	2856	A	C3'-C2'-C1'	-6.09	95.21	101.30
30	BG	120	GLU	CA-C-N	6.09	132.10	122.36
30	BG	120	GLU	C-N-CA	6.09	132.10	122.36
53	B4	138	VAL	CA-CB-CG2	6.09	120.75	110.40
3	A1	841	C	O4'-C1'-N1	6.08	117.63	108.50
3	A1	1395	C	C5'-C4'-C3'	-6.08	106.07	115.20
3	A1	1472	U	C1'-O4'-C4'	-6.08	103.81	109.90
12	AK	71	ASP	CB-CA-C	6.08	122.53	110.42
3	A1	368	U	C5'-C4'-O4'	6.08	118.93	109.80
3	A1	666	G	O4'-C1'-N9	6.08	117.33	108.20
8	AG	84	ARG	NE-CZ-NH1	6.08	127.58	121.50
25	BB	919	U	C5'-C4'-C3'	-6.08	106.87	116.00
25	BB	1469	A	C2'-C3'-O3'	6.08	122.82	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1593	A	C5'-C4'-C3'	-6.08	106.87	116.00
25	BB	1640	A	O4'-C4'-C3'	-6.08	97.92	104.00
25	BB	2062	A	N9-C1'-C2'	-6.08	104.88	114.00
25	BB	2211	A	C4'-C3'-O3'	6.08	118.53	109.40
25	BB	2822	G	C3'-C2'-C1'	6.08	107.38	101.30
1	AE	13	C	O4'-C1'-N1	6.08	117.62	108.50
3	A1	135	C	O3'-P-O5'	-6.08	94.88	104.00
3	A1	1310	G	C1'-O4'-C4'	6.08	115.98	109.90
3	A1	1326	U	C2'-C3'-O3'	-6.08	104.58	113.70
25	BB	349	U	C3'-C2'-C1'	6.08	107.38	101.30
25	BB	2520	C	N1-C1'-C2'	6.08	123.12	114.00
49	BZ	215	VAL	CA-C-N	6.08	133.16	121.54
49	BZ	215	VAL	C-N-CA	6.08	133.16	121.54
50	B1	105	LEU	CA-C-N	6.08	129.04	120.28
50	B1	105	LEU	C-N-CA	6.08	129.04	120.28
50	B1	168	ASP	CA-CB-CG	6.08	118.68	112.60
9	AH	29	ALA	CA-C-N	6.08	128.90	120.63
9	AH	29	ALA	C-N-CA	6.08	128.90	120.63
15	AO	53	ARG	NH1-CZ-NH2	-6.08	111.40	119.30
23	AX	6	ILE	CA-CB-CG1	6.08	120.74	110.40
25	BB	1790	C	C3'-C2'-O2'	6.08	119.82	110.70
34	BK	20	VAL	N-CA-C	6.08	116.68	110.05
1	AE	14	A	C1'-O4'-C4'	-6.08	103.82	109.90
3	A1	344	A	O4'-C1'-C2'	6.08	111.88	105.80
3	A1	1345	U	O4'-C4'-C3'	6.08	110.08	104.00
17	AR	186	GLU	CA-C-N	6.08	133.22	121.18
17	AR	186	GLU	C-N-CA	6.08	133.22	121.18
23	AX	15	HIS	CB-CG-ND1	6.08	131.82	122.70
25	BB	1082	U	C4'-C3'-C2'	-6.08	96.52	102.60
25	BB	1838	C	O4'-C1'-C2'	6.08	111.88	105.80
25	BB	2256	G	C1'-C2'-O2'	6.08	117.52	108.40
44	BU	34	GLU	N-CA-C	6.08	118.53	108.99
25	BB	559	G	O4'-C1'-N9	6.08	117.61	108.50
25	BB	849	A	C5'-C4'-C3'	-6.08	106.89	116.00
25	BB	2205	A	C4'-C3'-O3'	-6.08	103.89	113.00
35	BL	57	ASN	OD1-CG-ND2	-6.08	116.53	122.60
52	B3	94	ARG	CA-C-O	-6.08	114.42	121.10
3	A1	306	A	C4'-C3'-O3'	-6.07	100.29	109.40
3	A1	970	C	C5'-C4'-O4'	6.07	118.91	109.80
3	A1	1011	C	C3'-C2'-O2'	6.07	119.81	110.70
7	AF	30	LYS	N-CA-C	6.07	119.53	111.75
25	BB	749	A	C4'-C3'-C2'	-6.07	96.53	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1804	C	O4'-C1'-N1	6.07	117.61	108.50
25	BB	2208	C	C5'-C4'-O4'	6.07	118.91	109.80
25	BB	2219	U	C1'-C2'-O2'	6.07	117.51	108.40
25	BB	2882	A	O4'-C1'-C2'	-6.07	101.53	107.60
1	AA	11	C	C2'-C3'-O3'	6.07	122.81	113.70
25	BB	1073	A	P-O5'-C5'	-6.07	111.79	120.90
25	BB	1502	A	C5'-C4'-C3'	-6.07	106.89	116.00
25	BB	2115	G	C3'-C2'-O2'	6.07	119.81	110.70
1	AA	12	U	C5'-C4'-O4'	6.07	118.91	109.80
3	A1	1380	U	O4'-C1'-N1	6.07	117.31	108.20
7	AF	86	ARG	CD-NE-CZ	6.07	132.90	124.40
25	BB	1138	G	P-O5'-C5'	6.07	130.01	120.90
25	BB	1207	C	O4'-C4'-C3'	-6.07	100.03	106.10
25	BB	1888	G	O4'-C1'-C2'	6.07	113.67	107.60
25	BB	2328	A	C5'-C4'-C3'	-6.07	106.89	116.00
24	BA	13	G	C4'-C3'-O3'	6.07	122.10	113.00
25	BB	2077	A	C2'-C3'-O3'	-6.07	104.60	113.70
25	BB	2738	A	C4'-C3'-C2'	-6.07	96.53	102.60
3	A1	1399	C	C4'-C3'-C2'	6.07	108.67	102.60
15	AO	36	PHE	CA-C-O	6.07	126.70	119.60
30	BG	96	ARG	NH1-CZ-NH2	-6.07	111.41	119.30
32	BI	3	ILE	O-C-N	-6.07	116.03	122.83
14	AN	11	ILE	N-CA-C	6.07	118.63	111.05
25	BB	799	G	C4'-C3'-C2'	-6.07	96.53	102.60
25	BB	1107	G	C4'-C3'-C2'	6.07	108.67	102.60
25	BB	1423	G	C2'-C3'-O3'	6.07	122.80	113.70
25	BB	1995	U	N1-C1'-C2'	6.07	121.10	112.00
25	BB	2171	A	C2'-C3'-O3'	6.07	118.60	109.50
20	AU	45	ALA	CA-C-N	6.06	130.30	120.60
20	AU	45	ALA	C-N-CA	6.06	130.30	120.60
3	A1	54	C	O4'-C1'-C2'	6.06	113.66	107.60
3	A1	779	C	C1'-O4'-C4'	6.06	115.96	109.90
8	AG	55	SER	CA-C-O	-6.06	113.36	119.24
24	BA	50	A	C4'-C3'-O3'	-6.06	103.91	113.00
25	BB	107	G	C5'-C4'-O4'	6.06	118.89	109.80
25	BB	626	A	C5'-C4'-C3'	-6.06	106.91	116.00
25	BB	751	A	O4'-C1'-C2'	-6.06	99.74	105.80
25	BB	1015	U	C4'-C3'-O3'	-6.06	100.31	109.40
25	BB	1125	G	C3'-C2'-C1'	6.06	107.36	101.30
48	BY	67	HIS	CB-CG-ND1	6.06	131.79	122.70
3	A1	1503	A	C4'-C3'-C2'	6.06	108.66	102.60
25	BB	2024	G	C1'-C2'-O2'	6.06	117.49	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2498	C	C3'-C2'-O2'	-6.06	105.51	114.60
39	BP	37	VAL	N-CA-C	6.06	121.95	109.34
25	BB	153	U	O4'-C1'-N1	6.06	117.59	108.50
25	BB	525	U	O4'-C1'-N1	6.06	117.29	108.20
25	BB	1799	G	O4'-C4'-C3'	6.06	112.16	106.10
25	BB	2172	U	C3'-C2'-O2'	6.06	123.69	114.60
3	A1	828	U	O4'-C1'-C2'	-6.06	101.54	107.60
3	A1	960	U	C3'-C2'-C1'	-6.06	95.44	101.50
4	AB	207	ARG	NE-CZ-NH2	-6.06	113.75	119.20
24	BA	5	U	C1'-O4'-C4'	-6.06	103.84	109.90
25	BB	1093	G	C4'-C3'-C2'	6.06	108.66	102.60
25	BB	1482	G	C4'-C3'-C2'	-6.06	96.54	102.60
25	BB	1644	C	O5'-C5'-C4'	-6.06	102.41	111.50
25	BB	2490	G	C3'-C2'-C1'	6.06	107.56	101.50
32	BI	5	LYS	CA-C-N	6.06	130.98	120.68
32	BI	5	LYS	C-N-CA	6.06	130.98	120.68
3	A1	536	C	N1-C1'-C2'	6.06	121.08	112.00
25	BB	1713	A	C3'-C2'-C1'	6.06	107.56	101.50
3	A1	555	U	C2'-C3'-O3'	-6.05	104.62	113.70
8	AG	83	VAL	N-CA-C	6.05	121.94	109.34
25	BB	5	A	C4'-C3'-O3'	6.05	122.08	113.00
25	BB	149	A	C3'-C2'-O2'	6.05	119.78	110.70
25	BB	556	A	P-O5'-C5'	6.05	129.98	120.90
25	BB	1335	C	C4'-C3'-C2'	-6.05	96.55	102.60
25	BB	2065	C	C4'-C3'-C2'	-6.05	96.55	102.60
25	BB	2138	G	O4'-C4'-C3'	-6.05	97.94	104.00
25	BB	2601	C	C2'-C3'-O3'	6.05	122.78	113.70
3	A1	914	A	C1'-O4'-C4'	-6.05	103.65	109.70
3	A1	1141	C	C4'-C3'-C2'	-6.05	96.55	102.60
27	BD	6	THR	N-CA-C	6.05	118.98	109.96
3	A1	107	G	C2'-C3'-O3'	-6.05	104.62	113.70
3	A1	842	U	C1'-O4'-C4'	-6.05	103.85	109.90
3	A1	1339	A	C2'-C3'-O3'	6.05	122.78	113.70
8	AG	48	GLN	OE1-CD-NE2	-6.05	116.55	122.60
25	BB	204	A	C2'-C3'-O3'	6.05	118.58	109.50
25	BB	470	A	O5'-C5'-C4'	6.05	120.58	111.50
25	BB	1789	A	C3'-C2'-C1'	6.05	107.35	101.30
10	AI	30	GLY	CA-C-N	6.05	133.09	121.54
10	AI	30	GLY	C-N-CA	6.05	133.09	121.54
18	AS	121	ASN	CB-CG-ND2	6.05	125.47	116.40
25	BB	49	A	C2'-C3'-O3'	6.05	118.57	109.50
25	BB	567	U	C3'-C2'-C1'	6.05	107.35	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	954	G	C5'-C4'-O4'	6.05	118.17	109.10
29	BF	59	ARG	NE-CZ-NH2	6.05	124.64	119.20
3	A1	1003	G	O4'-C1'-C2'	-6.05	101.55	107.60
3	A1	1060	U	O4'-C1'-N1	6.05	117.57	108.50
25	BB	1721	G	C3'-C2'-C1'	6.05	107.55	101.50
25	BB	1847	A	C3'-C2'-C1'	6.05	107.35	101.30
25	BB	2714	G	C4'-C3'-C2'	-6.05	96.55	102.60
3	A1	989	U	P-O3'-C3'	6.05	129.27	120.20
4	AB	29	PHE	CA-CB-CG	-6.05	107.75	113.80
20	AU	90	VAL	N-CA-CB	6.05	117.31	110.72
25	BB	91	A	O4'-C4'-C3'	6.05	110.05	104.00
25	BB	1389	G	N9-C1'-C2'	-6.05	104.93	114.00
25	BB	1494	A	O4'-C4'-C3'	6.05	110.05	104.00
25	BB	2440	C	O4'-C1'-C2'	6.05	113.65	107.60
53	B4	28	ASN	CA-CB-CG	6.05	118.65	112.60
54	B5	66	PHE	N-CA-CB	-6.05	101.41	111.57
1	AA	36	A	C3'-C2'-O2'	6.04	119.77	110.70
3	A1	557	G	O4'-C1'-C2'	-6.04	99.75	105.80
25	BB	2277	G	C5'-C4'-C3'	-6.04	106.93	116.00
3	A1	723	U	P-O3'-C3'	6.04	129.26	120.20
25	BB	1161	C	C1'-C2'-O2'	6.04	117.47	108.40
25	BB	1167	C	O4'-C1'-N1	6.04	117.57	108.50
25	BB	1915	U	C1'-O4'-C4'	-6.04	103.86	109.90
25	BB	1928	A	O5'-C5'-C4'	-6.04	102.43	111.50
25	BB	2455	G	P-O3'-C3'	6.04	129.27	120.20
25	BB	2874	C	C5'-C4'-O4'	-6.04	100.04	109.10
1	AP	20	G	O4'-C1'-C2'	-6.04	101.56	107.60
3	A1	927	G	O4'-C1'-C2'	6.04	113.64	107.60
3	A1	1418	A	C3'-C2'-O2'	6.04	119.76	110.70
11	AJ	42	LYS	CA-C-O	-6.04	114.34	122.44
25	BB	1078	U	C3'-C2'-C1'	6.04	107.34	101.30
32	BI	89	GLY	CA-C-N	6.04	132.04	122.62
32	BI	89	GLY	C-N-CA	6.04	132.04	122.62
37	BN	37	SER	N-CA-C	6.04	117.96	108.96
1	AP	2	C	C4'-C3'-C2'	-6.04	96.56	102.60
25	BB	213	A	C5'-C4'-C3'	-6.04	106.14	115.20
25	BB	1852	U	C3'-C2'-C1'	-6.04	95.46	101.50
25	BB	2785	C	C5'-C4'-O4'	6.04	118.86	109.80
54	B5	140	GLU	N-CA-C	6.04	119.04	109.50
55	B6	122	LEU	CA-C-N	6.04	133.08	121.54
55	B6	122	LEU	C-N-CA	6.04	133.08	121.54
3	A1	158	G	C5'-C4'-O4'	6.04	118.86	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1380	U	C2'-C3'-O3'	6.04	118.56	109.50
17	AR	196	GLU	O-C-N	6.04	129.06	122.11
27	BD	74	GLY	CA-C-N	6.04	129.33	120.82
27	BD	74	GLY	C-N-CA	6.04	129.33	120.82
48	BY	126	ASN	CA-CB-CG	6.04	118.64	112.60
25	BB	1072	C	C5'-C4'-O4'	-6.04	100.75	109.80
25	BB	1394	U	C5'-C4'-C3'	-6.04	106.14	115.20
3	A1	487	A	C4'-C3'-O3'	6.04	122.05	113.00
3	A1	624	C	C4'-C3'-C2'	-6.04	96.56	102.60
25	BB	462	C	C4'-C3'-O3'	6.04	122.05	113.00
25	BB	930	G	C4'-C3'-C2'	-6.04	96.56	102.60
26	BC	65	VAL	O-C-N	6.04	129.82	122.58
38	BO	86	PHE	N-CA-C	6.04	118.80	110.35
3	A1	744	C	O3'-P-O5'	-6.03	94.95	104.00
25	BB	75	G	O5'-C5'-C4'	-6.03	102.45	111.50
25	BB	376	G	C5'-C4'-C3'	-6.03	106.15	115.20
25	BB	2330	G	C4'-C3'-O3'	6.03	122.05	113.00
25	BB	2566	A	N9-C1'-C2'	6.03	123.05	114.00
25	BB	2683	C	O3'-P-O5'	-6.03	94.95	104.00
51	B2	26	GLN	OE1-CD-NE2	-6.03	116.57	122.60
54	B5	91	LYS	CB-CA-C	6.03	118.63	111.15
14	AN	75	LYS	CA-C-N	6.03	128.28	120.44
14	AN	75	LYS	C-N-CA	6.03	128.28	120.44
25	BB	615	U	C5'-C4'-O4'	-6.03	100.75	109.80
25	BB	1030	C	C1'-C2'-O2'	-6.03	99.35	108.40
49	BZ	5	LYS	CA-C-O	-6.03	114.49	120.82
3	A1	228	A	C3'-C2'-O2'	6.03	119.75	110.70
3	A1	567	G	O4'-C1'-C2'	6.03	111.83	105.80
3	A1	778	G	O3'-P-O5'	6.03	113.04	104.00
3	A1	1459	G	C2'-C3'-O3'	6.03	122.75	113.70
5	AC	31	VAL	CA-C-N	6.03	131.67	123.11
5	AC	31	VAL	C-N-CA	6.03	131.67	123.11
5	AC	95	THR	CA-C-N	6.03	128.67	120.77
5	AC	95	THR	C-N-CA	6.03	128.67	120.77
31	BH	70	ALA	CA-C-N	6.03	131.69	121.14
31	BH	70	ALA	C-N-CA	6.03	131.69	121.14
1	AE	36	A	C1'-O4'-C4'	6.03	115.93	109.90
1	AE	52	U	O4'-C1'-C2'	-6.03	101.57	107.60
3	A1	955	U	C1'-C2'-O2'	-6.03	99.36	108.40
5	AC	117	HIS	ND1-CG-CD2	6.03	112.13	106.10
5	AC	127	ARG	NE-CZ-NH1	-6.03	115.47	121.50
25	BB	1524	G	C1'-O4'-C4'	6.03	115.93	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1629	U	C5'-C4'-O4'	6.03	118.84	109.80
25	BB	2658	C	C1'-O4'-C4'	6.03	115.93	109.90
1	AE	72	C	C5'-C4'-C3'	-6.03	106.96	116.00
3	A1	104	G	P-O3'-C3'	6.03	129.24	120.20
3	A1	220	G	C5'-C4'-O4'	6.03	118.84	109.80
3	A1	1380	U	C4'-C3'-C2'	-6.03	96.57	102.60
7	AF	11	HIS	CA-C-N	6.03	129.68	120.82
7	AF	11	HIS	C-N-CA	6.03	129.68	120.82
18	AS	96	GLN	CB-CG-CD	-6.03	102.35	112.60
20	AU	149	ALA	N-CA-CB	-6.03	101.22	110.44
25	BB	514	A	O4'-C1'-N9	6.03	117.54	108.50
25	BB	1345	C	O4'-C4'-C3'	6.03	110.03	104.00
25	BB	1961	C	O4'-C4'-C3'	-6.03	97.97	104.00
29	BF	3	GLN	OE1-CD-NE2	-6.03	116.57	122.60
48	BY	151	THR	CA-C-N	6.03	127.37	119.84
48	BY	151	THR	C-N-CA	6.03	127.37	119.84
3	A1	41	G	C3'-C2'-O2'	6.03	119.74	110.70
3	A1	599	C	C1'-C2'-O2'	-6.03	99.36	108.40
3	A1	1241	G	C4'-C3'-O3'	-6.03	103.96	113.00
4	AB	131	LYS	CA-C-N	6.03	128.63	120.44
4	AB	131	LYS	C-N-CA	6.03	128.63	120.44
6	AD	8	ARG	N-CA-C	6.03	117.65	111.14
14	AN	12	GLN	CA-C-N	6.03	133.05	121.54
14	AN	12	GLN	C-N-CA	6.03	133.05	121.54
24	BA	58	A	C4'-C3'-C2'	-6.03	96.58	102.60
25	BB	1735	A	C4'-C3'-C2'	-6.03	96.57	102.60
39	BP	63	ASP	CA-CB-CG	6.02	118.62	112.60
15	AO	173	PRO	CA-C-N	6.02	129.17	120.38
15	AO	173	PRO	C-N-CA	6.02	129.17	120.38
25	BB	614	A	P-O5'-C5'	6.02	129.93	120.90
25	BB	1896	G	C4'-C3'-O3'	6.02	122.03	113.00
48	BY	164	GLN	OE1-CD-NE2	-6.02	116.58	122.60
17	AR	38	GLY	CA-C-N	6.02	128.67	120.54
17	AR	38	GLY	C-N-CA	6.02	128.67	120.54
3	A1	234	C	O3'-P-O5'	6.02	113.03	104.00
16	AQ	16	ARG	CD-NE-CZ	6.02	132.83	124.40
17	AR	130	ASN	CA-C-N	6.02	132.81	121.97
17	AR	130	ASN	C-N-CA	6.02	132.81	121.97
17	AR	177	MET	CA-C-N	6.02	133.19	121.63
17	AR	177	MET	C-N-CA	6.02	133.19	121.63
25	BB	583	G	O4'-C4'-C3'	6.02	110.02	104.00
25	BB	1514	G	O4'-C4'-C3'	-6.02	97.98	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BC	17	SER	N-CA-C	6.02	120.09	112.87
27	BD	41	ILE	CB-CA-C	6.02	118.31	110.12
48	BY	139	SER	CA-C-N	6.02	133.04	121.54
48	BY	139	SER	C-N-CA	6.02	133.04	121.54
53	B4	142	VAL	N-CA-CB	-6.02	105.40	112.32
3	A1	40	C	C4'-C3'-C2'	-6.02	96.58	102.60
6	AD	72	ASN	OD1-CG-ND2	-6.02	116.58	122.60
8	AG	23	ARG	NE-CZ-NH2	-6.02	113.78	119.20
15	AO	5	HIS	N-CA-C	6.02	116.97	109.57
25	BB	1810	A	O4'-C1'-C2'	-6.02	101.58	107.60
36	BM	87	LEU	CA-C-O	6.02	129.12	120.51
39	BP	9	THR	N-CA-C	6.02	123.62	110.80
42	BS	49	ARG	CD-NE-CZ	6.02	132.82	124.40
1	AE	35	A	C2'-C3'-O3'	6.02	122.72	113.70
3	A1	1283	U	C3'-C2'-C1'	6.02	107.32	101.30
6	AD	82	ARG	CA-C-N	6.02	127.33	120.53
6	AD	82	ARG	C-N-CA	6.02	127.33	120.53
25	BB	1250	G	O4'-C4'-C3'	-6.02	97.98	104.00
25	BB	1661	G	O3'-P-O5'	-6.02	94.98	104.00
49	BZ	212	ALA	N-CA-CB	-6.02	101.28	110.42
50	B1	80	SER	N-CA-C	6.02	123.61	110.80
3	A1	259	G	O3'-P-O5'	-6.01	94.98	104.00
3	A1	1122	U	O4'-C4'-C3'	6.01	110.02	104.00
3	A1	1465	A	P-O5'-C5'	6.01	129.92	120.90
6	AD	30	ARG	NE-CZ-NH1	6.01	127.51	121.50
8	AG	4	SER	CA-C-N	6.01	132.66	122.26
8	AG	4	SER	C-N-CA	6.01	132.66	122.26
14	AN	77	ASN	CA-CB-CG	6.01	118.61	112.60
25	BB	371	A	C1'-O4'-C4'	-6.01	103.89	109.90
25	BB	801	G	O5'-C5'-C4'	6.01	120.72	111.70
25	BB	1029	A	C1'-C2'-O2'	6.01	117.42	108.40
25	BB	1247	A	C5'-C4'-C3'	-6.01	106.18	115.20
36	BM	28	ASN	OD1-CG-ND2	-6.01	116.59	122.60
49	BZ	211	LYS	CB-CA-C	-6.01	99.73	109.72
25	BB	834	G	C3'-C2'-O2'	6.01	119.72	110.70
25	BB	974	G	C3'-C2'-O2'	6.01	119.72	110.70
25	BB	1612	C	C3'-C2'-O2'	6.01	119.72	110.70
25	BB	2589	A	P-O3'-C3'	6.01	129.22	120.20
42	BS	63	ARG	CA-C-N	6.01	128.34	120.28
42	BS	63	ARG	C-N-CA	6.01	128.34	120.28
3	A1	951	G	C3'-C2'-O2'	6.01	119.72	110.70
3	A1	1148	U	O4'-C4'-C3'	6.01	110.01	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	AS	88	HIS	CA-C-O	6.01	127.73	121.36
19	AT	84	VAL	CB-CA-C	-6.01	104.12	111.88
25	BB	232	G	C1'-C2'-O2'	-6.01	102.78	111.80
25	BB	456	C	O5'-C5'-C4'	6.01	120.72	111.70
25	BB	1995	U	O5'-C5'-C4'	6.01	120.52	111.50
25	BB	2452	C	C1'-O4'-C4'	-6.01	103.69	109.70
42	BS	21	VAL	N-CA-C	6.01	117.33	109.58
3	A1	455	G	C4'-C3'-O3'	-6.01	103.99	113.00
3	A1	605	U	C5'-C4'-C3'	-6.01	106.99	116.00
3	A1	1101	A	O3'-P-O5'	-6.01	94.99	104.00
9	AH	13	GLU	CB-CA-C	-6.01	97.99	109.95
25	BB	1134	A	O4'-C1'-N9	6.01	117.21	108.20
25	BB	1453	A	C1'-O4'-C4'	-6.01	103.89	109.90
25	BB	2028	U	O4'-C4'-C3'	6.01	110.01	104.00
28	BE	40	SER	CA-C-N	6.01	133.02	121.54
28	BE	40	SER	C-N-CA	6.01	133.02	121.54
37	BN	237	ARG	NH1-CZ-NH2	-6.01	111.49	119.30
51	B2	24	VAL	N-CA-C	6.01	121.84	109.34
3	A1	1493	A	O4'-C4'-C3'	6.01	112.11	106.10
9	AH	62	ARG	CD-NE-CZ	6.01	132.81	124.40
25	BB	782	A	O4'-C1'-N9	6.01	117.51	108.50
25	BB	1500	G	O4'-C1'-N9	6.01	117.51	108.50
25	BB	2398	U	C4'-C3'-C2'	-6.01	96.59	102.60
25	BB	2847	U	C5'-C4'-C3'	-6.01	106.19	115.20
3	A1	1139	G	O3'-P-O5'	6.01	113.01	104.00
8	AG	83	VAL	CA-C-N	6.01	129.83	120.82
8	AG	83	VAL	C-N-CA	6.01	129.83	120.82
25	BB	1104	C	C1'-C2'-O2'	-6.01	99.39	108.40
25	BB	1128	G	O5'-C5'-C4'	-6.01	102.49	111.50
25	BB	1156	A	P-O5'-C5'	6.01	129.91	120.90
25	BB	1902	C	C4'-C3'-C2'	-6.01	96.59	102.60
25	BB	2751	G	C2'-C3'-O3'	6.01	118.51	109.50
25	BB	2787	C	C3'-C2'-O2'	6.01	119.71	110.70
21	AV	14	ARG	NE-CZ-NH1	-6.00	115.50	121.50
25	BB	2238	G	C2'-C3'-O3'	-6.00	100.49	109.50
25	BB	2277	G	O4'-C1'-C2'	-6.00	101.59	107.60
49	BZ	93	LEU	N-CA-C	6.00	120.47	113.20
3	A1	798	U	O4'-C1'-C2'	-6.00	101.60	107.60
25	BB	22	C	C3'-C2'-C1'	6.00	107.30	101.30
25	BB	552	U	P-O3'-C3'	6.00	129.20	120.20
25	BB	589	U	C4'-C3'-O3'	-6.00	100.40	109.40
25	BB	1590	A	C4'-C3'-C2'	-6.00	96.60	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2590	A	P-O3'-C3'	6.00	129.21	120.20
3	A1	442	G	O3'-P-O5'	6.00	113.00	104.00
4	AB	206	ILE	N-CA-C	6.00	118.59	111.09
21	AV	91	LEU	CA-C-N	6.00	126.34	119.92
21	AV	91	LEU	C-N-CA	6.00	126.34	119.92
25	BB	908	C	C2'-C3'-O3'	6.00	118.50	109.50
25	BB	1244	A	C3'-C2'-O2'	6.00	119.70	110.70
25	BB	1750	G	O3'-P-O5'	-6.00	95.00	104.00
25	BB	2578	G	O4'-C4'-C3'	6.00	110.00	104.00
25	BB	2679	A	O4'-C4'-C3'	6.00	110.00	104.00
27	BD	23	LYS	CA-C-N	6.00	131.68	122.68
27	BD	23	LYS	C-N-CA	6.00	131.68	122.68
1	AP	12	U	C4'-C3'-C2'	-6.00	96.60	102.60
3	A1	419	C	C4'-C3'-C2'	-6.00	96.60	102.60
5	AC	32	THR	CA-CB-OG1	6.00	118.60	109.60
15	AO	24	ASN	CA-CB-CG	6.00	118.60	112.60
25	BB	1983	G	O3'-P-O5'	6.00	113.00	104.00
3	A1	223	A	C1'-O4'-C4'	-6.00	103.90	109.90
3	A1	295	C	C5'-C4'-O4'	-6.00	100.80	109.80
3	A1	735	C	O3'-P-O5'	-6.00	95.00	104.00
25	BB	696	G	O3'-P-O5'	6.00	113.00	104.00
25	BB	1064	C	C3'-C2'-C1'	6.00	107.30	101.30
25	BB	1675	C	C5'-C4'-O4'	-6.00	100.80	109.80
32	BI	63	ILE	N-CA-C	6.00	117.32	107.24
36	BM	72	GLN	CA-C-N	6.00	133.00	121.54
36	BM	72	GLN	C-N-CA	6.00	133.00	121.54
41	BR	33	HIS	CE1-NE2-CD2	-6.00	103.00	109.00
1	AP	21	A	O4'-C4'-C3'	6.00	110.00	104.00
25	BB	163	C	C3'-C2'-C1'	6.00	107.30	101.30
25	BB	191	A	C5'-C4'-C3'	6.00	125.00	116.00
25	BB	407	G	O4'-C1'-N9	6.00	117.19	108.20
25	BB	2083	G	C4'-C3'-C2'	-6.00	96.60	102.60
25	BB	2197	U	C1'-O4'-C4'	-6.00	103.70	109.70
1	AP	65	G	C5'-C4'-O4'	6.00	118.79	109.80
7	AF	104	ASN	OD1-CG-ND2	-6.00	116.61	122.60
20	AU	51	GLN	OE1-CD-NE2	-6.00	116.61	122.60
25	BB	2859	G	C5'-C4'-C3'	-6.00	107.01	116.00
6	AD	95	HIS	ND1-CG-CD2	5.99	112.09	106.10
13	AL	31	ARG	NH1-CZ-NH2	-5.99	111.51	119.30
25	BB	462	C	O4'-C1'-N1	5.99	117.49	108.50
25	BB	1592	C	C4'-C3'-C2'	-5.99	96.61	102.60
25	BB	2338	C	O4'-C1'-C2'	-5.99	99.81	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	BG	17	ARG	N-CA-C	5.99	119.42	111.75
50	B1	62	GLN	CG-CD-NE2	5.99	125.39	116.40
52	B3	12	ALA	O-C-N	-5.99	116.21	123.10
3	A1	669	G	C5'-C4'-C3'	-5.99	107.01	116.00
3	A1	1468	A	C4'-C3'-C2'	-5.99	96.61	102.60
4	AB	207	ARG	CA-C-N	5.99	129.12	120.79
4	AB	207	ARG	C-N-CA	5.99	129.12	120.79
18	AS	145	ASN	CA-C-N	5.99	131.62	120.95
18	AS	145	ASN	C-N-CA	5.99	131.62	120.95
25	BB	175	G	C3'-C2'-O2'	5.99	119.69	110.70
25	BB	682	G	O5'-C5'-C4'	-5.99	102.71	111.70
25	BB	1753	G	C3'-C2'-O2'	5.99	119.69	110.70
35	BL	88	ARG	CD-NE-CZ	5.99	132.79	124.40
35	BL	97	LEU	N-CA-CB	-5.99	100.64	110.41
1	AE	30	G	O3'-P-O5'	-5.99	95.01	104.00
3	A1	704	A	C2'-C3'-O3'	-5.99	104.72	113.70
3	A1	1258	G	C3'-C2'-O2'	5.99	119.69	110.70
24	BA	112	G	C3'-C2'-O2'	5.99	119.69	110.70
25	BB	2	G	C4'-C3'-C2'	-5.99	96.61	102.60
25	BB	286	U	O3'-P-O5'	5.99	112.99	104.00
25	BB	581	C	C4'-C3'-O3'	-5.99	100.42	109.40
25	BB	1929	G	C1'-O4'-C4'	-5.99	103.91	109.90
25	BB	2305	U	O3'-P-O5'	5.99	112.99	104.00
25	BB	2378	A	N9-C1'-C2'	-5.99	103.01	112.00
27	BD	119	ALA	CA-C-N	5.99	126.77	120.12
27	BD	119	ALA	C-N-CA	5.99	126.77	120.12
3	A1	564	C	O4'-C1'-N1	5.99	117.48	108.50
3	A1	1265	C	C4'-C3'-C2'	-5.99	96.61	102.60
25	BB	485	C	C5'-C4'-C3'	-5.99	107.02	116.00
25	BB	1295	C	C2'-C3'-O3'	-5.99	104.72	113.70
25	BB	2513	A	C2'-C3'-O3'	5.99	118.48	109.50
22	AW	40	ARG	CA-C-N	5.99	132.08	122.32
22	AW	40	ARG	C-N-CA	5.99	132.08	122.32
25	BB	634	C	C4'-C3'-C2'	-5.99	96.61	102.60
3	A1	552	U	C3'-C2'-C1'	5.99	107.29	101.30
3	A1	1095	U	N1-C1'-C2'	-5.99	103.02	112.00
3	A1	1255	G	O4'-C1'-C2'	-5.99	101.61	107.60
19	AT	36	ILE	CA-C-N	5.99	128.22	120.44
19	AT	36	ILE	C-N-CA	5.99	128.22	120.44
25	BB	1958	C	O4'-C1'-C2'	-5.99	99.81	105.80
29	BF	104	GLU	N-CA-C	5.99	119.68	112.38
51	B2	91	ARG	CA-C-N	5.99	128.95	121.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	B2	91	ARG	C-N-CA	5.99	128.95	121.83
54	B5	18	ASN	CB-CA-C	5.99	121.96	110.17
3	A1	868	C	O4'-C4'-C3'	5.98	109.98	104.00
25	BB	2555	U	C5'-C4'-O4'	-5.98	100.82	109.80
25	BB	2633	G	C5'-C4'-C3'	-5.98	107.02	116.00
34	BK	11	GLN	OE1-CD-NE2	-5.98	116.62	122.60
4	AB	20	ARG	NE-CZ-NH1	5.98	127.48	121.50
4	AB	108	GLN	OE1-CD-NE2	-5.98	116.62	122.60
4	AB	120	SER	CA-C-N	5.98	130.71	120.72
4	AB	120	SER	C-N-CA	5.98	130.71	120.72
25	BB	1257	C	C1'-C2'-O2'	-5.98	102.83	111.80
25	BB	2526	G	O4'-C4'-C3'	5.98	109.98	104.00
37	BN	24	HIS	N-CA-C	5.98	123.54	110.80
50	B1	125	SER	O-C-N	-5.98	115.38	122.20
51	B2	139	GLU	CA-C-N	5.98	128.67	122.27
51	B2	139	GLU	C-N-CA	5.98	128.67	122.27
3	A1	1337	G	C5'-C4'-C3'	-5.98	107.03	116.00
20	AU	3	ARG	CA-C-N	5.98	131.60	122.93
20	AU	3	ARG	C-N-CA	5.98	131.60	122.93
25	BB	339	U	C4'-C3'-O3'	-5.98	100.43	109.40
25	BB	902	C	C1'-O4'-C4'	-5.98	103.92	109.90
25	BB	1349	C	C2'-C3'-O3'	5.98	118.47	109.50
25	BB	2242	G	P-O3'-C3'	5.98	129.17	120.20
26	BC	42	LEU	N-CA-C	5.98	119.26	110.59
3	A1	1267	C	O4'-C1'-N1	5.98	117.17	108.20
25	BB	805	G	C3'-C2'-O2'	5.98	119.67	110.70
25	BB	1762	A	C3'-C2'-C1'	-5.98	95.32	101.30
1	AE	34	G	O4'-C1'-N9	5.98	117.47	108.50
3	A1	1367	C	C2'-C3'-O3'	5.98	122.67	113.70
25	BB	284	U	C4'-C3'-C2'	-5.98	96.62	102.60
25	BB	523	C	O4'-C4'-C3'	5.98	109.98	104.00
25	BB	2250	G	C3'-C2'-O2'	5.98	119.67	110.70
28	BE	50	PHE	CA-C-N	5.98	130.70	120.72
28	BE	50	PHE	C-N-CA	5.98	130.70	120.72
11	AJ	4	ILE	CB-CA-C	-5.98	103.38	111.63
25	BB	1827	U	C5'-C4'-O4'	5.98	118.06	109.10
25	BB	2455	G	C1'-O4'-C4'	-5.98	103.72	109.70
37	BN	43	ASN	CA-CB-CG	5.98	118.58	112.60
1	AA	32	C	O4'-C4'-C3'	5.97	109.97	104.00
3	A1	1056	U	C5'-C4'-C3'	-5.97	107.04	116.00
3	A1	1484	C	O4'-C1'-N1	5.97	117.16	108.20
25	BB	160	A	O4'-C1'-C2'	5.97	113.57	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	637	A	C5'-C4'-C3'	-5.97	106.24	115.20
25	BB	1376	C	O5'-C5'-C4'	-5.97	102.54	111.50
25	BB	2178	C	C1'-O4'-C4'	-5.97	103.73	109.70
25	BB	2312	U	C5'-C4'-C3'	5.97	124.96	116.00
27	BD	29	HIS	CA-C-N	5.97	132.95	121.54
27	BD	29	HIS	C-N-CA	5.97	132.95	121.54
27	BD	90	ASN	N-CA-CB	-5.97	103.09	110.98
38	BO	69	VAL	CA-C-N	5.97	132.31	121.97
38	BO	69	VAL	C-N-CA	5.97	132.31	121.97
3	A1	29	U	C2'-C3'-O3'	5.97	122.66	113.70
3	A1	534	U	O5'-C5'-C4'	-5.97	102.74	111.70
3	A1	1533	C	O4'-C1'-N1	5.97	117.16	108.20
6	AD	32	VAL	CA-CB-CG2	5.97	120.55	110.40
24	BA	63	C	C1'-O4'-C4'	-5.97	103.93	109.90
25	BB	58	G	C4'-C3'-O3'	5.97	118.36	109.40
25	BB	548	G	C1'-O4'-C4'	-5.97	103.93	109.90
25	BB	2068	U	C4'-C3'-C2'	-5.97	96.63	102.60
3	A1	69	G	C2'-C3'-O3'	5.97	118.46	109.50
25	BB	379	G	P-O5'-C5'	5.97	129.86	120.90
3	A1	139	A	O3'-P-O5'	5.97	112.95	104.00
16	AQ	34	ARG	NE-CZ-NH1	-5.97	115.53	121.50
25	BB	219	A	C1'-O4'-C4'	-5.97	103.93	109.90
25	BB	662	G	O3'-P-O5'	-5.97	95.05	104.00
25	BB	1069	A	N9-C1'-C2'	5.97	122.95	114.00
25	BB	2356	U	C3'-C2'-C1'	5.97	107.27	101.30
48	BY	122	VAL	O-C-N	5.97	130.03	122.57
19	AT	23	GLU	CB-CG-CD	-5.97	102.45	112.60
22	AW	24	ASN	OD1-CG-ND2	-5.97	116.63	122.60
25	BB	95	A	O4'-C1'-C2'	-5.97	101.63	107.60
25	BB	1471	G	N9-C1'-C2'	5.97	122.95	114.00
33	BJ	92	LYS	N-CA-C	5.97	121.16	111.37
52	B3	41	GLU	CA-C-N	5.97	130.35	122.95
52	B3	41	GLU	C-N-CA	5.97	130.35	122.95
3	A1	952	U	C4'-C3'-C2'	-5.97	96.63	102.60
9	AH	10	ILE	CB-CA-C	5.97	119.34	111.70
24	BA	37	C	O5'-C5'-C4'	-5.97	102.55	111.50
25	BB	36	G	C4'-C3'-C2'	-5.97	96.63	102.60
25	BB	543	G	C4'-C3'-O3'	-5.97	104.05	113.00
25	BB	833	A	C1'-C2'-O2'	5.97	117.35	108.40
25	BB	1291	C	C3'-C2'-O2'	5.97	119.65	110.70
25	BB	2491	U	C3'-C2'-C1'	5.97	107.27	101.30
25	BB	2583	G	C4'-C3'-C2'	-5.97	96.63	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2626	C	O4'-C1'-N1	5.97	117.45	108.50
25	BB	2824	C	C4'-C3'-O3'	5.97	121.95	113.00
51	B2	140	ILE	CB-CA-C	5.97	121.28	112.03
3	A1	100	G	C5'-C4'-O4'	5.96	118.75	109.80
1	AP	27	C	C5'-C4'-O4'	5.96	118.74	109.80
3	A1	1193	G	C4'-C3'-O3'	5.96	121.94	113.00
25	BB	2730	C	C5'-C4'-C3'	-5.96	107.06	116.00
47	BX	22	VAL	O-C-N	-5.96	116.66	122.92
3	A1	971	G	O4'-C4'-C3'	5.96	109.96	104.00
3	A1	1482	G	O3'-P-O5'	5.96	112.94	104.00
21	AV	115	ALA	CA-C-N	5.96	128.19	120.44
21	AV	115	ALA	C-N-CA	5.96	128.19	120.44
25	BB	1326	U	C1'-O4'-C4'	-5.96	103.94	109.90
25	BB	1714	U	C4'-C3'-C2'	-5.96	96.64	102.60
28	BE	91	ASP	CA-CB-CG	-5.96	106.64	112.60
28	BE	97	ALA	N-CA-C	5.96	118.28	109.69
49	BZ	61	ALA	N-CA-CB	-5.96	101.92	110.44
50	B1	117	ARG	NE-CZ-NH1	5.96	127.46	121.50
50	B1	154	ASP	CA-C-N	5.96	132.21	122.07
50	B1	154	ASP	C-N-CA	5.96	132.21	122.07
55	B6	125	TYR	N-CA-CB	5.96	119.06	109.28
1	AE	2	C	O4'-C1'-N1	5.96	117.44	108.50
3	A1	342	C	C5'-C4'-C3'	-5.96	107.06	116.00
9	AH	74	VAL	N-CA-C	5.96	121.74	109.34
25	BB	861	A	C3'-C2'-O2'	5.96	119.64	110.70
25	BB	2664	G	C5'-C4'-O4'	5.96	118.74	109.80
25	BB	2714	G	P-O3'-C3'	5.96	129.14	120.20
35	BL	47	VAL	CB-CA-C	-5.96	102.61	112.26
3	A1	665	A	O4'-C1'-C2'	-5.96	99.84	105.80
25	BB	426	C	O4'-C1'-C2'	-5.96	101.64	107.60
25	BB	1460	U	C4'-C3'-C2'	-5.96	96.64	102.60
1	AP	8	U	O3'-P-O5'	5.96	112.93	104.00
3	A1	56	U	O4'-C1'-N1	5.96	117.44	108.50
3	A1	57	G	O5'-C5'-C4'	-5.96	102.56	111.50
12	AK	67	LEU	CB-CA-C	5.96	115.80	110.44
25	BB	1161	C	C5'-C4'-O4'	5.96	118.73	109.80
25	BB	1184	U	C4'-C3'-C2'	-5.96	96.64	102.60
25	BB	1531	C	O4'-C4'-C3'	5.96	109.96	104.00
36	BM	80	TRP	N-CA-C	5.96	123.49	110.80
52	B3	151	ARG	NE-CZ-NH2	5.96	124.56	119.20
25	BB	665	U	C5'-C4'-C3'	-5.96	106.27	115.20
25	BB	872	U	C3'-C2'-C1'	5.96	107.25	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	164	G	C5'-C4'-C3'	-5.95	107.07	116.00
3	A1	678	U	C3'-C2'-C1'	5.95	107.25	101.30
3	A1	869	G	C1'-O4'-C4'	-5.95	103.75	109.70
3	A1	1059	C	O3'-P-O5'	5.95	112.93	104.00
17	AR	138	PRO	N-CD-CG	5.95	112.13	103.20
18	AS	28	ARG	CD-NE-CZ	5.95	132.74	124.40
25	BB	841	G	C5'-C4'-C3'	-5.95	107.07	116.00
25	BB	1902	C	C5'-C4'-C3'	-5.95	107.07	116.00
25	BB	2147	A	C5'-C4'-O4'	-5.95	100.87	109.80
31	BH	54	VAL	N-CA-C	5.95	121.72	109.34
3	A1	1022	A	C3'-C2'-C1'	-5.95	95.35	101.30
3	A1	1055	A	C1'-O4'-C4'	-5.95	103.95	109.90
9	AH	71	ARG	CD-NE-CZ	5.95	132.73	124.40
25	BB	669	G	N9-C1'-C2'	5.95	120.93	112.00
25	BB	1127	A	O4'-C1'-N9	5.95	117.13	108.20
28	BE	141	LYS	CA-CB-CG	5.95	126.00	114.10
18	AS	60	GLN	OE1-CD-NE2	-5.95	116.65	122.60
24	BA	81	G	O5'-C5'-C4'	5.95	120.63	111.70
25	BB	1503	A	C4'-C3'-O3'	5.95	121.92	113.00
25	BB	1992	G	C4'-C3'-C2'	-5.95	96.65	102.60
25	BB	2534	A	O5'-C5'-C4'	-5.95	102.58	111.50
28	BE	96	LYS	CA-C-O	5.95	129.02	120.51
29	BF	121	ALA	CA-C-N	5.95	132.90	121.54
29	BF	121	ALA	C-N-CA	5.95	132.90	121.54
24	BA	51	G	C3'-C2'-C1'	5.95	107.45	101.50
25	BB	690	G	C2'-C3'-O3'	5.95	122.62	113.70
25	BB	945	A	C5'-C4'-C3'	5.95	124.12	115.20
25	BB	1837	C	O4'-C4'-C3'	-5.95	100.15	106.10
3	A1	724	G	C4'-C3'-O3'	-5.95	104.08	113.00
25	BB	1752	C	O4'-C4'-C3'	-5.95	98.05	104.00
30	BG	24	MET	N-CA-C	5.95	117.63	111.03
1	AE	2	C	C5'-C4'-C3'	-5.95	107.08	116.00
3	A1	94	G	C3'-C2'-C1'	-5.95	95.55	101.50
3	A1	563	A	N9-C1'-C2'	5.95	120.92	112.00
3	A1	1106	G	C5'-C4'-O4'	5.95	118.02	109.10
10	AI	23	ASP	CA-C-O	-5.95	114.61	121.15
25	BB	305	C	O4'-C1'-C2'	5.95	113.55	107.60
25	BB	551	G	C4'-C3'-C2'	-5.95	96.66	102.60
25	BB	2718	G	C4'-C3'-C2'	-5.95	96.66	102.60
54	B5	45	THR	CA-C-O	-5.95	112.30	119.49
25	BB	904	G	C4'-C3'-O3'	-5.94	104.08	113.00
25	BB	1432	G	O4'-C4'-C3'	-5.94	98.06	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2654	A	C1'-C2'-O2'	-5.94	99.48	108.40
29	BF	5	LYS	N-CA-C	5.94	123.46	110.80
20	AU	45	ALA	N-CA-C	5.94	117.43	111.07
24	BA	16	G	O5'-C5'-C4'	-5.94	102.59	111.50
25	BB	492	A	O4'-C4'-C3'	5.94	109.94	104.00
25	BB	726	G	P-O5'-C5'	5.94	129.81	120.90
25	BB	814	C	O4'-C1'-N1	5.94	117.41	108.50
25	BB	1103	A	C5'-C4'-C3'	-5.94	107.09	116.00
25	BB	1394	U	C3'-C2'-O2'	-5.94	105.69	114.60
25	BB	1769	U	C3'-C2'-C1'	5.94	107.24	101.30
49	BZ	30	VAL	CB-CA-C	5.94	119.97	110.82
52	B3	152	ARG	CD-NE-CZ	5.94	132.72	124.40
3	A1	255	G	C5'-C4'-C3'	-5.94	107.09	116.00
19	AT	95	ALA	CA-C-N	5.94	128.60	122.96
19	AT	95	ALA	C-N-CA	5.94	128.60	122.96
20	AU	30	MET	CA-C-N	5.94	132.66	121.97
20	AU	30	MET	C-N-CA	5.94	132.66	121.97
24	BA	15	A	O5'-C5'-C4'	-5.94	102.59	111.50
25	BB	792	A	O3'-P-O5'	5.94	112.91	104.00
25	BB	1817	G	O3'-P-O5'	5.94	112.91	104.00
34	BK	13	ARG	CD-NE-CZ	5.94	132.72	124.40
49	BZ	7	SER	O-C-N	5.94	129.17	122.22
3	A1	609	A	C4'-C3'-C2'	-5.94	96.66	102.60
25	BB	164	C	C3'-C2'-O2'	5.94	119.61	110.70
25	BB	433	C	C4'-C3'-O3'	5.94	121.91	113.00
38	BO	68	ASN	OD1-CG-ND2	-5.94	116.66	122.60
1	AP	65	G	C1'-O4'-C4'	-5.94	103.96	109.90
3	A1	1401	G	O4'-C1'-C2'	-5.94	99.86	105.80
3	A1	1531	A	O4'-C4'-C3'	5.94	109.94	104.00
17	AR	129	VAL	N-CA-C	5.94	121.69	109.34
18	AS	66	ALA	CA-C-O	5.94	126.80	119.97
25	BB	1918	A	O4'-C1'-N9	5.94	117.11	108.20
25	BB	2870	C	O4'-C1'-C2'	-5.94	101.66	107.60
32	BI	108	ARG	CD-NE-CZ	5.94	132.71	124.40
46	BW	62	PRO	CA-C-O	-5.94	109.79	120.60
17	AR	183	ARG	CD-NE-CZ	5.94	132.71	124.40
25	BB	2068	U	N1-C1'-C2'	5.94	122.90	114.00
25	BB	2177	C	C5'-C4'-C3'	-5.94	107.09	116.00
3	A1	46	G	C3'-C2'-C1'	5.93	107.44	101.50
3	A1	330	C	C2'-C3'-O3'	5.93	122.60	113.70
17	AR	204	SER	CA-C-N	5.93	132.38	121.70
17	AR	204	SER	C-N-CA	5.93	132.38	121.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AV	41	GLU	CB-CA-C	5.93	120.94	110.85
22	AW	118	ARG	CA-C-N	5.93	131.19	123.00
22	AW	118	ARG	C-N-CA	5.93	131.19	123.00
24	BA	55	U	C4'-C3'-C2'	-5.93	96.67	102.60
25	BB	1543	G	O4'-C4'-C3'	5.93	109.94	104.00
25	BB	1821	A	C2'-C3'-O3'	-5.93	104.80	113.70
25	BB	2874	C	C1'-C2'-O2'	-5.93	102.90	111.80
3	A1	161	A	C4'-C3'-C2'	-5.93	96.67	102.60
3	A1	563	A	C3'-C2'-O2'	-5.93	101.80	110.70
25	BB	1173	U	O5'-C5'-C4'	5.93	120.40	111.50
25	BB	1467	U	C3'-C2'-O2'	5.93	119.60	110.70
25	BB	1497	U	C2'-C3'-O3'	5.93	118.40	109.50
25	BB	2238	G	N9-C1'-C2'	-5.93	105.10	114.00
25	BB	2568	U	P-O3'-C3'	5.93	129.10	120.20
25	BB	2882	A	C4'-C3'-O3'	5.93	121.90	113.00
27	BD	91	SER	CA-C-N	5.93	132.87	121.54
27	BD	91	SER	C-N-CA	5.93	132.87	121.54
39	BP	9	THR	CA-C-N	5.93	132.87	121.54
39	BP	9	THR	C-N-CA	5.93	132.87	121.54
15	AO	138	GLN	CB-CA-C	5.93	120.69	110.84
3	A1	1278	G	C3'-C2'-C1'	5.93	107.23	101.30
3	A1	1483	A	O5'-C5'-C4'	5.93	120.39	111.50
14	AN	56	ILE	CA-C-N	5.93	132.64	121.97
14	AN	56	ILE	C-N-CA	5.93	132.64	121.97
25	BB	362	A	C1'-O4'-C4'	-5.93	103.97	109.90
25	BB	882	G	O4'-C4'-C3'	5.93	109.93	104.00
25	BB	1571	A	O4'-C1'-C2'	-5.93	101.67	107.60
25	BB	1686	C	O4'-C1'-C2'	-5.93	99.87	105.80
29	BF	82	MET	O-C-N	-5.93	115.64	122.93
53	B4	83	LYS	O-C-N	-5.93	116.29	123.29
3	A1	852	G	C5'-C4'-C3'	-5.93	107.11	116.00
5	AC	14	GLN	OE1-CD-NE2	-5.93	116.67	122.60
25	BB	143	C	C1'-O4'-C4'	-5.93	103.97	109.90
25	BB	1171	G	C4'-C3'-C2'	-5.93	96.67	102.60
25	BB	1287	A	O3'-P-O5'	-5.93	95.11	104.00
25	BB	1628	G	C1'-O4'-C4'	-5.93	103.97	109.90
25	BB	2202	U	O5'-C5'-C4'	-5.93	102.61	111.50
25	BB	2322	A	C1'-O4'-C4'	-5.93	103.77	109.70
25	BB	2843	G	C3'-C2'-C1'	5.93	107.23	101.30
3	A1	1155	A	C5'-C4'-C3'	-5.93	107.11	116.00
3	A1	1514	G	C1'-C2'-O2'	-5.93	99.51	108.40
22	AW	110	VAL	CA-C-N	5.93	130.54	122.07

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
22	AW	110	VAL	C-N-CA	5.93	130.54	122.07
25	BB	66	C	C3'-C2'-O2'	5.93	119.59	110.70
25	BB	104	A	N9-C1'-C2'	5.93	120.89	112.00
25	BB	1975	G	O3'-P-O5'	5.93	112.89	104.00
36	BM	64	LYS	CA-C-N	5.93	133.03	121.41
36	BM	64	LYS	C-N-CA	5.93	133.03	121.41
50	B1	127	GLU	N-CA-C	5.93	117.43	110.97
3	A1	701	U	C4'-C3'-C2'	-5.92	96.68	102.60
5	AC	119	GLY	N-CA-C	5.92	119.37	112.50
15	AO	65	VAL	CA-CB-CG2	5.92	120.47	110.40
16	AQ	46	ARG	CA-C-N	5.92	128.22	120.28
16	AQ	46	ARG	C-N-CA	5.92	128.22	120.28
25	BB	677	A	C4'-C3'-O3'	5.92	121.89	113.00
25	BB	1143	A	O4'-C1'-C2'	-5.92	99.88	105.80
25	BB	2632	A	O4'-C4'-C3'	5.92	109.92	104.00
40	BQ	41	HIS	ND1-CE1-NE2	5.92	114.33	108.40
50	B1	107	SER	N-CA-C	5.92	123.42	110.80
55	B6	15	TRP	N-CA-C	5.92	123.42	110.80
3	A1	1091	U	O4'-C4'-C3'	5.92	109.92	104.00
3	A1	1193	G	N9-C1'-C2'	-5.92	103.11	112.00
3	A1	1156	G	O4'-C4'-C3'	5.92	109.92	104.00
25	BB	20	C	O4'-C1'-N1	5.92	117.38	108.50
25	BB	405	U	O5'-C5'-C4'	5.92	120.58	111.70
25	BB	757	G	O4'-C4'-C3'	5.92	109.92	104.00
25	BB	918	A	C4'-C3'-C2'	-5.92	96.68	102.60
25	BB	1810	A	C1'-O4'-C4'	5.92	115.82	109.90
39	BP	14	ASP	CA-CB-CG	5.92	118.52	112.60
28	BE	17	LYS	CA-C-N	5.92	132.19	121.89
28	BE	17	LYS	C-N-CA	5.92	132.19	121.89
30	BG	16	HIS	CE1-NE2-CD2	-5.92	103.08	109.00
31	BH	8	ILE	CA-C-N	5.92	132.85	121.54
31	BH	8	ILE	C-N-CA	5.92	132.85	121.54
35	BL	25	ARG	CD-NE-CZ	5.92	132.69	124.40
25	BB	1159	U	C5'-C4'-O4'	5.92	118.68	109.80
25	BB	1529	G	C3'-C2'-C1'	-5.92	95.38	101.30
25	BB	1818	U	C2'-C3'-O3'	5.92	118.38	109.50
25	BB	1890	A	O4'-C4'-C3'	5.92	109.92	104.00
30	BG	18	GLN	CA-C-N	5.92	132.84	121.54
30	BG	18	GLN	C-N-CA	5.92	132.84	121.54
3	A1	137	U	C4'-C3'-O3'	5.92	121.87	113.00
3	A1	730	G	C5'-C4'-C3'	-5.92	107.13	116.00
3	A1	1240	U	C2'-C3'-O3'	5.92	118.38	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	17	G	C5'-C4'-C3'	-5.92	107.12	116.00
25	BB	210	C	C3'-C2'-C1'	5.92	107.22	101.30
25	BB	1325	U	O4'-C1'-C2'	-5.92	99.88	105.80
25	BB	1396	U	C3'-C2'-C1'	5.92	107.42	101.50
25	BB	2290	G	C4'-C3'-C2'	5.92	108.52	102.60
1	AP	50	U	C3'-C2'-O2'	5.91	119.57	110.70
3	A1	173	U	O4'-C1'-N1	5.91	117.07	108.20
3	A1	536	C	C2'-C3'-O3'	5.91	122.57	113.70
18	AS	92	ARG	CD-NE-CZ	5.91	132.68	124.40
21	AV	111	THR	OG1-CB-CG2	-5.91	97.47	109.30
25	BB	544	C	O4'-C4'-C3'	5.91	109.91	104.00
25	BB	868	U	C3'-C2'-C1'	5.91	107.21	101.30
25	BB	1144	A	C4'-C3'-O3'	-5.91	104.13	113.00
49	BZ	100	VAL	N-CA-CB	5.91	117.07	110.62
52	B3	57	TYR	CA-C-N	5.91	130.15	120.63
52	B3	57	TYR	C-N-CA	5.91	130.15	120.63
52	B3	166	GLU	N-CA-CB	-5.91	99.56	110.56
3	A1	97	G	C5'-C4'-C3'	-5.91	107.13	116.00
3	A1	1235	U	C4'-C3'-C2'	5.91	108.51	102.60
1	AA	20	G	O4'-C4'-C3'	5.91	109.91	104.00
3	A1	873	A	C3'-C2'-C1'	-5.91	95.59	101.50
3	A1	1336	C	C4'-C3'-C2'	5.91	108.51	102.60
3	A1	1351	U	C1'-O4'-C4'	-5.91	103.99	109.90
7	AF	34	ALA	N-CA-CB	-5.91	101.22	110.44
18	AS	92	ARG	CA-C-N	5.91	132.34	121.70
18	AS	92	ARG	C-N-CA	5.91	132.34	121.70
18	AS	134	ASN	OD1-CG-ND2	-5.91	116.69	122.60
25	BB	84	A	C3'-C2'-C1'	5.91	107.41	101.50
25	BB	167	A	O3'-P-O5'	5.91	112.86	104.00
25	BB	1022	G	C1'-O4'-C4'	-5.91	103.79	109.70
25	BB	1688	U	C3'-C2'-C1'	5.91	107.21	101.30
48	BY	54	ALA	N-CA-CB	-5.91	101.28	109.97
1	AA	50	U	O3'-P-O5'	-5.91	95.14	104.00
3	A1	256	U	P-O3'-C3'	5.91	129.06	120.20
15	AO	129	PHE	CA-C-N	5.91	132.82	121.54
15	AO	129	PHE	C-N-CA	5.91	132.82	121.54
17	AR	25	ARG	NE-CZ-NH2	5.91	124.52	119.20
25	BB	698	C	C4'-C3'-C2'	-5.91	96.69	102.60
25	BB	777	G	O4'-C4'-C3'	5.91	112.01	106.10
25	BB	1077	A	O4'-C4'-C3'	5.91	109.91	104.00
25	BB	2138	G	C1'-O4'-C4'	5.91	115.81	109.90
25	BB	2262	U	O4'-C1'-N1	5.91	117.36	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2318	G	O4'-C4'-C3'	-5.91	98.09	104.00
28	BE	13	LYS	CA-C-N	5.91	130.65	121.26
28	BE	13	LYS	C-N-CA	5.91	130.65	121.26
28	BE	69	ARG	CA-C-N	5.91	129.29	120.31
28	BE	69	ARG	C-N-CA	5.91	129.29	120.31
46	BW	29	ARG	CA-C-N	5.91	132.34	121.70
46	BW	29	ARG	C-N-CA	5.91	132.34	121.70
3	A1	32	A	C5'-C4'-C3'	-5.91	107.14	116.00
1	AP	61	C	C3'-C2'-C1'	-5.91	95.39	101.30
3	A1	232	G	O4'-C4'-C3'	5.91	109.91	104.00
3	A1	498	A	C1'-C2'-O2'	5.91	117.26	108.40
3	A1	1252	A	C3'-C2'-O2'	5.91	119.56	110.70
3	A1	1341	U	C5'-C4'-C3'	-5.91	107.14	116.00
11	AJ	72	TRP	N-CA-CB	-5.91	101.31	110.29
20	AU	80	GLY	O-C-N	-5.91	115.02	122.70
25	BB	693	A	C4'-C3'-C2'	-5.91	96.69	102.60
25	BB	1178	C	O3'-P-O5'	-5.91	95.14	104.00
25	BB	2263	C	C4'-C3'-O3'	-5.91	104.14	113.00
40	BQ	51	ALA	N-CA-C	5.91	118.48	111.33
41	BR	36	GLU	N-CA-CB	-5.91	101.31	110.29
52	B3	133	LYS	CA-C-N	5.91	130.65	121.32
52	B3	133	LYS	C-N-CA	5.91	130.65	121.32
3	A1	249	U	C3'-C2'-C1'	-5.90	95.60	101.50
17	AR	196	GLU	N-CA-C	5.90	121.11	111.37
25	BB	306	U	O4'-C4'-C3'	-5.90	98.10	104.00
25	BB	855	G	C2'-C3'-O3'	5.90	118.36	109.50
6	AD	47	ALA	CA-C-O	-5.90	115.38	121.87
13	AL	22	VAL	O-C-N	-5.90	115.27	122.12
25	BB	127	A	C3'-C2'-C1'	5.90	107.40	101.50
25	BB	1234	U	C4'-C3'-O3'	-5.90	104.15	113.00
25	BB	2370	G	C2'-C3'-O3'	-5.90	104.85	113.70
49	BZ	214	LYS	N-CA-C	5.90	118.79	108.52
21	AV	83	ARG	NE-CZ-NH2	5.90	124.51	119.20
25	BB	794	A	C4'-C3'-C2'	-5.90	96.70	102.60
25	BB	2228	G	C5'-C4'-C3'	-5.90	107.15	116.00
52	B3	154	GLU	CA-C-N	5.90	127.22	119.84
52	B3	154	GLU	C-N-CA	5.90	127.22	119.84
3	A1	264	C	O4'-C4'-C3'	-5.90	98.10	104.00
3	A1	1233	G	C5'-C4'-C3'	-5.90	107.15	116.00
25	BB	354	A	C1'-C2'-O2'	5.90	117.25	108.40
25	BB	484	C	C3'-C2'-O2'	5.90	119.55	110.70
3	A1	106	C	C4'-C3'-C2'	-5.90	96.70	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	180	U	N1-C1'-C2'	5.90	120.84	112.00
3	A1	902	G	O4'-C1'-N9	5.90	117.34	108.50
24	BA	78	A	O4'-C1'-C2'	5.90	113.50	107.60
25	BB	383	C	C2'-C3'-O3'	5.90	122.55	113.70
25	BB	683	U	O4'-C1'-C2'	-5.90	99.90	105.80
25	BB	726	G	C5'-C4'-C3'	-5.90	106.36	115.20
25	BB	888	C	P-O3'-C3'	5.90	129.05	120.20
27	BD	5	GLN	N-CA-C	5.90	123.36	110.80
36	BM	53	VAL	CA-CB-CG2	5.90	120.43	110.40
36	BM	84	TYR	O-C-N	5.90	130.90	123.23
48	BY	151	THR	CA-CB-CG2	5.90	120.53	110.50
54	B5	9	LYS	CA-C-N	5.90	131.79	122.36
54	B5	9	LYS	C-N-CA	5.90	131.79	122.36
3	A1	888	G	O4'-C1'-C2'	5.90	113.50	107.60
3	A1	991	U	C3'-C2'-O2'	-5.90	105.76	114.60
24	BA	4	C	P-O5'-C5'	-5.90	112.06	120.90
25	BB	1329	U	O4'-C4'-C3'	-5.90	100.20	106.10
3	A1	1233	G	C4'-C3'-C2'	-5.89	96.71	102.60
3	A1	1407	C	O4'-C1'-C2'	-5.89	99.91	105.80
25	BB	2041	U	O4'-C1'-N1	5.89	117.04	108.20
42	BS	13	THR	CA-CB-OG1	5.89	118.44	109.60
42	BS	66	ILE	CA-C-N	5.89	127.21	119.84
42	BS	66	ILE	C-N-CA	5.89	127.21	119.84
55	B6	96	ARG	NH1-CZ-NH2	-5.89	111.64	119.30
3	A1	364	A	N9-C1'-C2'	5.89	120.84	112.00
20	AU	117	LEU	CD1-CG-CD2	-5.89	97.84	110.80
25	BB	1087	G	C3'-C2'-O2'	5.89	119.54	110.70
25	BB	1349	C	C3'-C2'-C1'	5.89	107.39	101.50
25	BB	1462	C	O4'-C1'-C2'	-5.89	99.91	105.80
25	BB	1789	A	O4'-C4'-C3'	5.89	109.89	104.00
28	BE	78	ARG	NH1-CZ-NH2	-5.89	111.64	119.30
30	BG	12	ARG	NE-CZ-NH1	5.89	127.39	121.50
14	AN	13	SER	CA-C-N	5.89	128.76	120.28
14	AN	13	SER	C-N-CA	5.89	128.76	120.28
3	A1	375	U	O3'-P-O5'	5.89	112.83	104.00
3	A1	1051	C	O4'-C1'-C2'	-5.89	99.91	105.80
15	AO	171	ARG	NE-CZ-NH2	5.89	124.50	119.20
25	BB	503	A	C2'-C3'-O3'	5.89	118.33	109.50
25	BB	1524	G	O4'-C1'-C2'	-5.89	101.71	107.60
25	BB	2195	U	C2'-C3'-O3'	5.89	122.54	113.70
25	BB	2579	C	N1-C1'-C2'	5.89	122.83	114.00
25	BB	2789	C	N1-C1'-C2'	5.89	120.83	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2892	G	C2'-C3'-O3'	5.89	118.33	109.50
3	A1	55	A	C3'-C2'-C1'	5.89	107.19	101.30
3	A1	1354	U	N1-C1'-C2'	5.89	120.83	112.00
19	AT	32	ALA	N-CA-CB	-5.89	101.78	110.49
25	BB	191	A	O3'-P-O5'	5.89	112.83	104.00
3	A1	846	G	C4'-C3'-O3'	5.89	118.23	109.40
3	A1	895	G	C3'-C2'-O2'	-5.89	105.77	114.60
3	A1	1019	A	C1'-C2'-O2'	5.89	117.23	108.40
3	A1	1313	U	C1'-O4'-C4'	-5.89	104.01	109.90
3	A1	1331	G	O4'-C1'-C2'	5.89	111.69	105.80
4	AB	12	GLY	CA-C-N	5.89	130.41	120.64
4	AB	12	GLY	C-N-CA	5.89	130.41	120.64
24	BA	49	C	N1-C1'-C2'	-5.89	103.17	112.00
25	BB	577	G	O5'-C5'-C4'	-5.89	102.67	111.50
25	BB	859	G	C5'-C4'-C3'	-5.89	106.37	115.20
25	BB	2332	C	C4'-C3'-C2'	-5.89	96.71	102.60
30	BG	14	SER	CA-C-N	5.89	132.83	121.18
30	BG	14	SER	C-N-CA	5.89	132.83	121.18
36	BM	52	GLU	N-CA-C	5.89	121.74	113.56
1	AE	4	G	C4'-C3'-C2'	-5.88	96.72	102.60
3	A1	308	C	O4'-C4'-C3'	5.88	109.89	104.00
3	A1	1470	U	C1'-O4'-C4'	-5.88	103.81	109.70
6	AD	4	ASN	OD1-CG-ND2	-5.88	116.72	122.60
15	AO	178	ARG	NH1-CZ-NH2	-5.88	111.65	119.30
25	BB	185	G	C5'-C4'-C3'	-5.88	107.17	116.00
25	BB	908	C	C1'-O4'-C4'	-5.88	103.82	109.70
25	BB	1102	C	O4'-C4'-C3'	5.88	109.89	104.00
25	BB	2084	C	C3'-C2'-C1'	5.88	107.18	101.30
25	BB	2470	G	O5'-C5'-C4'	5.88	120.33	111.50
25	BB	2501	C	N3-C2-O2	-5.88	104.25	121.90
51	B2	46	LYS	N-CA-C	5.88	123.33	110.80
55	B6	96	ARG	NE-CZ-NH2	5.88	124.50	119.20
3	A1	521	G	O4'-C1'-N9	-5.88	99.68	108.50
25	BB	566	U	P-O5'-C5'	5.88	129.72	120.90
25	BB	1264	A	O5'-C5'-C4'	-5.88	102.88	111.70
25	BB	1940	U	C2'-C3'-O3'	5.88	118.33	109.50
25	BB	2556	C	O3'-P-O5'	-5.88	95.18	104.00
1	AP	37	G	O4'-C4'-C3'	5.88	109.88	104.00
2	AM	18	U	C1'-C2'-O2'	-5.88	99.58	108.40
3	A1	290	C	C2'-C3'-O3'	5.88	118.32	109.50
3	A1	915	A	C4'-C3'-C2'	-5.88	96.72	102.60
3	A1	977	A	C3'-C2'-C1'	5.88	107.18	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1104	G	O4'-C1'-C2'	-5.88	101.72	107.60
9	AH	39	GLN	CG-CD-NE2	5.88	125.22	116.40
10	AI	55	ASP	N-CA-C	5.88	119.93	112.87
24	BA	116	G	C2'-C3'-O3'	5.88	122.52	113.70
25	BB	7	G	C4'-C3'-C2'	-5.88	96.72	102.60
25	BB	332	A	C1'-O4'-C4'	5.88	115.58	109.70
25	BB	1224	U	C5'-C4'-C3'	-5.88	106.38	115.20
25	BB	1986	C	O5'-C5'-C4'	5.88	120.32	111.50
33	BJ	13	HIS	N-CA-CB	-5.88	100.20	110.44
55	B6	137	PRO	N-CD-CG	5.88	112.02	103.20
1	AA	2	C	C5'-C4'-O4'	5.88	118.62	109.80
25	BB	2591	C	C4'-C3'-C2'	-5.88	96.72	102.60
44	BU	25	ASN	OD1-CG-ND2	-5.88	116.72	122.60
3	A1	765	G	C4'-C3'-O3'	-5.88	104.18	113.00
3	A1	1039	G	C3'-C2'-C1'	-5.88	95.42	101.30
3	A1	1191	A	O4'-C1'-C2'	-5.88	101.72	107.60
15	AO	60	ALA	CA-C-N	5.88	132.77	121.54
15	AO	60	ALA	C-N-CA	5.88	132.77	121.54
25	BB	32	C	N1-C1'-C2'	5.88	120.82	112.00
49	BZ	201	ARG	CA-C-N	5.88	132.38	121.62
49	BZ	201	ARG	C-N-CA	5.88	132.38	121.62
3	A1	1174	G	C3'-C2'-O2'	5.88	119.52	110.70
13	AL	11	ASP	N-CA-C	5.88	117.78	108.67
13	AL	39	ILE	CA-C-N	5.88	129.61	120.68
13	AL	39	ILE	C-N-CA	5.88	129.61	120.68
25	BB	188	G	P-O5'-C5'	5.88	129.72	120.90
25	BB	499	U	C1'-O4'-C4'	-5.88	104.02	109.90
25	BB	519	U	C4'-C3'-O3'	5.88	121.81	113.00
25	BB	574	A	O4'-C1'-C2'	-5.88	99.92	105.80
25	BB	791	C	C5'-C4'-C3'	-5.88	107.19	116.00
25	BB	1023	U	C5'-C4'-O4'	-5.88	100.28	109.10
25	BB	1350	C	C1'-O4'-C4'	-5.88	104.02	109.90
25	BB	1548	A	C4'-C3'-O3'	-5.88	104.18	113.00
25	BB	1658	C	C4'-C3'-O3'	5.88	118.21	109.40
25	BB	2130	U	C3'-C2'-O2'	5.88	119.51	110.70
25	BB	2345	G	C1'-O4'-C4'	-5.88	103.82	109.70
25	BB	2472	G	C4'-C3'-O3'	5.88	121.81	113.00
5	AC	122	PRO	CA-C-N	5.88	127.18	119.84
5	AC	122	PRO	C-N-CA	5.88	127.18	119.84
9	AH	61	GLN	CB-CA-C	-5.88	101.04	110.79
25	BB	1503	A	O5'-C5'-C4'	-5.88	102.69	111.50
25	BB	2573	C	C5'-C4'-C3'	5.88	124.01	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	295	C	P-O3'-C3'	5.87	129.01	120.20
3	A1	404	G	O4'-C1'-C2'	-5.87	101.73	107.60
3	A1	1221	G	C5'-C4'-C3'	-5.87	107.19	116.00
14	AN	73	ARG	CD-NE-CZ	5.87	132.62	124.40
25	BB	408	G	O4'-C1'-N9	5.87	117.31	108.50
25	BB	790	U	O5'-C5'-C4'	-5.87	102.69	111.50
25	BB	1047	G	O4'-C4'-C3'	5.87	111.97	106.10
25	BB	2499	C	C1'-C2'-O2'	-5.87	99.59	108.40
25	BB	2554	U	P-O5'-C5'	5.87	129.71	120.90
48	BY	93	GLY	CA-C-N	5.87	132.30	122.20
48	BY	93	GLY	C-N-CA	5.87	132.30	122.20
3	A1	493	A	P-O5'-C5'	5.87	129.71	120.90
9	AH	64	LYS	N-CA-CB	5.87	118.52	110.01
25	BB	34	U	O4'-C1'-C2'	-5.87	101.73	107.60
25	BB	107	G	O4'-C1'-N9	5.87	117.31	108.50
25	BB	1222	U	N1-C1'-C2'	5.87	120.81	112.00
25	BB	2210	U	N1-C1'-C2'	5.87	122.81	114.00
25	BB	2610	C	O4'-C4'-C3'	5.87	111.97	106.10
32	BI	13	LYS	N-CA-CB	-5.87	100.60	111.52
38	BO	39	ASN	OD1-CG-ND2	-5.87	116.73	122.60
43	BT	13	GLY	N-CA-C	5.87	121.51	113.99
48	BY	179	ARG	CA-C-N	5.87	131.32	122.98
48	BY	179	ARG	C-N-CA	5.87	131.32	122.98
54	B5	18	ASN	OD1-CG-ND2	-5.87	116.73	122.60
3	A1	938	A	O4'-C1'-N9	5.87	117.31	108.50
3	A1	1441	A	O4'-C1'-C2'	-5.87	101.73	107.60
25	BB	407	G	P-O3'-C3'	5.87	129.00	120.20
25	BB	827	U	C4'-C3'-O3'	5.87	121.81	113.00
1	AP	45	G	C1'-O4'-C4'	5.87	115.77	109.90
3	A1	163	C	O4'-C1'-C2'	5.87	113.47	107.60
3	A1	325	A	C4'-C3'-C2'	-5.87	96.73	102.60
3	A1	789	U	C3'-C2'-O2'	5.87	119.50	110.70
3	A1	865	A	N9-C1'-C2'	5.87	120.80	112.00
3	A1	899	C	O4'-C1'-N1	5.87	117.00	108.20
5	AC	45	THR	O-C-N	-5.87	116.07	123.17
10	AI	17	TYR	CA-C-O	-5.87	114.99	121.33
15	AO	94	ALA	O-C-N	-5.87	114.36	122.46
25	BB	2043	C	C4'-C3'-O3'	5.87	121.80	113.00
25	BB	2225	A	O5'-C5'-C4'	-5.87	102.90	111.70
25	BB	2616	C	C4'-C3'-C2'	-5.87	96.73	102.60
34	BK	29	THR	CA-C-N	5.87	132.91	121.41
34	BK	29	THR	C-N-CA	5.87	132.91	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	BN	83	ASP	CA-C-N	5.87	127.17	119.84
37	BN	83	ASP	C-N-CA	5.87	127.17	119.84
38	BO	5	ARG	CA-C-O	5.87	126.78	120.32
3	A1	1160	G	C4'-C3'-C2'	-5.87	96.73	102.60
7	AF	103	THR	CA-C-N	5.87	130.52	120.72
7	AF	103	THR	C-N-CA	5.87	130.52	120.72
7	AF	105	ALA	CA-C-N	5.87	132.75	121.54
7	AF	105	ALA	C-N-CA	5.87	132.75	121.54
48	BY	130	GLN	OE1-CD-NE2	-5.87	116.73	122.60
3	A1	221	C	O3'-P-O5'	5.87	112.80	104.00
3	A1	1321	U	C4'-C3'-C2'	-5.87	96.73	102.60
20	AU	91	ARG	O-C-N	-5.87	114.86	121.43
25	BB	1521	G	O4'-C4'-C3'	5.87	109.87	104.00
25	BB	2043	C	C3'-C2'-O2'	5.87	119.50	110.70
25	BB	2127	G	O4'-C1'-C2'	-5.87	101.73	107.60
25	BB	2139	U	O3'-P-O5'	-5.87	95.20	104.00
3	A1	522	C	C3'-C2'-C1'	5.86	107.36	101.50
3	A1	1300	G	C2'-C3'-O3'	5.86	118.30	109.50
3	A1	1414	U	C3'-C2'-C1'	5.86	107.36	101.50
6	AD	13	ARG	CD-NE-CZ	5.86	132.61	124.40
16	AQ	33	ARG	O-C-N	-5.86	114.79	122.59
25	BB	226	A	C4'-C3'-O3'	5.86	121.79	113.00
25	BB	418	C	O4'-C4'-C3'	-5.86	98.14	104.00
25	BB	2166	U	O4'-C4'-C3'	-5.86	98.14	104.00
25	BB	2450	A	C2'-C3'-O3'	5.86	122.50	113.70
3	A1	451	A	C4'-C3'-O3'	5.86	118.19	109.40
3	A1	747	A	C5'-C4'-C3'	-5.86	107.21	116.00
3	A1	1248	A	C4'-C3'-C2'	-5.86	96.74	102.60
25	BB	811	U	C1'-O4'-C4'	-5.86	103.84	109.70
1	AE	60	C	O4'-C1'-N1	5.86	116.99	108.20
3	A1	1341	U	C1'-O4'-C4'	-5.86	104.04	109.90
7	AF	81	ASP	CA-CB-CG	-5.86	106.74	112.60
25	BB	1102	C	C5'-C4'-O4'	-5.86	101.01	109.80
25	BB	1113	U	C1'-C2'-O2'	-5.86	99.61	108.40
25	BB	1376	C	O4'-C1'-N1	5.86	117.29	108.50
25	BB	1866	A	C4'-C3'-O3'	5.86	121.79	113.00
25	BB	2042	A	O4'-C4'-C3'	5.86	109.86	104.00
25	BB	2645	G	C1'-O4'-C4'	-5.86	103.84	109.70
52	B3	138	GLN	N-CA-CB	-5.86	101.47	110.20
54	B5	72	THR	CB-CA-C	-5.86	98.62	110.17
25	BB	455	C	O5'-C5'-C4'	5.86	120.49	111.70
25	BB	2138	G	O5'-C5'-C4'	-5.86	102.71	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2705	A	N9-C1'-C2'	5.86	120.79	112.00
25	BB	2840	C	O4'-C1'-N1	5.86	116.99	108.20
55	B6	38	GLY	N-CA-C	5.86	120.57	111.08
3	A1	632	U	C5'-C4'-C3'	-5.86	106.41	115.20
3	A1	1506	U	C5'-C4'-C3'	-5.86	107.21	116.00
25	BB	418	C	C3'-C2'-C1'	-5.86	95.44	101.30
25	BB	2257	U	C4'-C3'-C2'	-5.86	96.74	102.60
25	BB	2722	G	O3'-P-O5'	5.86	112.79	104.00
30	BG	8	ARG	NE-CZ-NH2	5.86	124.47	119.20
38	BO	73	ASN	OD1-CG-ND2	-5.86	116.74	122.60
48	BY	77	ARG	NE-CZ-NH2	-5.86	113.93	119.20
25	BB	449	A	C3'-C2'-O2'	5.86	119.48	110.70
25	BB	1309	G	P-O3'-C3'	5.86	128.98	120.20
25	BB	1976	U	C5'-C4'-O4'	5.86	117.88	109.10
53	B4	34	GLY	N-CA-C	5.86	119.69	112.14
54	B5	41	PHE	N-CA-C	5.86	117.66	111.28
25	BB	531	C	C5'-C4'-C3'	-5.85	106.42	115.20
1	AA	45	G	O3'-P-O5'	-5.85	95.22	104.00
25	BB	527	C	C4'-C3'-C2'	-5.85	96.75	102.60
25	BB	2620	C	O5'-C5'-C4'	-5.85	102.72	111.50
3	A1	332	G	C1'-O4'-C4'	-5.85	104.05	109.90
3	A1	730	G	O4'-C1'-C2'	-5.85	101.75	107.60
7	AF	48	SER	CA-C-N	5.85	132.72	121.54
7	AF	48	SER	C-N-CA	5.85	132.72	121.54
20	AU	107	ALA	N-CA-CB	-5.85	101.21	110.28
25	BB	336	C	P-O5'-C5'	5.85	129.68	120.90
25	BB	1425	G	C2'-C3'-O3'	5.85	118.28	109.50
25	BB	1894	C	O4'-C1'-C2'	5.85	113.45	107.60
25	BB	2600	A	O3'-P-O5'	5.85	112.78	104.00
25	BB	161	A	O4'-C4'-C3'	5.85	109.85	104.00
25	BB	1172	C	C4'-C3'-C2'	-5.85	96.75	102.60
25	BB	1510	G	C1'-O4'-C4'	-5.85	104.05	109.90
25	BB	2271	G	O5'-C5'-C4'	-5.85	102.93	111.70
25	BB	2647	U	C5'-C4'-O4'	5.85	118.58	109.80
25	BB	2797	U	O4'-C1'-C2'	-5.85	99.95	105.80
38	BO	92	VAL	N-CA-C	5.85	116.50	107.78
3	A1	805	C	C5'-C4'-C3'	-5.85	106.43	115.20
4	AB	171	ALA	CA-C-N	5.85	128.47	120.46
4	AB	171	ALA	C-N-CA	5.85	128.47	120.46
8	AG	28	ALA	CA-C-N	5.85	130.35	120.29
8	AG	28	ALA	C-N-CA	5.85	130.35	120.29
17	AR	126	GLY	CA-C-N	5.85	130.20	122.42

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
17	AR	126	GLY	C-N-CA	5.85	130.20	122.42
18	AS	130	THR	O-C-N	-5.85	115.16	122.35
24	BA	23	G	C1'-C2'-O2'	5.85	117.17	108.40
25	BB	1047	G	C3'-C2'-C1'	5.85	107.35	101.50
25	BB	1634	A	O4'-C1'-C2'	-5.85	101.75	107.60
25	BB	1891	G	C5'-C4'-C3'	5.85	124.77	116.00
25	BB	2807	U	O4'-C4'-C3'	5.85	109.85	104.00
25	BB	2891	U	C5'-C4'-C3'	-5.85	107.23	116.00
27	BD	35	VAL	CA-C-N	5.85	132.23	121.70
27	BD	35	VAL	C-N-CA	5.85	132.23	121.70
20	AU	125	ASP	CA-CB-CG	5.85	118.45	112.60
25	BB	510	C	O4'-C4'-C3'	5.85	109.85	104.00
25	BB	879	G	O3'-P-O5'	-5.85	95.23	104.00
25	BB	1615	C	C3'-C2'-C1'	5.85	107.15	101.30
1	AA	22	G	P-O3'-C3'	5.84	128.97	120.20
3	A1	114	U	N1-C1'-C2'	5.84	120.77	112.00
3	A1	148	G	O4'-C1'-C2'	5.84	113.44	107.60
25	BB	450	G	C4'-C3'-C2'	-5.84	96.75	102.60
25	BB	464	U	C3'-C2'-C1'	5.84	107.34	101.50
25	BB	998	C	O4'-C1'-C2'	-5.84	99.95	105.80
25	BB	1371	G	C1'-C2'-O2'	5.84	117.17	108.40
37	BN	166	ARG	CD-NE-CZ	5.84	132.58	124.40
48	BY	38	LYS	CA-C-N	5.84	132.70	121.54
48	BY	38	LYS	C-N-CA	5.84	132.70	121.54
11	AJ	68	LYS	CA-C-N	5.84	132.70	121.54
11	AJ	68	LYS	C-N-CA	5.84	132.70	121.54
25	BB	1662	U	C4'-C3'-O3'	5.84	121.76	113.00
1	AE	34	G	C3'-C2'-C1'	5.84	107.14	101.30
3	A1	352	C	C1'-C2'-O2'	5.84	117.16	108.40
3	A1	1143	G	C1'-O4'-C4'	-5.84	104.06	109.90
25	BB	23	G	C3'-C2'-O2'	-5.84	101.94	110.70
25	BB	991	C	OP1-P-OP2	-5.84	102.08	119.60
40	BQ	4	LYS	N-CA-C	5.84	118.43	111.71
1	AP	43	G	O3'-P-O5'	5.84	112.76	104.00
3	A1	762	U	C1'-O4'-C4'	-5.84	104.06	109.90
3	A1	931	C	C5'-C4'-O4'	5.84	118.56	109.80
3	A1	1105	A	O4'-C4'-C3'	5.84	109.84	104.00
25	BB	544	C	O4'-C1'-N1	5.84	117.26	108.50
25	BB	2353	G	O4'-C4'-C3'	5.84	109.84	104.00
43	BT	5	ASN	OD1-CG-ND2	-5.84	116.76	122.60
3	A1	828	U	C1'-O4'-C4'	5.84	115.74	109.90
25	BB	1147	A	O4'-C1'-C2'	-5.84	101.76	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1500	G	C3'-C2'-C1'	-5.84	95.46	101.30
25	BB	1587	G	C5'-C4'-C3'	-5.84	107.24	116.00
50	B1	39	ALA	CB-CA-C	5.84	119.25	110.08
3	A1	46	G	O3'-P-O5'	5.84	112.75	104.00
3	A1	1375	A	O3'-P-O5'	-5.84	95.25	104.00
25	BB	546	U	O3'-P-O5'	5.84	112.75	104.00
25	BB	1186	G	O4'-C1'-N9	5.84	116.95	108.20
25	BB	1203	U	O4'-C4'-C3'	-5.84	100.26	106.10
25	BB	2624	G	C4'-C3'-C2'	-5.84	96.76	102.60
3	A1	984	C	O4'-C4'-C3'	5.83	109.83	104.00
3	A1	1335	U	C1'-O4'-C4'	-5.83	104.06	109.90
25	BB	742	A	O4'-C1'-C2'	-5.83	101.77	107.60
25	BB	1096	A	O3'-P-O5'	-5.83	95.25	104.00
25	BB	2150	C	O4'-C1'-N1	5.83	117.25	108.50
3	A1	1021	A	O4'-C4'-C3'	5.83	109.83	104.00
17	AR	62	ARG	CD-NE-CZ	5.83	132.57	124.40
25	BB	91	A	C3'-C2'-C1'	5.83	107.13	101.30
25	BB	546	U	C4'-C3'-C2'	-5.83	96.77	102.60
25	BB	1005	C	C4'-C3'-C2'	-5.83	96.77	102.60
25	BB	1639	C	C4'-C3'-C2'	-5.83	96.77	102.60
25	BB	2329	U	C3'-C2'-O2'	5.83	119.45	110.70
25	BB	2757	A	C1'-O4'-C4'	-5.83	104.07	109.90
31	BH	14	ALA	CA-C-N	5.83	131.94	121.15
31	BH	14	ALA	C-N-CA	5.83	131.94	121.15
3	A1	241	G	O5'-C5'-C4'	-5.83	102.75	111.50
5	AC	68	ARG	NE-CZ-NH2	5.83	124.45	119.20
25	BB	2306	C	O4'-C4'-C3'	5.83	109.83	104.00
25	BB	2675	A	O4'-C4'-C3'	5.83	111.93	106.10
25	BB	2795	C	C4'-C3'-C2'	-5.83	96.77	102.60
27	BD	101	GLY	CA-C-N	5.83	127.13	119.84
27	BD	101	GLY	C-N-CA	5.83	127.13	119.84
27	BD	118	LEU	CA-C-O	5.83	125.55	119.14
30	BG	44	LEU	CA-C-N	5.83	128.89	120.38
30	BG	44	LEU	C-N-CA	5.83	128.89	120.38
33	BJ	85	ALA	N-CA-C	5.83	118.25	107.99
3	A1	1114	C	C1'-O4'-C4'	-5.83	104.07	109.90
3	A1	1206	G	C5'-C4'-O4'	5.83	118.54	109.80
3	A1	1450	U	P-O5'-C5'	5.83	129.65	120.90
25	BB	2327	A	C4'-C3'-C2'	-5.83	96.77	102.60
34	BK	14	VAL	CA-CB-CG2	5.83	120.31	110.40
11	AJ	33	TYR	CA-C-O	-5.83	114.66	121.07
17	AR	58	GLN	CA-C-N	5.83	128.89	120.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
17	AR	58	GLN	C-N-CA	5.83	128.89	120.79
17	AR	144	ILE	CB-CA-C	-5.83	103.57	111.15
25	BB	638	G	O5'-C5'-C4'	5.83	120.24	111.50
25	BB	871	U	C2'-C3'-O3'	-5.83	104.96	113.70
25	BB	2030	A	C5'-C4'-O4'	5.83	118.54	109.80
25	BB	2273	A	O3'-P-O5'	-5.83	95.26	104.00
28	BE	30	THR	CA-C-N	-5.83	114.57	122.03
28	BE	30	THR	C-N-CA	-5.83	114.57	122.03
37	BN	63	ILE	N-CA-C	5.83	117.24	109.37
3	A1	36	C	P-O5'-C5'	5.83	129.64	120.90
3	A1	130	A	C5'-C4'-C3'	-5.83	106.46	115.20
3	A1	427	U	O4'-C4'-C3'	-5.83	100.27	106.10
25	BB	1272	A	C4'-C3'-C2'	-5.83	96.77	102.60
25	BB	1460	U	C5'-C4'-C3'	-5.83	106.46	115.20
25	BB	1554	U	C4'-C3'-C2'	-5.83	96.77	102.60
25	BB	2636	C	C5'-C4'-O4'	5.83	118.54	109.80
1	AP	48	C	C5'-C4'-C3'	-5.83	106.46	115.20
3	A1	501	C	C1'-C2'-O2'	-5.83	99.66	108.40
3	A1	774	G	C4'-C3'-C2'	5.83	108.42	102.60
13	AL	57	VAL	CA-C-O	5.83	122.59	119.15
25	BB	252	G	O4'-C4'-C3'	5.83	109.83	104.00
25	BB	730	A	C1'-C2'-O2'	5.83	117.14	108.40
25	BB	1668	A	C4'-C3'-O3'	5.83	118.14	109.40
25	BB	1753	G	C1'-C2'-O2'	-5.83	99.66	108.40
25	BB	1779	U	O4'-C1'-N1	5.83	117.24	108.50
25	BB	2274	A	C3'-C2'-C1'	-5.83	95.67	101.50
3	A1	92	U	C2'-C3'-O3'	5.82	118.23	109.50
3	A1	829	G	O3'-P-O5'	5.82	112.73	104.00
5	AC	44	ALA	CA-C-O	-5.82	115.21	121.38
24	BA	63	C	C3'-C2'-C1'	5.82	107.12	101.30
25	BB	687	C	C3'-C2'-O2'	-5.82	105.86	114.60
25	BB	1757	A	C1'-O4'-C4'	-5.82	104.08	109.90
25	BB	2321	U	C3'-C2'-C1'	-5.82	95.68	101.50
25	BB	2589	A	C5'-C4'-C3'	-5.82	107.27	116.00
29	BF	15	GLY	CA-C-N	5.82	131.90	122.29
29	BF	15	GLY	C-N-CA	5.82	131.90	122.29
39	BP	50	VAL	N-CA-C	5.82	118.98	109.78
39	BP	75	ASN	CA-C-N	5.82	129.16	120.31
39	BP	75	ASN	C-N-CA	5.82	129.16	120.31
48	BY	143	PRO	CA-C-O	-5.82	115.00	121.23
1	AP	65	G	O4'-C4'-C3'	5.82	109.82	104.00
1	AE	45	G	O3'-P-O5'	5.82	112.73	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	112	G	O5'-C5'-C4'	5.82	120.23	111.50
25	BB	1525	A	O3'-P-O5'	5.82	112.73	104.00
3	A1	387	U	C4'-C3'-O3'	-5.82	104.27	113.00
3	A1	497	G	C3'-C2'-C1'	-5.82	95.68	101.50
4	AB	74	ALA	N-CA-C	5.82	117.31	110.97
17	AR	88	ASN	OD1-CG-ND2	-5.82	116.78	122.60
24	BA	92	C	O4'-C1'-C2'	-5.82	101.78	107.60
25	BB	715	A	C3'-C2'-O2'	5.82	119.43	110.70
25	BB	963	U	C5'-C4'-C3'	-5.82	107.27	116.00
25	BB	1778	U	O4'-C1'-N1	5.82	116.93	108.20
27	BD	98	ARG	NE-CZ-NH2	5.82	124.44	119.20
34	BK	94	THR	N-CA-C	5.82	115.78	108.45
37	BN	76	VAL	CA-C-N	5.82	130.28	122.01
37	BN	76	VAL	C-N-CA	5.82	130.28	122.01
3	A1	497	G	C2'-C3'-O3'	5.82	118.23	109.50
20	AU	4	ARG	NH1-CZ-NH2	-5.82	111.73	119.30
24	BA	96	G	C5'-C4'-C3'	-5.82	107.27	116.00
25	BB	501	A	C5'-C4'-C3'	-5.82	107.27	116.00
36	BM	74	ILE	CA-C-N	5.82	132.81	121.41
36	BM	74	ILE	C-N-CA	5.82	132.81	121.41
1	AA	22	G	O4'-C1'-N9	5.82	117.23	108.50
3	A1	1011	C	O4'-C4'-C3'	5.82	109.82	104.00
3	A1	1513	A	O4'-C4'-C3'	5.82	109.82	104.00
25	BB	1441	G	C2'-C3'-O3'	5.82	122.43	113.70
25	BB	1639	C	O4'-C1'-C2'	-5.82	99.98	105.80
25	BB	1751	U	C1'-O4'-C4'	-5.82	103.88	109.70
25	BB	2684	U	C5'-C4'-C3'	-5.82	107.27	116.00
25	BB	2877	G	C3'-C2'-O2'	5.82	119.43	110.70
39	BP	13	ARG	CD-NE-CZ	5.82	132.54	124.40
49	BZ	63	ARG	NH1-CZ-NH2	-5.82	111.74	119.30
3	A1	285	C	C4'-C3'-O3'	-5.82	104.28	113.00
3	A1	981	U	O4'-C1'-N1	5.82	116.92	108.20
3	A1	1268	G	O5'-C5'-C4'	-5.82	102.78	111.50
25	BB	340	A	C4'-C3'-C2'	-5.82	96.78	102.60
25	BB	1010	A	O4'-C1'-C2'	-5.82	101.78	107.60
25	BB	1974	C	O4'-C1'-N1	5.82	117.22	108.50
40	BQ	29	ARG	NE-CZ-NH2	5.82	124.43	119.20
51	B2	37	MET	CB-CA-C	-5.82	103.50	110.94
3	A1	858	G	C1'-O4'-C4'	-5.81	104.09	109.90
25	BB	572	A	O4'-C4'-C3'	5.81	111.91	106.10
25	BB	927	A	C1'-O4'-C4'	-5.81	104.09	109.90
3	A1	128	G	C3'-C2'-C1'	5.81	107.11	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	935	A	C3'-C2'-O2'	5.81	119.42	110.70
3	A1	948	C	C5'-C4'-O4'	-5.81	101.08	109.80
3	A1	1126	U	C5'-C4'-O4'	-5.81	100.38	109.10
3	A1	1391	U	O4'-C1'-N1	5.81	116.92	108.20
16	AQ	6	ARG	NE-CZ-NH1	5.81	127.31	121.50
23	AX	10	LEU	O-C-N	-5.81	115.74	122.95
24	BA	57	A	C4'-C3'-O3'	5.81	121.72	113.00
25	BB	129	C	O4'-C1'-C2'	-5.81	99.99	105.80
25	BB	343	C	O3'-P-O5'	5.81	112.72	104.00
25	BB	1148	U	C3'-C2'-C1'	5.81	107.11	101.30
25	BB	2056	G	O5'-C5'-C4'	5.81	120.22	111.50
25	BB	2323	G	C5'-C4'-C3'	-5.81	107.28	116.00
25	BB	2864	G	O4'-C4'-C3'	5.81	109.81	104.00
25	BB	2681	C	O5'-C5'-C4'	-5.81	102.98	111.70
38	BO	84	PHE	CA-C-N	5.81	131.35	122.11
38	BO	84	PHE	C-N-CA	5.81	131.35	122.11
2	AM	2	U	C4'-C3'-O3'	5.81	121.71	113.00
3	A1	150	U	C4'-C3'-C2'	-5.81	96.79	102.60
3	A1	288	A	C4'-C3'-O3'	5.81	121.72	113.00
3	A1	316	C	C5'-C4'-O4'	5.81	117.81	109.10
3	A1	681	A	O5'-C5'-C4'	-5.81	102.79	111.50
3	A1	1223	C	C5'-C4'-C3'	-5.81	106.49	115.20
25	BB	1590	A	O4'-C1'-C2'	-5.81	101.79	107.60
28	BE	124	GLY	CA-C-N	5.81	132.64	121.54
28	BE	124	GLY	C-N-CA	5.81	132.64	121.54
37	BN	50	THR	CA-CB-OG1	5.81	118.31	109.60
43	BT	51	ARG	CD-NE-CZ	5.81	132.53	124.40
10	AI	56	ARG	NE-CZ-NH1	5.81	127.31	121.50
15	AO	5	HIS	O-C-N	-5.81	116.62	121.38
25	BB	424	G	O4'-C4'-C3'	5.81	109.81	104.00
25	BB	710	U	P-O3'-C3'	5.81	128.91	120.20
25	BB	1326	U	P-O3'-C3'	5.81	128.91	120.20
25	BB	1711	A	C3'-C2'-C1'	5.81	107.11	101.30
25	BB	2396	G	O4'-C1'-C2'	-5.81	101.79	107.60
25	BB	2642	G	C5'-C4'-O4'	5.81	118.51	109.80
28	BE	134	ALA	CA-C-O	5.81	128.81	120.51
3	A1	1251	A	C4'-C3'-C2'	-5.81	96.79	102.60
3	A1	1407	C	C5'-C4'-C3'	-5.81	106.49	115.20
24	BA	48	U	C4'-C3'-O3'	-5.81	104.29	113.00
25	BB	1	G	C4'-C3'-C2'	-5.81	96.79	102.60
25	BB	446	G	O4'-C1'-N9	5.81	116.91	108.20
25	BB	1249	U	C4'-C3'-C2'	-5.81	96.79	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2587	A	C3'-C2'-C1'	-5.81	95.49	101.30
38	BO	78	LYS	O-C-N	-5.81	115.64	122.96
55	B6	4	PHE	CA-CB-CG	5.81	119.61	113.80
1	AP	33	U	O4'-C4'-C3'	5.80	109.80	104.00
3	A1	487	A	O5'-C5'-C4'	5.80	120.21	111.50
3	A1	831	A	C5'-C4'-O4'	5.80	118.51	109.80
3	A1	1448	C	O4'-C4'-C3'	5.80	109.80	104.00
19	AT	46	GLN	OE1-CD-NE2	-5.80	116.80	122.60
25	BB	138	U	O5'-C5'-C4'	5.80	120.21	111.50
25	BB	570	G	C2'-C3'-O3'	5.80	118.21	109.50
25	BB	1157	G	C4'-C3'-C2'	-5.80	96.80	102.60
25	BB	1893	C	N1-C1'-C2'	5.80	120.71	112.00
25	BB	2183	A	O4'-C4'-C3'	5.80	109.80	104.00
25	BB	2219	U	O3'-P-O5'	-5.80	95.29	104.00
25	BB	2493	U	C1'-O4'-C4'	-5.80	104.10	109.90
25	BB	2553	G	O4'-C4'-C3'	5.80	109.81	104.00
30	BG	31	HIS	CB-CG-ND1	5.80	131.41	122.70
46	BW	39	ARG	CD-NE-CZ	5.80	132.53	124.40
53	B4	148	ALA	N-CA-CB	-5.80	101.47	110.29
54	B5	33	ASN	N-CA-CB	-5.80	100.71	109.88
19	AT	30	THR	N-CA-CB	5.80	118.42	110.01
25	BB	812	C	C4'-C3'-C2'	-5.80	96.80	102.60
25	BB	1750	G	O4'-C1'-C2'	5.80	113.40	107.60
3	A1	1497	G	C2'-C3'-O3'	5.80	122.40	113.70
8	AG	59	GLN	N-CA-C	5.80	117.70	107.61
15	AO	93	ILE	CA-CB-CG1	5.80	120.26	110.40
25	BB	917	A	C5'-C4'-C3'	-5.80	107.30	116.00
25	BB	1924	C	C2'-C3'-O3'	-5.80	105.00	113.70
25	BB	2778	A	C5'-C4'-O4'	-5.80	101.10	109.80
25	BB	2789	C	C4'-C3'-C2'	-5.80	96.80	102.60
33	BJ	58	GLN	N-CA-C	5.80	119.46	112.38
35	BL	68	ASP	N-CA-C	5.80	121.08	113.30
43	BT	40	HIS	CA-C-N	5.80	128.63	120.28
43	BT	40	HIS	C-N-CA	5.80	128.63	120.28
48	BY	139	SER	N-CA-C	5.80	118.27	111.02
3	A1	109	A	C1'-O4'-C4'	-5.80	103.90	109.70
3	A1	176	C	C3'-C2'-C1'	5.80	107.10	101.30
3	A1	183	C	C4'-C3'-C2'	5.80	108.40	102.60
3	A1	460	A	C3'-C2'-O2'	5.80	119.40	110.70
3	A1	678	U	C1'-O4'-C4'	5.80	115.70	109.90
3	A1	1248	A	C4'-C3'-O3'	-5.80	104.30	113.00
3	A1	1520	C	C2'-C3'-O3'	5.80	118.20	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	AX	45	ARG	O-C-N	-5.80	114.68	122.68
25	BB	716	A	O3'-P-O5'	5.80	112.70	104.00
25	BB	777	G	C5'-C4'-C3'	-5.80	106.50	115.20
25	BB	1857	G	C3'-C2'-O2'	5.80	119.40	110.70
25	BB	2347	C	O4'-C1'-N1	5.80	117.20	108.50
25	BB	2866	U	C4'-C3'-C2'	-5.80	96.80	102.60
31	BH	48	LEU	N-CA-C	5.80	118.19	107.99
1	AP	24	G	C3'-C2'-O2'	5.80	119.40	110.70
3	A1	183	C	C3'-C2'-C1'	-5.80	95.70	101.50
3	A1	696	A	C1'-O4'-C4'	-5.80	104.10	109.90
3	A1	996	A	C4'-C3'-O3'	-5.80	104.31	113.00
9	AH	37	HIS	CA-C-N	5.80	128.52	120.29
9	AH	37	HIS	C-N-CA	5.80	128.52	120.29
25	BB	350	G	C3'-C2'-C1'	5.80	107.30	101.50
25	BB	1088	A	O4'-C4'-C3'	-5.80	98.20	104.00
25	BB	2095	A	C1'-O4'-C4'	-5.80	104.10	109.90
25	BB	2324	U	C3'-C2'-C1'	5.80	107.30	101.50
25	BB	2552	U	C3'-C2'-O2'	5.80	123.30	114.60
25	BB	2757	A	O4'-C4'-C3'	5.80	109.80	104.00
25	BB	2873	A	N1-C6-N6	-5.80	101.21	118.60
31	BH	69	ASP	CA-C-N	5.80	128.84	120.38
31	BH	69	ASP	C-N-CA	5.80	128.84	120.38
54	B5	68	PHE	CA-C-N	5.80	130.14	122.95
54	B5	68	PHE	C-N-CA	5.80	130.14	122.95
55	B6	46	PRO	CA-N-CD	-5.80	103.89	112.00
3	A1	884	U	C4'-C3'-O3'	5.79	118.09	109.40
25	BB	2363	G	C1'-O4'-C4'	5.79	115.69	109.90
25	BB	2519	U	O4'-C1'-N1	5.79	116.89	108.20
3	A1	581	G	O4'-C4'-C3'	5.79	111.89	106.10
3	A1	737	C	C3'-C2'-O2'	5.79	119.39	110.70
3	A1	1076	U	O4'-C4'-C3'	5.79	109.79	104.00
25	BB	390	U	O3'-P-O5'	-5.79	95.31	104.00
25	BB	1826	G	C4'-C3'-C2'	-5.79	96.81	102.60
25	BB	1947	C	C4'-C3'-C2'	-5.79	96.81	102.60
25	BB	2023	C	O4'-C1'-C2'	-5.79	100.01	105.80
25	BB	2578	G	C5'-C4'-C3'	-5.79	107.31	116.00
48	BY	101	PHE	CA-C-N	5.79	132.60	121.54
48	BY	101	PHE	C-N-CA	5.79	132.60	121.54
3	A1	199	A	C3'-C2'-O2'	5.79	119.39	110.70
25	BB	697	G	C3'-C2'-C1'	5.79	107.09	101.30
25	BB	1290	C	C2'-C3'-O3'	5.79	122.39	113.70
25	BB	1610	A	O3'-P-O5'	-5.79	95.31	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2138	G	C1'-C2'-O2'	-5.79	99.71	108.40
40	BQ	55	THR	CA-C-N	5.79	128.31	120.38
40	BQ	55	THR	C-N-CA	5.79	128.31	120.38
13	AL	35	ARG	N-CA-C	5.79	123.13	110.80
16	AQ	22	CYS	CA-C-N	5.79	129.86	120.60
16	AQ	22	CYS	C-N-CA	5.79	129.86	120.60
25	BB	907	G	C4'-C3'-C2'	-5.79	96.81	102.60
25	BB	1495	A	C4'-C3'-C2'	5.79	108.39	102.60
25	BB	2363	G	O4'-C1'-C2'	-5.79	101.81	107.60
25	BB	2523	G	O4'-C1'-N9	5.79	117.19	108.50
25	BB	2737	G	C5'-C4'-C3'	-5.79	107.31	116.00
25	BB	951	C	C2'-C3'-O3'	5.79	122.38	113.70
25	BB	2700	A	C5'-C4'-C3'	-5.79	106.52	115.20
27	BD	56	ASP	N-CA-C	5.79	118.00	110.53
30	BG	2	ARG	NE-CZ-NH2	-5.79	113.99	119.20
37	BN	102	TYR	N-CA-C	5.79	118.24	107.99
25	BB	498	G	C4'-C3'-C2'	-5.79	96.81	102.60
25	BB	553	G	N9-C1'-C2'	-5.79	105.32	114.00
52	B3	134	GLY	N-CA-C	5.79	118.79	111.09
3	A1	305	G	C3'-C2'-O2'	-5.79	105.92	114.60
3	A1	993	G	C1'-C2'-O2'	-5.79	103.12	111.80
25	BB	297	G	O4'-C4'-C3'	5.79	109.78	104.00
25	BB	566	U	C1'-O4'-C4'	-5.79	104.11	109.90
25	BB	1328	A	O4'-C4'-C3'	5.79	109.79	104.00
25	BB	2715	C	C4'-C3'-C2'	-5.79	96.81	102.60
27	BD	58	LEU	N-CA-CB	-5.79	100.71	110.49
43	BT	4	GLN	CA-C-O	5.79	125.04	119.08
3	A1	493	A	C1'-C2'-O2'	5.78	117.08	108.40
3	A1	792	A	C5'-C4'-O4'	-5.78	101.12	109.80
3	A1	798	U	C4'-C3'-C2'	-5.78	96.82	102.60
18	AS	30	PHE	N-CA-C	5.78	118.90	109.24
21	AV	83	ARG	CA-C-N	5.78	128.46	122.96
21	AV	83	ARG	C-N-CA	5.78	128.46	122.96
25	BB	308	G	O4'-C1'-C2'	5.78	113.38	107.60
25	BB	567	U	C4'-C3'-O3'	5.78	121.68	113.00
25	BB	2266	A	O4'-C1'-N9	5.78	117.17	108.50
25	BB	2443	C	O4'-C1'-N1	-5.78	99.83	108.50
1	AA	43	G	O4'-C1'-C2'	5.78	113.38	107.60
3	A1	62	U	O4'-C1'-C2'	-5.78	101.82	107.60
3	A1	922	G	O5'-C5'-C4'	-5.78	103.03	111.70
3	A1	1014	A	C1'-C2'-O2'	-5.78	99.73	108.40
3	A1	1524	C	C4'-C3'-O3'	5.78	118.07	109.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	614	A	O4'-C4'-C3'	5.78	111.88	106.10
25	BB	1086	A	O4'-C4'-C3'	5.78	109.78	104.00
25	BB	1495	A	C5'-C4'-O4'	5.78	118.47	109.80
25	BB	1508	A	C3'-C2'-O2'	-5.78	105.93	114.60
25	BB	1710	G	C1'-C2'-O2'	-5.78	99.73	108.40
25	BB	1954	G	C1'-C2'-O2'	-5.78	103.13	111.80
25	BB	2205	A	O3'-P-O5'	-5.78	95.33	104.00
25	BB	2363	G	C3'-C2'-C1'	5.78	107.08	101.30
25	BB	2890	G	O5'-C5'-C4'	-5.78	102.83	111.50
28	BE	110	VAL	N-CA-C	5.78	117.17	109.37
48	BY	150	GLN	CA-C-O	-5.78	114.39	120.63
3	A1	1130	A	C2'-C3'-O3'	-5.78	105.03	113.70
3	A1	1361	G	C3'-C2'-O2'	-5.78	105.93	114.60
9	AH	52	ARG	CD-NE-CZ	5.78	132.49	124.40
25	BB	759	G	C3'-C2'-C1'	-5.78	95.72	101.50
25	BB	1550	C	C1'-O4'-C4'	-5.78	104.12	109.90
1	AA	54	U	C3'-C2'-O2'	5.78	119.37	110.70
2	AM	9	U	C1'-O4'-C4'	-5.78	104.12	109.90
3	A1	437	U	O4'-C4'-C3'	5.78	109.78	104.00
6	AD	53	ARG	NE-CZ-NH2	5.78	124.40	119.20
18	AS	91	SER	CA-C-O	-5.78	113.83	120.24
25	BB	1129	A	O5'-C5'-C4'	-5.78	103.03	111.70
25	BB	1579	A	C5'-C4'-C3'	-5.78	107.33	116.00
25	BB	1692	U	O4'-C4'-C3'	5.78	111.88	106.10
25	BB	1872	A	C1'-C2'-O2'	5.78	117.07	108.40
25	BB	2378	A	O4'-C1'-N9	5.78	117.17	108.50
25	BB	2492	U	C2'-C3'-O3'	5.78	118.17	109.50
38	BO	40	LEU	CB-CA-C	5.78	121.92	110.42
53	B4	130	VAL	CA-C-O	5.78	128.00	120.78
3	A1	434	U	O5'-C5'-C4'	-5.78	102.84	111.50
3	A1	1480	A	C5'-C4'-C3'	-5.78	106.54	115.20
25	BB	89	A	N9-C1'-C2'	-5.78	105.34	114.00
25	BB	824	U	C4'-C3'-O3'	5.78	118.06	109.40
25	BB	1401	G	O4'-C4'-C3'	5.78	109.78	104.00
25	BB	1825	U	C3'-C2'-O2'	-5.78	105.94	114.60
25	BB	2236	U	O3'-P-O5'	5.78	112.66	104.00
43	BT	8	THR	CA-CB-CG2	5.78	120.32	110.50
45	BV	17	GLY	CA-C-N	5.78	128.29	120.44
45	BV	17	GLY	C-N-CA	5.78	128.29	120.44
2	AM	3	U	C4'-C3'-C2'	-5.77	96.83	102.60
3	A1	934	C	C4'-C3'-O3'	5.77	118.06	109.40
25	BB	244	A	O3'-P-O5'	5.77	112.66	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	527	C	N1-C1'-C2'	5.77	120.66	112.00
25	BB	1337	G	O4'-C1'-C2'	-5.77	101.83	107.60
25	BB	2866	U	O4'-C4'-C3'	5.77	111.87	106.10
33	BJ	91	ARG	NE-CZ-NH2	5.77	124.40	119.20
3	A1	64	G	C5'-C4'-C3'	-5.77	106.54	115.20
3	A1	472	U	C4'-C3'-C2'	-5.77	96.83	102.60
3	A1	473	U	O4'-C4'-C3'	5.77	109.77	104.00
3	A1	825	A	O4'-C4'-C3'	-5.77	98.23	104.00
3	A1	886	G	C5'-C4'-O4'	5.77	118.46	109.80
3	A1	1241	G	C1'-O4'-C4'	-5.77	104.13	109.90
3	A1	1314	C	C3'-C2'-O2'	5.77	119.36	110.70
3	A1	1391	U	C1'-C2'-O2'	-5.77	103.14	111.80
15	AO	124	GLU	CB-CG-CD	-5.77	102.79	112.60
16	AQ	38	GLU	OE1-CD-OE2	-5.77	109.05	122.90
25	BB	671	C	C3'-C2'-O2'	5.77	119.36	110.70
25	BB	1356	G	C3'-C2'-C1'	5.77	107.07	101.30
31	BH	85	LYS	N-CA-C	5.77	119.50	112.23
37	BN	34	GLU	CA-C-O	-5.77	114.46	120.92
48	BY	190	LYS	CA-C-N	5.77	132.72	121.41
48	BY	190	LYS	C-N-CA	5.77	132.72	121.41
3	A1	922	G	O4'-C4'-C3'	5.77	111.87	106.10
4	AB	187	ASP	N-CA-C	5.77	119.08	109.96
25	BB	675	A	C1'-O4'-C4'	-5.77	104.13	109.90
25	BB	1280	G	C4'-C3'-O3'	-5.77	104.34	113.00
25	BB	1694	C	C4'-C3'-C2'	-5.77	96.83	102.60
1	AP	60	C	P-O3'-C3'	-5.77	111.55	120.20
1	AE	66	A	C1'-C2'-O2'	-5.77	99.75	108.40
3	A1	850	U	C1'-C2'-O2'	-5.77	99.75	108.40
3	A1	1397	C	C1'-O4'-C4'	-5.77	103.93	109.70
4	AB	110	ILE	O-C-N	-5.77	115.89	121.83
4	AB	144	GLU	O-C-N	-5.77	115.47	122.22
4	AB	224	ARG	CD-NE-CZ	5.77	132.48	124.40
17	AR	187	ARG	NH1-CZ-NH2	-5.77	111.80	119.30
25	BB	633	A	C3'-C2'-O2'	5.77	119.36	110.70
25	BB	1575	C	C4'-C3'-C2'	-5.77	96.83	102.60
25	BB	2729	G	O4'-C4'-C3'	-5.77	98.23	104.00
3	A1	401	C	C5'-C4'-C3'	-5.77	107.35	116.00
3	A1	803	G	O4'-C4'-C3'	5.77	109.77	104.00
3	A1	1042	A	C2'-C3'-O3'	5.77	122.35	113.70
10	AI	36	VAL	CB-CA-C	-5.77	102.42	110.95
35	BL	88	ARG	CA-C-N	5.77	131.28	122.23
35	BL	88	ARG	C-N-CA	5.77	131.28	122.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BZ	126	PRO	N-CA-C	5.77	122.17	113.81
50	B1	40	ARG	O-C-N	-5.77	115.87	122.68
3	A1	29	U	C4'-C3'-O3'	-5.77	104.35	113.00
3	A1	165	G	C3'-C2'-O2'	5.77	119.35	110.70
25	BB	788	A	O4'-C1'-C2'	5.77	111.57	105.80
25	BB	2075	U	C1'-O4'-C4'	-5.77	104.13	109.90
25	BB	2339	C	O5'-C5'-C4'	5.77	120.35	111.70
25	BB	2898	U	O4'-C4'-C3'	5.77	109.77	104.00
30	BG	4	ARG	NH1-CZ-NH2	-5.77	111.80	119.30
1	AP	25	C	C4'-C3'-C2'	-5.76	96.84	102.60
1	AP	33	U	C1'-O4'-C4'	-5.76	104.14	109.90
3	A1	57	G	O4'-C4'-C3'	5.76	109.77	104.00
3	A1	134	G	O4'-C1'-N9	5.76	117.15	108.50
21	AV	84	ILE	O-C-N	5.76	128.06	122.30
23	AX	70	HIS	CB-CG-ND1	5.76	131.35	122.70
25	BB	32	C	C3'-C2'-C1'	5.76	107.06	101.30
25	BB	225	C	C4'-C3'-O3'	5.76	121.65	113.00
25	BB	722	A	N9-C1'-C2'	-5.76	103.36	112.00
25	BB	1108	U	C4'-C3'-O3'	-5.76	104.35	113.00
25	BB	1383	A	C3'-C2'-O2'	5.76	119.34	110.70
25	BB	1681	G	C2'-C3'-O3'	-5.76	105.05	113.70
27	BD	13	ASN	CA-C-N	5.76	129.07	120.31
27	BD	13	ASN	C-N-CA	5.76	129.07	120.31
28	BE	17	LYS	N-CA-C	5.76	123.08	110.80
48	BY	197	THR	N-CA-C	5.76	127.14	111.00
3	A1	34	C	C5'-C4'-C3'	-5.76	107.36	116.00
3	A1	40	C	O4'-C4'-C3'	5.76	109.76	104.00
3	A1	428	G	C4'-C3'-O3'	5.76	121.64	113.00
3	A1	811	C	O3'-P-O5'	-5.76	95.36	104.00
23	AX	87	LEU	CD1-CG-CD2	-5.76	98.12	110.80
25	BB	557	C	O5'-C5'-C4'	-5.76	102.86	111.50
25	BB	894	U	O4'-C4'-C3'	5.76	109.76	104.00
25	BB	1956	U	O4'-C1'-N1	5.76	116.84	108.20
25	BB	2278	A	C5'-C4'-C3'	-5.76	107.36	116.00
25	BB	2359	C	C1'-C2'-O2'	-5.76	99.76	108.40
25	BB	2434	A	P-O5'-C5'	5.76	129.54	120.90
52	B3	155	PRO	CA-C-N	5.76	130.33	120.71
52	B3	155	PRO	C-N-CA	5.76	130.33	120.71
53	B4	110	VAL	O-C-N	-5.76	115.37	122.57
55	B6	15	TRP	CG-CD2-CE3	5.76	139.66	133.90
3	A1	848	C	C5'-C4'-O4'	5.76	118.44	109.80
3	A1	1042	A	N9-C1'-C2'	5.76	120.64	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1369	C	C3'-C2'-C1'	-5.76	95.74	101.50
25	BB	1955	U	C3'-C2'-C1'	-5.76	95.74	101.50
25	BB	2371	G	O4'-C1'-N9	-5.76	99.86	108.50
25	BB	2817	U	O5'-C5'-C4'	-5.76	102.86	111.50
38	BO	32	LYS	CA-C-N	5.76	132.34	121.97
38	BO	32	LYS	C-N-CA	5.76	132.34	121.97
38	BO	41	VAL	CA-C-N	5.76	130.46	121.76
38	BO	41	VAL	C-N-CA	5.76	130.46	121.76
48	BY	24	VAL	N-CA-C	5.76	116.29	107.77
50	B1	49	ARG	CA-C-N	5.76	128.00	120.28
50	B1	49	ARG	C-N-CA	5.76	128.00	120.28
3	A1	881	G	C2'-C3'-O3'	5.76	122.34	113.70
20	AU	77	ARG	NH1-CZ-NH2	-5.76	111.81	119.30
25	BB	736	C	P-O3'-C3'	5.76	128.84	120.20
25	BB	1040	A	C4'-C3'-C2'	-5.76	96.84	102.60
25	BB	1220	G	C2'-C3'-O3'	5.76	122.34	113.70
25	BB	1763	G	C1'-O4'-C4'	-5.76	103.94	109.70
25	BB	1921	G	O3'-P-O5'	-5.76	95.36	104.00
25	BB	2588	G	C3'-C2'-C1'	-5.76	95.54	101.30
3	A1	605	U	C5'-C4'-O4'	5.76	118.43	109.80
25	BB	59	U	C3'-C2'-C1'	5.76	107.06	101.30
25	BB	76	C	C1'-O4'-C4'	-5.76	104.14	109.90
25	BB	387	U	O3'-P-O5'	5.76	112.64	104.00
25	BB	579	G	C3'-C2'-C1'	5.76	107.06	101.30
25	BB	1981	A	C3'-C2'-C1'	-5.76	95.74	101.50
25	BB	2777	G	C2'-C3'-O3'	5.76	122.33	113.70
33	BJ	16	ILE	CA-CB-CG1	5.76	120.19	110.40
25	BB	219	A	C5'-C4'-C3'	-5.75	107.37	116.00
25	BB	679	C	C4'-C3'-C2'	-5.75	96.84	102.60
25	BB	2874	C	C4'-C3'-C2'	-5.75	96.84	102.60
1	AA	50	U	C5'-C4'-O4'	5.75	118.43	109.80
3	A1	620	C	O4'-C1'-C2'	-5.75	101.85	107.60
3	A1	1321	U	C5'-C4'-C3'	-5.75	107.37	116.00
3	A1	1334	G	O4'-C1'-C2'	5.75	111.55	105.80
8	AG	28	ALA	CA-C-O	5.75	126.03	119.18
25	BB	696	G	C1'-O4'-C4'	-5.75	104.15	109.90
25	BB	2448	A	C5'-C4'-C3'	-5.75	106.57	115.20
25	BB	2528	U	O4'-C4'-C3'	5.75	111.85	106.10
33	BJ	65	ASN	CA-CB-CG	5.75	118.35	112.60
43	BT	9	ARG	CA-C-N	5.75	132.53	121.54
43	BT	9	ARG	C-N-CA	5.75	132.53	121.54
49	BZ	149	ASN	OD1-CG-ND2	-5.75	116.85	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BZ	176	PRO	CA-C-N	5.75	128.27	120.44
49	BZ	176	PRO	C-N-CA	5.75	128.27	120.44
3	A1	1090	U	C5'-C4'-O4'	5.75	118.43	109.80
3	A1	1099	G	C5'-C4'-O4'	5.75	118.43	109.80
8	AG	17	ASP	CA-CB-CG	5.75	118.35	112.60
25	BB	1401	G	C1'-O4'-C4'	-5.75	104.15	109.90
25	BB	2701	U	O5'-C5'-C4'	-5.75	102.87	111.50
25	BB	2778	A	C3'-C2'-O2'	5.75	119.33	110.70
3	A1	611	C	C4'-C3'-O3'	5.75	121.63	113.00
20	AU	44	SER	CA-C-N	5.75	127.92	120.44
20	AU	44	SER	C-N-CA	5.75	127.92	120.44
25	BB	522	A	C3'-C2'-C1'	5.75	107.05	101.30
25	BB	1117	C	C3'-C2'-C1'	5.75	107.05	101.30
25	BB	2000	C	N1-C1'-C2'	-5.75	103.38	112.00
1	AE	7	U	C5'-C4'-C3'	-5.75	106.58	115.20
3	A1	482	A	C3'-C2'-C1'	5.75	107.05	101.30
3	A1	487	A	C4'-C3'-C2'	-5.75	96.85	102.60
3	A1	1339	A	C4'-C3'-O3'	-5.75	104.38	113.00
3	A1	1381	U	O4'-C1'-C2'	-5.75	101.85	107.60
8	AG	22	LYS	CA-C-N	5.75	128.25	120.38
8	AG	22	LYS	C-N-CA	5.75	128.25	120.38
13	AL	35	ARG	CA-C-O	-5.75	112.29	120.51
24	BA	3	C	O4'-C1'-N1	5.75	117.12	108.50
25	BB	67	U	C5'-C4'-C3'	-5.75	107.38	116.00
25	BB	393	C	N1-C1'-C2'	5.75	120.62	112.00
25	BB	1403	A	O4'-C1'-N9	5.75	117.12	108.50
25	BB	1597	A	C2'-C3'-O3'	5.75	118.12	109.50
25	BB	1917	U	C3'-C2'-C1'	5.75	107.05	101.30
25	BB	2324	U	O3'-P-O5'	-5.75	95.38	104.00
42	BS	11	GLU	CA-CB-CG	5.75	125.60	114.10
47	BX	30	GLU	CA-C-N	5.75	126.50	120.12
47	BX	30	GLU	C-N-CA	5.75	126.50	120.12
2	AM	14	U	C1'-O4'-C4'	-5.75	103.95	109.70
3	A1	649	A	C4'-C3'-C2'	-5.75	96.85	102.60
3	A1	1150	A	O4'-C1'-C2'	-5.75	101.85	107.60
24	BA	21	G	O4'-C4'-C3'	5.75	109.75	104.00
25	BB	178	G	C2'-C3'-O3'	5.75	122.32	113.70
25	BB	2083	G	C3'-C2'-C1'	5.75	107.05	101.30
25	BB	2304	G	P-O5'-C5'	5.75	129.52	120.90
25	BB	2720	U	C1'-O4'-C4'	-5.75	103.95	109.70
53	B4	74	ALA	N-CA-C	5.75	119.81	112.34
3	A1	581	G	C1'-O4'-C4'	-5.75	103.95	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
9	AH	72	LYS	N-CA-C	5.75	118.41	111.40
10	AI	17	TYR	N-CA-C	5.75	117.80	109.07
18	AS	34	ALA	N-CA-CB	-5.75	102.61	111.46
25	BB	1967	C	O4'-C1'-N1	5.75	116.82	108.20
35	BL	82	MET	CA-C-N	5.75	131.58	122.62
35	BL	82	MET	C-N-CA	5.75	131.58	122.62
49	BZ	154	SER	CA-C-O	5.75	127.83	121.11
3	A1	813	U	O3'-P-O5'	-5.74	95.38	104.00
3	A1	1243	C	C5'-C4'-O4'	5.74	118.42	109.80
7	AF	13	HIS	CB-CG-CD2	-5.74	123.73	131.20
11	AJ	69	THR	CA-CB-CG2	5.74	120.26	110.50
25	BB	519	U	O4'-C4'-C3'	5.74	109.74	104.00
25	BB	1069	A	O4'-C1'-C2'	-5.74	100.06	105.80
25	BB	1271	G	C4'-C3'-O3'	-5.74	104.39	113.00
3	A1	722	G	C3'-C2'-C1'	5.74	107.04	101.30
25	BB	504	A	O4'-C4'-C3'	5.74	109.74	104.00
37	BN	162	GLN	N-CA-C	5.74	123.03	110.80
5	AC	59	PRO	CA-C-N	5.74	134.20	121.80
5	AC	59	PRO	C-N-CA	5.74	134.20	121.80
24	BA	70	C	C4'-C3'-O3'	-5.74	104.39	113.00
25	BB	87	U	O4'-C1'-N1	5.74	117.11	108.50
25	BB	248	G	O3'-P-O5'	-5.74	95.39	104.00
25	BB	477	A	O4'-C4'-C3'	5.74	109.74	104.00
25	BB	615	U	C3'-C2'-O2'	5.74	119.31	110.70
25	BB	1952	A	O3'-P-O5'	5.74	112.61	104.00
1	AP	47	U	O4'-C1'-N1	5.74	116.81	108.20
3	A1	292	G	C1'-O4'-C4'	-5.74	104.16	109.90
3	A1	558	G	C3'-C2'-C1'	-5.74	95.56	101.30
3	A1	667	G	C5'-C4'-O4'	5.74	118.41	109.80
3	A1	764	C	O4'-C4'-C3'	5.74	109.74	104.00
19	AT	91	ARG	CA-C-N	5.74	132.50	121.54
19	AT	91	ARG	C-N-CA	5.74	132.50	121.54
20	AU	99	ALA	N-CA-C	5.74	117.53	111.28
25	BB	124	G	P-O5'-C5'	5.74	129.51	120.90
25	BB	439	A	C2'-C3'-O3'	-5.74	105.09	113.70
25	BB	1998	A	C3'-C2'-C1'	-5.74	95.56	101.30
36	BM	53	VAL	O-C-N	5.74	129.31	123.00
42	BS	31	ASP	O-C-N	-5.74	116.39	123.33
52	B3	95	ALA	O-C-N	-5.74	116.61	123.27
3	A1	292	G	O4'-C1'-C2'	5.74	113.34	107.60
25	BB	171	U	O4'-C1'-C2'	-5.74	101.86	107.60
25	BB	1319	C	O3'-P-O5'	-5.74	95.39	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	54	U	O4'-C4'-C3'	5.74	109.73	104.00
3	A1	373	A	O4'-C1'-C2'	-5.74	101.86	107.60
3	A1	754	C	C4'-C3'-C2'	-5.74	96.86	102.60
3	A1	1016	A	O3'-P-O5'	5.74	112.60	104.00
3	A1	1030	U	C3'-C2'-C1'	5.74	107.23	101.50
3	A1	1374	A	C2'-C3'-O3'	5.74	122.31	113.70
15	AO	112	ALA	N-CA-C	5.74	119.75	112.87
25	BB	140	C	C4'-C3'-C2'	-5.74	96.86	102.60
25	BB	775	G	C1'-O4'-C4'	-5.74	103.96	109.70
32	BI	87	ARG	NE-CZ-NH1	5.74	127.23	121.50
37	BN	216	ARG	NE-CZ-NH2	5.74	124.36	119.20
49	BZ	6	GLU	N-CA-C	5.74	119.09	111.75
8	AG	80	ARG	CA-C-N	5.73	128.50	122.14
8	AG	80	ARG	C-N-CA	5.73	128.50	122.14
22	AW	24	ASN	CB-CG-ND2	5.73	125.00	116.40
25	BB	28	A	C2'-C3'-O3'	-5.73	105.10	113.70
25	BB	405	U	C1'-O4'-C4'	-5.73	103.97	109.70
36	BM	56	GLU	CA-C-N	5.73	130.97	122.71
36	BM	56	GLU	C-N-CA	5.73	130.97	122.71
3	A1	141	G	C2'-C3'-O3'	5.73	118.10	109.50
3	A1	351	G	O4'-C1'-C2'	5.73	111.53	105.80
3	A1	529	G	C3'-C2'-C1'	5.73	107.03	101.30
3	A1	747	A	C5'-C4'-O4'	5.73	118.40	109.80
23	AX	55	PRO	CA-C-N	5.73	131.27	121.87
23	AX	55	PRO	C-N-CA	5.73	131.27	121.87
25	BB	529	A	O5'-C5'-C4'	-5.73	103.10	111.70
25	BB	876	C	O4'-C1'-N1	5.73	116.80	108.20
25	BB	1169	A	C1'-C2'-O2'	-5.73	99.80	108.40
25	BB	1352	U	C2'-C3'-O3'	5.73	118.10	109.50
25	BB	2345	G	O4'-C1'-C2'	5.73	111.53	105.80
28	BE	90	VAL	CG1-CB-CG2	-5.73	98.19	110.80
36	BM	77	ARG	CD-NE-CZ	5.73	132.43	124.40
3	A1	14	U	O4'-C1'-N1	5.73	116.80	108.20
3	A1	884	U	O4'-C1'-N1	5.73	116.80	108.20
3	A1	1045	C	O3'-P-O5'	-5.73	95.41	104.00
3	A1	1219	A	C3'-C2'-C1'	-5.73	95.57	101.30
3	A1	1386	G	C4'-C3'-C2'	-5.73	96.87	102.60
7	AF	89	ARG	NE-CZ-NH1	5.73	127.23	121.50
25	BB	341	C	O4'-C4'-C3'	5.73	109.73	104.00
25	BB	1328	A	C1'-O4'-C4'	-5.73	104.17	109.90
25	BB	1553	A	C4'-C3'-O3'	-5.73	104.40	113.00
25	BB	2409	G	O5'-C5'-C4'	-5.73	102.90	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2771	C	O4'-C1'-N1	5.73	117.10	108.50
25	BB	2843	G	O5'-C5'-C4'	-5.73	102.91	111.50
27	BD	93	GLN	CG-CD-NE2	5.73	124.99	116.40
3	A1	50	A	C3'-C2'-O2'	5.73	119.29	110.70
3	A1	192	A	O4'-C4'-C3'	5.73	109.73	104.00
3	A1	316	C	C1'-O4'-C4'	-5.73	103.97	109.70
9	AH	50	HIS	CA-CB-CG	5.73	119.53	113.80
14	AN	22	SER	N-CA-C	5.73	117.60	111.36
17	AR	43	ARG	N-CA-C	5.73	117.98	111.11
25	BB	114	U	C5'-C4'-O4'	5.73	118.39	109.80
25	BB	746	U	O3'-P-O5'	-5.73	95.41	104.00
25	BB	1566	A	C4'-C3'-O3'	5.73	117.99	109.40
25	BB	2182	U	C3'-C2'-C1'	5.73	107.03	101.30
25	BB	2389	G	N9-C1'-C2'	5.73	120.59	112.00
25	BB	2761	A	C5'-C4'-C3'	-5.73	107.41	116.00
39	BP	56	HIS	CB-CG-CD2	-5.73	123.75	131.20
41	BR	9	THR	CA-C-O	-5.73	112.32	120.51
41	BR	19	HIS	N-CA-C	5.73	119.78	112.34
49	BZ	65	LEU	O-C-N	-5.73	116.26	122.79
50	B1	160	ALA	CA-C-N	5.73	128.74	120.38
50	B1	160	ALA	C-N-CA	5.73	128.74	120.38
23	AX	45	ARG	NE-CZ-NH2	5.73	124.35	119.20
25	BB	470	A	C3'-C2'-C1'	5.73	107.03	101.30
25	BB	1204	A	C2'-C3'-O3'	5.72	118.09	109.50
52	B3	101	VAL	N-CA-C	5.72	116.11	107.75
1	AE	45	G	O4'-C1'-N9	5.72	117.08	108.50
25	BB	76	C	O4'-C1'-C2'	5.72	113.32	107.60
25	BB	781	A	C1'-O4'-C4'	-5.72	103.98	109.70
25	BB	2697	G	C4'-C3'-O3'	5.72	121.58	113.00
3	A1	423	G	C2'-C3'-O3'	-5.72	105.12	113.70
3	A1	1327	C	C4'-C3'-O3'	-5.72	104.42	113.00
21	AV	11	THR	CA-C-O	5.72	126.83	120.82
24	BA	113	C	C2'-C3'-O3'	5.72	122.28	113.70
25	BB	1353	A	C4'-C3'-C2'	-5.72	96.88	102.60
25	BB	1707	G	N9-C1'-C2'	5.72	120.58	112.00
25	BB	2760	C	C5'-C4'-C3'	-5.72	107.42	116.00
25	BB	2857	G	C3'-C2'-C1'	-5.72	95.58	101.30
25	BB	2871	U	O4'-C1'-C2'	-5.72	100.08	105.80
29	BF	16	ARG	NH1-CZ-NH2	-5.72	111.86	119.30
55	B6	67	ASN	CA-C-N	5.72	132.47	121.54
55	B6	67	ASN	C-N-CA	5.72	132.47	121.54
3	A1	353	A	C2'-C3'-O3'	-5.72	105.12	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	362	G	C3'-C2'-O2'	5.72	119.28	110.70
3	A1	787	A	C5'-C4'-C3'	-5.72	107.42	116.00
25	BB	534	U	C3'-C2'-O2'	5.72	119.28	110.70
25	BB	1339	G	O4'-C4'-C3'	5.72	109.72	104.00
25	BB	2038	G	C1'-O4'-C4'	5.72	115.62	109.90
25	BB	2308	G	O4'-C1'-C2'	-5.72	100.08	105.80
25	BB	2621	G	O4'-C1'-C2'	-5.72	100.08	105.80
37	BN	223	ALA	CA-C-N	5.72	132.47	121.54
37	BN	223	ALA	C-N-CA	5.72	132.47	121.54
1	AA	74	C	P-O5'-C5'	5.72	129.48	120.90
3	A1	553	A	C1'-C2'-O2'	-5.72	103.22	111.80
25	BB	179	C	O4'-C1'-C2'	-5.72	101.88	107.60
25	BB	736	C	O5'-C5'-C4'	5.72	120.08	111.50
25	BB	1912	A	C2'-C3'-O3'	5.72	118.08	109.50
1	AE	44	A	C5'-C4'-O4'	5.72	118.37	109.80
3	A1	302	G	C3'-C2'-O2'	5.72	119.28	110.70
3	A1	868	C	C4'-C3'-C2'	-5.72	96.88	102.60
7	AF	25	GLY	CA-C-N	5.72	129.40	120.82
7	AF	25	GLY	C-N-CA	5.72	129.40	120.82
25	BB	112	U	N1-C1'-C2'	-5.72	105.43	114.00
25	BB	348	A	O4'-C4'-C3'	5.72	109.72	104.00
25	BB	405	U	N1-C1'-C2'	5.72	122.58	114.00
25	BB	748	G	O4'-C1'-N9	5.72	116.78	108.20
25	BB	2689	U	O4'-C4'-C3'	5.72	109.72	104.00
54	B5	117	THR	CA-C-N	5.72	126.99	120.53
54	B5	117	THR	C-N-CA	5.72	126.99	120.53
3	A1	233	C	C4'-C3'-C2'	-5.71	96.89	102.60
3	A1	714	G	O4'-C1'-N9	-5.71	99.93	108.50
3	A1	1471	U	C5'-C4'-O4'	5.71	118.37	109.80
8	AG	11	LYS	CA-C-N	5.71	130.53	121.44
8	AG	11	LYS	C-N-CA	5.71	130.53	121.44
25	BB	606	U	C4'-C3'-C2'	-5.71	96.89	102.60
25	BB	1285	A	O4'-C1'-N9	5.71	117.07	108.50
25	BB	1897	G	C5'-C4'-C3'	-5.71	107.43	116.00
25	BB	2006	C	C1'-O4'-C4'	-5.71	104.19	109.90
53	B4	34	GLY	CA-C-N	5.71	132.46	121.54
53	B4	34	GLY	C-N-CA	5.71	132.46	121.54
25	BB	918	A	O4'-C4'-C3'	5.71	109.71	104.00
25	BB	1808	A	O4'-C4'-C3'	5.71	111.81	106.10
25	BB	2381	A	C4'-C3'-C2'	-5.71	96.89	102.60
25	BB	2614	A	O3'-P-O5'	-5.71	95.43	104.00
3	A1	195	A	O3'-P-O5'	-5.71	95.43	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	775	G	C3'-C2'-O2'	5.71	119.27	110.70
25	BB	664	G	C3'-C2'-O2'	5.71	119.27	110.70
25	BB	714	U	O4'-C4'-C3'	5.71	109.71	104.00
25	BB	904	G	O4'-C4'-C3'	-5.71	98.29	104.00
25	BB	1735	A	C1'-C2'-O2'	5.71	116.97	108.40
25	BB	2194	U	C4'-C3'-C2'	-5.71	96.89	102.60
25	BB	2750	A	N9-C1'-C2'	-5.71	105.43	114.00
30	BG	30	ARG	CA-C-N	5.71	131.73	122.53
30	BG	30	ARG	C-N-CA	5.71	131.73	122.53
3	A1	607	A	N9-C1'-C2'	5.71	120.56	112.00
24	BA	15	A	C1'-C2'-O2'	5.71	116.97	108.40
25	BB	614	A	C4'-C3'-C2'	-5.71	96.89	102.60
25	BB	1423	G	O5'-C5'-C4'	-5.71	102.94	111.50
25	BB	2501	C	C1'-O4'-C4'	5.71	115.41	109.70
25	BB	2598	A	C2'-C3'-O3'	5.71	118.06	109.50
37	BN	227	VAL	N-CA-C	5.71	121.22	109.34
8	AG	95	LEU	CA-C-N	5.71	131.28	121.86
8	AG	95	LEU	C-N-CA	5.71	131.28	121.86
18	AS	31	SER	CA-C-N	5.71	130.83	121.58
18	AS	31	SER	C-N-CA	5.71	130.83	121.58
24	BA	101	A	O4'-C4'-C3'	5.71	109.71	104.00
25	BB	2332	C	O4'-C4'-C3'	5.71	109.71	104.00
25	BB	2455	G	O4'-C1'-C2'	-5.71	100.09	105.80
25	BB	2710	C	O5'-C5'-C4'	5.71	120.26	111.70
33	BJ	62	ALA	CA-C-N	5.71	133.36	121.94
33	BJ	62	ALA	C-N-CA	5.71	133.36	121.94
38	BO	98	ASN	CA-C-O	5.71	125.24	118.79
3	A1	801	U	C3'-C2'-C1'	5.71	107.01	101.30
3	A1	1425	U	C3'-C2'-C1'	5.71	107.01	101.30
9	AH	16	ARG	NE-CZ-NH1	5.71	127.21	121.50
9	AH	57	ARG	NH1-CZ-NH2	-5.71	111.88	119.30
10	AI	21	VAL	CA-CB-CG2	-5.71	100.70	110.40
14	AN	30	PHE	CA-C-O	-5.71	114.47	120.63
17	AR	12	ARG	CD-NE-CZ	5.71	132.39	124.40
20	AU	117	LEU	CA-C-N	5.71	127.92	120.28
20	AU	117	LEU	C-N-CA	5.71	127.92	120.28
25	BB	536	G	O3'-P-O5'	5.71	112.56	104.00
27	BD	17	ARG	CA-C-N	5.71	130.84	122.39
27	BD	17	ARG	C-N-CA	5.71	130.84	122.39
3	A1	473	U	O4'-C1'-C2'	5.71	113.31	107.60
25	BB	1376	C	C5'-C4'-C3'	-5.71	107.44	116.00
25	BB	2081	U	O4'-C4'-C3'	5.71	109.70	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	BW	27	ASN	CA-C-N	5.71	132.44	121.54
46	BW	27	ASN	C-N-CA	5.71	132.44	121.54
3	A1	980	C	C5'-C4'-C3'	-5.70	106.64	115.20
3	A1	1053	G	P-O3'-C3'	5.70	128.75	120.20
20	AU	93	VAL	CA-CB-CG2	5.70	120.09	110.40
25	BB	587	C	O4'-C1'-C2'	-5.70	100.10	105.80
25	BB	1420	A	C4'-C3'-C2'	-5.70	96.90	102.60
25	BB	1600	C	C3'-C2'-O2'	5.70	119.25	110.70
25	BB	1609	A	C1'-O4'-C4'	5.70	115.60	109.90
25	BB	1690	A	N9-C1'-C2'	5.70	120.55	112.00
25	BB	1694	C	C5'-C4'-O4'	5.70	117.66	109.10
25	BB	1914	C	C2'-C3'-O3'	-5.70	105.15	113.70
25	BB	1998	A	P-O3'-C3'	5.70	128.75	120.20
34	BK	29	THR	OG1-CB-CG2	-5.70	97.89	109.30
1	AA	56	C	C5'-C4'-C3'	-5.70	107.45	116.00
3	A1	685	G	C4'-C3'-C2'	-5.70	96.90	102.60
25	BB	213	A	O4'-C4'-C3'	5.70	111.80	106.10
25	BB	451	U	O4'-C1'-N1	5.70	117.05	108.50
25	BB	1160	G	O4'-C4'-C3'	5.70	109.70	104.00
25	BB	1545	A	C5'-C4'-O4'	5.70	118.35	109.80
3	A1	507	C	O4'-C1'-C2'	-5.70	101.90	107.60
4	AB	170	ILE	CA-CB-CG2	5.70	120.19	110.50
11	AJ	16	MET	CB-CA-C	-5.70	99.85	109.83
25	BB	772	C	O3'-P-O5'	-5.70	95.45	104.00
25	BB	1133	A	C4'-C3'-C2'	-5.70	96.90	102.60
25	BB	2406	A	C3'-C2'-O2'	5.70	119.25	110.70
25	BB	2588	G	C2'-C3'-O3'	-5.70	105.15	113.70
37	BN	27	LYS	CA-C-O	-5.70	112.35	120.16
42	BS	24	ILE	CA-C-N	5.70	134.11	121.80
42	BS	24	ILE	C-N-CA	5.70	134.11	121.80
48	BY	3	GLY	CA-C-N	5.70	132.43	121.54
48	BY	3	GLY	C-N-CA	5.70	132.43	121.54
49	BZ	181	GLU	N-CA-C	-5.70	105.15	111.36
52	B3	169	ARG	NE-CZ-NH2	5.70	124.33	119.20
1	AP	39	U	C4'-C3'-O3'	5.70	121.55	113.00
3	A1	445	G	C3'-C2'-C1'	-5.70	95.60	101.30
3	A1	604	G	C4'-C3'-C2'	-5.70	96.90	102.60
3	A1	1114	C	C1'-C2'-O2'	-5.70	99.85	108.40
3	A1	1269	A	O4'-C1'-N9	5.70	117.05	108.50
4	AB	107	ARG	CD-NE-CZ	5.70	132.38	124.40
4	AB	152	ASP	CA-C-N	5.70	132.42	121.54
4	AB	152	ASP	C-N-CA	5.70	132.42	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	AU	121	ASN	N-CA-C	5.70	117.29	111.14
24	BA	5	U	C5'-C4'-O4'	5.70	118.35	109.80
25	BB	282	A	P-O5'-C5'	5.70	129.45	120.90
25	BB	810	U	O5'-C5'-C4'	-5.70	102.95	111.50
25	BB	914	G	C2'-C3'-O3'	5.70	122.25	113.70
25	BB	1009	A	C3'-C2'-C1'	5.70	107.00	101.30
25	BB	1410	G	O4'-C1'-C2'	5.70	113.30	107.60
25	BB	2093	G	O4'-C1'-C2'	5.70	113.30	107.60
29	BF	10	ARG	N-CA-C	5.70	119.97	113.19
36	BM	59	ASN	OD1-CG-ND2	-5.70	116.90	122.60
3	A1	211	G	N9-C1'-C2'	-5.70	103.45	112.00
3	A1	777	A	C3'-C2'-C1'	5.70	107.00	101.30
3	A1	945	G	N9-C1'-C2'	-5.70	103.45	112.00
3	A1	1433	A	C1'-O4'-C4'	-5.70	104.20	109.90
10	AI	28	ARG	NE-CZ-NH1	5.70	127.20	121.50
25	BB	445	C	C3'-C2'-O2'	5.70	119.25	110.70
25	BB	816	C	C4'-C3'-C2'	-5.70	96.90	102.60
25	BB	1997	C	P-O5'-C5'	5.70	129.44	120.90
38	BO	85	ARG	N-CA-C	5.70	116.60	108.74
3	A1	280	C	O4'-C1'-N1	5.70	116.74	108.20
3	A1	1143	G	C4'-C3'-C2'	-5.70	96.91	102.60
25	BB	992	C	O3'-P-O5'	-5.70	95.46	104.00
25	BB	1523	U	O4'-C4'-C3'	5.70	109.70	104.00
25	BB	1529	G	C3'-C2'-O2'	5.70	119.24	110.70
37	BN	98	GLY	CA-C-N	5.70	131.48	122.94
37	BN	98	GLY	C-N-CA	5.70	131.48	122.94
55	B6	138	GLN	CG-CD-NE2	5.70	124.94	116.40
3	A1	669	G	O4'-C4'-C3'	5.69	109.69	104.00
3	A1	1130	A	N9-C1'-C2'	-5.69	103.46	112.00
44	BU	52	LYS	N-CA-C	5.69	121.11	114.62
3	A1	228	A	O4'-C4'-C3'	5.69	109.69	104.00
3	A1	1303	C	C2'-C3'-O3'	-5.69	105.16	113.70
4	AB	37	VAL	CA-C-N	5.69	129.88	120.94
4	AB	37	VAL	C-N-CA	5.69	129.88	120.94
15	AO	10	ARG	CA-C-N	5.69	128.18	120.38
15	AO	10	ARG	C-N-CA	5.69	128.18	120.38
18	AS	42	ASN	CB-CG-ND2	5.69	124.94	116.40
22	AW	104	THR	CA-CB-CG2	5.69	120.18	110.50
24	BA	38	C	O4'-C4'-C3'	-5.69	98.31	104.00
25	BB	325	G	C5'-C4'-C3'	-5.69	107.46	116.00
25	BB	415	A	C2'-C3'-O3'	-5.69	105.16	113.70
25	BB	669	G	C1'-O4'-C4'	-5.69	104.21	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1256	G	O5'-C5'-C4'	5.69	120.24	111.70
25	BB	1394	U	O4'-C1'-N1	5.69	116.74	108.20
25	BB	1691	C	O4'-C4'-C3'	5.69	109.69	104.00
25	BB	2419	U	O4'-C1'-N1	5.69	117.04	108.50
37	BN	220	ARG	CD-NE-CZ	5.69	132.37	124.40
49	BZ	111	LEU	CA-C-O	5.69	126.81	120.43
53	B4	139	PHE	CA-CB-CG	5.69	119.49	113.80
3	A1	279	A	O3'-P-O5'	5.69	112.54	104.00
3	A1	767	A	O4'-C1'-N9	-5.69	99.96	108.50
3	A1	956	U	C1'-O4'-C4'	-5.69	104.01	109.70
6	AD	18	SER	CA-C-N	5.69	132.41	121.54
6	AD	18	SER	C-N-CA	5.69	132.41	121.54
14	AN	85	LEU	O-C-N	-5.69	113.92	122.28
23	AX	17	LEU	CA-C-O	-5.69	112.94	119.60
25	BB	202	U	C4'-C3'-O3'	-5.69	104.46	113.00
25	BB	1135	C	O4'-C1'-C2'	-5.69	101.91	107.60
25	BB	1928	A	C3'-C2'-C1'	5.69	106.99	101.30
25	BB	2609	U	C2'-C3'-O3'	5.69	118.03	109.50
30	BG	104	ALA	O-C-N	-5.69	115.02	122.59
3	A1	1237	C	O4'-C4'-C3'	5.69	109.69	104.00
3	A1	1417	G	O4'-C1'-N9	5.69	116.73	108.20
15	AO	184	ASN	OD1-CG-ND2	-5.69	116.91	122.60
25	BB	544	C	C3'-C2'-C1'	5.69	106.99	101.30
25	BB	609	A	C4'-C3'-C2'	-5.69	96.91	102.60
25	BB	1069	A	C2'-C3'-O3'	5.69	118.03	109.50
25	BB	1260	A	C2'-C3'-O3'	-5.69	105.17	113.70
25	BB	1377	G	O4'-C1'-C2'	-5.69	101.91	107.60
30	BG	53	THR	OG1-CB-CG2	-5.69	97.92	109.30
55	B6	119	PHE	CA-C-O	-5.69	115.03	121.00
3	A1	218	U	C5'-C4'-O4'	5.69	118.33	109.80
16	AQ	30	GLU	N-CA-CB	-5.69	101.27	110.14
20	AU	33	GLY	CA-C-N	5.69	132.40	121.54
20	AU	33	GLY	C-N-CA	5.69	132.40	121.54
23	AX	9	ARG	CD-NE-CZ	5.69	132.36	124.40
25	BB	1161	C	C5'-C4'-C3'	-5.69	107.47	116.00
25	BB	2443	C	C3'-C2'-O2'	5.69	119.23	110.70
25	BB	2451	A	O4'-C1'-C2'	-5.69	101.91	107.60
29	BF	110	GLU	CA-C-O	-5.69	114.85	120.82
50	B1	88	ARG	NE-CZ-NH2	-5.69	114.08	119.20
52	B3	44	HIS	CE1-NE2-CD2	-5.69	103.31	109.00
15	AO	135	ARG	CA-C-N	5.69	128.17	120.38
15	AO	135	ARG	C-N-CA	5.69	128.17	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	AU	103	ILE	O-C-N	-5.69	116.35	121.87
25	BB	2290	G	O4'-C4'-C3'	-5.69	100.41	106.10
1	AA	73	A	N9-C1'-C2'	-5.68	103.47	112.00
1	AP	6	U	O4'-C1'-C2'	5.68	113.28	107.60
3	A1	548	G	C5'-C4'-C3'	-5.68	107.47	116.00
7	AF	7	ASN	N-CA-C	5.68	118.19	110.35
9	AH	80	LEU	CD1-CG-CD2	-5.68	98.29	110.80
12	AK	62	ARG	NE-CZ-NH2	5.68	124.32	119.20
21	AV	45	ILE	CA-C-O	-5.68	116.26	121.72
25	BB	329	G	C2'-C3'-O3'	5.68	118.03	109.50
25	BB	663	G	O5'-C5'-C4'	5.68	120.03	111.50
25	BB	765	C	O4'-C4'-C3'	-5.68	100.42	106.10
25	BB	1539	U	C2'-C3'-O3'	5.68	118.03	109.50
25	BB	2717	C	O4'-C4'-C3'	5.68	109.69	104.00
26	BC	47	VAL	N-CA-C	-5.68	104.80	111.00
3	A1	423	G	C3'-C2'-O2'	5.68	119.22	110.70
5	AC	97	ARG	CD-NE-CZ	5.68	132.36	124.40
25	BB	36	G	C3'-C2'-C1'	5.68	106.98	101.30
25	BB	273	G	C2'-C3'-O3'	-5.68	105.18	113.70
25	BB	655	A	C4'-C3'-O3'	5.68	117.92	109.40
25	BB	673	C	O4'-C1'-N1	5.68	116.72	108.20
25	BB	773	U	C1'-O4'-C4'	-5.68	104.02	109.70
25	BB	1215	G	C4'-C3'-C2'	-5.68	96.92	102.60
25	BB	1232	G	O4'-C4'-C3'	5.68	109.68	104.00
25	BB	1736	U	C5'-C4'-C3'	-5.68	107.48	116.00
25	BB	2038	G	O5'-C5'-C4'	5.68	120.03	111.50
30	BG	16	HIS	CB-CG-ND1	5.68	131.22	122.70
35	BL	76	VAL	O-C-N	-5.68	117.06	123.20
4	AB	23	ASN	CB-CA-C	5.68	119.04	109.67
25	BB	491	G	N9-C1'-C2'	5.68	120.52	112.00
25	BB	1006	C	C3'-C2'-C1'	-5.68	95.62	101.30
25	BB	1604	C	C1'-O4'-C4'	-5.68	104.22	109.90
25	BB	2698	U	C3'-C2'-C1'	5.68	106.98	101.30
25	BB	2763	G	C2'-C3'-O3'	-5.68	105.18	113.70
46	BW	45	PRO	N-CA-C	5.68	120.00	111.14
1	AA	31	A	C4'-C3'-O3'	5.68	121.52	113.00
3	A1	196	A	O4'-C4'-C3'	-5.68	98.32	104.00
3	A1	246	A	C3'-C2'-O2'	-5.68	106.08	114.60
3	A1	297	G	C3'-C2'-C1'	5.68	107.18	101.50
3	A1	389	A	O4'-C1'-C2'	-5.68	101.92	107.60
3	A1	1288	A	O5'-C5'-C4'	-5.68	102.98	111.50
3	A1	1531	A	O4'-C1'-C2'	-5.68	101.92	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AD	112	ALA	CA-C-N	5.68	132.39	121.54
6	AD	112	ALA	C-N-CA	5.68	132.39	121.54
25	BB	226	A	P-O3'-C3'	5.68	128.72	120.20
25	BB	695	G	C4'-C3'-C2'	-5.68	96.92	102.60
25	BB	892	A	C5'-C4'-O4'	5.68	118.32	109.80
51	B2	109	ARG	NH1-CZ-NH2	-5.68	111.92	119.30
51	B2	153	ILE	CA-C-N	5.68	131.00	123.05
51	B2	153	ILE	C-N-CA	5.68	131.00	123.05
25	BB	380	G	O4'-C4'-C3'	5.68	109.68	104.00
25	BB	1121	C	N1-C1'-C2'	5.68	120.52	112.00
25	BB	1491	G	C3'-C2'-O2'	5.68	119.22	110.70
25	BB	1514	G	C3'-C2'-O2'	5.68	119.22	110.70
25	BB	2245	U	O4'-C1'-N1	5.68	117.02	108.50
25	BB	2247	A	O4'-C4'-C3'	5.68	109.68	104.00
37	BN	93	VAL	O-C-N	-5.68	117.18	123.20
3	A1	1340	A	C1'-C2'-O2'	-5.68	96.85	108.20
6	AD	85	ARG	CD-NE-CZ	5.68	132.35	124.40
24	BA	101	A	C4'-C3'-C2'	-5.68	96.92	102.60
25	BB	1332	G	C2'-C3'-O3'	5.68	118.01	109.50
25	BB	1570	A	O4'-C1'-N9	5.68	117.02	108.50
25	BB	2384	U	C5'-C4'-C3'	-5.68	106.69	115.20
25	BB	2421	G	C5'-C4'-C3'	5.68	123.72	115.20
37	BN	43	ASN	N-CA-CB	-5.68	101.77	110.12
37	BN	219	VAL	N-CA-C	5.68	121.15	109.34
42	BS	2	LYS	N-CA-C	5.68	120.22	113.12
54	B5	3	LYS	CA-C-N	5.68	132.19	121.97
54	B5	3	LYS	C-N-CA	5.68	132.19	121.97
3	A1	76	G	C1'-O4'-C4'	5.67	115.57	109.90
3	A1	387	U	C5'-C4'-C3'	-5.67	107.49	116.00
3	A1	1264	U	C1'-O4'-C4'	-5.67	104.23	109.90
3	A1	1446	A	C5'-C4'-C3'	-5.67	106.69	115.20
6	AD	50	LYS	N-CA-C	5.67	118.91	108.58
17	AR	96	ARG	NH1-CZ-NH2	-5.67	111.92	119.30
25	BB	268	C	C3'-C2'-C1'	5.67	106.97	101.30
25	BB	305	C	C4'-C3'-O3'	-5.67	104.49	113.00
25	BB	612	G	O4'-C4'-C3'	5.67	109.67	104.00
26	BC	18	ARG	NE-CZ-NH1	-5.67	115.83	121.50
28	BE	99	ASN	OD1-CG-ND2	-5.67	116.92	122.60
31	BH	48	LEU	N-CA-CB	-5.67	101.90	110.35
37	BN	57	HIS	ND1-CE1-NE2	5.67	114.08	108.40
25	BB	21	A	C5'-C4'-C3'	-5.67	107.49	116.00
25	BB	926	G	O4'-C1'-N9	5.67	117.01	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1662	U	P-O5'-C5'	5.67	129.41	120.90
37	BN	194	VAL	CA-C-O	5.67	128.41	120.86
3	A1	982	U	C2'-C3'-O3'	5.67	118.01	109.50
25	BB	823	C	C2'-C3'-O3'	5.67	118.01	109.50
25	BB	1654	A	C5'-C4'-O4'	-5.67	101.29	109.80
25	BB	2751	G	C3'-C2'-C1'	5.67	107.17	101.50
25	BB	2783	U	C5'-C4'-C3'	-5.67	107.49	116.00
35	BL	19	LEU	CA-C-N	5.67	132.18	121.97
35	BL	19	LEU	C-N-CA	5.67	132.18	121.97
54	B5	141	ASP	CA-CB-CG	-5.67	106.93	112.60
3	A1	1151	A	O5'-C5'-C4'	-5.67	103.19	111.70
25	BB	262	A	C4'-C3'-O3'	-5.67	104.50	113.00
1	AA	53	G	C4'-C3'-C2'	-5.67	96.93	102.60
3	A1	277	C	C3'-C2'-O2'	5.67	119.20	110.70
3	A1	532	A	O4'-C1'-C2'	-5.67	100.13	105.80
3	A1	1280	A	N9-C1'-C2'	5.67	120.50	112.00
18	AS	26	GLY	CA-C-N	5.67	132.52	121.41
18	AS	26	GLY	C-N-CA	5.67	132.52	121.41
25	BB	79	C	C4'-C3'-C2'	-5.67	96.93	102.60
25	BB	763	G	C1'-C2'-O2'	-5.67	103.30	111.80
25	BB	2023	C	C2'-C3'-O3'	-5.67	101.00	109.50
46	BW	25	HIS	CA-C-N	5.67	130.40	121.56
46	BW	25	HIS	C-N-CA	5.67	130.40	121.56
3	A1	549	C	C5'-C4'-O4'	5.67	118.30	109.80
3	A1	796	C	C4'-C3'-O3'	5.67	117.90	109.40
3	A1	1148	U	C3'-C2'-C1'	5.67	106.97	101.30
11	AJ	14	ASP	CA-CB-CG	5.67	118.27	112.60
11	AJ	42	LYS	CB-CA-C	5.67	120.52	111.91
12	AK	50	TYR	CA-C-N	5.67	127.81	120.44
12	AK	50	TYR	C-N-CA	5.67	127.81	120.44
25	BB	2553	G	C3'-C2'-C1'	5.67	106.97	101.30
40	BQ	16	THR	CA-C-N	5.67	128.44	120.28
40	BQ	16	THR	C-N-CA	5.67	128.44	120.28
3	A1	767	A	C4'-C3'-C2'	-5.67	96.94	102.60
16	AQ	8	ASN	N-CA-C	5.67	117.61	108.32
37	BN	168	GLY	CA-C-O	-5.67	112.92	120.29
3	A1	203	G	C2'-C3'-O3'	5.66	122.19	113.70
3	A1	396	C	C1'-O4'-C4'	-5.66	104.24	109.90
5	AC	105	ARG	NE-CZ-NH1	5.66	127.16	121.50
18	AS	156	ARG	NE-CZ-NH1	5.66	127.16	121.50
24	BA	91	C	C5'-C4'-O4'	-5.66	101.31	109.80
25	BB	979	A	O4'-C1'-C2'	-5.66	101.94	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1234	U	O3'-P-O5'	5.66	112.50	104.00
25	BB	1457	U	O3'-P-O5'	5.66	112.50	104.00
25	BB	1815	A	C1'-O4'-C4'	5.66	115.36	109.70
25	BB	2196	C	C3'-C2'-C1'	-5.66	95.84	101.50
25	BB	2280	G	O3'-P-O5'	5.66	112.50	104.00
28	BE	52	GLY	CA-C-N	5.66	131.89	121.70
28	BE	52	GLY	C-N-CA	5.66	131.89	121.70
48	BY	159	LYS	CA-C-N	5.66	131.44	122.61
48	BY	159	LYS	C-N-CA	5.66	131.44	122.61
3	A1	181	A	O4'-C1'-C2'	5.66	111.46	105.80
3	A1	242	G	N9-C1'-C2'	5.66	120.49	112.00
3	A1	672	U	O4'-C1'-N1	5.66	116.69	108.20
4	AB	98	GLY	CA-C-N	5.66	128.14	120.38
4	AB	98	GLY	C-N-CA	5.66	128.14	120.38
25	BB	246	C	C5'-C4'-C3'	-5.66	107.51	116.00
25	BB	1146	C	C3'-C2'-C1'	5.66	106.96	101.30
27	BD	35	VAL	O-C-N	-5.66	116.99	122.09
3	A1	5	U	O4'-C1'-C2'	-5.66	100.14	105.80
3	A1	121	U	C4'-C3'-C2'	5.66	108.26	102.60
3	A1	304	U	C5'-C4'-C3'	-5.66	107.51	116.00
3	A1	1267	C	C1'-O4'-C4'	-5.66	104.04	109.70
3	A1	1313	U	O4'-C1'-N1	5.66	116.99	108.50
17	AR	161	ALA	N-CA-C	5.66	118.22	111.71
25	BB	34	U	N1-C1'-C2'	5.66	120.49	112.00
25	BB	79	C	C3'-C2'-C1'	5.66	106.96	101.30
25	BB	1652	A	C1'-O4'-C4'	-5.66	104.24	109.90
25	BB	1729	U	C1'-C2'-O2'	5.66	120.29	111.80
25	BB	2546	U	C2'-C3'-O3'	5.66	122.19	113.70
25	BB	2581	G	C2'-C3'-O3'	5.66	117.99	109.50
25	BB	2599	G	P-O5'-C5'	5.66	129.39	120.90
54	B5	123	ALA	CA-C-N	5.66	129.31	120.82
54	B5	123	ALA	C-N-CA	5.66	129.31	120.82
3	A1	1213	A	O4'-C1'-C2'	5.66	113.26	107.60
6	AD	66	ILE	CA-C-N	5.66	132.50	121.41
6	AD	66	ILE	C-N-CA	5.66	132.50	121.41
8	AG	56	PRO	O-C-N	-5.66	116.10	123.06
20	AU	94	ARG	NE-CZ-NH1	5.66	127.16	121.50
25	BB	2536	G	C3'-C2'-O2'	5.66	119.19	110.70
30	BG	27	SER	CA-C-N	5.66	132.35	121.54
30	BG	27	SER	C-N-CA	5.66	132.35	121.54
41	BR	52	PHE	O-C-N	-5.66	115.31	122.27
25	BB	279	A	N9-C1'-C2'	-5.66	103.52	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	353	C	O4'-C1'-N1	5.66	116.99	108.50
25	BB	2429	G	C5'-C4'-O4'	5.66	118.29	109.80
42	BS	12	ILE	N-CA-C	5.66	114.51	106.53
3	A1	859	G	C1'-O4'-C4'	-5.66	104.24	109.90
5	AC	47	GLY	CA-C-O	-5.66	114.89	121.00
7	AF	7	ASN	CA-CB-CG	5.66	118.25	112.60
14	AN	73	ARG	CA-C-N	5.66	130.25	120.58
14	AN	73	ARG	C-N-CA	5.66	130.25	120.58
25	BB	527	C	C5'-C4'-C3'	-5.66	107.52	116.00
25	BB	1322	A	O4'-C1'-N9	5.66	116.68	108.20
25	BB	2765	A	C3'-C2'-O2'	-5.66	106.11	114.60
42	BS	31	ASP	N-CA-CB	-5.66	101.01	111.13
51	B2	143	ASP	CA-C-N	5.66	128.43	120.28
51	B2	143	ASP	C-N-CA	5.66	128.43	120.28
10	AI	9	HIS	CB-CG-CD2	-5.65	123.85	131.20
25	BB	1068	G	C3'-C2'-O2'	5.65	119.18	110.70
3	A1	671	G	O4'-C1'-C2'	5.65	113.25	107.60
3	A1	856	C	C3'-C2'-O2'	5.65	119.18	110.70
3	A1	1463	U	C4'-C3'-C2'	-5.65	96.95	102.60
15	AO	139	ASN	OD1-CG-ND2	-5.65	116.95	122.60
22	AW	128	LYS	CA-C-N	5.65	131.88	121.70
22	AW	128	LYS	C-N-CA	5.65	131.88	121.70
25	BB	49	A	O4'-C1'-N9	5.65	116.68	108.20
25	BB	616	A	C4'-C3'-C2'	-5.65	96.95	102.60
25	BB	853	C	C4'-C3'-C2'	-5.65	96.95	102.60
25	BB	2311	A	O4'-C1'-N9	-5.65	100.02	108.50
34	BK	53	PHE	CA-C-N	5.65	132.14	121.97
34	BK	53	PHE	C-N-CA	5.65	132.14	121.97
35	BL	4	ILE	CA-C-N	5.65	132.34	121.54
35	BL	4	ILE	C-N-CA	5.65	132.34	121.54
37	BN	24	HIS	ND1-CG-CD2	5.65	111.75	106.10
3	A1	12	U	P-O3'-C3'	5.65	128.68	120.20
3	A1	645	G	O4'-C1'-N9	5.65	116.97	108.50
3	A1	1067	A	C1'-O4'-C4'	5.65	115.35	109.70
3	A1	1239	A	C2'-C3'-O3'	5.65	117.97	109.50
4	AB	104	LYS	CA-CB-CG	5.65	125.40	114.10
9	AH	34	GLN	N-CA-C	5.65	117.24	111.14
15	AO	105	VAL	N-CA-CB	5.65	117.93	112.28
22	AW	55	ASP	CA-C-N	5.65	127.85	120.28
22	AW	55	ASP	C-N-CA	5.65	127.85	120.28
25	BB	216	A	O5'-C5'-C4'	5.65	119.98	111.50
25	BB	568	U	C3'-C2'-C1'	5.65	107.15	101.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	569	U	N1-C1'-C2'	-5.65	105.52	114.00
25	BB	1359	A	C3'-C2'-C1'	5.65	106.95	101.30
25	BB	2871	U	C2'-C3'-O3'	5.65	117.98	109.50
28	BE	10	GLU	N-CA-C	5.65	122.84	110.80
32	BI	2	ASN	OD1-CG-ND2	-5.65	116.95	122.60
33	BJ	93	ILE	CA-CB-CG2	5.65	120.11	110.50
37	BN	204	LEU	O-C-N	-5.65	114.88	122.23
3	A1	870	U	C4'-C3'-C2'	5.65	108.25	102.60
3	A1	897	C	C4'-C3'-C2'	-5.65	96.95	102.60
3	A1	954	G	C1'-O4'-C4'	-5.65	104.25	109.90
23	AX	96	VAL	O-C-N	-5.65	116.96	123.00
24	BA	35	C	O5'-C5'-C4'	-5.65	103.03	111.50
25	BB	655	A	C5'-C4'-C3'	-5.65	106.73	115.20
25	BB	998	C	C4'-C3'-C2'	-5.65	96.95	102.60
25	BB	2279	G	C3'-C2'-O2'	5.65	119.17	110.70
25	BB	2639	A	C5'-C4'-C3'	-5.65	107.53	116.00
33	BJ	55	GLN	OE1-CD-NE2	-5.65	116.95	122.60
3	A1	894	G	O4'-C4'-C3'	5.65	109.65	104.00
3	A1	1138	G	C4'-C3'-O3'	-5.65	104.53	113.00
3	A1	1393	U	C2'-C3'-O3'	5.65	117.97	109.50
20	AU	106	ALA	N-CA-C	5.65	118.37	111.82
24	BA	25	U	C3'-C2'-O2'	5.65	123.07	114.60
25	BB	1141	U	O3'-P-O5'	-5.65	95.53	104.00
25	BB	1248	G	C3'-C2'-O2'	5.65	123.07	114.60
25	BB	1316	U	O3'-P-O5'	5.65	112.47	104.00
25	BB	1330	C	P-O3'-C3'	5.65	128.67	120.20
25	BB	1405	U	C1'-O4'-C4'	-5.65	104.25	109.90
25	BB	1429	G	C5'-C4'-C3'	-5.65	107.53	116.00
25	BB	1785	A	O5'-C5'-C4'	5.65	120.17	111.70
25	BB	2747	G	C2'-C3'-O3'	5.65	122.17	113.70
33	BJ	91	ARG	CA-C-N	5.65	130.17	121.19
33	BJ	91	ARG	C-N-CA	5.65	130.17	121.19
37	BN	71	ASP	O-C-N	5.65	129.92	122.30
50	B1	79	ARG	CD-NE-CZ	5.65	132.31	124.40
3	A1	83	C	C3'-C2'-C1'	5.65	107.15	101.50
18	AS	11	GLN	CA-C-O	-5.65	114.60	120.70
25	BB	2722	G	O5'-C5'-C4'	5.65	119.97	111.50
1	AP	21	A	O3'-P-O5'	-5.64	95.53	104.00
3	A1	110	C	O5'-C5'-C4'	-5.64	103.03	111.50
3	A1	503	C	C3'-C2'-O2'	5.64	119.17	110.70
15	AO	139	ASN	CB-CG-ND2	5.64	124.87	116.40
15	AO	168	ARG	NH1-CZ-NH2	-5.64	111.96	119.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	98	G	C4'-C3'-O3'	5.64	121.47	113.00
25	BB	2540	C	C3'-C2'-O2'	5.64	119.17	110.70
25	BB	2567	G	C4'-C3'-O3'	-5.64	104.53	113.00
19	AT	75	GLU	CA-C-N	5.64	128.30	120.63
19	AT	75	GLU	C-N-CA	5.64	128.30	120.63
25	BB	148	U	O5'-C5'-C4'	-5.64	103.24	111.70
25	BB	258	G	C2'-C3'-O3'	-5.64	105.23	113.70
25	BB	601	C	C3'-C2'-O2'	5.64	119.16	110.70
25	BB	1280	G	C1'-O4'-C4'	-5.64	104.26	109.90
25	BB	2138	G	O3'-P-O5'	5.64	112.46	104.00
25	BB	2825	G	C1'-O4'-C4'	-5.64	104.26	109.90
3	A1	418	C	O3'-P-O5'	5.64	112.46	104.00
3	A1	558	G	P-O5'-C5'	5.64	129.36	120.90
7	AF	108	ARG	NE-CZ-NH1	5.64	127.14	121.50
25	BB	2	G	C4'-C3'-O3'	-5.64	100.94	109.40
25	BB	422	A	C1'-O4'-C4'	-5.64	104.26	109.90
3	A1	756	C	O4'-C1'-N1	5.64	116.96	108.50
3	A1	1190	G	P-O3'-C3'	5.64	128.66	120.20
20	AU	74	VAL	CB-CA-C	-5.64	103.25	110.98
25	BB	82	U	O4'-C4'-C3'	5.64	109.64	104.00
25	BB	398	C	C5'-C4'-C3'	5.64	124.46	116.00
25	BB	1344	U	C3'-C2'-O2'	5.64	119.16	110.70
25	BB	1910	G	C5'-C4'-O4'	5.64	118.26	109.80
25	BB	2103	C	C1'-O4'-C4'	-5.64	104.26	109.90
25	BB	2200	C	C4'-C3'-O3'	-5.64	104.54	113.00
25	BB	2472	G	C4'-C3'-C2'	-5.64	96.96	102.60
37	BN	165	ALA	CA-C-N	5.64	131.56	122.14
37	BN	165	ALA	C-N-CA	5.64	131.56	122.14
49	BZ	75	TYR	N-CA-CB	5.64	118.16	109.98
51	B2	149	ARG	N-CA-C	5.64	119.42	112.54
53	B4	133	GLN	CG-CD-NE2	5.64	124.86	116.40
1	AE	25	C	O3'-P-O5'	5.64	112.46	104.00
24	BA	52	A	O4'-C1'-N9	-5.64	100.04	108.50
25	BB	47	C	N1-C1'-C2'	5.64	120.46	112.00
25	BB	735	A	C1'-O4'-C4'	-5.64	104.26	109.90
25	BB	1268	A	C1'-C2'-O2'	-5.64	103.34	111.80
25	BB	1511	G	C4'-C3'-O3'	-5.64	104.54	113.00
25	BB	1623	G	O4'-C4'-C3'	5.64	109.64	104.00
25	BB	1862	G	C5'-C4'-C3'	-5.64	107.54	116.00
31	BH	100	HIS	CA-C-O	-5.64	115.38	121.36
53	B4	83	LYS	CA-C-N	5.64	133.16	121.32
53	B4	83	LYS	C-N-CA	5.64	133.16	121.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AC	54	SER	CA-CB-OG	-5.64	99.83	111.10
8	AG	34	ASN	N-CA-C	5.64	119.42	112.54
15	AO	106	ARG	CD-NE-CZ	5.64	132.29	124.40
18	AS	116	VAL	N-CA-C	5.64	119.93	112.04
25	BB	583	G	C1'-O4'-C4'	-5.64	104.26	109.90
25	BB	1696	G	C1'-O4'-C4'	-5.64	104.26	109.90
25	BB	1746	A	C5'-C4'-C3'	-5.64	107.55	116.00
25	BB	2023	C	O5'-C5'-C4'	-5.64	103.25	111.70
25	BB	2295	C	C4'-C3'-O3'	-5.64	104.54	113.00
25	BB	2537	U	C2'-C3'-O3'	5.64	117.95	109.50
25	BB	2788	C	O5'-C5'-C4'	-5.64	103.05	111.50
1	AP	8	U	C4'-C3'-O3'	5.63	121.45	113.00
3	A1	1347	G	C1'-O4'-C4'	-5.63	104.06	109.70
6	AD	119	LYS	O-C-N	-5.63	116.09	122.68
25	BB	623	C	C1'-O4'-C4'	-5.63	104.27	109.90
25	BB	1043	C	C3'-C2'-O2'	5.63	119.15	110.70
25	BB	1353	A	O4'-C1'-C2'	-5.63	101.97	107.60
25	BB	1626	A	O5'-C5'-C4'	5.63	120.15	111.70
25	BB	1679	A	C1'-C2'-O2'	5.63	120.25	111.80
25	BB	1994	C	C5'-C4'-O4'	5.63	118.25	109.80
25	BB	2259	U	C4'-C3'-O3'	5.63	117.85	109.40
27	BD	58	LEU	O-C-N	-5.63	115.10	122.59
48	BY	14	ILE	CA-CB-CG1	5.63	119.98	110.40
49	BZ	202	ASN	N-CA-CB	-5.63	102.83	111.56
3	A1	127	G	O4'-C1'-N9	5.63	116.95	108.50
3	A1	764	C	O4'-C1'-C2'	-5.63	101.97	107.60
3	A1	1379	G	C3'-C2'-C1'	-5.63	95.87	101.50
25	BB	81	G	C4'-C3'-O3'	-5.63	104.55	113.00
1	AP	18	G	C1'-O4'-C4'	-5.63	104.07	109.70
3	A1	143	A	O5'-C5'-C4'	-5.63	103.05	111.50
3	A1	927	G	O4'-C4'-C3'	5.63	109.63	104.00
16	AQ	17	ARG	NE-CZ-NH1	5.63	127.13	121.50
21	AV	10	LEU	CA-C-N	5.63	127.76	120.44
21	AV	10	LEU	C-N-CA	5.63	127.76	120.44
25	BB	111	A	O3'-P-O5'	5.63	112.45	104.00
25	BB	1271	G	O4'-C1'-N9	5.63	116.95	108.50
25	BB	1687	G	C4'-C3'-C2'	5.63	108.23	102.60
25	BB	2306	C	N1-C1'-C2'	5.63	120.45	112.00
28	BE	136	GLU	N-CA-C	5.63	117.42	111.28
34	BK	15	SER	N-CA-C	5.63	118.35	111.82
35	BL	40	ASN	N-CA-C	5.63	122.80	110.80
35	BL	109	ASP	N-CA-C	5.63	118.43	109.81

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	27	C	C3'-C2'-O2'	5.63	119.14	110.70
3	A1	420	U	O5'-C5'-C4'	-5.63	103.25	111.70
15	AO	92	ASP	N-CA-C	5.63	117.09	111.07
25	BB	136	G	C1'-C2'-O2'	-5.63	99.95	108.40
25	BB	1043	C	C5'-C4'-O4'	5.63	118.25	109.80
25	BB	1169	A	O4'-C4'-C3'	5.63	109.63	104.00
1	AP	34	G	O4'-C4'-C3'	5.63	109.63	104.00
3	A1	321	A	C5'-C4'-C3'	-5.63	107.56	116.00
3	A1	629	A	C5'-C4'-C3'	-5.63	107.56	116.00
24	BA	88	C	C1'-O4'-C4'	-5.63	104.07	109.70
25	BB	168	G	P-O5'-C5'	5.63	129.34	120.90
25	BB	2188	U	O4'-C4'-C3'	5.63	109.63	104.00
25	BB	2684	U	C2'-C3'-O3'	5.63	122.14	113.70
25	BB	2899	A	C1'-O4'-C4'	-5.63	104.27	109.90
28	BE	111	ILE	N-CA-C	5.63	115.69	108.82
3	A1	175	C	C4'-C3'-C2'	-5.63	96.97	102.60
3	A1	200	G	C3'-C2'-O2'	5.63	119.14	110.70
3	A1	355	C	C2'-C3'-O3'	5.63	122.14	113.70
3	A1	956	U	O4'-C4'-C3'	5.63	111.73	106.10
3	A1	1452	C	C5'-C4'-C3'	-5.63	106.76	115.20
18	AS	125	LYS	CA-CB-CG	5.63	125.35	114.10
23	AX	19	ASP	CA-C-N	5.63	128.09	120.38
23	AX	19	ASP	C-N-CA	5.63	128.09	120.38
23	AX	72	ARG	NE-CZ-NH1	-5.63	115.87	121.50
24	BA	44	G	C4'-C3'-C2'	-5.63	96.97	102.60
25	BB	73	A	C5'-C4'-O4'	5.63	117.54	109.10
25	BB	2807	U	C4'-C3'-O3'	-5.63	104.56	113.00
33	BJ	52	ARG	NE-CZ-NH2	5.63	124.26	119.20
37	BN	51	ARG	NH1-CZ-NH2	-5.63	111.99	119.30
3	A1	261	U	C1'-C2'-O2'	-5.62	99.96	108.40
3	A1	572	A	O4'-C4'-C3'	5.62	109.62	104.00
24	BA	26	C	C1'-O4'-C4'	-5.62	104.28	109.90
25	BB	875	G	C4'-C3'-O3'	5.62	121.44	113.00
25	BB	1304	A	C4'-C3'-O3'	-5.62	104.56	113.00
25	BB	1307	A	C5'-C4'-O4'	5.62	118.24	109.80
27	BD	9	ASN	CA-CB-CG	5.62	118.22	112.60
55	B6	110	PRO	CA-N-CD	-5.62	104.12	112.00
3	A1	100	G	O4'-C4'-C3'	5.62	109.62	104.00
3	A1	687	A	C4'-C3'-C2'	5.62	108.22	102.60
3	A1	809	G	O4'-C1'-C2'	-5.62	100.18	105.80
3	A1	1286	U	O3'-P-O5'	5.62	112.44	104.00
5	AC	94	SER	CA-C-N	5.62	132.28	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
5	AC	94	SER	C-N-CA	5.62	132.28	121.54
11	AJ	54	ILE	O-C-N	-5.62	115.54	122.57
15	AO	171	ARG	NH1-CZ-NH2	-5.62	111.99	119.30
23	AX	59	LYS	O-C-N	5.62	129.79	122.87
36	BM	93	LEU	CA-C-N	5.62	132.28	121.54
36	BM	93	LEU	C-N-CA	5.62	132.28	121.54
53	B4	99	ILE	CA-CB-CG2	5.62	120.06	110.50
3	A1	600	A	C1'-O4'-C4'	-5.62	104.28	109.90
25	BB	552	U	C3'-C2'-O2'	5.62	119.13	110.70
25	BB	1300	G	C3'-C2'-C1'	5.62	107.12	101.50
25	BB	2162	G	C5'-C4'-O4'	5.62	118.23	109.80
25	BB	2186	G	C5'-C4'-C3'	-5.62	107.57	116.00
25	BB	2540	C	N1-C1'-C2'	5.62	120.43	112.00
25	BB	2882	A	C2'-C3'-O3'	-5.62	105.27	113.70
36	BM	96	VAL	O-C-N	-5.62	116.82	123.00
39	BP	45	HIS	CE1-NE2-CD2	-5.62	103.38	109.00
40	BQ	58	ASN	OD1-CG-ND2	-5.62	116.98	122.60
51	B2	57	ALA	N-CA-CB	-5.62	101.70	109.91
25	BB	425	G	O5'-C5'-C4'	5.62	120.13	111.70
25	BB	677	A	C4'-C3'-C2'	-5.62	96.98	102.60
25	BB	958	U	O3'-P-O5'	5.62	112.43	104.00
25	BB	1031	G	C5'-C4'-C3'	-5.62	107.57	116.00
25	BB	1480	C	C1'-O4'-C4'	-5.62	104.28	109.90
25	BB	2784	U	N1-C1'-C2'	5.62	120.43	112.00
3	A1	377	G	C1'-C2'-O2'	5.62	116.83	108.40
3	A1	850	U	C3'-C2'-C1'	5.62	106.92	101.30
25	BB	986	C	C3'-C2'-O2'	-5.62	106.17	114.60
25	BB	1143	A	C4'-C3'-C2'	-5.62	96.98	102.60
25	BB	2419	U	N1-C1'-C2'	-5.62	103.57	112.00
25	BB	2637	U	C5'-C4'-C3'	-5.62	106.77	115.20
25	BB	2739	U	O3'-P-O5'	-5.62	95.57	104.00
25	BB	1191	G	C3'-C2'-O2'	5.62	119.12	110.70
25	BB	2213	U	C1'-C2'-O2'	-5.62	103.37	111.80
3	A1	233	C	C5'-C4'-C3'	-5.62	107.58	116.00
3	A1	490	C	P-O5'-C5'	5.62	129.32	120.90
25	BB	360	U	O4'-C1'-N1	5.62	116.62	108.20
25	BB	2567	G	C1'-O4'-C4'	-5.62	104.28	109.90
28	BE	90	VAL	N-CA-C	5.62	121.02	109.34
31	BH	66	GLY	CA-C-N	5.62	133.68	122.62
31	BH	66	GLY	C-N-CA	5.62	133.68	122.62
32	BI	39	LEU	CA-C-N	5.62	132.26	121.54
32	BI	39	LEU	C-N-CA	5.62	132.26	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
53	B4	17	ASP	CA-C-O	-5.62	112.48	119.28
1	AP	69	U	C3'-C2'-C1'	5.61	106.91	101.30
3	A1	211	G	C5'-C4'-C3'	-5.61	107.58	116.00
3	A1	1239	A	O4'-C1'-N9	5.61	116.62	108.20
3	A1	1326	U	C3'-C2'-C1'	-5.61	95.69	101.30
5	AC	91	GLY	CA-C-N	5.61	132.26	121.54
5	AC	91	GLY	C-N-CA	5.61	132.26	121.54
9	AH	45	HIS	CE1-NE2-CD2	-5.61	103.39	109.00
24	BA	86	G	C5'-C4'-O4'	-5.61	101.38	109.80
25	BB	242	G	C4'-C3'-O3'	-5.61	100.98	109.40
25	BB	481	G	C5'-C4'-O4'	5.61	118.22	109.80
3	A1	248	C	C4'-C3'-C2'	-5.61	96.99	102.60
3	A1	322	C	C5'-C4'-C3'	5.61	124.42	116.00
3	A1	768	A	C3'-C2'-C1'	5.61	106.91	101.30
3	A1	897	C	C5'-C4'-C3'	-5.61	107.58	116.00
3	A1	969	A	C3'-C2'-C1'	-5.61	95.69	101.30
3	A1	1334	G	C1'-O4'-C4'	-5.61	104.09	109.70
8	AG	72	PHE	CA-CB-CG	5.61	119.41	113.80
9	AH	66	LEU	CA-C-N	5.61	128.36	120.28
9	AH	66	LEU	C-N-CA	5.61	128.36	120.28
24	BA	24	G	O5'-C5'-C4'	-5.61	103.08	111.50
25	BB	259	G	O3'-P-O5'	-5.61	95.58	104.00
25	BB	894	U	O4'-C1'-C2'	5.61	113.21	107.60
25	BB	1403	A	C3'-C2'-C1'	-5.61	95.69	101.30
25	BB	1472	C	O5'-C5'-C4'	-5.61	103.29	111.70
25	BB	2258	C	N1-C1'-C2'	5.61	120.42	112.00
25	BB	2355	G	C5'-C4'-C3'	-5.61	107.58	116.00
45	BV	9	VAL	N-CA-C	5.61	116.67	111.45
45	BV	45	SER	O-C-N	-5.61	114.97	122.43
49	BZ	14	LEU	N-CA-C	5.61	120.13	113.12
3	A1	11	G	O4'-C4'-C3'	5.61	109.61	104.00
43	BT	47	TYR	CA-C-N	5.61	132.25	121.54
43	BT	47	TYR	C-N-CA	5.61	132.25	121.54
3	A1	60	A	C3'-C2'-O2'	5.61	123.01	114.60
3	A1	803	G	C3'-C2'-C1'	5.61	106.91	101.30
3	A1	840	C	C5'-C4'-C3'	-5.61	106.79	115.20
3	A1	1261	A	C3'-C2'-C1'	-5.61	95.69	101.30
5	AC	52	ARG	NE-CZ-NH2	5.61	124.25	119.20
17	AR	74	TYR	O-C-N	-5.61	115.37	122.27
20	AU	125	ASP	N-CA-C	5.61	117.39	111.28
25	BB	786	C	N1-C1'-C2'	5.61	120.41	112.00
25	BB	1962	C	C1'-O4'-C4'	5.61	115.31	109.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2270	A	O4'-C1'-N9	5.61	116.61	108.20
25	BB	2311	A	C3'-C2'-C1'	5.61	106.91	101.30
25	BB	2342	C	C4'-C3'-O3'	5.61	121.41	113.00
25	BB	2733	A	C4'-C3'-O3'	-5.61	104.59	113.00
30	BG	118	ARG	O-C-N	5.61	129.61	123.22
51	B2	78	ILE	CB-CA-C	5.61	119.49	111.81
51	B2	80	GLN	N-CA-C	5.61	122.74	110.80
3	A1	1276	G	C5'-C4'-C3'	-5.61	107.59	116.00
3	A1	1522	U	C5'-C4'-O4'	5.61	118.21	109.80
25	BB	1	G	O4'-C4'-C3'	5.61	109.61	104.00
25	BB	588	U	N1-C1'-C2'	5.61	120.41	112.00
25	BB	1758	U	O4'-C1'-N1	5.61	116.61	108.20
25	BB	2372	U	C2'-C3'-O3'	5.61	117.91	109.50
25	BB	2747	G	C5'-C4'-C3'	-5.61	107.59	116.00
26	BC	2	PHE	CA-CB-CG	5.61	119.41	113.80
53	B4	97	ARG	CA-C-N	5.61	129.23	120.82
53	B4	97	ARG	C-N-CA	5.61	129.23	120.82
19	AT	71	ILE	N-CA-C	5.60	118.10	111.09
25	BB	946	C	N1-C1'-C2'	5.60	122.41	114.00
25	BB	2486	C	C5'-C4'-C3'	-5.60	107.59	116.00
3	A1	928	G	C5'-C4'-C3'	-5.60	107.60	116.00
3	A1	990	C	C3'-C2'-C1'	-5.60	95.70	101.30
3	A1	1054	C	C3'-C2'-O2'	-5.60	106.20	114.60
3	A1	1485	U	C4'-C3'-O3'	5.60	117.81	109.40
4	AB	169	HIS	CA-C-N	5.60	128.14	120.46
4	AB	169	HIS	C-N-CA	5.60	128.14	120.46
25	BB	841	G	O4'-C4'-C3'	5.60	109.60	104.00
25	BB	1000	A	C3'-C2'-C1'	-5.60	95.70	101.30
25	BB	1313	U	C1'-C2'-O2'	5.60	120.20	111.80
25	BB	1383	A	C3'-C2'-C1'	5.60	106.90	101.30
37	BN	239	PHE	N-CA-CB	-5.60	105.08	114.27
3	A1	1133	G	O4'-C1'-N9	5.60	116.90	108.50
25	BB	501	A	O4'-C4'-C3'	5.60	109.60	104.00
25	BB	802	A	C1'-O4'-C4'	-5.60	104.30	109.90
3	A1	125	U	C4'-C3'-O3'	-5.60	101.00	109.40
3	A1	1165	U	C3'-C2'-O2'	5.60	119.10	110.70
3	A1	1273	C	C3'-C2'-O2'	5.60	119.10	110.70
25	BB	32	C	C4'-C3'-C2'	-5.60	97.00	102.60
25	BB	84	A	O5'-C5'-C4'	-5.60	103.30	111.70
25	BB	1719	G	C5'-C4'-C3'	-5.60	107.60	116.00
25	BB	1981	A	C5'-C4'-O4'	5.60	117.50	109.10
25	BB	2039	U	O4'-C1'-N1	5.60	116.90	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2809	A	O3'-P-O5'	5.60	112.40	104.00
25	BB	2896	C	C2'-C3'-O3'	5.60	122.10	113.70
31	BH	83	LEU	CA-C-N	5.60	128.05	120.38
31	BH	83	LEU	C-N-CA	5.60	128.05	120.38
54	B5	4	VAL	CA-CB-CG1	5.60	119.92	110.40
3	A1	760	G	C1'-O4'-C4'	-5.60	104.30	109.90
3	A1	1211	U	C2'-C3'-O3'	-5.60	105.30	113.70
3	A1	1232	U	O4'-C4'-C3'	5.60	109.60	104.00
4	AB	222	GLU	CA-C-O	5.60	126.27	119.38
6	AD	24	GLU	N-CA-C	5.60	122.72	110.80
15	AO	24	ASN	OD1-CG-ND2	-5.60	117.00	122.60
25	BB	782	A	C4'-C3'-C2'	-5.60	97.00	102.60
25	BB	968	C	C5'-C4'-O4'	5.60	117.50	109.10
25	BB	1690	A	O4'-C1'-C2'	-5.60	102.00	107.60
25	BB	1857	G	C1'-O4'-C4'	-5.60	104.30	109.90
25	BB	2069	G	O4'-C1'-C2'	-5.60	102.00	107.60
25	BB	2437	G	C2'-C3'-O3'	5.60	122.10	113.70
37	BN	259	ASN	CA-C-N	5.60	132.23	121.54
37	BN	259	ASN	C-N-CA	5.60	132.23	121.54
1	AA	4	G	C5'-C4'-C3'	-5.60	107.61	116.00
3	A1	193	C	O4'-C1'-C2'	-5.60	102.00	107.60
3	A1	1100	C	C1'-O4'-C4'	-5.60	104.30	109.90
25	BB	1849	G	C3'-C2'-O2'	5.60	119.09	110.70
1	AP	1	G	C4'-C3'-O3'	-5.59	104.61	113.00
3	A1	1496	C	C4'-C3'-C2'	-5.59	97.01	102.60
10	AI	59	HIS	CA-CB-CG	5.59	119.39	113.80
15	AO	189	HIS	N-CA-CB	-5.59	102.56	111.62
25	BB	329	G	C1'-O4'-C4'	-5.59	104.11	109.70
25	BB	350	G	O3'-P-O5'	5.59	112.39	104.00
25	BB	599	A	O4'-C4'-C3'	5.59	109.59	104.00
25	BB	741	U	C5'-C4'-C3'	-5.59	107.61	116.00
25	BB	1303	G	O4'-C1'-C2'	-5.59	102.01	107.60
25	BB	1305	C	C5'-C4'-O4'	-5.59	101.41	109.80
25	BB	1516	G	C5'-C4'-C3'	-5.59	107.61	116.00
25	BB	2316	G	O4'-C4'-C3'	5.59	111.69	106.10
32	BI	51	ASN	OD1-CG-ND2	-5.59	117.00	122.60
50	B1	88	ARG	N-CA-C	5.59	116.45	109.57
25	BB	1673	G	O3'-P-O5'	-5.59	95.61	104.00
25	BB	1689	A	C1'-O4'-C4'	5.59	115.49	109.90
49	BZ	151	PHE	CA-CB-CG	-5.59	108.21	113.80
2	AM	2	U	O4'-C1'-N1	5.59	116.89	108.50
3	A1	36	C	C1'-C2'-O2'	-5.59	100.01	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	864	A	C1'-O4'-C4'	-5.59	104.11	109.70
3	A1	1094	G	O4'-C1'-N9	-5.59	99.81	108.20
25	BB	204	A	P-O3'-C3'	5.59	128.59	120.20
25	BB	1982	U	C5'-C4'-C3'	-5.59	106.81	115.20
33	BJ	90	ASP	N-CA-C	5.59	118.89	112.57
50	B1	96	VAL	CA-CB-CG1	5.59	119.91	110.40
3	A1	200	G	C5'-C4'-C3'	-5.59	107.62	116.00
3	A1	1072	G	O5'-C5'-C4'	5.59	119.88	111.50
3	A1	1106	G	O4'-C4'-C3'	-5.59	100.51	106.10
3	A1	1169	A	C2'-C3'-O3'	5.59	122.08	113.70
25	BB	293	U	C4'-C3'-O3'	5.59	121.39	113.00
25	BB	2585	U	C5'-C4'-C3'	-5.59	106.81	115.20
25	BB	2808	G	O3'-P-O5'	-5.59	95.61	104.00
37	BN	175	LEU	CA-C-N	5.59	132.22	121.54
37	BN	175	LEU	C-N-CA	5.59	132.22	121.54
38	BO	30	SER	O-C-N	-5.59	115.01	122.00
3	A1	1204	A	C3'-C2'-O2'	5.59	119.08	110.70
25	BB	114	U	O4'-C1'-C2'	-5.59	102.01	107.60
25	BB	920	A	C4'-C3'-C2'	-5.59	97.01	102.60
25	BB	1254	A	C4'-C3'-C2'	-5.59	97.01	102.60
3	A1	875	U	O5'-C5'-C4'	-5.59	103.12	111.50
11	AJ	58	VAL	CA-CB-CG1	-5.59	100.90	110.40
25	BB	128	C	O5'-C5'-C4'	-5.59	103.12	111.50
25	BB	663	G	C3'-C2'-O2'	5.59	119.08	110.70
25	BB	2498	C	C5'-C4'-C3'	-5.59	106.82	115.20
25	BB	2518	A	O3'-P-O5'	5.59	112.38	104.00
3	A1	598	U	C5'-C4'-C3'	-5.58	107.62	116.00
25	BB	864	G	O5'-C5'-C4'	5.58	119.88	111.50
25	BB	1005	C	C5'-C4'-C3'	-5.58	107.62	116.00
25	BB	2472	G	O5'-C5'-C4'	5.58	119.88	111.50
30	BG	69	ARG	NE-CZ-NH2	5.58	124.23	119.20
51	B2	32	LYS	CB-CG-CD	5.58	124.15	111.30
3	A1	402	G	O4'-C1'-C2'	-5.58	102.02	107.60
3	A1	544	G	N9-C1'-C2'	-5.58	103.62	112.00
17	AR	75	TYR	CA-C-N	5.58	128.03	120.38
17	AR	75	TYR	C-N-CA	5.58	128.03	120.38
22	AW	9	GLY	O-C-N	-5.58	118.74	123.60
24	BA	5	U	O4'-C1'-N1	5.58	116.87	108.50
25	BB	206	U	C4'-C3'-C2'	-5.58	97.02	102.60
25	BB	653	U	C4'-C3'-O3'	5.58	117.78	109.40
25	BB	1124	G	O4'-C4'-C3'	5.58	109.58	104.00
25	BB	1908	C	C5'-C4'-C3'	-5.58	106.82	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2404	U	C3'-C2'-O2'	5.58	119.08	110.70
30	BG	13	ASN	CA-CB-CG	5.58	118.18	112.60
38	BO	93	ARG	NE-CZ-NH2	-5.58	114.17	119.20
42	BS	63	ARG	NH1-CZ-NH2	-5.58	112.04	119.30
55	B6	118	MET	CA-C-N	5.58	128.02	120.65
55	B6	118	MET	C-N-CA	5.58	128.02	120.65
3	A1	188	C	C5'-C4'-C3'	5.58	123.57	115.20
3	A1	502	A	O3'-P-O5'	5.58	112.37	104.00
17	AR	39	GLN	OE1-CD-NE2	-5.58	117.02	122.60
25	BB	92	U	N1-C1'-C2'	5.58	120.37	112.00
41	BR	18	LYS	CA-C-O	-5.58	112.53	120.51
3	A1	178	C	P-O5'-C5'	5.58	129.27	120.90
3	A1	982	U	C1'-C2'-O2'	-5.58	103.43	111.80
3	A1	1175	G	O4'-C4'-C3'	5.58	109.58	104.00
4	AB	13	VAL	CA-CB-CG1	5.58	119.89	110.40
19	AT	11	HIS	CA-CB-CG	5.58	119.38	113.80
25	BB	1896	G	C2'-C3'-O3'	5.58	122.07	113.70
30	BG	76	VAL	CA-C-N	5.58	128.01	120.65
30	BG	76	VAL	C-N-CA	5.58	128.01	120.65
3	A1	130	A	C4'-C3'-O3'	-5.58	101.03	109.40
3	A1	319	G	N9-C1'-C2'	-5.58	103.63	112.00
3	A1	1344	C	C4'-C3'-O3'	5.58	121.37	113.00
18	AS	32	PHE	CA-C-N	5.58	132.19	122.82
18	AS	32	PHE	C-N-CA	5.58	132.19	122.82
25	BB	411	G	O5'-C5'-C4'	-5.58	103.13	111.50
25	BB	638	G	C5'-C4'-C3'	-5.58	107.63	116.00
25	BB	1812	U	O4'-C1'-N1	5.58	116.87	108.50
25	BB	1982	U	C1'-C2'-O2'	-5.58	103.43	111.80
48	BY	133	THR	CA-C-N	5.58	132.20	121.54
48	BY	133	THR	C-N-CA	5.58	132.20	121.54
3	A1	609	A	O4'-C1'-C2'	-5.58	102.02	107.60
3	A1	678	U	O4'-C1'-C2'	-5.58	102.02	107.60
25	BB	458	G	O4'-C1'-N9	5.58	116.57	108.20
25	BB	755	U	O5'-C5'-C4'	5.58	120.07	111.70
25	BB	1488	C	O5'-C5'-C4'	5.58	119.87	111.50
25	BB	2212	A	O4'-C1'-N9	5.58	116.57	108.20
25	BB	2651	C	C5'-C4'-C3'	-5.58	107.63	116.00
3	A1	39	G	P-O5'-C5'	5.58	129.26	120.90
3	A1	845	A	C5'-C4'-C3'	-5.58	107.64	116.00
3	A1	1097	C	C1'-C2'-O2'	5.58	116.76	108.40
3	A1	1192	C	C2'-C3'-O3'	5.58	122.06	113.70
25	BB	269	C	O3'-P-O5'	-5.58	95.64	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	851	C	O5'-C5'-C4'	-5.58	103.14	111.50
25	BB	1260	A	C1'-O4'-C4'	-5.58	104.32	109.90
25	BB	1351	C	C1'-C2'-O2'	-5.58	100.04	108.40
25	BB	1387	A	C4'-C3'-C2'	-5.58	97.02	102.60
25	BB	1697	G	C1'-C2'-O2'	5.58	116.76	108.40
25	BB	1956	U	C2'-C3'-O3'	5.58	117.86	109.50
25	BB	2611	C	C4'-C3'-O3'	-5.58	101.04	109.40
37	BN	93	VAL	CA-C-N	5.58	130.60	122.85
37	BN	93	VAL	C-N-CA	5.58	130.60	122.85
48	BY	169	ARG	CB-CA-C	5.58	121.51	110.42
1	AA	42	G	C4'-C3'-C2'	-5.57	97.03	102.60
1	AP	73	A	N9-C1'-C2'	5.57	120.36	112.00
3	A1	421	U	C1'-C2'-O2'	5.57	116.76	108.40
3	A1	781	A	O5'-C5'-C4'	-5.57	103.14	111.50
3	A1	1277	C	O4'-C4'-C3'	5.57	109.57	104.00
3	A1	1307	U	C5'-C4'-C3'	-5.57	107.64	116.00
3	A1	1507	A	C1'-O4'-C4'	-5.57	104.33	109.90
24	BA	79	G	O4'-C1'-C2'	-5.57	100.23	105.80
25	BB	435	C	O4'-C1'-N1	5.57	116.86	108.50
25	BB	466	A	O4'-C1'-N9	5.57	116.86	108.50
25	BB	2808	G	C3'-C2'-O2'	5.57	119.06	110.70
25	BB	2828	G	O5'-C5'-C4'	5.57	119.86	111.50
26	BC	31	TYR	N-CA-C	5.57	118.16	109.52
32	BI	6	GLN	OE1-CD-NE2	-5.57	117.03	122.60
38	BO	6	ARG	NE-CZ-NH1	5.57	127.07	121.50
25	BB	53	A	C2'-C3'-O3'	-5.57	105.34	113.70
25	BB	305	C	C4'-C3'-C2'	-5.57	97.03	102.60
25	BB	660	C	C5'-C4'-C3'	5.57	124.36	116.00
25	BB	1378	A	O5'-C5'-C4'	5.57	120.06	111.70
41	BR	28	LEU	CA-C-N	5.57	132.18	121.54
41	BR	28	LEU	C-N-CA	5.57	132.18	121.54
48	BY	109	VAL	CA-C-O	5.57	127.61	121.70
1	AA	39	U	O5'-C5'-C4'	5.57	119.86	111.50
9	AH	48	ASP	N-CA-C	5.57	122.67	110.80
14	AN	51	ASN	CB-CA-C	5.57	120.15	110.68
25	BB	242	G	O5'-C5'-C4'	5.57	120.06	111.70
25	BB	517	C	C4'-C3'-C2'	-5.57	97.03	102.60
25	BB	943	A	C4'-C3'-O3'	5.57	121.36	113.00
25	BB	1280	G	C4'-C3'-C2'	-5.57	97.03	102.60
25	BB	1342	A	O4'-C1'-C2'	-5.57	100.23	105.80
25	BB	2218	G	C3'-C2'-C1'	5.57	106.87	101.30
25	BB	2803	G	O4'-C1'-C2'	5.57	113.17	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BZ	144	ILE	CA-CB-CG2	-5.57	101.03	110.50
3	A1	1274	A	O4'-C1'-C2'	-5.57	102.03	107.60
11	AJ	61	ARG	CA-C-N	5.57	132.18	121.54
11	AJ	61	ARG	C-N-CA	5.57	132.18	121.54
25	BB	2573	C	O3'-P-O5'	-5.57	95.65	104.00
3	A1	24	U	C1'-O4'-C4'	-5.57	104.33	109.90
3	A1	137	U	O4'-C4'-C3'	5.57	109.57	104.00
3	A1	409	U	C1'-O4'-C4'	5.57	115.47	109.90
3	A1	1210	C	O4'-C1'-C2'	-5.57	102.03	107.60
3	A1	1304	G	O4'-C4'-C3'	5.57	109.57	104.00
3	A1	1470	U	O4'-C4'-C3'	5.57	111.67	106.10
3	A1	1501	C	C4'-C3'-C2'	-5.57	97.03	102.60
7	AF	49	GLU	CA-C-N	5.57	132.32	121.41
7	AF	49	GLU	C-N-CA	5.57	132.32	121.41
13	AL	48	ILE	O-C-N	-5.57	117.63	123.03
24	BA	98	G	C2'-C3'-O3'	5.57	122.05	113.70
25	BB	113	U	C3'-C2'-C1'	5.57	107.07	101.50
25	BB	1309	G	C5'-C4'-C3'	-5.57	106.85	115.20
25	BB	2534	A	C3'-C2'-C1'	5.57	106.87	101.30
55	B6	68	LYS	CA-C-N	5.57	128.01	120.38
55	B6	68	LYS	C-N-CA	5.57	128.01	120.38
1	AP	48	C	N1-C1'-C2'	-5.57	105.65	114.00
3	A1	352	C	N1-C1'-C2'	5.57	120.35	112.00
16	AQ	16	ARG	N-CA-CB	-5.57	100.19	110.32
25	BB	137	U	O4'-C4'-C3'	5.57	109.57	104.00
25	BB	461	C	C5'-C4'-O4'	5.57	118.15	109.80
25	BB	1037	G	C1'-O4'-C4'	-5.57	104.33	109.90
25	BB	2374	C	C4'-C3'-C2'	-5.57	97.03	102.60
38	BO	52	ASN	OD1-CG-ND2	-5.57	117.03	122.60
49	BZ	119	LEU	N-CA-C	5.57	117.79	111.11
55	B6	55	ILE	CA-C-N	5.57	128.88	120.75
55	B6	55	ILE	C-N-CA	5.57	128.88	120.75
3	A1	823	C	C4'-C3'-C2'	-5.56	97.04	102.60
3	A1	1151	A	C4'-C3'-O3'	5.56	117.75	109.40
25	BB	139	U	N1-C1'-C2'	5.56	122.34	114.00
25	BB	672	C	P-O3'-C3'	5.56	128.55	120.20
25	BB	2682	A	C5'-C4'-O4'	5.56	117.45	109.10
35	BL	78	GLU	CB-CG-CD	5.56	122.06	112.60
1	AA	29	A	O3'-P-O5'	5.56	112.34	104.00
3	A1	318	G	N9-C1'-C2'	5.56	120.34	112.00
3	A1	1354	U	C4'-C3'-C2'	-5.56	97.04	102.60
25	BB	1208	C	C4'-C3'-C2'	-5.56	97.04	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2304	G	P-O3'-C3'	5.56	128.54	120.20
31	BH	35	ILE	O-C-N	-5.56	115.62	122.57
31	BH	94	ARG	NH1-CZ-NH2	-5.56	112.07	119.30
35	BL	77	ASP	CA-C-N	5.56	131.91	122.12
35	BL	77	ASP	C-N-CA	5.56	131.91	122.12
41	BR	37	ARG	N-CA-C	5.56	115.63	108.34
1	AP	2	C	C1'-C2'-O2'	-5.56	100.06	108.40
11	AJ	17	GLU	N-CA-C	5.56	117.14	111.14
25	BB	1308	A	O4'-C1'-C2'	-5.56	102.04	107.60
25	BB	2193	G	C4'-C3'-C2'	5.56	108.16	102.60
39	BP	54	ARG	CA-C-O	5.56	126.16	119.43
3	A1	169	C	C1'-C2'-O2'	5.56	116.74	108.40
3	A1	198	G	C5'-C4'-C3'	-5.56	107.66	116.00
3	A1	608	A	O5'-C5'-C4'	-5.56	103.16	111.50
9	AH	82	GLU	N-CA-C	5.56	119.16	112.38
17	AR	59	LYS	CA-C-N	5.56	128.08	120.46
17	AR	59	LYS	C-N-CA	5.56	128.08	120.46
25	BB	965	C	N1-C1'-C2'	5.56	122.34	114.00
25	BB	1035	U	C3'-C2'-O2'	5.56	122.94	114.60
25	BB	1094	U	C3'-C2'-O2'	5.56	119.04	110.70
25	BB	1254	A	O4'-C4'-C3'	5.56	109.56	104.00
25	BB	1404	C	N1-C1'-C2'	5.56	122.34	114.00
25	BB	1413	A	C5'-C4'-C3'	-5.56	107.66	116.00
25	BB	1618	A	C3'-C2'-C1'	5.56	107.06	101.50
25	BB	1677	A	C3'-C2'-O2'	5.56	119.04	110.70
25	BB	1802	A	O4'-C1'-C2'	-5.56	102.04	107.60
25	BB	1911	U	C4'-C3'-C2'	-5.56	97.04	102.60
25	BB	2695	U	C3'-C2'-O2'	5.56	119.04	110.70
30	BG	2	ARG	CD-NE-CZ	5.56	132.18	124.40
30	BG	122	ALA	N-CA-CB	-5.56	101.42	110.42
33	BJ	71	ASN	CA-CB-CG	5.56	118.16	112.60
54	B5	93	ASN	CA-C-N	5.56	130.09	120.58
54	B5	93	ASN	C-N-CA	5.56	130.09	120.58
1	AE	29	A	P-O3'-C3'	5.56	128.54	120.20
2	AM	3	U	O3'-P-O5'	5.56	112.34	104.00
3	A1	287	U	C5'-C4'-O4'	5.56	118.14	109.80
3	A1	770	C	O4'-C4'-C3'	5.56	109.56	104.00
3	A1	925	G	O4'-C4'-C3'	5.56	109.56	104.00
3	A1	1101	A	N9-C1'-C2'	5.56	120.34	112.00
19	AT	77	THR	O-C-N	-5.56	114.79	122.46
25	BB	275	C	O4'-C1'-N1	5.56	116.84	108.50
25	BB	519	U	C4'-C3'-C2'	-5.56	97.04	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	911	A	O4'-C1'-N9	5.56	116.83	108.50
25	BB	1046	A	C5'-C4'-O4'	-5.56	100.76	109.10
25	BB	1656	C	O4'-C4'-C3'	5.56	111.66	106.10
25	BB	2169	A	O3'-P-O5'	5.56	112.33	104.00
27	BD	65	THR	N-CA-C	5.56	118.51	109.06
32	BI	100	ARG	NE-CZ-NH2	5.56	124.20	119.20
49	BZ	150	ARG	NE-CZ-NH1	5.56	127.06	121.50
14	AN	9	ARG	N-CA-C	5.56	119.16	112.38
18	AS	14	LEU	CB-CA-C	5.56	119.55	109.83
25	BB	2817	U	C1'-C2'-O2'	5.56	116.73	108.40
34	BK	4	VAL	CA-C-N	5.56	129.37	121.42
34	BK	4	VAL	C-N-CA	5.56	129.37	121.42
55	B6	112	GLY	CA-C-N	5.56	126.78	119.84
55	B6	112	GLY	C-N-CA	5.56	126.78	119.84
9	AH	61	GLN	OE1-CD-NE2	-5.55	117.05	122.60
9	AH	87	ARG	NH1-CZ-NH2	-5.55	112.08	119.30
18	AS	11	GLN	OE1-CD-NE2	-5.55	117.05	122.60
25	BB	1134	A	C4'-C3'-O3'	-5.55	101.07	109.40
25	BB	1307	A	O4'-C4'-C3'	5.55	109.56	104.00
25	BB	1933	G	O3'-P-O5'	5.55	112.33	104.00
25	BB	2242	G	P-O5'-C5'	5.55	129.23	120.90
25	BB	2327	A	C3'-C2'-C1'	5.55	106.85	101.30
34	BK	4	VAL	O-C-N	-5.55	117.09	122.09
41	BR	3	THR	CA-C-O	5.55	125.29	119.51
3	A1	828	U	O4'-C1'-N1	5.55	116.83	108.50
3	A1	1519	A	P-O5'-C5'	5.55	129.23	120.90
25	BB	940	G	C1'-C2'-O2'	5.55	116.73	108.40
25	BB	1660	G	O3'-P-O5'	5.55	112.33	104.00
25	BB	2064	C	O4'-C1'-N1	5.55	116.53	108.20
28	BE	89	VAL	CA-C-N	5.55	131.97	121.97
28	BE	89	VAL	C-N-CA	5.55	131.97	121.97
33	BJ	79	ILE	N-CA-C	5.55	117.99	111.05
54	B5	111	THR	N-CA-C	5.55	118.09	111.71
1	AP	71	G	C4'-C3'-C2'	-5.55	97.05	102.60
2	AM	9	U	O4'-C1'-C2'	5.55	113.15	107.60
3	A1	1502	A	N9-C1'-C2'	-5.55	105.67	114.00
22	AW	26	LYS	CA-C-N	5.55	130.65	123.10
22	AW	26	LYS	C-N-CA	5.55	130.65	123.10
22	AW	80	HIS	CB-CG-CD2	-5.55	123.98	131.20
25	BB	61	C	C1'-O4'-C4'	-5.55	104.15	109.70
25	BB	194	G	O3'-P-O5'	5.55	112.33	104.00
25	BB	933	A	C3'-C2'-O2'	5.55	119.03	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1199	U	O5'-C5'-C4'	5.55	120.03	111.70
28	BE	104	GLN	OE1-CD-NE2	-5.55	117.05	122.60
38	BO	53	GLN	CA-C-N	5.55	126.78	119.84
38	BO	53	GLN	C-N-CA	5.55	126.78	119.84
50	B1	61	ARG	CD-NE-CZ	5.55	132.17	124.40
1	AP	35	A	O5'-C5'-C4'	5.55	119.82	111.50
1	AP	58	A	C3'-C2'-O2'	5.55	122.92	114.60
3	A1	667	G	O4'-C1'-C2'	-5.55	102.05	107.60
3	A1	811	C	C2'-C3'-O3'	5.55	117.82	109.50
3	A1	866	C	O4'-C1'-C2'	-5.55	102.05	107.60
11	AJ	24	ILE	CA-C-N	5.55	129.44	121.50
11	AJ	24	ILE	C-N-CA	5.55	129.44	121.50
13	AL	11	ASP	CA-C-N	5.55	127.72	120.28
13	AL	11	ASP	C-N-CA	5.55	127.72	120.28
25	BB	377	G	C2'-C3'-O3'	5.55	122.03	113.70
25	BB	1143	A	O4'-C1'-N9	5.55	116.53	108.20
25	BB	2456	C	O4'-C1'-N1	5.55	116.83	108.50
26	BC	68	LYS	CA-C-N	5.55	129.80	122.42
26	BC	68	LYS	C-N-CA	5.55	129.80	122.42
27	BD	105	ARG	CD-NE-CZ	5.55	132.17	124.40
41	BR	51	SER	N-CA-C	5.55	122.62	110.80
3	A1	452	A	O3'-P-O5'	5.55	112.32	104.00
3	A1	572	A	N9-C1'-C2'	-5.55	103.68	112.00
25	BB	1935	G	P-O3'-C3'	5.55	128.52	120.20
46	BW	15	LYS	CA-C-N	5.55	132.14	121.54
46	BW	15	LYS	C-N-CA	5.55	132.14	121.54
50	B1	79	ARG	NH1-CZ-NH2	-5.55	112.09	119.30
1	AE	18	G	C2'-C3'-O3'	5.55	117.82	109.50
3	A1	26	A	C3'-C2'-C1'	5.55	106.85	101.30
3	A1	188	C	O4'-C1'-C2'	-5.55	100.25	105.80
3	A1	230	G	C2'-C3'-O3'	5.55	122.02	113.70
3	A1	742	G	C3'-C2'-C1'	5.55	106.85	101.30
5	AC	43	TRP	N-CA-C	5.55	117.61	109.24
25	BB	97	C	C2'-C3'-O3'	-5.55	105.38	113.70
25	BB	891	G	C3'-C2'-O2'	5.55	119.02	110.70
25	BB	1706	C	C4'-C3'-O3'	5.55	117.72	109.40
25	BB	2632	A	C4'-C3'-C2'	-5.55	97.05	102.60
43	BT	5	ASN	N-CA-CB	-5.55	102.80	111.56
3	A1	765	G	C3'-C2'-O2'	5.54	119.02	110.70
9	AH	64	LYS	CA-C-N	5.54	129.14	120.82
9	AH	64	LYS	C-N-CA	5.54	129.14	120.82
25	BB	632	A	C5'-C4'-C3'	5.54	124.32	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2675	A	C5'-C4'-C3'	-5.54	106.88	115.20
1	AA	74	C	C5'-C4'-O4'	5.54	118.11	109.80
3	A1	712	A	O4'-C1'-C2'	5.54	113.14	107.60
25	BB	866	A	C4'-C3'-C2'	-5.54	97.06	102.60
25	BB	1499	C	C1'-O4'-C4'	-5.54	104.36	109.90
25	BB	2104	C	O4'-C1'-N1	5.54	116.82	108.50
25	BB	2150	C	C1'-O4'-C4'	-5.54	104.36	109.90
25	BB	2610	C	C1'-O4'-C4'	-5.54	104.16	109.70
44	BU	6	GLU	CB-CG-CD	-5.54	103.18	112.60
3	A1	202	G	C5'-C4'-C3'	-5.54	107.69	116.00
3	A1	941	G	C4'-C3'-O3'	5.54	121.31	113.00
9	AH	44	GLU	CA-C-N	5.54	132.12	121.54
9	AH	44	GLU	C-N-CA	5.54	132.12	121.54
25	BB	970	U	P-O3'-C3'	5.54	128.51	120.20
25	BB	1279	G	N9-C1'-C2'	-5.54	103.69	112.00
25	BB	1427	A	O4'-C1'-C2'	5.54	111.34	105.80
25	BB	2049	G	C2'-C3'-O3'	-5.54	105.39	113.70
25	BB	2319	G	C5'-C4'-O4'	5.54	118.11	109.80
32	BI	38	ARG	CA-C-N	5.54	130.27	121.18
32	BI	38	ARG	C-N-CA	5.54	130.27	121.18
45	BV	34	ARG	CD-NE-CZ	5.54	132.16	124.40
54	B5	20	SER	CA-C-N	5.54	126.09	120.38
54	B5	20	SER	C-N-CA	5.54	126.09	120.38
54	B5	134	SER	CA-C-O	-5.54	112.58	120.51
3	A1	365	U	C1'-O4'-C4'	-5.54	104.36	109.90
3	A1	715	A	C3'-C2'-O2'	5.54	122.91	114.60
3	A1	1170	A	C4'-C3'-O3'	5.54	121.31	113.00
13	AL	16	LYS	CA-C-N	5.54	130.63	121.99
13	AL	16	LYS	C-N-CA	5.54	130.63	121.99
20	AU	39	GLU	N-CA-C	5.54	117.40	111.36
20	AU	147	ASN	OD1-CG-ND2	-5.54	117.06	122.60
25	BB	810	U	C5'-C4'-O4'	5.54	118.11	109.80
25	BB	956	G	O4'-C1'-C2'	5.54	113.14	107.60
37	BN	3	VAL	CA-CB-CG2	5.54	119.82	110.40
3	A1	243	A	C3'-C2'-C1'	-5.54	95.96	101.50
3	A1	1115	U	O4'-C4'-C3'	5.54	109.54	104.00
4	AB	181	PRO	N-CA-C	5.54	119.56	111.03
8	AG	91	GLU	CA-C-O	5.54	126.19	119.38
15	AO	68	HIS	CA-C-N	5.54	131.79	122.87
15	AO	68	HIS	C-N-CA	5.54	131.79	122.87
17	AR	128	VAL	CA-CB-CG1	5.54	119.81	110.40
25	BB	84	A	O4'-C4'-C3'	5.54	111.64	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	596	U	O4'-C1'-N1	5.54	116.81	108.50
25	BB	2338	C	O4'-C1'-N1	5.54	116.51	108.20
25	BB	2369	A	P-O5'-C5'	5.54	129.21	120.90
25	BB	2520	C	N3-C2-O2	-5.54	105.28	121.90
34	BK	58	VAL	CA-C-N	5.54	131.94	121.97
34	BK	58	VAL	C-N-CA	5.54	131.94	121.97
36	BM	35	ALA	N-CA-C	5.54	118.53	110.17
53	B4	131	SER	N-CA-C	5.54	118.20	108.56
3	A1	1416	G	O3'-P-O5'	5.54	112.31	104.00
26	BC	43	ASP	CA-C-N	5.54	129.12	120.82
26	BC	43	ASP	C-N-CA	5.54	129.12	120.82
30	BG	20	MET	O-C-N	-5.54	115.23	122.59
31	BH	34	HIS	CB-CG-CD2	-5.54	124.00	131.20
1	AA	25	C	C4'-C3'-O3'	5.54	121.30	113.00
3	A1	411	A	O5'-C5'-C4'	-5.54	103.39	111.70
3	A1	830	G	C4'-C3'-C2'	-5.54	97.06	102.60
4	AB	13	VAL	CA-CB-CG2	-5.54	100.99	110.40
6	AD	110	LYS	N-CA-C	5.54	119.53	112.34
23	AX	31	ARG	N-CA-C	5.54	119.54	112.34
25	BB	28	A	N1-C6-N6	-5.54	101.99	118.60
25	BB	1080	A	C3'-C2'-O2'	5.54	119.00	110.70
25	BB	1215	G	C5'-C4'-C3'	-5.54	107.70	116.00
25	BB	1562	U	C2'-C3'-O3'	-5.54	105.40	113.70
25	BB	1890	A	O4'-C1'-C2'	-5.54	102.06	107.60
25	BB	2350	C	O4'-C4'-C3'	5.54	109.53	104.00
25	BB	2466	C	C5'-C4'-O4'	5.54	118.10	109.80
25	BB	2673	G	O3'-P-O5'	-5.54	95.70	104.00
34	BK	23	GLU	OE1-CD-OE2	-5.54	109.62	122.90
3	A1	122	G	C3'-C2'-C1'	5.53	106.83	101.30
3	A1	267	C	C3'-C2'-C1'	5.53	106.83	101.30
3	A1	539	A	C4'-C3'-C2'	-5.53	97.07	102.60
3	A1	598	U	C1'-C2'-O2'	-5.53	100.10	108.40
3	A1	689	C	C5'-C4'-C3'	-5.53	107.70	116.00
3	A1	1374	A	O4'-C1'-N9	5.53	116.80	108.50
3	A1	1534	A	O4'-C4'-C3'	5.53	111.63	106.10
10	AI	12	LYS	CA-C-N	5.53	128.72	120.31
10	AI	12	LYS	C-N-CA	5.53	128.72	120.31
25	BB	164	C	P-O5'-C5'	5.53	129.20	120.90
25	BB	354	A	C1'-O4'-C4'	-5.53	104.37	109.90
25	BB	363	G	O3'-P-O5'	5.53	112.30	104.00
25	BB	381	G	C4'-C3'-C2'	-5.53	97.07	102.60
25	BB	1242	U	C1'-C2'-O2'	5.53	120.10	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1295	C	O4'-C4'-C3'	5.53	109.53	104.00
25	BB	1784	A	C2'-C3'-O3'	5.53	117.80	109.50
25	BB	1889	A	C1'-O4'-C4'	5.53	115.23	109.70
25	BB	2235	G	O4'-C4'-C3'	-5.53	100.57	106.10
27	BD	95	ILE	CA-C-N	5.53	128.60	121.13
27	BD	95	ILE	C-N-CA	5.53	128.60	121.13
3	A1	125	U	C1'-O4'-C4'	-5.53	104.17	109.70
3	A1	517	G	C4'-C3'-O3'	-5.53	101.10	109.40
3	A1	1009	U	C3'-C2'-C1'	5.53	106.83	101.30
4	AB	14	HIS	CA-C-O	-5.53	115.72	122.41
25	BB	435	C	C3'-C2'-O2'	5.53	119.00	110.70
25	BB	838	C	C5'-C4'-C3'	-5.53	107.70	116.00
49	BZ	148	ILE	N-CA-C	-5.53	105.33	110.53
3	A1	8	A	O4'-C1'-N9	5.53	116.50	108.20
3	A1	382	A	C3'-C2'-O2'	5.53	119.00	110.70
3	A1	786	G	O4'-C1'-C2'	-5.53	102.07	107.60
3	A1	1012	A	O4'-C4'-C3'	5.53	109.53	104.00
3	A1	1353	G	C3'-C2'-C1'	5.53	106.83	101.30
25	BB	221	A	C1'-O4'-C4'	-5.53	104.17	109.70
25	BB	392	U	C4'-C3'-C2'	5.53	108.13	102.60
25	BB	1074	G	C4'-C3'-C2'	-5.53	97.07	102.60
25	BB	1185	G	C1'-C2'-O2'	5.53	116.69	108.40
25	BB	2593	U	C3'-C2'-O2'	5.53	119.00	110.70
55	B6	136	GLN	CA-CB-CG	-5.53	103.04	114.10
3	A1	919	A	O4'-C4'-C3'	5.53	109.53	104.00
25	BB	499	U	C3'-C2'-C1'	5.53	106.83	101.30
25	BB	883	G	O4'-C4'-C3'	5.53	109.53	104.00
25	BB	1537	G	C4'-C3'-C2'	-5.53	97.07	102.60
25	BB	1620	G	O4'-C1'-C2'	-5.53	102.07	107.60
25	BB	2221	G	C5'-C4'-O4'	5.53	118.09	109.80
3	A1	996	A	C3'-C2'-O2'	5.53	118.99	110.70
8	AG	2	LYS	CA-C-N	5.53	132.63	122.79
8	AG	2	LYS	C-N-CA	5.53	132.63	122.79
20	AU	29	LEU	CA-C-N	5.53	128.14	120.29
20	AU	29	LEU	C-N-CA	5.53	128.14	120.29
24	BA	111	U	O4'-C4'-C3'	5.53	109.53	104.00
25	BB	419	U	C1'-C2'-O2'	-5.53	100.11	108.40
25	BB	915	C	P-O3'-C3'	5.53	128.49	120.20
25	BB	1750	G	C1'-O4'-C4'	-5.53	104.37	109.90
25	BB	2061	G	O4'-C1'-N9	5.53	116.49	108.20
37	BN	99	GLU	CA-CB-CG	-5.53	103.05	114.10
54	B5	97	VAL	N-CA-C	5.53	118.85	111.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	129	A	O4'-C4'-C3'	5.53	111.62	106.10
3	A1	162	A	O5'-C5'-C4'	-5.53	103.21	111.50
3	A1	741	G	C5'-C4'-C3'	-5.53	107.71	116.00
19	AT	55	HIS	CA-C-N	5.53	131.31	121.75
19	AT	55	HIS	C-N-CA	5.53	131.31	121.75
25	BB	516	C	O4'-C4'-C3'	5.53	109.53	104.00
25	BB	604	G	C1'-O4'-C4'	-5.53	104.38	109.90
25	BB	1146	C	O4'-C1'-C2'	-5.53	102.08	107.60
25	BB	1912	A	P-O5'-C5'	5.53	129.19	120.90
25	BB	2138	G	N9-C1'-C2'	5.53	120.29	112.00
25	BB	2624	G	C1'-O4'-C4'	-5.53	104.38	109.90
35	BL	4	ILE	CA-CB-CG1	5.53	119.79	110.40
40	BQ	45	GLN	CA-C-N	5.53	131.92	121.97
40	BQ	45	GLN	C-N-CA	5.53	131.92	121.97
50	B1	121	VAL	CA-CB-CG1	5.53	119.79	110.40
51	B2	62	GLN	OE1-CD-NE2	-5.53	117.07	122.60
1	AA	37	G	C3'-C2'-O2'	5.52	118.99	110.70
1	AP	3	G	O3'-P-O5'	5.52	112.29	104.00
7	AF	75	SER	N-CA-C	5.52	122.56	110.80
25	BB	1190	G	C3'-C2'-C1'	-5.52	95.78	101.30
1	AE	73	A	O3'-P-O5'	-5.52	95.72	104.00
3	A1	145	G	P-O3'-C3'	-5.52	111.92	120.20
3	A1	331	G	O5'-C5'-C4'	-5.52	103.22	111.50
3	A1	384	G	C5'-C4'-O4'	5.52	118.08	109.80
3	A1	1112	C	O4'-C1'-N1	5.52	116.78	108.50
3	A1	1481	U	C4'-C3'-O3'	5.52	121.28	113.00
10	AI	40	ASN	CA-C-N	5.52	125.35	119.28
10	AI	40	ASN	C-N-CA	5.52	125.35	119.28
24	BA	68	C	C5'-C4'-O4'	5.52	118.08	109.80
25	BB	312	G	C5'-C4'-C3'	-5.52	107.72	116.00
25	BB	603	A	C1'-O4'-C4'	-5.52	104.18	109.70
25	BB	1741	C	C5'-C4'-C3'	-5.52	107.72	116.00
25	BB	1882	U	C3'-C2'-C1'	-5.52	95.78	101.30
27	BD	16	ALA	N-CA-CB	-5.52	101.92	110.04
37	BN	4	LYS	N-CA-C	5.52	122.56	110.80
43	BT	16	ARG	N-CA-C	5.52	119.12	112.38
3	A1	915	A	C2'-C3'-O3'	5.52	117.78	109.50
3	A1	1532	U	C2'-C3'-O3'	5.52	121.98	113.70
22	AW	57	VAL	CA-C-O	-5.52	115.31	121.05
25	BB	2532	G	O5'-C5'-C4'	5.52	119.78	111.50
36	BM	5	GLU	N-CA-C	5.52	118.69	110.52
1	AP	14	A	C5'-C4'-O4'	5.52	118.08	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	45	G	C3'-C2'-O2'	-5.52	102.42	110.70
3	A1	146	G	O4'-C4'-C3'	5.52	109.52	104.00
6	AD	114	SER	CA-C-N	5.52	127.94	120.38
6	AD	114	SER	C-N-CA	5.52	127.94	120.38
17	AR	141	VAL	N-CA-C	5.52	117.12	109.45
25	BB	36	G	O4'-C4'-C3'	5.52	109.52	104.00
25	BB	174	U	O4'-C1'-C2'	5.52	113.12	107.60
25	BB	442	G	C5'-C4'-C3'	-5.52	106.92	115.20
25	BB	1209	U	C4'-C3'-O3'	5.52	121.28	113.00
25	BB	2754	U	C4'-C3'-O3'	-5.52	104.72	113.00
37	BN	265	PHE	N-CA-C	5.52	117.30	111.28
45	BV	5	PHE	O-C-N	5.52	130.08	122.46
50	B1	134	LEU	CA-C-N	5.52	127.62	120.44
50	B1	134	LEU	C-N-CA	5.52	127.62	120.44
3	A1	38	G	N9-C1'-C2'	5.52	122.28	114.00
3	A1	635	A	O4'-C4'-C3'	5.52	109.52	104.00
3	A1	1284	C	O4'-C1'-C2'	5.52	111.32	105.80
25	BB	5	A	O4'-C4'-C3'	5.52	109.52	104.00
25	BB	793	A	O4'-C1'-N9	5.52	116.78	108.50
25	BB	1567	G	C4'-C3'-C2'	5.52	108.12	102.60
25	BB	1610	A	O4'-C4'-C3'	-5.52	98.48	104.00
49	BZ	177	GLU	N-CA-C	5.52	117.10	111.14
3	A1	96	U	N1-C1'-C2'	5.52	120.27	112.00
9	AH	28	VAL	CA-C-O	-5.52	115.21	120.95
23	AX	57	VAL	N-CA-C	5.52	120.81	109.34
34	BK	54	VAL	CA-CB-CG1	5.52	119.78	110.40
3	A1	999	C	C4'-C3'-C2'	-5.51	97.08	102.60
3	A1	1105	A	C5'-C4'-C3'	-5.51	107.73	116.00
3	A1	1143	G	C3'-C2'-O2'	5.51	118.97	110.70
8	AG	12	ARG	NE-CZ-NH2	-5.51	114.24	119.20
9	AH	83	ARG	NE-CZ-NH2	-5.51	114.24	119.20
10	AI	61	VAL	N-CA-CB	5.51	117.36	110.47
17	AR	163	GLN	CA-C-N	5.51	133.25	121.45
17	AR	163	GLN	C-N-CA	5.51	133.25	121.45
25	BB	584	C	O3'-P-O5'	-5.51	95.73	104.00
25	BB	853	C	C1'-C2'-O2'	-5.51	100.13	108.40
25	BB	1255	U	O4'-C4'-C3'	-5.51	100.58	106.10
25	BB	1842	G	N9-C1'-C2'	5.51	120.27	112.00
25	BB	2167	U	C4'-C3'-O3'	-5.51	104.73	113.00
25	BB	2575	C	O3'-P-O5'	-5.51	95.73	104.00
30	BG	124	ALA	CA-C-N	5.51	127.93	120.38
30	BG	124	ALA	C-N-CA	5.51	127.93	120.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1368	A	C4'-C3'-C2'	-5.51	97.09	102.60
25	BB	266	G	N9-C1'-C2'	-5.51	103.73	112.00
25	BB	946	C	O4'-C1'-C2'	-5.51	100.29	105.80
25	BB	1251	C	C4'-C3'-C2'	-5.51	97.09	102.60
25	BB	1571	A	N9-C1'-C2'	5.51	120.27	112.00
25	BB	1996	C	C3'-C2'-C1'	5.51	106.81	101.30
25	BB	2040	G	C5'-C4'-C3'	-5.51	107.73	116.00
25	BB	2089	C	C3'-C2'-C1'	5.51	106.81	101.30
25	BB	2903	U	C5'-C4'-C3'	5.51	123.47	115.20
1	AP	70	C	O5'-C5'-C4'	-5.51	103.23	111.50
3	A1	52	C	C4'-C3'-C2'	-5.51	97.09	102.60
3	A1	248	C	O4'-C4'-C3'	5.51	109.51	104.00
3	A1	280	C	C2'-C3'-O3'	5.51	117.77	109.50
3	A1	482	A	O4'-C1'-C2'	-5.51	102.09	107.60
3	A1	823	C	C1'-C2'-O2'	-5.51	100.13	108.40
3	A1	968	A	C5'-C4'-O4'	5.51	117.37	109.10
25	BB	1961	C	O4'-C1'-C2'	-5.51	102.09	107.60
30	BG	71	ARG	N-CA-CB	-5.51	101.81	110.30
49	BZ	75	TYR	N-CA-C	-5.51	104.91	111.03
50	B1	98	LYS	N-CA-C	5.51	120.46	111.37
3	A1	490	C	C4'-C3'-C2'	-5.51	97.09	102.60
25	BB	659	G	C3'-C2'-O2'	5.51	118.97	110.70
25	BB	804	A	C4'-C3'-O3'	-5.51	101.14	109.40
25	BB	934	U	C4'-C3'-C2'	-5.51	97.09	102.60
25	BB	1207	C	O4'-C1'-N1	5.51	116.47	108.20
25	BB	1717	A	C2'-C3'-O3'	5.51	121.97	113.70
25	BB	2015	A	C3'-C2'-O2'	5.51	118.96	110.70
25	BB	2538	C	O4'-C1'-C2'	-5.51	100.29	105.80
33	BJ	13	HIS	CB-CG-CD2	-5.51	124.04	131.20
48	BY	188	LEU	CB-CA-C	5.51	119.59	110.78
54	B5	128	ILE	CA-C-N	5.51	127.98	120.54
54	B5	128	ILE	C-N-CA	5.51	127.98	120.54
3	A1	1297	G	O4'-C1'-N9	5.51	116.46	108.20
25	BB	443	A	C4'-C3'-O3'	-5.51	104.74	113.00
42	BS	65	ASN	OD1-CG-ND2	-5.51	117.09	122.60
51	B2	166	ARG	CA-C-O	-5.51	113.08	119.14
1	AP	43	G	O4'-C1'-N9	5.51	116.76	108.50
3	A1	676	A	C4'-C3'-C2'	-5.51	97.09	102.60
3	A1	789	U	O4'-C1'-C2'	5.51	113.11	107.60
3	A1	1266	G	O4'-C1'-C2'	5.51	113.11	107.60
12	AK	70	THR	CA-C-N	5.51	132.06	121.54
12	AK	70	THR	C-N-CA	5.51	132.06	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AV	34	ALA	CB-CA-C	5.51	119.44	110.96
25	BB	594	U	C1'-O4'-C4'	-5.51	104.39	109.90
25	BB	835	C	C2'-C3'-O3'	5.51	121.96	113.70
25	BB	1865	U	O4'-C4'-C3'	5.51	109.51	104.00
25	BB	2515	C	N3-C2-O2	-5.51	105.38	121.90
35	BL	85	ILE	CA-C-N	5.51	128.32	122.26
35	BL	85	ILE	C-N-CA	5.51	128.32	122.26
1	AP	13	C	O4'-C4'-C3'	-5.50	98.50	104.00
8	AG	10	VAL	O-C-N	-5.50	115.69	122.57
20	AU	34	LYS	N-CA-C	5.50	122.53	110.80
25	BB	372	G	O4'-C1'-N9	-5.50	99.94	108.20
3	A1	741	G	C3'-C2'-C1'	5.50	106.80	101.30
3	A1	834	U	C5'-C4'-C3'	-5.50	107.75	116.00
3	A1	1066	C	O4'-C4'-C3'	5.50	111.60	106.10
3	A1	1181	G	C5'-C4'-C3'	-5.50	107.74	116.00
7	AF	80	MET	N-CA-CB	-5.50	101.82	110.46
13	AL	57	VAL	O-C-N	-5.50	116.78	121.57
25	BB	71	A	O4'-C4'-C3'	5.50	111.60	106.10
25	BB	194	G	O4'-C1'-N9	5.50	116.75	108.50
25	BB	1542	U	O4'-C1'-N1	5.50	116.75	108.50
25	BB	1970	A	C3'-C2'-C1'	-5.50	96.00	101.50
25	BB	2513	A	O5'-C5'-C4'	5.50	119.96	111.70
25	BB	2888	C	C4'-C3'-C2'	-5.50	97.10	102.60
28	BE	5	THR	CA-C-N	5.50	131.89	123.47
28	BE	5	THR	C-N-CA	5.50	131.89	123.47
38	BO	97	SER	CB-CA-C	5.50	121.37	110.42
1	AP	22	G	C4'-C3'-C2'	-5.50	97.10	102.60
3	A1	1337	G	O4'-C1'-N9	5.50	116.75	108.50
15	AO	28	PHE	N-CA-C	5.50	118.11	111.40
15	AO	88	LYS	N-CA-C	-5.50	105.61	112.93
25	BB	701	G	O4'-C4'-C3'	5.50	109.50	104.00
25	BB	1257	C	P-O5'-C5'	-5.50	112.65	120.90
25	BB	1611	C	N1-C1'-C2'	-5.50	103.75	112.00
25	BB	1691	C	C1'-O4'-C4'	-5.50	104.40	109.90
25	BB	2092	U	C5'-C4'-O4'	5.50	118.05	109.80
27	BD	92	GLU	N-CA-C	5.50	122.52	110.80
32	BI	106	ALA	N-CA-CB	-5.50	103.58	110.90
3	A1	1389	C	O4'-C4'-C3'	5.50	109.50	104.00
7	AF	56	ARG	N-CA-C	5.50	117.98	111.33
25	BB	3	U	C5'-C4'-C3'	-5.50	106.95	115.20
25	BB	14	A	C5'-C4'-C3'	-5.50	107.75	116.00
25	BB	2739	U	O4'-C1'-N1	5.50	116.75	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AE	2	C	C3'-C2'-C1'	5.50	106.80	101.30
3	A1	1064	G	C1'-O4'-C4'	-5.50	104.20	109.70
3	A1	1304	G	C2'-C3'-O3'	-5.50	105.45	113.70
6	AD	16	ALA	N-CA-C	5.50	118.03	111.71
39	BP	3	LYS	CA-C-N	5.50	132.04	121.54
39	BP	3	LYS	C-N-CA	5.50	132.04	121.54
41	BR	34	THR	CA-C-N	5.50	131.09	122.84
41	BR	34	THR	C-N-CA	5.50	131.09	122.84
1	AE	36	A	O4'-C1'-C2'	-5.50	102.10	107.60
3	A1	175	C	C4'-C3'-O3'	-5.50	101.15	109.40
3	A1	205	A	O4'-C4'-C3'	5.50	109.50	104.00
3	A1	1170	A	C3'-C2'-C1'	5.50	106.80	101.30
3	A1	1191	A	O4'-C4'-C3'	5.50	109.50	104.00
3	A1	1418	A	O3'-P-O5'	-5.50	95.75	104.00
4	AB	168	GLU	CA-C-N	5.50	132.04	121.54
4	AB	168	GLU	C-N-CA	5.50	132.04	121.54
16	AQ	16	ARG	NE-CZ-NH1	5.50	127.00	121.50
25	BB	1261	C	C4'-C3'-C2'	-5.50	97.10	102.60
25	BB	1397	U	O5'-C5'-C4'	5.50	119.94	111.70
25	BB	1884	G	C4'-C3'-O3'	5.50	117.64	109.40
25	BB	2440	C	C5'-C4'-O4'	5.50	118.04	109.80
25	BB	2468	A	O5'-C5'-C4'	-5.50	103.25	111.50
25	BB	2625	G	O4'-C1'-N9	5.50	116.74	108.50
45	BV	23	ALA	CA-C-O	-5.50	115.23	121.00
3	A1	768	A	O5'-C5'-C4'	5.50	119.74	111.50
24	BA	7	G	C4'-C3'-C2'	-5.50	97.11	102.60
25	BB	404	A	C4'-C3'-O3'	-5.50	101.16	109.40
25	BB	984	A	O4'-C1'-N9	5.50	116.74	108.50
25	BB	1648	U	C1'-O4'-C4'	-5.50	104.41	109.90
37	BN	88	ALA	N-CA-C	5.50	118.29	110.10
1	AE	62	A	C3'-C2'-O2'	5.49	118.94	110.70
3	A1	141	G	O4'-C1'-N9	5.49	116.44	108.20
3	A1	435	A	C1'-O4'-C4'	-5.49	104.41	109.90
3	A1	1049	U	O4'-C1'-C2'	-5.49	102.11	107.60
3	A1	1051	C	C5'-C4'-C3'	-5.49	106.96	115.20
3	A1	1105	A	C3'-C2'-O2'	5.49	118.94	110.70
3	A1	1254	A	C3'-C2'-O2'	5.49	118.94	110.70
5	AC	124	LYS	N-CA-C	5.49	118.19	111.82
25	BB	110	G	C3'-C2'-O2'	5.49	118.94	110.70
25	BB	2006	C	C4'-C3'-C2'	-5.49	97.11	102.60
25	BB	2203	U	C4'-C3'-O3'	5.49	121.24	113.00
25	BB	2431	U	C1'-O4'-C4'	-5.49	104.41	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
26	BC	50	MET	N-CA-C	5.49	119.85	113.20
37	BN	59	GLN	CA-C-N	5.49	131.59	121.70
37	BN	59	GLN	C-N-CA	5.49	131.59	121.70
36	BM	94	ASP	N-CA-C	5.49	122.50	110.80
1	AE	21	A	C1'-C2'-O2'	5.49	116.64	108.40
3	A1	562	U	O4'-C1'-C2'	-5.49	100.31	105.80
3	A1	760	G	C5'-C4'-C3'	-5.49	107.77	116.00
3	A1	841	C	O3'-P-O5'	5.49	112.24	104.00
6	AD	2	THR	CA-CB-OG1	5.49	117.84	109.60
25	BB	391	A	O4'-C1'-C2'	-5.49	102.11	107.60
25	BB	431	U	C1'-C2'-O2'	-5.49	100.17	108.40
25	BB	439	A	C1'-O4'-C4'	-5.49	104.41	109.90
25	BB	645	C	O4'-C1'-N1	5.49	116.44	108.20
25	BB	2536	G	C3'-C2'-C1'	-5.49	95.81	101.30
30	BG	64	ARG	CD-NE-CZ	5.49	132.09	124.40
37	BN	176	ARG	NE-CZ-NH1	5.49	126.99	121.50
50	B1	64	GLY	O-C-N	-5.49	115.56	122.70
3	A1	392	C	C4'-C3'-C2'	-5.49	97.11	102.60
3	A1	421	U	C3'-C2'-C1'	5.49	106.79	101.30
3	A1	718	A	C1'-O4'-C4'	-5.49	104.21	109.70
3	A1	788	U	C4'-C3'-C2'	-5.49	97.11	102.60
4	AB	84	LEU	CA-C-N	5.49	128.18	120.28
4	AB	84	LEU	C-N-CA	5.49	128.18	120.28
25	BB	432	A	C2'-C3'-O3'	5.49	117.73	109.50
25	BB	1854	A	C1'-C2'-O2'	-5.49	100.17	108.40
33	BJ	26	ALA	N-CA-C	5.49	119.84	113.20
52	B3	87	GLN	OE1-CD-NE2	-5.49	117.11	122.60
3	A1	669	G	N9-C1'-C2'	5.49	120.23	112.00
3	A1	1152	A	C3'-C2'-O2'	5.49	118.93	110.70
7	AF	1	ALA	CB-CA-C	5.49	118.73	110.50
8	AG	99	SER	CA-C-N	5.49	131.58	121.70
8	AG	99	SER	C-N-CA	5.49	131.58	121.70
17	AR	19	PHE	CA-C-N	5.49	129.05	120.82
17	AR	19	PHE	C-N-CA	5.49	129.05	120.82
25	BB	1660	G	O4'-C1'-N9	5.49	116.43	108.20
25	BB	2551	C	P-O3'-C3'	5.49	128.43	120.20
25	BB	2611	C	C3'-C2'-C1'	5.49	106.99	101.50
3	A1	729	A	C1'-O4'-C4'	5.49	115.39	109.90
3	A1	940	C	C5'-C4'-C3'	-5.49	107.77	116.00
4	AB	97	GLY	CA-C-N	5.49	132.16	121.41
4	AB	97	GLY	C-N-CA	5.49	132.16	121.41
18	AS	40	ASP	CA-C-N	5.49	127.04	120.13

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	AS	40	ASP	C-N-CA	5.49	127.04	120.13
25	BB	69	C	C2'-C3'-O3'	5.49	117.73	109.50
25	BB	883	G	C4'-C3'-C2'	-5.49	97.11	102.60
25	BB	1348	C	C5'-C4'-C3'	-5.49	107.77	116.00
25	BB	1493	C	C5'-C4'-C3'	-5.49	106.97	115.20
25	BB	2186	G	C3'-C2'-O2'	5.49	118.93	110.70
25	BB	2517	C	N1-C1'-C2'	-5.49	105.77	114.00
25	BB	2635	A	P-O3'-C3'	5.49	128.43	120.20
25	BB	2844	G	C3'-C2'-C1'	-5.49	95.81	101.30
25	BB	2891	U	C4'-C3'-O3'	-5.49	104.77	113.00
28	BE	122	VAL	N-CA-C	5.49	120.75	109.34
40	BQ	22	LEU	O-C-N	5.49	128.63	122.27
40	BQ	38	GLN	OE1-CD-NE2	-5.49	117.11	122.60
50	B1	85	PHE	N-CA-C	5.49	117.85	109.62
3	A1	780	A	O3'-P-O5'	-5.48	95.77	104.00
23	AX	68	ARG	CA-C-N	5.48	132.01	121.54
23	AX	68	ARG	C-N-CA	5.48	132.01	121.54
25	BB	2799	A	C4'-C3'-C2'	-5.48	97.12	102.60
35	BL	18	ARG	NE-CZ-NH1	5.48	126.98	121.50
1	AE	61	C	C5'-C4'-C3'	-5.48	107.78	116.00
3	A1	374	A	C5'-C4'-O4'	5.48	118.03	109.80
3	A1	958	A	C4'-C3'-O3'	5.48	121.22	113.00
3	A1	1095	U	O4'-C1'-C2'	5.48	113.08	107.60
3	A1	1413	A	C1'-O4'-C4'	-5.48	104.42	109.90
21	AV	87	ARG	CA-C-N	5.48	129.46	120.63
21	AV	87	ARG	C-N-CA	5.48	129.46	120.63
24	BA	37	C	C1'-O4'-C4'	-5.48	104.42	109.90
25	BB	456	C	C4'-C3'-O3'	5.48	117.62	109.40
25	BB	1696	G	C4'-C3'-C2'	-5.48	97.12	102.60
25	BB	2399	G	C1'-C2'-O2'	-5.48	100.17	108.40
25	BB	2660	A	C4'-C3'-C2'	5.48	108.08	102.60
32	BI	83	ILE	CA-C-N	5.48	128.50	120.71
32	BI	83	ILE	C-N-CA	5.48	128.50	120.71
43	BT	2	VAL	O-C-N	5.48	128.62	122.75
53	B4	4	ILE	CB-CA-C	5.48	118.09	111.13
54	B5	6	ALA	N-CA-C	5.48	122.48	110.80
3	A1	394	G	C4'-C3'-C2'	-5.48	97.12	102.60
3	A1	1213	A	C1'-O4'-C4'	-5.48	104.42	109.90
3	A1	1437	A	C3'-C2'-O2'	5.48	118.92	110.70
25	BB	222	A	O4'-C4'-C3'	-5.48	100.62	106.10
25	BB	424	G	C4'-C3'-C2'	-5.48	97.12	102.60
25	BB	712	G	C1'-O4'-C4'	-5.48	104.42	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1093	G	O5'-C5'-C4'	-5.48	103.28	111.50
25	BB	1274	A	C5'-C4'-C3'	-5.48	107.78	116.00
25	BB	1828	G	C2'-C3'-O3'	5.48	117.72	109.50
25	BB	1962	C	C1'-C2'-O2'	-5.48	103.58	111.80
25	BB	1994	C	C1'-O4'-C4'	-5.48	104.42	109.90
25	BB	2433	A	C4'-C3'-O3'	5.48	117.62	109.40
1	AA	25	C	O4'-C4'-C3'	5.48	109.48	104.00
3	A1	801	U	O4'-C4'-C3'	5.48	109.48	104.00
24	BA	46	A	P-O5'-C5'	5.48	129.12	120.90
25	BB	734	A	C1'-O4'-C4'	-5.48	104.42	109.90
25	BB	975	A	C5'-C4'-O4'	5.48	117.32	109.10
25	BB	1669	A	O4'-C1'-C2'	5.48	113.08	107.60
2	AM	12	U	C4'-C3'-C2'	-5.48	97.12	102.60
3	A1	1516	G	O4'-C1'-C2'	-5.48	100.32	105.80
6	AD	39	THR	O-C-N	5.48	130.06	122.78
25	BB	2355	G	C1'-O4'-C4'	-5.48	104.42	109.90
25	BB	2460	U	C1'-O4'-C4'	5.48	115.18	109.70
25	BB	2699	C	O3'-P-O5'	-5.48	95.78	104.00
36	BM	7	LEU	CA-C-N	5.48	128.17	120.28
36	BM	7	LEU	C-N-CA	5.48	128.17	120.28
51	B2	150	GLY	N-CA-C	5.48	118.90	111.72
1	AA	15	G	C4'-C3'-C2'	-5.48	97.12	102.60
3	A1	823	C	O5'-C5'-C4'	-5.48	103.28	111.50
3	A1	999	C	P-O5'-C5'	5.48	129.11	120.90
3	A1	1127	G	C3'-C2'-C1'	-5.48	95.82	101.30
3	A1	1133	G	C4'-C3'-C2'	-5.48	97.12	102.60
3	A1	1366	C	O4'-C1'-C2'	-5.48	102.12	107.60
5	AC	51	PHE	N-CA-CB	-5.48	102.18	111.27
25	BB	1744	A	C1'-C2'-O2'	5.48	116.61	108.40
55	B6	1	MET	N-CA-CB	-5.48	101.19	110.50
1	AE	48	C	C5'-C4'-C3'	-5.47	106.99	115.20
3	A1	1062	U	C1'-O4'-C4'	-5.47	104.23	109.70
3	A1	1228	C	C2'-C3'-O3'	-5.47	105.49	113.70
6	AD	68	GLY	N-CA-C	5.47	117.97	110.69
8	AG	78	LEU	N-CA-C	5.47	117.39	109.07
20	AU	74	VAL	N-CA-C	5.47	115.98	107.99
25	BB	357	C	O4'-C4'-C3'	5.47	109.47	104.00
25	BB	2240	U	C2'-C3'-O3'	5.47	121.91	113.70
46	BW	29	ARG	O-C-N	-5.47	115.31	122.59
52	B3	33	THR	CA-CB-CG2	5.47	119.81	110.50
3	A1	689	C	C5'-C4'-O4'	5.47	118.01	109.80
3	A1	901	A	C5'-C4'-C3'	-5.47	107.79	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1376	U	C3'-C2'-C1'	5.47	106.77	101.30
3	A1	1527	U	C1'-C2'-O2'	-5.47	100.19	108.40
4	AB	73	ARG	CD-NE-CZ	5.47	132.06	124.40
18	AS	50	GLY	O-C-N	-5.47	118.61	123.65
20	AU	85	GLN	OE1-CD-NE2	-5.47	117.13	122.60
23	AX	78	GLU	CA-C-N	5.47	126.68	119.84
23	AX	78	GLU	C-N-CA	5.47	126.68	119.84
25	BB	346	A	N1-C6-N6	-5.47	102.18	118.60
25	BB	730	A	O4'-C1'-N9	-5.47	100.29	108.50
25	BB	1714	U	O4'-C1'-N1	5.47	116.71	108.50
25	BB	1948	G	C1'-C2'-O2'	-5.47	100.19	108.40
25	BB	2058	A	N9-C1'-C2'	5.47	120.21	112.00
3	A1	117	G	C2'-C3'-O3'	-5.47	105.49	113.70
3	A1	376	G	O4'-C1'-C2'	-5.47	102.13	107.60
3	A1	1197	A	O4'-C1'-C2'	-5.47	102.13	107.60
3	A1	1254	A	C2'-C3'-O3'	-5.47	105.49	113.70
25	BB	2573	C	N1-C1'-C2'	5.47	122.21	114.00
51	B2	80	GLN	CG-CD-NE2	5.47	124.61	116.40
3	A1	517	G	C2'-C3'-O3'	5.47	117.70	109.50
3	A1	1008	U	C4'-C3'-O3'	-5.47	104.80	113.00
3	A1	1461	G	C4'-C3'-O3'	-5.47	101.19	109.40
4	AB	147	LEU	CD1-CG-CD2	-5.47	98.77	110.80
23	AX	31	ARG	CA-C-O	5.47	126.06	119.61
25	BB	528	A	C3'-C2'-O2'	5.47	118.91	110.70
25	BB	656	G	C3'-C2'-O2'	5.47	118.90	110.70
25	BB	814	C	P-O3'-C3'	5.47	128.41	120.20
25	BB	1142	A	C1'-C2'-O2'	-5.47	100.20	108.40
25	BB	1343	G	C5'-C4'-O4'	5.47	118.01	109.80
25	BB	1551	A	C3'-C2'-O2'	5.47	118.90	110.70
25	BB	2563	U	C1'-C2'-O2'	5.47	116.61	108.40
25	BB	2619	C	C5'-C4'-C3'	-5.47	107.00	115.20
39	BP	10	ARG	NH1-CZ-NH2	-5.47	112.19	119.30
48	BY	50	VAL	CA-CB-CG1	5.47	119.70	110.40
48	BY	141	ARG	CD-NE-CZ	5.47	132.06	124.40
25	BB	101	A	O3'-P-O5'	-5.47	95.80	104.00
25	BB	2761	A	O4'-C1'-N9	5.47	116.70	108.50
38	BO	21	ARG	CA-CB-CG	5.47	125.04	114.10
55	B6	53	TYR	CA-C-N	5.47	129.91	121.71
55	B6	53	TYR	C-N-CA	5.47	129.91	121.71
1	AP	53	G	O4'-C1'-N9	5.47	116.70	108.50
24	BA	14	U	C4'-C3'-C2'	-5.47	97.13	102.60
25	BB	87	U	C4'-C3'-C2'	-5.47	97.13	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1691	C	C4'-C3'-C2'	-5.47	97.13	102.60
25	BB	2026	U	C4'-C3'-O3'	-5.47	104.80	113.00
25	BB	2260	C	O3'-P-O5'	-5.47	95.80	104.00
25	BB	2289	G	C5'-C4'-O4'	5.47	118.00	109.80
29	BF	13	HIS	ND1-CE1-NE2	5.47	113.87	108.40
38	BO	52	ASN	N-CA-C	5.47	120.63	113.30
41	BR	17	PRO	N-CD-CG	5.47	111.40	103.20
53	B4	101	ASP	CA-C-O	5.47	126.11	119.38
54	B5	64	ARG	CA-CB-CG	5.47	125.03	114.10
1	AP	48	C	O3'-P-O5'	5.46	112.20	104.00
3	A1	602	A	C3'-C2'-O2'	5.46	118.90	110.70
3	A1	802	A	C1'-O4'-C4'	-5.46	104.44	109.90
3	A1	1144	G	O3'-P-O5'	-5.46	95.81	104.00
17	AR	34	GLU	CA-C-N	5.46	127.87	120.44
17	AR	34	GLU	C-N-CA	5.46	127.87	120.44
18	AS	19	ARG	NH1-CZ-NH2	-5.46	112.20	119.30
25	BB	81	G	O3'-P-O5'	-5.46	95.80	104.00
25	BB	175	G	O5'-C5'-C4'	-5.46	103.30	111.50
25	BB	861	A	C3'-C2'-C1'	-5.46	95.83	101.30
25	BB	1522	A	P-O3'-C3'	5.46	128.40	120.20
25	BB	1589	U	C3'-C2'-C1'	-5.46	96.03	101.50
25	BB	1824	G	C3'-C2'-O2'	5.46	118.90	110.70
25	BB	2015	A	C5'-C4'-O4'	-5.46	101.60	109.80
38	BO	16	LYS	CA-C-O	-5.46	112.69	120.51
39	BP	24	ARG	N-CA-C	5.46	117.63	108.23
3	A1	578	C	C4'-C3'-C2'	-5.46	97.14	102.60
3	A1	845	A	C4'-C3'-C2'	-5.46	97.14	102.60
3	A1	901	A	C5'-C4'-O4'	5.46	118.00	109.80
3	A1	1223	C	O4'-C1'-N1	-5.46	100.00	108.20
9	AH	21	THR	CA-CB-CG2	5.46	119.79	110.50
24	BA	82	U	C3'-C2'-C1'	5.46	106.76	101.30
25	BB	2894	G	C3'-C2'-O2'	5.46	118.89	110.70
37	BN	246	PRO	CA-N-CD	-5.46	103.85	111.50
51	B2	13	LYS	N-CA-C	5.46	119.05	112.38
3	A1	182	A	C5'-C4'-C3'	-5.46	107.01	115.20
3	A1	973	G	C4'-C3'-O3'	5.46	121.19	113.00
3	A1	1038	C	C5'-C4'-C3'	5.46	124.19	116.00
25	BB	317	G	C3'-C2'-O2'	-5.46	106.41	114.60
25	BB	823	C	C5'-C4'-O4'	5.46	117.29	109.10
25	BB	1362	C	C1'-C2'-O2'	5.46	116.59	108.40
25	BB	1469	A	C5'-C4'-C3'	-5.46	107.81	116.00
25	BB	1886	U	N1-C1'-C2'	5.46	120.19	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2202	U	C2'-C3'-O3'	5.46	121.89	113.70
25	BB	2728	U	O3'-P-O5'	-5.46	95.81	104.00
31	BH	94	ARG	NE-CZ-NH2	5.46	124.12	119.20
35	BL	102	HIS	CB-CG-CD2	-5.46	124.10	131.20
40	BQ	7	ARG	NE-CZ-NH1	5.46	126.96	121.50
40	BQ	41	HIS	ND1-CG-CD2	5.46	111.56	106.10
51	B2	116	LEU	CA-C-N	5.46	129.00	120.75
51	B2	116	LEU	C-N-CA	5.46	129.00	120.75
53	B4	68	ARG	NE-CZ-NH2	-5.46	114.28	119.20
25	BB	423	A	C5'-C4'-C3'	-5.46	107.01	115.20
25	BB	1377	G	C3'-C2'-C1'	5.46	106.76	101.30
25	BB	1460	U	C5'-C4'-O4'	5.46	117.29	109.10
29	BF	101	VAL	CA-CB-CG2	5.46	119.68	110.40
37	BN	148	GLY	CA-C-N	5.46	127.86	120.38
37	BN	148	GLY	C-N-CA	5.46	127.86	120.38
50	B1	61	ARG	NH1-CZ-NH2	-5.46	112.20	119.30
1	AA	47	U	O3'-P-O5'	5.46	112.19	104.00
3	A1	369	G	O4'-C4'-C3'	5.46	109.46	104.00
3	A1	433	G	C1'-O4'-C4'	-5.46	104.44	109.90
3	A1	710	G	C5'-C4'-C3'	-5.46	107.81	116.00
3	A1	852	G	C5'-C4'-O4'	5.46	117.99	109.80
17	AR	99	ASN	OD1-CG-ND2	-5.46	117.14	122.60
25	BB	499	U	C5'-C4'-C3'	-5.46	107.81	116.00
25	BB	1060	U	C3'-C2'-C1'	-5.46	96.04	101.50
25	BB	1494	A	O4'-C1'-C2'	-5.46	102.14	107.60
25	BB	1957	C	O3'-P-O5'	-5.46	95.81	104.00
55	B6	43	GLU	N-CA-C	5.46	119.69	113.19
1	AA	11	C	O4'-C4'-C3'	5.46	109.46	104.00
3	A1	169	C	C2'-C3'-O3'	5.46	121.88	113.70
3	A1	665	A	C3'-C2'-C1'	5.46	106.96	101.50
3	A1	892	A	C1'-C2'-O2'	-5.46	100.22	108.40
3	A1	1191	A	C5'-C4'-C3'	-5.46	107.82	116.00
25	BB	1252	G	P-O3'-C3'	5.46	128.39	120.20
37	BN	190	THR	CB-CA-C	-5.46	99.56	110.42
3	A1	1062	U	O5'-C5'-C4'	5.46	119.88	111.70
45	BV	25	LYS	CA-C-O	5.46	126.24	119.97
48	BY	73	VAL	O-C-N	5.46	129.00	122.95
2	AM	7	U	C1'-O4'-C4'	-5.45	104.45	109.90
3	A1	28	A	C1'-O4'-C4'	-5.45	104.45	109.90
3	A1	1456	A	C3'-C2'-O2'	5.45	118.88	110.70
3	A1	1494	G	C3'-C2'-O2'	-5.45	106.42	114.60
25	BB	207	A	P-O3'-C3'	5.45	128.38	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	615	U	C5'-C4'-C3'	-5.45	107.82	116.00
25	BB	2346	A	C3'-C2'-O2'	-5.45	106.42	114.60
27	BD	112	PHE	CA-C-N	5.45	128.34	120.38
27	BD	112	PHE	C-N-CA	5.45	128.34	120.38
28	BE	69	ARG	NH1-CZ-NH2	-5.45	112.21	119.30
3	A1	792	A	O4'-C4'-C3'	5.45	109.45	104.00
3	A1	805	C	C1'-O4'-C4'	-5.45	104.25	109.70
3	A1	1292	G	C3'-C2'-O2'	5.45	118.88	110.70
25	BB	2422	C	C4'-C3'-C2'	-5.45	97.15	102.60
45	BV	43	THR	N-CA-C	5.45	122.41	110.80
53	B4	93	SER	CA-C-O	-5.45	115.83	122.64
3	A1	1213	A	C5'-C4'-O4'	-5.45	101.62	109.80
3	A1	1256	A	N1-C6-N6	-5.45	102.25	118.60
3	A1	1304	G	C5'-C4'-C3'	-5.45	107.82	116.00
3	A1	1529	G	C3'-C2'-C1'	5.45	106.75	101.30
19	AT	43	GLY	N-CA-C	5.45	122.81	112.62
25	BB	105	C	C1'-O4'-C4'	-5.45	104.25	109.70
25	BB	130	C	C3'-C2'-C1'	5.45	106.95	101.50
25	BB	534	U	O3'-P-O5'	-5.45	95.83	104.00
25	BB	2779	U	C4'-C3'-C2'	-5.45	97.15	102.60
48	BY	83	ARG	NE-CZ-NH2	5.45	124.11	119.20
3	A1	1028	C	C3'-C2'-O2'	5.45	118.87	110.70
3	A1	1220	G	C3'-C2'-C1'	5.45	106.75	101.30
3	A1	1300	G	O5'-C5'-C4'	-5.45	103.53	111.70
3	A1	1450	U	O4'-C1'-N1	5.45	116.67	108.50
4	AB	18	GLN	CA-C-N	5.45	131.94	121.54
4	AB	18	GLN	C-N-CA	5.45	131.94	121.54
25	BB	205	G	C4'-C3'-O3'	-5.45	101.23	109.40
25	BB	268	C	O3'-P-O5'	-5.45	95.83	104.00
25	BB	489	G	C3'-C2'-C1'	5.45	106.95	101.50
25	BB	780	G	C1'-C2'-O2'	-5.45	103.63	111.80
25	BB	1091	G	C5'-C4'-C3'	-5.45	107.83	116.00
25	BB	1621	U	O4'-C1'-N1	5.45	116.67	108.50
25	BB	1874	C	P-O3'-C3'	5.45	128.37	120.20
25	BB	2426	A	N9-C1'-C2'	5.45	120.17	112.00
25	BB	2600	A	N1-C6-N6	-5.45	102.25	118.60
42	BS	5	ILE	N-CA-C	-5.45	105.06	110.62
50	B1	30	GLN	CA-C-N	5.45	128.21	120.53
50	B1	30	GLN	C-N-CA	5.45	128.21	120.53
1	AE	23	A	O3'-P-O5'	5.45	112.17	104.00
25	BB	2581	G	C1'-O4'-C4'	5.45	115.15	109.70
25	BB	2772	C	O4'-C4'-C3'	5.45	109.45	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
54	B5	49	GLU	N-CA-C	5.45	116.26	108.74
24	BA	8	C	C1'-O4'-C4'	-5.45	104.45	109.90
25	BB	15	G	C3'-C2'-C1'	5.45	106.75	101.30
25	BB	147	C	O5'-C5'-C4'	-5.45	103.53	111.70
25	BB	176	A	O4'-C4'-C3'	-5.45	98.55	104.00
25	BB	666	A	O4'-C4'-C3'	5.45	109.44	104.00
25	BB	1266	G	C4'-C3'-O3'	-5.45	104.83	113.00
50	B1	101	TYR	CA-C-N	5.45	129.86	121.53
50	B1	101	TYR	C-N-CA	5.45	129.86	121.53
55	B6	80	HIS	CA-CB-CG	-5.45	108.35	113.80
3	A1	207	C	O4'-C1'-N1	5.44	116.67	108.50
25	BB	6	A	O4'-C1'-C2'	5.44	113.04	107.60
25	BB	449	A	C5'-C4'-C3'	-5.44	107.83	116.00
25	BB	852	U	P-O3'-C3'	-5.44	112.03	120.20
25	BB	1098	A	P-O5'-C5'	5.44	129.06	120.90
26	BC	73	LYS	O-C-N	-5.44	116.10	122.96
28	BE	97	ALA	CA-C-N	5.44	131.94	121.54
28	BE	97	ALA	C-N-CA	5.44	131.94	121.54
29	BF	13	HIS	CE1-NE2-CD2	-5.44	103.56	109.00
1	AE	19	G	P-O3'-C3'	5.44	128.36	120.20
1	AE	59	U	C4'-C3'-C2'	-5.44	97.16	102.60
3	A1	104	G	C3'-C2'-C1'	-5.44	96.06	101.50
3	A1	495	A	O4'-C1'-C2'	-5.44	100.36	105.80
3	A1	677	U	O5'-C5'-C4'	-5.44	103.34	111.50
7	AF	106	ARG	CD-NE-CZ	5.44	132.02	124.40
25	BB	849	A	C2'-C3'-O3'	5.44	121.86	113.70
25	BB	856	G	O4'-C1'-C2'	-5.44	100.36	105.80
25	BB	1389	G	O5'-C5'-C4'	5.44	119.86	111.70
25	BB	2542	A	C4'-C3'-C2'	-5.44	97.16	102.60
25	BB	2558	C	C3'-C2'-C1'	5.44	106.94	101.50
25	BB	2884	U	C4'-C3'-O3'	-5.44	104.83	113.00
26	BC	55	GLU	CA-C-O	5.44	126.51	120.63
3	A1	236	A	C3'-C2'-C1'	5.44	106.74	101.30
25	BB	211	C	C4'-C3'-C2'	-5.44	97.16	102.60
25	BB	256	A	C1'-C2'-O2'	5.44	116.56	108.40
25	BB	481	G	C1'-C2'-O2'	5.44	116.56	108.40
25	BB	974	G	P-O5'-C5'	5.44	129.06	120.90
25	BB	1003	G	C4'-C3'-C2'	-5.44	97.16	102.60
25	BB	1790	C	C1'-O4'-C4'	-5.44	104.46	109.90
25	BB	2481	G	C4'-C3'-O3'	-5.44	101.24	109.40
25	BB	2748	A	C4'-C3'-C2'	-5.44	97.16	102.60
3	A1	1474	U	C3'-C2'-O2'	5.44	118.86	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
24	BA	57	A	O4'-C4'-C3'	5.44	109.44	104.00
25	BB	6	A	N1-C6-N6	-5.44	102.28	118.60
25	BB	954	G	P-O3'-C3'	5.44	128.36	120.20
25	BB	2723	C	N1-C1'-C2'	-5.44	103.84	112.00
3	A1	156	C	C5'-C4'-C3'	-5.44	107.84	116.00
3	A1	252	U	OP1-P-OP2	-5.44	103.29	119.60
3	A1	601	G	O5'-C5'-C4'	-5.44	103.34	111.50
3	A1	1322	C	O4'-C4'-C3'	5.44	111.54	106.10
3	A1	1339	A	O4'-C1'-N9	5.44	116.66	108.50
19	AT	95	ALA	O-C-N	-5.44	114.87	121.83
23	AX	33	GLY	CA-C-N	5.44	131.93	121.54
23	AX	33	GLY	C-N-CA	5.44	131.93	121.54
25	BB	723	C	C4'-C3'-C2'	-5.44	97.16	102.60
25	BB	980	A	C4'-C3'-C2'	-5.44	97.16	102.60
25	BB	1309	G	C3'-C2'-O2'	5.44	122.75	114.60
25	BB	2516	A	C5'-C4'-C3'	-5.44	107.04	115.20
25	BB	2823	A	O3'-P-O5'	5.44	112.16	104.00
42	BS	20	ASN	OD1-CG-ND2	-5.44	117.16	122.60
49	BZ	26	PHE	CA-C-N	5.44	130.14	121.66
49	BZ	26	PHE	C-N-CA	5.44	130.14	121.66
51	B2	111	ARG	NH1-CZ-NH2	-5.44	112.23	119.30
3	A1	656	G	C1'-O4'-C4'	5.44	115.34	109.90
25	BB	916	G	C5'-C4'-C3'	-5.44	107.85	116.00
25	BB	2069	G	O4'-C1'-N9	5.44	116.65	108.50
1	AE	35	A	C3'-C2'-O2'	5.43	118.85	110.70
3	A1	11	G	C5'-C4'-C3'	-5.43	107.85	116.00
3	A1	1299	A	C4'-C3'-O3'	-5.43	104.85	113.00
3	A1	1384	C	C1'-O4'-C4'	-5.43	104.47	109.90
25	BB	190	A	C3'-C2'-O2'	5.43	118.85	110.70
25	BB	694	U	C2'-C3'-O3'	5.43	121.85	113.70
25	BB	899	A	O3'-P-O5'	-5.43	95.85	104.00
25	BB	1546	G	C3'-C2'-C1'	5.43	106.73	101.30
25	BB	1611	C	O4'-C1'-N1	5.43	116.65	108.50
25	BB	1775	U	O4'-C1'-N1	5.43	116.65	108.50
1	AE	1	G	C4'-C3'-O3'	-5.43	104.85	113.00
1	AE	15	G	O4'-C1'-N9	5.43	116.65	108.50
3	A1	29	U	C4'-C3'-C2'	5.43	108.03	102.60
4	AB	91	VAL	CA-C-O	-5.43	115.34	121.75
17	AR	113	ALA	N-CA-CB	-5.43	101.56	109.82
22	AW	37	TYR	CB-CA-C	5.43	118.82	109.15
25	BB	130	C	C4'-C3'-C2'	-5.43	97.17	102.60
25	BB	215	G	O4'-C1'-N9	5.43	116.35	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1341	G	O4'-C1'-C2'	-5.43	100.37	105.80
25	BB	1766	G	C3'-C2'-C1'	5.43	106.73	101.30
25	BB	1830	C	C3'-C2'-C1'	5.43	106.73	101.30
25	BB	2241	A	P-O3'-C3'	5.43	128.35	120.20
25	BB	2604	U	C3'-C2'-C1'	-5.43	96.07	101.50
25	BB	2670	A	O4'-C1'-C2'	-5.43	102.17	107.60
54	B5	1	ALA	N-CA-CB	-5.43	102.25	110.40
3	A1	644	U	O4'-C1'-C2'	-5.43	102.17	107.60
3	A1	707	U	C2'-C3'-O3'	5.43	121.85	113.70
3	A1	1079	G	O4'-C4'-C3'	5.43	109.43	104.00
3	A1	1132	C	O4'-C4'-C3'	5.43	111.53	106.10
4	AB	223	GLY	O-C-N	-5.43	116.54	122.84
25	BB	716	A	C3'-C2'-O2'	5.43	118.85	110.70
25	BB	2754	U	O3'-P-O5'	5.43	112.15	104.00
29	BF	51	ARG	CD-NE-CZ	5.43	132.00	124.40
52	B3	161	VAL	CA-C-O	-5.43	114.38	120.95
3	A1	207	C	C4'-C3'-O3'	5.43	121.14	113.00
3	A1	468	A	C2'-C3'-O3'	5.43	121.85	113.70
3	A1	728	A	C1'-C2'-O2'	-5.43	100.25	108.40
20	AU	24	LYS	CA-C-O	-5.43	114.79	120.55
25	BB	133	U	C5'-C4'-C3'	-5.43	107.86	116.00
25	BB	169	G	C4'-C3'-C2'	-5.43	97.17	102.60
25	BB	172	A	C3'-C2'-O2'	5.43	118.84	110.70
25	BB	722	A	C1'-O4'-C4'	5.43	115.33	109.90
25	BB	1307	A	C4'-C3'-O3'	5.43	121.15	113.00
25	BB	1764	C	P-O5'-C5'	5.43	129.04	120.90
25	BB	2099	U	C5'-C4'-C3'	-5.43	107.86	116.00
25	BB	2379	G	C1'-O4'-C4'	-5.43	104.47	109.90
25	BB	2409	G	O4'-C4'-C3'	5.43	109.43	104.00
25	BB	2557	G	C3'-C2'-O2'	5.43	118.84	110.70
48	BY	137	SER	N-CA-C	5.43	119.53	113.01
3	A1	32	A	O5'-C5'-C4'	5.43	119.64	111.50
3	A1	318	G	O3'-P-O5'	5.43	112.14	104.00
25	BB	1715	G	C2'-C3'-O3'	5.43	117.64	109.50
50	B1	117	ARG	NE-CZ-NH2	5.43	124.08	119.20
3	A1	143	A	O4'-C4'-C3'	5.43	109.43	104.00
25	BB	586	A	C4'-C3'-C2'	5.43	108.03	102.60
25	BB	1525	A	O4'-C1'-C2'	-5.43	102.17	107.60
25	BB	2502	G	C4'-C3'-O3'	5.43	121.14	113.00
25	BB	2854	G	O3'-P-O5'	-5.43	95.86	104.00
25	BB	2881	U	O4'-C1'-N1	5.43	116.34	108.20
37	BN	147	PRO	O-C-N	-5.43	116.00	122.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AA	7	U	C3'-C2'-O2'	-5.42	106.46	114.60
3	A1	130	A	C3'-C2'-C1'	5.42	106.92	101.50
3	A1	1273	C	O3'-P-O5'	5.42	112.14	104.00
25	BB	918	A	P-O3'-C3'	5.42	128.34	120.20
25	BB	1772	A	C1'-C2'-O2'	5.42	116.54	108.40
25	BB	2178	C	O4'-C4'-C3'	5.42	111.52	106.10
25	BB	2814	A	C4'-C3'-O3'	5.42	121.14	113.00
25	BB	83	A	C3'-C2'-O2'	5.42	122.73	114.60
25	BB	1595	C	O4'-C1'-N1	5.42	116.64	108.50
54	B5	133	ARG	NE-CZ-NH1	5.42	126.92	121.50
3	A1	680	C	C5'-C4'-C3'	-5.42	107.87	116.00
3	A1	855	U	O5'-C5'-C4'	5.42	119.63	111.50
3	A1	868	C	C4'-C3'-O3'	5.42	121.13	113.00
21	AV	99	GLY	O-C-N	-5.42	116.95	122.70
25	BB	333	G	C3'-C2'-O2'	5.42	122.73	114.60
25	BB	609	A	O4'-C4'-C3'	5.42	109.42	104.00
25	BB	2260	C	C1'-O4'-C4'	-5.42	104.28	109.70
25	BB	2565	A	C4'-C3'-C2'	-5.42	97.18	102.60
25	BB	2773	C	C5'-C4'-O4'	5.42	117.93	109.80
44	BU	26	LYS	O-C-N	-5.42	116.77	123.44
2	AM	15	U	O3'-P-O5'	-5.42	95.87	104.00
3	A1	385	C	C5'-C4'-C3'	-5.42	107.87	116.00
25	BB	568	U	O4'-C1'-C2'	-5.42	100.38	105.80
25	BB	1749	A	C5'-C4'-O4'	5.42	117.93	109.80
25	BB	2790	U	C1'-C2'-O2'	5.42	116.53	108.40
30	BG	9	GLN	OE1-CD-NE2	-5.42	117.18	122.60
37	BN	242	HIS	CA-C-N	5.42	125.89	120.52
37	BN	242	HIS	C-N-CA	5.42	125.89	120.52
3	A1	1493	A	C3'-C2'-O2'	-5.42	106.47	114.60
25	BB	399	U	C4'-C3'-C2'	-5.42	97.18	102.60
25	BB	1459	G	O4'-C1'-C2'	-5.42	100.38	105.80
25	BB	2593	U	C5'-C4'-C3'	-5.42	107.87	116.00
25	BB	2886	A	C3'-C2'-C1'	-5.42	96.08	101.50
28	BE	89	VAL	CA-CB-CG1	-5.42	101.19	110.40
42	BS	65	ASN	CA-C-O	-5.42	112.72	119.38
46	BW	24	LYS	N-CA-C	5.42	117.88	110.24
1	AE	68	U	C3'-C2'-O2'	5.42	118.82	110.70
3	A1	442	G	C5'-C4'-C3'	-5.42	107.88	116.00
14	AN	50	PHE	CA-C-N	5.42	127.80	120.38
14	AN	50	PHE	C-N-CA	5.42	127.80	120.38
25	BB	1112	G	C4'-C3'-C2'	-5.42	97.18	102.60
25	BB	2074	U	O4'-C1'-C2'	-5.42	102.18	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2190	G	O4'-C1'-C2'	5.42	113.02	107.60
1	AA	60	C	O3'-P-O5'	-5.42	95.88	104.00
3	A1	130	A	C1'-C2'-O2'	5.42	119.92	111.80
8	AG	100	TRP	CD2-CE2-CZ2	5.42	127.81	122.40
25	BB	744	U	C2'-C3'-O3'	5.42	121.82	113.70
25	BB	1531	C	C3'-C2'-O2'	5.42	118.82	110.70
3	A1	720	C	N1-C1'-C2'	5.41	120.12	112.00
3	A1	1510	C	O5'-C5'-C4'	-5.41	103.38	111.50
13	AL	5	LYS	N-CA-C	5.41	119.89	113.28
15	AO	28	PHE	CA-CB-CG	5.41	119.21	113.80
17	AR	73	ASN	OD1-CG-ND2	-5.41	117.19	122.60
20	AU	37	THR	CA-CB-CG2	5.41	119.70	110.50
24	BA	99	A	C3'-C2'-O2'	5.41	118.82	110.70
25	BB	539	G	C4'-C3'-O3'	-5.41	101.28	109.40
25	BB	890	C	O4'-C1'-C2'	-5.41	102.19	107.60
25	BB	1049	C	C3'-C2'-O2'	5.41	118.82	110.70
25	BB	1061	U	C2'-C3'-O3'	5.41	117.62	109.50
25	BB	1577	C	C1'-C2'-O2'	5.41	116.52	108.40
35	BL	71	VAL	CB-CA-C	5.41	120.17	111.29
51	B2	107	VAL	CA-C-N	5.41	126.61	119.84
51	B2	107	VAL	C-N-CA	5.41	126.61	119.84
55	B6	37	ARG	CD-NE-CZ	5.41	131.98	124.40
55	B6	130	HIS	CB-CG-CD2	-5.41	124.16	131.20
3	A1	458	U	C1'-O4'-C4'	-5.41	104.49	109.90
3	A1	850	U	O4'-C4'-C3'	5.41	109.41	104.00
17	AR	30	LYS	O-C-N	-5.41	116.62	122.19
25	BB	751	A	C3'-C2'-C1'	-5.41	96.09	101.50
25	BB	2208	C	C2'-C3'-O3'	5.41	121.82	113.70
25	BB	2777	G	O4'-C1'-N9	5.41	116.62	108.50
3	A1	630	A	O4'-C1'-N9	-5.41	100.38	108.50
3	A1	1481	U	O5'-C5'-C4'	5.41	119.62	111.50
21	AV	99	GLY	CA-C-O	-5.41	117.36	122.39
25	BB	136	G	O5'-C5'-C4'	5.41	119.61	111.50
25	BB	311	A	O5'-C5'-C4'	5.41	119.81	111.70
25	BB	365	U	C5'-C4'-O4'	-5.41	101.69	109.80
25	BB	381	G	C1'-O4'-C4'	5.41	115.31	109.90
25	BB	1800	C	O5'-C5'-C4'	5.41	119.62	111.50
25	BB	2321	U	N1-C1'-C2'	-5.41	105.88	114.00
48	BY	67	HIS	CB-CG-CD2	-5.41	124.17	131.20
3	A1	691	G	O4'-C1'-C2'	-5.41	102.19	107.60
3	A1	710	G	C1'-O4'-C4'	-5.41	104.49	109.90
3	A1	1205	U	P-O3'-C3'	5.41	128.31	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
12	AK	62	ARG	CD-NE-CZ	5.41	131.97	124.40
25	BB	560	C	C4'-C3'-O3'	5.41	121.11	113.00
25	BB	1782	U	C5'-C4'-O4'	5.41	117.21	109.10
25	BB	2637	U	O4'-C1'-N1	5.41	116.31	108.20
25	BB	2879	A	O4'-C4'-C3'	5.41	111.51	106.10
29	BF	122	ALA	O-C-N	-5.41	115.40	122.59
3	A1	850	U	C4'-C3'-C2'	-5.41	97.19	102.60
13	AL	18	VAL	CA-CB-CG1	5.41	119.59	110.40
15	AO	5	HIS	CA-CB-CG	5.41	119.21	113.80
25	BB	600	G	C1'-O4'-C4'	5.41	115.31	109.90
25	BB	759	G	C5'-C4'-O4'	5.41	117.21	109.10
25	BB	1719	G	C1'-O4'-C4'	-5.41	104.49	109.90
25	BB	1737	G	P-O5'-C5'	5.41	129.01	120.90
25	BB	2298	A	O4'-C1'-C2'	5.41	113.01	107.60
34	BK	43	ASN	CA-CB-CG	5.41	118.01	112.60
51	B2	149	ARG	NE-CZ-NH1	5.41	126.91	121.50
3	A1	936	C	C3'-C2'-C1'	5.41	106.71	101.30
3	A1	1260	G	O5'-C5'-C4'	-5.41	103.39	111.50
17	AR	167	PRO	N-CD-CG	5.41	111.31	103.20
25	BB	348	A	C5'-C4'-C3'	-5.41	107.89	116.00
25	BB	579	G	P-O3'-C3'	5.41	128.31	120.20
25	BB	1028	A	C3'-C2'-C1'	-5.41	96.09	101.50
25	BB	1208	C	C1'-O4'-C4'	-5.41	104.49	109.90
25	BB	1238	G	O3'-P-O5'	5.41	112.11	104.00
25	BB	1360	G	C5'-C4'-C3'	-5.41	107.89	116.00
25	BB	2030	A	O4'-C1'-C2'	-5.41	102.19	107.60
25	BB	2254	C	C4'-C3'-C2'	-5.41	97.19	102.60
26	BC	9	ARG	CD-NE-CZ	5.41	131.97	124.40
31	BH	74	VAL	N-CA-C	5.41	117.81	111.05
50	B1	157	LEU	CA-C-N	5.41	131.88	121.18
50	B1	157	LEU	C-N-CA	5.41	131.88	121.18
52	B3	110	HIS	CG-CD2-NE2	-5.41	101.79	107.20
3	A1	1308	U	N1-C1'-C2'	5.40	122.11	114.00
25	BB	26	G	C4'-C3'-C2'	-5.40	97.20	102.60
25	BB	378	C	O4'-C4'-C3'	-5.40	98.60	104.00
25	BB	430	A	O4'-C4'-C3'	5.40	109.40	104.00
25	BB	905	A	C1'-O4'-C4'	-5.40	104.50	109.90
25	BB	1237	A	O3'-P-O5'	5.40	112.11	104.00
25	BB	1716	U	O4'-C4'-C3'	5.40	109.40	104.00
26	BC	8	VAL	CA-C-O	-5.40	114.88	121.04
37	BN	168	GLY	O-C-N	5.40	126.89	122.51
3	A1	168	G	O4'-C4'-C3'	5.40	109.40	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	655	A	C1'-O4'-C4'	-5.40	104.50	109.90
6	AD	40	THR	O-C-N	5.40	127.53	121.32
14	AN	63	LYS	CA-C-O	-5.40	115.12	120.90
25	BB	1832	C	O4'-C1'-C2'	-5.40	102.20	107.60
25	BB	2538	C	C1'-O4'-C4'	-5.40	104.30	109.70
25	BB	2758	A	C5'-C4'-C3'	-5.40	107.90	116.00
37	BN	191	LEU	O-C-N	-5.40	115.41	122.59
53	B4	23	ALA	N-CA-C	5.40	116.85	111.07
1	AA	27	C	C5'-C4'-C3'	5.40	124.10	116.00
3	A1	70	U	O4'-C1'-N1	5.40	116.30	108.20
3	A1	210	C	O5'-C5'-C4'	-5.40	103.60	111.70
3	A1	345	C	O4'-C1'-C2'	-5.40	100.40	105.80
3	A1	388	G	C4'-C3'-O3'	5.40	117.50	109.40
3	A1	482	A	C5'-C4'-C3'	-5.40	107.90	116.00
3	A1	975	A	C2'-C3'-O3'	5.40	117.60	109.50
15	AO	203	LYS	CA-C-N	5.40	127.21	121.48
15	AO	203	LYS	C-N-CA	5.40	127.21	121.48
21	AV	121	GLY	O-C-N	-5.40	117.75	122.88
25	BB	102	U	O4'-C4'-C3'	-5.40	100.70	106.10
25	BB	512	G	C1'-C2'-O2'	-5.40	100.30	108.40
25	BB	1198	U	O3'-P-O5'	-5.40	95.90	104.00
25	BB	1298	C	C3'-C2'-C1'	-5.40	95.90	101.30
25	BB	1612	C	C3'-C2'-C1'	-5.40	95.90	101.30
30	BG	96	ARG	NE-CZ-NH2	5.40	124.06	119.20
50	B1	165	HIS	CA-C-O	5.40	128.23	120.51
3	A1	1191	A	O5'-C5'-C4'	-5.40	103.40	111.50
10	AI	60	TRP	N-CA-C	5.40	118.33	111.69
25	BB	332	A	O4'-C4'-C3'	-5.40	100.70	106.10
31	BH	84	GLU	CB-CA-C	5.40	119.86	110.68
33	BJ	50	ARG	NE-CZ-NH1	5.40	126.90	121.50
51	B2	140	ILE	CA-C-N	5.40	127.96	120.29
51	B2	140	ILE	C-N-CA	5.40	127.96	120.29
3	A1	170	U	C5'-C4'-C3'	-5.40	107.10	115.20
3	A1	406	G	C5'-C4'-C3'	-5.40	107.91	116.00
5	AC	28	ASN	OD1-CG-ND2	-5.40	117.20	122.60
21	AV	123	GLU	CA-CB-CG	5.40	124.89	114.10
25	BB	1435	G	C4'-C3'-C2'	-5.40	97.20	102.60
25	BB	1533	C	N1-C1'-C2'	-5.40	103.90	112.00
25	BB	1551	A	O4'-C4'-C3'	5.40	109.40	104.00
48	BY	62	LYS	N-CA-C	5.40	120.82	113.16
49	BZ	148	ILE	N-CA-CB	5.40	117.48	110.57
1	AP	32	C	C4'-C3'-C2'	-5.40	97.20	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AE	9	A	O4'-C4'-C3'	5.40	111.50	106.10
3	A1	116	A	N9-C1'-C2'	5.40	120.09	112.00
3	A1	245	U	C3'-C2'-C1'	5.40	106.90	101.50
25	BB	1522	A	O4'-C1'-C2'	-5.40	100.40	105.80
25	BB	1901	A	O3'-P-O5'	5.40	112.09	104.00
25	BB	2175	C	N1-C1'-C2'	5.40	120.09	112.00
32	BI	25	VAL	N-CA-C	5.40	116.88	111.00
35	BL	29	VAL	CB-CA-C	-5.40	104.17	112.05
37	BN	28	PRO	N-CD-CG	5.40	111.29	103.20
48	BY	149	ASN	OD1-CG-ND2	-5.40	117.20	122.60
3	A1	279	A	C5'-C4'-O4'	5.39	117.89	109.80
3	A1	322	C	O4'-C4'-C3'	5.39	109.39	104.00
3	A1	728	A	C4'-C3'-C2'	-5.39	97.21	102.60
3	A1	1467	C	C5'-C4'-O4'	5.39	117.89	109.80
13	AL	43	MET	CA-C-N	5.39	127.80	120.63
13	AL	43	MET	C-N-CA	5.39	127.80	120.63
25	BB	1213	A	C5'-C4'-C3'	-5.39	107.91	116.00
25	BB	1365	A	O4'-C4'-C3'	5.39	109.39	104.00
25	BB	1442	U	C1'-C2'-O2'	5.39	116.49	108.40
25	BB	2124	G	O3'-P-O5'	5.39	112.09	104.00
35	BL	107	VAL	O-C-N	-5.39	115.83	122.57
46	BW	23	HIS	CB-CA-C	5.39	121.16	110.42
48	BY	114	LYS	CA-C-N	5.39	131.98	121.41
48	BY	114	LYS	C-N-CA	5.39	131.98	121.41
3	A1	348	G	C1'-O4'-C4'	-5.39	104.51	109.90
3	A1	824	G	O5'-C5'-C4'	-5.39	103.41	111.50
3	A1	1033	G	C5'-C4'-C3'	-5.39	107.91	116.00
3	A1	1040	U	C5'-C4'-C3'	-5.39	107.91	116.00
3	A1	1184	G	N9-C1'-C2'	5.39	120.09	112.00
5	AC	44	ALA	N-CA-C	5.39	116.47	108.60
7	AF	51	GLN	CB-CG-CD	5.39	121.77	112.60
18	AS	47	PHE	CA-C-N	5.39	129.11	120.97
18	AS	47	PHE	C-N-CA	5.39	129.11	120.97
25	BB	197	A	C4'-C3'-O3'	-5.39	104.91	113.00
25	BB	859	G	O5'-C5'-C4'	-5.39	103.61	111.70
25	BB	1083	U	C1'-C2'-O2'	5.39	116.49	108.40
25	BB	1510	G	C4'-C3'-C2'	-5.39	97.21	102.60
34	BK	89	HIS	CE1-NE2-CD2	-5.39	103.61	109.00
40	BQ	52	ARG	NE-CZ-NH2	-5.39	114.35	119.20
3	A1	203	G	O4'-C1'-C2'	5.39	112.99	107.60
3	A1	297	G	O4'-C4'-C3'	5.39	111.49	106.10
3	A1	1326	U	C5'-C4'-O4'	-5.39	101.71	109.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1680	U	O4'-C1'-C2'	-5.39	100.41	105.80
25	BB	2045	C	C1'-O4'-C4'	-5.39	104.51	109.90
28	BE	94	THR	CA-CB-CG2	5.39	119.67	110.50
49	BZ	101	LYS	CA-C-O	-5.39	114.81	120.63
1	AP	48	C	C4'-C3'-O3'	5.39	117.48	109.40
1	AP	61	C	P-O5'-C5'	5.39	128.98	120.90
3	A1	238	A	C1'-O4'-C4'	-5.39	104.51	109.90
3	A1	1365	G	O4'-C4'-C3'	5.39	109.39	104.00
7	AF	30	LYS	CA-C-N	5.39	132.38	122.79
7	AF	30	LYS	C-N-CA	5.39	132.38	122.79
15	AO	66	THR	N-CA-CB	5.39	119.42	110.47
24	BA	9	G	C4'-C3'-C2'	-5.39	97.21	102.60
25	BB	35	G	C4'-C3'-C2'	-5.39	97.21	102.60
25	BB	579	G	O4'-C4'-C3'	5.39	109.39	104.00
25	BB	1545	A	O3'-P-O5'	-5.39	95.92	104.00
25	BB	1655	A	O4'-C1'-N9	-5.39	100.42	108.50
25	BB	1840	G	N9-C1'-C2'	5.39	120.08	112.00
25	BB	2390	U	N1-C1'-C2'	5.39	122.08	114.00
25	BB	2586	U	C4'-C3'-C2'	-5.39	97.21	102.60
25	BB	25	U	C5'-C4'-O4'	5.39	117.88	109.80
25	BB	1766	G	P-O5'-C5'	5.39	128.98	120.90
25	BB	2584	U	O3'-P-O5'	5.39	112.08	104.00
25	BB	2756	U	C4'-C3'-O3'	-5.39	101.32	109.40
3	A1	421	U	O4'-C1'-N1	5.39	116.58	108.50
24	BA	51	G	C1'-O4'-C4'	5.39	115.09	109.70
25	BB	293	U	C3'-C2'-C1'	5.39	106.69	101.30
25	BB	707	G	C4'-C3'-O3'	5.39	121.08	113.00
25	BB	1507	C	C1'-C2'-O2'	-5.39	100.32	108.40
25	BB	2508	G	C3'-C2'-O2'	5.39	122.68	114.60
27	BD	42	THR	N-CA-C	5.39	117.51	108.73
45	BV	39	ARG	N-CA-CB	-5.39	101.39	110.49
51	B2	109	ARG	NE-CZ-NH1	5.39	126.89	121.50
53	B4	11	ASN	OD1-CG-ND2	-5.39	117.21	122.60
3	A1	194	C	C5'-C4'-C3'	-5.38	107.92	116.00
3	A1	1030	U	C5'-C4'-C3'	-5.38	107.12	115.20
3	A1	1428	A	C5'-C4'-C3'	5.38	123.28	115.20
5	AC	126	ARG	O-C-N	-5.38	115.93	122.82
8	AG	15	LEU	CA-C-N	5.38	127.76	120.38
8	AG	15	LEU	C-N-CA	5.38	127.76	120.38
25	BB	78	U	O3'-P-O5'	5.38	112.08	104.00
25	BB	957	C	O3'-P-O5'	-5.38	95.92	104.00
25	BB	1463	C	C4'-C3'-C2'	-5.38	97.22	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2503	A	O4'-C1'-N9	5.38	116.28	108.20
25	BB	2516	A	O5'-C5'-C4'	-5.38	103.62	111.70
25	BB	2708	G	O3'-P-O5'	5.38	112.08	104.00
32	BI	20	ARG	NE-CZ-NH1	-5.38	116.11	121.50
33	BJ	1	ALA	N-CA-CB	-5.38	102.32	110.40
37	BN	111	ALA	O-C-N	-5.38	115.43	122.59
1	AA	7	U	O4'-C1'-N1	5.38	116.28	108.20
3	A1	1395	C	O5'-C5'-C4'	5.38	119.77	111.70
25	BB	536	G	C4'-C3'-C2'	-5.38	97.22	102.60
31	BH	56	LYS	O-C-N	-5.38	116.22	122.09
39	BP	79	ILE	CA-CB-CG1	5.38	119.55	110.40
48	BY	67	HIS	CA-CB-CG	-5.38	108.42	113.80
1	AA	31	A	C5'-C4'-C3'	-5.38	107.93	116.00
3	A1	153	C	C5'-C4'-O4'	5.38	117.87	109.80
9	AH	57	ARG	CA-C-N	5.38	128.03	120.28
9	AH	57	ARG	C-N-CA	5.38	128.03	120.28
10	AI	38	PHE	N-CA-C	5.38	117.57	109.23
25	BB	1284	A	C1'-C2'-O2'	5.38	119.87	111.80
25	BB	1571	A	C5'-C4'-O4'	5.38	117.87	109.80
25	BB	2495	G	O4'-C1'-N9	5.38	116.27	108.20
37	BN	57	HIS	CE1-NE2-CD2	-5.38	103.62	109.00
1	AE	1	G	O4'-C4'-C3'	5.38	109.38	104.00
3	A1	868	C	C3'-C2'-C1'	5.38	106.68	101.30
25	BB	1704	C	C5'-C4'-O4'	-5.38	101.03	109.10
25	BB	2079	U	C4'-C3'-O3'	5.38	121.07	113.00
25	BB	2666	C	O5'-C5'-C4'	-5.38	103.43	111.50
3	A1	629	A	O4'-C4'-C3'	-5.38	98.62	104.00
8	AG	69	PRO	CA-N-CD	-5.38	104.47	112.00
17	AR	86	GLY	CA-C-N	5.38	132.86	122.53
17	AR	86	GLY	C-N-CA	5.38	132.86	122.53
25	BB	63	A	C3'-C2'-O2'	5.38	122.67	114.60
25	BB	965	C	N3-C4-N4	-5.38	101.86	118.00
25	BB	1049	C	C1'-C2'-O2'	5.38	116.47	108.40
25	BB	2478	A	O5'-C5'-C4'	-5.38	103.43	111.50
25	BB	2585	U	O4'-C4'-C3'	5.38	111.48	106.10
37	BN	132	ARG	CD-NE-CZ	5.38	131.93	124.40
46	BW	63	TYR	N-CA-CB	5.38	119.58	110.49
51	B2	114	ARG	NE-CZ-NH2	5.38	124.04	119.20
3	A1	1507	A	C2'-C3'-O3'	-5.38	105.64	113.70
15	AO	86	LEU	N-CA-C	5.38	117.89	111.71
18	AS	60	GLN	CG-CD-NE2	5.38	124.47	116.40
19	AT	18	VAL	N-CA-CB	5.38	118.74	111.21

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	476	G	C4'-C3'-O3'	5.38	117.46	109.40
25	BB	672	C	O4'-C1'-C2'	-5.38	100.42	105.80
25	BB	1012	U	C4'-C3'-C2'	-5.38	97.22	102.60
25	BB	1380	G	C4'-C3'-C2'	-5.38	97.22	102.60
25	BB	2599	G	C4'-C3'-O3'	5.38	121.06	113.00
3	A1	489	C	C4'-C3'-O3'	-5.38	104.94	113.00
14	AN	50	PHE	CA-C-O	-5.38	115.16	120.70
25	BB	1723	G	C1'-O4'-C4'	5.38	115.28	109.90
25	BB	2490	G	O4'-C1'-N9	5.38	116.26	108.20
53	B4	13	GLY	O-C-N	-5.38	117.30	122.84
54	B5	107	GLU	CA-C-O	5.38	126.25	120.55
3	A1	224	U	O4'-C4'-C3'	5.37	109.37	104.00
3	A1	488	C	C2'-C3'-O3'	5.37	121.76	113.70
3	A1	909	A	C1'-C2'-O2'	-5.37	100.34	108.40
3	A1	1059	C	C5'-C4'-C3'	-5.37	107.94	116.00
3	A1	1243	C	C4'-C3'-C2'	-5.37	97.23	102.60
25	BB	1113	U	C3'-C2'-C1'	5.37	106.67	101.30
25	BB	1566	A	O3'-P-O5'	5.37	112.06	104.00
25	BB	1623	G	O4'-C1'-N9	5.37	116.56	108.50
32	BI	97	TYR	N-CA-C	5.37	119.83	113.28
47	BX	37	GLN	CB-CG-CD	5.37	121.74	112.60
3	A1	105	G	C4'-C3'-C2'	-5.37	97.23	102.60
3	A1	668	G	C4'-C3'-O3'	5.37	121.06	113.00
3	A1	1006	G	C3'-C2'-C1'	5.37	106.67	101.30
11	AJ	71	SER	N-CA-C	5.37	118.30	111.69
20	AU	135	LYS	N-CA-C	5.37	116.82	111.07
25	BB	388	G	O4'-C4'-C3'	-5.37	98.63	104.00
25	BB	728	G	O4'-C4'-C3'	5.37	109.37	104.00
25	BB	948	C	O4'-C4'-C3'	5.37	109.37	104.00
25	BB	954	G	O4'-C4'-C3'	-5.37	100.73	106.10
25	BB	1047	G	C4'-C3'-O3'	5.37	117.46	109.40
25	BB	2242	G	C3'-C2'-O2'	5.37	118.76	110.70
25	BB	2559	C	C4'-C3'-C2'	-5.37	97.23	102.60
25	BB	2606	C	O4'-C1'-N1	5.37	116.56	108.50
25	BB	2739	U	O4'-C4'-C3'	5.37	109.37	104.00
27	BD	121	GLU	N-CA-C	5.37	119.31	112.87
35	BL	99	ARG	NE-CZ-NH2	5.37	124.03	119.20
36	BM	73	ARG	N-CA-C	5.37	122.24	110.80
37	BN	78	GLU	CA-C-N	5.37	131.18	122.53
37	BN	78	GLU	C-N-CA	5.37	131.18	122.53
52	B3	69	ALA	CA-C-O	5.37	126.46	120.82
54	B5	69	VAL	N-CA-CB	5.37	118.05	111.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2500	U	C2'-C3'-O3'	-5.37	105.64	113.70
32	BI	71	ARG	CD-NE-CZ	5.37	131.92	124.40
3	A1	392	C	C1'-C2'-O2'	-5.37	100.35	108.40
3	A1	798	U	C5'-C4'-C3'	-5.37	107.95	116.00
5	AC	67	GLU	CA-C-N	5.37	131.81	121.18
5	AC	67	GLU	C-N-CA	5.37	131.81	121.18
8	AG	56	PRO	CA-C-N	5.37	131.36	121.70
8	AG	56	PRO	C-N-CA	5.37	131.36	121.70
25	BB	398	C	O4'-C1'-C2'	-5.37	102.23	107.60
25	BB	1797	G	C5'-C4'-C3'	-5.37	107.95	116.00
25	BB	2897	U	C3'-C2'-O2'	5.37	118.75	110.70
35	BL	7	HIS	O-C-N	-5.37	115.45	122.59
49	BZ	207	THR	O-C-N	-5.37	116.93	122.84
4	AB	107	ARG	NE-CZ-NH2	-5.37	114.37	119.20
17	AR	186	GLU	O-C-N	-5.37	116.72	123.27
24	BA	17	C	C3'-C2'-C1'	5.37	106.67	101.30
25	BB	2125	G	C4'-C3'-C2'	-5.37	97.23	102.60
25	BB	2860	A	O4'-C1'-C2'	5.37	112.97	107.60
37	BN	116	GLN	OE1-CD-NE2	-5.37	117.23	122.60
49	BZ	71	GLU	O-C-N	-5.37	116.43	122.12
3	A1	247	G	C4'-C3'-C2'	-5.37	97.23	102.60
6	AD	18	SER	N-CA-C	5.37	122.23	110.80
13	AL	52	ASN	CA-C-N	5.37	131.36	121.70
13	AL	52	ASN	C-N-CA	5.37	131.36	121.70
25	BB	268	C	P-O3'-C3'	5.37	128.25	120.20
25	BB	977	G	C5'-C4'-C3'	-5.37	107.95	116.00
25	BB	2221	G	C5'-C4'-C3'	-5.37	107.95	116.00
25	BB	2394	C	O3'-P-O5'	5.37	112.05	104.00
2	AM	12	U	C5'-C4'-O4'	-5.36	101.76	109.80
3	A1	314	C	C3'-C2'-C1'	5.36	106.66	101.30
3	A1	1027	C	C1'-O4'-C4'	-5.36	104.54	109.90
10	AI	47	GLU	N-CA-CB	-5.36	102.93	111.62
25	BB	770	G	C4'-C3'-C2'	-5.36	97.24	102.60
25	BB	1733	G	C5'-C4'-C3'	-5.36	107.95	116.00
25	BB	1762	A	O3'-P-O5'	-5.36	95.95	104.00
25	BB	2012	G	P-O3'-C3'	5.36	128.25	120.20
30	BG	63	ARG	CA-C-N	5.36	129.27	120.63
30	BG	63	ARG	C-N-CA	5.36	129.27	120.63
37	BN	220	ARG	N-CA-C	5.36	117.13	109.14
39	BP	26	GLY	O-C-N	-5.36	115.73	122.70
1	AA	54	U	C5'-C4'-C3'	-5.36	107.96	116.00
25	BB	1333	G	N9-C1'-C2'	5.36	120.04	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1417	C	C5'-C4'-C3'	-5.36	107.96	116.00
25	BB	1577	C	C3'-C2'-O2'	5.36	118.74	110.70
25	BB	1901	A	C1'-C2'-O2'	-5.36	100.36	108.40
25	BB	2713	U	O4'-C1'-C2'	-5.36	100.44	105.80
41	BR	6	ILE	CA-C-N	5.36	131.03	121.75
41	BR	6	ILE	C-N-CA	5.36	131.03	121.75
2	AM	12	U	P-O3'-C3'	5.36	128.24	120.20
3	A1	1167	A	N9-C1'-C2'	5.36	122.04	114.00
15	AO	41	TYR	CA-CB-CG	-5.36	104.25	113.90
20	AU	105	GLU	CB-CA-C	5.36	120.55	110.63
25	BB	1328	A	N9-C1'-C2'	5.36	120.04	112.00
25	BB	1530	G	C4'-C3'-C2'	-5.36	97.24	102.60
25	BB	1633	G	N9-C1'-C2'	5.36	120.04	112.00
25	BB	1952	A	C4'-C3'-C2'	5.36	107.96	102.60
25	BB	2116	G	C5'-C4'-C3'	-5.36	107.16	115.20
27	BD	71	ARG	NE-CZ-NH1	5.36	126.86	121.50
48	BY	193	VAL	O-C-N	5.36	127.21	121.10
49	BZ	109	TRP	CH2-CZ2-CE2	5.36	124.47	117.50
1	AA	33	U	C5'-C4'-C3'	5.36	124.04	116.00
3	A1	98	A	O3'-P-O5'	-5.36	95.96	104.00
3	A1	828	U	C3'-C2'-O2'	5.36	118.74	110.70
3	A1	1265	C	N1-C1'-C2'	5.36	120.04	112.00
5	AC	127	ARG	N-CA-C	5.36	119.31	112.34
25	BB	44	A	C2'-C3'-O3'	-5.36	105.66	113.70
25	BB	1211	C	N1-C1'-C2'	-5.36	105.96	114.00
25	BB	1703	G	C2'-C3'-O3'	5.36	117.54	109.50
25	BB	2198	A	O3'-P-O5'	-5.36	95.96	104.00
25	BB	2470	G	P-O5'-C5'	5.36	128.94	120.90
29	BF	96	ILE	N-CA-C	-5.36	105.49	110.53
3	A1	249	U	C4'-C3'-C2'	5.36	107.96	102.60
3	A1	412	A	C1'-C2'-O2'	-5.36	103.76	111.80
3	A1	484	G	C5'-C4'-O4'	5.36	117.14	109.10
3	A1	1323	G	C5'-C4'-O4'	5.36	117.84	109.80
3	A1	1520	C	C4'-C3'-C2'	-5.36	97.24	102.60
9	AH	49	HIS	CA-C-N	5.36	130.95	120.99
9	AH	49	HIS	C-N-CA	5.36	130.95	120.99
10	AI	25	ARG	CB-CG-CD	5.36	123.62	111.30
25	BB	462	C	C1'-C2'-O2'	5.36	116.44	108.40
25	BB	627	A	C2'-C3'-O3'	5.36	117.54	109.50
25	BB	1273	U	O4'-C4'-C3'	5.36	111.46	106.10
25	BB	1616	A	C1'-O4'-C4'	-5.36	104.34	109.70
25	BB	1731	G	C2'-C3'-O3'	5.36	117.54	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2535	G	C5'-C4'-C3'	-5.36	107.96	116.00
25	BB	2789	C	C2'-C3'-O3'	5.36	121.74	113.70
28	BE	16	GLY	CA-C-N	5.36	131.77	121.54
28	BE	16	GLY	C-N-CA	5.36	131.77	121.54
29	BF	133	LYS	CA-C-O	-5.36	113.29	119.61
40	BQ	3	ALA	CA-C-N	5.36	128.00	120.28
40	BQ	3	ALA	C-N-CA	5.36	128.00	120.28
3	A1	144	G	C4'-C3'-C2'	-5.36	97.25	102.60
11	AJ	41	THR	CA-C-N	5.36	130.13	122.21
11	AJ	41	THR	C-N-CA	5.36	130.13	122.21
19	AT	30	THR	N-CA-C	5.36	116.80	111.07
20	AU	49	LEU	CA-C-N	5.36	129.66	120.72
20	AU	49	LEU	C-N-CA	5.36	129.66	120.72
25	BB	26	G	O4'-C1'-C2'	5.36	111.16	105.80
25	BB	299	A	C3'-C2'-C1'	-5.36	95.94	101.30
25	BB	869	G	N9-C1'-C2'	-5.36	103.97	112.00
25	BB	1325	U	O4'-C4'-C3'	5.36	111.45	106.10
3	A1	13	U	C3'-C2'-O2'	-5.35	102.67	110.70
10	AI	75	ILE	CB-CG1-CD1	5.35	125.04	113.80
25	BB	299	A	C3'-C2'-O2'	5.35	118.73	110.70
25	BB	762	U	C5'-C4'-C3'	-5.35	107.17	115.20
25	BB	2732	G	C3'-C2'-C1'	5.35	106.65	101.30
33	BJ	70	GLN	OE1-CD-NE2	-5.35	117.25	122.60
51	B2	2	LYS	CA-CB-CG	5.35	124.81	114.10
3	A1	176	C	C5'-C4'-C3'	5.35	124.03	116.00
3	A1	1364	U	C1'-O4'-C4'	-5.35	104.35	109.70
4	AB	136	ARG	NH1-CZ-NH2	-5.35	112.34	119.30
5	AC	68	ARG	N-CA-C	5.35	119.43	113.01
15	AO	91	ALA	CA-C-N	5.35	127.40	120.44
15	AO	91	ALA	C-N-CA	5.35	127.40	120.44
23	AX	74	VAL	CA-CB-CG1	5.35	119.50	110.40
24	BA	47	C	C3'-C2'-C1'	5.35	106.65	101.30
25	BB	801	G	O4'-C4'-C3'	5.35	111.45	106.10
25	BB	1261	C	C3'-C2'-C1'	5.35	106.65	101.30
25	BB	1706	C	O5'-C5'-C4'	5.35	119.73	111.70
25	BB	1829	A	O5'-C5'-C4'	5.35	119.53	111.50
25	BB	1968	G	C3'-C2'-C1'	5.35	106.65	101.30
25	BB	2265	U	C5'-C4'-C3'	-5.35	107.97	116.00
25	BB	2718	G	C1'-C2'-O2'	-5.35	100.37	108.40
25	BB	2841	C	C3'-C2'-O2'	5.35	118.73	110.70
27	BD	62	VAL	N-CA-CB	5.35	117.30	110.13
36	BM	62	VAL	CA-CB-CG1	5.35	119.50	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	BN	215	VAL	CA-C-O	-5.35	116.33	121.63
18	AS	155	LYS	CA-C-O	-5.35	112.86	120.51
35	BL	70	LYS	CA-C-N	5.35	131.60	121.97
35	BL	70	LYS	C-N-CA	5.35	131.60	121.97
50	B1	94	GLN	CA-C-N	5.35	128.47	120.87
50	B1	94	GLN	C-N-CA	5.35	128.47	120.87
3	A1	250	A	C4'-C3'-C2'	-5.35	97.25	102.60
3	A1	458	U	C3'-C2'-O2'	5.35	118.72	110.70
3	A1	1422	G	P-O5'-C5'	5.35	128.92	120.90
3	A1	1469	C	C5'-C4'-O4'	5.35	117.83	109.80
9	AH	61	GLN	N-CA-C	5.35	117.11	111.28
25	BB	695	G	O4'-C4'-C3'	-5.35	98.65	104.00
25	BB	1421	G	C3'-C2'-O2'	5.35	118.73	110.70
48	BY	164	GLN	CA-C-N	5.35	130.46	122.86
48	BY	164	GLN	C-N-CA	5.35	130.46	122.86
48	BY	189	VAL	CA-C-N	5.35	128.94	121.02
48	BY	189	VAL	C-N-CA	5.35	128.94	121.02
55	B6	116	ARG	CD-NE-CZ	5.35	131.89	124.40
1	AA	14	A	C4'-C3'-C2'	-5.35	97.25	102.60
1	AP	35	A	C4'-C3'-C2'	-5.35	97.25	102.60
3	A1	746	A	C5'-C4'-C3'	-5.35	107.98	116.00
3	A1	766	A	C5'-C4'-C3'	-5.35	107.98	116.00
3	A1	1205	U	O4'-C4'-C3'	5.35	109.35	104.00
8	AG	100	TRP	CE2-CD2-CE3	-5.35	113.45	118.80
25	BB	27	G	C3'-C2'-C1'	5.35	106.85	101.50
25	BB	250	G	C2'-C3'-O3'	5.35	121.72	113.70
25	BB	533	G	O4'-C4'-C3'	5.35	109.35	104.00
25	BB	2515	C	C1'-O4'-C4'	5.35	115.25	109.90
29	BF	88	ASN	CA-C-O	-5.35	115.01	121.32
3	A1	590	U	O4'-C1'-N1	5.35	116.52	108.50
18	AS	126	ALA	N-CA-C	5.35	122.19	110.80
25	BB	463	G	O4'-C4'-C3'	5.35	109.35	104.00
25	BB	524	G	C3'-C2'-C1'	5.35	106.65	101.30
25	BB	2428	G	O4'-C1'-C2'	-5.35	100.45	105.80
25	BB	2452	C	O4'-C4'-C3'	5.35	111.45	106.10
26	BC	72	VAL	CA-C-N	5.35	130.91	122.36
26	BC	72	VAL	C-N-CA	5.35	130.91	122.36
33	BJ	50	ARG	NE-CZ-NH2	5.35	124.01	119.20
45	BV	21	ARG	CD-NE-CZ	5.35	131.88	124.40
1	AE	25	C	C3'-C2'-O2'	5.34	118.72	110.70
3	A1	84	U	O4'-C1'-N1	5.34	116.22	108.20
3	A1	643	C	C5'-C4'-C3'	-5.34	107.98	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1086	U	C5'-C4'-C3'	-5.34	107.18	115.20
3	A1	1530	G	C3'-C2'-O2'	5.34	122.62	114.60
25	BB	83	A	C1'-O4'-C4'	-5.34	104.36	109.70
25	BB	658	U	C5'-C4'-C3'	-5.34	107.98	116.00
25	BB	1613	G	C3'-C2'-O2'	5.34	118.72	110.70
25	BB	2215	C	C4'-C3'-O3'	-5.34	104.98	113.00
25	BB	2733	A	O4'-C4'-C3'	5.34	109.34	104.00
3	A1	607	A	O4'-C1'-C2'	-5.34	102.26	107.60
25	BB	920	A	C2'-C3'-O3'	-5.34	105.69	113.70
25	BB	995	C	C3'-C2'-O2'	-5.34	106.59	114.60
25	BB	1488	C	N1-C1'-C2'	5.34	120.01	112.00
25	BB	2016	U	C1'-C2'-O2'	-5.34	103.78	111.80
25	BB	2521	C	P-O5'-C5'	5.34	128.91	120.90
25	BB	2663	G	O4'-C4'-C3'	-5.34	98.66	104.00
27	BD	25	LEU	O-C-N	5.34	129.81	123.24
1	AE	9	A	C1'-O4'-C4'	-5.34	104.36	109.70
3	A1	224	U	C4'-C3'-C2'	-5.34	97.26	102.60
15	AO	190	THR	CA-C-N	5.34	132.78	123.91
15	AO	190	THR	C-N-CA	5.34	132.78	123.91
25	BB	563	A	C3'-C2'-C1'	5.34	106.64	101.30
25	BB	627	A	C3'-C2'-C1'	5.34	106.84	101.50
25	BB	780	G	C1'-O4'-C4'	-5.34	104.36	109.70
25	BB	1161	C	O4'-C4'-C3'	-5.34	98.66	104.00
25	BB	1205	A	O3'-P-O5'	5.34	112.01	104.00
25	BB	1841	U	C1'-O4'-C4'	-5.34	104.56	109.90
25	BB	2391	G	O5'-C5'-C4'	5.34	119.71	111.70
33	BJ	98	ALA	N-CA-C	5.34	122.18	110.80
35	BL	12	SER	N-CA-C	5.34	117.58	110.53
43	BT	36	LYS	CA-C-N	5.34	131.40	121.62
43	BT	36	LYS	C-N-CA	5.34	131.40	121.62
3	A1	91	U	O4'-C1'-N1	5.34	116.51	108.50
3	A1	188	C	C3'-C2'-O2'	5.34	122.61	114.60
3	A1	564	C	C3'-C2'-O2'	5.34	118.71	110.70
11	AJ	44	HIS	ND1-CE1-NE2	5.34	113.74	108.40
25	BB	60	G	C4'-C3'-C2'	-5.34	97.26	102.60
25	BB	219	A	C1'-C2'-O2'	-5.34	100.39	108.40
25	BB	882	G	P-O5'-C5'	5.34	128.91	120.90
25	BB	2807	U	C5'-C4'-C3'	-5.34	107.99	116.00
48	BY	203	VAL	CA-C-O	-5.34	115.62	121.28
55	B6	60	ASP	N-CA-C	5.34	119.05	112.54
1	AA	49	C	P-O3'-C3'	-5.34	112.19	120.20
1	AE	7	U	O4'-C4'-C3'	5.34	111.44	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	AB	105	THR	CA-CB-CG2	5.34	119.57	110.50
18	AS	61	LYS	CB-CG-CD	5.34	123.58	111.30
25	BB	67	U	C1'-O4'-C4'	-5.34	104.56	109.90
1	AP	19	G	O4'-C1'-N9	5.34	116.20	108.20
1	AE	32	C	O4'-C4'-C3'	5.34	109.34	104.00
3	A1	30	U	O4'-C1'-N1	5.34	116.21	108.20
3	A1	367	U	O5'-C5'-C4'	5.34	119.50	111.50
3	A1	521	G	C3'-C2'-C1'	-5.34	95.96	101.30
3	A1	820	U	O4'-C1'-C2'	-5.34	100.46	105.80
3	A1	1114	C	O4'-C4'-C3'	5.34	109.34	104.00
3	A1	1217	C	C4'-C3'-O3'	5.34	117.41	109.40
3	A1	1245	C	N1-C1'-C2'	5.34	120.01	112.00
25	BB	101	A	C2'-C3'-O3'	5.34	117.51	109.50
25	BB	511	U	C5'-C4'-C3'	-5.34	108.00	116.00
25	BB	1041	G	C2'-C3'-O3'	5.34	121.70	113.70
25	BB	1468	U	O4'-C1'-C2'	-5.34	100.46	105.80
25	BB	1933	G	C1'-C2'-O2'	-5.34	100.39	108.40
25	BB	2107	G	O5'-C5'-C4'	-5.34	103.69	111.70
25	BB	2438	U	N1-C1'-C2'	5.34	122.00	114.00
37	BN	21	PRO	CA-C-N	5.34	129.74	121.26
37	BN	21	PRO	C-N-CA	5.34	129.74	121.26
38	BO	52	ASN	N-CA-CB	-5.34	102.55	110.61
3	A1	233	C	C5'-C4'-O4'	5.33	117.80	109.80
19	AT	62	MET	O-C-N	-5.33	116.71	123.17
25	BB	1437	C	C1'-C2'-O2'	-5.33	100.40	108.40
12	AK	56	ARG	CA-C-N	5.33	127.43	120.28
12	AK	56	ARG	C-N-CA	5.33	127.43	120.28
19	AT	43	GLY	CA-C-N	5.33	131.73	121.54
19	AT	43	GLY	C-N-CA	5.33	131.73	121.54
25	BB	513	A	O4'-C1'-N9	5.33	116.50	108.50
25	BB	2792	A	O4'-C4'-C3'	5.33	109.33	104.00
36	BM	77	ARG	NE-CZ-NH1	5.33	126.83	121.50
37	BN	8	THR	N-CA-C	5.33	118.25	111.69
52	B3	143	VAL	CA-CB-CG2	5.33	119.47	110.40
3	A1	669	G	C5'-C4'-O4'	5.33	117.80	109.80
3	A1	1038	C	O5'-C5'-C4'	5.33	119.50	111.50
3	A1	1407	C	O5'-C5'-C4'	-5.33	103.70	111.70
13	AL	51	HIS	ND1-CE1-NE2	5.33	113.73	108.40
25	BB	555	G	C3'-C2'-C1'	5.33	106.63	101.30
25	BB	776	G	O5'-C5'-C4'	5.33	119.50	111.50
25	BB	1605	C	C1'-C2'-O2'	5.33	116.40	108.40
25	BB	2298	A	N1-C6-N6	-5.33	102.60	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2625	G	C4'-C3'-C2'	-5.33	97.27	102.60
52	B3	85	LYS	N-CA-C	5.33	117.77	108.76
1	AP	36	A	C3'-C2'-C1'	5.33	106.63	101.30
3	A1	753	A	O4'-C1'-C2'	-5.33	100.47	105.80
3	A1	837	U	C3'-C2'-O2'	5.33	118.69	110.70
3	A1	1355	G	C5'-C4'-C3'	-5.33	108.00	116.00
25	BB	1008	A	C4'-C3'-C2'	-5.33	97.27	102.60
30	BG	80	PHE	CA-CB-CG	5.33	119.13	113.80
41	BR	18	LYS	CB-CG-CD	5.33	123.56	111.30
2	AM	3	U	O4'-C1'-C2'	-5.33	100.47	105.80
3	A1	6	G	C4'-C3'-C2'	-5.33	97.27	102.60
3	A1	501	C	N1-C1'-C2'	-5.33	104.01	112.00
3	A1	539	A	C5'-C4'-C3'	-5.33	108.01	116.00
10	AI	63	GLN	CG-CD-NE2	5.33	124.39	116.40
25	BB	1227	G	C3'-C2'-O2'	5.33	118.69	110.70
25	BB	2094	A	O4'-C1'-C2'	-5.33	100.47	105.80
49	BZ	36	PHE	CA-CB-CG	5.33	119.13	113.80
3	A1	1154	G	C4'-C3'-O3'	-5.33	105.01	113.00
3	A1	1344	C	C2'-C3'-O3'	-5.33	105.71	113.70
5	AC	113	THR	CA-C-N	5.33	126.16	119.98
5	AC	113	THR	C-N-CA	5.33	126.16	119.98
25	BB	1258	U	O4'-C1'-N1	-5.33	100.51	108.50
25	BB	1836	C	C4'-C3'-O3'	5.33	120.99	113.00
25	BB	2253	G	C4'-C3'-C2'	-5.33	97.27	102.60
25	BB	2626	C	P-O3'-C3'	5.33	128.19	120.20
30	BG	13	ASN	O-C-N	-5.33	116.34	122.95
3	A1	227	G	C5'-C4'-C3'	-5.33	108.01	116.00
15	AO	191	THR	CB-CA-C	-5.33	102.55	111.23
25	BB	585	G	C4'-C3'-C2'	-5.33	97.27	102.60
25	BB	1948	G	O4'-C4'-C3'	5.33	109.33	104.00
25	BB	2247	A	C4'-C3'-C2'	-5.33	97.28	102.60
30	BG	12	ARG	N-CA-C	5.33	117.20	110.33
47	BX	10	LEU	N-CA-C	5.33	122.14	110.80
53	B4	86	ASP	CA-C-N	5.33	131.71	121.54
53	B4	86	ASP	C-N-CA	5.33	131.71	121.54
20	AU	69	ARG	NH1-CZ-NH2	-5.32	112.38	119.30
25	BB	714	U	P-O3'-C3'	5.32	128.19	120.20
25	BB	774	G	O4'-C1'-C2'	-5.32	102.28	107.60
25	BB	1025	G	C2'-C3'-O3'	5.32	117.49	109.50
25	BB	1026	G	C5'-C4'-C3'	-5.32	107.21	115.20
25	BB	2249	U	C5'-C4'-C3'	-5.32	108.01	116.00
25	BB	2310	C	O4'-C1'-N1	5.32	116.49	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
28	BE	64	PHE	CA-CB-CG	-5.32	108.48	113.80
52	B3	129	GLU	CB-CG-CD	-5.32	103.55	112.60
54	B5	51	GLY	CA-C-O	-5.32	111.31	120.57
3	A1	1385	G	O4'-C1'-C2'	5.32	112.92	107.60
25	BB	666	A	C3'-C2'-O2'	5.32	118.68	110.70
25	BB	1388	G	C5'-C4'-C3'	-5.32	108.02	116.00
3	A1	1428	A	O3'-P-O5'	5.32	111.98	104.00
19	AT	44	ARG	CD-NE-CZ	5.32	131.85	124.40
25	BB	421	C	C3'-C2'-C1'	-5.32	95.98	101.30
25	BB	1035	U	C4'-C3'-C2'	5.32	107.92	102.60
25	BB	1422	G	O4'-C1'-N9	5.32	116.48	108.50
25	BB	1669	A	N1-C6-N6	-5.32	102.64	118.60
25	BB	1721	G	C3'-C2'-O2'	-5.32	106.62	114.60
25	BB	2012	G	O4'-C1'-N9	5.32	116.48	108.50
25	BB	2209	G	N9-C1'-C2'	-5.32	104.02	112.00
25	BB	2770	G	C5'-C4'-C3'	-5.32	108.02	116.00
3	A1	519	C	C3'-C2'-C1'	5.32	106.62	101.30
25	BB	498	G	C5'-C4'-C3'	-5.32	108.02	116.00
25	BB	712	G	O4'-C1'-C2'	5.32	112.92	107.60
25	BB	1071	G	O4'-C1'-N9	5.32	116.18	108.20
25	BB	1238	G	C5'-C4'-O4'	5.32	117.78	109.80
25	BB	1335	C	O4'-C1'-N1	5.32	116.48	108.50
25	BB	1778	U	O5'-C5'-C4'	-5.32	103.72	111.70
27	BD	12	ASP	O-C-N	-5.32	116.35	122.95
3	A1	465	A	C1'-C2'-O2'	5.32	119.78	111.80
4	AB	170	ILE	N-CA-C	5.32	116.04	110.62
7	AF	107	THR	N-CA-CB	5.32	117.78	110.07
17	AR	50	TYR	CA-C-N	5.32	131.83	121.41
17	AR	50	TYR	C-N-CA	5.32	131.83	121.41
25	BB	102	U	C4'-C3'-C2'	5.32	107.92	102.60
25	BB	434	U	C3'-C2'-C1'	5.32	106.82	101.50
25	BB	1865	U	O4'-C1'-N1	5.32	116.48	108.50
25	BB	2034	U	C4'-C3'-O3'	5.32	117.38	109.40
25	BB	2830	C	C3'-C2'-O2'	5.32	118.67	110.70
30	BG	35	LYS	CB-CA-C	5.32	117.99	109.27
30	BG	83	LEU	CA-C-O	-5.32	114.89	120.63
50	B1	77	ILE	CA-C-N	5.32	131.70	121.54
50	B1	77	ILE	C-N-CA	5.32	131.70	121.54
1	AE	47	U	C4'-C3'-C2'	-5.32	97.28	102.60
6	AD	35	ARG	NE-CZ-NH2	5.32	123.98	119.20
11	AJ	25	GLU	CA-C-N	5.32	131.69	121.54
11	AJ	25	GLU	C-N-CA	5.32	131.69	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	658	U	C1'-C2'-O2'	5.32	116.37	108.40
25	BB	1185	G	O4'-C4'-C3'	5.32	109.32	104.00
25	BB	1407	G	P-O5'-C5'	5.32	128.87	120.90
25	BB	1797	G	O3'-P-O5'	5.32	111.97	104.00
25	BB	2584	U	C1'-O4'-C4'	-5.32	104.58	109.90
25	BB	2838	G	C1'-C2'-O2'	5.32	116.37	108.40
51	B2	160	LYS	CB-CG-CD	-5.32	99.08	111.30
3	A1	908	A	C4'-C3'-C2'	-5.31	97.29	102.60
24	BA	3	C	N1-C1'-C2'	-5.31	104.03	112.00
25	BB	128	C	O3'-P-O5'	5.31	111.97	104.00
25	BB	1604	C	C5'-C4'-O4'	5.31	117.77	109.80
1	AP	11	C	O3'-P-O5'	-5.31	96.03	104.00
3	A1	605	U	C2'-C3'-O3'	-5.31	105.73	113.70
3	A1	865	A	O4'-C1'-C2'	-5.31	102.29	107.60
3	A1	898	G	C1'-C2'-O2'	-5.31	100.43	108.40
3	A1	959	A	O4'-C1'-N9	5.31	116.47	108.50
3	A1	1406	U	O3'-P-O5'	-5.31	96.03	104.00
5	AC	97	ARG	CA-C-N	5.31	127.40	120.28
5	AC	97	ARG	C-N-CA	5.31	127.40	120.28
8	AG	16	ALA	N-CA-C	5.31	117.76	111.33
15	AO	48	LYS	CA-C-N	5.31	128.35	120.17
15	AO	48	LYS	C-N-CA	5.31	128.35	120.17
25	BB	427	U	C5'-C4'-C3'	-5.31	107.23	115.20
25	BB	739	A	O4'-C1'-C2'	-5.31	100.49	105.80
25	BB	766	U	C1'-C2'-O2'	-5.31	103.83	111.80
25	BB	1074	G	O4'-C1'-N9	5.31	116.47	108.50
25	BB	1358	G	C5'-C4'-O4'	5.31	117.77	109.80
25	BB	1423	G	C1'-O4'-C4'	-5.31	104.59	109.90
25	BB	1620	G	O5'-C5'-C4'	5.31	119.47	111.50
25	BB	2555	U	C5'-C4'-C3'	5.31	123.97	116.00
3	A1	567	G	C1'-C2'-O2'	5.31	119.77	111.80
3	A1	631	C	C2'-C3'-O3'	5.31	121.67	113.70
3	A1	748	G	C5'-C4'-C3'	-5.31	108.03	116.00
25	BB	2074	U	C3'-C2'-C1'	5.31	106.61	101.30
35	BL	37	THR	CA-C-N	5.31	131.94	122.06
35	BL	37	THR	C-N-CA	5.31	131.94	122.06
3	A1	125	U	C5'-C4'-O4'	5.31	117.06	109.10
4	AB	37	VAL	N-CA-C	5.31	114.39	106.85
25	BB	49	A	C5'-C4'-C3'	-5.31	107.24	115.20
25	BB	388	G	C3'-C2'-O2'	5.31	118.67	110.70
25	BB	525	U	C5'-C4'-O4'	5.31	117.06	109.10
25	BB	1283	G	C5'-C4'-C3'	-5.31	108.04	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1435	G	C3'-C2'-C1'	5.31	106.61	101.30
25	BB	1568	G	C3'-C2'-C1'	5.31	106.61	101.30
25	BB	1908	C	C2'-C3'-O3'	5.31	117.46	109.50
25	BB	2035	G	O4'-C4'-C3'	5.31	111.41	106.10
25	BB	2773	C	C1'-O4'-C4'	-5.31	104.59	109.90
29	BF	108	VAL	CG1-CB-CG2	-5.31	99.12	110.80
37	BN	231	HIS	CA-CB-CG	5.31	119.11	113.80
42	BS	56	ARG	CD-NE-CZ	5.31	131.83	124.40
55	B6	40	HIS	CA-C-N	5.31	131.68	121.54
55	B6	40	HIS	C-N-CA	5.31	131.68	121.54
3	A1	83	C	C3'-C2'-O2'	5.31	122.56	114.60
3	A1	631	C	C3'-C2'-C1'	5.31	106.61	101.30
3	A1	1417	G	O4'-C4'-C3'	5.31	111.41	106.10
25	BB	274	C	O4'-C1'-N1	5.31	116.46	108.50
25	BB	288	U	C3'-C2'-C1'	5.31	106.61	101.30
25	BB	374	A	O4'-C4'-C3'	5.31	109.31	104.00
25	BB	632	A	C4'-C3'-C2'	-5.31	97.29	102.60
25	BB	668	A	O4'-C1'-C2'	-5.31	102.29	107.60
25	BB	857	G	O3'-P-O5'	5.31	111.96	104.00
25	BB	1957	C	C3'-C2'-C1'	5.31	106.61	101.30
25	BB	1993	U	C4'-C3'-C2'	-5.31	97.29	102.60
25	BB	2132	U	N1-C1'-C2'	5.31	119.96	112.00
29	BF	6	ARG	CA-C-N	5.31	131.15	121.97
29	BF	6	ARG	C-N-CA	5.31	131.15	121.97
48	BY	25	THR	CA-CB-CG2	5.31	119.52	110.50
3	A1	446	G	C5'-C4'-C3'	-5.31	108.04	116.00
3	A1	660	C	O4'-C1'-N1	5.31	116.46	108.50
3	A1	1529	G	C1'-O4'-C4'	-5.31	104.59	109.90
18	AS	42	ASN	CA-CB-CG	5.31	117.91	112.60
24	BA	108	A	C1'-O4'-C4'	5.31	115.21	109.90
25	BB	1670	C	O5'-C5'-C4'	-5.31	103.54	111.50
25	BB	2075	U	C3'-C2'-C1'	5.31	106.61	101.30
25	BB	2809	A	O5'-C5'-C4'	5.31	119.46	111.50
41	BR	1	ALA	N-CA-CB	-5.31	102.44	110.40
3	A1	935	A	C4'-C3'-O3'	-5.30	105.04	113.00
3	A1	1159	U	C2'-C3'-O3'	5.30	121.66	113.70
3	A1	1190	G	C1'-O4'-C4'	-5.30	104.40	109.70
4	AB	93	HIS	CB-CG-CD2	-5.30	124.30	131.20
7	AF	4	ALA	N-CA-C	5.30	116.94	110.41
10	AI	70	ARG	NE-CZ-NH1	5.30	126.81	121.50
15	AO	108	PRO	CA-C-N	5.30	127.70	120.54
15	AO	108	PRO	C-N-CA	5.30	127.70	120.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	AO	163	ARG	NH1-CZ-NH2	-5.30	112.40	119.30
25	BB	611	C	O4'-C1'-N1	5.30	116.46	108.50
25	BB	1346	G	O4'-C4'-C3'	5.30	109.30	104.00
25	BB	1701	A	C3'-C2'-O2'	5.30	118.66	110.70
25	BB	2498	C	O5'-C5'-C4'	5.30	119.66	111.70
23	AX	6	ILE	O-C-N	5.30	129.20	122.57
25	BB	1261	C	C1'-O4'-C4'	-5.30	104.60	109.90
25	BB	1887	C	C4'-C3'-O3'	-5.30	105.05	113.00
25	BB	2537	U	O4'-C1'-C2'	-5.30	100.50	105.80
28	BE	69	ARG	NE-CZ-NH1	5.30	126.80	121.50
29	BF	98	PRO	N-CA-CB	5.30	108.82	103.25
3	A1	52	C	C5'-C4'-O4'	5.30	117.75	109.80
3	A1	1110	A	C2'-C3'-O3'	5.30	117.45	109.50
6	AD	21	PRO	CA-C-N	5.30	131.67	121.54
6	AD	21	PRO	C-N-CA	5.30	131.67	121.54
6	AD	88	ASP	OD1-CG-OD2	-5.30	110.18	122.90
8	AG	42	ASN	O-C-N	-5.30	115.33	122.43
10	AI	27	ALA	CA-C-N	5.30	127.92	120.28
10	AI	27	ALA	C-N-CA	5.30	127.92	120.28
14	AN	47	GLN	O-C-N	-5.30	116.52	122.03
20	AU	96	ASN	CA-CB-CG	-5.30	107.30	112.60
22	AW	121	ARG	NE-CZ-NH1	-5.30	116.20	121.50
25	BB	161	A	C4'-C3'-C2'	-5.30	97.30	102.60
25	BB	488	G	C5'-C4'-C3'	-5.30	108.05	116.00
25	BB	492	A	C5'-C4'-C3'	-5.30	108.05	116.00
25	BB	1893	C	C5'-C4'-O4'	5.30	117.75	109.80
25	BB	1964	G	O5'-C5'-C4'	-5.30	103.55	111.50
25	BB	2117	A	O4'-C4'-C3'	-5.30	98.70	104.00
30	BG	4	ARG	NE-CZ-NH1	5.30	126.80	121.50
32	BI	23	ASP	CA-CB-CG	5.30	117.90	112.60
53	B4	39	ALA	N-CA-C	5.30	118.85	112.38
3	A1	294	U	O4'-C1'-N1	5.30	116.15	108.20
3	A1	1260	G	C5'-C4'-C3'	-5.30	108.05	116.00
3	A1	1525	G	C1'-C2'-O2'	-5.30	100.45	108.40
6	AD	53	ARG	NH1-CZ-NH2	-5.30	112.41	119.30
11	AJ	72	TRP	NE1-CE2-CZ2	5.30	138.05	130.10
15	AO	202	PHE	CA-CB-CG	5.30	119.10	113.80
17	AR	69	ARG	CB-CG-CD	5.30	123.49	111.30
22	AW	28	VAL	N-CA-C	5.30	115.15	106.72
25	BB	889	C	C5'-C4'-O4'	5.30	117.75	109.80
25	BB	1236	G	O3'-P-O5'	-5.30	96.05	104.00
25	BB	1566	A	O4'-C1'-N9	5.30	116.15	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1711	A	O4'-C1'-C2'	-5.30	102.30	107.60
25	BB	2246	G	O5'-C5'-C4'	5.30	119.45	111.50
25	BB	2617	U	C4'-C3'-C2'	-5.30	97.30	102.60
29	BF	62	LYS	CA-C-O	5.30	126.80	120.70
31	BH	87	ILE	CA-C-N	5.30	131.66	121.54
31	BH	87	ILE	C-N-CA	5.30	131.66	121.54
46	BW	49	VAL	CA-CB-CG2	5.30	119.41	110.40
49	BZ	143	ASP	CA-C-N	5.30	130.09	122.72
49	BZ	143	ASP	C-N-CA	5.30	130.09	122.72
50	B1	170	ARG	NH1-CZ-NH2	-5.30	112.41	119.30
51	B2	65	LEU	CD1-CG-CD2	-5.30	99.14	110.80
55	B6	1	MET	O-C-N	5.30	131.48	123.00
1	AA	57	G	O5'-C5'-C4'	5.30	119.45	111.50
3	A1	535	A	P-O3'-C3'	5.30	128.15	120.20
3	A1	754	C	C3'-C2'-C1'	5.30	106.60	101.30
3	A1	1495	U	O4'-C1'-C2'	-5.30	102.30	107.60
25	BB	83	A	O4'-C1'-C2'	-5.30	100.50	105.80
25	BB	2586	U	O4'-C4'-C3'	5.30	111.40	106.10
3	A1	689	C	O5'-C5'-C4'	-5.30	103.55	111.50
3	A1	719	C	C4'-C3'-C2'	-5.30	97.30	102.60
3	A1	894	G	C1'-O4'-C4'	-5.30	104.60	109.90
6	AD	78	VAL	CA-C-O	5.30	127.40	120.78
18	AS	82	HIS	O-C-N	-5.30	116.38	121.94
22	AW	3	ASN	CA-CB-CG	5.30	117.90	112.60
23	AX	83	THR	CA-CB-OG1	-5.30	101.65	109.60
25	BB	395	U	O4'-C1'-C2'	-5.30	102.30	107.60
25	BB	750	A	O5'-C5'-C4'	5.30	119.44	111.50
25	BB	1892	C	O3'-P-O5'	5.30	111.94	104.00
25	BB	2594	C	O5'-C5'-C4'	5.30	119.64	111.70
39	BP	40	ARG	N-CA-C	5.30	116.33	108.60
49	BZ	75	TYR	CG-CD2-CE2	-5.30	113.25	121.20
3	A1	309	A	N9-C1'-C2'	5.29	119.94	112.00
3	A1	1412	C	C4'-C3'-C2'	5.29	107.89	102.60
25	BB	351	C	O4'-C1'-C2'	5.29	112.89	107.60
25	BB	570	G	C3'-C2'-C1'	5.29	106.80	101.50
25	BB	1102	C	C3'-C2'-O2'	5.29	118.64	110.70
25	BB	1831	G	C3'-C2'-C1'	5.29	106.59	101.30
25	BB	2251	G	C5'-C4'-O4'	5.29	117.74	109.80
35	BL	110	ARG	NH1-CZ-NH2	-5.29	112.42	119.30
1	AP	33	U	O4'-C1'-C2'	5.29	112.89	107.60
3	A1	5	U	O4'-C1'-N1	5.29	116.14	108.20
3	A1	783	C	C3'-C2'-O2'	5.29	118.64	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1272	G	C3'-C2'-C1'	5.29	106.59	101.30
25	BB	1228	G	C5'-C4'-O4'	-5.29	101.86	109.80
25	BB	1665	A	C4'-C3'-O3'	5.29	120.94	113.00
25	BB	2858	C	O4'-C1'-C2'	-5.29	102.31	107.60
36	BM	77	ARG	NH1-CZ-NH2	-5.29	112.42	119.30
3	A1	1139	G	C5'-C4'-O4'	5.29	117.04	109.10
3	A1	1370	G	O5'-C5'-C4'	-5.29	103.56	111.50
25	BB	647	G	N9-C1'-C2'	-5.29	104.06	112.00
25	BB	973	A	N1-C6-N6	-5.29	102.72	118.60
25	BB	1192	G	O3'-P-O5'	-5.29	96.06	104.00
25	BB	1569	A	O4'-C4'-C3'	5.29	109.29	104.00
25	BB	1841	U	C4'-C3'-C2'	-5.29	97.31	102.60
25	BB	2055	C	N3-C2-O2	-5.29	106.03	121.90
25	BB	2408	U	O4'-C4'-C3'	5.29	111.39	106.10
25	BB	2716	C	C3'-C2'-C1'	-5.29	96.01	101.30
26	BC	23	ALA	N-CA-CB	-5.29	102.90	110.57
27	BD	18	ARG	CD-NE-CZ	5.29	131.81	124.40
28	BE	43	GLY	O-C-N	-5.29	117.45	123.11
30	BG	3	HIS	CA-C-N	5.29	131.38	122.76
30	BG	3	HIS	C-N-CA	5.29	131.38	122.76
31	BH	22	GLY	O-C-N	-5.29	118.72	123.96
35	BL	92	ARG	NE-CZ-NH2	5.29	123.96	119.20
47	BX	4	ARG	N-CA-C	5.29	122.07	110.80
50	B1	108	ILE	N-CA-C	5.29	116.02	110.62
1	AA	58	A	C4'-C3'-C2'	-5.29	97.31	102.60
3	A1	311	C	C5'-C4'-O4'	5.29	117.73	109.80
8	AG	60	ARG	CD-NE-CZ	5.29	131.81	124.40
19	AT	26	THR	CA-C-N	5.29	128.75	120.82
19	AT	26	THR	C-N-CA	5.29	128.75	120.82
25	BB	2038	G	O4'-C1'-C2'	-5.29	102.31	107.60
41	BR	7	THR	O-C-N	-5.29	117.22	123.25
41	BR	16	LEU	N-CA-C	5.29	116.08	109.57
1	AE	66	A	C5'-C4'-C3'	-5.29	108.07	116.00
3	A1	594	U	O4'-C4'-C3'	5.29	109.29	104.00
3	A1	1159	U	C3'-C2'-O2'	5.29	118.63	110.70
25	BB	742	A	C3'-C2'-C1'	5.29	106.59	101.30
25	BB	1393	A	O4'-C1'-N9	5.29	116.43	108.50
25	BB	1636	U	O3'-P-O5'	5.29	111.93	104.00
25	BB	1677	A	O3'-P-O5'	-5.29	96.07	104.00
25	BB	1985	C	C2'-C3'-O3'	5.29	117.43	109.50
25	BB	2725	A	C3'-C2'-O2'	5.29	122.53	114.60
25	BB	2793	C	N1-C1'-C2'	-5.29	104.07	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	BG	33	ILE	O-C-N	5.29	128.11	122.45
40	BQ	26	PHE	O-C-N	-5.29	115.84	122.35
3	A1	200	G	C1'-O4'-C4'	-5.29	104.61	109.90
3	A1	1194	U	C5'-C4'-O4'	5.29	117.73	109.80
3	A1	1370	G	C3'-C2'-O2'	5.29	118.63	110.70
4	AB	217	ALA	CA-C-N	5.29	127.63	120.65
4	AB	217	ALA	C-N-CA	5.29	127.63	120.65
17	AR	113	ALA	O-C-N	-5.29	116.42	122.08
25	BB	1630	A	C4'-C3'-C2'	-5.29	97.31	102.60
25	BB	1918	A	C1'-O4'-C4'	-5.29	104.41	109.70
25	BB	2816	G	C3'-C2'-O2'	5.29	118.63	110.70
47	BX	15	LYS	CA-CB-CG	5.29	124.67	114.10
2	AM	19	U	C2'-C3'-O3'	5.29	121.63	113.70
5	AC	40	ALA	N-CA-CB	-5.29	102.27	110.04
21	AV	102	VAL	CB-CA-C	5.29	118.05	110.33
25	BB	369	U	C1'-O4'-C4'	-5.29	104.42	109.70
25	BB	478	A	C5'-C4'-C3'	-5.29	108.07	116.00
25	BB	1042	G	C4'-C3'-C2'	-5.29	97.31	102.60
25	BB	1152	C	C5'-C4'-C3'	-5.29	108.07	116.00
25	BB	1709	U	P-O5'-C5'	5.29	128.83	120.90
25	BB	2315	G	C1'-C2'-O2'	5.29	116.33	108.40
25	BB	2488	G	O4'-C4'-C3'	5.29	109.28	104.00
34	BK	76	LYS	CA-C-O	-5.29	114.99	120.70
50	B1	117	ARG	CD-NE-CZ	5.29	131.80	124.40
1	AE	38	A	C2'-C3'-O3'	5.28	121.62	113.70
3	A1	630	A	C4'-C3'-C2'	-5.28	97.32	102.60
12	AK	60	ARG	CA-C-N	5.28	127.79	120.29
12	AK	60	ARG	C-N-CA	5.28	127.79	120.29
24	BA	75	G	C3'-C2'-O2'	5.28	118.63	110.70
24	BA	106	G	C2'-C3'-O3'	5.28	121.62	113.70
25	BB	116	C	O4'-C1'-C2'	-5.28	102.32	107.60
25	BB	2113	U	O4'-C1'-N1	5.28	116.42	108.50
38	BO	101	THR	N-CA-C	5.28	116.83	108.96
3	A1	554	A	O5'-C5'-C4'	5.28	119.42	111.50
6	AD	47	ALA	O-C-N	5.28	128.93	122.75
25	BB	1302	A	C4'-C3'-C2'	-5.28	97.32	102.60
25	BB	2171	A	C4'-C3'-O3'	-5.28	101.48	109.40
54	B5	113	ALA	CB-CA-C	5.28	120.93	110.42
3	A1	106	C	C3'-C2'-C1'	-5.28	96.02	101.30
3	A1	657	U	C5'-C4'-C3'	-5.28	108.08	116.00
3	A1	827	U	O4'-C4'-C3'	5.28	111.38	106.10
3	A1	1003	G	C3'-C2'-C1'	5.28	106.58	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1425	U	C1'-C2'-O2'	-5.28	100.48	108.40
8	AG	23	ARG	CA-C-O	-5.28	114.93	120.63
25	BB	95	A	C4'-C3'-O3'	-5.28	105.08	113.00
25	BB	798	G	C3'-C2'-C1'	-5.28	96.02	101.30
25	BB	1236	G	C4'-C3'-C2'	5.28	107.88	102.60
25	BB	1509	A	N9-C1'-C2'	-5.28	106.08	114.00
25	BB	1567	G	P-O3'-C3'	5.28	128.12	120.20
25	BB	1641	A	C5'-C4'-C3'	-5.28	108.08	116.00
29	BF	21	ALA	CA-C-N	5.28	130.89	121.75
29	BF	21	ALA	C-N-CA	5.28	130.89	121.75
36	BM	65	GLY	CA-C-N	5.28	129.66	121.26
36	BM	65	GLY	C-N-CA	5.28	129.66	121.26
51	B2	43	ILE	N-CA-C	5.28	118.06	112.83
3	A1	731	G	O5'-C5'-C4'	5.28	119.42	111.50
3	A1	1108	G	O4'-C4'-C3'	5.28	109.28	104.00
3	A1	1357	A	C4'-C3'-O3'	-5.28	105.08	113.00
9	AH	62	ARG	N-CA-C	5.28	117.72	111.33
17	AR	156	ALA	N-CA-CB	-5.28	101.63	110.39
21	AV	6	ILE	CA-CB-CG1	5.28	119.37	110.40
25	BB	556	A	N9-C1'-C2'	-5.28	104.08	112.00
25	BB	1368	G	C3'-C2'-C1'	5.28	106.58	101.30
25	BB	1518	C	O4'-C4'-C3'	5.28	109.28	104.00
50	B1	23	PHE	CA-CB-CG	5.28	119.08	113.80
3	A1	271	C	C5'-C4'-C3'	-5.28	108.08	116.00
3	A1	1118	U	O3'-P-O5'	-5.28	96.08	104.00
3	A1	1215	G	O4'-C1'-N9	-5.28	100.58	108.50
7	AF	20	SER	CA-C-O	5.28	125.67	119.28
17	AR	46	ARG	NE-CZ-NH2	5.28	123.95	119.20
25	BB	57	C	C2'-C3'-O3'	-5.28	105.78	113.70
25	BB	528	A	O4'-C4'-C3'	5.28	109.28	104.00
25	BB	637	A	C1'-C2'-O2'	-5.28	103.88	111.80
25	BB	686	U	N1-C1'-C2'	5.28	119.92	112.00
25	BB	2136	G	C1'-C2'-O2'	5.28	116.32	108.40
25	BB	2360	G	O4'-C1'-C2'	5.28	112.88	107.60
25	BB	2451	A	C4'-C3'-O3'	5.28	120.92	113.00
25	BB	2744	G	O3'-P-O5'	-5.28	96.08	104.00
25	BB	2873	A	N9-C1'-C2'	5.28	119.92	112.00
36	BM	69	ARG	NH1-CZ-NH2	-5.28	112.44	119.30
49	BZ	106	GLN	CB-CA-C	5.28	119.72	110.64
50	B1	79	ARG	NE-CZ-NH2	5.28	123.95	119.20
3	A1	215	C	O4'-C1'-N1	5.28	116.41	108.50
3	A1	239	U	C5'-C4'-C3'	-5.28	107.29	115.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1224	U	C2'-C3'-O3'	5.28	117.41	109.50
14	AN	38	ILE	CA-CB-CG1	5.28	119.37	110.40
25	BB	1036	G	O4'-C1'-C2'	-5.28	102.32	107.60
25	BB	1079	C	C5'-C4'-C3'	5.28	123.91	116.00
25	BB	1609	A	O4'-C1'-C2'	-5.28	102.32	107.60
25	BB	1988	G	C5'-C4'-O4'	5.28	117.71	109.80
25	BB	2126	A	C4'-C3'-O3'	5.28	117.31	109.40
25	BB	2693	G	C5'-C4'-O4'	5.28	117.01	109.10
37	BN	21	PRO	N-CA-C	5.28	125.81	112.10
4	AB	88	GLN	CA-CB-CG	5.27	124.65	114.10
25	BB	282	A	O5'-C5'-C4'	5.27	119.41	111.50
25	BB	377	G	C3'-C2'-O2'	5.27	118.61	110.70
25	BB	513	A	C4'-C3'-O3'	5.27	120.91	113.00
25	BB	1735	A	C3'-C2'-C1'	5.27	106.57	101.30
25	BB	1894	C	C1'-O4'-C4'	-5.27	104.63	109.90
25	BB	1931	U	O3'-P-O5'	5.27	111.91	104.00
25	BB	2324	U	O4'-C1'-N1	5.27	116.11	108.20
25	BB	2843	G	O4'-C1'-C2'	-5.27	102.33	107.60
27	BD	78	ARG	NH1-CZ-NH2	-5.27	112.44	119.30
46	BW	34	LYS	CA-C-O	-5.27	113.34	119.14
4	AB	81	ASP	N-CA-C	5.27	117.71	111.33
10	AI	22	ALA	CA-C-O	5.27	127.09	121.45
24	BA	63	C	C5'-C4'-C3'	-5.27	108.09	116.00
25	BB	344	A	O4'-C1'-C2'	-5.27	102.33	107.60
25	BB	541	A	C1'-O4'-C4'	-5.27	104.63	109.90
25	BB	692	C	O4'-C4'-C3'	5.27	109.27	104.00
25	BB	893	C	C5'-C4'-C3'	-5.27	108.09	116.00
25	BB	1328	A	C4'-C3'-C2'	-5.27	97.33	102.60
25	BB	1773	A	C5'-C4'-C3'	-5.27	108.09	116.00
29	BF	104	GLU	CB-CG-CD	5.27	121.56	112.60
47	BX	34	LYS	CA-C-N	5.27	130.05	122.40
47	BX	34	LYS	C-N-CA	5.27	130.05	122.40
51	B2	174	PHE	N-CA-C	5.27	121.46	109.81
1	AE	27	C	C3'-C2'-O2'	5.27	118.61	110.70
3	A1	264	C	C4'-C3'-O3'	5.27	120.91	113.00
15	AO	185	THR	CA-CB-CG2	5.27	119.46	110.50
25	BB	702	U	C3'-C2'-C1'	5.27	106.57	101.30
25	BB	854	C	O4'-C1'-N1	5.27	116.41	108.50
25	BB	1613	G	C4'-C3'-O3'	5.27	120.91	113.00
25	BB	2562	U	O4'-C1'-N1	5.27	116.11	108.20
25	BB	2716	C	C5'-C4'-C3'	-5.27	108.09	116.00
51	B2	42	ALA	CA-C-N	5.27	129.94	122.09

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
51	B2	42	ALA	C-N-CA	5.27	129.94	122.09
3	A1	46	G	P-O3'-C3'	5.27	128.10	120.20
3	A1	166	U	C3'-C2'-C1'	-5.27	96.03	101.30
3	A1	758	C	C1'-O4'-C4'	-5.27	104.63	109.90
3	A1	1010	U	C1'-C2'-O2'	5.27	116.31	108.40
3	A1	1190	G	O3'-P-O5'	5.27	111.90	104.00
17	AR	80	ARG	CD-NE-CZ	5.27	131.78	124.40
17	AR	149	LYS	O-C-N	5.27	128.17	122.11
18	AS	135	VAL	N-CA-C	5.27	117.68	111.09
25	BB	147	C	O4'-C1'-C2'	-5.27	100.53	105.80
25	BB	397	U	C3'-C2'-C1'	-5.27	96.03	101.30
25	BB	807	U	O4'-C4'-C3'	5.27	109.27	104.00
37	BN	132	ARG	CA-C-N	5.27	130.04	121.98
37	BN	132	ARG	C-N-CA	5.27	130.04	121.98
1	AP	23	A	O4'-C1'-C2'	-5.27	102.33	107.60
3	A1	555	U	C4'-C3'-C2'	-5.27	97.33	102.60
3	A1	1189	U	C5'-C4'-C3'	-5.27	108.10	116.00
3	A1	1227	A	O4'-C4'-C3'	5.27	111.37	106.10
23	AX	67	ILE	CA-CB-CG1	5.27	119.35	110.40
25	BB	160	A	C4'-C3'-C2'	5.27	107.87	102.60
25	BB	221	A	C4'-C3'-C2'	-5.27	97.33	102.60
25	BB	582	A	O5'-C5'-C4'	-5.27	103.60	111.50
25	BB	1326	U	C4'-C3'-O3'	-5.27	105.10	113.00
25	BB	1357	C	C5'-C4'-C3'	-5.27	108.10	116.00
25	BB	1378	A	O4'-C1'-N9	5.27	116.10	108.20
25	BB	1639	C	O5'-C5'-C4'	-5.27	103.80	111.70
25	BB	1819	A	C4'-C3'-C2'	-5.27	97.33	102.60
25	BB	2074	U	O4'-C1'-N1	5.27	116.40	108.50
25	BB	2249	U	O4'-C1'-N1	5.27	116.40	108.50
53	B4	98	ASP	CA-C-N	5.27	129.26	120.62
53	B4	98	ASP	C-N-CA	5.27	129.26	120.62
7	AF	79	LEU	CA-C-N	5.27	131.85	122.06
7	AF	79	LEU	C-N-CA	5.27	131.85	122.06
15	AO	3	LYS	CA-C-N	5.27	131.45	121.97
15	AO	3	LYS	C-N-CA	5.27	131.45	121.97
18	AS	138	ALA	CA-C-O	-5.27	115.27	120.80
23	AX	68	ARG	NH1-CZ-NH2	-5.27	112.45	119.30
25	BB	1391	U	O4'-C4'-C3'	-5.27	98.73	104.00
25	BB	2640	G	O5'-C5'-C4'	-5.27	103.60	111.50
27	BD	9	ASN	CA-C-N	5.27	128.14	120.98
27	BD	9	ASN	C-N-CA	5.27	128.14	120.98
34	BK	28	ALA	CA-C-N	5.27	130.63	122.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	BK	28	ALA	C-N-CA	5.27	130.63	122.26
46	BW	5	THR	CA-CB-OG1	-5.27	101.70	109.60
3	A1	245	U	C4'-C3'-O3'	-5.26	101.50	109.40
3	A1	279	A	C3'-C2'-O2'	5.26	118.60	110.70
3	A1	376	G	C3'-C2'-O2'	5.26	118.60	110.70
3	A1	852	G	O3'-P-O5'	5.26	111.90	104.00
3	A1	1313	U	C3'-C2'-O2'	5.26	118.60	110.70
3	A1	1385	G	O3'-P-O5'	5.26	111.90	104.00
17	AR	102	TYR	CA-C-O	-5.26	114.84	120.42
25	BB	101	A	C4'-C3'-C2'	-5.26	97.34	102.60
25	BB	575	A	C5'-C4'-C3'	5.26	123.10	115.20
25	BB	689	A	P-O3'-C3'	-5.26	112.31	120.20
25	BB	2032	G	C2'-C3'-O3'	5.26	117.40	109.50
25	BB	2141	G	C1'-C2'-O2'	-5.26	100.50	108.40
25	BB	2790	U	O3'-P-O5'	-5.26	96.10	104.00
27	BD	88	ASN	CA-CB-CG	-5.26	107.34	112.60
30	BG	16	HIS	CB-CG-CD2	-5.26	124.36	131.20
31	BH	23	ALA	O-C-N	-5.26	117.79	123.42
35	BL	7	HIS	CA-C-N	5.26	131.66	122.82
35	BL	7	HIS	C-N-CA	5.26	131.66	122.82
49	BZ	182	ASN	OD1-CG-ND2	-5.26	117.34	122.60
3	A1	471	U	C3'-C2'-O2'	5.26	118.59	110.70
3	A1	1525	G	C5'-C4'-O4'	5.26	117.69	109.80
22	AW	114	LYS	CA-C-N	5.26	131.44	121.97
22	AW	114	LYS	C-N-CA	5.26	131.44	121.97
23	AX	31	ARG	O-C-N	-5.26	115.49	122.33
24	BA	78	A	O5'-C5'-C4'	-5.26	103.61	111.50
25	BB	93	G	C2'-C3'-O3'	-5.26	105.81	113.70
25	BB	158	U	O4'-C1'-C2'	-5.26	102.34	107.60
25	BB	843	G	O5'-C5'-C4'	5.26	119.39	111.50
3	A1	1143	G	O4'-C4'-C3'	5.26	109.26	104.00
25	BB	77	G	C3'-C2'-O2'	5.26	118.59	110.70
25	BB	184	C	O4'-C1'-C2'	-5.26	102.34	107.60
25	BB	638	G	C4'-C3'-O3'	5.26	120.89	113.00
25	BB	1110	G	C5'-C4'-C3'	-5.26	108.11	116.00
25	BB	2115	G	C4'-C3'-C2'	-5.26	97.34	102.60
44	BU	44	GLN	N-CA-C	5.26	116.64	107.49
1	AE	22	G	P-O3'-C3'	5.26	128.09	120.20
3	A1	478	A	O4'-C1'-C2'	-5.26	102.34	107.60
9	AH	30	LEU	N-CA-CB	-5.26	102.35	109.98
11	AJ	63	CYS	CA-C-N	5.26	131.26	121.69
11	AJ	63	CYS	C-N-CA	5.26	131.26	121.69

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	187	G	C3'-C2'-C1'	5.26	106.56	101.30
25	BB	608	A	N1-C6-N6	-5.26	102.82	118.60
25	BB	776	G	C4'-C3'-O3'	-5.26	105.11	113.00
25	BB	935	C	O3'-P-O5'	5.26	111.89	104.00
25	BB	1416	G	O5'-C5'-C4'	5.26	119.39	111.50
25	BB	2207	C	O4'-C1'-C2'	-5.26	102.34	107.60
25	BB	2340	A	C2'-C3'-O3'	5.26	121.59	113.70
25	BB	2693	G	C1'-C2'-O2'	5.26	119.69	111.80
1	AA	17	U	O5'-C5'-C4'	-5.26	103.61	111.50
3	A1	92	U	O4'-C1'-C2'	5.26	111.06	105.80
3	A1	1236	A	C4'-C3'-C2'	-5.26	97.34	102.60
25	BB	656	G	C5'-C4'-C3'	-5.26	108.11	116.00
30	BG	45	ARG	CA-C-N	5.26	127.76	120.29
30	BG	45	ARG	C-N-CA	5.26	127.76	120.29
38	BO	5	ARG	CA-C-N	5.26	131.58	121.54
38	BO	5	ARG	C-N-CA	5.26	131.58	121.54
3	A1	247	G	C4'-C3'-O3'	5.26	120.89	113.00
3	A1	278	G	C5'-C4'-O4'	5.26	117.69	109.80
3	A1	594	U	C1'-O4'-C4'	-5.26	104.64	109.90
6	AD	58	ASN	CA-CB-CG	5.26	117.86	112.60
22	AW	11	ARG	CD-NE-CZ	5.26	131.76	124.40
25	BB	277	G	C3'-C2'-O2'	5.26	118.58	110.70
25	BB	1778	U	C1'-C2'-O2'	-5.26	103.92	111.80
25	BB	2376	A	C5'-C4'-C3'	-5.26	108.11	116.00
25	BB	2477	U	C4'-C3'-C2'	5.26	107.86	102.60
25	BB	2620	C	P-O3'-C3'	5.26	128.09	120.20
3	A1	505	G	C5'-C4'-C3'	-5.25	108.12	116.00
19	AT	36	ILE	O-C-N	-5.25	117.37	122.99
25	BB	372	G	C2'-C3'-O3'	5.25	117.38	109.50
25	BB	1109	C	O5'-C5'-C4'	-5.25	103.82	111.70
25	BB	1634	A	C3'-C2'-C1'	5.25	106.56	101.30
25	BB	2074	U	P-O3'-C3'	5.25	128.08	120.20
47	BX	26	ILE	CA-C-N	5.25	132.46	123.05
47	BX	26	ILE	C-N-CA	5.25	132.46	123.05
50	B1	113	VAL	CB-CA-C	5.25	119.91	111.29
51	B2	166	ARG	NE-CZ-NH1	5.25	126.75	121.50
3	A1	729	A	C3'-C2'-C1'	5.25	106.55	101.30
3	A1	892	A	C4'-C3'-C2'	-5.25	97.35	102.60
3	A1	1396	A	C1'-O4'-C4'	-5.25	104.45	109.70
3	A1	1528	U	C4'-C3'-C2'	-5.25	97.35	102.60
4	AB	11	ALA	CA-C-N	5.25	131.71	121.41
4	AB	11	ALA	C-N-CA	5.25	131.71	121.41

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
18	AS	149	PRO	CA-C-N	5.25	129.61	120.68
18	AS	149	PRO	C-N-CA	5.25	129.61	120.68
20	AU	27	ASN	N-CA-CB	-5.25	100.76	110.32
23	AX	36	VAL	CA-C-N	5.25	128.68	120.75
23	AX	36	VAL	C-N-CA	5.25	128.68	120.75
23	AX	85	ASP	CB-CA-C	5.25	119.51	110.79
25	BB	821	A	C5'-C4'-O4'	5.25	117.68	109.80
25	BB	1051	G	C3'-C2'-C1'	-5.25	96.05	101.30
25	BB	1273	U	C5'-C4'-C3'	-5.25	107.32	115.20
25	BB	1502	A	N9-C1'-C2'	5.25	119.88	112.00
25	BB	1549	A	C4'-C3'-O3'	-5.25	105.12	113.00
25	BB	2498	C	O4'-C1'-C2'	-5.25	100.55	105.80
25	BB	2549	G	C5'-C4'-C3'	-5.25	108.12	116.00
37	BN	208	GLY	O-C-N	-5.25	117.88	123.45
38	BO	28	LEU	N-CA-CB	-5.25	103.11	111.62
50	B1	108	ILE	CB-CA-C	-5.25	105.05	112.14
51	B2	137	PHE	CA-C-N	5.25	127.25	120.89
51	B2	137	PHE	C-N-CA	5.25	127.25	120.89
52	B3	40	VAL	CA-C-O	-5.25	116.10	121.67
53	B4	73	ASN	CB-CG-ND2	5.25	124.28	116.40
54	B5	67	THR	CA-C-N	5.25	131.15	122.33
54	B5	67	THR	C-N-CA	5.25	131.15	122.33
3	A1	904	U	O4'-C1'-C2'	5.25	112.85	107.60
3	A1	1056	U	C3'-C2'-O2'	5.25	118.58	110.70
3	A1	1269	A	C5'-C4'-C3'	-5.25	108.12	116.00
15	AO	200	TRP	CH2-CZ2-CE2	5.25	124.33	117.50
22	AW	10	ARG	NE-CZ-NH2	5.25	123.93	119.20
22	AW	123	ARG	NE-CZ-NH1	-5.25	116.25	121.50
25	BB	260	G	O3'-P-O5'	-5.25	96.12	104.00
25	BB	766	U	O4'-C1'-C2'	-5.25	100.55	105.80
25	BB	790	U	N1-C1'-C2'	5.25	119.88	112.00
25	BB	1001	A	C4'-C3'-O3'	5.25	120.88	113.00
30	BG	53	THR	O-C-N	-5.25	115.45	122.43
33	BJ	10	ARG	NE-CZ-NH2	-5.25	114.47	119.20
51	B2	114	ARG	CA-C-N	5.25	129.54	121.45
51	B2	114	ARG	C-N-CA	5.25	129.54	121.45
52	B3	142	GLN	CB-CG-CD	5.25	121.53	112.60
3	A1	502	A	C5'-C4'-O4'	5.25	117.68	109.80
15	AO	197	VAL	CA-CB-CG1	5.25	119.33	110.40
31	BH	116	GLN	OE1-CD-NE2	-5.25	117.35	122.60
3	A1	601	G	C4'-C3'-C2'	5.25	107.85	102.60
3	A1	952	U	O4'-C1'-C2'	-5.25	102.35	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1350	A	C3'-C2'-O2'	5.25	118.57	110.70
6	AD	30	ARG	NH1-CZ-NH2	-5.25	112.48	119.30
13	AL	46	LEU	CA-C-N	5.25	130.24	123.00
13	AL	46	LEU	C-N-CA	5.25	130.24	123.00
21	AV	109	VAL	CG1-CB-CG2	-5.25	99.25	110.80
22	AW	53	LEU	CB-CA-C	5.25	119.04	110.96
25	BB	280	U	O4'-C1'-N1	5.25	116.37	108.50
25	BB	817	C	C4'-C3'-O3'	-5.25	105.13	113.00
25	BB	1128	G	C1'-O4'-C4'	-5.25	104.65	109.90
25	BB	2576	G	O4'-C1'-N9	5.25	116.07	108.20
35	BL	27	LYS	CB-CG-CD	5.25	123.37	111.30
37	BN	188	ARG	N-CA-C	5.25	117.28	108.73
42	BS	50	ASP	N-CA-C	5.25	121.98	110.80
3	A1	278	G	C4'-C3'-C2'	5.25	107.85	102.60
3	A1	508	U	C2'-C3'-O3'	5.25	121.57	113.70
3	A1	1109	C	N1-C1'-C2'	5.25	121.87	114.00
25	BB	183	C	O3'-P-O5'	-5.25	96.13	104.00
25	BB	657	U	C5'-C4'-O4'	-5.25	101.23	109.10
25	BB	754	U	C1'-C2'-O2'	5.25	119.67	111.80
25	BB	1665	A	C1'-O4'-C4'	-5.25	104.65	109.90
25	BB	1838	C	C3'-C2'-C1'	-5.25	96.25	101.50
25	BB	1855	U	C2'-C3'-O3'	-5.25	105.83	113.70
48	BY	44	GLY	CA-C-O	-5.25	113.05	119.03
3	A1	1285	A	P-O5'-C5'	5.25	128.77	120.90
24	BA	51	G	O4'-C1'-C2'	-5.25	100.56	105.80
25	BB	1572	A	C1'-C2'-O2'	-5.25	100.53	108.40
4	AB	39	ILE	CA-C-N	5.24	129.57	121.71
4	AB	39	ILE	C-N-CA	5.24	129.57	121.71
25	BB	941	A	O4'-C1'-C2'	-5.24	102.36	107.60
25	BB	1024	G	O4'-C4'-C3'	-5.24	100.86	106.10
25	BB	1380	G	O4'-C4'-C3'	5.24	109.24	104.00
29	BF	17	ASN	CA-C-N	5.24	131.55	121.54
29	BF	17	ASN	C-N-CA	5.24	131.55	121.54
3	A1	381	C	O5'-C5'-C4'	5.24	119.56	111.70
3	A1	745	G	P-O5'-C5'	5.24	128.76	120.90
3	A1	1217	C	C3'-C2'-O2'	5.24	122.46	114.60
25	BB	963	U	C5'-C4'-O4'	5.24	117.66	109.80
25	BB	2154	A	O3'-P-O5'	-5.24	96.14	104.00
25	BB	2158	A	C3'-C2'-O2'	5.24	118.56	110.70
25	BB	2820	A	C2'-C3'-O3'	5.24	117.36	109.50
41	BR	56	VAL	CA-CB-CG1	5.24	119.31	110.40
45	BV	6	GLN	N-CA-C	5.24	117.13	109.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	BY	122	VAL	CA-CB-CG2	5.24	119.31	110.40
3	A1	1012	A	O3'-P-O5'	-5.24	96.14	104.00
3	A1	1153	G	C3'-C2'-C1'	5.24	106.54	101.30
3	A1	1157	A	C1'-C2'-O2'	5.24	119.66	111.80
3	A1	1244	G	C1'-O4'-C4'	5.24	115.14	109.90
25	BB	282	A	C4'-C3'-C2'	-5.24	97.36	102.60
25	BB	548	G	N9-C1'-C2'	-5.24	104.14	112.00
25	BB	667	U	O5'-C5'-C4'	-5.24	103.64	111.50
25	BB	674	G	O4'-C1'-C2'	-5.24	102.36	107.60
25	BB	709	U	O5'-C5'-C4'	5.24	119.36	111.50
25	BB	980	A	C3'-C2'-C1'	5.24	106.54	101.30
25	BB	1802	A	C5'-C4'-C3'	-5.24	108.14	116.00
25	BB	2061	G	C1'-O4'-C4'	-5.24	104.46	109.70
25	BB	2442	C	C3'-C2'-O2'	5.24	118.56	110.70
26	BC	21	ARG	NH1-CZ-NH2	-5.24	112.49	119.30
26	BC	79	ARG	CD-NE-CZ	5.24	131.74	124.40
37	BN	41	GLY	N-CA-C	5.24	120.77	111.02
37	BN	158	GLY	CA-C-N	5.24	131.55	121.54
37	BN	158	GLY	C-N-CA	5.24	131.55	121.54
1	AE	55	U	C4'-C3'-O3'	-5.24	105.14	113.00
3	A1	425	G	C2'-C3'-O3'	5.24	121.56	113.70
3	A1	440	C	C4'-C3'-C2'	-5.24	97.36	102.60
3	A1	723	U	C1'-C2'-O2'	-5.24	100.54	108.40
4	AB	59	ILE	CA-CB-CG1	5.24	119.30	110.40
15	AO	166	TRP	N-CA-CB	-5.24	101.74	110.80
20	AU	61	PHE	CA-CB-CG	5.24	119.04	113.80
24	BA	2	G	O4'-C1'-N9	5.24	116.36	108.50
25	BB	1096	A	O4'-C4'-C3'	5.24	109.24	104.00
25	BB	1147	A	C4'-C3'-O3'	5.24	120.86	113.00
25	BB	1488	C	C3'-C2'-O2'	5.24	118.56	110.70
25	BB	1695	G	O5'-C5'-C4'	-5.24	103.64	111.50
25	BB	1997	C	N1-C1'-C2'	-5.24	106.14	114.00
25	BB	2526	G	C5'-C4'-C3'	-5.24	108.14	116.00
33	BJ	27	ARG	NH1-CZ-NH2	-5.24	112.49	119.30
51	B2	88	VAL	N-CA-C	5.24	115.59	107.78
3	A1	314	C	O4'-C1'-C2'	-5.24	102.36	107.60
9	AH	87	ARG	NE-CZ-NH1	5.24	126.74	121.50
3	A1	393	A	N1-C6-N6	-5.24	102.90	118.60
3	A1	686	U	C3'-C2'-C1'	-5.24	96.27	101.50
3	A1	695	A	O3'-P-O5'	5.24	111.85	104.00
3	A1	1531	A	C4'-C3'-C2'	-5.24	97.36	102.60
7	AF	45	SER	CA-CB-OG	-5.24	100.63	111.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
8	AG	60	ARG	N-CA-CB	5.24	118.28	110.22
10	AI	56	ARG	CA-CB-CG	-5.24	103.63	114.10
14	AN	14	GLU	CA-C-O	-5.24	114.18	120.10
25	BB	16	C	O4'-C4'-C3'	5.24	109.23	104.00
25	BB	597	G	N9-C1'-C2'	5.24	119.85	112.00
25	BB	606	U	C3'-C2'-C1'	5.24	106.54	101.30
25	BB	926	G	P-O3'-C3'	5.24	128.05	120.20
25	BB	1024	G	O4'-C1'-C2'	-5.24	100.56	105.80
25	BB	1624	U	O5'-C5'-C4'	-5.24	103.65	111.50
25	BB	1717	A	C1'-O4'-C4'	-5.24	104.67	109.90
25	BB	1955	U	C4'-C3'-O3'	-5.24	101.55	109.40
25	BB	2227	A	O5'-C5'-C4'	-5.24	103.84	111.70
3	A1	1094	G	C1'-O4'-C4'	-5.23	104.47	109.70
6	AD	97	VAL	N-CA-C	-5.23	98.96	107.28
19	AT	42	TRP	CE3-CZ3-CH2	-5.23	114.30	121.10
25	BB	2190	G	C3'-C2'-C1'	-5.23	96.07	101.30
25	BB	2688	G	O4'-C1'-N9	5.23	116.35	108.50
48	BY	199	SER	CA-C-O	5.23	126.37	119.98
3	A1	76	G	O4'-C4'-C3'	-5.23	98.77	104.00
9	AH	25	GLU	CB-CA-C	-5.23	101.95	110.85
20	AU	57	GLU	CA-C-N	5.23	128.97	120.60
20	AU	57	GLU	C-N-CA	5.23	128.97	120.60
25	BB	1473	G	C3'-C2'-O2'	5.23	122.45	114.60
25	BB	1582	C	O5'-C5'-C4'	5.23	119.35	111.50
25	BB	1596	A	C3'-C2'-C1'	5.23	106.53	101.30
25	BB	1710	G	C3'-C2'-C1'	5.23	106.53	101.30
25	BB	1822	C	O4'-C1'-C2'	-5.23	102.37	107.60
25	BB	1902	C	C2'-C3'-O3'	5.23	121.55	113.70
25	BB	2675	A	N1-C6-N6	-5.23	102.90	118.60
31	BH	56	LYS	CA-C-N	5.23	128.26	120.31
31	BH	56	LYS	C-N-CA	5.23	128.26	120.31
39	BP	25	PHE	N-CA-C	5.23	118.23	109.96
49	BZ	177	GLU	CA-C-O	-5.23	115.31	120.70
51	B2	124	ARG	CB-CG-CD	5.23	123.34	111.30
52	B3	29	ASN	O-C-N	-5.23	115.29	122.46
1	AE	1	G	O3'-P-O5'	5.23	111.84	104.00
3	A1	12	U	O3'-P-O5'	-5.23	96.16	104.00
3	A1	751	U	O5'-C5'-C4'	-5.23	103.65	111.50
3	A1	1138	G	N9-C1'-C2'	5.23	119.84	112.00
13	AL	31	ARG	NE-CZ-NH2	5.23	123.91	119.20
23	AX	79	PRO	CA-C-N	5.23	131.53	121.54
23	AX	79	PRO	C-N-CA	5.23	131.53	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	208	C	C1'-C2'-O2'	5.23	116.25	108.40
25	BB	337	C	C4'-C3'-C2'	-5.23	97.37	102.60
25	BB	1041	G	C5'-C4'-C3'	-5.23	108.15	116.00
25	BB	1811	G	C3'-C2'-C1'	5.23	106.73	101.50
25	BB	1851	U	C3'-C2'-C1'	5.23	106.53	101.30
25	BB	2056	G	C5'-C4'-O4'	5.23	117.65	109.80
25	BB	2742	G	C4'-C3'-C2'	-5.23	97.37	102.60
55	B6	133	ALA	CA-C-N	5.23	130.00	121.74
55	B6	133	ALA	C-N-CA	5.23	130.00	121.74
1	AE	54	U	O3'-P-O5'	5.23	111.84	104.00
3	A1	849	G	C1'-O4'-C4'	5.23	115.13	109.90
25	BB	1501	G	C3'-C2'-O2'	5.23	118.54	110.70
25	BB	1734	G	N9-C1'-C2'	-5.23	104.16	112.00
25	BB	1780	A	P-O3'-C3'	5.23	128.04	120.20
52	B3	87	GLN	O-C-N	-5.23	117.42	123.33
1	AE	75	C	O5'-C5'-C4'	5.23	119.34	111.50
3	A1	129	A	C5'-C4'-O4'	5.23	116.94	109.10
3	A1	664	G	O4'-C4'-C3'	5.23	109.23	104.00
3	A1	684	U	O4'-C4'-C3'	-5.23	100.87	106.10
3	A1	1188	A	P-O3'-C3'	5.23	128.04	120.20
3	A1	1490	U	C3'-C2'-O2'	5.23	118.54	110.70
14	AN	4	LYS	N-CA-C	5.23	117.60	109.60
24	BA	52	A	C5'-C4'-O4'	5.23	117.64	109.80
25	BB	101	A	C3'-C2'-O2'	5.23	122.44	114.60
25	BB	622	G	P-O3'-C3'	5.23	128.04	120.20
25	BB	718	A	C5'-C4'-C3'	-5.23	108.16	116.00
25	BB	918	A	C4'-C3'-O3'	5.23	120.84	113.00
35	BL	54	ALA	N-CA-C	5.23	116.67	110.97
37	BN	208	GLY	CA-C-N	5.23	127.28	120.28
37	BN	208	GLY	C-N-CA	5.23	127.28	120.28
37	BN	237	ARG	CD-NE-CZ	5.23	131.72	124.40
43	BT	35	GLU	O-C-N	-5.23	115.65	122.39
49	BZ	202	ASN	N-CA-C	5.23	116.79	108.79
3	A1	860	A	O4'-C1'-N9	5.23	116.34	108.50
24	BA	94	A	O4'-C4'-C3'	5.23	109.23	104.00
25	BB	60	G	C1'-O4'-C4'	-5.23	104.67	109.90
25	BB	152	A	C5'-C4'-C3'	-5.23	108.16	116.00
25	BB	663	G	C4'-C3'-C2'	-5.23	97.37	102.60
25	BB	858	G	C5'-C4'-C3'	-5.23	108.16	116.00
25	BB	2448	A	O5'-C5'-C4'	5.23	119.54	111.70
25	BB	2800	A	C4'-C3'-C2'	-5.23	97.37	102.60
39	BP	63	ASP	N-CA-CB	5.23	118.00	110.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	59	U	C5'-C4'-C3'	-5.22	108.16	116.00
25	BB	495	G	C3'-C2'-C1'	5.22	106.52	101.30
25	BB	814	C	C1'-O4'-C4'	-5.22	104.67	109.90
25	BB	1401	G	P-O3'-C3'	5.22	128.04	120.20
25	BB	2829	A	C5'-C4'-C3'	-5.22	108.16	116.00
26	BC	26	PHE	O-C-N	5.22	125.59	121.88
39	BP	40	ARG	CB-CG-CD	-5.22	99.28	111.30
47	BX	29	ALA	N-CA-C	5.22	117.88	111.82
55	B6	6	ALA	CA-C-N	5.22	131.10	121.70
55	B6	6	ALA	C-N-CA	5.22	131.10	121.70
3	A1	33	A	O4'-C1'-C2'	-5.22	102.38	107.60
3	A1	640	A	N1-C6-N6	-5.22	102.93	118.60
3	A1	752	G	O4'-C1'-C2'	-5.22	100.58	105.80
6	AD	51	VAL	CA-CB-CG2	5.22	119.28	110.40
6	AD	72	ASN	CA-C-N	5.22	130.27	122.23
6	AD	72	ASN	C-N-CA	5.22	130.27	122.23
20	AU	85	GLN	CA-C-N	5.22	131.10	121.70
20	AU	85	GLN	C-N-CA	5.22	131.10	121.70
25	BB	318	C	C4'-C3'-O3'	-5.22	101.57	109.40
25	BB	1573	G	C1'-C2'-O2'	5.22	116.23	108.40
25	BB	1633	G	C3'-C2'-C1'	5.22	106.52	101.30
25	BB	2275	C	P-O3'-C3'	5.22	128.03	120.20
25	BB	2275	C	C3'-C2'-O2'	5.22	118.53	110.70
25	BB	2783	U	P-O3'-C3'	5.22	128.03	120.20
25	BB	2803	G	O4'-C4'-C3'	5.22	109.22	104.00
28	BE	109	LYS	CB-CA-C	5.22	120.20	111.22
51	B2	141	ASP	CA-C-N	5.22	131.52	121.54
51	B2	141	ASP	C-N-CA	5.22	131.52	121.54
3	A1	1377	A	N1-C6-N6	-5.22	102.94	118.60
15	AO	105	VAL	CG1-CB-CG2	-5.22	99.31	110.80
25	BB	92	U	C2'-C3'-O3'	5.22	121.53	113.70
43	BT	27	LEU	CA-C-N	5.22	127.73	120.63
43	BT	27	LEU	C-N-CA	5.22	127.73	120.63
1	AE	12	U	C5'-C4'-O4'	5.22	117.63	109.80
3	A1	61	G	C1'-O4'-C4'	-5.22	104.68	109.90
3	A1	192	A	C4'-C3'-C2'	-5.22	97.38	102.60
3	A1	252	U	O5'-C5'-C4'	5.22	119.33	111.50
3	A1	732	C	C1'-C2'-O2'	5.22	119.63	111.80
3	A1	755	G	C3'-C2'-C1'	-5.22	96.08	101.30
3	A1	764	C	C4'-C3'-C2'	-5.22	97.38	102.60
3	A1	956	U	N1-C1'-C2'	5.22	121.83	114.00
25	BB	493	G	C4'-C3'-C2'	-5.22	97.38	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1276	A	C3'-C2'-C1'	5.22	106.52	101.30
25	BB	1776	G	N9-C1'-C2'	5.22	121.83	114.00
25	BB	1827	U	O4'-C1'-N1	5.22	116.03	108.20
25	BB	1833	C	C4'-C3'-O3'	5.22	120.83	113.00
39	BP	39	GLN	OE1-CD-NE2	-5.22	117.38	122.60
50	B1	187	VAL	N-CA-C	5.22	115.73	108.84
51	B2	42	ALA	N-CA-C	5.22	121.92	110.80
3	A1	1432	G	C4'-C3'-C2'	5.22	107.82	102.60
3	A1	1495	U	C5'-C4'-C3'	5.22	123.83	116.00
8	AG	51	PRO	CA-C-N	5.22	131.51	121.54
8	AG	51	PRO	C-N-CA	5.22	131.51	121.54
25	BB	1690	A	C5'-C4'-C3'	-5.22	108.17	116.00
25	BB	2196	C	O4'-C1'-N1	5.22	116.03	108.20
25	BB	2768	U	O4'-C4'-C3'	5.22	109.22	104.00
48	BY	108	ASP	CA-C-N	5.22	128.22	122.22
48	BY	108	ASP	C-N-CA	5.22	128.22	122.22
50	B1	178	VAL	CA-C-O	-5.22	114.26	120.78
1	AE	37	G	C1'-O4'-C4'	-5.22	104.68	109.90
3	A1	133	U	C5'-C4'-C3'	-5.22	108.17	116.00
3	A1	201	G	C1'-O4'-C4'	-5.22	104.68	109.90
3	A1	449	G	O4'-C1'-C2'	5.22	112.82	107.60
3	A1	1363	A	C2'-C3'-O3'	5.22	121.53	113.70
23	AX	74	VAL	CA-C-O	-5.22	114.55	120.65
24	BA	80	U	N1-C1'-C2'	5.22	121.83	114.00
24	BA	115	A	O4'-C4'-C3'	5.22	109.22	104.00
25	BB	55	G	C1'-C2'-O2'	-5.22	100.57	108.40
25	BB	1079	C	C3'-C2'-C1'	-5.22	96.08	101.30
25	BB	1124	G	O5'-C5'-C4'	5.22	119.33	111.50
25	BB	2015	A	P-O5'-C5'	5.22	128.72	120.90
25	BB	2075	U	C4'-C3'-C2'	-5.22	97.38	102.60
25	BB	2443	C	O3'-P-O5'	5.22	111.83	104.00
29	BF	55	ARG	CA-C-N	5.22	131.50	121.54
29	BF	55	ARG	C-N-CA	5.22	131.50	121.54
38	BO	20	LYS	CA-C-N	5.22	130.20	123.00
38	BO	20	LYS	C-N-CA	5.22	130.20	123.00
49	BZ	139	PRO	CA-C-O	5.22	128.47	121.95
3	A1	18	C	O5'-C5'-C4'	-5.21	103.68	111.50
3	A1	303	A	O4'-C4'-C3'	5.21	109.21	104.00
3	A1	954	G	C5'-C4'-C3'	-5.21	108.18	116.00
25	BB	1712	U	C4'-C3'-C2'	-5.21	97.39	102.60
37	BN	106	PRO	N-CA-C	5.21	118.90	111.13
54	B5	138	VAL	CB-CA-C	-5.21	106.27	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	463	U	C1'-O4'-C4'	-5.21	104.69	109.90
25	BB	320	A	C1'-O4'-C4'	-5.21	104.49	109.70
25	BB	961	C	C5'-C4'-O4'	5.21	116.92	109.10
25	BB	1131	G	C5'-C4'-C3'	-5.21	107.38	115.20
25	BB	1577	C	O4'-C1'-C2'	-5.21	102.39	107.60
25	BB	2457	U	O4'-C4'-C3'	-5.21	100.89	106.10
25	BB	2880	C	C3'-C2'-O2'	5.21	118.52	110.70
3	A1	905	U	P-O3'-C3'	5.21	128.02	120.20
3	A1	968	A	O4'-C1'-N9	5.21	116.02	108.20
3	A1	992	U	O5'-C5'-C4'	-5.21	103.88	111.70
3	A1	1333	A	C1'-O4'-C4'	-5.21	104.69	109.90
3	A1	1458	G	C3'-C2'-O2'	5.21	118.52	110.70
17	AR	125	ASN	CB-CG-ND2	5.21	124.22	116.40
18	AS	131	ASN	CB-CG-ND2	5.21	124.22	116.40
25	BB	212	G	C5'-C4'-C3'	-5.21	107.38	115.20
25	BB	340	A	C5'-C4'-O4'	-5.21	101.98	109.80
25	BB	476	G	C4'-C3'-C2'	5.21	107.81	102.60
25	BB	651	G	C3'-C2'-O2'	5.21	118.52	110.70
25	BB	975	A	C4'-C3'-C2'	5.21	107.81	102.60
25	BB	1003	G	O4'-C4'-C3'	5.21	109.21	104.00
25	BB	1284	A	N9-C1'-C2'	-5.21	106.18	114.00
25	BB	1500	G	O4'-C1'-C2'	5.21	112.81	107.60
25	BB	1526	C	C3'-C2'-C1'	5.21	106.51	101.30
25	BB	1606	C	O5'-C5'-C4'	-5.21	103.68	111.50
25	BB	1704	C	C3'-C2'-C1'	5.21	106.71	101.50
26	BC	78	GLN	OE1-CD-NE2	-5.21	117.39	122.60
28	BE	63	LYS	CA-C-N	5.21	131.17	122.73
28	BE	63	LYS	C-N-CA	5.21	131.17	122.73
48	BY	176	ASP	O-C-N	-5.21	116.52	122.93
3	A1	104	G	C1'-C2'-O2'	5.21	119.61	111.80
3	A1	318	G	P-O5'-C5'	5.21	128.72	120.90
25	BB	2651	C	O4'-C4'-C3'	5.21	109.21	104.00
30	BG	94	TYR	CA-CB-CG	5.21	123.28	113.90
37	BN	235	GLU	N-CA-C	5.21	119.48	113.38
3	A1	753	A	O4'-C1'-N9	5.21	116.01	108.20
3	A1	812	G	C5'-C4'-O4'	5.21	116.91	109.10
3	A1	891	U	O4'-C4'-C3'	5.21	111.31	106.10
3	A1	1039	G	O3'-P-O5'	5.21	111.81	104.00
19	AT	89	VAL	O-C-N	-5.21	117.53	123.10
25	BB	75	G	P-O3'-C3'	5.21	128.01	120.20
25	BB	437	U	P-O5'-C5'	-5.21	113.09	120.90
25	BB	441	U	C3'-C2'-C1'	5.21	106.51	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	724	U	C3'-C2'-C1'	5.21	106.51	101.30
25	BB	1559	U	P-O5'-C5'	5.21	128.71	120.90
25	BB	2231	U	C4'-C3'-C2'	5.21	107.81	102.60
25	BB	2276	G	O5'-C5'-C4'	5.21	119.51	111.70
25	BB	2297	A	C5'-C4'-O4'	5.21	117.61	109.80
37	BN	142	ASN	CA-C-O	-5.21	115.35	120.82
12	AK	62	ARG	NH1-CZ-NH2	-5.21	112.53	119.30
25	BB	76	C	N1-C1'-C2'	-5.21	104.19	112.00
25	BB	1253	A	C1'-O4'-C4'	-5.21	104.49	109.70
25	BB	1274	A	C1'-O4'-C4'	-5.21	104.69	109.90
25	BB	2122	U	N1-C1'-C2'	-5.21	104.19	112.00
29	BF	128	THR	CA-C-N	5.21	130.76	121.75
29	BF	128	THR	C-N-CA	5.21	130.76	121.75
4	AB	75	ALA	N-CA-C	5.21	116.95	111.28
18	AS	53	ARG	NH1-CZ-NH2	-5.21	112.53	119.30
25	BB	1880	U	O3'-P-O5'	-5.21	96.19	104.00
1	AP	8	U	C1'-O4'-C4'	-5.20	104.70	109.90
1	AE	47	U	C2'-C3'-O3'	5.20	117.31	109.50
3	A1	550	G	C5'-C4'-C3'	-5.20	108.19	116.00
3	A1	897	C	C3'-C2'-C1'	5.20	106.50	101.30
4	AB	11	ALA	N-CA-C	5.20	117.69	111.71
8	AG	48	GLN	CA-C-N	5.20	131.48	121.18
8	AG	48	GLN	C-N-CA	5.20	131.48	121.18
15	AO	120	THR	N-CA-C	5.20	118.73	112.38
20	AU	67	ASN	CA-CB-CG	-5.20	107.40	112.60
21	AV	65	PHE	CA-CB-CG	-5.20	108.60	113.80
21	AV	87	ARG	CD-NE-CZ	5.20	131.68	124.40
25	BB	1101	U	N1-C1'-C2'	5.20	119.81	112.00
25	BB	1638	C	C3'-C2'-O2'	5.20	118.51	110.70
25	BB	1770	G	P-O3'-C3'	5.20	128.01	120.20
25	BB	2593	U	O4'-C4'-C3'	-5.20	98.80	104.00
25	BB	2762	C	C3'-C2'-C1'	5.20	106.50	101.30
27	BD	71	ARG	N-CA-C	5.20	117.07	109.84
28	BE	107	PHE	N-CA-CB	-5.20	101.70	110.49
30	BG	76	VAL	N-CA-C	5.20	115.93	110.62
31	BH	93	ASP	O-C-N	-5.20	116.72	122.86
36	BM	7	LEU	N-CA-CB	-5.20	101.69	110.49
38	BO	73	ASN	CB-CA-C	5.20	120.77	110.42
3	A1	1338	G	O3'-P-O5'	-5.20	96.20	104.00
25	BB	1011	G	O5'-C5'-C4'	5.20	119.50	111.70
25	BB	1335	C	C5'-C4'-C3'	-5.20	108.20	116.00
25	BB	2059	A	N1-C6-N6	-5.20	103.00	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2155	U	O5'-C5'-C4'	-5.20	103.70	111.50
25	BB	2265	U	C5'-C4'-O4'	5.20	117.60	109.80
35	BL	3	THR	N-CA-C	5.20	116.98	109.07
51	B2	135	ILE	CA-C-N	5.20	131.33	121.97
51	B2	135	ILE	C-N-CA	5.20	131.33	121.97
3	A1	1513	A	C5'-C4'-C3'	-5.20	108.20	116.00
22	AW	108	ARG	NE-CZ-NH2	5.20	123.88	119.20
25	BB	1449	G	O4'-C1'-N9	5.20	116.30	108.50
25	BB	1785	A	P-O3'-C3'	5.20	128.00	120.20
25	BB	2366	A	C5'-C4'-C3'	-5.20	108.20	116.00
25	BB	2534	A	C4'-C3'-C2'	-5.20	97.40	102.60
49	BZ	133	LYS	N-CA-C	5.20	117.32	109.41
3	A1	251	G	O3'-P-O5'	5.20	111.80	104.00
3	A1	900	A	O4'-C1'-N9	-5.20	100.70	108.50
3	A1	1318	A	P-O3'-C3'	5.20	128.00	120.20
8	AG	89	ARG	CD-NE-CZ	5.20	131.68	124.40
25	BB	837	C	O4'-C1'-N1	5.20	116.00	108.20
25	BB	849	A	C1'-O4'-C4'	-5.20	104.70	109.90
25	BB	929	U	C1'-C2'-O2'	-5.20	100.60	108.40
25	BB	1500	G	C5'-C4'-C3'	-5.20	108.20	116.00
25	BB	1920	C	O3'-P-O5'	-5.20	96.20	104.00
30	BG	22	ARG	NE-CZ-NH1	5.20	126.70	121.50
30	BG	29	VAL	CA-C-N	5.20	127.77	120.28
30	BG	29	VAL	C-N-CA	5.20	127.77	120.28
36	BM	74	ILE	O-C-N	-5.20	117.86	122.69
37	BN	113	ASP	O-C-N	-5.20	115.68	122.59
48	BY	79	LEU	CA-C-N	5.20	129.68	122.77
48	BY	79	LEU	C-N-CA	5.20	129.68	122.77
3	A1	911	U	C4'-C3'-C2'	-5.20	97.40	102.60
3	A1	193	C	C5'-C4'-C3'	-5.20	108.21	116.00
3	A1	592	G	C1'-C2'-O2'	-5.20	100.61	108.40
3	A1	756	C	C5'-C4'-C3'	-5.20	108.20	116.00
25	BB	246	C	O4'-C4'-C3'	-5.20	98.81	104.00
25	BB	799	G	C5'-C4'-C3'	-5.20	108.21	116.00
25	BB	1954	G	C2'-C3'-O3'	5.20	117.29	109.50
25	BB	2713	U	P-O3'-C3'	5.20	127.99	120.20
25	BB	2799	A	C1'-O4'-C4'	-5.20	104.50	109.70
32	BI	72	VAL	CA-C-N	5.20	129.52	121.26
32	BI	72	VAL	C-N-CA	5.20	129.52	121.26
37	BN	138	SER	N-CA-CB	5.20	117.68	109.94
48	BY	175	LEU	O-C-N	-5.20	116.44	123.19
49	BZ	44	GLY	CA-C-N	5.20	131.46	121.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
49	BZ	44	GLY	C-N-CA	5.20	131.46	121.54
49	BZ	49	ARG	O-C-N	5.20	129.50	122.59
1	AP	19	G	N9-C1'-C2'	5.19	121.79	114.00
1	AP	54	U	C2'-C3'-O3'	5.19	121.49	113.70
3	A1	36	C	C1'-O4'-C4'	5.19	115.09	109.90
3	A1	682	G	C3'-C2'-C1'	-5.19	96.31	101.50
4	AB	22	TRP	CA-CB-CG	5.19	123.47	113.60
25	BB	1505	A	O4'-C1'-N9	-5.19	100.71	108.50
25	BB	2308	G	O4'-C4'-C3'	-5.19	100.91	106.10
25	BB	2396	G	O4'-C4'-C3'	5.19	109.19	104.00
3	A1	683	G	C1'-O4'-C4'	-5.19	104.71	109.90
19	AT	96	VAL	CA-C-N	5.19	128.20	120.31
19	AT	96	VAL	C-N-CA	5.19	128.20	120.31
25	BB	33	C	C5'-C4'-O4'	-5.19	101.31	109.10
25	BB	342	A	C4'-C3'-O3'	-5.19	105.21	113.00
25	BB	962	G	C4'-C3'-C2'	-5.19	97.41	102.60
25	BB	1407	G	C4'-C3'-O3'	5.19	120.79	113.00
25	BB	1652	A	O4'-C1'-N9	-5.19	100.71	108.50
25	BB	1769	U	O4'-C1'-N1	5.19	116.29	108.50
25	BB	2081	U	C1'-O4'-C4'	-5.19	104.71	109.90
25	BB	2667	C	O3'-P-O5'	5.19	111.79	104.00
30	BG	104	ALA	N-CA-C	5.19	121.86	110.80
45	BV	27	GLY	CA-C-N	5.19	127.24	120.28
45	BV	27	GLY	C-N-CA	5.19	127.24	120.28
55	B6	69	ARG	NE-CZ-NH1	5.19	126.69	121.50
1	AE	15	G	O4'-C4'-C3'	5.19	109.19	104.00
1	AE	70	C	C3'-C2'-O2'	5.19	118.48	110.70
23	AX	80	THR	CA-CB-CG2	5.19	119.32	110.50
25	BB	1075	C	C1'-O4'-C4'	-5.19	104.71	109.90
25	BB	2151	U	O4'-C4'-C3'	5.19	109.19	104.00
25	BB	2279	G	O4'-C1'-N9	5.19	116.28	108.50
30	BG	74	GLU	CA-C-N	5.19	131.31	121.97
30	BG	74	GLU	C-N-CA	5.19	131.31	121.97
49	BZ	102	LYS	O-C-N	5.19	127.43	122.03
1	AE	56	C	O4'-C1'-N1	5.19	116.28	108.50
3	A1	124	C	C4'-C3'-C2'	-5.19	97.41	102.60
3	A1	554	A	C4'-C3'-O3'	-5.19	105.22	113.00
3	A1	1082	A	O4'-C1'-N9	5.19	116.28	108.50
45	BV	13	ASN	N-CA-CB	-5.19	101.78	110.39
3	A1	23	C	C4'-C3'-C2'	-5.19	97.41	102.60
3	A1	446	G	C1'-C2'-O2'	-5.19	100.62	108.40
3	A1	494	G	C3'-C2'-C1'	5.19	106.49	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	813	U	C3'-C2'-O2'	5.19	122.38	114.60
3	A1	1401	G	C4'-C3'-C2'	-5.19	97.41	102.60
15	AO	46	LEU	CA-C-N	5.19	127.49	120.38
15	AO	46	LEU	C-N-CA	5.19	127.49	120.38
25	BB	37	C	C1'-C2'-O2'	-5.19	100.62	108.40
25	BB	236	C	P-O3'-C3'	5.19	127.98	120.20
25	BB	412	A	C1'-O4'-C4'	-5.19	104.71	109.90
25	BB	552	U	C3'-C2'-C1'	-5.19	96.11	101.30
25	BB	1012	U	N1-C1'-C2'	5.19	121.78	114.00
25	BB	1129	A	O4'-C1'-C2'	-5.19	100.61	105.80
25	BB	1784	A	C5'-C4'-C3'	-5.19	107.42	115.20
44	BU	22	THR	CA-C-N	5.19	131.45	121.54
44	BU	22	THR	C-N-CA	5.19	131.45	121.54
55	B6	96	ARG	CA-C-N	5.19	126.33	119.84
55	B6	96	ARG	C-N-CA	5.19	126.33	119.84
25	BB	155	A	C5'-C4'-O4'	5.19	117.58	109.80
25	BB	2192	U	N1-C1'-C2'	-5.19	104.22	112.00
25	BB	2248	C	C3'-C2'-C1'	-5.19	96.11	101.30
32	BI	39	LEU	CA-C-O	-5.19	113.74	119.08
37	BN	109	LEU	CA-C-N	5.19	130.88	122.53
37	BN	109	LEU	C-N-CA	5.19	130.88	122.53
43	BT	22	THR	CA-CB-OG1	5.19	117.38	109.60
3	A1	1183	U	C3'-C2'-O2'	5.18	118.48	110.70
6	AD	39	THR	CA-CB-CG2	5.18	119.31	110.50
15	AO	127	VAL	CA-C-O	5.18	125.97	120.48
20	AU	72	VAL	CB-CA-C	-5.18	102.39	110.69
25	BB	306	U	C1'-O4'-C4'	5.18	115.08	109.90
25	BB	334	C	P-O5'-C5'	5.18	128.68	120.90
25	BB	869	G	O4'-C1'-N9	5.18	116.28	108.50
25	BB	1399	C	O4'-C1'-N1	5.18	116.28	108.50
25	BB	1666	G	C2'-C3'-O3'	5.18	121.48	113.70
25	BB	2020	A	O4'-C1'-N9	5.18	115.98	108.20
25	BB	2397	G	C3'-C2'-O2'	5.18	118.48	110.70
25	BB	2834	G	C4'-C3'-C2'	-5.18	97.42	102.60
35	BL	17	VAL	CA-C-O	-5.18	115.66	121.05
51	B2	161	SER	N-CA-C	5.18	116.95	109.07
55	B6	47	HIS	CA-CB-CG	-5.18	108.62	113.80
55	B6	65	THR	CA-C-O	-5.18	116.26	122.27
3	A1	66	A	O3'-P-O5'	5.18	111.78	104.00
3	A1	174	A	C5'-C4'-O4'	-5.18	101.33	109.10
3	A1	383	A	C5'-C4'-O4'	5.18	117.58	109.80
6	AD	9	LYS	CA-C-N	5.18	126.32	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AD	9	LYS	C-N-CA	5.18	126.32	119.84
25	BB	151	C	C5'-C4'-C3'	-5.18	108.23	116.00
25	BB	514	A	C5'-C4'-C3'	-5.18	108.23	116.00
25	BB	553	G	C1'-O4'-C4'	-5.18	104.52	109.70
25	BB	1425	G	C5'-C4'-C3'	-5.18	107.43	115.20
25	BB	1565	C	C5'-C4'-C3'	-5.18	107.42	115.20
25	BB	1796	U	O4'-C4'-C3'	-5.18	98.82	104.00
27	BD	57	VAL	O-C-N	5.18	128.80	123.20
44	BU	40	PRO	N-CA-C	5.18	120.67	113.98
53	B4	134	VAL	N-CA-CB	5.18	116.26	110.51
25	BB	88	G	C3'-C2'-O2'	5.18	118.47	110.70
25	BB	866	A	C5'-C4'-C3'	-5.18	108.23	116.00
30	BG	31	HIS	CB-CG-CD2	-5.18	124.47	131.20
1	AE	63	C	P-O3'-C3'	5.18	127.97	120.20
3	A1	277	C	C5'-C4'-C3'	-5.18	108.23	116.00
3	A1	319	G	C3'-C2'-O2'	5.18	118.47	110.70
3	A1	694	A	O4'-C4'-C3'	5.18	111.28	106.10
3	A1	771	G	C5'-C4'-C3'	-5.18	107.43	115.20
3	A1	880	C	C3'-C2'-O2'	5.18	118.47	110.70
3	A1	1145	A	C3'-C2'-O2'	5.18	122.37	114.60
3	A1	1279	G	C3'-C2'-C1'	5.18	106.68	101.50
17	AR	7	LYS	O-C-N	-5.18	116.10	122.11
19	AT	63	ASN	CB-CA-C	5.18	118.44	110.62
25	BB	356	G	O4'-C4'-C3'	5.18	109.18	104.00
25	BB	918	A	C5'-C4'-O4'	5.18	117.57	109.80
25	BB	1265	A	C3'-C2'-O2'	5.18	122.37	114.60
25	BB	1499	C	O4'-C4'-C3'	5.18	109.18	104.00
25	BB	1745	A	C3'-C2'-C1'	5.18	106.48	101.30
25	BB	1799	G	C4'-C3'-O3'	-5.18	101.63	109.40
25	BB	1898	U	O4'-C1'-C2'	-5.18	100.62	105.80
25	BB	1962	C	C5'-C4'-O4'	5.18	116.87	109.10
25	BB	2448	A	O4'-C4'-C3'	5.18	111.28	106.10
25	BB	2841	C	C4'-C3'-O3'	5.18	120.77	113.00
29	BF	28	PHE	N-CA-C	5.18	121.83	110.80
51	B2	89	THR	O-C-N	5.18	129.79	123.21
3	A1	1400	C	O3'-P-O5'	-5.18	96.23	104.00
22	AW	128	LYS	CB-CG-CD	5.18	123.21	111.30
25	BB	509	C	P-O5'-C5'	5.18	128.67	120.90
25	BB	1715	G	O4'-C1'-N9	5.18	115.97	108.20
25	BB	2062	A	C5'-C4'-C3'	-5.18	107.43	115.20
25	BB	2146	C	C3'-C2'-C1'	5.18	106.68	101.50
25	BB	2210	U	C4'-C3'-C2'	-5.18	97.42	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
27	BD	27	GLY	N-CA-C	5.18	117.31	112.08
34	BK	31	GLU	CA-C-N	5.18	131.01	121.85
34	BK	31	GLU	C-N-CA	5.18	131.01	121.85
50	B1	101	TYR	N-CA-C	5.18	119.60	113.28
25	BB	97	C	O4'-C1'-C2'	-5.18	102.42	107.60
25	BB	232	G	C1'-O4'-C4'	-5.18	104.52	109.70
25	BB	1395	A	O5'-C5'-C4'	5.18	119.47	111.70
25	BB	1794	A	C4'-C3'-O3'	-5.18	105.23	113.00
25	BB	1934	C	C4'-C3'-O3'	-5.18	101.64	109.40
25	BB	1941	C	C4'-C3'-C2'	5.18	107.78	102.60
49	BZ	51	ILE	CB-CA-C	5.18	117.83	111.25
3	A1	466	A	C5'-C4'-O4'	5.17	116.86	109.10
3	A1	537	G	O3'-P-O5'	-5.17	96.24	104.00
3	A1	683	G	C3'-C2'-O2'	5.17	118.46	110.70
3	A1	1378	C	C1'-O4'-C4'	-5.17	104.73	109.90
4	AB	39	ILE	CB-CA-C	5.17	118.47	110.50
4	AB	223	GLY	CA-C-N	5.17	127.94	120.38
4	AB	223	GLY	C-N-CA	5.17	127.94	120.38
10	AI	27	ALA	N-CA-C	5.17	118.30	110.64
25	BB	1664	A	O4'-C4'-C3'	5.17	109.17	104.00
25	BB	1861	G	P-O5'-C5'	5.17	128.66	120.90
37	BN	137	GLY	CA-C-N	5.17	127.53	120.54
37	BN	137	GLY	C-N-CA	5.17	127.53	120.54
3	A1	143	A	C5'-C4'-C3'	-5.17	108.24	116.00
3	A1	1093	A	C1'-C2'-O2'	-5.17	100.64	108.40
11	AJ	76	ARG	N-CA-C	5.17	115.36	108.38
25	BB	639	U	C2'-C3'-O3'	5.17	121.46	113.70
25	BB	791	C	C2'-C3'-O3'	5.17	121.46	113.70
25	BB	2766	A	C2'-C3'-O3'	-5.17	105.94	113.70
51	B2	24	VAL	CA-C-O	5.17	127.25	120.78
3	A1	357	G	P-O5'-C5'	5.17	128.66	120.90
3	A1	1216	A	O3'-P-O5'	-5.17	96.24	104.00
25	BB	2354	C	O3'-P-O5'	5.17	111.76	104.00
25	BB	2355	G	O4'-C4'-C3'	5.17	109.17	104.00
37	BN	89	ASN	OD1-CG-ND2	-5.17	117.43	122.60
48	BY	165	MET	O-C-N	-5.17	116.29	123.12
53	B4	145	ASN	CA-CB-CG	5.17	117.77	112.60
1	AE	15	G	P-O3'-C3'	-5.17	112.44	120.20
3	A1	238	A	C3'-C2'-C1'	5.17	106.47	101.30
3	A1	325	A	O5'-C5'-C4'	-5.17	103.75	111.50
3	A1	1285	A	O3'-P-O5'	5.17	111.75	104.00
6	AD	82	ARG	CA-C-O	-5.17	115.56	121.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
21	AV	22	ALA	CA-C-N	5.17	130.69	122.62
21	AV	22	ALA	C-N-CA	5.17	130.69	122.62
25	BB	88	G	N9-C1'-C2'	5.17	119.75	112.00
25	BB	1023	U	C3'-C2'-C1'	5.17	106.67	101.50
25	BB	1814	G	N9-C1'-C2'	-5.17	104.25	112.00
25	BB	2865	U	O4'-C1'-C2'	5.17	112.77	107.60
41	BR	40	THR	OG1-CB-CG2	-5.17	98.96	109.30
1	AE	76	A	O4'-C1'-C2'	-5.17	102.43	107.60
3	A1	124	C	C1'-C2'-O2'	5.17	119.55	111.80
3	A1	296	U	N1-C1'-C2'	-5.17	104.25	112.00
3	A1	618	C	C5'-C4'-C3'	-5.17	108.25	116.00
3	A1	659	U	O5'-C5'-C4'	-5.17	103.75	111.50
3	A1	930	C	O4'-C1'-C2'	-5.17	102.43	107.60
7	AF	60	ALA	O-C-N	-5.17	115.72	122.59
22	AW	88	GLU	O-C-N	-5.17	116.62	122.10
25	BB	148	U	C4'-C3'-O3'	5.17	117.15	109.40
25	BB	442	G	O3'-P-O5'	5.17	111.75	104.00
25	BB	1309	G	N9-C1'-C2'	5.17	121.75	114.00
25	BB	1334	G	O4'-C4'-C3'	-5.17	100.93	106.10
25	BB	1554	U	O4'-C1'-C2'	-5.17	100.63	105.80
25	BB	2141	G	O4'-C1'-C2'	-5.17	102.43	107.60
25	BB	2492	U	O4'-C4'-C3'	5.17	111.27	106.10
25	BB	2806	C	O4'-C4'-C3'	-5.17	98.83	104.00
25	BB	2846	G	O3'-P-O5'	5.17	111.75	104.00
26	BC	46	LYS	CA-C-O	-5.17	114.26	120.10
50	B1	92	HIS	CB-CG-ND1	5.17	130.45	122.70
3	A1	193	C	C5'-C4'-O4'	5.17	117.55	109.80
3	A1	429	U	C5'-C4'-O4'	-5.17	101.35	109.10
3	A1	451	A	C1'-C2'-O2'	5.17	119.55	111.80
3	A1	720	C	C5'-C4'-C3'	-5.17	108.25	116.00
3	A1	856	C	C5'-C4'-O4'	5.17	117.55	109.80
3	A1	914	A	O4'-C4'-C3'	-5.17	100.93	106.10
4	AB	95	TRP	N-CA-C	5.17	117.20	110.43
9	AH	24	THR	CA-C-O	-5.17	115.05	120.63
17	AR	24	VAL	CA-C-N	5.17	131.41	121.54
17	AR	24	VAL	C-N-CA	5.17	131.41	121.54
17	AR	135	GLN	CA-C-O	5.17	125.89	120.36
25	BB	698	C	O4'-C1'-N1	5.17	116.25	108.50
25	BB	957	C	C4'-C3'-C2'	-5.17	97.43	102.60
25	BB	1109	C	C1'-O4'-C4'	-5.17	104.53	109.70
25	BB	1701	A	C5'-C4'-O4'	5.17	117.55	109.80
25	BB	2209	G	C3'-C2'-C1'	5.17	106.47	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2692	G	O4'-C1'-C2'	5.17	112.77	107.60
25	BB	2864	G	N9-C1'-C2'	5.17	119.75	112.00
43	BT	53	VAL	CA-CB-CG2	5.17	119.18	110.40
1	AP	1	G	C1'-O4'-C4'	-5.17	104.73	109.90
15	AO	107	LYS	CG-CD-CE	5.17	123.18	111.30
25	BB	1218	G	O4'-C4'-C3'	5.17	111.27	106.10
25	BB	1887	C	C4'-C3'-C2'	-5.17	97.44	102.60
25	BB	2134	A	C1'-O4'-C4'	-5.17	104.73	109.90
25	BB	2678	C	C1'-C2'-O2'	-5.17	100.65	108.40
25	BB	2804	U	N1-C1'-C2'	5.17	119.75	112.00
53	B4	130	VAL	CA-CB-CG1	5.17	119.18	110.40
1	AE	76	A	C4'-C3'-C2'	5.16	107.76	102.60
3	A1	560	A	C1'-O4'-C4'	-5.16	104.54	109.70
3	A1	648	A	C5'-C4'-O4'	5.16	117.54	109.80
3	A1	1344	C	C4'-C3'-C2'	-5.16	97.44	102.60
3	A1	1500	A	C1'-O4'-C4'	-5.16	104.74	109.90
25	BB	761	A	C3'-C2'-C1'	-5.16	96.34	101.50
25	BB	803	U	N1-C1'-C2'	-5.16	104.25	112.00
25	BB	858	G	O4'-C1'-N9	-5.16	100.75	108.50
25	BB	1280	G	C1'-C2'-O2'	-5.16	100.65	108.40
25	BB	1371	G	C4'-C3'-O3'	-5.16	105.26	113.00
25	BB	1474	U	O5'-C5'-C4'	-5.16	103.96	111.70
25	BB	1937	A	N9-C1'-C2'	5.16	119.74	112.00
25	BB	2616	C	C4'-C3'-O3'	-5.16	101.65	109.40
49	BZ	166	GLN	N-CA-C	5.16	116.83	108.26
52	B3	42	VAL	CA-CB-CG2	5.16	119.18	110.40
3	A1	372	C	C4'-C3'-O3'	-5.16	105.26	113.00
3	A1	1198	G	O5'-C5'-C4'	-5.16	103.96	111.70
6	AD	123	ALA	CB-CA-C	5.16	118.24	110.50
25	BB	1144	A	C3'-C2'-O2'	-5.16	102.96	110.70
53	B4	97	ARG	CA-CB-CG	-5.16	103.78	114.10
54	B5	59	THR	CA-C-N	5.16	127.61	120.49
54	B5	59	THR	C-N-CA	5.16	127.61	120.49
3	A1	1142	G	C2'-C3'-O3'	5.16	121.44	113.70
12	AK	47	ARG	NE-CZ-NH1	5.16	126.66	121.50
24	BA	18	G	O4'-C4'-C3'	5.16	109.16	104.00
25	BB	89	A	O4'-C4'-C3'	5.16	111.26	106.10
25	BB	279	A	C3'-C2'-O2'	5.16	118.44	110.70
25	BB	687	C	C4'-C3'-O3'	-5.16	101.66	109.40
25	BB	2143	C	C4'-C3'-C2'	-5.16	97.44	102.60
25	BB	2286	G	O4'-C1'-N9	5.16	116.24	108.50
25	BB	2569	G	O4'-C1'-C2'	-5.16	102.44	107.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2870	C	C1'-O4'-C4'	5.16	115.06	109.90
51	B2	7	TYR	CA-C-N	5.16	127.15	120.44
51	B2	7	TYR	C-N-CA	5.16	127.15	120.44
3	A1	655	A	O4'-C4'-C3'	5.16	109.16	104.00
3	A1	1119	C	C3'-C2'-O2'	5.16	118.44	110.70
3	A1	1290	G	C2'-C3'-O3'	-5.16	105.96	113.70
3	A1	1450	U	C5'-C4'-C3'	5.16	123.74	116.00
3	A1	1467	C	N1-C1'-C2'	-5.16	104.26	112.00
5	AC	36	ARG	NH1-CZ-NH2	-5.16	112.59	119.30
8	AG	76	PHE	CA-CB-CG	5.16	118.96	113.80
12	AK	22	TYR	N-CA-C	5.16	117.64	111.71
25	BB	428	A	C1'-O4'-C4'	5.16	115.06	109.90
25	BB	455	C	C4'-C3'-O3'	-5.16	101.66	109.40
25	BB	1773	A	C1'-O4'-C4'	-5.16	104.74	109.90
25	BB	1859	U	C3'-C2'-O2'	5.16	118.44	110.70
25	BB	1881	C	C4'-C3'-O3'	-5.16	105.26	113.00
25	BB	1944	U	O3'-P-O5'	5.16	111.74	104.00
25	BB	2253	G	O4'-C1'-C2'	5.16	112.76	107.60
25	BB	2721	A	C3'-C2'-O2'	5.16	118.44	110.70
31	BH	103	VAL	N-CA-C	5.16	118.12	112.96
37	BN	257	ARG	NE-CZ-NH2	5.16	123.84	119.20
43	BT	44	ALA	CB-CA-C	5.16	120.68	110.42
3	A1	263	A	C4'-C3'-C2'	-5.16	97.44	102.60
10	AI	73	ALA	CA-C-N	5.16	128.15	120.31
10	AI	73	ALA	C-N-CA	5.16	128.15	120.31
25	BB	560	C	C4'-C3'-C2'	-5.16	97.44	102.60
25	BB	620	G	C3'-C2'-O2'	-5.16	106.86	114.60
25	BB	1487	U	C4'-C3'-C2'	-5.16	97.44	102.60
25	BB	1526	C	C3'-C2'-O2'	5.16	118.44	110.70
25	BB	2246	G	O3'-P-O5'	5.16	111.73	104.00
54	B5	29	GLN	CB-CA-C	5.16	118.04	109.38
3	A1	338	A	C4'-C3'-O3'	-5.16	105.27	113.00
3	A1	456	A	N1-C6-N6	-5.16	103.13	118.60
3	A1	665	A	N1-C6-N6	-5.16	103.13	118.60
3	A1	1376	U	N1-C1'-C2'	5.16	119.73	112.00
4	AB	62	ARG	NH1-CZ-NH2	-5.16	112.60	119.30
5	AC	55	ARG	NE-CZ-NH1	5.16	126.66	121.50
16	AQ	23	GLU	N-CA-C	5.16	118.67	112.38
19	AT	90	MET	CA-C-N	5.16	130.69	122.59
19	AT	90	MET	C-N-CA	5.16	130.69	122.59
24	BA	20	G	C5'-C4'-O4'	-5.16	102.07	109.80
24	BA	89	U	C1'-O4'-C4'	-5.16	104.75	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1615	C	C4'-C3'-O3'	5.16	120.73	113.00
25	BB	1859	U	C5'-C4'-C3'	-5.16	108.27	116.00
25	BB	2041	U	N1-C1'-C2'	-5.16	106.27	114.00
25	BB	2302	U	O4'-C1'-N1	5.16	116.23	108.50
25	BB	2531	A	O4'-C4'-C3'	5.16	109.16	104.00
25	BB	2577	A	C5'-C4'-O4'	5.16	117.53	109.80
1	AA	16	U	C4'-C3'-O3'	5.15	120.73	113.00
1	AA	54	U	O4'-C1'-C2'	-5.15	102.45	107.60
3	A1	103	U	C4'-C3'-O3'	-5.15	105.27	113.00
5	AC	66	ALA	N-CA-C	5.15	116.71	111.14
25	BB	1193	G	C5'-C4'-O4'	5.15	117.53	109.80
33	BJ	3	VAL	CB-CA-C	5.15	119.74	111.29
34	BK	29	THR	CA-CB-CG2	5.15	119.26	110.50
42	BS	67	PRO	CB-CA-C	-5.15	103.06	111.56
48	BY	151	THR	CB-CA-C	5.15	117.96	109.97
1	AP	49	C	C4'-C3'-C2'	-5.15	97.45	102.60
3	A1	608	A	O3'-P-O5'	5.15	111.73	104.00
3	A1	611	C	O4'-C1'-N1	5.15	116.23	108.50
3	A1	695	A	C1'-O4'-C4'	-5.15	104.75	109.90
3	A1	843	U	C1'-O4'-C4'	-5.15	104.75	109.90
3	A1	867	G	P-O3'-C3'	5.15	127.93	120.20
3	A1	1152	A	N9-C1'-C2'	5.15	119.73	112.00
3	A1	1512	U	C4'-C3'-C2'	-5.15	97.45	102.60
4	AB	119	GLN	CA-C-N	5.15	131.04	122.54
4	AB	119	GLN	C-N-CA	5.15	131.04	122.54
7	AF	44	ILE	N-CA-C	5.15	120.06	109.34
7	AF	111	PRO	N-CA-CB	-5.15	97.39	103.26
15	AO	36	PHE	N-CA-C	5.15	119.65	112.90
25	BB	455	C	C1'-O4'-C4'	-5.15	104.55	109.70
25	BB	541	A	O4'-C1'-N9	5.15	116.23	108.50
25	BB	604	G	C4'-C3'-C2'	-5.15	97.45	102.60
25	BB	1105	U	C3'-C2'-C1'	-5.15	96.15	101.30
25	BB	1418	G	C4'-C3'-C2'	-5.15	97.45	102.60
25	BB	2049	G	O3'-P-O5'	5.15	111.73	104.00
25	BB	2637	U	C1'-O4'-C4'	-5.15	104.55	109.70
37	BN	172	THR	CA-C-N	5.15	131.38	121.54
37	BN	172	THR	C-N-CA	5.15	131.38	121.54
3	A1	23	C	O4'-C1'-N1	5.15	116.23	108.50
3	A1	111	G	O4'-C1'-N9	-5.15	100.78	108.50
3	A1	224	U	P-O3'-C3'	5.15	127.93	120.20
3	A1	948	C	C5'-C4'-C3'	-5.15	108.28	116.00
3	A1	967	C	C1'-C2'-O2'	5.15	116.12	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1247	U	O3'-P-O5'	5.15	111.72	104.00
3	A1	1387	G	O4'-C4'-C3'	5.15	111.25	106.10
12	AK	30	ASN	OD1-CG-ND2	-5.15	117.45	122.60
22	AW	35	GLU	O-C-N	-5.15	115.69	122.39
24	BA	20	G	C4'-C3'-C2'	-5.15	97.45	102.60
25	BB	261	G	C3'-C2'-O2'	5.15	118.43	110.70
25	BB	731	C	C5'-C4'-C3'	-5.15	108.27	116.00
25	BB	1503	A	C3'-C2'-C1'	5.15	106.45	101.30
25	BB	1801	A	C4'-C3'-C2'	-5.15	97.45	102.60
28	BE	92	LEU	CA-C-N	5.15	131.38	121.54
28	BE	92	LEU	C-N-CA	5.15	131.38	121.54
36	BM	15	HIS	CA-C-N	5.15	131.24	121.97
36	BM	15	HIS	C-N-CA	5.15	131.24	121.97
54	B5	42	ASN	OD1-CG-ND2	-5.15	117.45	122.60
1	AA	8	U	C5'-C4'-O4'	5.15	117.52	109.80
3	A1	1161	C	P-O5'-C5'	5.15	128.62	120.90
3	A1	1388	C	C1'-C2'-O2'	-5.15	104.08	111.80
3	A1	1508	A	C4'-C3'-O3'	5.15	120.72	113.00
25	BB	1701	A	C1'-O4'-C4'	-5.15	104.75	109.90
33	BJ	32	ARG	N-CA-C	5.15	121.77	110.80
44	BU	5	ARG	NE-CZ-NH2	5.15	123.83	119.20
3	A1	116	A	C5'-C4'-C3'	-5.15	108.28	116.00
3	A1	1408	A	C1'-O4'-C4'	5.15	115.05	109.90
3	A1	1424	U	O4'-C1'-N1	5.15	116.22	108.50
6	AD	98	ARG	NH1-CZ-NH2	-5.15	112.61	119.30
7	AF	67	ASP	CA-C-N	5.15	127.90	120.38
7	AF	67	ASP	C-N-CA	5.15	127.90	120.38
25	BB	1075	C	O5'-C5'-C4'	-5.15	103.78	111.50
25	BB	2018	G	C4'-C3'-O3'	-5.15	101.68	109.40
25	BB	2091	C	O4'-C1'-N1	5.15	116.22	108.50
25	BB	2518	A	N1-C6-N6	-5.15	103.16	118.60
25	BB	2709	G	O4'-C1'-N9	5.15	116.22	108.50
31	BH	35	ILE	CA-C-N	5.15	131.37	121.54
31	BH	35	ILE	C-N-CA	5.15	131.37	121.54
3	A1	824	G	C5'-C4'-C3'	-5.15	108.28	116.00
3	A1	869	G	C2'-C3'-O3'	5.15	117.22	109.50
25	BB	344	A	N1-C6-N6	-5.15	103.16	118.60
25	BB	1628	G	N9-C1'-C2'	-5.15	104.28	112.00
25	BB	2837	A	O4'-C1'-C2'	-5.15	102.45	107.60
32	BI	30	TRP	CA-C-N	5.15	131.23	121.97
32	BI	30	TRP	C-N-CA	5.15	131.23	121.97
1	AA	39	U	C3'-C2'-C1'	-5.14	96.16	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	70	U	O4'-C4'-C3'	5.14	111.25	106.10
3	A1	684	U	C3'-C2'-C1'	5.14	106.64	101.50
3	A1	1240	U	C1'-C2'-O2'	5.14	119.52	111.80
21	AV	98	LEU	N-CA-CB	-5.14	102.53	110.20
25	BB	27	G	C3'-C2'-O2'	-5.14	106.88	114.60
25	BB	1261	C	O4'-C4'-C3'	5.14	109.14	104.00
25	BB	2321	U	O4'-C1'-N1	5.14	115.92	108.20
1	AE	66	A	O4'-C1'-N9	5.14	116.22	108.50
3	A1	814	A	O4'-C4'-C3'	5.14	109.14	104.00
3	A1	988	G	O4'-C1'-C2'	-5.14	102.46	107.60
3	A1	1302	C	O4'-C1'-N1	5.14	115.91	108.20
15	AO	43	THR	CA-C-N	5.14	130.71	121.66
15	AO	43	THR	C-N-CA	5.14	130.71	121.66
25	BB	326	G	C4'-C3'-C2'	-5.14	97.46	102.60
25	BB	1313	U	O5'-C5'-C4'	5.14	119.41	111.70
25	BB	1758	U	O3'-P-O5'	5.14	111.71	104.00
25	BB	2234	G	C1'-O4'-C4'	-5.14	104.76	109.90
25	BB	2746	U	O4'-C1'-N1	-5.14	100.79	108.50
38	BO	93	ARG	NH1-CZ-NH2	-5.14	112.61	119.30
54	B5	23	VAL	CA-CB-CG1	5.14	119.14	110.40
1	AP	36	A	C2'-C3'-O3'	5.14	121.41	113.70
3	A1	643	C	C5'-C4'-O4'	5.14	117.51	109.80
3	A1	652	U	C1'-O4'-C4'	-5.14	104.56	109.70
3	A1	8	A	O4'-C4'-C3'	-5.14	100.96	106.10
3	A1	685	G	C5'-C4'-C3'	-5.14	108.29	116.00
3	A1	750	C	C3'-C2'-O2'	5.14	118.41	110.70
3	A1	1034	G	N9-C1'-C2'	-5.14	104.29	112.00
3	A1	1184	G	C3'-C2'-C1'	5.14	106.44	101.30
3	A1	1363	A	O4'-C1'-N9	5.14	116.21	108.50
12	AK	73	HIS	CB-CG-CD2	-5.14	124.52	131.20
25	BB	473	G	C3'-C2'-O2'	5.14	118.41	110.70
25	BB	617	G	C3'-C2'-C1'	5.14	106.44	101.30
25	BB	1285	A	P-O3'-C3'	5.14	127.91	120.20
25	BB	2339	C	O4'-C4'-C3'	5.14	111.24	106.10
25	BB	2612	C	C5'-C4'-C3'	-5.14	107.49	115.20
31	BH	68	LYS	N-CA-CB	-5.14	103.26	111.43
43	BT	1	ALA	CB-CA-C	5.14	118.21	110.50
25	BB	2644	G	O4'-C4'-C3'	5.14	109.14	104.00
44	BU	33	LEU	N-CA-C	5.14	120.19	112.94
51	B2	61	GLY	O-C-N	-5.14	115.99	122.41
3	A1	67	C	O4'-C1'-C2'	-5.14	102.46	107.60
3	A1	221	C	C3'-C2'-O2'	5.14	118.40	110.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	378	G	C5'-C4'-C3'	-5.14	108.30	116.00
3	A1	742	G	O4'-C1'-C2'	-5.14	102.46	107.60
3	A1	757	U	O4'-C1'-C2'	5.14	112.74	107.60
3	A1	1446	A	C4'-C3'-O3'	5.14	117.10	109.40
8	AG	62	ARG	N-CA-C	5.14	116.69	107.80
20	AU	4	ARG	NE-CZ-NH1	5.14	126.64	121.50
25	BB	78	U	C5'-C4'-C3'	-5.14	108.30	116.00
25	BB	912	C	C4'-C3'-C2'	-5.14	97.46	102.60
25	BB	1259	G	C1'-O4'-C4'	5.14	114.84	109.70
25	BB	1391	U	C3'-C2'-O2'	5.14	118.41	110.70
25	BB	1620	G	O4'-C1'-N9	5.14	116.21	108.50
25	BB	2253	G	O5'-C5'-C4'	5.14	119.20	111.50
25	BB	2560	A	C4'-C3'-C2'	-5.14	97.46	102.60
37	BN	156	SER	CA-C-O	5.14	127.54	121.17
49	BZ	72	GLN	O-C-N	-5.14	115.12	122.41
1	AE	19	G	O4'-C1'-C2'	-5.13	100.67	105.80
3	A1	226	G	C1'-O4'-C4'	5.13	115.03	109.90
3	A1	631	C	C4'-C3'-O3'	-5.13	105.30	113.00
3	A1	1382	C	C2'-C3'-O3'	5.13	121.40	113.70
4	AB	115	ASP	CA-C-N	5.13	130.38	122.42
4	AB	115	ASP	C-N-CA	5.13	130.38	122.42
11	AJ	39	ARG	NE-CZ-NH1	5.13	126.64	121.50
18	AS	18	ASN	OD1-CG-ND2	-5.13	117.47	122.60
25	BB	35	G	O4'-C1'-C2'	-5.13	102.47	107.60
25	BB	474	G	C4'-C3'-C2'	-5.13	97.47	102.60
25	BB	802	A	C4'-C3'-C2'	-5.13	97.47	102.60
25	BB	1675	C	C3'-C2'-O2'	5.13	118.40	110.70
25	BB	2439	A	C1'-C2'-O2'	-5.13	104.10	111.80
37	BN	141	HIS	CE1-NE2-CD2	-5.13	103.87	109.00
1	AA	27	C	O4'-C1'-N1	5.13	116.20	108.50
1	AP	28	C	P-O3'-C3'	5.13	127.90	120.20
3	A1	210	C	C3'-C2'-O2'	-5.13	106.90	114.60
3	A1	644	U	C2'-C3'-O3'	5.13	121.40	113.70
3	A1	680	C	N1-C1'-C2'	5.13	119.70	112.00
3	A1	753	A	C3'-C2'-C1'	-5.13	96.37	101.50
3	A1	1476	A	C3'-C2'-C1'	-5.13	96.17	101.30
17	AR	51	GLY	CA-C-N	5.13	127.71	120.42
17	AR	51	GLY	C-N-CA	5.13	127.71	120.42
17	AR	176	LYS	CA-C-N	5.13	131.34	121.54
17	AR	176	LYS	C-N-CA	5.13	131.34	121.54
25	BB	490	C	O4'-C1'-N1	5.13	115.90	108.20
25	BB	652	U	C3'-C2'-C1'	5.13	106.43	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1880	U	C2'-C3'-O3'	5.13	121.40	113.70
25	BB	2103	C	O3'-P-O5'	-5.13	96.30	104.00
25	BB	2876	G	C4'-C3'-C2'	-5.13	97.47	102.60
49	BZ	215	VAL	CA-CB-CG2	5.13	119.13	110.40
1	AP	63	C	C4'-C3'-C2'	-5.13	97.47	102.60
3	A1	975	A	N1-C6-N6	-5.13	103.20	118.60
3	A1	1208	C	C4'-C3'-C2'	-5.13	97.47	102.60
3	A1	1254	A	C3'-C2'-C1'	-5.13	96.17	101.30
3	A1	1470	U	O3'-P-O5'	-5.13	96.30	104.00
16	AQ	15	LEU	CA-C-N	5.13	130.53	120.99
16	AQ	15	LEU	C-N-CA	5.13	130.53	120.99
17	AR	103	ARG	NE-CZ-NH1	5.13	126.63	121.50
21	AV	75	GLN	N-CA-C	5.13	115.80	107.23
25	BB	751	A	C4'-C3'-C2'	-5.13	97.47	102.60
25	BB	763	G	O4'-C4'-C3'	5.13	111.23	106.10
25	BB	1147	A	C4'-C3'-C2'	-5.13	97.47	102.60
25	BB	1654	A	P-O3'-C3'	5.13	127.90	120.20
34	BK	11	GLN	CA-C-N	5.13	131.34	121.54
34	BK	11	GLN	C-N-CA	5.13	131.34	121.54
37	BN	62	ARG	CA-C-O	5.13	126.76	120.60
39	BP	9	THR	OG1-CB-CG2	-5.13	99.04	109.30
3	A1	689	C	C4'-C3'-O3'	-5.13	105.31	113.00
3	A1	1130	A	C1'-C2'-O2'	-5.13	100.71	108.40
4	AB	107	ARG	N-CA-C	5.13	121.73	110.80
25	BB	788	A	C1'-O4'-C4'	-5.13	104.57	109.70
25	BB	1637	A	C4'-C3'-C2'	-5.13	97.47	102.60
1	AP	32	C	C2'-C3'-O3'	-5.13	106.01	113.70
2	AM	13	U	C4'-C3'-C2'	-5.13	97.47	102.60
3	A1	463	U	C5'-C4'-O4'	5.13	117.49	109.80
3	A1	688	G	C5'-C4'-O4'	-5.13	102.11	109.80
3	A1	1382	C	N1-C1'-C2'	5.13	119.69	112.00
25	BB	141	G	C5'-C4'-C3'	-5.13	108.31	116.00
25	BB	724	U	O4'-C4'-C3'	5.13	109.13	104.00
25	BB	773	U	C2'-C3'-O3'	-5.13	101.81	109.50
25	BB	883	G	C5'-C4'-C3'	-5.13	108.31	116.00
25	BB	1315	C	C4'-C3'-O3'	5.13	117.09	109.40
25	BB	1414	C	C4'-C3'-C2'	-5.13	97.47	102.60
25	BB	1556	C	C5'-C4'-O4'	5.13	117.49	109.80
25	BB	1928	A	O4'-C1'-C2'	-5.13	102.47	107.60
31	BH	81	ARG	CD-NE-CZ	5.13	131.58	124.40
31	BH	113	ALA	N-CA-C	5.13	119.54	113.28
1	AE	6	U	C3'-C2'-C1'	5.13	106.43	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	AE	37	G	C2'-C3'-O3'	-5.13	106.01	113.70
2	AM	11	U	C4'-C3'-C2'	-5.13	97.47	102.60
3	A1	198	G	C3'-C2'-O2'	5.13	118.39	110.70
25	BB	112	U	C3'-C2'-O2'	5.13	122.29	114.60
25	BB	623	C	C4'-C3'-C2'	5.13	107.73	102.60
25	BB	863	A	C1'-O4'-C4'	5.13	115.03	109.90
25	BB	1655	A	C2'-C3'-O3'	5.13	121.39	113.70
25	BB	2660	A	C1'-C2'-O2'	-5.13	100.71	108.40
25	BB	2828	G	O4'-C1'-C2'	-5.13	102.47	107.60
29	BF	16	ARG	N-CA-C	5.13	117.17	109.23
32	BI	62	LYS	CA-C-N	5.13	130.19	123.11
32	BI	62	LYS	C-N-CA	5.13	130.19	123.11
3	A1	1081	A	O4'-C4'-C3'	-5.12	98.88	104.00
3	A1	1434	A	C1'-O4'-C4'	-5.12	104.78	109.90
25	BB	712	G	C3'-C2'-O2'	5.12	118.39	110.70
25	BB	1483	G	C2'-C3'-O3'	-5.12	106.01	113.70
25	BB	1802	A	C1'-C2'-O2'	5.12	116.09	108.40
25	BB	1832	C	C3'-C2'-C1'	5.12	106.42	101.30
28	BE	68	SER	CA-C-O	5.12	126.95	121.16
32	BI	100	ARG	CA-C-N	5.12	132.42	123.91
32	BI	100	ARG	C-N-CA	5.12	132.42	123.91
54	B5	107	GLU	N-CA-C	5.12	116.87	111.28
3	A1	314	C	C4'-C3'-O3'	-5.12	105.31	113.00
3	A1	422	C	C5'-C4'-O4'	5.12	117.48	109.80
3	A1	634	C	O4'-C1'-C2'	5.12	112.72	107.60
14	AN	15	LYS	CA-C-N	5.12	127.46	120.54
14	AN	15	LYS	C-N-CA	5.12	127.46	120.54
25	BB	474	G	C5'-C4'-C3'	-5.12	108.32	116.00
25	BB	1216	G	C1'-O4'-C4'	-5.12	104.78	109.90
25	BB	1293	C	O4'-C4'-C3'	5.12	109.12	104.00
25	BB	2092	U	C5'-C4'-C3'	-5.12	108.32	116.00
25	BB	2141	G	C3'-C2'-C1'	5.12	106.42	101.30
29	BF	7	THR	CA-C-O	-5.12	116.06	120.88
30	BG	96	ARG	CA-C-O	5.12	127.19	121.40
42	BS	30	HIS	CB-CG-ND1	5.12	130.38	122.70
48	BY	136	ASN	OD1-CG-ND2	-5.12	117.48	122.60
3	A1	437	U	C5'-C4'-C3'	-5.12	108.32	116.00
3	A1	736	C	O4'-C4'-C3'	5.12	109.12	104.00
3	A1	877	G	C3'-C2'-O2'	5.12	118.38	110.70
3	A1	976	G	P-O3'-C3'	5.12	127.88	120.20
3	A1	1349	A	O5'-C5'-C4'	5.12	119.18	111.50
15	AO	101	ASN	N-CA-C	5.12	116.87	108.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	449	A	O5'-C5'-C4'	-5.12	103.82	111.50
25	BB	653	U	C2'-C3'-O3'	5.12	117.18	109.50
25	BB	812	C	C1'-C2'-O2'	5.12	116.08	108.40
25	BB	848	C	O4'-C1'-C2'	-5.12	102.48	107.60
25	BB	1031	G	C1'-C2'-O2'	5.12	116.08	108.40
25	BB	1057	A	O5'-C5'-C4'	5.12	119.18	111.50
25	BB	1182	G	C3'-C2'-O2'	5.12	118.38	110.70
25	BB	2711	A	N9-C1'-C2'	-5.12	106.32	114.00
25	BB	2883	A	C5'-C4'-C3'	-5.12	108.32	116.00
33	BJ	94	LEU	N-CA-C	5.12	118.63	112.38
37	BN	135	PRO	N-CD-CG	5.12	110.88	103.20
42	BS	6	HIS	O-C-N	5.12	126.26	120.68
1	AE	39	U	O4'-C1'-C2'	-5.12	102.48	107.60
3	A1	937	A	C4'-C3'-C2'	-5.12	97.48	102.60
3	A1	1028	C	C5'-C4'-C3'	-5.12	108.32	116.00
25	BB	1001	A	O4'-C1'-C2'	-5.12	102.48	107.60
25	BB	1757	A	O4'-C4'-C3'	5.12	109.12	104.00
25	BB	2105	U	C5'-C4'-O4'	5.12	117.48	109.80
3	A1	213	G	C1'-O4'-C4'	5.12	115.02	109.90
15	AO	76	ILE	CA-C-O	-5.12	113.84	120.03
23	AX	19	ASP	CB-CA-C	-5.12	102.84	110.88
25	BB	607	U	O4'-C1'-N1	5.12	116.18	108.50
25	BB	969	G	C3'-C2'-O2'	5.12	118.38	110.70
25	BB	1477	A	P-O3'-C3'	5.12	127.88	120.20
25	BB	1757	A	C3'-C2'-C1'	5.12	106.42	101.30
25	BB	1863	G	O4'-C1'-C2'	-5.12	102.48	107.60
25	BB	1963	U	C4'-C3'-C2'	-5.12	97.48	102.60
25	BB	2542	A	O4'-C4'-C3'	5.12	111.22	106.10
27	BD	18	ARG	NE-CZ-NH1	5.12	126.62	121.50
1	AE	13	C	C5'-C4'-O4'	5.12	117.48	109.80
3	A1	552	U	C2'-C3'-O3'	5.12	121.38	113.70
25	BB	1047	G	C1'-C2'-O2'	-5.12	104.12	111.80
25	BB	2282	G	O4'-C4'-C3'	-5.12	100.98	106.10
3	A1	368	U	O4'-C1'-C2'	-5.12	102.48	107.60
6	AD	51	VAL	CA-C-N	5.12	130.62	122.59
6	AD	51	VAL	C-N-CA	5.12	130.62	122.59
13	AL	5	LYS	O-C-N	5.12	129.68	122.41
20	AU	122	GLU	CA-C-O	-5.12	114.32	120.10
24	BA	106	G	C4'-C3'-C2'	-5.12	97.48	102.60
25	BB	452	G	C3'-C2'-O2'	5.12	118.37	110.70
25	BB	1831	G	O4'-C4'-C3'	5.12	109.12	104.00
25	BB	2076	U	C1'-C2'-O2'	5.12	119.47	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2317	A	C4'-C3'-O3'	-5.12	105.33	113.00
25	BB	2894	G	C3'-C2'-C1'	5.12	106.42	101.30
3	A1	303	A	O3'-P-O5'	5.11	111.67	104.00
3	A1	418	C	O5'-C5'-C4'	5.11	119.17	111.50
3	A1	687	A	O4'-C4'-C3'	-5.11	100.99	106.10
3	A1	1225	A	C4'-C3'-O3'	-5.11	101.73	109.40
3	A1	1353	G	O4'-C1'-C2'	-5.11	102.49	107.60
3	A1	1453	G	C1'-C2'-O2'	5.11	116.07	108.40
17	AR	35	GLN	CB-CG-CD	5.11	121.29	112.60
20	AU	149	ALA	CB-CA-C	5.11	119.21	110.01
25	BB	619	G	C4'-C3'-O3'	-5.11	105.33	113.00
25	BB	630	G	O5'-C5'-C4'	-5.11	103.83	111.50
25	BB	1255	U	C4'-C3'-C2'	5.11	107.71	102.60
25	BB	1374	G	C3'-C2'-C1'	5.11	106.61	101.50
25	BB	2250	G	C5'-C4'-C3'	-5.11	108.33	116.00
25	BB	2600	A	C2'-C3'-O3'	-5.11	106.03	113.70
31	BH	19	GLN	CA-C-N	5.11	131.31	121.54
31	BH	19	GLN	C-N-CA	5.11	131.31	121.54
35	BL	34	ASP	CA-C-N	5.11	131.17	121.97
35	BL	34	ASP	C-N-CA	5.11	131.17	121.97
35	BL	87	PRO	CA-C-N	5.11	128.49	120.82
35	BL	87	PRO	C-N-CA	5.11	128.49	120.82
36	BM	21	SER	CA-C-N	5.11	127.13	120.28
36	BM	21	SER	C-N-CA	5.11	127.13	120.28
46	BW	44	ARG	NH1-CZ-NH2	-5.11	112.65	119.30
3	A1	189	A	C4'-C3'-C2'	-5.11	97.49	102.60
25	BB	936	A	P-O5'-C5'	-5.11	113.23	120.90
1	AA	3	G	O5'-C5'-C4'	-5.11	103.83	111.50
3	A1	36	C	O4'-C1'-N1	5.11	116.17	108.50
3	A1	169	C	C1'-O4'-C4'	-5.11	104.79	109.90
3	A1	273	U	O4'-C1'-N1	5.11	116.17	108.50
3	A1	1086	U	C4'-C3'-C2'	-5.11	97.49	102.60
3	A1	1238	A	O3'-P-O5'	-5.11	96.33	104.00
4	AB	45	THR	CA-CB-OG1	-5.11	101.94	109.60
8	AG	44	VAL	N-CA-C	5.11	116.57	111.00
9	AH	88	ARG	CD-NE-CZ	5.11	131.55	124.40
13	AL	60	PHE	CA-C-N	5.11	131.17	121.97
13	AL	60	PHE	C-N-CA	5.11	131.17	121.97
13	AL	63	ASP	CA-C-O	5.11	124.14	118.52
14	AN	74	HIS	ND1-CE1-NE2	5.11	113.51	108.40
25	BB	736	C	O4'-C4'-C3'	5.11	109.11	104.00
25	BB	984	A	C4'-C3'-C2'	-5.11	97.49	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1325	U	C1'-O4'-C4'	-5.11	104.59	109.70
25	BB	1371	G	C3'-C2'-C1'	-5.11	96.19	101.30
25	BB	2223	G	C5'-C4'-O4'	5.11	117.47	109.80
25	BB	2580	U	C5'-C4'-O4'	5.11	116.77	109.10
37	BN	122	ALA	CA-C-O	5.11	127.18	121.40
46	BW	20	GLY	O-C-N	-5.11	116.06	122.70
3	A1	374	A	O4'-C1'-N9	5.11	116.16	108.50
4	AB	21	TYR	CA-C-N	5.11	131.30	121.54
4	AB	21	TYR	C-N-CA	5.11	131.30	121.54
23	AX	50	THR	N-CA-C	5.11	116.72	108.34
25	BB	6	A	C4'-C3'-C2'	5.11	107.71	102.60
25	BB	288	U	O4'-C1'-N1	5.11	116.16	108.50
25	BB	911	A	C5'-C4'-O4'	-5.11	102.14	109.80
25	BB	2091	C	C1'-O4'-C4'	-5.11	104.79	109.90
3	A1	30	U	C3'-C2'-C1'	5.11	106.61	101.50
3	A1	101	A	O4'-C1'-N9	5.11	115.86	108.20
3	A1	488	C	C5'-C4'-O4'	5.11	117.46	109.80
3	A1	976	G	C4'-C3'-O3'	5.11	117.06	109.40
11	AJ	72	TRP	CH2-CZ2-CE2	5.11	124.14	117.50
25	BB	24	G	C3'-C2'-C1'	5.11	106.41	101.30
25	BB	421	C	O5'-C5'-C4'	-5.11	103.84	111.50
25	BB	647	G	O3'-P-O5'	-5.11	96.34	104.00
25	BB	648	G	C2'-C3'-O3'	5.11	121.36	113.70
25	BB	845	A	N9-C1'-C2'	-5.11	104.34	112.00
25	BB	2115	G	O3'-P-O5'	-5.11	96.34	104.00
25	BB	2339	C	P-O3'-C3'	5.11	127.86	120.20
25	BB	2473	U	C1'-O4'-C4'	-5.11	104.79	109.90
25	BB	2739	U	C1'-O4'-C4'	-5.11	104.79	109.90
26	BC	55	GLU	N-CA-C	5.11	117.51	111.33
31	BH	7	ARG	NE-CZ-NH1	5.11	126.61	121.50
1	AP	16	U	C2'-C3'-O3'	5.11	117.16	109.50
3	A1	409	U	C4'-C3'-C2'	5.11	107.70	102.60
3	A1	720	C	C2'-C3'-O3'	5.11	121.36	113.70
3	A1	871	U	C5'-C4'-O4'	5.11	116.76	109.10
6	AD	4	ASN	CA-CB-CG	5.11	117.71	112.60
13	AL	68	HIS	CG-CD2-NE2	-5.11	102.09	107.20
22	AW	85	ALA	N-CA-C	5.11	116.70	111.03
25	BB	486	C	C3'-C2'-O2'	5.11	118.36	110.70
25	BB	770	G	C3'-C2'-O2'	5.11	118.36	110.70
25	BB	1052	C	C5'-C4'-C3'	-5.11	108.34	116.00
25	BB	2065	C	C1'-O4'-C4'	-5.11	104.79	109.90
25	BB	2127	G	O4'-C4'-C3'	5.11	109.11	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2670	A	C4'-C3'-C2'	-5.11	97.50	102.60
32	BI	84	SER	O-C-N	-5.11	116.59	122.87
35	BL	61	ASN	CB-CA-C	5.11	117.30	109.03
37	BN	89	ASN	N-CA-CB	-5.11	103.21	110.46
37	BN	246	PRO	N-CD-CG	5.11	109.93	103.80
42	BS	59	ARG	NE-CZ-NH1	5.11	126.61	121.50
3	A1	156	C	C4'-C3'-C2'	-5.10	97.50	102.60
5	AC	68	ARG	CB-CG-CD	5.10	123.04	111.30
9	AH	21	THR	CA-C-O	5.10	127.81	120.51
19	AT	42	TRP	CD2-CE3-CZ3	5.10	125.23	118.60
25	BB	1562	U	O4'-C1'-N1	5.10	116.16	108.50
25	BB	1957	C	N1-C1'-C2'	5.10	119.66	112.00
25	BB	2484	G	N9-C1'-C2'	5.10	119.66	112.00
25	BB	2826	A	O4'-C1'-N9	-5.10	100.84	108.50
48	BY	49	GLN	CA-C-N	5.10	131.25	122.67
48	BY	49	GLN	C-N-CA	5.10	131.25	122.67
1	AP	47	U	N1-C1'-C2'	-5.10	106.35	114.00
20	AU	18	GLY	CA-C-N	5.10	130.19	123.05
20	AU	18	GLY	C-N-CA	5.10	130.19	123.05
25	BB	186	G	O5'-C5'-C4'	5.10	119.15	111.50
25	BB	897	C	C4'-C3'-O3'	-5.10	105.35	113.00
25	BB	1763	G	O4'-C1'-C2'	5.10	110.90	105.80
25	BB	1909	C	O4'-C4'-C3'	-5.10	98.90	104.00
25	BB	2079	U	C2'-C3'-O3'	5.10	121.36	113.70
25	BB	2294	G	O4'-C4'-C3'	5.10	109.10	104.00
25	BB	2462	C	N1-C1'-C2'	5.10	119.65	112.00
25	BB	2798	U	O3'-P-O5'	-5.10	96.35	104.00
25	BB	2871	U	P-O3'-C3'	5.10	127.85	120.20
38	BO	39	ASN	CA-C-O	-5.10	113.21	120.51
38	BO	58	VAL	CA-C-N	5.10	131.28	121.54
38	BO	58	VAL	C-N-CA	5.10	131.28	121.54
50	B1	159	LEU	CA-C-O	-5.10	113.31	119.49
3	A1	417	G	C3'-C2'-O2'	5.10	118.35	110.70
3	A1	605	U	C3'-C2'-O2'	5.10	118.35	110.70
3	A1	1096	C	C4'-C3'-C2'	-5.10	97.50	102.60
3	A1	1212	U	C3'-C2'-C1'	5.10	106.60	101.50
3	A1	1312	G	C5'-C4'-O4'	5.10	117.45	109.80
25	BB	365	U	C1'-C2'-O2'	5.10	116.05	108.40
25	BB	487	C	O3'-P-O5'	-5.10	96.35	104.00
25	BB	1828	G	C4'-C3'-C2'	-5.10	97.50	102.60
30	BG	86	ARG	CB-CG-CD	5.10	123.03	111.30
48	BY	94	GLN	N-CA-C	5.10	114.88	108.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
55	B6	34	ARG	CA-C-N	5.10	127.57	120.63
55	B6	34	ARG	C-N-CA	5.10	127.57	120.63
1	AA	3	G	P-O5'-C5'	5.10	128.55	120.90
1	AP	64	A	C4'-C3'-O3'	5.10	120.65	113.00
3	A1	65	A	N9-C1'-C2'	-5.10	106.35	114.00
3	A1	696	A	C5'-C4'-C3'	-5.10	108.35	116.00
3	A1	907	A	O3'-P-O5'	-5.10	96.35	104.00
3	A1	1221	G	C3'-C2'-C1'	5.10	106.40	101.30
3	A1	1261	A	C4'-C3'-O3'	-5.10	105.35	113.00
3	A1	1484	C	C3'-C2'-C1'	5.10	106.60	101.50
24	BA	97	C	O5'-C5'-C4'	-5.10	103.85	111.50
25	BB	200	U	C4'-C3'-C2'	-5.10	97.50	102.60
25	BB	1346	G	O3'-P-O5'	5.10	111.65	104.00
25	BB	2218	G	O4'-C4'-C3'	5.10	109.10	104.00
25	BB	2319	G	O4'-C1'-N9	5.10	116.15	108.50
25	BB	2484	G	C4'-C3'-C2'	-5.10	97.50	102.60
48	BY	16	THR	N-CA-C	5.10	121.66	110.80
50	B1	173	THR	O-C-N	-5.10	115.81	122.59
1	AE	59	U	P-O3'-C3'	5.10	127.84	120.20
3	A1	629	A	O3'-P-O5'	5.10	111.65	104.00
8	AG	50	LEU	CA-C-N	5.10	126.21	119.84
8	AG	50	LEU	C-N-CA	5.10	126.21	119.84
8	AG	51	PRO	N-CA-CB	5.10	108.60	103.25
22	AW	118	ARG	NE-CZ-NH1	5.10	126.60	121.50
25	BB	46	G	C1'-C2'-O2'	5.10	116.05	108.40
25	BB	923	G	O4'-C4'-C3'	-5.10	98.90	104.00
25	BB	1057	A	O3'-P-O5'	5.10	111.65	104.00
25	BB	1620	G	C5'-C4'-O4'	5.10	117.44	109.80
25	BB	2247	A	O5'-C5'-C4'	-5.10	103.85	111.50
27	BD	97	THR	CA-CB-CG2	5.10	119.17	110.50
37	BN	29	PHE	O-C-N	-5.10	117.77	123.48
3	A1	1129	C	C1'-O4'-C4'	-5.10	104.80	109.90
5	AC	78	ILE	O-C-N	-5.10	117.80	123.20
15	AO	32	LEU	CA-C-O	-5.10	115.47	120.82
21	AV	51	GLU	O-C-N	-5.10	117.28	123.29
21	AV	84	ILE	N-CA-CB	5.10	117.75	112.65
25	BB	489	G	C4'-C3'-C2'	-5.10	97.50	102.60
25	BB	1782	U	O3'-P-O5'	5.10	111.64	104.00
25	BB	2589	A	C2'-C3'-O3'	5.10	121.34	113.70
39	BP	13	ARG	NE-CZ-NH1	5.10	126.60	121.50
3	A1	406	G	N9-C1'-C2'	5.09	119.64	112.00
3	A1	619	U	C3'-C2'-C1'	5.09	106.39	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1082	A	C1'-O4'-C4'	-5.09	104.81	109.90
8	AG	7	ALA	N-CA-C	5.09	117.50	111.33
24	BA	68	C	O4'-C4'-C3'	5.09	109.09	104.00
25	BB	606	U	C4'-C3'-O3'	5.09	120.64	113.00
25	BB	1030	C	C4'-C3'-O3'	5.09	120.64	113.00
25	BB	2513	A	C4'-C3'-C2'	-5.09	97.51	102.60
25	BB	2814	A	C1'-O4'-C4'	5.09	115.00	109.90
37	BN	59	GLN	O-C-N	-5.09	116.73	122.03
37	BN	240	GLY	N-CA-C	5.09	120.39	112.60
45	BV	26	ASN	CB-CA-C	5.09	118.96	110.81
48	BY	83	ARG	CA-C-N	5.09	131.27	121.54
48	BY	83	ARG	C-N-CA	5.09	131.27	121.54
1	AA	17	U	C1'-O4'-C4'	-5.09	104.81	109.90
3	A1	1168	U	C3'-C2'-O2'	5.09	122.24	114.60
23	AX	56	HIS	CA-C-O	-5.09	116.00	121.45
25	BB	1132	U	N1-C1'-C2'	-5.09	104.36	112.00
36	BM	35	ALA	N-CA-CB	-5.09	102.31	110.51
37	BN	94	LEU	CA-C-N	5.09	131.27	121.54
37	BN	94	LEU	C-N-CA	5.09	131.27	121.54
1	AA	42	G	C4'-C3'-O3'	-5.09	105.36	113.00
1	AE	39	U	C3'-C2'-O2'	5.09	118.34	110.70
3	A1	98	A	C1'-C2'-O2'	-5.09	100.76	108.40
3	A1	372	C	O5'-C5'-C4'	5.09	119.14	111.50
3	A1	902	G	C5'-C4'-C3'	-5.09	108.36	116.00
3	A1	989	U	C3'-C2'-C1'	5.09	106.39	101.30
3	A1	1253	G	P-O3'-C3'	-5.09	112.56	120.20
3	A1	1358	U	C1'-C2'-O2'	-5.09	100.76	108.40
3	A1	1465	A	C3'-C2'-C1'	5.09	106.39	101.30
6	AD	66	ILE	N-CA-C	5.09	119.93	109.34
11	AJ	79	GLU	CA-CB-CG	-5.09	103.92	114.10
25	BB	63	A	N9-C1'-C2'	-5.09	106.36	114.00
25	BB	2260	C	C2'-C3'-O3'	5.09	117.14	109.50
50	B1	29	HIS	ND1-CE1-NE2	5.09	113.49	108.40
3	A1	101	A	C3'-C2'-C1'	5.09	106.59	101.50
3	A1	1065	U	N1-C1'-C2'	5.09	121.64	114.00
3	A1	1122	U	C3'-C2'-C1'	5.09	106.39	101.30
3	A1	1368	A	C2'-C3'-O3'	5.09	121.33	113.70
9	AH	21	THR	N-CA-C	5.09	121.64	110.80
15	AO	205	GLU	CA-C-N	5.09	130.86	121.70
15	AO	205	GLU	C-N-CA	5.09	130.86	121.70
17	AR	204	SER	O-C-N	-5.09	114.22	122.42
25	BB	556	A	O4'-C1'-N9	5.09	116.13	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	606	U	C2'-C3'-O3'	-5.09	106.07	113.70
25	BB	2080	A	C5'-C4'-O4'	5.09	117.44	109.80
25	BB	2225	A	C4'-C3'-C2'	-5.09	97.51	102.60
25	BB	2266	A	O4'-C4'-C3'	5.09	109.09	104.00
25	BB	2411	A	C2'-C3'-O3'	5.09	121.33	113.70
25	BB	2467	C	P-O5'-C5'	5.09	128.53	120.90
25	BB	2794	C	O4'-C4'-C3'	5.09	109.09	104.00
29	BF	51	ARG	NE-CZ-NH1	5.09	126.59	121.50
30	BG	96	ARG	O-C-N	-5.09	117.01	123.17
39	BP	61	LYS	CA-C-N	5.09	131.26	121.54
39	BP	61	LYS	C-N-CA	5.09	131.26	121.54
49	BZ	53	PRO	O-C-N	-5.09	115.77	122.64
53	B4	86	ASP	CA-CB-CG	5.09	117.69	112.60
3	A1	1063	C	C4'-C3'-C2'	-5.09	97.51	102.60
15	AO	34	SER	CA-C-O	-5.09	114.12	119.97
25	BB	587	C	P-O3'-C3'	5.09	127.83	120.20
35	BL	2	GLU	N-CA-C	5.09	121.64	110.80
37	BN	77	VAL	N-CA-C	5.09	115.66	107.98
3	A1	73	C	C1'-O4'-C4'	-5.09	104.81	109.90
3	A1	224	U	N1-C1'-C2'	-5.09	104.37	112.00
3	A1	969	A	N1-C6-N6	-5.09	103.34	118.60
3	A1	1080	A	C4'-C3'-O3'	-5.09	105.37	113.00
3	A1	1121	U	O4'-C1'-C2'	-5.09	102.51	107.60
17	AR	4	LEU	O-C-N	-5.09	115.83	122.59
25	BB	228	C	O4'-C1'-C2'	5.09	110.89	105.80
25	BB	1088	A	C5'-C4'-O4'	5.09	117.43	109.80
25	BB	1140	C	C3'-C2'-C1'	-5.09	96.41	101.50
25	BB	1413	A	O5'-C5'-C4'	-5.09	103.87	111.50
42	BS	4	ASP	OD1-CG-OD2	-5.09	110.69	122.90
49	BZ	135	PRO	CA-N-CD	-5.09	104.88	112.00
49	BZ	204	TYR	N-CA-C	5.09	117.59	109.81
53	B4	97	ARG	NH1-CZ-NH2	-5.09	112.69	119.30
3	A1	71	A	O4'-C1'-N9	5.08	115.83	108.20
3	A1	560	A	O4'-C1'-N9	5.08	115.83	108.20
3	A1	1366	C	C3'-C2'-C1'	5.08	106.39	101.30
25	BB	931	U	O4'-C4'-C3'	5.08	109.08	104.00
25	BB	1717	A	O4'-C4'-C3'	5.08	109.08	104.00
1	AA	57	G	O4'-C4'-C3'	5.08	109.08	104.00
3	A1	1074	G	C4'-C3'-C2'	-5.08	97.52	102.60
5	AC	127	ARG	NE-CZ-NH2	5.08	123.78	119.20
12	AK	51	GLN	CG-CD-NE2	5.08	124.03	116.40
15	AO	71	ARG	CA-CB-CG	5.08	124.27	114.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
15	AO	190	THR	CA-CB-CG2	5.08	119.14	110.50
24	BA	33	G	O4'-C4'-C3'	5.08	109.08	104.00
24	BA	101	A	C1'-O4'-C4'	-5.08	104.82	109.90
25	BB	141	G	O4'-C1'-C2'	-5.08	102.52	107.60
25	BB	339	U	C3'-C2'-C1'	5.08	106.58	101.50
25	BB	607	U	C1'-O4'-C4'	5.08	114.98	109.90
25	BB	1549	A	P-O3'-C3'	5.08	127.83	120.20
25	BB	1718	G	C3'-C2'-C1'	5.08	106.38	101.30
25	BB	2681	C	C3'-C2'-C1'	-5.08	96.42	101.50
37	BN	110	LYS	N-CA-C	5.08	116.03	108.86
44	BU	41	VAL	CA-C-N	5.08	131.12	121.97
44	BU	41	VAL	C-N-CA	5.08	131.12	121.97
3	A1	8	A	C4'-C3'-O3'	-5.08	101.78	109.40
3	A1	97	G	P-O5'-C5'	5.08	128.52	120.90
3	A1	528	C	O4'-C4'-C3'	5.08	109.08	104.00
20	AU	3	ARG	O-C-N	-5.08	115.67	122.43
20	AU	42	VAL	N-CA-C	5.08	115.80	110.62
24	BA	65	U	O4'-C1'-N1	5.08	115.82	108.20
25	BB	75	G	P-O5'-C5'	5.08	128.52	120.90
25	BB	683	U	O5'-C5'-C4'	5.08	119.32	111.70
25	BB	900	A	O4'-C1'-C2'	-5.08	100.72	105.80
25	BB	931	U	C4'-C3'-C2'	-5.08	97.52	102.60
25	BB	1206	G	C2'-C3'-O3'	5.08	121.32	113.70
25	BB	1410	G	P-O3'-C3'	5.08	127.82	120.20
25	BB	2638	G	O4'-C4'-C3'	-5.08	101.02	106.10
37	BN	135	PRO	N-CA-CB	5.08	108.59	103.25
54	B5	29	GLN	CG-CD-OE1	5.08	130.96	120.80
1	AE	11	C	C5'-C4'-O4'	-5.08	102.18	109.80
3	A1	75	G	C3'-C2'-C1'	5.08	106.38	101.30
3	A1	550	G	C1'-C2'-O2'	5.08	116.02	108.40
25	BB	809	G	O4'-C1'-C2'	5.08	112.68	107.60
25	BB	1638	C	O3'-P-O5'	5.08	111.62	104.00
25	BB	1722	A	N9-C1'-C2'	5.08	119.62	112.00
25	BB	1804	C	C4'-C3'-C2'	5.08	107.68	102.60
25	BB	2320	U	C4'-C3'-C2'	-5.08	97.52	102.60
25	BB	2473	U	O4'-C4'-C3'	5.08	109.08	104.00
26	BC	36	ALA	CA-C-O	-5.08	115.24	119.76
52	B3	29	ASN	OD1-CG-ND2	-5.08	117.52	122.60
1	AA	29	A	C4'-C3'-O3'	5.08	120.62	113.00
1	AA	51	G	O4'-C4'-C3'	5.08	109.08	104.00
3	A1	50	A	C5'-C4'-C3'	-5.08	108.38	116.00
3	A1	254	G	O4'-C4'-C3'	5.08	109.08	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	258	G	O4'-C1'-C2'	-5.08	102.52	107.60
3	A1	755	G	O4'-C1'-N9	-5.08	100.88	108.50
3	A1	876	C	C5'-C4'-O4'	5.08	117.42	109.80
3	A1	1281	C	O4'-C4'-C3'	5.08	111.18	106.10
3	A1	1493	A	C1'-O4'-C4'	-5.08	104.62	109.70
5	AC	123	PRO	CA-N-CD	-5.08	104.89	112.00
11	AJ	70	LYS	CB-CA-C	5.08	119.74	112.12
13	AL	47	THR	OG1-CB-CG2	-5.08	99.14	109.30
17	AR	30	LYS	N-CA-C	5.08	121.75	114.39
25	BB	368	A	C5'-C4'-C3'	-5.08	108.38	116.00
25	BB	655	A	C5'-C4'-O4'	5.08	116.72	109.10
25	BB	864	G	C3'-C2'-O2'	5.08	118.32	110.70
25	BB	994	C	N1-C1'-C2'	5.08	119.62	112.00
25	BB	1031	G	O4'-C4'-C3'	5.08	109.08	104.00
25	BB	1479	G	C4'-C3'-C2'	-5.08	97.52	102.60
25	BB	2118	U	C5'-C4'-C3'	-5.08	107.58	115.20
25	BB	2449	U	C1'-O4'-C4'	-5.08	104.62	109.70
25	BB	2845	U	C2'-C3'-O3'	5.08	121.32	113.70
53	B4	94	ILE	CA-C-N	5.08	131.36	121.41
53	B4	94	ILE	C-N-CA	5.08	131.36	121.41
3	A1	51	A	C3'-C2'-O2'	5.08	118.31	110.70
3	A1	1290	G	C4'-C3'-C2'	-5.08	97.52	102.60
25	BB	643	A	C3'-C2'-C1'	5.08	106.58	101.50
25	BB	985	C	O5'-C5'-C4'	-5.08	103.88	111.50
25	BB	1973	G	O4'-C4'-C3'	5.08	109.08	104.00
38	BO	43	LYS	CA-C-N	5.08	131.35	122.82
38	BO	43	LYS	C-N-CA	5.08	131.35	122.82
41	BR	37	ARG	NE-CZ-NH1	5.08	126.58	121.50
48	BY	160	LYS	N-CA-CB	-5.08	104.72	112.28
3	A1	1481	U	O4'-C1'-N1	5.08	116.11	108.50
25	BB	447	A	C3'-C2'-C1'	5.08	106.58	101.50
25	BB	629	G	C5'-C4'-O4'	-5.08	102.19	109.80
25	BB	747	U	C1'-C2'-O2'	-5.08	104.19	111.80
25	BB	971	G	O5'-C5'-C4'	5.08	119.31	111.70
25	BB	2328	A	C4'-C3'-O3'	-5.08	105.39	113.00
30	BG	2	ARG	CA-C-O	-5.08	113.25	120.51
31	BH	103	VAL	CA-C-O	5.08	123.55	119.29
37	BN	255	LYS	N-CA-C	5.08	117.99	110.48
42	BS	22	MET	CA-C-N	5.08	130.70	122.07
42	BS	22	MET	C-N-CA	5.08	130.70	122.07
49	BZ	90	LEU	N-CA-CB	-5.08	102.12	110.14
53	B4	124	THR	O-C-N	-5.08	117.59	123.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	411	A	C1'-O4'-C4'	-5.07	104.63	109.70
3	A1	1113	C	C3'-C2'-O2'	5.07	118.31	110.70
3	A1	1367	C	C1'-O4'-C4'	-5.07	104.83	109.90
13	AL	24	SER	N-CA-CB	5.07	119.06	110.49
19	AT	38	ARG	CD-NE-CZ	5.07	131.50	124.40
25	BB	679	C	O4'-C4'-C3'	5.07	109.07	104.00
25	BB	1280	G	C2'-C3'-O3'	5.07	121.31	113.70
25	BB	1396	U	O4'-C1'-N1	5.07	115.81	108.20
27	BD	80	ASP	OD1-CG-OD2	-5.07	110.72	122.90
31	BH	23	ALA	N-CA-CB	-5.07	103.70	111.56
35	BL	41	LYS	CA-C-N	5.07	127.79	120.38
35	BL	41	LYS	C-N-CA	5.07	127.79	120.38
49	BZ	164	GLN	N-CA-C	5.07	116.78	108.76
51	B2	44	ALA	N-CA-C	5.07	119.18	112.89
55	B6	35	ARG	NE-CZ-NH1	5.07	126.57	121.50
55	B6	77	HIS	ND1-CE1-NE2	5.07	113.47	108.40
14	AN	8	LYS	O-C-N	5.07	127.50	122.12
25	BB	574	A	C4'-C3'-C2'	-5.07	97.53	102.60
25	BB	873	C	O5'-C5'-C4'	5.07	119.11	111.50
25	BB	1290	C	O4'-C4'-C3'	5.07	109.07	104.00
25	BB	2321	U	C5'-C4'-O4'	5.07	116.71	109.10
37	BN	107	LYS	CB-CA-C	5.07	120.51	110.42
1	AP	55	U	N1-C1'-C2'	5.07	119.61	112.00
3	A1	955	U	C3'-C2'-C1'	5.07	106.37	101.30
3	A1	1475	G	C5'-C4'-O4'	5.07	117.40	109.80
9	AH	53	ARG	NE-CZ-NH1	5.07	126.57	121.50
17	AR	73	ASN	CB-CG-ND2	5.07	124.01	116.40
25	BB	517	C	O3'-P-O5'	-5.07	96.39	104.00
25	BB	519	U	C3'-C2'-C1'	5.07	106.37	101.30
25	BB	656	G	C1'-C2'-O2'	-5.07	100.80	108.40
25	BB	1292	G	O4'-C4'-C3'	5.07	109.07	104.00
25	BB	1452	G	C1'-C2'-O2'	5.07	116.00	108.40
25	BB	1756	G	C5'-C4'-O4'	5.07	117.41	109.80
25	BB	2774	C	O4'-C1'-N1	-5.07	100.89	108.50
34	BK	20	VAL	CA-CB-CG1	5.07	119.02	110.40
49	BZ	144	ILE	CA-CB-CG1	5.07	119.02	110.40
52	B3	44	HIS	O-C-N	-5.07	117.40	123.28
3	A1	19	A	C3'-C2'-C1'	-5.07	96.23	101.30
3	A1	564	C	C4'-C3'-O3'	-5.07	105.40	113.00
3	A1	856	C	C1'-O4'-C4'	5.07	114.97	109.90
3	A1	1318	A	C5'-C4'-O4'	5.07	117.40	109.80
3	A1	1357	A	C4'-C3'-C2'	-5.07	97.53	102.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1446	A	C2'-C3'-O3'	5.07	117.10	109.50
5	AC	123	PRO	N-CA-CB	5.07	108.57	103.25
7	AF	91	ARG	CA-C-N	5.07	128.79	120.63
7	AF	91	ARG	C-N-CA	5.07	128.79	120.63
21	AV	36	ALA	CA-C-N	5.07	127.07	120.28
21	AV	36	ALA	C-N-CA	5.07	127.07	120.28
25	BB	984	A	C3'-C2'-C1'	5.07	106.37	101.30
25	BB	1466	U	C4'-C3'-O3'	5.07	117.00	109.40
25	BB	1525	A	O4'-C1'-N9	5.07	116.10	108.50
25	BB	1581	G	O4'-C1'-C2'	-5.07	102.53	107.60
25	BB	2050	C	C4'-C3'-C2'	-5.07	97.53	102.60
25	BB	2195	U	O4'-C1'-N1	5.07	116.10	108.50
25	BB	2282	G	P-O3'-C3'	5.07	127.80	120.20
25	BB	2453	A	P-O3'-C3'	5.07	127.80	120.20
36	BM	80	TRP	CA-C-N	5.07	131.22	121.54
36	BM	80	TRP	C-N-CA	5.07	131.22	121.54
55	B6	86	GLN	CA-C-N	5.07	128.69	120.23
55	B6	86	GLN	C-N-CA	5.07	128.69	120.23
22	AW	27	ILE	CB-CA-C	5.07	117.45	111.32
24	BA	27	C	O4'-C1'-N1	5.07	116.10	108.50
25	BB	182	A	C5'-C4'-C3'	-5.07	108.40	116.00
25	BB	488	G	O3'-P-O5'	5.07	111.60	104.00
25	BB	488	G	C3'-C2'-C1'	5.07	106.37	101.30
25	BB	533	G	P-O5'-C5'	-5.07	113.30	120.90
25	BB	1171	G	C3'-C2'-C1'	5.07	106.37	101.30
25	BB	2008	C	C4'-C3'-C2'	-5.07	97.53	102.60
25	BB	2827	C	O4'-C1'-N1	5.07	115.80	108.20
29	BF	126	ILE	CA-C-N	5.07	131.22	121.54
29	BF	126	ILE	C-N-CA	5.07	131.22	121.54
1	AE	55	U	O4'-C4'-C3'	-5.07	98.93	104.00
3	A1	457	G	C4'-C3'-C2'	-5.07	97.53	102.60
15	AO	96	VAL	CA-C-N	5.07	125.78	120.11
15	AO	96	VAL	C-N-CA	5.07	125.78	120.11
25	BB	161	A	C5'-C4'-C3'	-5.07	108.40	116.00
25	BB	608	A	O4'-C4'-C3'	-5.07	98.93	104.00
25	BB	1261	C	O4'-C1'-N1	5.07	116.10	108.50
25	BB	1378	A	O4'-C4'-C3'	-5.07	101.03	106.10
25	BB	1476	U	C1'-O4'-C4'	5.07	114.97	109.90
25	BB	1776	G	O4'-C1'-C2'	-5.07	100.73	105.80
48	BY	202	ILE	CB-CA-C	5.07	118.54	111.40
51	B2	175	PRO	N-CD-CG	5.07	110.80	103.20
3	A1	1502	A	O4'-C1'-C2'	5.06	110.86	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
13	AL	35	ARG	CA-C-N	5.06	131.21	121.54
13	AL	35	ARG	C-N-CA	5.06	131.21	121.54
25	BB	1798	U	C5'-C4'-O4'	5.06	117.40	109.80
25	BB	1846	G	O4'-C1'-C2'	5.06	110.86	105.80
25	BB	2114	A	C5'-C4'-O4'	5.06	117.39	109.80
53	B4	119	ASN	CA-C-O	-5.06	115.99	121.36
1	AP	54	U	N1-C1'-C2'	-5.06	104.41	112.00
4	AB	67	LEU	CB-CA-C	5.06	119.04	110.79
8	AG	64	ARG	CA-C-O	-5.06	113.27	120.51
18	AS	134	ASN	N-CA-C	5.06	116.65	111.03
25	BB	388	G	C4'-C3'-O3'	5.06	120.59	113.00
25	BB	539	G	O5'-C5'-C4'	-5.06	104.11	111.70
25	BB	565	C	C4'-C3'-O3'	-5.06	105.41	113.00
25	BB	903	C	C1'-O4'-C4'	-5.06	104.84	109.90
25	BB	1100	C	O4'-C1'-C2'	5.06	112.66	107.60
27	BD	42	THR	CA-C-N	5.06	131.08	121.97
27	BD	42	THR	C-N-CA	5.06	131.08	121.97
37	BN	121	ALA	N-CA-C	-5.06	105.84	111.36
45	BV	41	ARG	NE-CZ-NH1	-5.06	116.44	121.50
46	BW	54	LEU	CA-C-O	-5.06	114.38	120.10
49	BZ	205	VAL	O-C-N	-5.06	117.55	122.97
3	A1	390	U	C1'-C2'-O2'	-5.06	104.21	111.80
20	AU	88	VAL	CB-CA-C	5.06	119.59	111.29
20	AU	139	ASP	N-CA-C	5.06	117.45	111.33
25	BB	787	C	C1'-O4'-C4'	-5.06	104.84	109.90
25	BB	1002	G	C5'-C4'-O4'	5.06	117.39	109.80
25	BB	1065	U	C5'-C4'-C3'	-5.06	108.41	116.00
25	BB	2274	A	C1'-C2'-O2'	5.06	119.39	111.80
27	BD	25	LEU	CA-C-N	5.06	131.33	121.41
27	BD	25	LEU	C-N-CA	5.06	131.33	121.41
37	BN	84	PRO	N-CA-CB	5.06	108.56	103.25
3	A1	68	G	C3'-C2'-O2'	5.06	118.29	110.70
3	A1	931	C	O3'-P-O5'	5.06	111.59	104.00
3	A1	1008	U	N1-C1'-C2'	-5.06	104.41	112.00
3	A1	1092	A	N1-C6-N6	-5.06	103.42	118.60
3	A1	1289	A	C3'-C2'-O2'	5.06	118.29	110.70
9	AH	75	ALA	N-CA-C	5.06	119.32	113.20
17	AR	179	GLY	N-CA-C	5.06	118.85	110.55
25	BB	472	A	O3'-P-O5'	5.06	111.59	104.00
25	BB	938	G	C1'-O4'-C4'	-5.06	104.84	109.90
25	BB	2126	A	N1-C6-N6	-5.06	103.42	118.60
25	BB	2237	G	O5'-C5'-C4'	-5.06	103.91	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	2446	G	C2'-C3'-O3'	5.06	117.09	109.50
25	BB	2707	U	O3'-P-O5'	5.06	111.59	104.00
32	BI	94	ALA	N-CA-C	5.06	121.58	110.80
3	A1	260	G	O4'-C1'-C2'	-5.06	100.74	105.80
3	A1	656	G	O5'-C5'-C4'	-5.06	103.91	111.50
3	A1	1403	C	O3'-P-O5'	5.06	111.59	104.00
13	AL	77	ARG	CA-C-O	-5.06	115.54	121.10
18	AS	96	GLN	OE1-CD-NE2	-5.06	117.54	122.60
25	BB	1012	U	C1'-C2'-O2'	5.06	119.39	111.80
25	BB	1364	G	C5'-C4'-O4'	5.06	117.39	109.80
25	BB	1786	A	O4'-C1'-C2'	-5.06	100.74	105.80
25	BB	2318	G	O4'-C1'-N9	5.06	116.08	108.50
25	BB	2640	G	P-O5'-C5'	5.06	128.49	120.90
28	BE	8	PRO	CA-C-N	5.06	131.20	121.54
28	BE	8	PRO	C-N-CA	5.06	131.20	121.54
33	BJ	49	ARG	CD-NE-CZ	5.06	131.48	124.40
51	B2	35	LEU	CA-C-N	5.06	131.20	121.54
51	B2	35	LEU	C-N-CA	5.06	131.20	121.54
3	A1	111	G	C5'-C4'-C3'	-5.06	108.42	116.00
3	A1	1489	G	C5'-C4'-O4'	5.06	117.38	109.80
17	AR	187	ARG	CA-C-N	5.06	131.46	122.06
17	AR	187	ARG	C-N-CA	5.06	131.46	122.06
25	BB	2821	A	P-O3'-C3'	5.06	127.78	120.20
52	B3	32	LEU	CA-C-O	-5.06	115.82	121.23
3	A1	179	A	C4'-C3'-C2'	5.05	107.66	102.60
3	A1	188	C	C2'-C3'-O3'	5.05	117.08	109.50
4	AB	101	THR	CA-C-N	5.05	130.50	121.15
4	AB	101	THR	C-N-CA	5.05	130.50	121.15
25	BB	77	G	C4'-C3'-C2'	5.05	107.65	102.60
25	BB	691	C	P-O3'-C3'	5.05	127.78	120.20
25	BB	1085	A	N1-C6-N6	-5.05	103.44	118.60
25	BB	1511	G	O5'-C5'-C4'	5.05	119.08	111.50
25	BB	2442	C	C5'-C4'-C3'	-5.05	108.42	116.00
34	BK	21	ARG	NE-CZ-NH2	5.05	123.75	119.20
37	BN	250	GLN	N-CA-C	5.05	119.20	113.19
52	B3	19	ASN	CA-C-N	5.05	131.32	121.41
52	B3	19	ASN	C-N-CA	5.05	131.32	121.41
3	A1	181	A	O4'-C4'-C3'	-5.05	101.05	106.10
3	A1	646	G	N9-C1'-C2'	5.05	119.58	112.00
3	A1	1065	U	C3'-C2'-C1'	-5.05	96.45	101.50
19	AT	79	ARG	NE-CZ-NH2	5.05	123.75	119.20
25	BB	607	U	O5'-C5'-C4'	5.05	119.08	111.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1082	U	C1'-O4'-C4'	-5.05	104.85	109.90
25	BB	1112	G	C3'-C2'-O2'	5.05	118.28	110.70
3	A1	57	G	O4'-C1'-C2'	5.05	112.65	107.60
3	A1	206	C	C5'-C4'-O4'	-5.05	102.22	109.80
3	A1	307	C	C1'-C2'-O2'	5.05	115.98	108.40
3	A1	1446	A	O4'-C1'-N9	5.05	115.78	108.20
12	AK	54	LEU	CB-CA-C	5.05	119.97	110.63
25	BB	301	G	O4'-C1'-N9	5.05	115.78	108.20
25	BB	509	C	C1'-C2'-O2'	-5.05	100.82	108.40
25	BB	569	U	O4'-C1'-N1	5.05	115.78	108.20
25	BB	1491	G	O4'-C4'-C3'	-5.05	98.95	104.00
25	BB	1752	C	P-O5'-C5'	5.05	128.48	120.90
25	BB	1928	A	C1'-C2'-O2'	-5.05	100.82	108.40
25	BB	2494	G	C5'-C4'-O4'	5.05	117.38	109.80
25	BB	2835	A	C4'-C3'-C2'	-5.05	97.55	102.60
25	BB	2843	G	O3'-P-O5'	5.05	111.58	104.00
25	BB	2890	G	C3'-C2'-C1'	5.05	106.35	101.30
3	A1	151	A	C4'-C3'-C2'	-5.05	97.55	102.60
3	A1	864	A	O3'-P-O5'	5.05	111.57	104.00
3	A1	911	U	O4'-C1'-N1	5.05	116.07	108.50
3	A1	1266	G	C2'-C3'-O3'	-5.05	106.13	113.70
15	AO	71	ARG	NE-CZ-NH1	5.05	126.55	121.50
25	BB	318	C	O4'-C1'-N1	5.05	115.77	108.20
25	BB	333	G	C5'-C4'-C3'	-5.05	107.63	115.20
25	BB	348	A	C3'-C2'-O2'	5.05	118.28	110.70
25	BB	1237	A	C3'-C2'-O2'	-5.05	107.03	114.60
25	BB	1552	A	C3'-C2'-O2'	5.05	118.28	110.70
25	BB	1965	C	O4'-C4'-C3'	5.05	109.05	104.00
25	BB	2413	G	C1'-C2'-O2'	5.05	115.97	108.40
29	BF	45	GLN	CG-CD-NE2	5.05	123.97	116.40
3	A1	48	C	O3'-P-O5'	-5.05	96.43	104.00
3	A1	60	A	P-O5'-C5'	5.05	128.47	120.90
3	A1	461	A	C4'-C3'-C2'	-5.05	97.55	102.60
3	A1	1094	G	C5'-C4'-O4'	-5.05	101.53	109.10
3	A1	1472	U	C4'-C3'-C2'	-5.05	97.55	102.60
24	BA	91	C	C3'-C2'-O2'	5.05	118.27	110.70
25	BB	54	G	C3'-C2'-O2'	5.05	118.27	110.70
25	BB	146	A	O3'-P-O5'	-5.05	96.43	104.00
27	BD	65	THR	CA-CB-CG2	5.05	119.08	110.50
28	BE	90	VAL	CA-CB-CG2	5.05	118.98	110.40
35	BL	32	ALA	N-CA-C	5.05	118.70	112.54
3	A1	1130	A	O4'-C1'-N9	5.05	116.07	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	1162	C	C3'-C2'-O2'	5.05	118.27	110.70
3	A1	1267	C	C1'-C2'-O2'	-5.05	104.23	111.80
3	A1	1285	A	C4'-C3'-O3'	5.05	116.97	109.40
15	AO	154	GLY	O-C-N	-5.05	114.02	123.36
18	AS	34	ALA	N-CA-C	5.05	115.97	108.60
21	AV	10	LEU	N-CA-C	5.05	116.78	111.28
25	BB	480	A	C3'-C2'-C1'	5.05	106.35	101.30
25	BB	883	G	O3'-P-O5'	5.05	111.57	104.00
25	BB	1026	G	C3'-C2'-C1'	-5.05	96.45	101.50
25	BB	1540	G	O3'-P-O5'	5.05	111.57	104.00
25	BB	2275	C	C2'-C3'-O3'	-5.05	106.13	113.70
25	BB	2391	G	C2'-C3'-O3'	-5.05	101.93	109.50
45	BV	14	ARG	CD-NE-CZ	5.05	131.47	124.40
50	B1	61	ARG	N-CA-CB	5.05	118.01	109.94
15	AO	52	SER	N-CA-C	5.04	117.16	111.11
21	AV	3	GLN	N-CA-C	5.04	118.53	112.38
25	BB	2813	A	C1'-O4'-C4'	-5.04	104.86	109.90
37	BN	79	ARG	CA-C-O	-5.04	115.80	121.40
49	BZ	84	VAL	O-C-N	5.04	128.65	123.05
3	A1	1155	A	C1'-O4'-C4'	-5.04	104.86	109.90
4	AB	76	SER	N-CA-C	5.04	118.21	111.75
17	AR	137	SER	N-CA-C	5.04	116.85	109.84
24	BA	88	C	O4'-C1'-C2'	-5.04	100.76	105.80
25	BB	517	C	C1'-O4'-C4'	5.04	114.74	109.70
25	BB	627	A	O4'-C4'-C3'	5.04	111.14	106.10
25	BB	638	G	C4'-C3'-C2'	-5.04	97.56	102.60
25	BB	1062	G	C5'-C4'-C3'	-5.04	108.44	116.00
25	BB	1176	U	C4'-C3'-C2'	-5.04	97.56	102.60
25	BB	2567	G	C3'-C2'-C1'	5.04	106.34	101.30
26	BC	93	ARG	CB-CA-C	5.04	118.65	109.62
30	BG	65	LEU	CA-C-N	5.04	131.17	121.54
30	BG	65	LEU	C-N-CA	5.04	131.17	121.54
38	BO	93	ARG	CD-NE-CZ	5.04	131.46	124.40
2	AM	4	U	C2'-C3'-O3'	-5.04	106.14	113.70
3	A1	962	C	O4'-C1'-C2'	5.04	112.64	107.60
3	A1	1107	C	C4'-C3'-O3'	5.04	120.56	113.00
10	AI	53	ASP	CA-C-N	5.04	127.34	120.54
10	AI	53	ASP	C-N-CA	5.04	127.34	120.54
21	AV	104	SER	CA-C-O	5.04	125.58	120.24
22	AW	12	LYS	N-CA-C	5.04	121.54	110.80
22	AW	50	PRO	O-C-N	-5.04	115.48	122.24
25	BB	646	U	C2'-C3'-O3'	5.04	121.26	113.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
31	BH	25	ARG	NE-CZ-NH2	5.04	123.74	119.20
33	BJ	30	VAL	CA-C-N	5.04	131.17	121.54
33	BJ	30	VAL	C-N-CA	5.04	131.17	121.54
33	BJ	63	ARG	CA-C-N	5.04	131.75	122.88
33	BJ	63	ARG	C-N-CA	5.04	131.75	122.88
37	BN	128	THR	O-C-N	-5.04	117.04	123.24
42	BS	25	ARG	NE-CZ-NH1	5.04	126.54	121.50
3	A1	377	G	C4'-C3'-O3'	-5.04	105.44	113.00
25	BB	816	C	P-O5'-C5'	5.04	128.46	120.90
25	BB	2392	A	N9-C1'-C2'	5.04	119.56	112.00
25	BB	2719	G	C3'-C2'-C1'	5.04	106.34	101.30
25	BB	2756	U	P-O3'-C3'	5.04	127.76	120.20
3	A1	231	U	C2'-C3'-O3'	5.04	121.26	113.70
3	A1	872	A	O4'-C1'-N9	5.04	115.76	108.20
3	A1	1457	G	O4'-C1'-N9	5.04	116.06	108.50
12	AK	51	GLN	OE1-CD-NE2	-5.04	117.56	122.60
18	AS	153	ALA	CA-C-N	5.04	127.29	120.44
18	AS	153	ALA	C-N-CA	5.04	127.29	120.44
25	BB	123	G	C3'-C2'-C1'	5.04	106.34	101.30
25	BB	1703	G	O3'-P-O5'	-5.04	96.44	104.00
25	BB	1839	G	C5'-C4'-C3'	-5.04	108.44	116.00
25	BB	2445	G	C1'-O4'-C4'	-5.04	104.86	109.90
25	BB	2455	G	C4'-C3'-O3'	5.04	116.96	109.40
27	BD	91	SER	CB-CA-C	5.04	118.50	110.09
32	BI	46	VAL	CA-C-O	5.04	126.98	121.13
48	BY	134	HIS	ND1-CE1-NE2	5.04	113.44	108.40
50	B1	195	GLN	CG-CD-NE2	5.04	123.96	116.40
55	B6	4	PHE	N-CA-C	5.04	116.83	110.33
1	AE	45	G	O4'-C1'-C2'	-5.04	102.56	107.60
25	BB	311	A	N1-C6-N6	-5.04	103.49	118.60
25	BB	2523	G	C5'-C4'-O4'	5.04	117.36	109.80
5	AC	78	ILE	CA-C-O	5.04	125.63	120.39
11	AJ	23	ALA	CA-C-N	5.04	131.03	121.97
11	AJ	23	ALA	C-N-CA	5.04	131.03	121.97
15	AO	199	VAL	CA-C-N	5.04	129.87	122.77
15	AO	199	VAL	C-N-CA	5.04	129.87	122.77
21	AV	99	GLY	CA-C-N	5.04	130.76	121.70
21	AV	99	GLY	C-N-CA	5.04	130.76	121.70
23	AX	83	THR	CB-CA-C	5.04	117.14	109.34
25	BB	1195	G	C4'-C3'-O3'	5.04	120.55	113.00
25	BB	1577	C	C4'-C3'-O3'	5.04	120.55	113.00
25	BB	1714	U	C3'-C2'-C1'	5.04	106.34	101.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1960	A	C1'-C2'-O2'	5.04	119.35	111.80
25	BB	2221	G	C1'-O4'-C4'	-5.04	104.86	109.90
25	BB	2340	A	C4'-C3'-C2'	-5.04	97.56	102.60
33	BJ	54	ARG	NH1-CZ-NH2	-5.04	112.75	119.30
37	BN	147	PRO	N-CA-C	5.04	121.25	113.75
51	B2	30	VAL	CA-C-N	5.04	127.29	120.44
51	B2	30	VAL	C-N-CA	5.04	127.29	120.44
53	B4	6	LEU	CA-C-O	-5.04	113.31	120.51
55	B6	61	LYS	CA-C-N	5.04	128.62	121.02
55	B6	61	LYS	C-N-CA	5.04	128.62	121.02
1	AP	73	A	O4'-C4'-C3'	5.03	109.03	104.00
3	A1	63	C	C1'-O4'-C4'	-5.03	104.67	109.70
3	A1	899	C	O4'-C4'-C3'	5.03	111.13	106.10
8	AG	10	VAL	CA-C-N	5.03	128.65	120.60
8	AG	10	VAL	C-N-CA	5.03	128.65	120.60
21	AV	61	THR	OG1-CB-CG2	-5.03	99.23	109.30
24	BA	27	C	O3'-P-O5'	-5.03	96.45	104.00
25	BB	10	A	C4'-C3'-C2'	5.03	107.63	102.60
25	BB	912	C	C5'-C4'-O4'	-5.03	102.25	109.80
25	BB	1263	U	O4'-C1'-N1	-5.03	100.65	108.20
25	BB	1307	A	C2'-C3'-O3'	-5.03	106.15	113.70
25	BB	1843	C	O4'-C4'-C3'	5.03	109.03	104.00
25	BB	1942	C	C3'-C2'-C1'	5.03	106.53	101.50
25	BB	2730	C	C1'-O4'-C4'	-5.03	104.87	109.90
25	BB	2836	U	C4'-C3'-O3'	-5.03	105.45	113.00
25	BB	2861	U	C4'-C3'-C2'	-5.03	97.57	102.60
32	BI	24	THR	CA-C-N	5.03	128.60	120.55
32	BI	24	THR	C-N-CA	5.03	128.60	120.55
50	B1	21	ARG	NE-CZ-NH2	5.03	123.73	119.20
3	A1	250	A	O4'-C4'-C3'	5.03	111.13	106.10
3	A1	251	G	C1'-O4'-C4'	-5.03	104.87	109.90
24	BA	38	C	C4'-C3'-C2'	-5.03	97.57	102.60
25	BB	369	U	C4'-C3'-O3'	-5.03	101.85	109.40
25	BB	1433	A	C4'-C3'-O3'	-5.03	105.45	113.00
25	BB	1543	G	O4'-C1'-N9	5.03	116.05	108.50
25	BB	1634	A	O5'-C5'-C4'	5.03	119.05	111.50
25	BB	2715	C	O4'-C1'-C2'	-5.03	102.57	107.60
3	A1	114	U	O4'-C1'-N1	-5.03	100.95	108.50
3	A1	169	C	C3'-C2'-C1'	5.03	106.33	101.30
3	A1	582	C	C1'-O4'-C4'	-5.03	104.87	109.90
3	A1	610	U	O4'-C1'-N1	5.03	116.05	108.50
3	A1	772	U	C1'-C2'-O2'	-5.03	100.85	108.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	A1	902	G	N9-C1'-C2'	-5.03	104.45	112.00
3	A1	1385	G	C5'-C4'-O4'	5.03	117.35	109.80
3	A1	1462	C	C5'-C4'-C3'	-5.03	108.45	116.00
3	A1	1484	C	O5'-P-OP1	-5.03	92.91	108.00
15	AO	13	ILE	CA-CB-CG1	5.03	118.95	110.40
22	AW	72	SER	N-CA-C	5.03	118.88	112.34
24	BA	83	G	C4'-C3'-C2'	-5.03	97.57	102.60
25	BB	79	C	O4'-C1'-N1	5.03	116.05	108.50
25	BB	225	C	N1-C1'-C2'	5.03	119.55	112.00
25	BB	1060	U	O4'-C4'-C3'	-5.03	101.07	106.10
25	BB	1139	G	C1'-O4'-C4'	-5.03	104.67	109.70
25	BB	1663	G	C1'-O4'-C4'	-5.03	104.87	109.90
25	BB	1738	G	O3'-P-O5'	5.03	111.55	104.00
27	BD	121	GLU	CB-CG-CD	-5.03	104.05	112.60
24	BA	20	G	N9-C1'-C2'	5.03	119.54	112.00
25	BB	2502	G	C4'-C3'-C2'	-5.03	97.57	102.60
12	AK	69	TYR	CB-CG-CD1	-5.03	113.26	120.80
25	BB	556	A	O3'-P-O5'	5.03	111.54	104.00
25	BB	613	A	C1'-C2'-O2'	5.03	119.34	111.80
25	BB	1531	C	C5'-C4'-C3'	-5.03	108.46	116.00
25	BB	1532	A	C5'-C4'-O4'	5.03	117.34	109.80
25	BB	1790	C	P-O3'-C3'	5.03	127.74	120.20
25	BB	1870	C	C4'-C3'-C2'	-5.03	97.57	102.60
25	BB	1884	G	C3'-C2'-O2'	-5.03	107.06	114.60
25	BB	1920	C	C4'-C3'-O3'	5.03	120.54	113.00
25	BB	2070	A	C1'-O4'-C4'	-5.03	104.67	109.70
25	BB	2293	G	O4'-C1'-C2'	-5.03	102.57	107.60
25	BB	2315	G	C1'-O4'-C4'	-5.03	104.87	109.90
34	BK	70	GLU	O-C-N	-5.03	115.59	122.33
37	BN	53	ILE	N-CA-C	5.03	119.80	109.34
55	B6	91	GLU	N-CA-C	5.03	119.17	113.19
2	AM	5	U	P-O5'-C5'	5.03	128.44	120.90
3	A1	432	A	O3'-P-O5'	-5.03	96.46	104.00
3	A1	734	G	O4'-C1'-N9	5.03	115.74	108.20
3	A1	916	U	P-O3'-C3'	-5.03	112.66	120.20
3	A1	1163	A	C5'-C4'-O4'	5.03	117.34	109.80
3	A1	1251	A	C1'-O4'-C4'	-5.03	104.88	109.90
3	A1	1389	C	P-O5'-C5'	5.03	128.44	120.90
20	AU	137	ARG	CA-C-N	5.03	127.27	120.38
20	AU	137	ARG	C-N-CA	5.03	127.27	120.38
25	BB	491	G	O4'-C1'-C2'	-5.03	102.57	107.60
25	BB	608	A	P-O3'-C3'	5.03	127.74	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1872	A	O4'-C1'-N9	5.03	116.04	108.50
25	BB	1908	C	C4'-C3'-C2'	-5.03	97.57	102.60
25	BB	2732	G	N9-C1'-C2'	5.03	119.54	112.00
26	BC	14	LYS	O-C-N	-5.03	116.09	122.27
30	BG	104	ALA	CA-C-O	5.03	127.70	120.51
54	B5	104	GLN	CA-C-N	5.03	127.27	120.38
54	B5	104	GLN	C-N-CA	5.03	127.27	120.38
1	AP	40	C	O4'-C1'-N1	5.02	116.03	108.50
3	A1	113	G	O4'-C1'-N9	5.02	116.04	108.50
3	A1	1082	A	C5'-C4'-C3'	-5.02	108.46	116.00
3	A1	1121	U	C3'-C2'-O2'	5.02	118.24	110.70
3	A1	1350	A	O4'-C4'-C3'	5.02	109.02	104.00
11	AJ	66	LEU	CA-C-O	5.02	125.57	119.49
25	BB	1553	A	O5'-C5'-C4'	5.02	119.04	111.50
25	BB	1771	C	O4'-C1'-N1	5.02	115.74	108.20
25	BB	2082	A	C3'-C2'-O2'	5.02	118.24	110.70
35	BL	66	ILE	CA-CB-CG1	-5.02	101.86	110.40
51	B2	132	ARG	NE-CZ-NH1	5.02	126.52	121.50
1	AA	31	A	C2'-C3'-O3'	-5.02	106.17	113.70
1	AE	64	A	P-O3'-C3'	5.02	127.73	120.20
3	A1	37	U	C4'-C3'-O3'	5.02	120.53	113.00
3	A1	249	U	C5'-C4'-C3'	-5.02	107.67	115.20
3	A1	398	U	O4'-C4'-C3'	5.02	109.02	104.00
3	A1	654	G	C2'-C3'-O3'	-5.02	106.17	113.70
3	A1	697	U	C3'-C2'-O2'	5.02	118.23	110.70
3	A1	1309	G	O5'-C5'-C4'	-5.02	103.97	111.50
3	A1	1382	C	O3'-P-O5'	-5.02	96.47	104.00
3	A1	1420	U	C2'-C3'-O3'	5.02	121.23	113.70
7	AF	63	VAL	N-CA-C	5.02	119.79	109.34
25	BB	688	U	O3'-P-O5'	5.02	111.53	104.00
25	BB	1226	A	O5'-C5'-C4'	5.02	119.03	111.50
25	BB	2028	U	C5'-C4'-C3'	-5.02	108.47	116.00
25	BB	2213	U	O4'-C4'-C3'	5.02	111.12	106.10
25	BB	2224	G	P-O5'-C5'	5.02	128.43	120.90
25	BB	2308	G	C1'-O4'-C4'	5.02	114.72	109.70
25	BB	2839	G	O4'-C4'-C3'	5.02	109.02	104.00
31	BH	70	ALA	CA-C-O	-5.02	114.58	120.20
35	BL	17	VAL	N-CA-C	5.02	116.35	110.62
35	BL	53	SER	N-CA-CB	-5.02	102.56	110.30
37	BN	213	ARG	NH1-CZ-NH2	-5.02	112.77	119.30
38	BO	21	ARG	NE-CZ-NH1	5.02	126.52	121.50
41	BR	36	GLU	CA-C-N	5.02	130.63	122.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
41	BR	36	GLU	C-N-CA	5.02	130.63	122.39
1	AP	21	A	C5'-C4'-C3'	-5.02	108.47	116.00
3	A1	824	G	C4'-C3'-O3'	-5.02	105.47	113.00
3	A1	1238	A	O5'-C5'-C4'	5.02	119.23	111.70
5	AC	27	ASN	CA-C-N	5.02	131.16	122.32
5	AC	27	ASN	C-N-CA	5.02	131.16	122.32
24	BA	101	A	C3'-C2'-O2'	5.02	118.23	110.70
25	BB	726	G	C3'-C2'-C1'	5.02	106.52	101.50
25	BB	2249	U	C1'-O4'-C4'	-5.02	104.88	109.90
25	BB	2413	G	O4'-C1'-N9	5.02	116.03	108.50
25	BB	2633	G	O4'-C4'-C3'	5.02	109.02	104.00
28	BE	132	ARG	NE-CZ-NH1	5.02	126.52	121.50
46	BW	53	ASP	CA-C-N	5.02	127.51	120.28
46	BW	53	ASP	C-N-CA	5.02	127.51	120.28
49	BZ	72	GLN	CG-CD-NE2	5.02	123.93	116.40
3	A1	1159	U	P-O5'-C5'	5.02	128.43	120.90
3	A1	1280	A	C5'-C4'-O4'	5.02	117.33	109.80
3	A1	1504	G	O5'-C5'-C4'	5.02	119.23	111.70
19	AT	52	ASN	N-CA-C	5.02	121.49	110.80
25	BB	810	U	O4'-C1'-C2'	5.02	112.62	107.60
25	BB	917	A	O4'-C1'-N9	5.02	116.03	108.50
25	BB	2126	A	C1'-C2'-O2'	5.02	119.33	111.80
25	BB	2186	G	O4'-C1'-N9	-5.02	100.97	108.50
42	BS	52	ALA	N-CA-C	5.02	116.75	111.28
50	B1	118	LEU	CA-C-O	5.02	127.69	120.51
53	B4	132	PHE	CA-CB-CG	5.02	118.82	113.80
1	AP	72	C	C4'-C3'-O3'	5.02	120.53	113.00
3	A1	429	U	P-O3'-C3'	5.02	127.73	120.20
3	A1	1400	C	O4'-C1'-C2'	-5.02	100.78	105.80
3	A1	1409	C	C1'-O4'-C4'	-5.02	104.88	109.90
9	AH	45	HIS	CA-C-N	5.02	131.12	121.54
9	AH	45	HIS	C-N-CA	5.02	131.12	121.54
12	AK	56	ARG	NE-CZ-NH1	5.02	126.52	121.50
25	BB	318	C	C3'-C2'-C1'	-5.02	96.48	101.50
25	BB	342	A	C4'-C3'-C2'	-5.02	97.58	102.60
25	BB	629	G	O3'-P-O5'	5.02	111.53	104.00
25	BB	1138	G	N9-C1'-C2'	5.02	119.53	112.00
25	BB	1168	G	C5'-C4'-C3'	-5.02	108.47	116.00
25	BB	1400	U	C3'-C2'-C1'	5.02	106.32	101.30
25	BB	1793	C	N3-C2-O2	-5.02	106.85	121.90
25	BB	1809	A	P-O3'-C3'	5.02	127.73	120.20
25	BB	1882	U	O4'-C4'-C3'	-5.02	98.98	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BB	1971	U	C2'-C3'-O3'	-5.02	101.97	109.50
25	BB	2164	C	C3'-C2'-C1'	5.02	106.32	101.30
25	BB	2427	C	C2'-C3'-O3'	-5.02	106.17	113.70
25	BB	2592	G	C3'-C2'-C1'	5.02	106.32	101.30
25	BB	2675	A	C3'-C2'-C1'	5.02	106.52	101.50
34	BK	10	LYS	N-CA-C	5.02	118.89	112.87
3	A1	871	U	C4'-C3'-O3'	5.02	116.92	109.40
19	AT	2	ARG	NE-CZ-NH2	-5.02	114.69	119.20
25	BB	278	A	C3'-C2'-C1'	-5.02	96.28	101.30
25	BB	504	A	C4'-C3'-O3'	-5.02	105.48	113.00
25	BB	1103	A	O4'-C1'-N9	-5.02	100.98	108.50
25	BB	1152	C	N1-C1'-C2'	-5.02	104.48	112.00
25	BB	1922	G	O5'-C5'-C4'	-5.02	103.98	111.50
25	BB	2812	G	C1'-C2'-O2'	-5.02	100.88	108.40
3	A1	405	U	O4'-C1'-C2'	-5.01	102.59	107.60
3	A1	935	A	C1'-O4'-C4'	-5.01	104.89	109.90
3	A1	1228	C	C1'-C2'-O2'	-5.01	100.88	108.40
4	AB	94	ARG	NE-CZ-NH2	5.01	123.71	119.20
4	AB	204	ASP	CA-CB-CG	5.01	117.61	112.60
13	AL	41	PRO	CA-C-N	5.01	129.09	120.72
13	AL	41	PRO	C-N-CA	5.01	129.09	120.72
25	BB	409	G	O4'-C1'-N9	5.01	116.02	108.50
25	BB	803	U	C5'-C4'-C3'	-5.01	108.48	116.00
25	BB	1073	A	O4'-C1'-C2'	5.01	112.61	107.60
25	BB	1518	C	C3'-C2'-C1'	5.01	106.31	101.30
25	BB	1660	G	C4'-C3'-C2'	-5.01	97.59	102.60
25	BB	1779	U	C4'-C3'-O3'	5.01	120.52	113.00
25	BB	2038	G	C5'-C4'-C3'	-5.01	108.48	116.00
25	BB	2511	U	C3'-C2'-C1'	-5.01	96.28	101.30
25	BB	2571	U	C2'-C3'-O3'	5.01	117.02	109.50
27	BD	4	GLU	O-C-N	5.01	129.24	122.82
39	BP	28	GLU	O-C-N	-5.01	115.92	122.59
46	BW	60	CYS	CB-CA-C	5.01	118.36	109.89
49	BZ	112	ILE	N-CA-C	5.01	115.07	107.75
49	BZ	138	LEU	CA-C-O	-5.01	115.16	120.02
50	B1	161	ALA	N-CA-C	5.01	118.17	111.75
55	B6	30	THR	N-CA-C	5.01	117.48	111.71
3	A1	1292	G	O4'-C4'-C3'	-5.01	98.99	104.00
3	A1	1478	U	O4'-C4'-C3'	5.01	109.01	104.00
25	BB	1595	C	C4'-C3'-C2'	-5.01	97.59	102.60
25	BB	1688	U	C5'-C4'-O4'	5.01	117.32	109.80
32	BI	105	LYS	N-CA-C	5.01	117.57	110.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
48	BY	22	ILE	N-CA-CB	5.01	118.23	111.21
1	AE	26	G	C2'-C3'-O3'	5.01	121.22	113.70
3	A1	13	U	C1'-C2'-O2'	5.01	115.92	108.40
5	AC	116	PRO	N-CA-CB	5.01	108.11	102.60
17	AR	93	LEU	CB-CA-C	5.01	120.79	110.31
24	BA	21	G	O5'-C5'-C4'	-5.01	103.98	111.50
25	BB	16	C	O5'-C5'-C4'	-5.01	103.98	111.50
25	BB	546	U	C1'-C2'-O2'	5.01	119.32	111.80
25	BB	740	C	C5'-C4'-O4'	5.01	117.32	109.80
25	BB	918	A	C2'-C3'-O3'	5.01	121.22	113.70
25	BB	1106	G	C2'-C3'-O3'	5.01	121.22	113.70
25	BB	1511	G	P-O5'-C5'	5.01	128.42	120.90
25	BB	1821	A	O3'-P-O5'	-5.01	96.48	104.00
25	BB	2387	U	O4'-C1'-N1	5.01	115.72	108.20
25	BB	2535	G	C4'-C3'-O3'	-5.01	105.48	113.00
26	BC	8	VAL	CG1-CB-CG2	-5.01	99.77	110.80
28	BE	12	SER	CA-C-N	5.01	131.11	121.54
28	BE	12	SER	C-N-CA	5.01	131.11	121.54
48	BY	91	THR	CA-CB-CG2	5.01	119.02	110.50
49	BZ	169	ILE	CB-CA-C	5.01	119.51	111.29
3	A1	446	G	C3'-C2'-O2'	5.01	118.21	110.70
3	A1	1487	G	C4'-C3'-O3'	-5.01	105.48	113.00
16	AQ	35	GLU	CB-CG-CD	5.01	121.12	112.60
25	BB	100	U	O4'-C4'-C3'	-5.01	101.09	106.10
25	BB	351	C	O3'-P-O5'	5.01	111.51	104.00
25	BB	1153	C	C5'-C4'-C3'	5.01	123.52	116.00
25	BB	1181	U	C5'-C4'-C3'	-5.01	108.49	116.00
25	BB	1194	A	C3'-C2'-O2'	5.01	118.21	110.70
25	BB	1321	A	C2'-C3'-O3'	5.01	117.01	109.50
25	BB	1905	C	P-O5'-C5'	5.01	128.41	120.90
25	BB	2067	G	C1'-C2'-O2'	5.01	119.31	111.80
25	BB	2355	G	O4'-C1'-N9	-5.01	100.99	108.50
30	BG	58	ASP	CA-CB-CG	5.01	117.61	112.60
31	BH	53	THR	CA-CB-CG2	5.01	119.02	110.50
35	BL	28	LYS	N-CA-C	5.01	119.84	113.18
45	BV	35	ARG	CA-C-N	5.01	126.99	120.28
45	BV	35	ARG	C-N-CA	5.01	126.99	120.28
49	BZ	144	ILE	CB-CA-C	5.01	116.44	110.93
51	B2	18	GLU	O-C-N	-5.01	116.01	122.77
52	B3	148	ARG	NE-CZ-NH1	5.01	126.51	121.50
3	A1	916	U	C4'-C3'-C2'	-5.01	97.59	102.60
3	A1	1149	C	O4'-C4'-C3'	5.01	109.01	104.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	AD	41	PRO	O-C-N	-5.01	116.74	122.85
12	AK	27	THR	N-CA-CB	5.01	118.82	110.41
13	AL	42	ASN	OD1-CG-ND2	-5.01	117.59	122.60
17	AR	132	ALA	O-C-N	-5.01	115.88	122.39
25	BB	1240	U	O4'-C4'-C3'	5.01	111.11	106.10
25	BB	1297	C	O3'-P-O5'	-5.01	96.49	104.00
36	BM	6	ARG	O-C-N	-5.01	115.82	122.33
3	A1	19	A	P-O3'-C3'	5.01	127.71	120.20
3	A1	171	A	N1-C6-N6	-5.01	103.58	118.60
8	AG	95	LEU	N-CA-CB	-5.01	104.74	110.35
25	BB	272	A	O4'-C4'-C3'	-5.01	98.99	104.00
25	BB	427	U	O3'-P-O5'	5.01	111.51	104.00
25	BB	933	A	C3'-C2'-C1'	5.01	106.31	101.30
25	BB	1117	C	C4'-C3'-O3'	5.01	120.51	113.00
25	BB	1472	C	C1'-C2'-O2'	-5.01	104.29	111.80
25	BB	2743	U	C3'-C2'-O2'	5.01	118.21	110.70
35	BL	101	SER	CA-C-N	5.01	130.74	122.33
35	BL	101	SER	C-N-CA	5.01	130.74	122.33
43	BT	42	ILE	CA-CB-CG2	5.01	119.01	110.50
45	BV	21	ARG	N-CA-C	5.01	119.02	113.01
46	BW	45	PRO	CA-C-N	5.01	130.00	121.29
46	BW	45	PRO	C-N-CA	5.01	130.00	121.29
3	A1	357	G	O4'-C1'-C2'	5.00	110.81	105.80
25	BB	629	G	O4'-C1'-N9	5.00	116.01	108.50
25	BB	1203	U	C1'-C2'-O2'	-5.00	104.29	111.80
25	BB	1614	A	C3'-C2'-C1'	5.00	106.50	101.50
25	BB	2196	C	C1'-C2'-O2'	5.00	119.31	111.80
39	BP	77	LYS	CA-C-N	5.00	131.10	121.54
39	BP	77	LYS	C-N-CA	5.00	131.10	121.54
55	B6	2	LYS	CA-C-N	5.00	127.92	120.31
55	B6	2	LYS	C-N-CA	5.00	127.92	120.31
3	A1	1052	U	C3'-C2'-C1'	5.00	106.30	101.30
17	AR	110	ARG	CD-NE-CZ	5.00	131.41	124.40
25	BB	3	U	C5'-C4'-O4'	5.00	116.61	109.10
25	BB	12	U	O3'-P-O5'	5.00	111.50	104.00
25	BB	636	G	C4'-C3'-O3'	-5.00	105.50	113.00
25	BB	766	U	C3'-C2'-O2'	5.00	122.11	114.60
25	BB	1657	U	O4'-C1'-C2'	-5.00	100.80	105.80
25	BB	2284	A	O4'-C4'-C3'	5.00	109.00	104.00
37	BN	239	PHE	CA-C-N	5.00	127.73	121.83
37	BN	239	PHE	C-N-CA	5.00	127.73	121.83
50	B1	66	GLY	CA-C-N	5.00	130.92	122.76

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
50	B1	66	GLY	C-N-CA	5.00	130.92	122.76
1	AP	3	G	P-O3'-C3'	-5.00	112.70	120.20
3	A1	268	U	C1'-C2'-O2'	-5.00	100.90	108.40
3	A1	1067	A	C5'-C4'-C3'	5.00	122.70	115.20
3	A1	1079	G	O4'-C1'-C2'	-5.00	102.60	107.60
9	AH	34	GLN	N-CA-CB	-5.00	102.82	110.07
24	BA	89	U	C2'-C3'-O3'	-5.00	106.20	113.70
25	BB	115	C	O5'-C5'-C4'	5.00	119.00	111.50
25	BB	1467	U	C5'-C4'-C3'	-5.00	108.50	116.00
25	BB	1478	G	O4'-C4'-C3'	5.00	109.00	104.00
25	BB	1501	G	C4'-C3'-O3'	-5.00	105.50	113.00
25	BB	2102	G	O5'-C5'-C4'	-5.00	104.00	111.50
55	B6	30	THR	CB-CA-C	-5.00	101.38	110.63

All (10) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	AP	31	A	C2',C1'
3	A1	13	U	C2',C1'
3	A1	1198	G	C4'
3	A1	1483	A	C2'
14	AN	13	SER	CA
25	BB	1687	G	C1'
25	BB	1959	G	C2',C1'

All (3370) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	A1	100	G	Sidechain
3	A1	1000	A	Sidechain
3	A1	1003	G	Sidechain
3	A1	1005	A	Sidechain
3	A1	1006	G	Sidechain
3	A1	1007	U	Sidechain
3	A1	1008	U	Sidechain
3	A1	1009	U	Sidechain
3	A1	1010	U	Sidechain
3	A1	1012	A	Sidechain
3	A1	1013	G	Sidechain
3	A1	1014	A	Sidechain
3	A1	1015	G	Sidechain
3	A1	1016	A	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	102	G	Sidechain
3	A1	1020	G	Sidechain
3	A1	1021	A	Sidechain
3	A1	1022	A	Sidechain
3	A1	1026	G	Sidechain
3	A1	1028	C	Sidechain
3	A1	103	U	Sidechain
3	A1	1030	U	Sidechain
3	A1	1032	G	Sidechain
3	A1	1033	G	Sidechain
3	A1	1034	G	Sidechain
3	A1	1035	A	Sidechain
3	A1	1036	A	Sidechain
3	A1	1037	C	Sidechain
3	A1	1038	C	Sidechain
3	A1	1039	G	Sidechain
3	A1	104	G	Sidechain
3	A1	1040	U	Sidechain
3	A1	1043	G	Sidechain
3	A1	1045	C	Sidechain
3	A1	1046	A	Sidechain
3	A1	1047	G	Sidechain
3	A1	1049	U	Sidechain
3	A1	105	G	Sidechain
3	A1	1050	G	Sidechain
3	A1	1053	G	Sidechain
3	A1	1056	U	Sidechain
3	A1	1057	G	Sidechain
3	A1	1058	G	Sidechain
3	A1	1059	C	Sidechain
3	A1	106	C	Sidechain
3	A1	1060	U	Sidechain
3	A1	1061	G	Sidechain
3	A1	1062	U	Sidechain
3	A1	1063	C	Sidechain
3	A1	1065	U	Sidechain
3	A1	1068	G	Sidechain
3	A1	1069	C	Sidechain
3	A1	107	G	Sidechain
3	A1	1072	G	Sidechain
3	A1	1073	U	Sidechain
3	A1	1074	G	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	1075	U	Sidechain
3	A1	1077	G	Sidechain
3	A1	1079	G	Sidechain
3	A1	1080	A	Sidechain
3	A1	1081	A	Sidechain
3	A1	1082	A	Sidechain
3	A1	1083	U	Sidechain
3	A1	1084	G	Sidechain
3	A1	1086	U	Sidechain
3	A1	1087	G	Sidechain
3	A1	1090	U	Sidechain
3	A1	1091	U	Sidechain
3	A1	1092	A	Sidechain
3	A1	1093	A	Sidechain
3	A1	1094	G	Sidechain
3	A1	1095	U	Sidechain
3	A1	1096	C	Sidechain
3	A1	1097	C	Sidechain
3	A1	1099	G	Sidechain
3	A1	11	G	Sidechain
3	A1	1100	C	Sidechain
3	A1	1103	C	Sidechain
3	A1	1104	G	Sidechain
3	A1	1105	A	Sidechain
3	A1	1106	G	Sidechain
3	A1	1108	G	Sidechain
3	A1	1109	C	Sidechain
3	A1	111	G	Sidechain
3	A1	1110	A	Sidechain
3	A1	1114	C	Sidechain
3	A1	1115	U	Sidechain
3	A1	1116	U	Sidechain
3	A1	1117	A	Sidechain
3	A1	1118	U	Sidechain
3	A1	1119	C	Sidechain
3	A1	112	G	Sidechain
3	A1	1120	C	Sidechain
3	A1	1121	U	Sidechain
3	A1	1122	U	Sidechain
3	A1	1123	U	Sidechain
3	A1	1124	G	Sidechain
3	A1	1126	U	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	1127	G	Sidechain
3	A1	1128	C	Sidechain
3	A1	1129	C	Sidechain
3	A1	1133	G	Sidechain
3	A1	1134	G	Sidechain
3	A1	1135	U	Sidechain
3	A1	1138	G	Sidechain
3	A1	1140	C	Sidechain
3	A1	1142	G	Sidechain
3	A1	1144	G	Sidechain
3	A1	1145	A	Sidechain
3	A1	1147	C	Sidechain
3	A1	1148	U	Sidechain
3	A1	1149	C	Sidechain
3	A1	115	G	Sidechain
3	A1	1150	A	Sidechain
3	A1	1151	A	Sidechain
3	A1	1152	A	Sidechain
3	A1	1153	G	Sidechain
3	A1	1154	G	Sidechain
3	A1	1155	A	Sidechain
3	A1	1159	U	Sidechain
3	A1	1160	G	Sidechain
3	A1	1164	G	Sidechain
3	A1	1166	G	Sidechain
3	A1	1168	U	Sidechain
3	A1	117	G	Sidechain
3	A1	1171	A	Sidechain
3	A1	1173	U	Sidechain
3	A1	1174	G	Sidechain
3	A1	1175	G	Sidechain
3	A1	1177	G	Sidechain
3	A1	1178	G	Sidechain
3	A1	1179	A	Sidechain
3	A1	1180	A	Sidechain
3	A1	1181	G	Sidechain
3	A1	1182	G	Sidechain
3	A1	1184	G	Sidechain
3	A1	1185	G	Sidechain
3	A1	1186	G	Sidechain
3	A1	119	A	Sidechain
3	A1	1190	G	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	1192	C	Sidechain
3	A1	1193	G	Sidechain
3	A1	1194	U	Sidechain
3	A1	1198	G	Sidechain
3	A1	12	U	Sidechain
3	A1	120	A	Sidechain
3	A1	1200	C	Sidechain
3	A1	1202	U	Sidechain
3	A1	1205	U	Sidechain
3	A1	1206	G	Sidechain
3	A1	1207	G	Sidechain
3	A1	1210	C	Sidechain
3	A1	1212	U	Sidechain
3	A1	1214	C	Sidechain
3	A1	1215	G	Sidechain
3	A1	1216	A	Sidechain
3	A1	1218	C	Sidechain
3	A1	1220	G	Sidechain
3	A1	1221	G	Sidechain
3	A1	1222	G	Sidechain
3	A1	1224	U	Sidechain
3	A1	1225	A	Sidechain
3	A1	1226	C	Sidechain
3	A1	1228	C	Sidechain
3	A1	1230	C	Sidechain
3	A1	1232	U	Sidechain
3	A1	1233	G	Sidechain
3	A1	1235	U	Sidechain
3	A1	1237	C	Sidechain
3	A1	1239	A	Sidechain
3	A1	1241	G	Sidechain
3	A1	1244	G	Sidechain
3	A1	1245	C	Sidechain
3	A1	1252	A	Sidechain
3	A1	1253	G	Sidechain
3	A1	1256	A	Sidechain
3	A1	1257	A	Sidechain
3	A1	1258	G	Sidechain
3	A1	126	G	Sidechain
3	A1	1261	A	Sidechain
3	A1	1263	C	Sidechain
3	A1	1264	U	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	1266	G	Sidechain
3	A1	127	G	Sidechain
3	A1	1270	G	Sidechain
3	A1	1271	A	Sidechain
3	A1	1272	G	Sidechain
3	A1	1274	A	Sidechain
3	A1	1275	A	Sidechain
3	A1	1276	G	Sidechain
3	A1	1279	G	Sidechain
3	A1	128	G	Sidechain
3	A1	1282	C	Sidechain
3	A1	1288	A	Sidechain
3	A1	1289	A	Sidechain
3	A1	129	A	Sidechain
3	A1	1290	G	Sidechain
3	A1	1291	U	Sidechain
3	A1	1292	G	Sidechain
3	A1	1293	C	Sidechain
3	A1	1294	G	Sidechain
3	A1	1295	U	Sidechain
3	A1	1296	C	Sidechain
3	A1	1299	A	Sidechain
3	A1	1303	C	Sidechain
3	A1	1305	G	Sidechain
3	A1	1306	A	Sidechain
3	A1	1307	U	Sidechain
3	A1	1309	G	Sidechain
3	A1	131	A	Sidechain
3	A1	1310	G	Sidechain
3	A1	1311	A	Sidechain
3	A1	1312	G	Sidechain
3	A1	1315	U	Sidechain
3	A1	1318	A	Sidechain
3	A1	1319	A	Sidechain
3	A1	132	C	Sidechain
3	A1	1320	C	Sidechain
3	A1	1323	G	Sidechain
3	A1	1324	A	Sidechain
3	A1	1326	U	Sidechain
3	A1	1331	G	Sidechain
3	A1	1333	A	Sidechain
3	A1	1336	C	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	1337	G	Sidechain
3	A1	1338	G	Sidechain
3	A1	1339	A	Sidechain
3	A1	1340	A	Sidechain
3	A1	1345	U	Sidechain
3	A1	1346	A	Sidechain
3	A1	1348	U	Sidechain
3	A1	1349	A	Sidechain
3	A1	135	C	Sidechain
3	A1	1350	A	Sidechain
3	A1	1352	C	Sidechain
3	A1	1353	G	Sidechain
3	A1	1354	U	Sidechain
3	A1	1358	U	Sidechain
3	A1	1359	C	Sidechain
3	A1	136	C	Sidechain
3	A1	1360	A	Sidechain
3	A1	1361	G	Sidechain
3	A1	1362	A	Sidechain
3	A1	1365	G	Sidechain
3	A1	1366	C	Sidechain
3	A1	1367	C	Sidechain
3	A1	1368	A	Sidechain
3	A1	1369	C	Sidechain
3	A1	137	U	Sidechain
3	A1	1370	G	Sidechain
3	A1	1372	U	Sidechain
3	A1	1373	G	Sidechain
3	A1	1374	A	Sidechain
3	A1	1375	A	Sidechain
3	A1	1376	U	Sidechain
3	A1	1377	A	Sidechain
3	A1	1378	C	Sidechain
3	A1	1379	G	Sidechain
3	A1	138	G	Sidechain
3	A1	1380	U	Sidechain
3	A1	1382	C	Sidechain
3	A1	1383	C	Sidechain
3	A1	1384	C	Sidechain
3	A1	1385	G	Sidechain
3	A1	1386	G	Sidechain
3	A1	1389	C	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	1390	U	Sidechain
3	A1	1392	G	Sidechain
3	A1	1393	U	Sidechain
3	A1	1396	A	Sidechain
3	A1	1397	C	Sidechain
3	A1	14	U	Sidechain
3	A1	1400	C	Sidechain
3	A1	1401	G	Sidechain
3	A1	1403	C	Sidechain
3	A1	1404	C	Sidechain
3	A1	1405	G	Sidechain
3	A1	1406	U	Sidechain
3	A1	1407	C	Sidechain
3	A1	1409	C	Sidechain
3	A1	1410	A	Sidechain
3	A1	1411	C	Sidechain
3	A1	1414	U	Sidechain
3	A1	1415	G	Sidechain
3	A1	1416	G	Sidechain
3	A1	1418	A	Sidechain
3	A1	1419	G	Sidechain
3	A1	142	G	Sidechain
3	A1	1420	U	Sidechain
3	A1	1421	G	Sidechain
3	A1	1422	G	Sidechain
3	A1	1423	G	Sidechain
3	A1	1424	U	Sidechain
3	A1	1427	C	Sidechain
3	A1	1429	A	Sidechain
3	A1	1430	A	Sidechain
3	A1	1431	A	Sidechain
3	A1	1432	G	Sidechain
3	A1	1433	A	Sidechain
3	A1	1434	A	Sidechain
3	A1	1436	U	Sidechain
3	A1	1439	G	Sidechain
3	A1	1440	U	Sidechain
3	A1	1445	U	Sidechain
3	A1	1447	A	Sidechain
3	A1	145	G	Sidechain
3	A1	1450	U	Sidechain
3	A1	1451	U	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	1452	C	Sidechain
3	A1	1453	G	Sidechain
3	A1	1454	G	Sidechain
3	A1	1455	G	Sidechain
3	A1	1457	G	Sidechain
3	A1	1458	G	Sidechain
3	A1	1459	G	Sidechain
3	A1	146	G	Sidechain
3	A1	1460	C	Sidechain
3	A1	1461	G	Sidechain
3	A1	1462	C	Sidechain
3	A1	1464	U	Sidechain
3	A1	1466	C	Sidechain
3	A1	147	G	Sidechain
3	A1	1470	U	Sidechain
3	A1	1471	U	Sidechain
3	A1	1473	G	Sidechain
3	A1	1474	U	Sidechain
3	A1	1475	G	Sidechain
3	A1	1477	U	Sidechain
3	A1	1478	U	Sidechain
3	A1	1479	C	Sidechain
3	A1	1480	A	Sidechain
3	A1	1481	U	Sidechain
3	A1	1482	G	Sidechain
3	A1	1484	C	Sidechain
3	A1	1485	U	Sidechain
3	A1	1486	G	Sidechain
3	A1	1488	G	Sidechain
3	A1	1489	G	Sidechain
3	A1	149	A	Sidechain
3	A1	1490	U	Sidechain
3	A1	1492	A	Sidechain
3	A1	1493	A	Sidechain
3	A1	1494	G	Sidechain
3	A1	1495	U	Sidechain
3	A1	1496	C	Sidechain
3	A1	1497	G	Sidechain
3	A1	1498	U	Sidechain
3	A1	1499	A	Sidechain
3	A1	150	U	Sidechain
3	A1	1501	C	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	1503	A	Sidechain
3	A1	1504	G	Sidechain
3	A1	1505	G	Sidechain
3	A1	1507	A	Sidechain
3	A1	1508	A	Sidechain
3	A1	1509	C	Sidechain
3	A1	151	A	Sidechain
3	A1	1511	G	Sidechain
3	A1	1512	U	Sidechain
3	A1	1513	A	Sidechain
3	A1	1514	G	Sidechain
3	A1	1515	G	Sidechain
3	A1	1516	G	Sidechain
3	A1	1517	G	Sidechain
3	A1	1518	A	Sidechain
3	A1	152	A	Sidechain
3	A1	1520	C	Sidechain
3	A1	1521	C	Sidechain
3	A1	1522	U	Sidechain
3	A1	1523	G	Sidechain
3	A1	1524	C	Sidechain
3	A1	1525	G	Sidechain
3	A1	1526	G	Sidechain
3	A1	1528	U	Sidechain
3	A1	153	C	Sidechain
3	A1	1530	G	Sidechain
3	A1	1532	U	Sidechain
3	A1	154	U	Sidechain
3	A1	157	U	Sidechain
3	A1	158	G	Sidechain
3	A1	159	G	Sidechain
3	A1	16	A	Sidechain
3	A1	164	G	Sidechain
3	A1	165	G	Sidechain
3	A1	167	A	Sidechain
3	A1	168	G	Sidechain
3	A1	169	C	Sidechain
3	A1	17	U	Sidechain
3	A1	170	U	Sidechain
3	A1	171	A	Sidechain
3	A1	172	A	Sidechain
3	A1	178	C	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	18	C	Sidechain
3	A1	180	U	Sidechain
3	A1	181	A	Sidechain
3	A1	182	A	Sidechain
3	A1	184	G	Sidechain
3	A1	185	U	Sidechain
3	A1	187	G	Sidechain
3	A1	189	A	Sidechain
3	A1	191	G	Sidechain
3	A1	196	A	Sidechain
3	A1	197	A	Sidechain
3	A1	198	G	Sidechain
3	A1	199	A	Sidechain
3	A1	20	U	Sidechain
3	A1	201	G	Sidechain
3	A1	202	G	Sidechain
3	A1	203	G	Sidechain
3	A1	204	G	Sidechain
3	A1	205	A	Sidechain
3	A1	206	C	Sidechain
3	A1	208	U	Sidechain
3	A1	209	U	Sidechain
3	A1	21	G	Sidechain
3	A1	211	G	Sidechain
3	A1	213	G	Sidechain
3	A1	214	C	Sidechain
3	A1	218	U	Sidechain
3	A1	219	U	Sidechain
3	A1	22	G	Sidechain
3	A1	220	G	Sidechain
3	A1	222	C	Sidechain
3	A1	224	U	Sidechain
3	A1	226	G	Sidechain
3	A1	227	G	Sidechain
3	A1	23	C	Sidechain
3	A1	230	G	Sidechain
3	A1	231	U	Sidechain
3	A1	232	G	Sidechain
3	A1	233	C	Sidechain
3	A1	234	C	Sidechain
3	A1	235	C	Sidechain
3	A1	238	A	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	240	G	Sidechain
3	A1	241	G	Sidechain
3	A1	242	G	Sidechain
3	A1	243	A	Sidechain
3	A1	244	U	Sidechain
3	A1	248	C	Sidechain
3	A1	249	U	Sidechain
3	A1	250	A	Sidechain
3	A1	252	U	Sidechain
3	A1	253	A	Sidechain
3	A1	254	G	Sidechain
3	A1	255	G	Sidechain
3	A1	256	U	Sidechain
3	A1	257	G	Sidechain
3	A1	258	G	Sidechain
3	A1	259	G	Sidechain
3	A1	260	G	Sidechain
3	A1	261	U	Sidechain
3	A1	262	A	Sidechain
3	A1	263	A	Sidechain
3	A1	265	G	Sidechain
3	A1	266	G	Sidechain
3	A1	267	C	Sidechain
3	A1	269	C	Sidechain
3	A1	27	G	Sidechain
3	A1	270	A	Sidechain
3	A1	271	C	Sidechain
3	A1	272	C	Sidechain
3	A1	274	A	Sidechain
3	A1	275	G	Sidechain
3	A1	276	G	Sidechain
3	A1	277	C	Sidechain
3	A1	278	G	Sidechain
3	A1	28	A	Sidechain
3	A1	281	G	Sidechain
3	A1	283	U	Sidechain
3	A1	286	C	Sidechain
3	A1	288	A	Sidechain
3	A1	289	G	Sidechain
3	A1	29	U	Sidechain
3	A1	290	C	Sidechain
3	A1	291	U	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	293	G	Sidechain
3	A1	295	C	Sidechain
3	A1	296	U	Sidechain
3	A1	297	G	Sidechain
3	A1	298	A	Sidechain
3	A1	299	G	Sidechain
3	A1	30	U	Sidechain
3	A1	303	A	Sidechain
3	A1	304	U	Sidechain
3	A1	307	C	Sidechain
3	A1	308	C	Sidechain
3	A1	309	A	Sidechain
3	A1	31	G	Sidechain
3	A1	310	G	Sidechain
3	A1	311	C	Sidechain
3	A1	312	C	Sidechain
3	A1	316	C	Sidechain
3	A1	317	U	Sidechain
3	A1	318	G	Sidechain
3	A1	32	A	Sidechain
3	A1	320	A	Sidechain
3	A1	322	C	Sidechain
3	A1	324	G	Sidechain
3	A1	325	A	Sidechain
3	A1	326	G	Sidechain
3	A1	327	A	Sidechain
3	A1	329	A	Sidechain
3	A1	330	C	Sidechain
3	A1	332	G	Sidechain
3	A1	333	U	Sidechain
3	A1	334	C	Sidechain
3	A1	336	A	Sidechain
3	A1	337	G	Sidechain
3	A1	338	A	Sidechain
3	A1	341	C	Sidechain
3	A1	346	G	Sidechain
3	A1	347	G	Sidechain
3	A1	348	G	Sidechain
3	A1	349	A	Sidechain
3	A1	35	G	Sidechain
3	A1	350	G	Sidechain
3	A1	351	G	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	352	C	Sidechain
3	A1	353	A	Sidechain
3	A1	354	G	Sidechain
3	A1	356	A	Sidechain
3	A1	357	G	Sidechain
3	A1	359	G	Sidechain
3	A1	36	C	Sidechain
3	A1	360	G	Sidechain
3	A1	361	G	Sidechain
3	A1	362	G	Sidechain
3	A1	364	A	Sidechain
3	A1	366	A	Sidechain
3	A1	367	U	Sidechain
3	A1	370	C	Sidechain
3	A1	371	A	Sidechain
3	A1	372	C	Sidechain
3	A1	373	A	Sidechain
3	A1	374	A	Sidechain
3	A1	375	U	Sidechain
3	A1	376	G	Sidechain
3	A1	377	G	Sidechain
3	A1	378	G	Sidechain
3	A1	379	C	Sidechain
3	A1	38	G	Sidechain
3	A1	380	G	Sidechain
3	A1	384	G	Sidechain
3	A1	385	C	Sidechain
3	A1	388	G	Sidechain
3	A1	389	A	Sidechain
3	A1	39	G	Sidechain
3	A1	390	U	Sidechain
3	A1	393	A	Sidechain
3	A1	394	G	Sidechain
3	A1	395	C	Sidechain
3	A1	396	C	Sidechain
3	A1	398	U	Sidechain
3	A1	399	G	Sidechain
3	A1	40	C	Sidechain
3	A1	401	C	Sidechain
3	A1	402	G	Sidechain
3	A1	403	C	Sidechain
3	A1	404	G	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	407	U	Sidechain
3	A1	408	A	Sidechain
3	A1	409	U	Sidechain
3	A1	41	G	Sidechain
3	A1	410	G	Sidechain
3	A1	413	G	Sidechain
3	A1	415	A	Sidechain
3	A1	416	G	Sidechain
3	A1	417	G	Sidechain
3	A1	419	C	Sidechain
3	A1	421	U	Sidechain
3	A1	422	C	Sidechain
3	A1	423	G	Sidechain
3	A1	425	G	Sidechain
3	A1	426	U	Sidechain
3	A1	427	U	Sidechain
3	A1	428	G	Sidechain
3	A1	429	U	Sidechain
3	A1	43	C	Sidechain
3	A1	430	A	Sidechain
3	A1	431	A	Sidechain
3	A1	432	A	Sidechain
3	A1	433	G	Sidechain
3	A1	434	U	Sidechain
3	A1	436	C	Sidechain
3	A1	437	U	Sidechain
3	A1	438	U	Sidechain
3	A1	439	U	Sidechain
3	A1	44	A	Sidechain
3	A1	441	A	Sidechain
3	A1	442	G	Sidechain
3	A1	443	C	Sidechain
3	A1	444	G	Sidechain
3	A1	445	G	Sidechain
3	A1	446	G	Sidechain
3	A1	447	G	Sidechain
3	A1	448	A	Sidechain
3	A1	449	G	Sidechain
3	A1	45	G	Sidechain
3	A1	450	G	Sidechain
3	A1	451	A	Sidechain
3	A1	452	A	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	453	G	Sidechain
3	A1	454	G	Sidechain
3	A1	455	G	Sidechain
3	A1	456	A	Sidechain
3	A1	458	U	Sidechain
3	A1	459	A	Sidechain
3	A1	460	A	Sidechain
3	A1	462	G	Sidechain
3	A1	466	A	Sidechain
3	A1	467	U	Sidechain
3	A1	470	C	Sidechain
3	A1	474	G	Sidechain
3	A1	476	U	Sidechain
3	A1	477	C	Sidechain
3	A1	478	A	Sidechain
3	A1	479	U	Sidechain
3	A1	483	C	Sidechain
3	A1	484	G	Sidechain
3	A1	485	U	Sidechain
3	A1	486	U	Sidechain
3	A1	487	A	Sidechain
3	A1	488	C	Sidechain
3	A1	489	C	Sidechain
3	A1	490	C	Sidechain
3	A1	491	G	Sidechain
3	A1	494	G	Sidechain
3	A1	495	A	Sidechain
3	A1	497	G	Sidechain
3	A1	499	A	Sidechain
3	A1	5	U	Sidechain
3	A1	50	A	Sidechain
3	A1	501	C	Sidechain
3	A1	502	A	Sidechain
3	A1	503	C	Sidechain
3	A1	504	C	Sidechain
3	A1	505	G	Sidechain
3	A1	506	G	Sidechain
3	A1	508	U	Sidechain
3	A1	511	C	Sidechain
3	A1	515	G	Sidechain
3	A1	516	U	Sidechain
3	A1	517	G	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	518	C	Sidechain
3	A1	519	C	Sidechain
3	A1	52	C	Sidechain
3	A1	520	A	Sidechain
3	A1	521	G	Sidechain
3	A1	522	C	Sidechain
3	A1	523	A	Sidechain
3	A1	524	G	Sidechain
3	A1	527	G	Sidechain
3	A1	528	C	Sidechain
3	A1	529	G	Sidechain
3	A1	530	G	Sidechain
3	A1	531	U	Sidechain
3	A1	532	A	Sidechain
3	A1	533	A	Sidechain
3	A1	534	U	Sidechain
3	A1	535	A	Sidechain
3	A1	536	C	Sidechain
3	A1	537	G	Sidechain
3	A1	538	G	Sidechain
3	A1	54	C	Sidechain
3	A1	540	G	Sidechain
3	A1	542	G	Sidechain
3	A1	543	U	Sidechain
3	A1	544	G	Sidechain
3	A1	545	C	Sidechain
3	A1	547	A	Sidechain
3	A1	548	G	Sidechain
3	A1	550	G	Sidechain
3	A1	551	U	Sidechain
3	A1	552	U	Sidechain
3	A1	553	A	Sidechain
3	A1	557	G	Sidechain
3	A1	56	U	Sidechain
3	A1	560	A	Sidechain
3	A1	562	U	Sidechain
3	A1	564	C	Sidechain
3	A1	565	U	Sidechain
3	A1	567	G	Sidechain
3	A1	568	G	Sidechain
3	A1	57	G	Sidechain
3	A1	570	G	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	572	A	Sidechain
3	A1	573	A	Sidechain
3	A1	574	A	Sidechain
3	A1	575	G	Sidechain
3	A1	579	A	Sidechain
3	A1	58	C	Sidechain
3	A1	580	C	Sidechain
3	A1	585	G	Sidechain
3	A1	586	C	Sidechain
3	A1	587	G	Sidechain
3	A1	589	U	Sidechain
3	A1	59	A	Sidechain
3	A1	591	U	Sidechain
3	A1	592	G	Sidechain
3	A1	593	U	Sidechain
3	A1	594	U	Sidechain
3	A1	595	A	Sidechain
3	A1	596	A	Sidechain
3	A1	597	G	Sidechain
3	A1	60	A	Sidechain
3	A1	602	A	Sidechain
3	A1	605	U	Sidechain
3	A1	606	G	Sidechain
3	A1	608	A	Sidechain
3	A1	61	G	Sidechain
3	A1	612	C	Sidechain
3	A1	615	G	Sidechain
3	A1	616	G	Sidechain
3	A1	617	G	Sidechain
3	A1	619	U	Sidechain
3	A1	62	U	Sidechain
3	A1	622	A	Sidechain
3	A1	623	C	Sidechain
3	A1	624	C	Sidechain
3	A1	625	U	Sidechain
3	A1	627	G	Sidechain
3	A1	628	G	Sidechain
3	A1	63	C	Sidechain
3	A1	632	U	Sidechain
3	A1	633	G	Sidechain
3	A1	635	A	Sidechain
3	A1	636	U	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	637	C	Sidechain
3	A1	638	U	Sidechain
3	A1	639	G	Sidechain
3	A1	64	G	Sidechain
3	A1	640	A	Sidechain
3	A1	641	U	Sidechain
3	A1	642	A	Sidechain
3	A1	643	C	Sidechain
3	A1	644	U	Sidechain
3	A1	646	G	Sidechain
3	A1	648	A	Sidechain
3	A1	649	A	Sidechain
3	A1	65	A	Sidechain
3	A1	650	G	Sidechain
3	A1	655	A	Sidechain
3	A1	657	U	Sidechain
3	A1	659	U	Sidechain
3	A1	66	A	Sidechain
3	A1	660	C	Sidechain
3	A1	661	G	Sidechain
3	A1	662	U	Sidechain
3	A1	664	G	Sidechain
3	A1	666	G	Sidechain
3	A1	667	G	Sidechain
3	A1	668	G	Sidechain
3	A1	671	G	Sidechain
3	A1	672	U	Sidechain
3	A1	673	A	Sidechain
3	A1	675	A	Sidechain
3	A1	676	A	Sidechain
3	A1	677	U	Sidechain
3	A1	679	C	Sidechain
3	A1	68	G	Sidechain
3	A1	681	A	Sidechain
3	A1	683	G	Sidechain
3	A1	684	U	Sidechain
3	A1	687	A	Sidechain
3	A1	688	G	Sidechain
3	A1	69	G	Sidechain
3	A1	690	G	Sidechain
3	A1	691	G	Sidechain
3	A1	692	U	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	693	G	Sidechain
3	A1	694	A	Sidechain
3	A1	697	U	Sidechain
3	A1	698	G	Sidechain
3	A1	699	C	Sidechain
3	A1	70	U	Sidechain
3	A1	700	G	Sidechain
3	A1	701	U	Sidechain
3	A1	705	G	Sidechain
3	A1	706	A	Sidechain
3	A1	707	U	Sidechain
3	A1	708	C	Sidechain
3	A1	709	U	Sidechain
3	A1	710	G	Sidechain
3	A1	711	G	Sidechain
3	A1	712	A	Sidechain
3	A1	713	G	Sidechain
3	A1	716	A	Sidechain
3	A1	717	U	Sidechain
3	A1	718	A	Sidechain
3	A1	719	C	Sidechain
3	A1	72	A	Sidechain
3	A1	720	C	Sidechain
3	A1	721	G	Sidechain
3	A1	722	G	Sidechain
3	A1	723	U	Sidechain
3	A1	73	C	Sidechain
3	A1	733	G	Sidechain
3	A1	734	G	Sidechain
3	A1	739	C	Sidechain
3	A1	74	A	Sidechain
3	A1	740	U	Sidechain
3	A1	741	G	Sidechain
3	A1	742	G	Sidechain
3	A1	744	C	Sidechain
3	A1	745	G	Sidechain
3	A1	746	A	Sidechain
3	A1	747	A	Sidechain
3	A1	749	A	Sidechain
3	A1	750	C	Sidechain
3	A1	752	G	Sidechain
3	A1	753	A	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	754	C	Sidechain
3	A1	755	G	Sidechain
3	A1	756	C	Sidechain
3	A1	757	U	Sidechain
3	A1	76	G	Sidechain
3	A1	760	G	Sidechain
3	A1	761	G	Sidechain
3	A1	762	U	Sidechain
3	A1	764	C	Sidechain
3	A1	765	G	Sidechain
3	A1	766	A	Sidechain
3	A1	767	A	Sidechain
3	A1	769	G	Sidechain
3	A1	771	G	Sidechain
3	A1	774	G	Sidechain
3	A1	775	G	Sidechain
3	A1	776	G	Sidechain
3	A1	777	A	Sidechain
3	A1	78	A	Sidechain
3	A1	780	A	Sidechain
3	A1	783	C	Sidechain
3	A1	784	A	Sidechain
3	A1	788	U	Sidechain
3	A1	79	G	Sidechain
3	A1	791	G	Sidechain
3	A1	793	U	Sidechain
3	A1	794	A	Sidechain
3	A1	795	C	Sidechain
3	A1	796	C	Sidechain
3	A1	797	C	Sidechain
3	A1	799	G	Sidechain
3	A1	8	A	Sidechain
3	A1	800	G	Sidechain
3	A1	801	U	Sidechain
3	A1	806	C	Sidechain
3	A1	807	A	Sidechain
3	A1	808	C	Sidechain
3	A1	809	G	Sidechain
3	A1	81	A	Sidechain
3	A1	810	C	Sidechain
3	A1	811	C	Sidechain
3	A1	812	G	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	814	A	Sidechain
3	A1	815	A	Sidechain
3	A1	816	A	Sidechain
3	A1	817	C	Sidechain
3	A1	818	G	Sidechain
3	A1	819	A	Sidechain
3	A1	82	G	Sidechain
3	A1	820	U	Sidechain
3	A1	821	G	Sidechain
3	A1	822	U	Sidechain
3	A1	823	C	Sidechain
3	A1	827	U	Sidechain
3	A1	828	U	Sidechain
3	A1	829	G	Sidechain
3	A1	83	C	Sidechain
3	A1	830	G	Sidechain
3	A1	831	A	Sidechain
3	A1	832	G	Sidechain
3	A1	833	G	Sidechain
3	A1	834	U	Sidechain
3	A1	836	G	Sidechain
3	A1	837	U	Sidechain
3	A1	839	C	Sidechain
3	A1	84	U	Sidechain
3	A1	840	C	Sidechain
3	A1	841	C	Sidechain
3	A1	843	U	Sidechain
3	A1	844	G	Sidechain
3	A1	845	A	Sidechain
3	A1	846	G	Sidechain
3	A1	847	G	Sidechain
3	A1	849	G	Sidechain
3	A1	85	U	Sidechain
3	A1	850	U	Sidechain
3	A1	851	G	Sidechain
3	A1	852	G	Sidechain
3	A1	854	U	Sidechain
3	A1	855	U	Sidechain
3	A1	858	G	Sidechain
3	A1	859	G	Sidechain
3	A1	86	G	Sidechain
3	A1	861	G	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	862	C	Sidechain
3	A1	863	U	Sidechain
3	A1	865	A	Sidechain
3	A1	866	C	Sidechain
3	A1	867	G	Sidechain
3	A1	868	C	Sidechain
3	A1	869	G	Sidechain
3	A1	87	C	Sidechain
3	A1	872	A	Sidechain
3	A1	875	U	Sidechain
3	A1	877	G	Sidechain
3	A1	878	A	Sidechain
3	A1	879	C	Sidechain
3	A1	880	C	Sidechain
3	A1	882	C	Sidechain
3	A1	884	U	Sidechain
3	A1	885	G	Sidechain
3	A1	887	G	Sidechain
3	A1	888	G	Sidechain
3	A1	89	U	Sidechain
3	A1	890	G	Sidechain
3	A1	892	A	Sidechain
3	A1	893	C	Sidechain
3	A1	894	G	Sidechain
3	A1	895	G	Sidechain
3	A1	896	C	Sidechain
3	A1	898	G	Sidechain
3	A1	899	C	Sidechain
3	A1	9	G	Sidechain
3	A1	90	C	Sidechain
3	A1	900	A	Sidechain
3	A1	901	A	Sidechain
3	A1	902	G	Sidechain
3	A1	903	G	Sidechain
3	A1	905	U	Sidechain
3	A1	907	A	Sidechain
3	A1	909	A	Sidechain
3	A1	91	U	Sidechain
3	A1	913	A	Sidechain
3	A1	914	A	Sidechain
3	A1	915	A	Sidechain
3	A1	917	G	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	918	A	Sidechain
3	A1	919	A	Sidechain
3	A1	92	U	Sidechain
3	A1	922	G	Sidechain
3	A1	923	A	Sidechain
3	A1	924	C	Sidechain
3	A1	928	G	Sidechain
3	A1	929	G	Sidechain
3	A1	93	U	Sidechain
3	A1	931	C	Sidechain
3	A1	932	C	Sidechain
3	A1	933	G	Sidechain
3	A1	934	C	Sidechain
3	A1	935	A	Sidechain
3	A1	936	C	Sidechain
3	A1	937	A	Sidechain
3	A1	938	A	Sidechain
3	A1	939	G	Sidechain
3	A1	940	C	Sidechain
3	A1	942	G	Sidechain
3	A1	943	U	Sidechain
3	A1	944	G	Sidechain
3	A1	945	G	Sidechain
3	A1	948	C	Sidechain
3	A1	949	A	Sidechain
3	A1	950	U	Sidechain
3	A1	951	G	Sidechain
3	A1	954	G	Sidechain
3	A1	955	U	Sidechain
3	A1	956	U	Sidechain
3	A1	958	A	Sidechain
3	A1	960	U	Sidechain
3	A1	961	U	Sidechain
3	A1	963	G	Sidechain
3	A1	966	G	Sidechain
3	A1	968	A	Sidechain
3	A1	969	A	Sidechain
3	A1	97	G	Sidechain
3	A1	970	C	Sidechain
3	A1	971	G	Sidechain
3	A1	974	A	Sidechain
3	A1	975	A	Sidechain

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Mol	Chain	Res	Type	Group
3	A1	977	A	Sidechain
3	A1	979	C	Sidechain
3	A1	98	A	Sidechain
3	A1	980	C	Sidechain
3	A1	981	U	Sidechain
3	A1	982	U	Sidechain
3	A1	984	C	Sidechain
3	A1	986	U	Sidechain
3	A1	988	G	Sidechain
3	A1	989	U	Sidechain
3	A1	99	C	Sidechain
3	A1	990	C	Sidechain
3	A1	993	G	Sidechain
3	A1	996	A	Sidechain
3	A1	998	C	Sidechain
1	AA	1	G	Sidechain
1	AA	10	G	Sidechain
1	AA	12	U	Sidechain
1	AA	13	C	Sidechain
1	AA	16	U	Sidechain
1	AA	17	U	Sidechain
1	AA	18	G	Sidechain
1	AA	19	G	Sidechain
1	AA	20	G	Sidechain
1	AA	21	A	Sidechain
1	AA	22	G	Sidechain
1	AA	23	A	Sidechain
1	AA	24	G	Sidechain
1	AA	27	C	Sidechain
1	AA	29	A	Sidechain
1	AA	3	G	Sidechain
1	AA	30	G	Sidechain
1	AA	31	A	Sidechain
1	AA	32	C	Sidechain
1	AA	34	G	Sidechain
1	AA	37	G	Sidechain
1	AA	39	U	Sidechain
1	AA	4	G	Sidechain
1	AA	41	U	Sidechain
1	AA	43	G	Sidechain
1	AA	44	A	Sidechain
1	AA	45	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AA	47	U	Sidechain
1	AA	48	C	Sidechain
1	AA	49	C	Sidechain
1	AA	5	A	Sidechain
1	AA	50	U	Sidechain
1	AA	53	G	Sidechain
1	AA	54	U	Sidechain
1	AA	55	U	Sidechain
1	AA	56	C	Sidechain
1	AA	58	A	Sidechain
1	AA	6	U	Sidechain
1	AA	60	C	Sidechain
1	AA	61	C	Sidechain
1	AA	62	A	Sidechain
1	AA	63	C	Sidechain
1	AA	65	G	Sidechain
1	AA	66	A	Sidechain
1	AA	70	C	Sidechain
1	AA	71	G	Sidechain
1	AA	72	C	Sidechain
1	AA	73	A	Sidechain
1	AA	74	C	Sidechain
1	AA	75	C	Sidechain
1	AA	8	U	Sidechain
1	AA	9	A	Sidechain
4	AB	114	LYS	Mainchain
4	AB	136	ARG	Sidechain
4	AB	138	ARG	Sidechain
4	AB	183	PHE	Peptide
4	AB	21	TYR	Sidechain
4	AB	221	ARG	Sidechain
4	AB	43	GLU	Mainchain
4	AB	96	LEU	Mainchain
5	AC	126	ARG	Sidechain
5	AC	26	PHE	Sidechain
5	AC	43	TRP	Peptide
5	AC	68	ARG	Peptide
6	AD	112	ALA	Peptide
6	AD	113	ARG	Sidechain
6	AD	116	TYR	Sidechain
6	AD	13	ARG	Peptide
6	AD	29	LYS	Peptide

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Mol	Chain	Res	Type	Group
6	AD	30	ARG	Sidechain
6	AD	37	TYR	Sidechain
6	AD	65	TYR	Sidechain
6	AD	82	ARG	Sidechain
1	AE	1	G	Sidechain
1	AE	10	G	Sidechain
1	AE	11	C	Sidechain
1	AE	12	U	Sidechain
1	AE	17	U	Sidechain
1	AE	18	G	Sidechain
1	AE	19	G	Sidechain
1	AE	22	G	Sidechain
1	AE	23	A	Sidechain
1	AE	24	G	Sidechain
1	AE	27	C	Sidechain
1	AE	28	C	Sidechain
1	AE	3	G	Sidechain
1	AE	30	G	Sidechain
1	AE	31	A	Sidechain
1	AE	33	U	Sidechain
1	AE	34	G	Sidechain
1	AE	37	G	Sidechain
1	AE	39	U	Sidechain
1	AE	4	G	Sidechain
1	AE	40	C	Sidechain
1	AE	41	U	Sidechain
1	AE	42	G	Sidechain
1	AE	46	G	Sidechain
1	AE	48	C	Sidechain
1	AE	5	A	Sidechain
1	AE	50	U	Sidechain
1	AE	51	G	Sidechain
1	AE	53	G	Sidechain
1	AE	54	U	Sidechain
1	AE	56	C	Sidechain
1	AE	57	G	Sidechain
1	AE	59	U	Sidechain
1	AE	60	C	Sidechain
1	AE	61	C	Sidechain
1	AE	62	A	Sidechain
1	AE	64	A	Sidechain
1	AE	65	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AE	67	A	Sidechain
1	AE	71	G	Sidechain
1	AE	72	C	Sidechain
1	AE	74	C	Sidechain
1	AE	75	C	Sidechain
1	AE	76	A	Sidechain
1	AE	8	U	Sidechain
1	AE	9	A	Sidechain
7	AF	11	HIS	Sidechain
7	AF	112	ARG	Sidechain
7	AF	52	ILE	Peptide
7	AF	70	ARG	Sidechain
7	AF	86	ARG	Peptide
7	AF	95	PRO	Mainchain
7	AF	97	ARG	Sidechain,Peptide
8	AG	18	LYS	Mainchain
8	AG	80	ARG	Sidechain
8	AG	84	ARG	Sidechain
9	AH	45	HIS	Sidechain
9	AH	77	TYR	Sidechain
10	AI	14	ARG	Sidechain
10	AI	24	SER	Peptide
10	AI	25	ARG	Sidechain,Peptide
10	AI	32	PHE	Sidechain
10	AI	40	ASN	Peptide
10	AI	47	GLU	Peptide
10	AI	60	TRP	Peptide
10	AI	9	HIS	Sidechain
11	AJ	26	ARG	Sidechain
11	AJ	44	HIS	Sidechain
11	AJ	46	HIS	Sidechain
11	AJ	61	ARG	Sidechain
12	AK	22	TYR	Sidechain
12	AK	31	TYR	Sidechain
12	AK	62	ARG	Sidechain
13	AL	10	ILE	Peptide,Mainchain
13	AL	18	VAL	Peptide
13	AL	2	ARG	Sidechain
13	AL	4	LEU	Peptide
13	AL	54	ARG	Sidechain
13	AL	6	LYS	Peptide
13	AL	66	VAL	Peptide

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Mol	Chain	Res	Type	Group
2	AM	1	U	Sidechain
2	AM	10	U	Sidechain
2	AM	13	U	Sidechain
2	AM	14	U	Sidechain
2	AM	18	U	Sidechain
2	AM	2	U	Sidechain
2	AM	20	U	Sidechain
2	AM	4	U	Sidechain
2	AM	6	U	Sidechain
2	AM	7	U	Sidechain
2	AM	8	U	Sidechain
2	AM	9	U	Sidechain
15	AO	129	PHE	Sidechain
15	AO	130	ARG	Sidechain
15	AO	155	ARG	Sidechain
15	AO	168	ARG	Sidechain
15	AO	182	ASP	Peptide
15	AO	183	TYR	Sidechain
15	AO	75	VAL	Peptide
15	AO	79	LYS	Peptide
15	AO	87	ARG	Sidechain
1	AP	10	G	Sidechain
1	AP	16	U	Sidechain
1	AP	17	U	Sidechain
1	AP	18	G	Sidechain
1	AP	19	G	Sidechain
1	AP	22	G	Sidechain
1	AP	23	A	Sidechain
1	AP	24	G	Sidechain
1	AP	26	G	Sidechain
1	AP	27	C	Sidechain
1	AP	29	A	Sidechain
1	AP	30	G	Sidechain
1	AP	31	A	Sidechain
1	AP	32	C	Sidechain
1	AP	34	G	Sidechain
1	AP	37	G	Sidechain
1	AP	4	G	Sidechain
1	AP	40	C	Sidechain
1	AP	41	U	Sidechain
1	AP	42	G	Sidechain
1	AP	43	G	Sidechain

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Mol	Chain	Res	Type	Group
1	AP	45	G	Sidechain
1	AP	46	G	Sidechain
1	AP	47	U	Sidechain
1	AP	48	C	Sidechain
1	AP	49	C	Sidechain
1	AP	50	U	Sidechain
1	AP	51	G	Sidechain
1	AP	52	U	Sidechain
1	AP	53	G	Sidechain
1	AP	54	U	Sidechain
1	AP	55	U	Sidechain
1	AP	56	C	Sidechain
1	AP	57	G	Sidechain
1	AP	59	U	Sidechain
1	AP	6	U	Sidechain
1	AP	60	C	Sidechain
1	AP	61	C	Sidechain
1	AP	63	C	Sidechain
1	AP	64	A	Sidechain
1	AP	65	G	Sidechain
1	AP	66	A	Sidechain
1	AP	68	U	Sidechain
1	AP	69	U	Sidechain
1	AP	7	U	Sidechain
1	AP	70	C	Sidechain
1	AP	71	G	Sidechain
1	AP	72	C	Sidechain
1	AP	73	A	Sidechain
1	AP	8	U	Sidechain
1	AP	9	A	Sidechain
16	AQ	24	LYS	Peptide
16	AQ	34	ARG	Sidechain
16	AQ	44	ARG	Sidechain
16	AQ	45	LYS	Peptide
16	AQ	9	GLU	Peptide
17	AR	143	SER	Mainchain
17	AR	187	ARG	Sidechain
17	AR	25	ARG	Sidechain
17	AR	3	TYR	Sidechain
17	AR	72	ARG	Sidechain
18	AS	111	ARG	Sidechain
18	AS	19	ARG	Sidechain

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Mol	Chain	Res	Type	Group
19	AT	2	ARG	Sidechain
19	AT	38	ARG	Sidechain
19	AT	40	GLU	Peptide
19	AT	44	ARG	Sidechain
19	AT	55	HIS	Sidechain
19	AT	56	LYS	Peptide
19	AT	57	ALA	Peptide
19	AT	59	TYR	Sidechain
19	AT	79	ARG	Sidechain
20	AU	101	ARG	Sidechain
20	AU	118	ARG	Sidechain
20	AU	137	ARG	Sidechain
20	AU	141	HIS	Peptide
20	AU	25	PHE	Sidechain
20	AU	85	GLN	Peptide
20	AU	9	ARG	Sidechain
20	AU	91	ARG	Sidechain
21	AV	47	ASP	Peptide
21	AV	76	ARG	Sidechain
21	AV	79	ARG	Sidechain
21	AV	93	LYS	Peptide
22	AW	118	ARG	Sidechain
22	AW	126	PHE	Peptide
22	AW	32	ARG	Sidechain
22	AW	37	TYR	Sidechain
22	AW	5	TYR	Sidechain
22	AW	6	TYR	Sidechain
22	AW	63	TYR	Sidechain
22	AW	9	GLY	Mainchain
22	AW	98	ARG	Sidechain
23	AX	5	ARG	Sidechain
23	AX	68	ARG	Sidechain
50	B1	102	ARG	Sidechain
50	B1	115	GLN	Peptide
50	B1	122	GLU	Peptide
50	B1	162	ARG	Sidechain
50	B1	188	MET	Peptide
50	B1	47	LYS	Peptide
50	B1	57	LYS	Peptide
50	B1	67	ARG	Sidechain
50	B1	78	TRP	Peptide
51	B2	111	ARG	Sidechain

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Mol	Chain	Res	Type	Group
51	B2	124	ARG	Sidechain
51	B2	148	VAL	Peptide
51	B2	169	LEU	Peptide
51	B2	32	LYS	Peptide
51	B2	82	TYR	Sidechain
51	B2	87	LYS	Peptide
52	B3	107	GLY	Mainchain
52	B3	150	TYR	Sidechain
52	B3	152	ARG	Sidechain
52	B3	156	TYR	Sidechain
52	B3	48	THR	Mainchain
52	B3	86	LEU	Peptide
52	B3	93	TYR	Sidechain
53	B4	128	HIS	Sidechain
53	B4	16	GLY	Peptide
53	B4	51	ARG	Sidechain
54	B5	102	ARG	Sidechain
54	B5	51	GLY	Peptide
54	B5	66	PHE	Peptide
55	B6	109	LEU	Peptide
55	B6	125	TYR	Sidechain
55	B6	13	ARG	Sidechain
55	B6	27	ARG	Sidechain
55	B6	31	GLU	Sidechain
55	B6	37	ARG	Peptide
55	B6	44	TYR	Sidechain
55	B6	49	ASP	Sidechain
55	B6	53	TYR	Sidechain
55	B6	75	TYR	Sidechain
55	B6	98	GLU	Sidechain
55	B6	99	ARG	Sidechain
24	BA	100	G	Sidechain
24	BA	101	A	Sidechain
24	BA	102	G	Sidechain
24	BA	103	U	Sidechain
24	BA	104	A	Sidechain
24	BA	105	G	Sidechain
24	BA	107	G	Sidechain
24	BA	108	A	Sidechain
24	BA	11	C	Sidechain
24	BA	111	U	Sidechain
24	BA	112	G	Sidechain

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Mol	Chain	Res	Type	Group
24	BA	114	C	Sidechain
24	BA	115	A	Sidechain
24	BA	116	G	Sidechain
24	BA	117	G	Sidechain
24	BA	118	C	Sidechain
24	BA	12	C	Sidechain
24	BA	13	G	Sidechain
24	BA	14	U	Sidechain
24	BA	15	A	Sidechain
24	BA	18	G	Sidechain
24	BA	2	G	Sidechain
24	BA	20	G	Sidechain
24	BA	22	U	Sidechain
24	BA	23	G	Sidechain
24	BA	24	G	Sidechain
24	BA	27	C	Sidechain
24	BA	29	A	Sidechain
24	BA	3	C	Sidechain
24	BA	30	C	Sidechain
24	BA	31	C	Sidechain
24	BA	33	G	Sidechain
24	BA	35	C	Sidechain
24	BA	36	C	Sidechain
24	BA	37	C	Sidechain
24	BA	39	A	Sidechain
24	BA	4	C	Sidechain
24	BA	41	G	Sidechain
24	BA	43	C	Sidechain
24	BA	44	G	Sidechain
24	BA	46	A	Sidechain
24	BA	47	C	Sidechain
24	BA	49	C	Sidechain
24	BA	50	A	Sidechain
24	BA	51	G	Sidechain
24	BA	53	A	Sidechain
24	BA	54	G	Sidechain
24	BA	55	U	Sidechain
24	BA	58	A	Sidechain
24	BA	59	A	Sidechain
24	BA	60	C	Sidechain
24	BA	61	G	Sidechain
24	BA	62	C	Sidechain

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Mol	Chain	Res	Type	Group
24	BA	64	G	Sidechain
24	BA	66	A	Sidechain
24	BA	67	G	Sidechain
24	BA	69	G	Sidechain
24	BA	70	C	Sidechain
24	BA	71	C	Sidechain
24	BA	72	G	Sidechain
24	BA	73	A	Sidechain
24	BA	75	G	Sidechain
24	BA	76	G	Sidechain
24	BA	77	U	Sidechain
24	BA	78	A	Sidechain
24	BA	79	G	Sidechain
24	BA	80	U	Sidechain
24	BA	81	G	Sidechain
24	BA	82	U	Sidechain
24	BA	83	G	Sidechain
24	BA	84	G	Sidechain
24	BA	85	G	Sidechain
24	BA	89	U	Sidechain
24	BA	9	G	Sidechain
24	BA	91	C	Sidechain
24	BA	92	C	Sidechain
24	BA	93	C	Sidechain
24	BA	94	A	Sidechain
24	BA	95	U	Sidechain
24	BA	96	G	Sidechain
24	BA	98	G	Sidechain
25	BB	1	G	Sidechain
25	BB	10	A	Sidechain
25	BB	1000	A	Sidechain
25	BB	1001	A	Sidechain
25	BB	1003	G	Sidechain
25	BB	1004	U	Sidechain
25	BB	1005	C	Sidechain
25	BB	1006	C	Sidechain
25	BB	1007	C	Sidechain
25	BB	1008	A	Sidechain
25	BB	1009	A	Sidechain
25	BB	1011	G	Sidechain
25	BB	1012	U	Sidechain
25	BB	1013	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1015	U	Sidechain
25	BB	1018	U	Sidechain
25	BB	1019	U	Sidechain
25	BB	102	U	Sidechain
25	BB	1020	A	Sidechain
25	BB	1021	A	Sidechain
25	BB	1022	G	Sidechain
25	BB	1024	G	Sidechain
25	BB	1025	G	Sidechain
25	BB	1026	G	Sidechain
25	BB	1029	A	Sidechain
25	BB	103	A	Sidechain
25	BB	1031	G	Sidechain
25	BB	1032	A	Sidechain
25	BB	1033	U	Sidechain
25	BB	1034	G	Sidechain
25	BB	1035	U	Sidechain
25	BB	1036	G	Sidechain
25	BB	1041	G	Sidechain
25	BB	1042	G	Sidechain
25	BB	1044	C	Sidechain
25	BB	1045	C	Sidechain
25	BB	1049	C	Sidechain
25	BB	105	C	Sidechain
25	BB	1051	G	Sidechain
25	BB	1052	C	Sidechain
25	BB	1054	A	Sidechain
25	BB	1058	U	Sidechain
25	BB	1059	G	Sidechain
25	BB	1060	U	Sidechain
25	BB	1062	G	Sidechain
25	BB	1064	C	Sidechain
25	BB	1065	U	Sidechain
25	BB	1067	A	Sidechain
25	BB	1068	G	Sidechain
25	BB	1069	A	Sidechain
25	BB	107	G	Sidechain
25	BB	1071	G	Sidechain
25	BB	1074	G	Sidechain
25	BB	1075	C	Sidechain
25	BB	1076	C	Sidechain
25	BB	1078	U	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	108	G	Sidechain
25	BB	1080	A	Sidechain
25	BB	1082	U	Sidechain
25	BB	1084	A	Sidechain
25	BB	1085	A	Sidechain
25	BB	1086	A	Sidechain
25	BB	1087	G	Sidechain
25	BB	1088	A	Sidechain
25	BB	1089	A	Sidechain
25	BB	1090	A	Sidechain
25	BB	1091	G	Sidechain
25	BB	1095	A	Sidechain
25	BB	1096	A	Sidechain
25	BB	1097	U	Sidechain
25	BB	1099	G	Sidechain
25	BB	11	C	Sidechain
25	BB	1101	U	Sidechain
25	BB	1102	C	Sidechain
25	BB	1103	A	Sidechain
25	BB	1106	G	Sidechain
25	BB	1108	U	Sidechain
25	BB	1109	C	Sidechain
25	BB	1110	G	Sidechain
25	BB	1111	A	Sidechain
25	BB	1112	G	Sidechain
25	BB	1113	U	Sidechain
25	BB	1114	C	Sidechain
25	BB	112	U	Sidechain
25	BB	1120	G	Sidechain
25	BB	1122	G	Sidechain
25	BB	1124	G	Sidechain
25	BB	1125	G	Sidechain
25	BB	1127	A	Sidechain
25	BB	1128	G	Sidechain
25	BB	1129	A	Sidechain
25	BB	1131	G	Sidechain
25	BB	1134	A	Sidechain
25	BB	1135	C	Sidechain
25	BB	1136	G	Sidechain
25	BB	1137	G	Sidechain
25	BB	1138	G	Sidechain
25	BB	1139	G	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	114	U	Sidechain
25	BB	1140	C	Sidechain
25	BB	1141	U	Sidechain
25	BB	1142	A	Sidechain
25	BB	1148	U	Sidechain
25	BB	1149	G	Sidechain
25	BB	1150	C	Sidechain
25	BB	1154	G	Sidechain
25	BB	1155	A	Sidechain
25	BB	1156	A	Sidechain
25	BB	1157	G	Sidechain
25	BB	1159	U	Sidechain
25	BB	116	C	Sidechain
25	BB	1161	C	Sidechain
25	BB	1162	G	Sidechain
25	BB	1163	G	Sidechain
25	BB	1165	A	Sidechain
25	BB	1168	G	Sidechain
25	BB	117	G	Sidechain
25	BB	1170	C	Sidechain
25	BB	1171	G	Sidechain
25	BB	1172	C	Sidechain
25	BB	1177	G	Sidechain
25	BB	1178	C	Sidechain
25	BB	1179	G	Sidechain
25	BB	118	A	Sidechain
25	BB	1181	U	Sidechain
25	BB	1182	G	Sidechain
25	BB	1185	G	Sidechain
25	BB	1188	U	Sidechain
25	BB	1189	A	Sidechain
25	BB	119	A	Sidechain
25	BB	1190	G	Sidechain
25	BB	1191	G	Sidechain
25	BB	1192	G	Sidechain
25	BB	1193	G	Sidechain
25	BB	1194	A	Sidechain
25	BB	1195	G	Sidechain
25	BB	1196	C	Sidechain
25	BB	1197	G	Sidechain
25	BB	1199	U	Sidechain
25	BB	12	U	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	120	U	Sidechain
25	BB	1200	C	Sidechain
25	BB	1203	U	Sidechain
25	BB	1206	G	Sidechain
25	BB	1208	C	Sidechain
25	BB	1210	G	Sidechain
25	BB	1211	C	Sidechain
25	BB	1214	A	Sidechain
25	BB	1215	G	Sidechain
25	BB	1216	G	Sidechain
25	BB	1217	U	Sidechain
25	BB	1218	G	Sidechain
25	BB	1219	U	Sidechain
25	BB	122	G	Sidechain
25	BB	1220	G	Sidechain
25	BB	1221	C	Sidechain
25	BB	1222	U	Sidechain
25	BB	1223	G	Sidechain
25	BB	1224	U	Sidechain
25	BB	1225	G	Sidechain
25	BB	1227	G	Sidechain
25	BB	1228	G	Sidechain
25	BB	123	G	Sidechain
25	BB	1230	A	Sidechain
25	BB	1231	U	Sidechain
25	BB	1232	G	Sidechain
25	BB	1233	C	Sidechain
25	BB	1234	U	Sidechain
25	BB	1235	G	Sidechain
25	BB	1238	G	Sidechain
25	BB	1239	G	Sidechain
25	BB	1240	U	Sidechain
25	BB	1241	A	Sidechain
25	BB	1242	U	Sidechain
25	BB	1245	G	Sidechain
25	BB	1248	G	Sidechain
25	BB	125	A	Sidechain
25	BB	1250	G	Sidechain
25	BB	1251	C	Sidechain
25	BB	1252	G	Sidechain
25	BB	1253	A	Sidechain
25	BB	1255	U	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1256	G	Sidechain
25	BB	126	A	Sidechain
25	BB	1260	A	Sidechain
25	BB	1261	C	Sidechain
25	BB	1264	A	Sidechain
25	BB	1265	A	Sidechain
25	BB	1266	G	Sidechain
25	BB	1270	C	Sidechain
25	BB	1271	G	Sidechain
25	BB	1273	U	Sidechain
25	BB	1274	A	Sidechain
25	BB	1275	A	Sidechain
25	BB	1276	A	Sidechain
25	BB	1277	G	Sidechain
25	BB	1278	C	Sidechain
25	BB	1279	G	Sidechain
25	BB	128	C	Sidechain
25	BB	1281	G	Sidechain
25	BB	1283	G	Sidechain
25	BB	1285	A	Sidechain
25	BB	1287	A	Sidechain
25	BB	1288	G	Sidechain
25	BB	1289	C	Sidechain
25	BB	129	C	Sidechain
25	BB	1290	C	Sidechain
25	BB	1291	C	Sidechain
25	BB	1292	G	Sidechain
25	BB	1293	C	Sidechain
25	BB	1294	U	Sidechain
25	BB	1296	G	Sidechain
25	BB	1299	G	Sidechain
25	BB	130	C	Sidechain
25	BB	1300	G	Sidechain
25	BB	1302	A	Sidechain
25	BB	1303	G	Sidechain
25	BB	1304	A	Sidechain
25	BB	1306	C	Sidechain
25	BB	1308	A	Sidechain
25	BB	1309	G	Sidechain
25	BB	131	A	Sidechain
25	BB	1310	G	Sidechain
25	BB	1315	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1316	U	Sidechain
25	BB	1318	U	Sidechain
25	BB	132	G	Sidechain
25	BB	1320	C	Sidechain
25	BB	1323	C	Sidechain
25	BB	1324	G	Sidechain
25	BB	1325	U	Sidechain
25	BB	1326	U	Sidechain
25	BB	1327	A	Sidechain
25	BB	133	U	Sidechain
25	BB	1330	C	Sidechain
25	BB	1332	G	Sidechain
25	BB	1333	G	Sidechain
25	BB	1334	G	Sidechain
25	BB	1337	G	Sidechain
25	BB	1338	G	Sidechain
25	BB	134	G	Sidechain
25	BB	1343	G	Sidechain
25	BB	1344	U	Sidechain
25	BB	1345	C	Sidechain
25	BB	1346	G	Sidechain
25	BB	135	U	Sidechain
25	BB	1352	U	Sidechain
25	BB	1353	A	Sidechain
25	BB	1356	G	Sidechain
25	BB	1358	G	Sidechain
25	BB	1359	A	Sidechain
25	BB	136	G	Sidechain
25	BB	1360	G	Sidechain
25	BB	1361	G	Sidechain
25	BB	1362	C	Sidechain
25	BB	1366	A	Sidechain
25	BB	1367	A	Sidechain
25	BB	1368	G	Sidechain
25	BB	1369	G	Sidechain
25	BB	137	U	Sidechain
25	BB	1371	G	Sidechain
25	BB	1372	U	Sidechain
25	BB	1373	A	Sidechain
25	BB	1374	G	Sidechain
25	BB	1375	U	Sidechain
25	BB	1376	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1377	G	Sidechain
25	BB	1378	A	Sidechain
25	BB	1379	U	Sidechain
25	BB	1380	G	Sidechain
25	BB	1381	G	Sidechain
25	BB	1382	G	Sidechain
25	BB	1384	A	Sidechain
25	BB	1388	G	Sidechain
25	BB	1389	G	Sidechain
25	BB	139	U	Sidechain
25	BB	1390	U	Sidechain
25	BB	1391	U	Sidechain
25	BB	1392	A	Sidechain
25	BB	1394	U	Sidechain
25	BB	1396	U	Sidechain
25	BB	1399	C	Sidechain
25	BB	1400	U	Sidechain
25	BB	1401	G	Sidechain
25	BB	1402	U	Sidechain
25	BB	1403	A	Sidechain
25	BB	1405	U	Sidechain
25	BB	1407	G	Sidechain
25	BB	1408	G	Sidechain
25	BB	1409	U	Sidechain
25	BB	141	G	Sidechain
25	BB	1410	G	Sidechain
25	BB	1414	C	Sidechain
25	BB	1416	G	Sidechain
25	BB	1417	C	Sidechain
25	BB	1418	G	Sidechain
25	BB	1419	A	Sidechain
25	BB	1421	G	Sidechain
25	BB	1423	G	Sidechain
25	BB	1424	G	Sidechain
25	BB	1425	G	Sidechain
25	BB	1428	C	Sidechain
25	BB	1429	G	Sidechain
25	BB	143	C	Sidechain
25	BB	1430	G	Sidechain
25	BB	1432	G	Sidechain
25	BB	1433	A	Sidechain
25	BB	1434	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1435	G	Sidechain
25	BB	1436	G	Sidechain
25	BB	1437	C	Sidechain
25	BB	1438	U	Sidechain
25	BB	144	A	Sidechain
25	BB	1440	U	Sidechain
25	BB	1441	G	Sidechain
25	BB	1444	G	Sidechain
25	BB	1445	G	Sidechain
25	BB	1447	C	Sidechain
25	BB	1448	G	Sidechain
25	BB	1449	G	Sidechain
25	BB	1450	G	Sidechain
25	BB	1452	G	Sidechain
25	BB	1453	A	Sidechain
25	BB	1454	C	Sidechain
25	BB	1455	G	Sidechain
25	BB	1456	G	Sidechain
25	BB	1457	U	Sidechain
25	BB	1459	G	Sidechain
25	BB	1461	C	Sidechain
25	BB	1462	C	Sidechain
25	BB	1463	C	Sidechain
25	BB	1465	G	Sidechain
25	BB	1467	U	Sidechain
25	BB	147	C	Sidechain
25	BB	1471	G	Sidechain
25	BB	1473	G	Sidechain
25	BB	1474	U	Sidechain
25	BB	1478	G	Sidechain
25	BB	1479	G	Sidechain
25	BB	148	U	Sidechain
25	BB	1480	C	Sidechain
25	BB	1482	G	Sidechain
25	BB	1483	G	Sidechain
25	BB	1484	U	Sidechain
25	BB	1485	U	Sidechain
25	BB	1487	U	Sidechain
25	BB	1488	C	Sidechain
25	BB	1489	C	Sidechain
25	BB	1491	G	Sidechain
25	BB	1492	G	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1494	A	Sidechain
25	BB	1495	A	Sidechain
25	BB	1496	A	Sidechain
25	BB	1497	U	Sidechain
25	BB	1498	C	Sidechain
25	BB	1499	C	Sidechain
25	BB	15	G	Sidechain
25	BB	1503	A	Sidechain
25	BB	1506	U	Sidechain
25	BB	1507	C	Sidechain
25	BB	1508	A	Sidechain
25	BB	1509	A	Sidechain
25	BB	151	C	Sidechain
25	BB	1512	C	Sidechain
25	BB	1513	U	Sidechain
25	BB	1514	G	Sidechain
25	BB	1516	G	Sidechain
25	BB	1517	G	Sidechain
25	BB	1518	C	Sidechain
25	BB	152	A	Sidechain
25	BB	1521	G	Sidechain
25	BB	1523	U	Sidechain
25	BB	1524	G	Sidechain
25	BB	1526	C	Sidechain
25	BB	1527	G	Sidechain
25	BB	1529	G	Sidechain
25	BB	153	U	Sidechain
25	BB	1531	C	Sidechain
25	BB	1535	A	Sidechain
25	BB	1537	G	Sidechain
25	BB	1539	U	Sidechain
25	BB	154	U	Sidechain
25	BB	1540	G	Sidechain
25	BB	1542	U	Sidechain
25	BB	1543	G	Sidechain
25	BB	1544	A	Sidechain
25	BB	1545	A	Sidechain
25	BB	1546	G	Sidechain
25	BB	1547	C	Sidechain
25	BB	1548	A	Sidechain
25	BB	1550	C	Sidechain
25	BB	1551	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1555	G	Sidechain
25	BB	1557	C	Sidechain
25	BB	1558	C	Sidechain
25	BB	1559	U	Sidechain
25	BB	156	A	Sidechain
25	BB	1560	G	Sidechain
25	BB	1562	U	Sidechain
25	BB	1563	U	Sidechain
25	BB	1565	C	Sidechain
25	BB	1566	A	Sidechain
25	BB	1567	G	Sidechain
25	BB	1570	A	Sidechain
25	BB	1574	C	Sidechain
25	BB	1575	C	Sidechain
25	BB	1577	C	Sidechain
25	BB	1578	U	Sidechain
25	BB	1579	A	Sidechain
25	BB	158	U	Sidechain
25	BB	1580	A	Sidechain
25	BB	1582	C	Sidechain
25	BB	1585	C	Sidechain
25	BB	1586	A	Sidechain
25	BB	1588	G	Sidechain
25	BB	1589	U	Sidechain
25	BB	159	G	Sidechain
25	BB	1590	A	Sidechain
25	BB	1591	A	Sidechain
25	BB	1592	C	Sidechain
25	BB	1593	A	Sidechain
25	BB	1595	C	Sidechain
25	BB	1597	A	Sidechain
25	BB	1598	A	Sidechain
25	BB	1599	U	Sidechain
25	BB	16	C	Sidechain
25	BB	1600	C	Sidechain
25	BB	1603	A	Sidechain
25	BB	1604	C	Sidechain
25	BB	1605	C	Sidechain
25	BB	1608	A	Sidechain
25	BB	1612	C	Sidechain
25	BB	1613	G	Sidechain
25	BB	1614	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1615	C	Sidechain
25	BB	1616	A	Sidechain
25	BB	1617	C	Sidechain
25	BB	1618	A	Sidechain
25	BB	1619	G	Sidechain
25	BB	1620	G	Sidechain
25	BB	1621	U	Sidechain
25	BB	1622	G	Sidechain
25	BB	1623	G	Sidechain
25	BB	1627	G	Sidechain
25	BB	1628	G	Sidechain
25	BB	1629	U	Sidechain
25	BB	1630	A	Sidechain
25	BB	1631	G	Sidechain
25	BB	1633	G	Sidechain
25	BB	1635	A	Sidechain
25	BB	1636	U	Sidechain
25	BB	1637	A	Sidechain
25	BB	164	C	Sidechain
25	BB	1640	A	Sidechain
25	BB	1641	A	Sidechain
25	BB	1642	G	Sidechain
25	BB	1643	G	Sidechain
25	BB	1644	C	Sidechain
25	BB	1645	G	Sidechain
25	BB	1646	C	Sidechain
25	BB	1647	U	Sidechain
25	BB	1648	U	Sidechain
25	BB	1649	G	Sidechain
25	BB	1650	A	Sidechain
25	BB	1651	G	Sidechain
25	BB	1652	A	Sidechain
25	BB	1653	G	Sidechain
25	BB	1654	A	Sidechain
25	BB	1658	C	Sidechain
25	BB	1659	G	Sidechain
25	BB	166	U	Sidechain
25	BB	1660	G	Sidechain
25	BB	1661	G	Sidechain
25	BB	1662	U	Sidechain
25	BB	1663	G	Sidechain
25	BB	1666	G	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1667	G	Sidechain
25	BB	1668	A	Sidechain
25	BB	1669	A	Sidechain
25	BB	1671	U	Sidechain
25	BB	1672	A	Sidechain
25	BB	1673	G	Sidechain
25	BB	1674	G	Sidechain
25	BB	1675	C	Sidechain
25	BB	1676	A	Sidechain
25	BB	1679	A	Sidechain
25	BB	168	G	Sidechain
25	BB	1680	U	Sidechain
25	BB	1681	G	Sidechain
25	BB	1682	G	Sidechain
25	BB	1684	G	Sidechain
25	BB	1685	C	Sidechain
25	BB	1686	C	Sidechain
25	BB	1688	U	Sidechain
25	BB	169	G	Sidechain
25	BB	1690	A	Sidechain
25	BB	1691	C	Sidechain
25	BB	1692	U	Sidechain
25	BB	1693	U	Sidechain
25	BB	1695	G	Sidechain
25	BB	1696	G	Sidechain
25	BB	1697	G	Sidechain
25	BB	1699	G	Sidechain
25	BB	170	U	Sidechain
25	BB	1701	A	Sidechain
25	BB	1702	G	Sidechain
25	BB	1703	G	Sidechain
25	BB	1705	A	Sidechain
25	BB	1706	C	Sidechain
25	BB	1708	C	Sidechain
25	BB	1709	U	Sidechain
25	BB	1711	A	Sidechain
25	BB	1713	A	Sidechain
25	BB	1714	U	Sidechain
25	BB	1715	G	Sidechain
25	BB	1718	G	Sidechain
25	BB	1719	G	Sidechain
25	BB	1721	G	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1722	A	Sidechain
25	BB	1723	G	Sidechain
25	BB	1725	U	Sidechain
25	BB	1726	C	Sidechain
25	BB	1727	C	Sidechain
25	BB	1729	U	Sidechain
25	BB	173	A	Sidechain
25	BB	1731	G	Sidechain
25	BB	1733	G	Sidechain
25	BB	1734	G	Sidechain
25	BB	1736	U	Sidechain
25	BB	1740	G	Sidechain
25	BB	1741	C	Sidechain
25	BB	1743	G	Sidechain
25	BB	1744	A	Sidechain
25	BB	175	G	Sidechain
25	BB	1753	G	Sidechain
25	BB	1754	A	Sidechain
25	BB	1755	A	Sidechain
25	BB	1756	G	Sidechain
25	BB	1758	U	Sidechain
25	BB	1760	C	Sidechain
25	BB	1761	C	Sidechain
25	BB	1763	G	Sidechain
25	BB	1765	U	Sidechain
25	BB	1766	G	Sidechain
25	BB	1767	G	Sidechain
25	BB	1768	C	Sidechain
25	BB	1769	U	Sidechain
25	BB	177	G	Sidechain
25	BB	1770	G	Sidechain
25	BB	1772	A	Sidechain
25	BB	1773	A	Sidechain
25	BB	1774	C	Sidechain
25	BB	1775	U	Sidechain
25	BB	1776	G	Sidechain
25	BB	1777	U	Sidechain
25	BB	1778	U	Sidechain
25	BB	1779	U	Sidechain
25	BB	1782	U	Sidechain
25	BB	1784	A	Sidechain
25	BB	1785	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1787	A	Sidechain
25	BB	1788	C	Sidechain
25	BB	1789	A	Sidechain
25	BB	1790	C	Sidechain
25	BB	1791	A	Sidechain
25	BB	1792	G	Sidechain
25	BB	1794	A	Sidechain
25	BB	1796	U	Sidechain
25	BB	1798	U	Sidechain
25	BB	18	U	Sidechain
25	BB	180	G	Sidechain
25	BB	1801	A	Sidechain
25	BB	1804	C	Sidechain
25	BB	1806	C	Sidechain
25	BB	1807	G	Sidechain
25	BB	1808	A	Sidechain
25	BB	1809	A	Sidechain
25	BB	181	A	Sidechain
25	BB	1811	G	Sidechain
25	BB	1812	U	Sidechain
25	BB	1814	G	Sidechain
25	BB	1816	C	Sidechain
25	BB	1817	G	Sidechain
25	BB	1818	U	Sidechain
25	BB	1819	A	Sidechain
25	BB	182	A	Sidechain
25	BB	1821	A	Sidechain
25	BB	1823	G	Sidechain
25	BB	1825	U	Sidechain
25	BB	1826	G	Sidechain
25	BB	1827	U	Sidechain
25	BB	183	C	Sidechain
25	BB	1830	C	Sidechain
25	BB	1833	C	Sidechain
25	BB	1834	U	Sidechain
25	BB	1835	G	Sidechain
25	BB	1836	C	Sidechain
25	BB	1839	G	Sidechain
25	BB	184	C	Sidechain
25	BB	1840	G	Sidechain
25	BB	1841	U	Sidechain
25	BB	1842	G	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1843	C	Sidechain
25	BB	1844	C	Sidechain
25	BB	1845	G	Sidechain
25	BB	1846	G	Sidechain
25	BB	1848	A	Sidechain
25	BB	1849	G	Sidechain
25	BB	185	G	Sidechain
25	BB	1852	U	Sidechain
25	BB	1855	U	Sidechain
25	BB	1857	G	Sidechain
25	BB	1858	A	Sidechain
25	BB	1859	U	Sidechain
25	BB	186	G	Sidechain
25	BB	1861	G	Sidechain
25	BB	1862	G	Sidechain
25	BB	1865	U	Sidechain
25	BB	1869	G	Sidechain
25	BB	187	G	Sidechain
25	BB	1870	C	Sidechain
25	BB	1872	A	Sidechain
25	BB	1873	G	Sidechain
25	BB	1874	C	Sidechain
25	BB	1878	G	Sidechain
25	BB	1880	U	Sidechain
25	BB	1881	C	Sidechain
25	BB	1883	U	Sidechain
25	BB	1884	G	Sidechain
25	BB	1885	A	Sidechain
25	BB	1888	G	Sidechain
25	BB	1889	A	Sidechain
25	BB	189	G	Sidechain
25	BB	1890	A	Sidechain
25	BB	1892	C	Sidechain
25	BB	1893	C	Sidechain
25	BB	1894	C	Sidechain
25	BB	1896	G	Sidechain
25	BB	1900	A	Sidechain
25	BB	1902	C	Sidechain
25	BB	1905	C	Sidechain
25	BB	1907	G	Sidechain
25	BB	1908	C	Sidechain
25	BB	1909	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	191	A	Sidechain
25	BB	1910	G	Sidechain
25	BB	1912	A	Sidechain
25	BB	1913	A	Sidechain
25	BB	1914	C	Sidechain
25	BB	1915	U	Sidechain
25	BB	1916	A	Sidechain
25	BB	1918	A	Sidechain
25	BB	1919	A	Sidechain
25	BB	192	C	Sidechain
25	BB	1920	C	Sidechain
25	BB	1921	G	Sidechain
25	BB	1923	U	Sidechain
25	BB	1924	C	Sidechain
25	BB	1925	C	Sidechain
25	BB	1926	U	Sidechain
25	BB	1927	A	Sidechain
25	BB	1928	A	Sidechain
25	BB	1929	G	Sidechain
25	BB	193	U	Sidechain
25	BB	1930	G	Sidechain
25	BB	1931	U	Sidechain
25	BB	1932	A	Sidechain
25	BB	1934	C	Sidechain
25	BB	1935	G	Sidechain
25	BB	1936	A	Sidechain
25	BB	1939	U	Sidechain
25	BB	194	G	Sidechain
25	BB	1940	U	Sidechain
25	BB	1942	C	Sidechain
25	BB	1943	U	Sidechain
25	BB	1945	G	Sidechain
25	BB	1946	U	Sidechain
25	BB	1947	C	Sidechain
25	BB	1948	G	Sidechain
25	BB	1949	G	Sidechain
25	BB	1950	G	Sidechain
25	BB	1951	U	Sidechain
25	BB	1954	G	Sidechain
25	BB	1955	U	Sidechain
25	BB	1956	U	Sidechain
25	BB	1957	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	1958	C	Sidechain
25	BB	196	A	Sidechain
25	BB	1963	U	Sidechain
25	BB	1964	G	Sidechain
25	BB	1966	A	Sidechain
25	BB	1967	C	Sidechain
25	BB	1968	G	Sidechain
25	BB	1969	A	Sidechain
25	BB	197	A	Sidechain
25	BB	1970	A	Sidechain
25	BB	1971	U	Sidechain
25	BB	1972	G	Sidechain
25	BB	1973	G	Sidechain
25	BB	1974	C	Sidechain
25	BB	1975	G	Sidechain
25	BB	1976	U	Sidechain
25	BB	1977	A	Sidechain
25	BB	198	C	Sidechain
25	BB	1980	G	Sidechain
25	BB	1983	G	Sidechain
25	BB	1984	G	Sidechain
25	BB	1985	C	Sidechain
25	BB	1986	C	Sidechain
25	BB	1987	A	Sidechain
25	BB	1989	G	Sidechain
25	BB	1991	U	Sidechain
25	BB	1992	G	Sidechain
25	BB	1997	C	Sidechain
25	BB	2	G	Sidechain
25	BB	200	U	Sidechain
25	BB	2000	C	Sidechain
25	BB	2001	C	Sidechain
25	BB	2002	G	Sidechain
25	BB	2003	A	Sidechain
25	BB	2004	G	Sidechain
25	BB	2005	A	Sidechain
25	BB	2007	U	Sidechain
25	BB	2009	A	Sidechain
25	BB	2010	G	Sidechain
25	BB	2011	U	Sidechain
25	BB	2012	G	Sidechain
25	BB	2013	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2014	A	Sidechain
25	BB	2015	A	Sidechain
25	BB	2017	U	Sidechain
25	BB	2018	G	Sidechain
25	BB	202	U	Sidechain
25	BB	2020	A	Sidechain
25	BB	2021	C	Sidechain
25	BB	2022	U	Sidechain
25	BB	2024	G	Sidechain
25	BB	2025	C	Sidechain
25	BB	2026	U	Sidechain
25	BB	2027	G	Sidechain
25	BB	2029	G	Sidechain
25	BB	203	A	Sidechain
25	BB	2030	A	Sidechain
25	BB	2031	A	Sidechain
25	BB	2032	G	Sidechain
25	BB	2034	U	Sidechain
25	BB	2035	G	Sidechain
25	BB	2039	U	Sidechain
25	BB	2040	G	Sidechain
25	BB	2041	U	Sidechain
25	BB	2046	G	Sidechain
25	BB	2048	G	Sidechain
25	BB	2049	G	Sidechain
25	BB	205	G	Sidechain
25	BB	2051	A	Sidechain
25	BB	2052	A	Sidechain
25	BB	2053	G	Sidechain
25	BB	2054	A	Sidechain
25	BB	2056	G	Sidechain
25	BB	2060	A	Sidechain
25	BB	2061	G	Sidechain
25	BB	2062	A	Sidechain
25	BB	2065	C	Sidechain
25	BB	2066	C	Sidechain
25	BB	2067	G	Sidechain
25	BB	2069	G	Sidechain
25	BB	207	A	Sidechain
25	BB	2071	A	Sidechain
25	BB	2073	C	Sidechain
25	BB	2074	U	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2078	C	Sidechain
25	BB	2079	U	Sidechain
25	BB	208	C	Sidechain
25	BB	2080	A	Sidechain
25	BB	2081	U	Sidechain
25	BB	2083	G	Sidechain
25	BB	2086	U	Sidechain
25	BB	2088	A	Sidechain
25	BB	2089	C	Sidechain
25	BB	2091	C	Sidechain
25	BB	2092	U	Sidechain
25	BB	2093	G	Sidechain
25	BB	2094	A	Sidechain
25	BB	2096	C	Sidechain
25	BB	2097	A	Sidechain
25	BB	2098	U	Sidechain
25	BB	2100	G	Sidechain
25	BB	2101	A	Sidechain
25	BB	2102	G	Sidechain
25	BB	2103	C	Sidechain
25	BB	2104	C	Sidechain
25	BB	2106	U	Sidechain
25	BB	2108	A	Sidechain
25	BB	211	C	Sidechain
25	BB	2110	G	Sidechain
25	BB	2111	U	Sidechain
25	BB	2112	G	Sidechain
25	BB	2113	U	Sidechain
25	BB	2115	G	Sidechain
25	BB	2117	A	Sidechain
25	BB	2119	A	Sidechain
25	BB	212	G	Sidechain
25	BB	2120	G	Sidechain
25	BB	2122	U	Sidechain
25	BB	2123	G	Sidechain
25	BB	2125	G	Sidechain
25	BB	2126	A	Sidechain
25	BB	2127	G	Sidechain
25	BB	2128	G	Sidechain
25	BB	213	A	Sidechain
25	BB	2130	U	Sidechain
25	BB	2132	U	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2134	A	Sidechain
25	BB	2136	G	Sidechain
25	BB	2137	U	Sidechain
25	BB	2138	G	Sidechain
25	BB	214	G	Sidechain
25	BB	2140	G	Sidechain
25	BB	2141	G	Sidechain
25	BB	2143	C	Sidechain
25	BB	2146	C	Sidechain
25	BB	2148	G	Sidechain
25	BB	2149	U	Sidechain
25	BB	2150	C	Sidechain
25	BB	2152	G	Sidechain
25	BB	2154	A	Sidechain
25	BB	2155	U	Sidechain
25	BB	2156	G	Sidechain
25	BB	2160	C	Sidechain
25	BB	2161	C	Sidechain
25	BB	2162	G	Sidechain
25	BB	2164	C	Sidechain
25	BB	2168	G	Sidechain
25	BB	2171	A	Sidechain
25	BB	2172	U	Sidechain
25	BB	2174	C	Sidechain
25	BB	2175	C	Sidechain
25	BB	2176	A	Sidechain
25	BB	2177	C	Sidechain
25	BB	2178	C	Sidechain
25	BB	2180	U	Sidechain
25	BB	2181	U	Sidechain
25	BB	2185	U	Sidechain
25	BB	2186	G	Sidechain
25	BB	2187	U	Sidechain
25	BB	2188	U	Sidechain
25	BB	2189	U	Sidechain
25	BB	219	A	Sidechain
25	BB	2194	U	Sidechain
25	BB	2196	C	Sidechain
25	BB	2197	U	Sidechain
25	BB	22	C	Sidechain
25	BB	220	G	Sidechain
25	BB	2200	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2201	G	Sidechain
25	BB	2203	U	Sidechain
25	BB	2204	G	Sidechain
25	BB	2206	C	Sidechain
25	BB	2209	G	Sidechain
25	BB	221	A	Sidechain
25	BB	2210	U	Sidechain
25	BB	2212	A	Sidechain
25	BB	2216	G	Sidechain
25	BB	2217	G	Sidechain
25	BB	2219	U	Sidechain
25	BB	222	A	Sidechain
25	BB	2220	U	Sidechain
25	BB	2221	G	Sidechain
25	BB	2222	C	Sidechain
25	BB	2223	G	Sidechain
25	BB	2226	C	Sidechain
25	BB	2227	A	Sidechain
25	BB	2229	U	Sidechain
25	BB	223	A	Sidechain
25	BB	2230	G	Sidechain
25	BB	2231	U	Sidechain
25	BB	2234	G	Sidechain
25	BB	2235	G	Sidechain
25	BB	2236	U	Sidechain
25	BB	2237	G	Sidechain
25	BB	2238	G	Sidechain
25	BB	2239	G	Sidechain
25	BB	224	U	Sidechain
25	BB	2240	U	Sidechain
25	BB	2241	A	Sidechain
25	BB	2244	U	Sidechain
25	BB	2245	U	Sidechain
25	BB	2246	G	Sidechain
25	BB	2247	A	Sidechain
25	BB	2248	C	Sidechain
25	BB	2249	U	Sidechain
25	BB	2250	G	Sidechain
25	BB	2252	G	Sidechain
25	BB	2253	G	Sidechain
25	BB	2254	C	Sidechain
25	BB	2256	G	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2258	C	Sidechain
25	BB	226	A	Sidechain
25	BB	2260	C	Sidechain
25	BB	2261	C	Sidechain
25	BB	2263	C	Sidechain
25	BB	2264	C	Sidechain
25	BB	2266	A	Sidechain
25	BB	2268	A	Sidechain
25	BB	2271	G	Sidechain
25	BB	2272	U	Sidechain
25	BB	2273	A	Sidechain
25	BB	2274	A	Sidechain
25	BB	2275	C	Sidechain
25	BB	2276	G	Sidechain
25	BB	2277	G	Sidechain
25	BB	2278	A	Sidechain
25	BB	2279	G	Sidechain
25	BB	2282	G	Sidechain
25	BB	2284	A	Sidechain
25	BB	2286	G	Sidechain
25	BB	2287	A	Sidechain
25	BB	2289	G	Sidechain
25	BB	229	C	Sidechain
25	BB	2290	G	Sidechain
25	BB	2291	U	Sidechain
25	BB	2292	U	Sidechain
25	BB	2293	G	Sidechain
25	BB	2294	G	Sidechain
25	BB	2296	U	Sidechain
25	BB	2297	A	Sidechain
25	BB	2298	A	Sidechain
25	BB	2299	U	Sidechain
25	BB	23	G	Sidechain
25	BB	230	G	Sidechain
25	BB	2300	C	Sidechain
25	BB	2301	C	Sidechain
25	BB	2302	U	Sidechain
25	BB	2303	G	Sidechain
25	BB	2304	G	Sidechain
25	BB	2307	G	Sidechain
25	BB	2309	A	Sidechain
25	BB	231	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2312	U	Sidechain
25	BB	2313	C	Sidechain
25	BB	2315	G	Sidechain
25	BB	2316	G	Sidechain
25	BB	2317	A	Sidechain
25	BB	2318	G	Sidechain
25	BB	2320	U	Sidechain
25	BB	2323	G	Sidechain
25	BB	2324	U	Sidechain
25	BB	2325	G	Sidechain
25	BB	233	A	Sidechain
25	BB	2330	G	Sidechain
25	BB	2331	G	Sidechain
25	BB	2336	A	Sidechain
25	BB	2337	G	Sidechain
25	BB	234	U	Sidechain
25	BB	2340	A	Sidechain
25	BB	2341	G	Sidechain
25	BB	2342	C	Sidechain
25	BB	2343	U	Sidechain
25	BB	2348	U	Sidechain
25	BB	235	U	Sidechain
25	BB	2350	C	Sidechain
25	BB	2351	G	Sidechain
25	BB	2352	A	Sidechain
25	BB	2353	G	Sidechain
25	BB	2358	A	Sidechain
25	BB	236	C	Sidechain
25	BB	2360	G	Sidechain
25	BB	2361	G	Sidechain
25	BB	2363	G	Sidechain
25	BB	2367	G	Sidechain
25	BB	2369	A	Sidechain
25	BB	2371	G	Sidechain
25	BB	2373	G	Sidechain
25	BB	2374	C	Sidechain
25	BB	2376	A	Sidechain
25	BB	2379	G	Sidechain
25	BB	238	C	Sidechain
25	BB	2382	G	Sidechain
25	BB	2384	U	Sidechain
25	BB	2385	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2386	A	Sidechain
25	BB	2387	U	Sidechain
25	BB	2388	A	Sidechain
25	BB	2389	G	Sidechain
25	BB	2390	U	Sidechain
25	BB	2394	C	Sidechain
25	BB	2396	G	Sidechain
25	BB	2398	U	Sidechain
25	BB	2399	G	Sidechain
25	BB	24	G	Sidechain
25	BB	2400	G	Sidechain
25	BB	2401	U	Sidechain
25	BB	2402	U	Sidechain
25	BB	2404	U	Sidechain
25	BB	2405	G	Sidechain
25	BB	2407	A	Sidechain
25	BB	2408	U	Sidechain
25	BB	2409	G	Sidechain
25	BB	241	A	Sidechain
25	BB	2410	G	Sidechain
25	BB	2411	A	Sidechain
25	BB	2412	A	Sidechain
25	BB	2414	G	Sidechain
25	BB	2415	G	Sidechain
25	BB	2416	C	Sidechain
25	BB	2418	A	Sidechain
25	BB	242	G	Sidechain
25	BB	2421	G	Sidechain
25	BB	2422	C	Sidechain
25	BB	2423	U	Sidechain
25	BB	2424	C	Sidechain
25	BB	2425	A	Sidechain
25	BB	2427	C	Sidechain
25	BB	2428	G	Sidechain
25	BB	2429	G	Sidechain
25	BB	243	U	Sidechain
25	BB	2431	U	Sidechain
25	BB	2432	A	Sidechain
25	BB	2433	A	Sidechain
25	BB	2437	G	Sidechain
25	BB	2439	A	Sidechain
25	BB	244	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2440	C	Sidechain
25	BB	2443	C	Sidechain
25	BB	2444	G	Sidechain
25	BB	2445	G	Sidechain
25	BB	2447	G	Sidechain
25	BB	2448	A	Sidechain
25	BB	245	G	Sidechain
25	BB	2453	A	Sidechain
25	BB	2454	G	Sidechain
25	BB	2455	G	Sidechain
25	BB	2457	U	Sidechain
25	BB	2459	A	Sidechain
25	BB	246	C	Sidechain
25	BB	2460	U	Sidechain
25	BB	2462	C	Sidechain
25	BB	2463	C	Sidechain
25	BB	2464	G	Sidechain
25	BB	2465	C	Sidechain
25	BB	2466	C	Sidechain
25	BB	2467	C	Sidechain
25	BB	2469	A	Sidechain
25	BB	247	G	Sidechain
25	BB	2470	G	Sidechain
25	BB	2473	U	Sidechain
25	BB	2474	U	Sidechain
25	BB	2476	A	Sidechain
25	BB	2477	U	Sidechain
25	BB	248	G	Sidechain
25	BB	2480	C	Sidechain
25	BB	2482	A	Sidechain
25	BB	2484	G	Sidechain
25	BB	2485	G	Sidechain
25	BB	2487	G	Sidechain
25	BB	2488	G	Sidechain
25	BB	2489	U	Sidechain
25	BB	249	C	Sidechain
25	BB	2490	G	Sidechain
25	BB	2491	U	Sidechain
25	BB	2493	U	Sidechain
25	BB	2497	A	Sidechain
25	BB	2498	C	Sidechain
25	BB	2499	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	250	G	Sidechain
25	BB	2502	G	Sidechain
25	BB	2505	G	Sidechain
25	BB	2506	U	Sidechain
25	BB	2508	G	Sidechain
25	BB	2509	G	Sidechain
25	BB	2510	C	Sidechain
25	BB	2511	U	Sidechain
25	BB	2515	C	Sidechain
25	BB	2516	A	Sidechain
25	BB	2517	C	Sidechain
25	BB	2518	A	Sidechain
25	BB	252	G	Sidechain
25	BB	2520	C	Sidechain
25	BB	2521	C	Sidechain
25	BB	2522	U	Sidechain
25	BB	2524	G	Sidechain
25	BB	2525	G	Sidechain
25	BB	2526	G	Sidechain
25	BB	2528	U	Sidechain
25	BB	2529	G	Sidechain
25	BB	253	C	Sidechain
25	BB	2530	A	Sidechain
25	BB	2532	G	Sidechain
25	BB	2534	A	Sidechain
25	BB	2535	G	Sidechain
25	BB	2538	C	Sidechain
25	BB	2539	C	Sidechain
25	BB	2541	A	Sidechain
25	BB	2542	A	Sidechain
25	BB	2543	G	Sidechain
25	BB	2545	G	Sidechain
25	BB	2546	U	Sidechain
25	BB	2549	G	Sidechain
25	BB	255	A	Sidechain
25	BB	2550	G	Sidechain
25	BB	2551	C	Sidechain
25	BB	2552	U	Sidechain
25	BB	2553	G	Sidechain
25	BB	2555	U	Sidechain
25	BB	2557	G	Sidechain
25	BB	2558	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	256	A	Sidechain
25	BB	2560	A	Sidechain
25	BB	2562	U	Sidechain
25	BB	2563	U	Sidechain
25	BB	2564	A	Sidechain
25	BB	2569	G	Sidechain
25	BB	257	C	Sidechain
25	BB	2570	G	Sidechain
25	BB	2571	U	Sidechain
25	BB	2572	A	Sidechain
25	BB	2576	G	Sidechain
25	BB	2577	A	Sidechain
25	BB	2578	G	Sidechain
25	BB	2579	C	Sidechain
25	BB	258	G	Sidechain
25	BB	2580	U	Sidechain
25	BB	2581	G	Sidechain
25	BB	2582	G	Sidechain
25	BB	2583	G	Sidechain
25	BB	2585	U	Sidechain
25	BB	2586	U	Sidechain
25	BB	2588	G	Sidechain
25	BB	2590	A	Sidechain
25	BB	2591	C	Sidechain
25	BB	2593	U	Sidechain
25	BB	2594	C	Sidechain
25	BB	2595	G	Sidechain
25	BB	2596	U	Sidechain
25	BB	2597	G	Sidechain
25	BB	2598	A	Sidechain
25	BB	2599	G	Sidechain
25	BB	26	G	Sidechain
25	BB	260	G	Sidechain
25	BB	2600	A	Sidechain
25	BB	2601	C	Sidechain
25	BB	2602	A	Sidechain
25	BB	2604	U	Sidechain
25	BB	2605	U	Sidechain
25	BB	2606	C	Sidechain
25	BB	2609	U	Sidechain
25	BB	2611	C	Sidechain
25	BB	2614	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2615	U	Sidechain
25	BB	2617	U	Sidechain
25	BB	2618	G	Sidechain
25	BB	262	A	Sidechain
25	BB	2621	G	Sidechain
25	BB	2624	G	Sidechain
25	BB	2627	G	Sidechain
25	BB	2628	C	Sidechain
25	BB	2629	U	Sidechain
25	BB	2630	G	Sidechain
25	BB	2637	U	Sidechain
25	BB	2639	A	Sidechain
25	BB	264	C	Sidechain
25	BB	2640	G	Sidechain
25	BB	2641	G	Sidechain
25	BB	2642	G	Sidechain
25	BB	2644	G	Sidechain
25	BB	2645	G	Sidechain
25	BB	2646	C	Sidechain
25	BB	2647	U	Sidechain
25	BB	2649	C	Sidechain
25	BB	2651	C	Sidechain
25	BB	2652	C	Sidechain
25	BB	2653	U	Sidechain
25	BB	2654	A	Sidechain
25	BB	2655	G	Sidechain
25	BB	2656	U	Sidechain
25	BB	2658	C	Sidechain
25	BB	2659	G	Sidechain
25	BB	266	G	Sidechain
25	BB	2660	A	Sidechain
25	BB	2662	A	Sidechain
25	BB	2663	G	Sidechain
25	BB	2664	G	Sidechain
25	BB	2665	A	Sidechain
25	BB	2667	C	Sidechain
25	BB	2668	G	Sidechain
25	BB	267	C	Sidechain
25	BB	2671	G	Sidechain
25	BB	2673	G	Sidechain
25	BB	2674	G	Sidechain
25	BB	2675	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2676	C	Sidechain
25	BB	2677	G	Sidechain
25	BB	2680	U	Sidechain
25	BB	2682	A	Sidechain
25	BB	2684	U	Sidechain
25	BB	2685	G	Sidechain
25	BB	2686	G	Sidechain
25	BB	2687	U	Sidechain
25	BB	2688	G	Sidechain
25	BB	2689	U	Sidechain
25	BB	2690	U	Sidechain
25	BB	2691	C	Sidechain
25	BB	2692	G	Sidechain
25	BB	2694	G	Sidechain
25	BB	2696	U	Sidechain
25	BB	2697	G	Sidechain
25	BB	2698	U	Sidechain
25	BB	2699	C	Sidechain
25	BB	27	G	Sidechain
25	BB	2701	U	Sidechain
25	BB	2702	G	Sidechain
25	BB	2703	C	Sidechain
25	BB	2706	A	Sidechain
25	BB	2707	U	Sidechain
25	BB	2708	G	Sidechain
25	BB	2709	G	Sidechain
25	BB	271	G	Sidechain
25	BB	2710	C	Sidechain
25	BB	2712	C	Sidechain
25	BB	2714	G	Sidechain
25	BB	2715	C	Sidechain
25	BB	2716	C	Sidechain
25	BB	2717	C	Sidechain
25	BB	2718	G	Sidechain
25	BB	2719	G	Sidechain
25	BB	272	A	Sidechain
25	BB	2720	U	Sidechain
25	BB	2721	A	Sidechain
25	BB	2722	G	Sidechain
25	BB	2727	A	Sidechain
25	BB	2728	U	Sidechain
25	BB	2729	G	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	273	G	Sidechain
25	BB	2730	C	Sidechain
25	BB	2731	G	Sidechain
25	BB	2732	G	Sidechain
25	BB	2733	A	Sidechain
25	BB	2734	A	Sidechain
25	BB	2736	A	Sidechain
25	BB	2737	G	Sidechain
25	BB	2741	A	Sidechain
25	BB	2742	G	Sidechain
25	BB	2743	U	Sidechain
25	BB	2747	G	Sidechain
25	BB	2748	A	Sidechain
25	BB	2749	A	Sidechain
25	BB	275	C	Sidechain
25	BB	2751	G	Sidechain
25	BB	2752	C	Sidechain
25	BB	2753	A	Sidechain
25	BB	2756	U	Sidechain
25	BB	2757	A	Sidechain
25	BB	2758	A	Sidechain
25	BB	2759	G	Sidechain
25	BB	276	U	Sidechain
25	BB	2760	C	Sidechain
25	BB	2762	C	Sidechain
25	BB	2764	A	Sidechain
25	BB	2765	A	Sidechain
25	BB	2766	A	Sidechain
25	BB	2767	C	Sidechain
25	BB	2769	U	Sidechain
25	BB	2770	G	Sidechain
25	BB	2771	C	Sidechain
25	BB	2772	C	Sidechain
25	BB	2773	C	Sidechain
25	BB	2774	C	Sidechain
25	BB	2775	G	Sidechain
25	BB	2776	A	Sidechain
25	BB	2777	G	Sidechain
25	BB	2778	A	Sidechain
25	BB	278	A	Sidechain
25	BB	2780	G	Sidechain
25	BB	2781	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2782	G	Sidechain
25	BB	2783	U	Sidechain
25	BB	2784	U	Sidechain
25	BB	2785	C	Sidechain
25	BB	2786	U	Sidechain
25	BB	2788	C	Sidechain
25	BB	2793	C	Sidechain
25	BB	2795	C	Sidechain
25	BB	28	A	Sidechain
25	BB	280	U	Sidechain
25	BB	2800	A	Sidechain
25	BB	2801	G	Sidechain
25	BB	2802	G	Sidechain
25	BB	2804	U	Sidechain
25	BB	2807	U	Sidechain
25	BB	2808	G	Sidechain
25	BB	2809	A	Sidechain
25	BB	281	C	Sidechain
25	BB	2810	A	Sidechain
25	BB	2811	G	Sidechain
25	BB	2812	G	Sidechain
25	BB	2813	A	Sidechain
25	BB	2814	A	Sidechain
25	BB	2815	C	Sidechain
25	BB	2816	G	Sidechain
25	BB	2818	U	Sidechain
25	BB	2819	G	Sidechain
25	BB	282	A	Sidechain
25	BB	2821	A	Sidechain
25	BB	2822	G	Sidechain
25	BB	2824	C	Sidechain
25	BB	2825	G	Sidechain
25	BB	2826	A	Sidechain
25	BB	2827	C	Sidechain
25	BB	2828	G	Sidechain
25	BB	2829	A	Sidechain
25	BB	283	G	Sidechain
25	BB	2830	C	Sidechain
25	BB	2831	G	Sidechain
25	BB	2832	U	Sidechain
25	BB	2834	G	Sidechain
25	BB	2835	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2836	U	Sidechain
25	BB	2838	G	Sidechain
25	BB	2839	G	Sidechain
25	BB	2840	C	Sidechain
25	BB	2842	G	Sidechain
25	BB	2843	G	Sidechain
25	BB	2844	G	Sidechain
25	BB	2845	U	Sidechain
25	BB	2846	G	Sidechain
25	BB	2847	U	Sidechain
25	BB	2848	G	Sidechain
25	BB	2849	U	Sidechain
25	BB	2850	A	Sidechain
25	BB	2851	A	Sidechain
25	BB	2856	A	Sidechain
25	BB	2857	G	Sidechain
25	BB	2858	C	Sidechain
25	BB	2859	G	Sidechain
25	BB	286	U	Sidechain
25	BB	2860	A	Sidechain
25	BB	2861	U	Sidechain
25	BB	2862	G	Sidechain
25	BB	2864	G	Sidechain
25	BB	2867	G	Sidechain
25	BB	2868	A	Sidechain
25	BB	2869	G	Sidechain
25	BB	2871	U	Sidechain
25	BB	2874	C	Sidechain
25	BB	2875	C	Sidechain
25	BB	2876	G	Sidechain
25	BB	2879	A	Sidechain
25	BB	288	U	Sidechain
25	BB	2881	U	Sidechain
25	BB	2882	A	Sidechain
25	BB	2887	A	Sidechain
25	BB	2888	C	Sidechain
25	BB	2890	G	Sidechain
25	BB	2891	U	Sidechain
25	BB	2893	A	Sidechain
25	BB	2896	C	Sidechain
25	BB	2897	U	Sidechain
25	BB	2898	U	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	2902	C	Sidechain
25	BB	2903	U	Sidechain
25	BB	292	U	Sidechain
25	BB	294	A	Sidechain
25	BB	295	G	Sidechain
25	BB	296	U	Sidechain
25	BB	298	G	Sidechain
25	BB	299	A	Sidechain
25	BB	3	U	Sidechain
25	BB	30	G	Sidechain
25	BB	302	C	Sidechain
25	BB	306	U	Sidechain
25	BB	307	G	Sidechain
25	BB	310	A	Sidechain
25	BB	311	A	Sidechain
25	BB	314	C	Sidechain
25	BB	316	C	Sidechain
25	BB	317	G	Sidechain
25	BB	32	C	Sidechain
25	BB	320	A	Sidechain
25	BB	322	A	Sidechain
25	BB	325	G	Sidechain
25	BB	327	G	Sidechain
25	BB	329	G	Sidechain
25	BB	33	C	Sidechain
25	BB	331	C	Sidechain
25	BB	333	G	Sidechain
25	BB	334	C	Sidechain
25	BB	335	C	Sidechain
25	BB	336	C	Sidechain
25	BB	337	C	Sidechain
25	BB	338	G	Sidechain
25	BB	339	U	Sidechain
25	BB	34	U	Sidechain
25	BB	340	A	Sidechain
25	BB	341	C	Sidechain
25	BB	342	A	Sidechain
25	BB	344	A	Sidechain
25	BB	346	A	Sidechain
25	BB	347	A	Sidechain
25	BB	348	A	Sidechain
25	BB	349	U	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	35	G	Sidechain
25	BB	350	G	Sidechain
25	BB	351	C	Sidechain
25	BB	353	C	Sidechain
25	BB	354	A	Sidechain
25	BB	356	G	Sidechain
25	BB	357	C	Sidechain
25	BB	359	G	Sidechain
25	BB	36	G	Sidechain
25	BB	360	U	Sidechain
25	BB	361	G	Sidechain
25	BB	363	G	Sidechain
25	BB	364	C	Sidechain
25	BB	365	U	Sidechain
25	BB	368	A	Sidechain
25	BB	369	U	Sidechain
25	BB	37	C	Sidechain
25	BB	370	G	Sidechain
25	BB	371	A	Sidechain
25	BB	375	G	Sidechain
25	BB	376	G	Sidechain
25	BB	377	G	Sidechain
25	BB	378	C	Sidechain
25	BB	379	G	Sidechain
25	BB	380	G	Sidechain
25	BB	381	G	Sidechain
25	BB	382	A	Sidechain
25	BB	384	A	Sidechain
25	BB	385	C	Sidechain
25	BB	386	G	Sidechain
25	BB	388	G	Sidechain
25	BB	389	G	Sidechain
25	BB	39	G	Sidechain
25	BB	390	U	Sidechain
25	BB	392	U	Sidechain
25	BB	393	C	Sidechain
25	BB	394	C	Sidechain
25	BB	396	G	Sidechain
25	BB	398	C	Sidechain
25	BB	399	U	Sidechain
25	BB	4	U	Sidechain
25	BB	400	G	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	402	A	Sidechain
25	BB	403	U	Sidechain
25	BB	404	A	Sidechain
25	BB	405	U	Sidechain
25	BB	406	G	Sidechain
25	BB	409	G	Sidechain
25	BB	41	C	Sidechain
25	BB	412	A	Sidechain
25	BB	413	C	Sidechain
25	BB	416	U	Sidechain
25	BB	417	C	Sidechain
25	BB	42	A	Sidechain
25	BB	423	A	Sidechain
25	BB	425	G	Sidechain
25	BB	429	A	Sidechain
25	BB	432	A	Sidechain
25	BB	434	U	Sidechain
25	BB	436	C	Sidechain
25	BB	437	U	Sidechain
25	BB	438	G	Sidechain
25	BB	439	A	Sidechain
25	BB	44	A	Sidechain
25	BB	441	U	Sidechain
25	BB	443	A	Sidechain
25	BB	444	C	Sidechain
25	BB	445	C	Sidechain
25	BB	446	G	Sidechain
25	BB	447	A	Sidechain
25	BB	448	U	Sidechain
25	BB	449	A	Sidechain
25	BB	45	G	Sidechain
25	BB	453	A	Sidechain
25	BB	456	C	Sidechain
25	BB	457	A	Sidechain
25	BB	459	U	Sidechain
25	BB	46	G	Sidechain
25	BB	461	C	Sidechain
25	BB	463	G	Sidechain
25	BB	464	U	Sidechain
25	BB	465	G	Sidechain
25	BB	469	G	Sidechain
25	BB	47	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	471	A	Sidechain
25	BB	473	G	Sidechain
25	BB	474	G	Sidechain
25	BB	475	C	Sidechain
25	BB	477	A	Sidechain
25	BB	478	A	Sidechain
25	BB	479	A	Sidechain
25	BB	481	G	Sidechain
25	BB	482	A	Sidechain
25	BB	483	A	Sidechain
25	BB	486	C	Sidechain
25	BB	487	C	Sidechain
25	BB	488	G	Sidechain
25	BB	489	G	Sidechain
25	BB	491	G	Sidechain
25	BB	492	A	Sidechain
25	BB	493	G	Sidechain
25	BB	494	G	Sidechain
25	BB	495	G	Sidechain
25	BB	496	G	Sidechain
25	BB	499	U	Sidechain
25	BB	50	U	Sidechain
25	BB	500	G	Sidechain
25	BB	505	A	Sidechain
25	BB	506	G	Sidechain
25	BB	51	G	Sidechain
25	BB	511	U	Sidechain
25	BB	512	G	Sidechain
25	BB	513	A	Sidechain
25	BB	514	A	Sidechain
25	BB	515	A	Sidechain
25	BB	516	C	Sidechain
25	BB	518	G	Sidechain
25	BB	519	U	Sidechain
25	BB	52	A	Sidechain
25	BB	520	G	Sidechain
25	BB	521	U	Sidechain
25	BB	523	C	Sidechain
25	BB	524	G	Sidechain
25	BB	525	U	Sidechain
25	BB	526	A	Sidechain
25	BB	529	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	53	A	Sidechain
25	BB	531	C	Sidechain
25	BB	532	A	Sidechain
25	BB	533	G	Sidechain
25	BB	534	U	Sidechain
25	BB	535	G	Sidechain
25	BB	536	G	Sidechain
25	BB	537	G	Sidechain
25	BB	539	G	Sidechain
25	BB	54	G	Sidechain
25	BB	541	A	Sidechain
25	BB	542	C	Sidechain
25	BB	543	G	Sidechain
25	BB	545	U	Sidechain
25	BB	546	U	Sidechain
25	BB	547	A	Sidechain
25	BB	548	G	Sidechain
25	BB	549	G	Sidechain
25	BB	55	G	Sidechain
25	BB	552	U	Sidechain
25	BB	553	G	Sidechain
25	BB	554	U	Sidechain
25	BB	555	G	Sidechain
25	BB	556	A	Sidechain
25	BB	559	G	Sidechain
25	BB	56	A	Sidechain
25	BB	560	C	Sidechain
25	BB	562	U	Sidechain
25	BB	565	C	Sidechain
25	BB	566	U	Sidechain
25	BB	567	U	Sidechain
25	BB	568	U	Sidechain
25	BB	570	G	Sidechain
25	BB	571	U	Sidechain
25	BB	572	A	Sidechain
25	BB	573	U	Sidechain
25	BB	576	U	Sidechain
25	BB	577	G	Sidechain
25	BB	578	G	Sidechain
25	BB	579	G	Sidechain
25	BB	58	G	Sidechain
25	BB	581	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	583	G	Sidechain
25	BB	584	C	Sidechain
25	BB	585	G	Sidechain
25	BB	586	A	Sidechain
25	BB	587	C	Sidechain
25	BB	589	U	Sidechain
25	BB	590	A	Sidechain
25	BB	591	U	Sidechain
25	BB	592	A	Sidechain
25	BB	594	U	Sidechain
25	BB	596	U	Sidechain
25	BB	598	U	Sidechain
25	BB	6	A	Sidechain
25	BB	60	G	Sidechain
25	BB	600	G	Sidechain
25	BB	603	A	Sidechain
25	BB	604	G	Sidechain
25	BB	606	U	Sidechain
25	BB	608	A	Sidechain
25	BB	609	A	Sidechain
25	BB	61	C	Sidechain
25	BB	611	C	Sidechain
25	BB	612	G	Sidechain
25	BB	613	A	Sidechain
25	BB	614	A	Sidechain
25	BB	617	G	Sidechain
25	BB	618	G	Sidechain
25	BB	620	G	Sidechain
25	BB	621	A	Sidechain
25	BB	623	C	Sidechain
25	BB	625	G	Sidechain
25	BB	628	G	Sidechain
25	BB	629	G	Sidechain
25	BB	630	G	Sidechain
25	BB	631	A	Sidechain
25	BB	633	A	Sidechain
25	BB	636	G	Sidechain
25	BB	638	G	Sidechain
25	BB	641	U	Sidechain
25	BB	644	A	Sidechain
25	BB	645	C	Sidechain
25	BB	646	U	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	647	G	Sidechain
25	BB	648	G	Sidechain
25	BB	649	G	Sidechain
25	BB	65	U	Sidechain
25	BB	652	U	Sidechain
25	BB	655	A	Sidechain
25	BB	656	G	Sidechain
25	BB	66	C	Sidechain
25	BB	663	G	Sidechain
25	BB	664	G	Sidechain
25	BB	665	U	Sidechain
25	BB	667	U	Sidechain
25	BB	668	A	Sidechain
25	BB	669	G	Sidechain
25	BB	67	U	Sidechain
25	BB	671	C	Sidechain
25	BB	673	C	Sidechain
25	BB	674	G	Sidechain
25	BB	675	A	Sidechain
25	BB	676	A	Sidechain
25	BB	677	A	Sidechain
25	BB	678	C	Sidechain
25	BB	679	C	Sidechain
25	BB	68	G	Sidechain
25	BB	682	G	Sidechain
25	BB	684	G	Sidechain
25	BB	685	A	Sidechain
25	BB	687	C	Sidechain
25	BB	689	A	Sidechain
25	BB	69	C	Sidechain
25	BB	690	G	Sidechain
25	BB	691	C	Sidechain
25	BB	692	C	Sidechain
25	BB	693	A	Sidechain
25	BB	695	G	Sidechain
25	BB	696	G	Sidechain
25	BB	697	G	Sidechain
25	BB	699	A	Sidechain
25	BB	7	G	Sidechain
25	BB	70	G	Sidechain
25	BB	700	G	Sidechain
25	BB	701	G	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	703	U	Sidechain
25	BB	704	G	Sidechain
25	BB	705	A	Sidechain
25	BB	706	A	Sidechain
25	BB	708	G	Sidechain
25	BB	712	G	Sidechain
25	BB	713	G	Sidechain
25	BB	714	U	Sidechain
25	BB	715	A	Sidechain
25	BB	716	A	Sidechain
25	BB	718	A	Sidechain
25	BB	719	C	Sidechain
25	BB	720	U	Sidechain
25	BB	723	C	Sidechain
25	BB	725	G	Sidechain
25	BB	731	C	Sidechain
25	BB	732	C	Sidechain
25	BB	733	G	Sidechain
25	BB	735	A	Sidechain
25	BB	736	C	Sidechain
25	BB	738	G	Sidechain
25	BB	739	A	Sidechain
25	BB	74	A	Sidechain
25	BB	740	C	Sidechain
25	BB	741	U	Sidechain
25	BB	745	G	Sidechain
25	BB	746	U	Sidechain
25	BB	747	U	Sidechain
25	BB	748	G	Sidechain
25	BB	754	U	Sidechain
25	BB	758	C	Sidechain
25	BB	76	C	Sidechain
25	BB	761	A	Sidechain
25	BB	764	A	Sidechain
25	BB	765	C	Sidechain
25	BB	767	U	Sidechain
25	BB	768	G	Sidechain
25	BB	769	U	Sidechain
25	BB	77	G	Sidechain
25	BB	770	G	Sidechain
25	BB	771	G	Sidechain
25	BB	773	U	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	774	G	Sidechain
25	BB	775	G	Sidechain
25	BB	776	G	Sidechain
25	BB	777	G	Sidechain
25	BB	778	G	Sidechain
25	BB	779	U	Sidechain
25	BB	78	U	Sidechain
25	BB	780	G	Sidechain
25	BB	782	A	Sidechain
25	BB	784	G	Sidechain
25	BB	785	G	Sidechain
25	BB	786	C	Sidechain
25	BB	788	A	Sidechain
25	BB	79	C	Sidechain
25	BB	792	A	Sidechain
25	BB	794	A	Sidechain
25	BB	795	C	Sidechain
25	BB	796	C	Sidechain
25	BB	797	G	Sidechain
25	BB	798	G	Sidechain
25	BB	799	G	Sidechain
25	BB	8	C	Sidechain
25	BB	80	G	Sidechain
25	BB	800	A	Sidechain
25	BB	801	G	Sidechain
25	BB	802	A	Sidechain
25	BB	803	U	Sidechain
25	BB	804	A	Sidechain
25	BB	805	G	Sidechain
25	BB	807	U	Sidechain
25	BB	808	G	Sidechain
25	BB	81	G	Sidechain
25	BB	811	U	Sidechain
25	BB	812	C	Sidechain
25	BB	813	U	Sidechain
25	BB	815	C	Sidechain
25	BB	817	C	Sidechain
25	BB	818	G	Sidechain
25	BB	819	A	Sidechain
25	BB	823	C	Sidechain
25	BB	824	U	Sidechain
25	BB	826	U	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	827	U	Sidechain
25	BB	828	U	Sidechain
25	BB	829	A	Sidechain
25	BB	83	A	Sidechain
25	BB	830	G	Sidechain
25	BB	832	U	Sidechain
25	BB	833	A	Sidechain
25	BB	835	C	Sidechain
25	BB	836	G	Sidechain
25	BB	837	C	Sidechain
25	BB	838	C	Sidechain
25	BB	839	U	Sidechain
25	BB	84	A	Sidechain
25	BB	840	C	Sidechain
25	BB	843	G	Sidechain
25	BB	844	A	Sidechain
25	BB	845	A	Sidechain
25	BB	849	A	Sidechain
25	BB	85	G	Sidechain
25	BB	851	C	Sidechain
25	BB	852	U	Sidechain
25	BB	854	C	Sidechain
25	BB	855	G	Sidechain
25	BB	856	G	Sidechain
25	BB	857	G	Sidechain
25	BB	858	G	Sidechain
25	BB	859	G	Sidechain
25	BB	86	G	Sidechain
25	BB	860	U	Sidechain
25	BB	861	A	Sidechain
25	BB	862	G	Sidechain
25	BB	863	A	Sidechain
25	BB	864	G	Sidechain
25	BB	865	C	Sidechain
25	BB	867	C	Sidechain
25	BB	868	U	Sidechain
25	BB	869	G	Sidechain
25	BB	871	U	Sidechain
25	BB	874	G	Sidechain
25	BB	875	G	Sidechain
25	BB	877	A	Sidechain
25	BB	878	A	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	879	G	Sidechain
25	BB	88	G	Sidechain
25	BB	880	G	Sidechain
25	BB	881	G	Sidechain
25	BB	882	G	Sidechain
25	BB	884	U	Sidechain
25	BB	885	C	Sidechain
25	BB	888	C	Sidechain
25	BB	89	A	Sidechain
25	BB	892	A	Sidechain
25	BB	894	U	Sidechain
25	BB	9	G	Sidechain
25	BB	900	A	Sidechain
25	BB	901	C	Sidechain
25	BB	902	C	Sidechain
25	BB	904	G	Sidechain
25	BB	905	A	Sidechain
25	BB	906	U	Sidechain
25	BB	907	G	Sidechain
25	BB	909	A	Sidechain
25	BB	91	A	Sidechain
25	BB	910	A	Sidechain
25	BB	911	A	Sidechain
25	BB	912	C	Sidechain
25	BB	917	A	Sidechain
25	BB	918	A	Sidechain
25	BB	919	U	Sidechain
25	BB	92	U	Sidechain
25	BB	920	A	Sidechain
25	BB	921	C	Sidechain
25	BB	923	G	Sidechain
25	BB	924	G	Sidechain
25	BB	926	G	Sidechain
25	BB	927	A	Sidechain
25	BB	931	U	Sidechain
25	BB	932	U	Sidechain
25	BB	933	A	Sidechain
25	BB	938	G	Sidechain
25	BB	939	G	Sidechain
25	BB	94	A	Sidechain
25	BB	943	A	Sidechain
25	BB	944	C	Sidechain

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Mol	Chain	Res	Type	Group
25	BB	947	A	Sidechain
25	BB	949	G	Sidechain
25	BB	95	A	Sidechain
25	BB	952	G	Sidechain
25	BB	953	G	Sidechain
25	BB	954	G	Sidechain
25	BB	955	U	Sidechain
25	BB	956	G	Sidechain
25	BB	959	A	Sidechain
25	BB	96	C	Sidechain
25	BB	960	A	Sidechain
25	BB	962	G	Sidechain
25	BB	963	U	Sidechain
25	BB	965	C	Sidechain
25	BB	968	C	Sidechain
25	BB	969	G	Sidechain
25	BB	970	U	Sidechain
25	BB	971	G	Sidechain
25	BB	972	A	Sidechain
25	BB	973	A	Sidechain
25	BB	974	G	Sidechain
25	BB	977	G	Sidechain
25	BB	978	G	Sidechain
25	BB	98	G	Sidechain
25	BB	984	A	Sidechain
25	BB	985	C	Sidechain
25	BB	987	C	Sidechain
25	BB	988	A	Sidechain
25	BB	991	C	Sidechain
25	BB	992	C	Sidechain
25	BB	995	C	Sidechain
25	BB	997	G	Sidechain
25	BB	998	C	Sidechain
26	BC	25	LYS	Peptide
26	BC	82	TYR	Sidechain
27	BD	11	ALA	Peptide
27	BD	29	HIS	Sidechain,Peptide
27	BD	40	LYS	Peptide
28	BE	107	PHE	Sidechain
28	BE	54	GLN	Peptide
28	BE	66	PHE	Sidechain
28	BE	80	SER	Peptide

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Mol	Chain	Res	Type	Group
28	BE	86	GLU	Sidechain
29	BF	114	ARG	Sidechain,Peptide
29	BF	117	PHE	Sidechain
29	BF	38	ARG	Sidechain
29	BF	55	ARG	Sidechain
29	BF	76	LYS	Peptide
29	BF	8	LYS	Peptide
29	BF	9	PHE	Sidechain
29	BF	99	GLY	Peptide
30	BG	100	CYS	Peptide
30	BG	103	ARG	Sidechain
30	BG	112	TYR	Sidechain
30	BG	118	ARG	Sidechain
30	BG	90	ARG	Sidechain
31	BH	24	THR	Peptide
31	BH	48	LEU	Mainchain
31	BH	69	ASP	Sidechain
31	BH	71	ALA	Peptide
31	BH	9	ARG	Sidechain
31	BH	92	PHE	Sidechain
31	BH	99	TYR	Sidechain
32	BI	102	ARG	Sidechain
32	BI	32	VAL	Peptide
32	BI	5	LYS	Peptide
32	BI	63	ILE	Peptide
32	BI	92	ARG	Sidechain
32	BI	97	TYR	Sidechain
33	BJ	24	TYR	Sidechain
33	BJ	57	ARG	Sidechain
33	BJ	75	TYR	Sidechain
34	BK	10	LYS	Peptide
34	BK	2	TYR	Sidechain
34	BK	23	GLU	Sidechain
34	BK	42	ALA	Peptide
34	BK	5	PHE	Sidechain
34	BK	57	GLY	Peptide
34	BK	75	VAL	Peptide
34	BK	81	LYS	Peptide
34	BK	84	ARG	Sidechain
34	BK	87	GLN	Peptide
34	BK	92	TRP	Peptide
35	BL	11	ARG	Sidechain

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Mol	Chain	Res	Type	Group
35	BL	25	ARG	Sidechain
35	BL	78	GLU	Peptide
35	BL	93	ALA	Peptide
36	BM	38	ALA	Peptide
36	BM	51	PHE	Mainchain
36	BM	53	VAL	Peptide
37	BN	12	ARG	Sidechain,Peptide
37	BN	127	ASN	Peptide
37	BN	145	MET	Peptide
37	BN	146	LYS	Peptide
37	BN	164	VAL	Peptide
37	BN	249	VAL	Peptide
37	BN	39	SER	Peptide
37	BN	52	HIS	Sidechain
37	BN	62	ARG	Sidechain
37	BN	63	ILE	Peptide
37	BN	68	ARG	Sidechain
38	BO	21	ARG	Sidechain
38	BO	7	ASP	Peptide
38	BO	70	ALA	Peptide
38	BO	75	ALA	Peptide
39	BP	19	ARG	Sidechain
39	BP	23	LYS	Mainchain
39	BP	27	GLY	Peptide
39	BP	31	LEU	Peptide
39	BP	4	LYS	Peptide
39	BP	76	ARG	Sidechain
39	BP	80	SER	Peptide
41	BR	15	ARG	Sidechain
41	BR	17	PRO	Mainchain
41	BR	19	HIS	Sidechain
41	BR	37	ARG	Peptide
42	BS	13	THR	Peptide
42	BS	3	LYS	Peptide
42	BS	49	ARG	Peptide
42	BS	56	ARG	Sidechain
42	BS	60	PHE	Sidechain
42	BS	64	PHE	Sidechain
42	BS	9	TYR	Peptide
43	BT	14	MET	Peptide
43	BT	18	HIS	Sidechain
43	BT	39	ARG	Sidechain

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Mol	Chain	Res	Type	Group
44	BU	24	LYS	Peptide
44	BU	32	LYS	Peptide
44	BU	51	ALA	Peptide
45	BV	33	ARG	Sidechain
45	BV	35	ARG	Sidechain
45	BV	4	THR	Peptide
45	BV	5	PHE	Peptide
46	BW	11	LYS	Peptide
46	BW	12	ARG	Sidechain
46	BW	13	PHE	Sidechain
46	BW	22	LYS	Peptide
46	BW	25	HIS	Sidechain
46	BW	29	ARG	Sidechain
46	BW	51	LYS	Peptide
47	BX	15	LYS	Peptide
48	BY	128	ARG	Sidechain
48	BY	153	GLY	Peptide
48	BY	29	VAL	Peptide
48	BY	41	ALA	Peptide
48	BY	45	TYR	Sidechain
48	BY	59	ARG	Sidechain
48	BY	7	LYS	Peptide
48	BY	83	ARG	Sidechain
49	BZ	106	GLN	Peptide
49	BZ	108	GLU	Mainchain
49	BZ	110	PHE	Sidechain
49	BZ	147	TYR	Sidechain
49	BZ	150	ARG	Sidechain
49	BZ	151	PHE	Sidechain
49	BZ	157	VAL	Peptide
49	BZ	207	THR	Peptide
49	BZ	217	ARG	Sidechain

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	1600	0	754	13	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AE	1622	0	773	5	0
1	AP	1600	0	756	42	0
2	AM	397	0	202	4	0
3	A1	32828	0	15398	146	0
4	AB	1704	0	1732	8	0
5	AC	876	0	887	5	0
6	AD	954	0	1019	5	0
7	AF	883	0	944	5	0
8	AG	773	0	825	4	0
9	AH	715	0	742	3	0
10	AI	648	0	666	0	0
11	AJ	648	0	691	2	0
12	AK	455	0	478	1	0
13	AL	637	0	665	5	0
14	AN	664	0	714	5	0
15	AO	1624	0	1699	3	0
16	AQ	425	0	449	1	0
17	AR	1642	0	1710	7	0
18	AS	1105	0	1148	5	0
19	AT	817	0	808	2	0
20	AU	1174	0	1230	1	0
21	AV	978	0	1034	3	0
22	AW	1021	0	1070	0	0
23	AX	786	0	828	8	0
24	BA	2504	0	1160	13	0
25	BB	62317	0	29301	263	0
26	BC	752	0	780	2	0
27	BD	930	0	1000	1	0
28	BE	1052	0	1129	7	0
29	BF	1073	0	1157	10	0
30	BG	1007	0	1045	6	0
31	BH	899	0	935	2	0
32	BI	916	0	965	6	0
33	BJ	946	0	1022	3	0
34	BK	815	0	839	5	0
35	BL	856	0	922	2	0
36	BM	777	0	840	5	0
37	BN	2053	0	2122	11	0
38	BO	779	0	834	8	0
39	BP	633	0	656	0	0
40	BQ	508	0	543	5	0
41	BR	448	0	491	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
42	BS	548	0	552	0	0
43	BT	443	0	461	1	0
44	BU	440	0	485	1	0
45	BV	376	0	418	5	0
46	BW	503	0	574	4	0
47	BX	301	0	343	0	0
48	BY	1564	0	1616	8	0
49	BZ	1687	0	1814	4	0
50	B1	1551	0	1619	5	0
51	B2	1419	0	1460	6	0
52	B3	1322	0	1374	5	0
53	B4	1110	0	1148	2	0
54	B5	1031	0	1088	2	0
55	B6	1112	0	1147	2	0
All	All	149248	0	97062	558	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 2.

All (558) 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)
25:BB:1687:G:C2'	25:BB:1687:G:C3'	1.94	1.42
25:BB:1687:G:C2'	25:BB:1687:G:C1'	1.98	1.40
1:AP:31:A:C2'	3:A1:1340:A:H3'	1.50	1.40
25:BB:1687:G:C3'	25:BB:1687:G:C4'	1.99	1.37
1:AP:31:A:C2'	1:AP:31:A:C1'	2.04	1.35
1:AP:31:A:C2'	1:AP:31:A:C3'	2.06	1.32
1:AP:31:A:C3'	1:AP:31:A:C4'	2.08	1.30
25:BB:1687:G:C4'	25:BB:1687:G:O4'	1.85	1.25
25:BB:1687:G:C1'	25:BB:1687:G:O4'	1.87	1.21
25:BB:995:C:C4	25:BB:1159:U:H1'	1.77	1.20
1:AP:31:A:C4'	1:AP:31:A:O4'	1.92	1.17
25:BB:995:C:C4	25:BB:1159:U:C2	2.34	1.15
1:AP:31:A:C1'	1:AP:31:A:O4'	2.00	1.10
1:AP:31:A:C1'	3:A1:1340:A:C3'	2.30	1.09
1:AP:31:A:C2'	3:A1:1340:A:C3'	2.34	1.06
1:AP:31:A:C3'	3:A1:1340:A:C3'	2.34	1.06
1:AP:31:A:C4'	3:A1:1340:A:C3'	2.34	1.06
3:A1:1418:A:C6	25:BB:1960:A:P	2.49	1.05
3:A1:1418:A:C2	25:BB:1960:A:P	2.50	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A1:1418:A:C5	25:BB:1960:A:P	2.51	1.04
3:A1:1429:A:P	25:BB:1687:G:C1'	2.45	1.04
3:A1:1418:A:C4	25:BB:1960:A:P	2.50	1.04
25:BB:995:C:N4	25:BB:995:C:H5	1.55	1.02
3:A1:1429:A:P	25:BB:1687:G:C4'	2.51	0.99
25:BB:995:C:N4	25:BB:995:C:C5	2.32	0.97
1:AP:31:A:C4'	3:A1:1340:A:O3'	2.12	0.97
3:A1:1418:A:C6	25:BB:1959:G:O3'	2.19	0.96
3:A1:1429:A:P	25:BB:1687:G:C3'	2.54	0.95
1:AP:31:A:H2'	3:A1:1340:A:H3'	1.49	0.93
3:A1:1418:A:C4	25:BB:1959:G:O3'	2.22	0.92
3:A1:1418:A:C5	25:BB:1959:G:O3'	2.22	0.92
3:A1:1429:A:P	25:BB:1687:G:C2'	2.59	0.91
3:A1:1418:A:C2	25:BB:1959:G:O3'	2.23	0.91
25:BB:995:C:C4	25:BB:1159:U:C1'	2.53	0.91
25:BB:995:C:N3	25:BB:1159:U:H1'	1.86	0.90
1:AP:31:A:C2'	3:A1:1340:A:O3'	2.20	0.89
1:AP:31:A:C1'	3:A1:1340:A:O3'	2.20	0.89
1:AP:31:A:C3'	3:A1:1340:A:O3'	2.20	0.89
3:A1:1429:A:O5'	25:BB:1687:G:C1'	2.21	0.88
1:AP:31:A:O4'	3:A1:1340:A:C3'	2.23	0.86
3:A1:1429:A:O5'	25:BB:1687:G:C2'	2.22	0.86
1:AP:74:C:O2'	1:AP:75:C:H5"	1.75	0.85
3:A1:1429:A:O5'	25:BB:1687:G:C4'	2.24	0.84
3:A1:1429:A:O5'	25:BB:1687:G:C3'	2.27	0.82
1:AP:31:A:C1'	3:A1:1340:A:H3'	2.08	0.81
1:AP:31:A:C3'	3:A1:1340:A:H3'	2.10	0.81
3:A1:1418:A:N1	25:BB:1960:A:P	2.52	0.81
3:A1:1418:A:N3	25:BB:1960:A:P	2.55	0.79
1:AP:75:C:C5	25:BB:2253:G:O6	2.36	0.79
3:A1:1429:A:P	25:BB:1687:G:O4'	2.40	0.79
25:BB:995:C:C4	25:BB:1159:U:N1	2.54	0.75
38:BO:58:VAL:HG22	38:BO:59:GLU:H	1.52	0.74
25:BB:995:C:C4	25:BB:1159:U:O2	2.41	0.73
32:BI:29:VAL:HG22	32:BI:30:TRP:H	1.53	0.73
1:AP:31:A:O4'	3:A1:1340:A:O3'	2.08	0.72
1:AA:73:A:H2'	1:AA:74:C:H5'	1.73	0.71
3:A1:1429:A:HO5'	25:BB:1687:G:C2'	2.05	0.70
3:A1:1418:A:N1	25:BB:1959:G:O3'	2.25	0.69
33:BJ:30:VAL:HG23	33:BJ:31:TYR:H	1.58	0.69
3:A1:1429:A:O5'	25:BB:1687:G:O4'	2.13	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A1:1418:A:C4	25:BB:1959:G:C3’	2.81	0.63
30:BG:108:ALA:HB1	30:BG:109:PRO:HD2	1.81	0.63
25:BB:102:U:C5	40:BQ:4:LYS:HE2	2.34	0.63
25:BB:1251:C:H1’	25:BB:1252:G:H3’	1.79	0.62
25:BB:845:A:H2’	25:BB:846:U:H5”	1.82	0.62
1:AA:73:A:C2’	1:AA:74:C:H5’	2.31	0.61
25:BB:571:U:H3	25:BB:2499:C:H5’	1.66	0.60
8:AG:1:ALA:HA	8:AG:4:SER:HB3	1.83	0.60
3:A1:1428:A:O3’	25:BB:1687:G:H3’	2.02	0.60
3:A1:1429:A:P	25:BB:1687:G:H1’	2.36	0.60
25:BB:770:G:H5’	45:BV:10:LEU:HD11	1.83	0.60
25:BB:2495:G:H3’	25:BB:2496:C:H4’	1.84	0.59
3:A1:527:G:H3’	3:A1:528:C:H5”	1.85	0.59
3:A1:507:C:N4	3:A1:509:A:H62	2.00	0.59
25:BB:1927:A:C2	25:BB:1928:A:H1’	2.37	0.58
40:BQ:14:LEU:H	40:BQ:14:LEU:HD22	1.69	0.58
1:AP:31:A:C1’	3:A1:1340:A:H4’	2.34	0.58
24:BA:114:C:H2’	24:BA:115:A:C8	2.39	0.58
17:AR:27:ILE:HD12	17:AR:27:ILE:H	1.67	0.58
3:A1:1225:A:H3’	3:A1:1226:C:H5”	1.86	0.58
25:BB:1813:G:N2	37:BN:51:ARG:HH11	2.02	0.57
36:BM:7:LEU:HD23	36:BM:46:ALA:HB1	1.85	0.57
3:A1:1458:G:H5’	14:AN:21:ALA:HB1	1.87	0.57
25:BB:2783:U:H2’	25:BB:2784:U:C6	2.40	0.56
1:AP:31:A:C1’	3:A1:1340:A:C4’	2.83	0.56
25:BB:2737:G:H21	55:B6:92:MET:HE2	1.71	0.56
1:AP:75:C:C4	25:BB:2253:G:O6	2.58	0.56
1:AP:31:A:C4’	3:A1:1340:A:C2’	2.84	0.56
25:BB:207:A:C2	25:BB:208:C:H1’	2.41	0.56
3:A1:958:A:H62	13:AL:77:ARG:HB3	1.71	0.55
1:AP:31:A:H4’	3:A1:1340:A:C2’	2.36	0.55
3:A1:705:G:C4	3:A1:706:A:H1’	2.42	0.55
25:BB:188:G:C8	25:BB:189:G:C5	2.94	0.55
25:BB:609:A:C5	25:BB:610:C:H1’	2.42	0.55
52:B3:25:ILE:HG22	52:B3:74:MET:HE2	1.88	0.55
30:BG:34:ILE:HD13	30:BG:113:ILE:HD11	1.87	0.54
5:AC:31:VAL:HG21	5:AC:66:ALA:HA	1.89	0.54
21:AV:71:VAL:O	21:AV:74:ILE:HG22	2.07	0.54
3:A1:859:G:H4’	4:AB:25:LYS:HE3	1.90	0.54
14:AN:67:HIS:CG	14:AN:68:LYS:H	2.25	0.54
3:A1:1418:A:C5	25:BB:1960:A:OP2	2.60	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A1:654:G:C4	3:A1:753:A:C8	2.96	0.54
3:A1:1303:C:H2'	3:A1:1304:G:H5'	1.90	0.54
25:BB:445:C:N4	25:BB:446:G:H22	2.06	0.54
25:BB:995:C:N3	25:BB:1159:U:O2	2.41	0.54
8:AG:17:ASP:HA	8:AG:21:ALA:HB3	1.89	0.53
3:A1:1219:A:C2	3:A1:1220:G:H1'	2.43	0.53
23:AX:38:GLY:H	23:AX:39:PRO:HD2	1.73	0.53
25:BB:1305:C:H2'	25:BB:1306:C:O4'	2.09	0.53
25:BB:2199:A:H5"	25:BB:2199:A:C8	2.43	0.53
29:BF:53:MET:HE3	29:BF:115:GLU:HB2	1.89	0.53
24:BA:56:G:N2	24:BA:58:A:H62	2.07	0.53
54:B5:49:GLU:CD	54:B5:50:LYS:H	2.16	0.53
1:AP:31:A:C1'	3:A1:1341:U:P	2.97	0.53
25:BB:1483:G:H1'	25:BB:1509:A:OP1	2.07	0.53
25:BB:1999:C:H1'	25:BB:2687:U:H1'	1.91	0.53
11:AJ:3:LYS:HA	11:AJ:3:LYS:HE2	1.91	0.53
23:AX:38:GLY:H	23:AX:39:PRO:CD	2.21	0.53
25:BB:296:U:C4	25:BB:297:G:C8	2.97	0.53
25:BB:1569:A:H5'	37:BN:38:LYS:HE3	1.91	0.53
1:AP:31:A:H4'	3:A1:1340:A:H1'	1.91	0.52
3:A1:1429:A:P	25:BB:1687:G:H3'	2.47	0.52
1:AP:55:U:C5	51:B2:74:ALA:HB3	2.44	0.52
3:A1:1164:G:H2'	3:A1:1165:U:O4'	2.09	0.52
3:A1:1418:A:N3	25:BB:1959:G:O3'	2.26	0.52
25:BB:2260:C:H1'	25:BB:2261:C:H5"	1.90	0.52
25:BB:2483:C:C5	29:BF:44:ARG:HB3	2.45	0.52
1:AA:64:A:C2	1:AA:65:G:C4	2.98	0.52
18:AS:35:LEU:HD11	18:AS:136:VAL:HG11	1.90	0.52
24:BA:104:A:C5	24:BA:105:G:H1'	2.44	0.52
25:BB:1068:G:H3'	25:BB:1069:A:H5"	1.92	0.52
29:BF:97:GLN:H	29:BF:98:PRO:CD	2.23	0.52
25:BB:1478:G:H3'	25:BB:1479:G:H5"	1.92	0.52
25:BB:2360:G:H2'	46:BW:27:ASN:HA	1.92	0.52
1:AP:31:A:C3'	3:A1:1340:A:C2'	2.88	0.52
29:BF:6:ARG:HG2	29:BF:6:ARG:HH11	1.75	0.51
48:BY:26:VAL:CG2	48:BY:187:LEU:HB2	2.40	0.51
4:AB:128:LEU:HD13	4:AB:129:THR:H	1.76	0.51
1:AP:31:A:O4'	3:A1:1340:A:C4'	2.57	0.51
25:BB:83:A:H1'	25:BB:84:A:H5"	1.92	0.51
3:A1:1198:G:C2	3:A1:1199:U:C5	2.99	0.51
25:BB:1569:A:C4'	37:BN:38:LYS:HE3	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:478:A:C8	25:BB:480:A:C8	2.98	0.51
25:BB:1100:C:H2'	25:BB:1100:C:O2	2.11	0.51
25:BB:1402:U:C5	25:BB:1403:A:H1'	2.46	0.51
3:A1:1065:U:H1'	3:A1:1067:A:N1	2.26	0.51
3:A1:1429:A:C5'	25:BB:1687:G:O4'	2.59	0.51
3:A1:1469:C:H4'	3:A1:1469:C:OP1	2.09	0.51
1:AP:31:A:H4'	3:A1:1340:A:C1'	2.41	0.51
25:BB:978:G:H1	25:BB:986:C:N4	2.09	0.51
40:BQ:47:ARG:HG2	40:BQ:47:ARG:HH21	1.76	0.51
18:AS:24:VAL:HG22	18:AS:25:LYS:H	1.75	0.51
25:BB:1697:G:H3'	25:BB:1698:A:H5'	1.93	0.51
3:A1:1225:A:H3'	3:A1:1226:C:C5'	2.40	0.51
25:BB:2375:G:H2'	25:BB:2376:A:H5"	1.93	0.50
37:BN:70:LYS:HE2	37:BN:95:TYR:CD1	2.46	0.50
1:AP:38:A:N7	1:AP:39:U:C4	2.79	0.50
25:BB:1244:A:OP1	28:BE:17:LYS:HE3	2.11	0.50
25:BB:1954:G:H2'	25:BB:1956:U:C6	2.46	0.50
25:BB:2049:G:H3'	25:BB:2050:C:C5'	2.42	0.50
25:BB:2745:C:H5"	52:B3:145:ALA:HB2	1.93	0.50
25:BB:245:G:H1	25:BB:254:G:N2	2.09	0.50
25:BB:271:G:H1'	25:BB:272:A:C8	2.47	0.50
25:BB:1136:G:H2'	25:BB:1137:G:C8	2.46	0.50
1:AP:75:C:C5	25:BB:2253:G:C6	2.94	0.50
48:BY:172:VAL:HG13	48:BY:173:GLN:H	1.76	0.50
3:A1:587:G:C8	3:A1:587:G:H5"	2.46	0.50
3:A1:1420:U:H2'	3:A1:1421:G:C8	2.47	0.50
37:BN:229:HIS:ND1	37:BN:230:PRO:HD2	2.27	0.50
50:B1:26:ALA:HA	50:B1:29:HIS:HB2	1.92	0.50
52:B3:41:GLU:CD	52:B3:54:ARG:HE	2.20	0.50
30:BG:108:ALA:HB1	30:BG:109:PRO:CD	2.41	0.50
24:BA:79:G:H4'	25:BB:862:G:H4'	1.93	0.50
40:BQ:15:ASN:O	40:BQ:16:THR:HB	2.12	0.50
25:BB:2821:A:H3'	25:BB:2822:G:H5"	1.92	0.49
52:B3:167:VAL:HG22	52:B3:168:VAL:H	1.77	0.49
25:BB:1452:G:C8	25:BB:1457:U:C4	2.99	0.49
3:A1:111:G:H2'	3:A1:112:G:H5'	1.94	0.49
3:A1:1418:A:H3'	3:A1:1419:G:H4'	1.94	0.49
25:BB:672:C:H1'	50:B1:77:ILE:HD11	1.95	0.49
3:A1:769:G:H2'	3:A1:770:C:H5'	1.93	0.49
25:BB:271:G:N2	25:BB:367:G:H1'	2.28	0.49
36:BM:60:THR:C	36:BM:61:LEU:HD12	2.38	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:74:C:O2'	1:AA:75:C:H5'	2.13	0.49
25:BB:1661:G:H22	25:BB:2688:G:P	2.35	0.49
2:AM:12:U:H2'	2:AM:13:U:C6	2.48	0.49
3:A1:734:G:H2'	3:A1:735:C:C5	2.47	0.49
3:A1:1429:A:H5'	25:BB:1687:G:C8	2.48	0.49
7:AF:13:HIS:CE1	7:AF:43:LYS:HE3	2.47	0.49
25:BB:902:C:C5	25:BB:903:C:C2	3.01	0.49
25:BB:2683:C:C5	25:BB:2684:U:C2	3.01	0.49
3:A1:402:G:H3'	17:AR:70:GLN:HE22	1.78	0.49
3:A1:667:G:C8	3:A1:667:G:H5"	2.48	0.49
7:AF:77:LYS:HE2	7:AF:80:MET:SD	2.53	0.49
25:BB:1116:G:H5'	29:BF:126:ILE:HD11	1.95	0.48
3:A1:1320:C:C2	13:AL:69:LYS:HE2	2.49	0.48
25:BB:2048:G:H2'	25:BB:2049:G:C5'	2.44	0.48
37:BN:91:ALA:C	37:BN:92:LEU:HD12	2.38	0.48
25:BB:2468:A:C2	25:BB:2482:A:N7	2.82	0.48
3:A1:1418:A:C4	25:BB:1959:G:H3'	2.49	0.48
32:BI:4:ILE:HG13	32:BI:5:LYS:H	1.78	0.48
3:A1:1418:A:N3	25:BB:1959:G:C3'	2.75	0.48
7:AF:14:ALA:HB3	7:AF:40:GLU:O	2.13	0.48
25:BB:183:C:N4	25:BB:214:G:H1	2.12	0.48
37:BN:70:LYS:HE2	37:BN:95:TYR:CG	2.49	0.48
48:BY:5:VAL:HG11	48:BY:29:VAL:HG22	1.95	0.48
25:BB:2569:G:N7	25:BB:2570:G:C6	2.81	0.48
38:BO:7:ASP:HA	38:BO:24:VAL:HG12	1.95	0.48
3:A1:383:A:C5	3:A1:384:G:H1'	2.49	0.48
25:BB:1402:U:C6	25:BB:1403:A:H1'	2.49	0.48
25:BB:1595:C:H2'	25:BB:1596:A:C8	2.49	0.48
46:BW:46:LYS:HE3	46:BW:47:ALA:O	2.14	0.48
9:AH:9:LYS:HE3	9:AH:13:GLU:CD	2.39	0.48
24:BA:29:A:H4'	24:BA:29:A:OP1	2.14	0.47
25:BB:2645:G:H5"	25:BB:2646:C:C5	2.49	0.47
19:AT:35:LYS:C	19:AT:36:ILE:HD12	2.40	0.47
25:BB:2313:C:H4'	51:B2:87:LYS:HE2	1.96	0.47
1:AA:47:U:H2'	1:AA:50:U:OP1	2.14	0.47
25:BB:2021:C:O5'	43:BT:11:LYS:HE2	2.15	0.47
25:BB:2088:A:H2'	25:BB:2089:C:C6	2.48	0.47
25:BB:2531:A:N7	52:B3:175:LYS:HE2	2.29	0.47
3:A1:1317:C:C5	3:A1:1318:A:H1'	2.49	0.47
6:AD:65:TYR:CE2	6:AD:66:ILE:HD12	2.49	0.47
24:BA:37:C:C5	24:BA:38:C:C2	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:1941:C:C5	25:BB:1965:C:H1'	2.50	0.47
1:AA:1:G:H2'	1:AA:2:C:C6	2.50	0.47
3:A1:1526:G:C8	3:A1:1526:G:H5"	2.49	0.47
25:BB:1372:U:H1'	25:BB:2214:C:C2	2.49	0.47
25:BB:2124:G:H3'	25:BB:2125:G:H5"	1.97	0.47
25:BB:2734:A:H3'	25:BB:2735:G:H5"	1.96	0.47
3:A1:765:G:N3	3:A1:765:G:H5"	2.30	0.47
24:BA:30:C:OP1	31:BH:3:LYS:HE2	2.15	0.47
25:BB:478:A:C2	38:BO:42:LYS:HE2	2.50	0.47
3:A1:942:G:H1	3:A1:1342:C:N4	2.12	0.47
3:A1:1428:A:O3'	25:BB:1687:G:C3'	2.60	0.47
9:AH:81:ILE:HG22	9:AH:85:GLY:O	2.15	0.47
25:BB:819:A:H2'	25:BB:820:A:H5'	1.95	0.47
30:BG:29:VAL:HG12	30:BG:29:VAL:O	2.15	0.47
1:AP:31:A:H1'	3:A1:1341:U:P	2.55	0.47
48:BY:110:THR:HB	48:BY:202:ILE:HG23	1.97	0.47
3:A1:78:A:C6	3:A1:79:G:C5	3.03	0.46
25:BB:516:C:H1'	25:BB:1262:A:H4'	1.97	0.46
5:AC:41:LEU:HD23	5:AC:41:LEU:C	2.40	0.46
1:AA:49:C:O2	1:AA:49:C:H3'	2.15	0.46
2:AM:8:U:H2'	2:AM:9:U:H5'	1.96	0.46
3:A1:1072:G:N2	4:AB:105:THR:HG23	2.30	0.46
25:BB:1061:U:C6	25:BB:1070:A:C2	3.03	0.46
25:BB:1319:C:H2'	25:BB:1320:C:C6	2.50	0.46
50:B1:128:ALA:N	50:B1:129:PRO:CD	2.79	0.46
1:AP:16:U:H3'	1:AP:17:U:H5'	1.97	0.46
1:AE:6:U:H2'	1:AE:7:U:C6	2.50	0.46
3:A1:259:G:H1	3:A1:267:C:N4	2.14	0.46
25:BB:60:G:P	36:BM:12:ARG:HH12	2.39	0.46
24:BA:9:G:C6	24:BA:112:G:C6	3.03	0.46
25:BB:136:G:H2'	25:BB:137:U:O5'	2.15	0.46
25:BB:1517:G:C6	25:BB:1518:C:H1'	2.51	0.46
25:BB:1580:A:H3'	25:BB:1581:G:C8	2.50	0.46
25:BB:687:C:H1'	25:BB:688:U:C5	2.51	0.46
1:AP:70:C:H2'	1:AP:71:G:C8	2.51	0.46
1:AE:10:G:H2'	1:AE:11:C:C6	2.51	0.46
3:A1:257:G:H1	3:A1:269:C:H42	1.64	0.46
13:AL:52:ASN:N	13:AL:53:GLY:HA2	2.31	0.46
23:AX:89:ARG:HE	23:AX:89:ARG:HA	1.81	0.46
25:BB:324:A:C6	25:BB:338:G:H1'	2.50	0.46
25:BB:1584:U:H3'	25:BB:1585:C:H5'	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A1:198:G:N2	3:A1:220:G:H1'	2.31	0.46
3:A1:958:A:N6	13:AL:77:ARG:HB3	2.31	0.46
25:BB:274:C:C5	25:BB:275:C:C5	3.04	0.46
32:BI:11:GLN:CD	32:BI:11:GLN:H	2.22	0.46
25:BB:1227:G:N2	25:BB:1228:G:H1'	2.31	0.46
1:AA:36:A:H2'	1:AA:37:G:O4'	2.16	0.46
25:BB:226:A:H2'	25:BB:227:A:C8	2.51	0.46
25:BB:1722:A:C2	25:BB:1723:G:C4	3.04	0.46
1:AP:74:C:H2'	1:AP:75:C:H5'	1.08	0.45
3:A1:64:G:O3'	3:A1:65:A:H3'	2.16	0.45
19:AT:10:VAL:HG11	19:AT:18:VAL:HG12	1.98	0.45
3:A1:1420:U:H2'	3:A1:1421:G:H8	1.81	0.45
3:A1:1483:A:H3'	25:BB:1960:A:O3'	2.16	0.45
14:AN:59:ARG:O	14:AN:63:LYS:HE2	2.16	0.45
25:BB:956:G:H5'	29:BF:81:ARG:HD2	1.97	0.45
25:BB:1894:C:H2'	25:BB:1895:C:C6	2.51	0.45
28:BE:61:LEU:HG	28:BE:62:PRO:HD3	1.97	0.45
25:BB:1238:G:H2'	25:BB:1239:G:H5"	1.99	0.45
25:BB:1980:G:H2'	25:BB:1982:U:C5	2.51	0.45
25:BB:2727:A:N7	25:BB:2728:U:C2	2.85	0.45
25:BB:186:G:C6	25:BB:187:G:C6	3.05	0.45
3:A1:920:U:H2'	3:A1:921:U:H4'	1.98	0.45
25:BB:563:A:H5'	33:BJ:40:LYS:HE3	1.98	0.45
25:BB:973:A:H1'	25:BB:1188:U:H2'	1.98	0.45
3:A1:411:A:N6	3:A1:428:G:H1'	2.32	0.45
3:A1:1078:U:H1'	18:AS:133:ILE:HG21	1.97	0.45
15:AO:189:HIS:CD2	15:AO:194:VAL:HA	2.52	0.45
25:BB:687:C:C2	25:BB:688:U:C4	3.04	0.45
25:BB:2239:G:N3	25:BB:2239:G:H2'	2.30	0.45
32:BI:113:LEU:H	32:BI:113:LEU:HD12	1.81	0.45
24:BA:75:G:H1	24:BA:101:A:N6	2.14	0.45
4:AB:14:HIS:HB2	4:AB:202:ASN:H	1.81	0.45
25:BB:18:U:H4'	33:BJ:29:ARG:CZ	2.47	0.45
25:BB:1670:C:H4'	25:BB:1994:C:H1'	1.98	0.45
3:A1:1275:A:H2'	3:A1:1276:G:H4'	1.98	0.45
34:BK:44:GLY:HA2	34:BK:47:VAL:HG12	1.98	0.45
36:BM:7:LEU:HD23	36:BM:46:ALA:CB	2.47	0.45
50:B1:28:VAL:O	50:B1:32:VAL:HG12	2.16	0.45
1:AA:49:C:C5	1:AA:66:A:C2	3.05	0.45
3:A1:1404:C:H5'	3:A1:1500:A:H61	1.82	0.45
3:A1:1429:A:HO5'	25:BB:1687:G:C3'	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:54:G:H5”	45:BV:35:ARG:CZ	2.47	0.45
46:BW:30:HIS:C	46:BW:31:ILE:HD12	2.42	0.45
17:AR:187:ARG:HH21	17:AR:196:GLU:CD	2.25	0.44
21:AV:33:VAL:HG23	21:AV:48:PHE:CE2	2.52	0.44
25:BB:1004:U:H3	25:BB:1152:C:N4	2.15	0.44
25:BB:2809:A:H2’	25:BB:2810:A:C8	2.52	0.44
37:BN:92:LEU:HD12	37:BN:92:LEU:N	2.32	0.44
2:AM:4:U:C6	3:A1:1506:U:C6	3.05	0.44
25:BB:896:A:H5”	25:BB:897:C:P	2.58	0.44
3:A1:792:A:C4	3:A1:794:A:C6	3.04	0.44
25:BB:464:U:O4	25:BB:788:A:N7	2.50	0.44
25:BB:1308:A:H62	25:BB:1310:G:N2	2.15	0.44
25:BB:1537:G:H2’	25:BB:1538:G:H4’	2.00	0.44
1:AA:72:C:C2	1:AA:73:A:C8	3.06	0.44
3:A1:923:A:H5’	3:A1:924:C:C5	2.52	0.44
25:BB:1007:C:N4	25:BB:1136:G:H1	2.14	0.44
30:BG:32:GLU:H	30:BG:32:GLU:CD	2.25	0.44
1:AP:74:C:O2’	1:AP:75:C:C5’	2.38	0.44
3:A1:277:C:H2’	3:A1:278:G:H5’	1.99	0.44
15:AO:109:GLU:CD	15:AO:109:GLU:H	2.26	0.44
25:BB:2571:U:H3’	25:BB:2572:A:H5’	1.98	0.44
36:BM:20:ALA:HB2	36:BM:30:ILE:CD1	2.48	0.44
1:AA:39:U:C5	1:AA:40:C:C5	3.06	0.44
8:AG:89:ARG:HG3	8:AG:89:ARG:HH11	1.83	0.44
25:BB:687:C:H1’	25:BB:688:U:C6	2.52	0.44
25:BB:2601:C:H3’	25:BB:2602:A:H5’	1.98	0.44
29:BF:71:LYS:HE2	29:BF:93:VAL:HG23	1.98	0.44
45:BV:20:ALA:HA	45:BV:23:ALA:HB3	2.00	0.44
25:BB:1657:U:C5	25:BB:1659:G:C6	3.05	0.44
25:BB:2515:C:C5	25:BB:2516:A:C6	3.06	0.44
3:A1:98:A:H2’	3:A1:99:C:O4’	2.18	0.44
3:A1:1275:A:C5	3:A1:1276:G:H1’	2.53	0.44
3:A1:1446:A:H62	14:AN:18:LYS:HE2	1.83	0.44
25:BB:478:A:N1	38:BO:42:LYS:HE2	2.33	0.44
25:BB:603:A:C2	25:BB:625:G:N3	2.86	0.44
25:BB:608:A:H2’	25:BB:609:A:H5’	2.00	0.44
25:BB:2624:G:O6	25:BB:2625:G:C2	2.70	0.44
51:B2:2:LYS:HE3	51:B2:2:LYS:HA	1.99	0.44
3:A1:785:G:H2’	3:A1:786:G:C8	2.53	0.44
23:AX:89:ARG:HA	23:AX:89:ARG:NE	2.33	0.44
25:BB:84:A:O3’	25:BB:85:G:H4’	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:584:C:H42	50:B1:79:ARG:HG2	1.83	0.44
40:BQ:40:SER:HB3	40:BQ:41:HIS:CE1	2.52	0.44
5:AC:90:PRO:HA	5:AC:91:GLY:HA2	1.90	0.43
7:AF:53:ASP:OD1	7:AF:56:ARG:HD2	2.18	0.43
25:BB:835:C:N4	25:BB:941:A:H62	2.15	0.43
25:BB:1676:A:H2'	25:BB:1677:A:O5'	2.17	0.43
25:BB:2787:C:H4'	48:BY:66:GLY:HA2	2.00	0.43
49:BZ:62:LYS:HE2	49:BZ:168:PHE:CD2	2.53	0.43
3:A1:1180:A:C2	3:A1:1184:G:C5	3.06	0.43
24:BA:67:G:C6	24:BA:68:C:C4	3.06	0.43
25:BB:188:G:C8	25:BB:189:G:N7	2.85	0.43
25:BB:1061:U:C6	25:BB:1070:A:N3	2.86	0.43
25:BB:1818:U:C6	37:BN:152:GLN:HG3	2.53	0.43
29:BF:69:PRO:C	29:BF:71:LYS:H	2.25	0.43
34:BK:77:PHE:CG	34:BK:78:ARG:N	2.84	0.43
38:BO:58:VAL:CG2	38:BO:59:GLU:H	2.27	0.43
2:AM:9:U:H5"	2:AM:10:U:P	2.58	0.43
25:BB:387:U:H1'	25:BB:388:G:C8	2.53	0.43
25:BB:1088:A:H61	54:B5:134:SER:CB	2.31	0.43
25:BB:1293:C:C2	25:BB:1294:U:C5	3.06	0.43
25:BB:1321:A:C8	25:BB:1322:A:H2'	2.52	0.43
25:BB:2624:G:C6	25:BB:2625:G:C4	3.06	0.43
1:AA:1:G:C6	1:AA:73:A:C2	3.06	0.43
1:AP:29:A:C2	1:AP:42:G:C2	3.06	0.43
3:A1:846:G:H1'	3:A1:847:G:C8	2.54	0.43
3:A1:1418:A:N3	25:BB:1959:G:H2'	2.34	0.43
25:BB:1125:G:H3'	25:BB:1126:A:H5"	1.99	0.43
25:BB:2323:G:N2	25:BB:2337:G:H1'	2.32	0.43
25:BB:1968:G:H2'	25:BB:1969:A:H5"	1.99	0.43
3:A1:622:A:C5	3:A1:623:C:H1'	2.54	0.43
25:BB:1837:C:N4	25:BB:1904:G:H1	2.16	0.43
25:BB:2289:G:H5"	25:BB:2383:G:H21	1.83	0.43
29:BF:117:PHE:HB2	29:BF:124:LEU:HD11	2.01	0.43
1:AP:16:U:H3'	1:AP:17:U:C5'	2.48	0.43
1:AE:68:U:H2'	1:AE:69:U:H5'	2.00	0.43
3:A1:507:C:H41	3:A1:509:A:H62	1.67	0.43
17:AR:160:LEU:HD12	17:AR:160:LEU:HA	1.85	0.43
25:BB:1268:A:H2'	25:BB:1270:C:C2	2.53	0.43
25:BB:1437:C:H5"	25:BB:1438:U:OP2	2.18	0.43
25:BB:1818:U:H5	37:BN:145:MET:HE3	1.82	0.43
25:BB:28:A:H3'	25:BB:29:U:H5"	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:2153:C:H2'	25:BB:2154:A:H5"	2.01	0.43
31:BH:54:VAL:HA	31:BH:57:ALA:HB3	2.00	0.43
3:A1:176:C:H2'	3:A1:177:G:O4'	2.19	0.43
3:A1:708:C:H2'	3:A1:709:U:C6	2.53	0.43
25:BB:160:A:H2'	25:BB:161:A:C8	2.54	0.43
25:BB:1916:A:H1'	25:BB:1917:U:C6	2.54	0.43
3:A1:203:G:H1'	3:A1:465:A:C8	2.54	0.42
25:BB:987:C:H4'	25:BB:988:A:OP1	2.19	0.42
25:BB:1850:G:C6	25:BB:1893:C:C4	3.06	0.42
48:BY:146:ILE:HG13	48:BY:147:GLY:H	1.84	0.42
3:A1:266:G:P	3:A1:268:U:C4	3.12	0.42
3:A1:527:G:C8	6:AD:14:LYS:HB2	2.54	0.42
25:BB:953:G:H3'	25:BB:954:G:H5"	2.02	0.42
25:BB:1338:G:H3'	25:BB:1339:G:H5"	2.00	0.42
25:BB:1785:A:C5	25:BB:1787:A:O4'	2.72	0.42
25:BB:1940:U:C3'	25:BB:1941:C:H5"	2.50	0.42
3:A1:1341:U:C4	3:A1:1342:C:N3	2.86	0.42
24:BA:30:C:H3'	24:BA:31:C:C6	2.54	0.42
25:BB:222:A:C2	25:BB:233:A:H4'	2.54	0.42
25:BB:1528:A:C6	25:BB:1529:G:H1'	2.53	0.42
3:A1:550:G:C2	3:A1:551:U:H1'	2.54	0.42
3:A1:585:G:C2	3:A1:586:C:C6	3.07	0.42
6:AD:73:LEU:HD12	6:AD:73:LEU:HA	1.84	0.42
11:AJ:32:ILE:HG12	11:AJ:33:TYR:H	1.83	0.42
25:BB:1244:A:H2'	25:BB:1245:G:H5'	2.02	0.42
25:BB:1341:G:C2	25:BB:1398:C:H4'	2.55	0.42
25:BB:1447:C:H2'	25:BB:1448:G:C8	2.55	0.42
25:BB:1834:U:H5"	25:BB:1835:G:O5'	2.19	0.42
25:BB:2314:A:H1'	51:B2:154:THR:HG21	2.01	0.42
25:BB:2554:U:H4'	25:BB:2555:U:OP1	2.19	0.42
46:BW:61:LEU:HB3	46:BW:62:PRO:CD	2.49	0.42
1:AA:74:C:O2'	1:AA:75:C:C5'	2.68	0.42
6:AD:70:GLY:HA3	6:AD:105:GLY:HA2	2.01	0.42
25:BB:1207:C:P	28:BE:2:ARG:HH12	2.42	0.42
25:BB:2748:A:H2'	25:BB:2749:A:C8	2.55	0.42
34:BK:22:LEU:HG	34:BK:24:LYS:H	1.85	0.42
38:BO:46:LYS:N	38:BO:47:PRO:HD3	2.34	0.42
49:BZ:56:LYS:HD3	49:BZ:178:ASP:HB3	2.01	0.42
53:B4:44:ILE:HD13	53:B4:44:ILE:H	1.84	0.42
3:A1:1418:A:C2	25:BB:1959:G:H2'	2.55	0.42
14:AN:67:HIS:CG	14:AN:68:LYS:N	2.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:332:A:H5”	25:BB:333:G:OP1	2.19	0.42
25:BB:2193:G:C4	25:BB:2194:U:C6	3.08	0.42
25:BB:2555:U:H3’	25:BB:2556:C:C4’	2.49	0.42
34:BK:58:VAL:O	34:BK:58:VAL:HG13	2.19	0.42
3:A1:455:G:C5	3:A1:478:A:C2	3.07	0.42
23:AX:46:LYS:HA	23:AX:67:ILE:O	2.20	0.42
25:BB:84:A:N3	25:BB:85:G:H1’	2.34	0.42
25:BB:1554:U:C5	25:BB:1626:A:H3’	2.55	0.42
28:BE:125:LEU:C	28:BE:125:LEU:HD12	2.45	0.42
3:A1:1000:A:H2’	3:A1:1001:C:C6	2.54	0.42
3:A1:1418:A:C4	25:BB:1960:A:OP2	2.71	0.42
18:AS:14:LEU:C	18:AS:14:LEU:HD22	2.45	0.42
25:BB:126:A:N7	45:BV:45:SER:HB3	2.34	0.42
25:BB:682:G:C2	25:BB:774:G:H1’	2.54	0.42
25:BB:1246:A:H2’	25:BB:1247:A:C8	2.55	0.42
21:AV:10:LEU:H	21:AV:10:LEU:HD22	1.85	0.42
23:AX:22:THR:HG21	23:AX:72:ARG:HH21	1.84	0.42
25:BB:303:G:C6	25:BB:304:U:C4	3.07	0.42
25:BB:1100:C:O2	25:BB:1100:C:C2’	2.68	0.42
26:BC:63:ILE:HD12	26:BC:72:VAL:HG21	2.02	0.42
34:BK:101:ILE:H	34:BK:101:ILE:HD12	1.84	0.42
4:AB:49:PHE:CE2	4:AB:199:ILE:CG2	3.03	0.42
8:AG:1:ALA:HA	8:AG:4:SER:CB	2.50	0.42
25:BB:1785:A:C8	25:BB:1787:A:C8	3.07	0.42
25:BB:2049:G:H5’	25:BB:2050:C:H5”	2.02	0.42
27:BD:85:VAL:HG13	27:BD:85:VAL:O	2.20	0.42
48:BY:116:LYS:HE3	48:BY:116:LYS:HB2	1.94	0.42
1:AE:66:A:H2’	1:AE:67:A:C8	2.55	0.41
3:A1:1344:C:H2’	3:A1:1345:U:H5”	2.01	0.41
25:BB:1227:G:H2’	25:BB:1228:G:O5’	2.20	0.41
25:BB:1528:A:C5	25:BB:1529:G:H1’	2.55	0.41
25:BB:1717:A:H2’	25:BB:1718:G:O4’	2.20	0.41
25:BB:2299:U:H2’	25:BB:2300:C:O4’	2.20	0.41
38:BO:84:PHE:CG	38:BO:85:ARG:N	2.82	0.41
49:BZ:66:VAL:HG23	49:BZ:84:VAL:HG23	2.02	0.41
3:A1:371:A:H5”	3:A1:372:C:OP2	2.20	0.41
3:A1:843:U:H4’	3:A1:843:U:OP2	2.20	0.41
15:AO:38:VAL:HG12	15:AO:90:VAL:HB	2.02	0.41
25:BB:5:A:C2	25:BB:2899:A:C2	3.08	0.41
25:BB:383:C:H3’	25:BB:384:A:H5’	2.02	0.41
25:BB:803:U:C5	25:BB:804:A:H1’	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BB:1827:U:H5'	25:BB:1828:G:C5	2.55	0.41
25:BB:1994:C:H3'	25:BB:1995:U:C6	2.55	0.41
3:A1:53:A:C2	3:A1:359:G:C5	3.08	0.41
3:A1:544:G:C8	3:A1:544:G:H3'	2.55	0.41
3:A1:923:A:C2	3:A1:1399:C:C2	3.09	0.41
17:AR:86:GLY:HA3	17:AR:196:GLU:HG3	2.02	0.41
18:AS:146:MET:C	18:AS:147:ASN:HD22	2.28	0.41
24:BA:75:G:N2	26:BC:88:HIS:CD2	2.89	0.41
51:B2:62:GLN:HB3	51:B2:88:VAL:HG13	2.02	0.41
3:A1:13:U:H4'	6:AD:11:ARG:HB2	2.03	0.41
3:A1:1084:G:H4'	3:A1:1084:G:OP1	2.20	0.41
3:A1:1176:A:C8	3:A1:1177:G:C8	3.08	0.41
25:BB:270:A:C2	25:BB:369:U:H4'	2.56	0.41
25:BB:2098:U:C4	25:BB:2099:U:C4	3.08	0.41
29:BF:3:GLN:HB2	29:BF:4:PRO:HD3	2.02	0.41
3:A1:1429:A:OP1	25:BB:1687:G:H2'	2.20	0.41
25:BB:603:A:N1	25:BB:656:G:H1'	2.35	0.41
25:BB:748:G:N7	25:BB:750:A:H3'	2.36	0.41
25:BB:990:A:N6	25:BB:1186:G:C8	2.88	0.41
25:BB:1051:G:H2'	25:BB:1052:C:O4'	2.21	0.41
25:BB:1062:G:H5"	25:BB:1062:G:C8	2.56	0.41
25:BB:1459:G:H1'	25:BB:1460:U:C6	2.56	0.41
25:BB:2496:C:H2'	25:BB:2497:A:C8	2.55	0.41
25:BB:2871:U:H4'	25:BB:2872:A:C6	2.55	0.41
3:A1:379:C:N4	3:A1:384:G:H1	2.18	0.41
23:AX:5:ARG:HH21	23:AX:75:ASP:CG	2.27	0.41
25:BB:69:C:H4'	25:BB:74:A:C2	2.56	0.41
25:BB:1906:G:H2'	25:BB:1907:G:C8	2.56	0.41
3:A1:1365:G:H3'	3:A1:1366:C:O4'	2.20	0.41
17:AR:150:LYS:HB3	17:AR:155:LYS:HE3	2.03	0.41
25:BB:227:A:H2'	25:BB:2407:A:H1'	2.02	0.41
25:BB:720:U:H2'	25:BB:721:A:C8	2.56	0.41
25:BB:2048:G:H2'	25:BB:2049:G:H5"	2.02	0.41
25:BB:2710:C:H5'	30:BG:16:HIS:CE1	2.55	0.41
51:B2:121:PHE:CD1	51:B2:121:PHE:N	2.89	0.41
7:AF:83:GLY:N	13:AL:68:HIS:H	2.18	0.41
23:AX:7:ARG:H	23:AX:102:LEU:CD1	2.34	0.41
25:BB:1817:G:H5'	37:BN:86:ARG:HD3	2.03	0.41
25:BB:1900:A:C5	25:BB:1970:A:H2'	2.56	0.41
25:BB:2779:U:O2	25:BB:2779:U:H2'	2.20	0.41
28:BE:57:LEU:H	28:BE:57:LEU:CD1	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AP:31:A:N9	3:A1:1340:A:H4'	2.36	0.41
1:AE:53:G:C6	1:AE:54:U:C4	3.08	0.41
3:A1:1004:A:C8	3:A1:1026:G:C6	3.09	0.41
3:A1:1127:G:H4'	3:A1:1127:G:OP1	2.21	0.41
3:A1:1229:A:H2'	3:A1:1230:C:C2	2.56	0.41
4:AB:27:LYS:HE3	4:AB:27:LYS:HB2	1.93	0.41
25:BB:54:G:H4'	45:BV:35:ARG:HD3	2.03	0.41
25:BB:778:G:H1'	25:BB:779:U:C5	2.56	0.41
25:BB:835:C:H41	25:BB:941:A:H62	1.67	0.41
25:BB:1399:C:H3'	25:BB:1400:U:H5"	2.02	0.41
25:BB:2082:A:C6	25:BB:2083:G:H1'	2.56	0.41
25:BB:2286:G:C6	44:BU:31:GLU:HA	2.56	0.41
25:BB:2316:G:H2'	25:BB:2317:A:C8	2.56	0.41
25:BB:2443:C:H41	25:BB:2446:G:N2	2.19	0.41
25:BB:2830:C:H4'	25:BB:2835:A:H4'	2.03	0.41
32:BI:96:LEU:HB3	32:BI:97:TYR:CD2	2.55	0.41
38:BO:12:VAL:HG22	38:BO:64:ILE:HG21	2.03	0.41
5:AC:22:ILE:H	5:AC:22:ILE:CD1	2.34	0.41
16:AQ:35:GLU:HB2	16:AQ:37:TYR:CE2	2.56	0.41
25:BB:1404:C:H1'	25:BB:1405:U:C6	2.56	0.41
25:BB:2269:G:H3'	25:BB:2270:A:C5'	2.51	0.41
35:BL:75:PHE:CZ	35:BL:104:THR:HG21	2.56	0.41
35:BL:77:ASP:OD2	35:BL:102:HIS:CE1	2.74	0.41
3:A1:182:A:H2'	3:A1:184:G:C8	2.56	0.40
5:AC:30:ILE:HD12	5:AC:30:ILE:N	2.36	0.40
3:A1:496:A:H2'	3:A1:497:G:C8	2.56	0.40
12:AK:38:ILE:HG21	12:AK:58:ILE:HD13	2.03	0.40
20:AU:128:GLU:C	20:AU:130:LYS:H	2.30	0.40
25:BB:1881:C:C6	25:BB:1882:U:C5	3.09	0.40
25:BB:2282:G:C5	25:BB:2425:A:C2	3.09	0.40
28:BE:57:LEU:HD12	28:BE:57:LEU:N	2.36	0.40
28:BE:82:LEU:HA	28:BE:83:ALA:HA	1.90	0.40
49:BZ:204:TYR:HA	49:BZ:215:VAL:HG23	2.03	0.40
3:A1:1220:G:H2'	3:A1:1220:G:N3	2.36	0.40
4:AB:185:ILE:HD13	4:AB:185:ILE:C	2.46	0.40
25:BB:280:U:C6	25:BB:280:U:H5"	2.56	0.40
25:BB:1217:U:H2'	25:BB:1218:G:C5	2.56	0.40
53:B4:48:GLU:CD	53:B4:51:ARG:HH21	2.30	0.40
4:AB:186:VAL:O	4:AB:200:PRO:HA	2.22	0.40
24:BA:9:G:C6	24:BA:10:G:C5	3.10	0.40
32:BI:62:LYS:HE3	32:BI:71:ARG:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A1:742:G:P	9:AH:53:ARG:HH21	2.44	0.40
17:AR:35:GLN:O	17:AR:36:ALA:HB2	2.22	0.40
25:BB:1478:G:H1'	25:BB:1560:G:N2	2.35	0.40
25:BB:2495:G:H3'	25:BB:2496:C:C4'	2.50	0.40
48:BY:154:LYS:C	48:BY:156:PHE:H	2.29	0.40
55:B6:122:LEU:HD21	55:B6:124:VAL:HG13	2.04	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
4	AB	216/241 (90%)	173 (80%)	35 (16%)	8 (4%)	2 20
5	AC	115/129 (89%)	85 (74%)	26 (23%)	4 (4%)	3 20
6	AD	121/124 (98%)	71 (59%)	35 (29%)	15 (12%)	0 4
7	AF	112/118 (95%)	76 (68%)	27 (24%)	9 (8%)	1 9
8	AG	94/101 (93%)	71 (76%)	18 (19%)	5 (5%)	1 15
9	AH	86/89 (97%)	67 (78%)	14 (16%)	5 (6%)	1 14
10	AI	80/82 (98%)	56 (70%)	15 (19%)	9 (11%)	0 5
11	AJ	78/84 (93%)	51 (65%)	22 (28%)	5 (6%)	1 12
12	AK	53/75 (71%)	40 (76%)	9 (17%)	4 (8%)	1 10
13	AL	77/92 (84%)	57 (74%)	13 (17%)	7 (9%)	0 8
14	AN	83/87 (95%)	68 (82%)	12 (14%)	3 (4%)	2 20
15	AO	204/233 (88%)	157 (77%)	33 (16%)	14 (7%)	1 11
16	AQ	49/71 (69%)	38 (78%)	7 (14%)	4 (8%)	0 9
17	AR	203/206 (98%)	165 (81%)	29 (14%)	9 (4%)	2 17
18	AS	148/159 (93%)	111 (75%)	26 (18%)	11 (7%)	1 10

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
19	AT	98/135 (73%)	76 (78%)	15 (15%)	7 (7%)	1 11
20	AU	148/179 (83%)	118 (80%)	20 (14%)	10 (7%)	1 11
21	AV	127/130 (98%)	102 (80%)	17 (13%)	8 (6%)	1 13
22	AW	125/130 (96%)	96 (77%)	22 (18%)	7 (6%)	1 14
23	AX	96/103 (93%)	73 (76%)	15 (16%)	8 (8%)	0 9
26	BC	92/94 (98%)	70 (76%)	16 (17%)	6 (6%)	1 12
27	BD	119/123 (97%)	84 (71%)	25 (21%)	10 (8%)	0 9
28	BE	142/144 (99%)	90 (63%)	27 (19%)	25 (18%)	0 2
29	BF	134/136 (98%)	74 (55%)	37 (28%)	23 (17%)	0 2
30	BG	125/127 (98%)	82 (66%)	32 (26%)	11 (9%)	0 8
31	BH	115/117 (98%)	78 (68%)	27 (24%)	10 (9%)	0 9
32	BI	112/115 (97%)	67 (60%)	32 (29%)	13 (12%)	0 5
33	BJ	115/118 (98%)	84 (73%)	19 (16%)	12 (10%)	0 6
34	BK	101/103 (98%)	57 (56%)	32 (32%)	12 (12%)	0 4
35	BL	108/110 (98%)	71 (66%)	18 (17%)	19 (18%)	0 2
36	BM	97/99 (98%)	70 (72%)	19 (20%)	8 (8%)	0 9
37	BN	265/270 (98%)	167 (63%)	49 (18%)	49 (18%)	0 2
38	BO	100/103 (97%)	51 (51%)	31 (31%)	18 (18%)	0 2
39	BP	82/85 (96%)	42 (51%)	26 (32%)	14 (17%)	0 2
40	BQ	61/63 (97%)	44 (72%)	13 (21%)	4 (7%)	1 12
41	BR	56/59 (95%)	39 (70%)	10 (18%)	7 (12%)	0 4
42	BS	68/70 (97%)	47 (69%)	14 (21%)	7 (10%)	0 6
43	BT	54/57 (95%)	37 (68%)	11 (20%)	6 (11%)	0 5
44	BU	52/54 (96%)	35 (67%)	14 (27%)	3 (6%)	1 14
45	BV	44/46 (96%)	33 (75%)	9 (20%)	2 (4%)	2 17
46	BW	62/64 (97%)	31 (50%)	16 (26%)	15 (24%)	0 1
47	BX	36/38 (95%)	23 (64%)	6 (17%)	7 (19%)	0 2
48	BY	207/209 (99%)	120 (58%)	54 (26%)	33 (16%)	0 2
49	BZ	211/213 (99%)	169 (80%)	33 (16%)	9 (4%)	2 17
50	B1	199/201 (99%)	117 (59%)	53 (27%)	29 (15%)	0 3
51	B2	176/178 (99%)	125 (71%)	35 (20%)	16 (9%)	0 8

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
52	B3	174/177 (98%)	145 (83%)	19 (11%)	10 (6%)	1 14
53	B4	147/149 (99%)	109 (74%)	31 (21%)	7 (5%)	2 16
54	B5	139/142 (98%)	116 (84%)	17 (12%)	6 (4%)	2 17
55	B6	138/140 (99%)	78 (56%)	40 (29%)	20 (14%)	0 3
All	All	5844/6172 (95%)	4106 (70%)	1175 (20%)	563 (10%)	1 7

All (563) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	AB	21	TYR
4	AB	97	GLY
4	AB	169	HIS
5	AC	118	ASN
6	AD	15	VAL
6	AD	19	ASN
6	AD	34	THR
6	AD	40	THR
6	AD	106	VAL
7	AF	44	ILE
7	AF	65	GLU
10	AI	31	ARG
10	AI	45	GLU
11	AJ	50	ASN
13	AL	35	ARG
15	AO	4	VAL
15	AO	79	LYS
15	AO	159	ALA
16	AQ	39	LYS
17	AR	34	GLU
17	AR	36	ALA
17	AR	91	ALA
17	AR	129	VAL
18	AS	20	VAL
18	AS	27	GLY
18	AS	124	ALA
19	AT	69	GLU
19	AT	92	THR
20	AU	31	VAL
20	AU	34	LYS
20	AU	88	VAL
22	AW	15	ALA

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Mol	Chain	Res	Type
22	AW	42	THR
22	AW	118	ARG
23	AX	46	LYS
26	BC	2	PHE
26	BC	43	ASP
27	BD	17	ARG
27	BD	92	GLU
28	BE	54	GLN
28	BE	59	ARG
28	BE	67	THR
28	BE	75	ALA
28	BE	77	ILE
28	BE	128	THR
29	BF	5	LYS
29	BF	21	ALA
29	BF	27	SER
29	BF	54	THR
29	BF	74	THR
29	BF	97	GLN
29	BF	102	LEU
29	BF	120	ALA
29	BF	122	ALA
29	BF	127	LYS
30	BG	28	LEU
30	BG	88	ALA
30	BG	99	LYS
30	BG	104	ALA
31	BH	20	GLU
31	BH	28	VAL
31	BH	52	SER
31	BH	54	VAL
32	BI	33	GLU
32	BI	94	ALA
32	BI	96	LEU
32	BI	112	ARG
33	BJ	3	VAL
33	BJ	5	ARG
33	BJ	7	VAL
33	BJ	12	ARG
33	BJ	30	VAL
34	BK	24	LYS
34	BK	34	GLU

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Mol	Chain	Res	Type
35	BL	7	HIS
35	BL	20	VAL
35	BL	35	ILE
35	BL	40	ASN
35	BL	80	PRO
35	BL	106	VAL
35	BL	108	SER
36	BM	16	VAL
36	BM	65	GLY
36	BM	73	ARG
36	BM	92	ASN
37	BN	24	HIS
37	BN	27	LYS
37	BN	58	LYS
37	BN	70	LYS
37	BN	120	ASP
37	BN	143	VAL
37	BN	170	TYR
37	BN	176	ARG
37	BN	219	VAL
37	BN	251	THR
37	BN	260	LYS
39	BP	9	THR
39	BP	10	ARG
39	BP	74	LYS
39	BP	77	LYS
40	BQ	16	THR
40	BQ	42	LEU
41	BR	13	ILE
41	BR	51	SER
42	BS	7	PRO
42	BS	50	ASP
43	BT	10	SER
43	BT	29	VAL
43	BT	52	LYS
44	BU	23	THR
44	BU	42	VAL
45	BV	3	ARG
46	BW	15	LYS
46	BW	27	ASN
46	BW	41	ARG
46	BW	61	LEU

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Mol	Chain	Res	Type
46	BW	63	TYR
47	BX	10	LEU
47	BX	34	LYS
47	BX	36	ARG
48	BY	4	LEU
48	BY	14	ILE
48	BY	16	THR
48	BY	39	ASP
48	BY	41	ALA
48	BY	123	LYS
48	BY	127	PHE
48	BY	146	ILE
48	BY	155	VAL
48	BY	191	GLY
49	BZ	197	GLU
49	BZ	208	THR
50	B1	4	VAL
50	B1	17	THR
50	B1	47	LYS
50	B1	62	GLN
50	B1	77	ILE
50	B1	78	TRP
50	B1	104	ALA
50	B1	142	ALA
50	B1	144	GLU
50	B1	165	HIS
51	B2	3	LEU
51	B2	42	ALA
51	B2	71	LYS
51	B2	77	LYS
51	B2	80	GLN
51	B2	136	ILE
51	B2	152	ASP
51	B2	160	LYS
52	B3	172	GLU
54	B5	4	VAL
55	B6	11	VAL
55	B6	39	LYS
55	B6	49	ASP
55	B6	63	ALA
55	B6	64	VAL
55	B6	99	ARG

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Mol	Chain	Res	Type
4	AB	82	ALA
4	AB	151	LYS
5	AC	26	PHE
5	AC	52	ARG
6	AD	22	ALA
6	AD	24	GLU
6	AD	48	LEU
6	AD	109	ARG
6	AD	113	ARG
7	AF	53	ASP
7	AF	106	ARG
8	AG	4	SER
8	AG	46	LYS
8	AG	52	ARG
8	AG	64	ARG
9	AH	11	VAL
9	AH	21	THR
11	AJ	53	GLY
11	AJ	69	THR
12	AK	70	THR
13	AL	24	SER
13	AL	25	GLY
13	AL	37	SER
13	AL	62	THR
13	AL	66	VAL
14	AN	13	SER
14	AN	77	ASN
15	AO	14	VAL
15	AO	61	LYS
15	AO	99	GLN
15	AO	106	ARG
15	AO	128	MET
17	AR	28	ASP
17	AR	130	ASN
18	AS	24	VAL
18	AS	74	ALA
18	AS	107	GLY
19	AT	41	ASP
19	AT	94	HIS
20	AU	35	LYS
20	AU	76	SER
20	AU	83	THR

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Mol	Chain	Res	Type
20	AU	129	ASN
21	AV	16	GLY
21	AV	53	ASP
21	AV	64	TYR
22	AW	54	VAL
22	AW	69	GLY
27	BD	32	TYR
27	BD	76	VAL
28	BE	10	GLU
28	BE	17	LYS
28	BE	22	GLY
28	BE	80	SER
28	BE	93	ASN
28	BE	98	ALA
28	BE	100	ILE
28	BE	117	THR
28	BE	122	VAL
28	BE	125	LEU
28	BE	140	GLY
29	BF	30	SER
29	BF	59	ARG
29	BF	94	ALA
30	BG	7	GLY
30	BG	19	ALA
31	BH	88	LYS
32	BI	60	VAL
32	BI	113	LEU
33	BJ	2	ARG
33	BJ	32	ARG
33	BJ	73	ILE
33	BJ	98	ALA
34	BK	2	TYR
34	BK	54	VAL
34	BK	59	ILE
35	BL	4	ILE
35	BL	5	ALA
35	BL	93	ALA
35	BL	100	THR
35	BL	104	THR
37	BN	14	HIS
37	BN	53	ILE
37	BN	54	GLY

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Mol	Chain	Res	Type
37	BN	111	ALA
37	BN	127	ASN
37	BN	141	HIS
37	BN	182	LYS
37	BN	210	ALA
37	BN	217	PRO
37	BN	221	GLY
37	BN	233	GLY
37	BN	249	VAL
37	BN	252	LYS
37	BN	266	ILE
38	BO	3	LYS
38	BO	6	ARG
38	BO	18	LYS
38	BO	35	VAL
38	BO	59	GLU
38	BO	66	VAL
38	BO	67	SER
38	BO	97	SER
40	BQ	49	ASP
41	BR	14	GLY
41	BR	29	ARG
41	BR	44	ARG
42	BS	27	THR
42	BS	45	THR
43	BT	6	LYS
46	BW	4	LYS
46	BW	5	THR
46	BW	13	PHE
46	BW	20	GLY
46	BW	22	LYS
47	BX	4	ARG
47	BX	17	VAL
48	BY	29	VAL
48	BY	33	ARG
48	BY	99	GLU
48	BY	115	GLY
48	BY	135	GLY
48	BY	147	GLY
48	BY	159	LYS
48	BY	171	THR
49	BZ	50	GLU

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Mol	Chain	Res	Type
49	BZ	161	ASP
50	B1	42	GLY
50	B1	43	THR
50	B1	75	SER
50	B1	91	ASP
50	B1	113	VAL
50	B1	118	LEU
50	B1	119	ILE
50	B1	166	LYS
50	B1	193	VAL
51	B2	24	VAL
51	B2	66	ILE
51	B2	76	PHE
51	B2	132	ARG
52	B3	49	LEU
52	B3	50	THR
53	B4	8	LYS
53	B4	35	LYS
53	B4	77	THR
53	B4	87	GLU
54	B5	6	ALA
54	B5	115	ASP
55	B6	9	GLU
55	B6	15	TRP
55	B6	19	ASP
4	AB	153	MET
6	AD	10	PRO
6	AD	122	LYS
7	AF	23	GLY
8	AG	25	GLU
9	AH	19	ASN
9	AH	48	ASP
10	AI	11	ALA
11	AJ	6	THR
11	AJ	47	ASP
12	AK	45	GLY
12	AK	65	SER
15	AO	9	ILE
15	AO	176	THR
17	AR	4	LEU
17	AR	37	PRO
18	AS	25	LYS

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Mol	Chain	Res	Type
18	AS	70	MET
18	AS	105	ILE
18	AS	127	TYR
20	AU	21	LEU
20	AU	25	PHE
21	AV	19	ALA
21	AV	106	SER
23	AX	34	ALA
23	AX	63	ASP
23	AX	69	THR
27	BD	5	GLN
27	BD	13	ASN
27	BD	46	ALA
28	BE	12	SER
28	BE	13	LYS
28	BE	96	LYS
29	BF	6	ARG
29	BF	9	PHE
29	BF	70	ASP
30	BG	5	LYS
30	BG	94	TYR
31	BH	9	ARG
31	BH	26	LEU
31	BH	62	LEU
32	BI	56	SER
32	BI	103	THR
33	BJ	25	GLY
34	BK	45	GLU
34	BK	48	LYS
34	BK	73	LYS
35	BL	34	ASP
35	BL	70	LYS
35	BL	91	GLY
36	BM	87	LEU
36	BM	94	ASP
37	BN	48	ILE
37	BN	67	LYS
37	BN	107	LYS
37	BN	179	GLU
37	BN	189	ALA
37	BN	224	MET
38	BO	24	VAL

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Mol	Chain	Res	Type
39	BP	4	LYS
39	BP	55	ASP
39	BP	58	LEU
42	BS	34	LEU
42	BS	69	SER
43	BT	8	THR
44	BU	49	LYS
46	BW	23	HIS
46	BW	43	LEU
47	BX	6	SER
48	BY	10	GLY
48	BY	30	GLU
48	BY	46	ARG
48	BY	87	GLY
48	BY	126	ASN
48	BY	136	ASN
48	BY	198	GLY
49	BZ	159	THR
49	BZ	195	LYS
49	BZ	216	LYS
50	B1	171	ASP
50	B1	191	ASP
51	B2	159	ALA
52	B3	174	LYS
55	B6	41	LYS
55	B6	104	ALA
4	AB	63	LYS
4	AB	72	LYS
5	AC	92	ARG
6	AD	105	GLY
7	AF	88	LEU
7	AF	112	ARG
9	AH	86	LEU
10	AI	2	VAL
10	AI	51	ARG
10	AI	69	ASP
12	AK	71	ASP
14	AN	64	GLY
16	AQ	12	ASP
17	AR	177	MET
19	AT	14	GLN
19	AT	44	ARG

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Mol	Chain	Res	Type
19	AT	82	ASP
21	AV	20	ASN
21	AV	66	GLN
22	AW	116	GLY
22	AW	128	LYS
23	AX	99	GLN
27	BD	55	GLY
27	BD	98	ARG
29	BF	8	LYS
29	BF	41	LEU
29	BF	86	LYS
30	BG	11	ASN
30	BG	18	GLN
32	BI	40	GLN
32	BI	79	VAL
32	BI	92	ARG
33	BJ	75	TYR
34	BK	12	HIS
34	BK	31	GLU
35	BL	43	ALA
36	BM	80	TRP
37	BN	4	LYS
37	BN	56	GLY
37	BN	57	HIS
37	BN	109	LEU
37	BN	140	VAL
37	BN	226	PRO
37	BN	230	PRO
39	BP	22	VAL
39	BP	33	GLY
39	BP	61	LYS
41	BR	23	LEU
45	BV	4	THR
46	BW	16	THR
46	BW	32	LEU
48	BY	102	ALA
50	B1	3	LEU
50	B1	22	ASP
50	B1	71	GLY
50	B1	172	ALA
52	B3	6	ALA
52	B3	167	VAL

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Mol	Chain	Res	Type
53	B4	86	ASP
53	B4	89	LYS
55	B6	14	ASP
55	B6	24	THR
55	B6	100	VAL
6	AD	67	GLY
15	AO	133	MET
16	AQ	34	ARG
18	AS	101	GLY
23	AX	38	GLY
23	AX	43	PRO
28	BE	56	PRO
29	BF	3	GLN
30	BG	100	CYS
31	BH	10	ARG
34	BK	40	MET
35	BL	74	ILE
37	BN	33	LEU
37	BN	84	PRO
37	BN	125	PRO
37	BN	169	ALA
37	BN	191	LEU
37	BN	214	GLY
37	BN	268	ARG
38	BO	34	ILE
38	BO	60	LYS
38	BO	64	ILE
39	BP	41	GLY
39	BP	62	ALA
40	BQ	31	GLN
43	BT	15	ARG
46	BW	14	LYS
47	BX	8	LYS
48	BY	34	VAL
48	BY	53	GLY
48	BY	85	ALA
48	BY	93	GLY
49	BZ	137	PRO
50	B1	120	VAL
50	B1	176	ASP
51	B2	38	GLY
51	B2	145	VAL

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Mol	Chain	Res	Type
52	B3	58	ALA
52	B3	99	GLY
54	B5	89	SER
55	B6	47	HIS
7	AF	63	VAL
15	AO	50	SER
26	BC	33	GLY
34	BK	101	ILE
35	BL	69	LEU
35	BL	71	VAL
38	BO	38	ILE
38	BO	49	PRO
38	BO	57	ILE
39	BP	43	LYS
39	BP	47	GLY
41	BR	32	GLY
48	BY	104	VAL
50	B1	173	THR
55	B6	81	ILE
55	B6	127	GLY
7	AF	3	ILE
10	AI	62	GLY
10	AI	64	GLY
29	BF	85	GLY
31	BH	101	GLY
37	BN	11	GLY
38	BO	71	ILE
42	BS	51	VAL
51	B2	39	VAL
54	B5	92	PRO
6	AD	121	PRO
16	AQ	10	PRO
21	AV	43	GLY
23	AX	57	VAL
27	BD	77	ILE
28	BE	55	MET
32	BI	31	VAL
36	BM	62	VAL
48	BY	98	VAL
49	BZ	210	GLY
55	B6	124	VAL
10	AI	71	VAL

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Mol	Chain	Res	Type
28	BE	139	GLY
32	BI	32	VAL
33	BJ	22	GLY
37	BN	227	VAL
38	BO	47	PRO
38	BO	54	PRO
48	BY	172	VAL
50	B1	186	VAL
52	B3	8	VAL
54	B5	51	GLY
15	AO	181	ILE
26	BC	4	ILE
28	BE	23	ILE
28	BE	90	VAL
29	BF	37	GLY
37	BN	178	GLY
37	BN	225	ASN
52	B3	20	GLY
53	B4	21	VAL
55	B6	18	VAL
55	B6	113	PRO
13	AL	61	VAL
15	AO	107	LYS
20	AU	93	VAL
26	BC	32	GLY
26	BC	60	VAL
29	BF	101	VAL

5.3.2 Protein sidechains

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
4	AB	180/199 (90%)	169 (94%)	11 (6%)	17 38
5	AC	90/99 (91%)	82 (91%)	8 (9%)	9 28
6	AD	103/104 (99%)	88 (85%)	15 (15%)	3 13

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
7	AF	92/96 (96%)	83 (90%)	9 (10%)	7 24
8	AG	79/84 (94%)	77 (98%)	2 (2%)	42 63
9	AH	76/77 (99%)	71 (93%)	5 (7%)	15 37
10	AI	65/65 (100%)	59 (91%)	6 (9%)	8 27
11	AJ	74/78 (95%)	67 (90%)	7 (10%)	8 25
12	AK	48/66 (73%)	43 (90%)	5 (10%)	7 22
13	AL	70/79 (89%)	61 (87%)	9 (13%)	4 15
14	AN	65/66 (98%)	58 (89%)	7 (11%)	6 21
15	AO	170/190 (90%)	158 (93%)	12 (7%)	13 35
16	AQ	44/61 (72%)	40 (91%)	4 (9%)	9 27
17	AR	172/173 (99%)	159 (92%)	13 (8%)	12 33
18	AS	113/119 (95%)	96 (85%)	17 (15%)	3 12
19	AT	87/116 (75%)	78 (90%)	9 (10%)	7 23
20	AU	123/147 (84%)	110 (89%)	13 (11%)	6 21
21	AV	104/105 (99%)	97 (93%)	7 (7%)	15 36
22	AW	105/107 (98%)	93 (89%)	12 (11%)	5 18
23	AX	86/90 (96%)	77 (90%)	9 (10%)	6 21
26	BC	78/78 (100%)	77 (99%)	1 (1%)	61 74
27	BD	102/104 (98%)	93 (91%)	9 (9%)	9 28
28	BE	103/103 (100%)	84 (82%)	19 (18%)	1 8
29	BF	109/109 (100%)	97 (89%)	12 (11%)	6 20
30	BG	103/103 (100%)	95 (92%)	8 (8%)	11 32
31	BH	87/87 (100%)	82 (94%)	5 (6%)	18 40
32	BI	99/100 (99%)	96 (97%)	3 (3%)	36 57
33	BJ	89/90 (99%)	80 (90%)	9 (10%)	7 23
34	BK	84/84 (100%)	75 (89%)	9 (11%)	6 21
35	BL	93/93 (100%)	81 (87%)	12 (13%)	4 15
36	BM	83/83 (100%)	72 (87%)	11 (13%)	4 14
37	BN	213/215 (99%)	189 (89%)	24 (11%)	5 19
38	BO	83/84 (99%)	75 (90%)	8 (10%)	8 25
39	BP	62/63 (98%)	52 (84%)	10 (16%)	2 11

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
40	BQ	55/55 (100%)	45 (82%)	10 (18%)	2 9
41	BR	48/49 (98%)	45 (94%)	3 (6%)	16 37
42	BS	62/62 (100%)	57 (92%)	5 (8%)	11 31
43	BT	47/48 (98%)	37 (79%)	10 (21%)	1 6
44	BU	48/48 (100%)	45 (94%)	3 (6%)	16 37
45	BV	38/38 (100%)	34 (90%)	4 (10%)	6 21
46	BW	51/51 (100%)	45 (88%)	6 (12%)	5 18
47	BX	34/34 (100%)	33 (97%)	1 (3%)	37 58
48	BY	164/164 (100%)	151 (92%)	13 (8%)	11 32
49	BZ	187/187 (100%)	171 (91%)	16 (9%)	10 29
50	B1	165/165 (100%)	142 (86%)	23 (14%)	3 14
51	B2	149/149 (100%)	131 (88%)	18 (12%)	5 17
52	B3	137/138 (99%)	125 (91%)	12 (9%)	9 28
53	B4	114/114 (100%)	103 (90%)	11 (10%)	8 25
54	B5	109/110 (99%)	101 (93%)	8 (7%)	13 34
55	B6	114/114 (100%)	101 (89%)	13 (11%)	5 18
All	All	4856/5043 (96%)	4380 (90%)	476 (10%)	10 24

All (476) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	AB	31	PHE
4	AB	59	ILE
4	AB	85	SER
4	AB	94	ARG
4	AB	99	MET
4	AB	116	LEU
4	AB	128	LEU
4	AB	185	ILE
4	AB	187	ASP
4	AB	202	ASN
4	AB	203	ASP
5	AC	14	GLN
5	AC	16	SER
5	AC	22	ILE
5	AC	30	ILE

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Mol	Chain	Res	Type
5	AC	36	ARG
5	AC	68	ARG
5	AC	78	ILE
5	AC	100	ASN
6	AD	11	ARG
6	AD	13	ARG
6	AD	17	LYS
6	AD	29	LYS
6	AD	39	THR
6	AD	54	VAL
6	AD	66	ILE
6	AD	74	GLN
6	AD	79	ILE
6	AD	87	LYS
6	AD	97	VAL
6	AD	98	ARG
6	AD	110	LYS
6	AD	111	GLN
6	AD	119	LYS
7	AF	8	ILE
7	AF	19	THR
7	AF	26	LYS
7	AF	28	ARG
7	AF	72	ILE
7	AF	77	LYS
7	AF	82	LEU
7	AF	103	THR
7	AF	111	PRO
8	AG	45	LEU
8	AG	89	ARG
9	AH	21	THR
9	AH	53	ARG
9	AH	72	LYS
9	AH	76	ARG
9	AH	86	LEU
10	AI	3	THR
10	AI	19	VAL
10	AI	21	VAL
10	AI	47	GLU
10	AI	63	GLN
10	AI	78	VAL
11	AJ	10	ARG

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Mol	Chain	Res	Type
11	AJ	16	MET
11	AJ	24	ILE
11	AJ	30	HIS
11	AJ	50	ASN
11	AJ	69	THR
11	AJ	76	ARG
12	AK	24	ASP
12	AK	25	ILE
12	AK	34	GLU
12	AK	49	LYS
12	AK	73	HIS
13	AL	6	LYS
13	AL	11	ASP
13	AL	18	VAL
13	AL	38	THR
13	AL	39	ILE
13	AL	50	VAL
13	AL	61	VAL
13	AL	72	GLU
13	AL	77	ARG
14	AN	5	SER
14	AN	9	ARG
14	AN	18	LYS
14	AN	69	ASN
14	AN	73	ARG
14	AN	78	LEU
14	AN	81	GLN
15	AO	4	VAL
15	AO	17	TRP
15	AO	19	SER
15	AO	35	ASP
15	AO	43	THR
15	AO	65	VAL
15	AO	107	LYS
15	AO	155	ARG
15	AO	156	LEU
15	AO	187	GLU
15	AO	197	VAL
15	AO	205	GLU
16	AQ	3	ILE
16	AQ	12	ASP
16	AQ	32	ARG

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Mol	Chain	Res	Type
16	AQ	43	GLU
17	AR	3	TYR
17	AR	4	LEU
17	AR	14	GLU
17	AR	32	LYS
17	AR	47	LEU
17	AR	69	ARG
17	AR	80	ARG
17	AR	89	LEU
17	AR	103	ARG
17	AR	104	MET
17	AR	109	THR
17	AR	119	HIS
17	AR	196	GLU
18	AS	14	LEU
18	AS	42	ASN
18	AS	47	PHE
18	AS	53	ARG
18	AS	61	LYS
18	AS	65	LYS
18	AS	72	ASN
18	AS	81	GLN
18	AS	88	HIS
18	AS	89	THR
18	AS	92	ARG
18	AS	105	ILE
18	AS	130	THR
18	AS	132	PRO
18	AS	144	GLU
18	AS	145	ASN
18	AS	156	ARG
19	AT	1	MET
19	AT	15	SER
19	AT	18	VAL
19	AT	33	GLU
19	AT	42	TRP
19	AT	46	GLN
19	AT	68	GLN
19	AT	71	ILE
19	AT	86	ARG
20	AU	4	ARG
20	AU	14	ASP

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Mol	Chain	Res	Type
20	AU	68	VAL
20	AU	70	PRO
20	AU	71	THR
20	AU	74	VAL
20	AU	75	LYS
20	AU	92	PRO
20	AU	95	ARG
20	AU	98	LEU
20	AU	110	ARG
20	AU	112	ASP
20	AU	145	GLU
21	AV	10	LEU
21	AV	13	ILE
21	AV	20	ASN
21	AV	75	GLN
21	AV	84	ILE
21	AV	89	ASP
21	AV	113	ARG
22	AW	8	THR
22	AW	10	ARG
22	AW	24	ASN
22	AW	40	ARG
22	AW	62	LEU
22	AW	66	VAL
22	AW	71	ILE
22	AW	83	THR
22	AW	93	LEU
22	AW	103	VAL
22	AW	118	ARG
22	AW	128	LYS
23	AX	6	ILE
23	AX	42	LEU
23	AX	53	ILE
23	AX	57	VAL
23	AX	71	LEU
23	AX	81	GLU
23	AX	83	THR
23	AX	87	LEU
23	AX	89	ARG
26	BC	7	GLU
27	BD	28	SER
27	BD	30	ARG

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Mol	Chain	Res	Type
27	BD	47	ILE
27	BD	52	VAL
27	BD	69	VAL
27	BD	85	VAL
27	BD	105	ARG
27	BD	112	PHE
27	BD	121	GLU
28	BE	5	THR
28	BE	35	HIS
28	BE	36	LYS
28	BE	42	SER
28	BE	46	VAL
28	BE	47	ARG
28	BE	54	GLN
28	BE	56	PRO
28	BE	63	LYS
28	BE	90	VAL
28	BE	92	LEU
28	BE	94	THR
28	BE	101	ILE
28	BE	106	GLU
28	BE	109	LYS
28	BE	120	VAL
28	BE	126	ARG
28	BE	135	ILE
28	BE	144	GLU
29	BF	3	GLN
29	BF	6	ARG
29	BF	67	VAL
29	BF	68	PHE
29	BF	69	PRO
29	BF	76	LYS
29	BF	82	MET
29	BF	95	LEU
29	BF	97	GLN
29	BF	101	VAL
29	BF	102	LEU
29	BF	136	MET
30	BG	44	LEU
30	BG	48	VAL
30	BG	52	ILE
30	BG	63	ARG

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Mol	Chain	Res	Type
30	BG	79	LEU
30	BG	80	PHE
30	BG	99	LYS
30	BG	115	LEU
31	BH	9	ARG
31	BH	20	GLU
31	BH	54	VAL
31	BH	84	GLU
31	BH	112	GLU
32	BI	19	PHE
32	BI	92	ARG
32	BI	99	LEU
33	BJ	16	ILE
33	BJ	21	LYS
33	BJ	23	TYR
33	BJ	40	LYS
33	BJ	53	LYS
33	BJ	59	LEU
33	BJ	63	ARG
33	BJ	76	SER
33	BJ	90	ASP
34	BK	23	GLU
34	BK	27	ILE
34	BK	33	VAL
34	BK	39	LEU
34	BK	41	ILE
34	BK	46	GLU
34	BK	80	ARG
34	BK	84	ARG
34	BK	98	ILE
35	BL	4	ILE
35	BL	40	ASN
35	BL	47	VAL
35	BL	59	GLU
35	BL	66	ILE
35	BL	67	ASP
35	BL	85	ILE
35	BL	90	LYS
35	BL	96	ILE
35	BL	98	LYS
35	BL	100	THR
35	BL	108	SER

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Mol	Chain	Res	Type
36	BM	2	ILE
36	BM	5	GLU
36	BM	7	LEU
36	BM	12	ARG
36	BM	15	HIS
36	BM	42	GLU
36	BM	67	VAL
36	BM	68	LYS
36	BM	73	ARG
36	BM	80	TRP
36	BM	87	LEU
37	BN	4	LYS
37	BN	8	THR
37	BN	42	ARG
37	BN	53	ILE
37	BN	61	TYR
37	BN	66	PHE
37	BN	68	ARG
37	BN	79	ARG
37	BN	82	TYR
37	BN	94	LEU
37	BN	96	LYS
37	BN	101	ARG
37	BN	107	LYS
37	BN	123	ILE
37	BN	139	THR
37	BN	155	ARG
37	BN	159	THR
37	BN	175	LEU
37	BN	181	ARG
37	BN	199	HIS
37	BN	230	PRO
37	BN	231	HIS
37	BN	262	THR
37	BN	268	ARG
38	BO	5	ARG
38	BO	25	LYS
38	BO	34	ILE
38	BO	38	ILE
38	BO	73	ASN
38	BO	93	ARG
38	BO	101	THR

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Mol	Chain	Res	Type
38	BO	102	ILE
39	BP	10	ARG
39	BP	24	ARG
39	BP	30	VAL
39	BP	36	ILE
39	BP	45	HIS
39	BP	59	PHE
39	BP	65	LYS
39	BP	75	ASN
39	BP	79	ILE
39	BP	84	GLU
40	BQ	14	LEU
40	BQ	27	ASN
40	BQ	30	MET
40	BQ	36	GLN
40	BQ	38	GLN
40	BQ	39	GLN
40	BQ	44	LYS
40	BQ	47	ARG
40	BQ	48	ARG
40	BQ	50	VAL
41	BR	17	PRO
41	BR	18	LYS
41	BR	23	LEU
42	BS	7	PRO
42	BS	12	ILE
42	BS	30	HIS
42	BS	47	LYS
42	BS	53	THR
43	BT	3	GLN
43	BT	4	GLN
43	BT	5	ASN
43	BT	8	THR
43	BT	9	ARG
43	BT	15	ARG
43	BT	16	ARG
43	BT	36	LYS
43	BT	37	HIS
43	BT	42	ILE
44	BU	8	ILE
44	BU	41	VAL
44	BU	49	LYS

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Mol	Chain	Res	Type
45	BV	4	THR
45	BV	25	LYS
45	BV	31	LEU
45	BV	35	ARG
46	BW	4	LYS
46	BW	12	ARG
46	BW	23	HIS
46	BW	29	ARG
46	BW	33	THR
46	BW	43	LEU
47	BX	23	ILE
48	BY	13	ARG
48	BY	14	ILE
48	BY	16	THR
48	BY	36	GLN
48	BY	101	PHE
48	BY	126	ASN
48	BY	131	ASP
48	BY	151	THR
48	BY	155	VAL
48	BY	165	MET
48	BY	170	VAL
48	BY	184	ARG
48	BY	201	LEU
49	BZ	4	ASP
49	BZ	28	GLN
49	BZ	39	ILE
49	BZ	50	GLU
49	BZ	54	LEU
49	BZ	55	PRO
49	BZ	69	SER
49	BZ	85	ILE
49	BZ	99	PRO
49	BZ	100	VAL
49	BZ	106	GLN
49	BZ	123	ILE
49	BZ	161	ASP
49	BZ	191	GLU
49	BZ	199	ASN
49	BZ	217	ARG
50	B1	4	VAL
50	B1	23	PHE

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Mol	Chain	Res	Type
50	B1	27	LEU
50	B1	29	HIS
50	B1	35	TYR
50	B1	51	GLU
50	B1	52	VAL
50	B1	57	LYS
50	B1	69	ARG
50	B1	74	LYS
50	B1	98	LYS
50	B1	109	LEU
50	B1	116	ASP
50	B1	117	ARG
50	B1	130	LYS
50	B1	143	LEU
50	B1	150	THR
50	B1	152	GLU
50	B1	153	LEU
50	B1	162	ARG
50	B1	177	PRO
50	B1	189	THR
50	B1	191	ASP
51	B2	2	LYS
51	B2	10	GLU
51	B2	11	VAL
51	B2	49	LEU
51	B2	63	LYS
51	B2	77	LYS
51	B2	80	GLN
51	B2	84	ILE
51	B2	99	PHE
51	B2	105	ILE
51	B2	108	PRO
51	B2	121	PHE
51	B2	132	ARG
51	B2	136	ILE
51	B2	146	ASP
51	B2	148	VAL
51	B2	158	THR
51	B2	177	ARG
52	B3	21	GLN
52	B3	23	ILE
52	B3	34	ARG

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Mol	Chain	Res	Type
52	B3	57	TYR
52	B3	59	ASP
52	B3	86	LEU
52	B3	88	LEU
52	B3	120	ILE
52	B3	130	ILE
52	B3	151	ARG
52	B3	156	TYR
52	B3	167	VAL
53	B4	5	LEU
53	B4	7	ASP
53	B4	11	ASN
53	B4	17	ASP
53	B4	25	TYR
53	B4	37	VAL
53	B4	44	ILE
53	B4	60	GLU
53	B4	94	ILE
53	B4	133	GLN
53	B4	143	ILE
54	B5	49	GLU
54	B5	54	ILE
54	B5	57	VAL
54	B5	64	ARG
54	B5	92	PRO
54	B5	117	THR
54	B5	121	ILE
54	B5	141	ASP
55	B6	9	GLU
55	B6	16	TYR
55	B6	28	LEU
55	B6	35	ARG
55	B6	45	THR
55	B6	54	ILE
55	B6	60	ASP
55	B6	64	VAL
55	B6	81	ILE
55	B6	99	ARG
55	B6	102	GLU
55	B6	116	ARG
55	B6	122	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (83)

such sidechains are listed below:

Mol	Chain	Res	Type
4	AB	35	ASN
4	AB	57	ASN
4	AB	92	ASN
4	AB	119	GLN
4	AB	145	ASN
4	AB	177	ASN
5	AC	21	HIS
5	AC	108	ASN
6	AD	58	ASN
6	AD	72	ASN
7	AF	7	ASN
7	AF	99	GLN
10	AI	26	ASN
13	AL	42	ASN
13	AL	56	HIS
14	AN	51	ASN
14	AN	83	ASN
15	AO	2	GLN
15	AO	40	GLN
15	AO	68	HIS
15	AO	189	HIS
17	AR	70	GLN
17	AR	88	ASN
18	AS	134	ASN
20	AU	129	ASN
21	AV	66	GLN
22	AW	4	GLN
22	AW	49	GLN
22	AW	74	GLN
23	AX	15	HIS
26	BC	49	ASN
26	BC	88	HIS
27	BD	13	ASN
27	BD	29	HIS
27	BD	90	ASN
28	BE	99	ASN
29	BF	45	GLN
29	BF	97	GLN
30	BG	73	ASN
31	BH	19	GLN
31	BH	34	HIS
31	BH	43	ASN

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Mol	Chain	Res	Type
31	BH	67	ASN
32	BI	65	ASN
32	BI	74	GLN
32	BI	76	HIS
33	BJ	65	ASN
34	BK	11	GLN
34	BK	18	GLN
34	BK	66	HIS
37	BN	69	ASN
37	BN	89	ASN
37	BN	114	GLN
37	BN	133	ASN
37	BN	162	GLN
39	BP	56	HIS
40	BQ	25	GLN
40	BQ	41	HIS
42	BS	48	GLN
43	BT	3	GLN
43	BT	4	GLN
44	BU	25	ASN
45	BV	26	ASN
47	BX	37	GLN
48	BY	140	HIS
48	BY	148	GLN
48	BY	164	GLN
49	BZ	164	GLN
49	BZ	166	GLN
49	BZ	188	ASN
49	BZ	202	ASN
50	B1	29	HIS
51	B2	20	ASN
51	B2	51	ASN
51	B2	62	GLN
52	B3	63	GLN
52	B3	100	ASN
52	B3	103	ASN
52	B3	142	GLN
53	B4	28	ASN
53	B4	43	ASN
53	B4	73	ASN
54	B5	42	ASN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	75/76 (98%)	23 (30%)	10 (13%)
1	AE	75/76 (98%)	13 (17%)	5 (6%)
1	AP	74/76 (97%)	14 (18%)	9 (12%)
2	AM	20/20 (100%)	10 (50%)	8 (40%)
24	BA	116/117 (99%)	39 (33%)	18 (15%)
25	BB	2902/2903 (99%)	1547 (53%)	494 (17%)
3	A1	1529/1530 (99%)	756 (49%)	270 (17%)
All	All	4791/4798 (99%)	2402 (50%)	814 (16%)

All (2402) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	2	C
1	AA	3	G
1	AA	10	G
1	AA	16	U
1	AA	17	U
1	AA	18	G
1	AA	21	A
1	AA	22	G
1	AA	23	A
1	AA	32	C
1	AA	33	U
1	AA	34	G
1	AA	39	U
1	AA	44	A
1	AA	47	U
1	AA	48	C
1	AA	54	U
1	AA	58	A
1	AA	59	U
1	AA	69	U
1	AA	71	G
1	AA	74	C
1	AA	75	C
1	AP	8	U
1	AP	16	U
1	AP	17	U
1	AP	18	G
1	AP	19	G
1	AP	20	G

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Mol	Chain	Res	Type
1	AP	21	A
1	AP	31	A
1	AP	32	C
1	AP	36	A
1	AP	37	G
1	AP	58	A
1	AP	59	U
1	AP	75	C
1	AE	13	C
1	AE	14	A
1	AE	15	G
1	AE	17	U
1	AE	18	G
1	AE	19	G
1	AE	21	A
1	AE	34	G
1	AE	36	A
1	AE	46	G
1	AE	47	U
1	AE	48	C
1	AE	76	A
2	AM	2	U
2	AM	3	U
2	AM	4	U
2	AM	5	U
2	AM	6	U
2	AM	7	U
2	AM	10	U
2	AM	13	U
2	AM	14	U
2	AM	15	U
3	A1	6	G
3	A1	7	A
3	A1	8	A
3	A1	9	G
3	A1	10	A
3	A1	11	G
3	A1	12	U
3	A1	14	U
3	A1	15	G
3	A1	16	A
3	A1	20	U

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Mol	Chain	Res	Type
3	A1	21	G
3	A1	22	G
3	A1	25	C
3	A1	26	A
3	A1	27	G
3	A1	29	U
3	A1	30	U
3	A1	31	G
3	A1	32	A
3	A1	36	C
3	A1	39	G
3	A1	41	G
3	A1	45	G
3	A1	46	G
3	A1	47	C
3	A1	48	C
3	A1	49	U
3	A1	50	A
3	A1	51	A
3	A1	53	A
3	A1	57	G
3	A1	59	A
3	A1	60	A
3	A1	61	G
3	A1	64	G
3	A1	65	A
3	A1	66	A
3	A1	67	C
3	A1	69	G
3	A1	70	U
3	A1	83	C
3	A1	84	U
3	A1	85	U
3	A1	86	G
3	A1	87	C
3	A1	89	U
3	A1	93	U
3	A1	94	G
3	A1	95	C
3	A1	96	U
3	A1	100	G
3	A1	105	G

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Mol	Chain	Res	Type
3	A1	106	C
3	A1	107	G
3	A1	108	G
3	A1	109	A
3	A1	110	C
3	A1	112	G
3	A1	114	U
3	A1	115	G
3	A1	116	A
3	A1	118	U
3	A1	119	A
3	A1	120	A
3	A1	121	U
3	A1	122	G
3	A1	123	U
3	A1	124	C
3	A1	125	U
3	A1	129	A
3	A1	131	A
3	A1	142	G
3	A1	143	A
3	A1	149	A
3	A1	150	U
3	A1	159	G
3	A1	160	A
3	A1	163	C
3	A1	167	A
3	A1	168	G
3	A1	169	C
3	A1	170	U
3	A1	171	A
3	A1	172	A
3	A1	176	C
3	A1	182	A
3	A1	183	C
3	A1	184	G
3	A1	189	A
3	A1	191	G
3	A1	198	G
3	A1	209	U
3	A1	210	C
3	A1	211	G

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Mol	Chain	Res	Type
3	A1	214	C
3	A1	220	G
3	A1	224	U
3	A1	225	C
3	A1	226	G
3	A1	227	G
3	A1	229	U
3	A1	230	G
3	A1	238	A
3	A1	240	G
3	A1	241	G
3	A1	242	G
3	A1	244	U
3	A1	245	U
3	A1	246	A
3	A1	247	G
3	A1	250	A
3	A1	251	G
3	A1	254	G
3	A1	257	G
3	A1	259	G
3	A1	261	U
3	A1	264	C
3	A1	265	G
3	A1	266	G
3	A1	267	C
3	A1	268	U
3	A1	273	U
3	A1	274	A
3	A1	275	G
3	A1	277	C
3	A1	280	C
3	A1	281	G
3	A1	287	U
3	A1	289	G
3	A1	290	C
3	A1	291	U
3	A1	295	C
3	A1	297	G
3	A1	298	A
3	A1	299	G
3	A1	300	A

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Mol	Chain	Res	Type
3	A1	301	G
3	A1	306	A
3	A1	307	C
3	A1	309	A
3	A1	311	C
3	A1	312	C
3	A1	313	A
3	A1	315	A
3	A1	316	C
3	A1	317	U
3	A1	319	G
3	A1	321	A
3	A1	325	A
3	A1	327	A
3	A1	328	C
3	A1	329	A
3	A1	330	C
3	A1	331	G
3	A1	332	G
3	A1	333	U
3	A1	338	A
3	A1	339	C
3	A1	344	A
3	A1	345	C
3	A1	352	C
3	A1	353	A
3	A1	354	G
3	A1	356	A
3	A1	357	G
3	A1	358	U
3	A1	359	G
3	A1	364	A
3	A1	365	U
3	A1	366	A
3	A1	367	U
3	A1	368	U
3	A1	369	G
3	A1	372	C
3	A1	373	A
3	A1	374	A
3	A1	376	G
3	A1	377	G

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Mol	Chain	Res	Type
3	A1	379	C
3	A1	380	G
3	A1	381	C
3	A1	382	A
3	A1	396	C
3	A1	397	A
3	A1	400	C
3	A1	401	C
3	A1	406	G
3	A1	412	A
3	A1	414	A
3	A1	415	A
3	A1	422	C
3	A1	423	G
3	A1	424	G
3	A1	425	G
3	A1	426	U
3	A1	427	U
3	A1	428	G
3	A1	429	U
3	A1	430	A
3	A1	432	A
3	A1	433	G
3	A1	435	A
3	A1	438	U
3	A1	439	U
3	A1	440	C
3	A1	441	A
3	A1	442	G
3	A1	446	G
3	A1	449	G
3	A1	451	A
3	A1	454	G
3	A1	461	A
3	A1	462	G
3	A1	463	U
3	A1	465	A
3	A1	466	A
3	A1	467	U
3	A1	468	A
3	A1	469	C
3	A1	483	C

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Mol	Chain	Res	Type
3	A1	485	U
3	A1	493	A
3	A1	498	A
3	A1	499	A
3	A1	500	G
3	A1	501	C
3	A1	503	C
3	A1	504	C
3	A1	505	G
3	A1	506	G
3	A1	511	C
3	A1	512	U
3	A1	518	C
3	A1	519	C
3	A1	520	A
3	A1	521	G
3	A1	524	G
3	A1	528	C
3	A1	529	G
3	A1	531	U
3	A1	532	A
3	A1	535	A
3	A1	536	C
3	A1	542	G
3	A1	547	A
3	A1	550	G
3	A1	551	U
3	A1	554	A
3	A1	555	U
3	A1	558	G
3	A1	559	A
3	A1	560	A
3	A1	561	U
3	A1	562	U
3	A1	564	C
3	A1	565	U
3	A1	567	G
3	A1	569	C
3	A1	570	G
3	A1	571	U
3	A1	572	A
3	A1	573	A

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Mol	Chain	Res	Type
3	A1	574	A
3	A1	575	G
3	A1	576	C
3	A1	577	G
3	A1	578	C
3	A1	580	C
3	A1	581	G
3	A1	582	C
3	A1	588	G
3	A1	593	U
3	A1	596	A
3	A1	598	U
3	A1	607	A
3	A1	609	A
3	A1	610	U
3	A1	619	U
3	A1	622	A
3	A1	623	C
3	A1	625	U
3	A1	630	A
3	A1	631	C
3	A1	632	U
3	A1	633	G
3	A1	639	G
3	A1	642	A
3	A1	650	G
3	A1	651	C
3	A1	652	U
3	A1	653	U
3	A1	654	G
3	A1	655	A
3	A1	666	G
3	A1	667	G
3	A1	668	G
3	A1	676	A
3	A1	681	A
3	A1	683	G
3	A1	687	A
3	A1	688	G
3	A1	695	A
3	A1	697	U
3	A1	699	C

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Mol	Chain	Res	Type
3	A1	700	G
3	A1	701	U
3	A1	702	A
3	A1	703	G
3	A1	705	G
3	A1	706	A
3	A1	715	A
3	A1	716	A
3	A1	717	U
3	A1	719	C
3	A1	720	C
3	A1	721	G
3	A1	723	U
3	A1	724	G
3	A1	726	C
3	A1	727	G
3	A1	729	A
3	A1	731	G
3	A1	732	C
3	A1	733	G
3	A1	734	G
3	A1	735	C
3	A1	736	C
3	A1	741	G
3	A1	742	G
3	A1	743	A
3	A1	744	C
3	A1	747	A
3	A1	748	G
3	A1	752	G
3	A1	753	A
3	A1	755	G
3	A1	756	C
3	A1	763	G
3	A1	771	G
3	A1	774	G
3	A1	777	A
3	A1	778	G
3	A1	781	A
3	A1	782	A
3	A1	783	C
3	A1	784	A

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Mol	Chain	Res	Type
3	A1	785	G
3	A1	788	U
3	A1	789	U
3	A1	790	A
3	A1	791	G
3	A1	792	A
3	A1	793	U
3	A1	795	C
3	A1	796	C
3	A1	797	C
3	A1	801	U
3	A1	803	G
3	A1	804	U
3	A1	805	C
3	A1	808	C
3	A1	811	C
3	A1	812	G
3	A1	813	U
3	A1	815	A
3	A1	817	C
3	A1	818	G
3	A1	819	A
3	A1	820	U
3	A1	821	G
3	A1	822	U
3	A1	826	C
3	A1	827	U
3	A1	829	G
3	A1	830	G
3	A1	834	U
3	A1	841	C
3	A1	843	U
3	A1	844	G
3	A1	845	A
3	A1	847	G
3	A1	849	G
3	A1	855	U
3	A1	857	C
3	A1	858	G
3	A1	861	G
3	A1	862	C
3	A1	863	U

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Mol	Chain	Res	Type
3	A1	865	A
3	A1	867	G
3	A1	868	C
3	A1	869	G
3	A1	870	U
3	A1	871	U
3	A1	872	A
3	A1	873	A
3	A1	874	G
3	A1	875	U
3	A1	876	C
3	A1	879	C
3	A1	881	G
3	A1	882	C
3	A1	883	C
3	A1	885	G
3	A1	886	G
3	A1	887	G
3	A1	889	A
3	A1	890	G
3	A1	891	U
3	A1	892	A
3	A1	893	C
3	A1	894	G
3	A1	900	A
3	A1	901	A
3	A1	906	A
3	A1	907	A
3	A1	910	C
3	A1	911	U
3	A1	914	A
3	A1	915	A
3	A1	916	U
3	A1	918	A
3	A1	920	U
3	A1	921	U
3	A1	922	G
3	A1	923	A
3	A1	924	C
3	A1	925	G
3	A1	926	G
3	A1	927	G

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Mol	Chain	Res	Type
3	A1	931	C
3	A1	934	C
3	A1	935	A
3	A1	936	C
3	A1	938	A
3	A1	939	G
3	A1	944	G
3	A1	945	G
3	A1	953	G
3	A1	957	U
3	A1	960	U
3	A1	961	U
3	A1	962	C
3	A1	963	G
3	A1	964	A
3	A1	965	U
3	A1	966	G
3	A1	967	C
3	A1	968	A
3	A1	969	A
3	A1	970	C
3	A1	972	C
3	A1	973	G
3	A1	974	A
3	A1	975	A
3	A1	976	G
3	A1	977	A
3	A1	978	A
3	A1	979	C
3	A1	980	C
3	A1	981	U
3	A1	982	U
3	A1	984	C
3	A1	989	U
3	A1	991	U
3	A1	992	U
3	A1	993	G
3	A1	994	A
3	A1	997	U
3	A1	998	C
3	A1	999	C
3	A1	1000	A

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Mol	Chain	Res	Type
3	A1	1001	C
3	A1	1004	A
3	A1	1008	U
3	A1	1016	A
3	A1	1017	U
3	A1	1020	G
3	A1	1025	U
3	A1	1026	G
3	A1	1027	C
3	A1	1028	C
3	A1	1029	U
3	A1	1030	U
3	A1	1031	C
3	A1	1034	G
3	A1	1037	C
3	A1	1045	C
3	A1	1049	U
3	A1	1050	G
3	A1	1051	C
3	A1	1052	U
3	A1	1053	G
3	A1	1054	C
3	A1	1055	A
3	A1	1057	G
3	A1	1058	G
3	A1	1063	C
3	A1	1064	G
3	A1	1065	U
3	A1	1066	C
3	A1	1067	A
3	A1	1068	G
3	A1	1072	G
3	A1	1077	G
3	A1	1078	U
3	A1	1081	A
3	A1	1082	A
3	A1	1084	G
3	A1	1085	U
3	A1	1094	G
3	A1	1095	U
3	A1	1097	C
3	A1	1101	A

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Mol	Chain	Res	Type
3	A1	1103	C
3	A1	1104	G
3	A1	1106	G
3	A1	1109	C
3	A1	1110	A
3	A1	1111	A
3	A1	1116	U
3	A1	1117	A
3	A1	1123	U
3	A1	1124	G
3	A1	1125	U
3	A1	1126	U
3	A1	1127	G
3	A1	1128	C
3	A1	1129	C
3	A1	1130	A
3	A1	1131	G
3	A1	1133	G
3	A1	1135	U
3	A1	1137	C
3	A1	1138	G
3	A1	1139	G
3	A1	1140	C
3	A1	1141	C
3	A1	1142	G
3	A1	1143	G
3	A1	1146	A
3	A1	1152	A
3	A1	1154	G
3	A1	1157	A
3	A1	1158	C
3	A1	1159	U
3	A1	1160	G
3	A1	1162	C
3	A1	1167	A
3	A1	1168	U
3	A1	1169	A
3	A1	1170	A
3	A1	1171	A
3	A1	1175	G
3	A1	1177	G
3	A1	1182	G

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Mol	Chain	Res	Type
3	A1	1183	U
3	A1	1188	A
3	A1	1189	U
3	A1	1191	A
3	A1	1193	G
3	A1	1195	C
3	A1	1196	A
3	A1	1197	A
3	A1	1198	G
3	A1	1199	U
3	A1	1200	C
3	A1	1201	A
3	A1	1202	U
3	A1	1203	C
3	A1	1204	A
3	A1	1209	C
3	A1	1210	C
3	A1	1212	U
3	A1	1214	C
3	A1	1215	G
3	A1	1216	A
3	A1	1217	C
3	A1	1218	C
3	A1	1220	G
3	A1	1221	G
3	A1	1223	C
3	A1	1224	U
3	A1	1225	A
3	A1	1226	C
3	A1	1227	A
3	A1	1228	C
3	A1	1229	A
3	A1	1232	U
3	A1	1233	G
3	A1	1235	U
3	A1	1238	A
3	A1	1239	A
3	A1	1240	U
3	A1	1248	A
3	A1	1250	A
3	A1	1251	A
3	A1	1253	G

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Mol	Chain	Res	Type
3	A1	1256	A
3	A1	1257	A
3	A1	1258	G
3	A1	1263	C
3	A1	1268	G
3	A1	1270	G
3	A1	1276	G
3	A1	1279	G
3	A1	1280	A
3	A1	1281	C
3	A1	1283	U
3	A1	1284	C
3	A1	1285	A
3	A1	1286	U
3	A1	1287	A
3	A1	1290	G
3	A1	1292	G
3	A1	1297	G
3	A1	1298	U
3	A1	1300	G
3	A1	1301	U
3	A1	1302	C
3	A1	1303	C
3	A1	1309	G
3	A1	1310	G
3	A1	1318	A
3	A1	1319	A
3	A1	1320	C
3	A1	1322	C
3	A1	1323	G
3	A1	1330	U
3	A1	1334	G
3	A1	1335	U
3	A1	1336	C
3	A1	1337	G
3	A1	1338	G
3	A1	1340	A
3	A1	1341	U
3	A1	1342	C
3	A1	1343	G
3	A1	1344	C
3	A1	1345	U

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Mol	Chain	Res	Type
3	A1	1346	A
3	A1	1347	G
3	A1	1351	U
3	A1	1352	C
3	A1	1354	U
3	A1	1357	A
3	A1	1359	C
3	A1	1361	G
3	A1	1362	A
3	A1	1363	A
3	A1	1364	U
3	A1	1365	G
3	A1	1366	C
3	A1	1367	C
3	A1	1368	A
3	A1	1370	G
3	A1	1374	A
3	A1	1378	C
3	A1	1379	G
3	A1	1380	U
3	A1	1381	U
3	A1	1382	C
3	A1	1383	C
3	A1	1384	C
3	A1	1388	C
3	A1	1389	C
3	A1	1392	G
3	A1	1394	A
3	A1	1395	C
3	A1	1396	A
3	A1	1397	C
3	A1	1398	A
3	A1	1399	C
3	A1	1400	C
3	A1	1401	G
3	A1	1402	C
3	A1	1403	C
3	A1	1405	G
3	A1	1406	U
3	A1	1407	C
3	A1	1408	A
3	A1	1410	A

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Mol	Chain	Res	Type
3	A1	1414	U
3	A1	1415	G
3	A1	1416	G
3	A1	1417	G
3	A1	1419	G
3	A1	1420	U
3	A1	1421	G
3	A1	1426	G
3	A1	1427	C
3	A1	1428	A
3	A1	1429	A
3	A1	1432	G
3	A1	1434	A
3	A1	1442	G
3	A1	1444	U
3	A1	1445	U
3	A1	1446	A
3	A1	1447	A
3	A1	1450	U
3	A1	1451	U
3	A1	1452	C
3	A1	1460	C
3	A1	1461	G
3	A1	1467	C
3	A1	1469	C
3	A1	1470	U
3	A1	1471	U
3	A1	1473	G
3	A1	1474	U
3	A1	1475	G
3	A1	1476	A
3	A1	1477	U
3	A1	1480	A
3	A1	1481	U
3	A1	1482	G
3	A1	1483	A
3	A1	1484	C
3	A1	1485	U
3	A1	1486	G
3	A1	1489	G
3	A1	1491	G
3	A1	1492	A

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Mol	Chain	Res	Type
3	A1	1493	A
3	A1	1494	G
3	A1	1495	U
3	A1	1498	U
3	A1	1499	A
3	A1	1501	C
3	A1	1502	A
3	A1	1503	A
3	A1	1504	G
3	A1	1505	G
3	A1	1506	U
3	A1	1507	A
3	A1	1508	A
3	A1	1509	C
3	A1	1510	C
3	A1	1512	U
3	A1	1516	G
3	A1	1517	G
3	A1	1518	A
3	A1	1519	A
3	A1	1520	C
3	A1	1521	C
3	A1	1522	U
3	A1	1523	G
3	A1	1525	G
3	A1	1526	G
3	A1	1527	U
3	A1	1528	U
3	A1	1529	G
3	A1	1530	G
3	A1	1531	A
24	BA	11	C
24	BA	13	G
24	BA	14	U
24	BA	15	A
24	BA	20	G
24	BA	25	U
24	BA	26	C
24	BA	27	C
24	BA	29	A
24	BA	30	C
24	BA	31	C

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Mol	Chain	Res	Type
24	BA	35	C
24	BA	36	C
24	BA	40	U
24	BA	41	G
24	BA	42	C
24	BA	44	G
24	BA	45	A
24	BA	46	A
24	BA	50	A
24	BA	51	G
24	BA	52	A
24	BA	58	A
24	BA	67	G
24	BA	70	C
24	BA	75	G
24	BA	78	A
24	BA	79	G
24	BA	80	U
24	BA	82	U
24	BA	83	G
24	BA	88	C
24	BA	89	U
24	BA	94	A
24	BA	98	G
24	BA	100	G
24	BA	105	G
24	BA	108	A
24	BA	109	A
25	BB	2	G
25	BB	3	U
25	BB	4	U
25	BB	6	A
25	BB	7	G
25	BB	9	G
25	BB	10	A
25	BB	11	C
25	BB	12	U
25	BB	13	A
25	BB	14	A
25	BB	15	G
25	BB	17	G
25	BB	18	U

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Mol	Chain	Res	Type
25	BB	19	A
25	BB	20	C
25	BB	23	G
25	BB	24	G
25	BB	25	U
25	BB	26	G
25	BB	27	G
25	BB	28	A
25	BB	29	U
25	BB	30	G
25	BB	31	C
25	BB	34	U
25	BB	35	G
25	BB	40	U
25	BB	43	G
25	BB	45	G
25	BB	46	G
25	BB	48	G
25	BB	49	A
25	BB	50	U
25	BB	52	A
25	BB	55	G
25	BB	57	C
25	BB	58	G
25	BB	59	U
25	BB	61	C
25	BB	62	U
25	BB	63	A
25	BB	64	A
25	BB	65	U
25	BB	67	U
25	BB	68	G
25	BB	69	C
25	BB	70	G
25	BB	71	A
25	BB	72	U
25	BB	73	A
25	BB	74	A
25	BB	75	G
25	BB	80	G
25	BB	81	G
25	BB	82	U

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Mol	Chain	Res	Type
25	BB	83	A
25	BB	84	A
25	BB	85	G
25	BB	88	G
25	BB	89	A
25	BB	90	U
25	BB	91	A
25	BB	92	U
25	BB	93	G
25	BB	96	C
25	BB	99	U
25	BB	100	U
25	BB	101	A
25	BB	102	U
25	BB	103	A
25	BB	104	A
25	BB	105	C
25	BB	106	C
25	BB	112	U
25	BB	113	U
25	BB	114	U
25	BB	117	G
25	BB	118	A
25	BB	119	A
25	BB	120	U
25	BB	121	G
25	BB	122	G
25	BB	124	G
25	BB	125	A
25	BB	126	A
25	BB	127	A
25	BB	128	C
25	BB	129	C
25	BB	130	C
25	BB	131	A
25	BB	142	A
25	BB	144	A
25	BB	147	C
25	BB	148	U
25	BB	150	U
25	BB	151	C
25	BB	152	A

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Mol	Chain	Res	Type
25	BB	162	U
25	BB	163	C
25	BB	164	C
25	BB	166	U
25	BB	170	U
25	BB	178	G
25	BB	186	G
25	BB	187	G
25	BB	188	G
25	BB	189	G
25	BB	190	A
25	BB	192	C
25	BB	195	A
25	BB	196	A
25	BB	197	A
25	BB	198	C
25	BB	199	A
25	BB	200	U
25	BB	204	A
25	BB	207	A
25	BB	208	C
25	BB	213	A
25	BB	216	A
25	BB	221	A
25	BB	222	A
25	BB	224	U
25	BB	227	A
25	BB	228	C
25	BB	229	C
25	BB	230	G
25	BB	235	U
25	BB	239	C
25	BB	241	A
25	BB	248	G
25	BB	249	C
25	BB	250	G
25	BB	251	A
25	BB	254	G
25	BB	259	G
25	BB	264	C
25	BB	265	A
25	BB	270	A

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Mol	Chain	Res	Type
25	BB	272	A
25	BB	277	G
25	BB	278	A
25	BB	281	C
25	BB	297	G
25	BB	301	G
25	BB	302	C
25	BB	308	G
25	BB	310	A
25	BB	311	A
25	BB	312	G
25	BB	316	C
25	BB	317	G
25	BB	318	C
25	BB	319	G
25	BB	320	A
25	BB	321	U
25	BB	322	A
25	BB	323	C
25	BB	324	A
25	BB	325	G
25	BB	328	U
25	BB	329	G
25	BB	330	A
25	BB	331	C
25	BB	333	G
25	BB	334	C
25	BB	335	C
25	BB	340	A
25	BB	347	A
25	BB	351	C
25	BB	357	C
25	BB	361	G
25	BB	362	A
25	BB	371	A
25	BB	372	G
25	BB	376	G
25	BB	377	G
25	BB	378	C
25	BB	379	G
25	BB	380	G
25	BB	382	A

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Mol	Chain	Res	Type
25	BB	384	A
25	BB	385	C
25	BB	386	G
25	BB	387	U
25	BB	388	G
25	BB	389	G
25	BB	391	A
25	BB	392	U
25	BB	393	C
25	BB	394	C
25	BB	398	C
25	BB	403	U
25	BB	404	A
25	BB	405	U
25	BB	406	G
25	BB	407	G
25	BB	409	G
25	BB	411	G
25	BB	412	A
25	BB	413	C
25	BB	422	A
25	BB	423	A
25	BB	424	G
25	BB	426	C
25	BB	427	U
25	BB	428	A
25	BB	433	C
25	BB	434	U
25	BB	435	C
25	BB	437	U
25	BB	438	G
25	BB	443	A
25	BB	444	C
25	BB	446	G
25	BB	447	A
25	BB	448	U
25	BB	449	A
25	BB	450	G
25	BB	451	U
25	BB	452	G
25	BB	453	A
25	BB	454	A

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Mol	Chain	Res	Type
25	BB	455	C
25	BB	456	C
25	BB	457	A
25	BB	459	U
25	BB	462	C
25	BB	463	G
25	BB	464	U
25	BB	465	G
25	BB	467	G
25	BB	469	G
25	BB	470	A
25	BB	474	G
25	BB	475	C
25	BB	476	G
25	BB	477	A
25	BB	479	A
25	BB	480	A
25	BB	481	G
25	BB	482	A
25	BB	484	C
25	BB	490	C
25	BB	491	G
25	BB	495	G
25	BB	498	G
25	BB	499	U
25	BB	500	G
25	BB	503	A
25	BB	504	A
25	BB	505	A
25	BB	508	A
25	BB	509	C
25	BB	510	C
25	BB	511	U
25	BB	512	G
25	BB	515	A
25	BB	518	G
25	BB	525	U
25	BB	526	A
25	BB	527	C
25	BB	528	A
25	BB	529	A
25	BB	530	G

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Mol	Chain	Res	Type
25	BB	531	C
25	BB	532	A
25	BB	533	G
25	BB	534	U
25	BB	535	G
25	BB	536	G
25	BB	540	C
25	BB	541	A
25	BB	547	A
25	BB	548	G
25	BB	549	G
25	BB	550	C
25	BB	551	G
25	BB	552	U
25	BB	553	G
25	BB	554	U
25	BB	555	G
25	BB	556	A
25	BB	558	U
25	BB	559	G
25	BB	560	C
25	BB	561	G
25	BB	562	U
25	BB	563	A
25	BB	565	C
25	BB	566	U
25	BB	567	U
25	BB	568	U
25	BB	569	U
25	BB	570	G
25	BB	571	U
25	BB	572	A
25	BB	573	U
25	BB	574	A
25	BB	575	A
25	BB	576	U
25	BB	577	G
25	BB	580	U
25	BB	581	C
25	BB	582	A
25	BB	583	G
25	BB	584	C

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Mol	Chain	Res	Type
25	BB	585	G
25	BB	586	A
25	BB	587	C
25	BB	588	U
25	BB	591	U
25	BB	592	A
25	BB	593	U
25	BB	594	U
25	BB	597	G
25	BB	598	U
25	BB	600	G
25	BB	603	A
25	BB	607	U
25	BB	614	A
25	BB	615	U
25	BB	616	A
25	BB	619	G
25	BB	620	G
25	BB	622	G
25	BB	623	C
25	BB	627	A
25	BB	628	G
25	BB	629	G
25	BB	634	C
25	BB	637	A
25	BB	642	U
25	BB	643	A
25	BB	644	A
25	BB	645	C
25	BB	646	U
25	BB	653	U
25	BB	654	A
25	BB	655	A
25	BB	660	C
25	BB	662	G
25	BB	664	G
25	BB	665	U
25	BB	667	U
25	BB	668	A
25	BB	669	G
25	BB	670	A
25	BB	671	C

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Mol	Chain	Res	Type
25	BB	673	C
25	BB	675	A
25	BB	677	A
25	BB	678	C
25	BB	679	C
25	BB	683	U
25	BB	684	G
25	BB	685	A
25	BB	686	U
25	BB	687	C
25	BB	688	U
25	BB	690	G
25	BB	691	C
25	BB	692	C
25	BB	694	U
25	BB	695	G
25	BB	700	G
25	BB	701	G
25	BB	702	U
25	BB	703	U
25	BB	705	A
25	BB	707	G
25	BB	708	G
25	BB	715	A
25	BB	716	A
25	BB	717	C
25	BB	718	A
25	BB	719	C
25	BB	724	U
25	BB	727	A
25	BB	728	G
25	BB	730	A
25	BB	732	C
25	BB	734	A
25	BB	736	C
25	BB	740	C
25	BB	741	U
25	BB	742	A
25	BB	744	U
25	BB	745	G
25	BB	747	U
25	BB	748	G

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Mol	Chain	Res	Type
25	BB	749	A
25	BB	750	A
25	BB	752	A
25	BB	756	A
25	BB	757	G
25	BB	759	G
25	BB	760	G
25	BB	761	A
25	BB	762	U
25	BB	763	G
25	BB	764	A
25	BB	765	C
25	BB	766	U
25	BB	767	U
25	BB	768	G
25	BB	769	U
25	BB	772	C
25	BB	774	G
25	BB	775	G
25	BB	776	G
25	BB	777	G
25	BB	779	U
25	BB	783	A
25	BB	784	G
25	BB	786	C
25	BB	788	A
25	BB	789	A
25	BB	790	U
25	BB	791	C
25	BB	792	A
25	BB	793	A
25	BB	794	A
25	BB	796	C
25	BB	797	G
25	BB	799	G
25	BB	802	A
25	BB	804	A
25	BB	806	C
25	BB	808	G
25	BB	809	G
25	BB	810	U
25	BB	811	U

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Mol	Chain	Res	Type
25	BB	812	C
25	BB	815	C
25	BB	818	G
25	BB	819	A
25	BB	820	A
25	BB	821	A
25	BB	823	C
25	BB	825	A
25	BB	826	U
25	BB	827	U
25	BB	828	U
25	BB	830	G
25	BB	831	G
25	BB	832	U
25	BB	834	G
25	BB	835	C
25	BB	836	G
25	BB	837	C
25	BB	838	C
25	BB	839	U
25	BB	843	G
25	BB	846	U
25	BB	847	U
25	BB	856	G
25	BB	857	G
25	BB	859	G
25	BB	860	U
25	BB	861	A
25	BB	862	G
25	BB	865	C
25	BB	867	C
25	BB	868	U
25	BB	870	U
25	BB	872	U
25	BB	878	A
25	BB	879	G
25	BB	887	U
25	BB	889	C
25	BB	897	C
25	BB	898	C
25	BB	900	A
25	BB	901	C

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Mol	Chain	Res	Type
25	BB	902	C
25	BB	903	C
25	BB	906	U
25	BB	909	A
25	BB	910	A
25	BB	911	A
25	BB	912	C
25	BB	914	G
25	BB	915	C
25	BB	918	A
25	BB	919	U
25	BB	923	G
25	BB	932	U
25	BB	934	U
25	BB	936	A
25	BB	939	G
25	BB	942	G
25	BB	944	C
25	BB	945	A
25	BB	946	C
25	BB	947	A
25	BB	948	C
25	BB	951	C
25	BB	952	G
25	BB	953	G
25	BB	954	G
25	BB	955	U
25	BB	956	G
25	BB	957	C
25	BB	958	U
25	BB	959	A
25	BB	960	A
25	BB	961	C
25	BB	962	G
25	BB	964	C
25	BB	965	C
25	BB	966	G
25	BB	967	U
25	BB	968	C
25	BB	969	G
25	BB	971	G
25	BB	972	A

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Mol	Chain	Res	Type
25	BB	973	A
25	BB	974	G
25	BB	976	G
25	BB	977	G
25	BB	978	G
25	BB	980	A
25	BB	981	A
25	BB	983	A
25	BB	984	A
25	BB	985	C
25	BB	988	A
25	BB	991	C
25	BB	993	G
25	BB	995	C
25	BB	996	A
25	BB	1003	G
25	BB	1004	U
25	BB	1006	C
25	BB	1007	C
25	BB	1008	A
25	BB	1009	A
25	BB	1010	A
25	BB	1011	G
25	BB	1012	U
25	BB	1013	C
25	BB	1014	A
25	BB	1015	U
25	BB	1016	G
25	BB	1022	G
25	BB	1023	U
25	BB	1024	G
25	BB	1026	G
25	BB	1027	A
25	BB	1028	A
25	BB	1029	A
25	BB	1031	G
25	BB	1033	U
25	BB	1034	G
25	BB	1036	G
25	BB	1041	G
25	BB	1046	A
25	BB	1047	G

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Mol	Chain	Res	Type
25	BB	1050	A
25	BB	1057	A
25	BB	1058	U
25	BB	1060	U
25	BB	1061	U
25	BB	1062	G
25	BB	1068	G
25	BB	1069	A
25	BB	1070	A
25	BB	1071	G
25	BB	1082	U
25	BB	1083	U
25	BB	1084	A
25	BB	1087	G
25	BB	1088	A
25	BB	1090	A
25	BB	1091	G
25	BB	1097	U
25	BB	1098	A
25	BB	1104	C
25	BB	1107	G
25	BB	1108	U
25	BB	1110	G
25	BB	1111	A
25	BB	1112	G
25	BB	1120	G
25	BB	1124	G
25	BB	1126	A
25	BB	1127	A
25	BB	1128	G
25	BB	1129	A
25	BB	1130	U
25	BB	1131	G
25	BB	1132	U
25	BB	1133	A
25	BB	1134	A
25	BB	1135	C
25	BB	1137	G
25	BB	1138	G
25	BB	1140	C
25	BB	1141	U
25	BB	1142	A

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Mol	Chain	Res	Type
25	BB	1143	A
25	BB	1144	A
25	BB	1153	C
25	BB	1155	A
25	BB	1156	A
25	BB	1158	C
25	BB	1159	U
25	BB	1161	C
25	BB	1172	C
25	BB	1175	A
25	BB	1176	U
25	BB	1185	G
25	BB	1186	G
25	BB	1188	U
25	BB	1190	G
25	BB	1192	G
25	BB	1193	G
25	BB	1198	U
25	BB	1200	C
25	BB	1201	U
25	BB	1203	U
25	BB	1204	A
25	BB	1205	A
25	BB	1207	C
25	BB	1208	C
25	BB	1209	U
25	BB	1210	G
25	BB	1211	C
25	BB	1212	G
25	BB	1213	A
25	BB	1216	G
25	BB	1217	U
25	BB	1218	G
25	BB	1219	U
25	BB	1220	G
25	BB	1221	C
25	BB	1222	U
25	BB	1224	U
25	BB	1225	G
25	BB	1226	A
25	BB	1227	G
25	BB	1230	A

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Mol	Chain	Res	Type
25	BB	1231	U
25	BB	1233	C
25	BB	1234	U
25	BB	1236	G
25	BB	1237	A
25	BB	1239	G
25	BB	1240	U
25	BB	1241	A
25	BB	1242	U
25	BB	1243	C
25	BB	1246	A
25	BB	1248	G
25	BB	1249	U
25	BB	1251	C
25	BB	1252	G
25	BB	1253	A
25	BB	1254	A
25	BB	1255	U
25	BB	1256	G
25	BB	1257	C
25	BB	1258	U
25	BB	1259	G
25	BB	1260	A
25	BB	1261	C
25	BB	1264	A
25	BB	1265	A
25	BB	1266	G
25	BB	1267	U
25	BB	1268	A
25	BB	1269	A
25	BB	1270	C
25	BB	1272	A
25	BB	1273	U
25	BB	1274	A
25	BB	1275	A
25	BB	1285	A
25	BB	1286	A
25	BB	1287	A
25	BB	1296	G
25	BB	1300	G
25	BB	1301	A
25	BB	1302	A

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Mol	Chain	Res	Type
25	BB	1303	G
25	BB	1305	C
25	BB	1306	C
25	BB	1308	A
25	BB	1309	G
25	BB	1310	G
25	BB	1311	G
25	BB	1312	U
25	BB	1313	U
25	BB	1314	C
25	BB	1315	C
25	BB	1316	U
25	BB	1321	A
25	BB	1322	A
25	BB	1323	C
25	BB	1324	G
25	BB	1325	U
25	BB	1326	U
25	BB	1333	G
25	BB	1334	G
25	BB	1337	G
25	BB	1338	G
25	BB	1339	G
25	BB	1340	U
25	BB	1341	G
25	BB	1342	A
25	BB	1343	G
25	BB	1344	U
25	BB	1346	G
25	BB	1347	A
25	BB	1348	C
25	BB	1349	C
25	BB	1350	C
25	BB	1352	U
25	BB	1353	A
25	BB	1357	C
25	BB	1362	C
25	BB	1363	C
25	BB	1364	G
25	BB	1365	A
25	BB	1368	G
25	BB	1375	U

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Mol	Chain	Res	Type
25	BB	1378	A
25	BB	1379	U
25	BB	1380	G
25	BB	1381	G
25	BB	1384	A
25	BB	1385	A
25	BB	1390	U
25	BB	1392	A
25	BB	1393	A
25	BB	1394	U
25	BB	1395	A
25	BB	1396	U
25	BB	1398	C
25	BB	1399	C
25	BB	1400	U
25	BB	1404	C
25	BB	1405	U
25	BB	1416	G
25	BB	1419	A
25	BB	1420	A
25	BB	1421	G
25	BB	1425	G
25	BB	1426	G
25	BB	1428	C
25	BB	1430	G
25	BB	1432	G
25	BB	1438	U
25	BB	1439	A
25	BB	1442	U
25	BB	1444	G
25	BB	1446	C
25	BB	1450	G
25	BB	1451	C
25	BB	1456	G
25	BB	1457	U
25	BB	1458	U
25	BB	1459	G
25	BB	1460	U
25	BB	1462	C
25	BB	1463	C
25	BB	1467	U
25	BB	1469	A

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Mol	Chain	Res	Type
25	BB	1470	A
25	BB	1471	G
25	BB	1472	C
25	BB	1473	G
25	BB	1474	U
25	BB	1475	G
25	BB	1476	U
25	BB	1478	G
25	BB	1479	G
25	BB	1482	G
25	BB	1485	U
25	BB	1486	U
25	BB	1491	G
25	BB	1497	U
25	BB	1498	C
25	BB	1509	A
25	BB	1510	G
25	BB	1514	G
25	BB	1524	G
25	BB	1540	G
25	BB	1541	C
25	BB	1544	A
25	BB	1553	A
25	BB	1558	C
25	BB	1559	U
25	BB	1560	G
25	BB	1561	C
25	BB	1566	A
25	BB	1567	G
25	BB	1568	G
25	BB	1569	A
25	BB	1572	A
25	BB	1574	C
25	BB	1578	U
25	BB	1581	G
25	BB	1583	A
25	BB	1584	U
25	BB	1585	C
25	BB	1589	U
25	BB	1590	A
25	BB	1597	A
25	BB	1598	A

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Mol	Chain	Res	Type
25	BB	1599	U
25	BB	1600	C
25	BB	1604	C
25	BB	1605	C
25	BB	1607	C
25	BB	1608	A
25	BB	1609	A
25	BB	1610	A
25	BB	1614	A
25	BB	1615	C
25	BB	1616	A
25	BB	1617	C
25	BB	1618	A
25	BB	1619	G
25	BB	1620	G
25	BB	1621	U
25	BB	1624	U
25	BB	1625	C
25	BB	1626	A
25	BB	1627	G
25	BB	1631	G
25	BB	1634	A
25	BB	1635	A
25	BB	1636	U
25	BB	1639	C
25	BB	1640	A
25	BB	1642	G
25	BB	1644	C
25	BB	1646	C
25	BB	1648	U
25	BB	1650	A
25	BB	1651	G
25	BB	1654	A
25	BB	1655	A
25	BB	1656	C
25	BB	1657	U
25	BB	1658	C
25	BB	1659	G
25	BB	1661	G
25	BB	1662	U
25	BB	1663	G
25	BB	1664	A

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Mol	Chain	Res	Type
25	BB	1666	G
25	BB	1668	A
25	BB	1669	A
25	BB	1670	C
25	BB	1672	A
25	BB	1674	G
25	BB	1675	C
25	BB	1677	A
25	BB	1679	A
25	BB	1680	U
25	BB	1681	G
25	BB	1682	G
25	BB	1683	U
25	BB	1687	G
25	BB	1692	U
25	BB	1693	U
25	BB	1694	C
25	BB	1695	G
25	BB	1696	G
25	BB	1698	A
25	BB	1699	G
25	BB	1700	A
25	BB	1701	A
25	BB	1702	G
25	BB	1703	G
25	BB	1704	C
25	BB	1714	U
25	BB	1715	G
25	BB	1716	U
25	BB	1717	A
25	BB	1718	G
25	BB	1723	G
25	BB	1730	C
25	BB	1732	C
25	BB	1737	G
25	BB	1738	G
25	BB	1745	A
25	BB	1750	G
25	BB	1752	C
25	BB	1754	A
25	BB	1755	A
25	BB	1756	G

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Mol	Chain	Res	Type
25	BB	1757	A
25	BB	1758	U
25	BB	1763	G
25	BB	1764	C
25	BB	1766	G
25	BB	1767	G
25	BB	1768	C
25	BB	1769	U
25	BB	1770	G
25	BB	1773	A
25	BB	1774	C
25	BB	1775	U
25	BB	1776	G
25	BB	1777	U
25	BB	1779	U
25	BB	1780	A
25	BB	1781	U
25	BB	1782	U
25	BB	1783	A
25	BB	1784	A
25	BB	1785	A
25	BB	1789	A
25	BB	1790	C
25	BB	1791	A
25	BB	1793	C
25	BB	1799	G
25	BB	1800	C
25	BB	1801	A
25	BB	1802	A
25	BB	1804	C
25	BB	1805	A
25	BB	1806	C
25	BB	1807	G
25	BB	1809	A
25	BB	1810	A
25	BB	1811	G
25	BB	1812	U
25	BB	1813	G
25	BB	1814	G
25	BB	1816	C
25	BB	1819	A
25	BB	1820	U

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Mol	Chain	Res	Type
25	BB	1821	A
25	BB	1822	C
25	BB	1824	G
25	BB	1825	U
25	BB	1826	G
25	BB	1827	U
25	BB	1828	G
25	BB	1829	A
25	BB	1830	C
25	BB	1835	G
25	BB	1836	C
25	BB	1837	C
25	BB	1838	C
25	BB	1844	C
25	BB	1847	A
25	BB	1848	A
25	BB	1849	G
25	BB	1853	A
25	BB	1855	U
25	BB	1858	A
25	BB	1859	U
25	BB	1865	U
25	BB	1869	G
25	BB	1870	C
25	BB	1873	G
25	BB	1875	G
25	BB	1882	U
25	BB	1883	U
25	BB	1884	G
25	BB	1888	G
25	BB	1889	A
25	BB	1890	A
25	BB	1891	G
25	BB	1892	C
25	BB	1894	C
25	BB	1896	G
25	BB	1897	G
25	BB	1898	U
25	BB	1899	A
25	BB	1900	A
25	BB	1901	A
25	BB	1903	G

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Mol	Chain	Res	Type
25	BB	1906	G
25	BB	1907	G
25	BB	1909	C
25	BB	1912	A
25	BB	1913	A
25	BB	1914	C
25	BB	1915	U
25	BB	1916	A
25	BB	1918	A
25	BB	1919	A
25	BB	1920	C
25	BB	1925	C
25	BB	1928	A
25	BB	1930	G
25	BB	1932	A
25	BB	1933	G
25	BB	1934	C
25	BB	1935	G
25	BB	1936	A
25	BB	1937	A
25	BB	1938	A
25	BB	1939	U
25	BB	1940	U
25	BB	1941	C
25	BB	1942	C
25	BB	1943	U
25	BB	1944	U
25	BB	1945	G
25	BB	1946	U
25	BB	1947	C
25	BB	1952	A
25	BB	1953	A
25	BB	1954	G
25	BB	1955	U
25	BB	1956	U
25	BB	1957	C
25	BB	1959	G
25	BB	1960	A
25	BB	1961	C
25	BB	1962	C
25	BB	1963	U
25	BB	1964	G

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Mol	Chain	Res	Type
25	BB	1965	C
25	BB	1967	C
25	BB	1969	A
25	BB	1970	A
25	BB	1971	U
25	BB	1972	G
25	BB	1973	G
25	BB	1974	C
25	BB	1977	A
25	BB	1978	A
25	BB	1979	U
25	BB	1980	G
25	BB	1981	A
25	BB	1982	U
25	BB	1983	G
25	BB	1986	C
25	BB	1987	A
25	BB	1989	G
25	BB	1991	U
25	BB	1992	G
25	BB	1993	U
25	BB	1994	C
25	BB	1995	U
25	BB	1996	C
25	BB	1997	C
25	BB	1999	C
25	BB	2001	C
25	BB	2002	G
25	BB	2004	G
25	BB	2006	C
25	BB	2007	U
25	BB	2010	G
25	BB	2011	U
25	BB	2013	A
25	BB	2014	A
25	BB	2015	A
25	BB	2017	U
25	BB	2018	G
25	BB	2020	A
25	BB	2021	C
25	BB	2022	U
25	BB	2023	C

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Mol	Chain	Res	Type
25	BB	2025	C
25	BB	2026	U
25	BB	2027	G
25	BB	2029	G
25	BB	2030	A
25	BB	2031	A
25	BB	2032	G
25	BB	2033	A
25	BB	2034	U
25	BB	2035	G
25	BB	2036	C
25	BB	2037	A
25	BB	2043	C
25	BB	2044	C
25	BB	2046	G
25	BB	2047	C
25	BB	2049	G
25	BB	2050	C
25	BB	2051	A
25	BB	2052	A
25	BB	2054	A
25	BB	2056	G
25	BB	2057	G
25	BB	2060	A
25	BB	2061	G
25	BB	2062	A
25	BB	2063	C
25	BB	2064	C
25	BB	2067	G
25	BB	2068	U
25	BB	2069	G
25	BB	2071	A
25	BB	2072	C
25	BB	2075	U
25	BB	2076	U
25	BB	2077	A
25	BB	2079	U
25	BB	2080	A
25	BB	2086	U
25	BB	2088	A
25	BB	2091	C
25	BB	2092	U

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Mol	Chain	Res	Type
25	BB	2093	G
25	BB	2095	A
25	BB	2096	C
25	BB	2103	C
25	BB	2104	C
25	BB	2105	U
25	BB	2107	G
25	BB	2108	A
25	BB	2109	U
25	BB	2113	U
25	BB	2114	A
25	BB	2116	G
25	BB	2118	U
25	BB	2120	G
25	BB	2121	G
25	BB	2123	G
25	BB	2125	G
25	BB	2126	A
25	BB	2127	G
25	BB	2131	U
25	BB	2132	U
25	BB	2136	G
25	BB	2138	G
25	BB	2144	G
25	BB	2145	C
25	BB	2146	C
25	BB	2147	A
25	BB	2148	G
25	BB	2149	U
25	BB	2154	A
25	BB	2158	A
25	BB	2159	G
25	BB	2163	A
25	BB	2164	C
25	BB	2165	C
25	BB	2172	U
25	BB	2174	C
25	BB	2179	C
25	BB	2182	U
25	BB	2195	U
25	BB	2196	C
25	BB	2197	U

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Mol	Chain	Res	Type
25	BB	2198	A
25	BB	2199	A
25	BB	2200	C
25	BB	2202	U
25	BB	2203	U
25	BB	2204	G
25	BB	2211	A
25	BB	2212	A
25	BB	2213	U
25	BB	2214	C
25	BB	2215	C
25	BB	2223	G
25	BB	2228	G
25	BB	2229	U
25	BB	2235	G
25	BB	2236	U
25	BB	2239	G
25	BB	2240	U
25	BB	2241	A
25	BB	2242	G
25	BB	2243	U
25	BB	2244	U
25	BB	2245	U
25	BB	2246	G
25	BB	2247	A
25	BB	2249	U
25	BB	2250	G
25	BB	2251	G
25	BB	2252	G
25	BB	2253	G
25	BB	2254	C
25	BB	2255	G
25	BB	2256	G
25	BB	2257	U
25	BB	2258	C
25	BB	2259	U
25	BB	2261	C
25	BB	2264	C
25	BB	2266	A
25	BB	2267	A
25	BB	2268	A
25	BB	2269	G

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Mol	Chain	Res	Type
25	BB	2270	A
25	BB	2271	G
25	BB	2272	U
25	BB	2273	A
25	BB	2274	A
25	BB	2275	C
25	BB	2276	G
25	BB	2277	G
25	BB	2278	A
25	BB	2279	G
25	BB	2281	A
25	BB	2282	G
25	BB	2283	C
25	BB	2285	C
25	BB	2286	G
25	BB	2289	G
25	BB	2290	G
25	BB	2291	U
25	BB	2295	C
25	BB	2297	A
25	BB	2304	G
25	BB	2305	U
25	BB	2307	G
25	BB	2308	G
25	BB	2310	C
25	BB	2312	U
25	BB	2314	A
25	BB	2315	G
25	BB	2317	A
25	BB	2318	G
25	BB	2320	U
25	BB	2321	U
25	BB	2322	A
25	BB	2323	G
25	BB	2325	G
25	BB	2326	C
25	BB	2328	A
25	BB	2331	G
25	BB	2332	C
25	BB	2334	U
25	BB	2335	A
25	BB	2336	A

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Mol	Chain	Res	Type
25	BB	2337	G
25	BB	2338	C
25	BB	2339	C
25	BB	2340	A
25	BB	2345	G
25	BB	2346	A
25	BB	2347	C
25	BB	2349	G
25	BB	2353	G
25	BB	2354	C
25	BB	2356	U
25	BB	2357	G
25	BB	2358	A
25	BB	2359	C
25	BB	2360	G
25	BB	2361	G
25	BB	2364	C
25	BB	2367	G
25	BB	2370	G
25	BB	2371	G
25	BB	2374	C
25	BB	2376	A
25	BB	2377	A
25	BB	2378	A
25	BB	2379	G
25	BB	2384	U
25	BB	2385	C
25	BB	2387	U
25	BB	2390	U
25	BB	2391	G
25	BB	2392	A
25	BB	2393	U
25	BB	2394	C
25	BB	2396	G
25	BB	2402	U
25	BB	2403	C
25	BB	2406	A
25	BB	2407	A
25	BB	2408	U
25	BB	2409	G
25	BB	2417	C
25	BB	2418	A

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Mol	Chain	Res	Type
25	BB	2420	C
25	BB	2421	G
25	BB	2422	C
25	BB	2423	U
25	BB	2425	A
25	BB	2426	A
25	BB	2428	G
25	BB	2430	A
25	BB	2431	U
25	BB	2432	A
25	BB	2433	A
25	BB	2434	A
25	BB	2437	G
25	BB	2439	A
25	BB	2440	C
25	BB	2442	C
25	BB	2443	C
25	BB	2444	G
25	BB	2445	G
25	BB	2446	G
25	BB	2447	G
25	BB	2448	A
25	BB	2449	U
25	BB	2451	A
25	BB	2453	A
25	BB	2454	G
25	BB	2455	G
25	BB	2456	C
25	BB	2457	U
25	BB	2458	G
25	BB	2459	A
25	BB	2460	U
25	BB	2461	A
25	BB	2465	C
25	BB	2468	A
25	BB	2471	A
25	BB	2472	G
25	BB	2474	U
25	BB	2475	C
25	BB	2476	A
25	BB	2478	A
25	BB	2480	C

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Mol	Chain	Res	Type
25	BB	2481	G
25	BB	2482	A
25	BB	2484	G
25	BB	2489	U
25	BB	2490	G
25	BB	2491	U
25	BB	2492	U
25	BB	2495	G
25	BB	2496	C
25	BB	2497	A
25	BB	2498	C
25	BB	2499	C
25	BB	2501	C
25	BB	2502	G
25	BB	2503	A
25	BB	2504	U
25	BB	2505	G
25	BB	2506	U
25	BB	2507	C
25	BB	2508	G
25	BB	2509	G
25	BB	2510	C
25	BB	2511	U
25	BB	2512	C
25	BB	2513	A
25	BB	2514	U
25	BB	2516	A
25	BB	2517	C
25	BB	2518	A
25	BB	2520	C
25	BB	2521	C
25	BB	2522	U
25	BB	2523	G
25	BB	2529	G
25	BB	2530	A
25	BB	2531	A
25	BB	2532	G
25	BB	2534	A
25	BB	2536	G
25	BB	2538	C
25	BB	2539	C
25	BB	2540	C

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Mol	Chain	Res	Type
25	BB	2542	A
25	BB	2543	G
25	BB	2544	G
25	BB	2545	G
25	BB	2548	U
25	BB	2549	G
25	BB	2551	C
25	BB	2552	U
25	BB	2554	U
25	BB	2555	U
25	BB	2556	C
25	BB	2557	G
25	BB	2562	U
25	BB	2563	U
25	BB	2564	A
25	BB	2565	A
25	BB	2566	A
25	BB	2570	G
25	BB	2571	U
25	BB	2572	A
25	BB	2573	C
25	BB	2574	G
25	BB	2575	C
25	BB	2576	G
25	BB	2577	A
25	BB	2578	G
25	BB	2579	C
25	BB	2580	U
25	BB	2581	G
25	BB	2582	G
25	BB	2584	U
25	BB	2586	U
25	BB	2587	A
25	BB	2588	G
25	BB	2590	A
25	BB	2591	C
25	BB	2594	C
25	BB	2595	G
25	BB	2598	A
25	BB	2599	G
25	BB	2601	C
25	BB	2602	A

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Mol	Chain	Res	Type
25	BB	2604	U
25	BB	2609	U
25	BB	2610	C
25	BB	2612	C
25	BB	2613	U
25	BB	2614	A
25	BB	2615	U
25	BB	2616	C
25	BB	2617	U
25	BB	2618	G
25	BB	2619	C
25	BB	2620	C
25	BB	2621	G
25	BB	2622	U
25	BB	2627	G
25	BB	2629	U
25	BB	2630	G
25	BB	2632	A
25	BB	2634	A
25	BB	2637	U
25	BB	2638	G
25	BB	2639	A
25	BB	2640	G
25	BB	2641	G
25	BB	2642	G
25	BB	2644	G
25	BB	2645	G
25	BB	2646	C
25	BB	2649	C
25	BB	2652	C
25	BB	2653	U
25	BB	2654	A
25	BB	2655	G
25	BB	2660	A
25	BB	2661	G
25	BB	2663	G
25	BB	2675	A
25	BB	2676	C
25	BB	2677	G
25	BB	2678	C
25	BB	2681	C
25	BB	2682	A

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Mol	Chain	Res	Type
25	BB	2683	C
25	BB	2684	U
25	BB	2690	U
25	BB	2691	C
25	BB	2693	G
25	BB	2694	G
25	BB	2695	U
25	BB	2696	U
25	BB	2697	G
25	BB	2699	C
25	BB	2700	A
25	BB	2708	G
25	BB	2709	G
25	BB	2710	C
25	BB	2711	A
25	BB	2712	C
25	BB	2714	G
25	BB	2715	C
25	BB	2718	G
25	BB	2719	G
25	BB	2721	A
25	BB	2722	G
25	BB	2726	A
25	BB	2727	A
25	BB	2728	U
25	BB	2729	G
25	BB	2732	G
25	BB	2733	A
25	BB	2735	G
25	BB	2739	U
25	BB	2744	G
25	BB	2745	C
25	BB	2750	A
25	BB	2751	G
25	BB	2752	C
25	BB	2753	A
25	BB	2755	C
25	BB	2757	A
25	BB	2758	A
25	BB	2759	G
25	BB	2764	A
25	BB	2765	A

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Mol	Chain	Res	Type
25	BB	2766	A
25	BB	2767	C
25	BB	2769	U
25	BB	2770	G
25	BB	2771	C
25	BB	2772	C
25	BB	2773	C
25	BB	2774	C
25	BB	2776	A
25	BB	2777	G
25	BB	2779	U
25	BB	2780	G
25	BB	2781	A
25	BB	2784	U
25	BB	2785	C
25	BB	2791	G
25	BB	2793	C
25	BB	2796	U
25	BB	2799	A
25	BB	2800	A
25	BB	2801	G
25	BB	2807	U
25	BB	2808	G
25	BB	2815	C
25	BB	2816	G
25	BB	2818	U
25	BB	2819	G
25	BB	2820	A
25	BB	2821	A
25	BB	2822	G
25	BB	2823	A
25	BB	2824	C
25	BB	2829	A
25	BB	2836	U
25	BB	2839	G
25	BB	2841	C
25	BB	2844	G
25	BB	2846	G
25	BB	2847	U
25	BB	2848	G
25	BB	2849	U
25	BB	2850	A

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Mol	Chain	Res	Type
25	BB	2858	C
25	BB	2859	G
25	BB	2864	G
25	BB	2870	C
25	BB	2871	U
25	BB	2872	A
25	BB	2873	A
25	BB	2874	C
25	BB	2875	C
25	BB	2880	C
25	BB	2881	U
25	BB	2882	A
25	BB	2883	A
25	BB	2884	U
25	BB	2886	A
25	BB	2887	A
25	BB	2890	G
25	BB	2891	U
25	BB	2894	G
25	BB	2895	G
25	BB	2903	U

All (814) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	1	G
1	AA	8	U
1	AA	16	U
1	AA	17	U
1	AA	22	G
1	AA	32	C
1	AA	58	A
1	AA	70	C
1	AA	73	A
1	AA	74	C
1	AP	9	A
1	AP	18	G
1	AP	19	G
1	AP	20	G
1	AP	36	A
1	AP	41	U
1	AP	46	G

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Mol	Chain	Res	Type
1	AP	58	A
1	AP	74	C
1	AE	16	U
1	AE	43	G
1	AE	46	G
1	AE	47	U
1	AE	72	C
2	AM	1	U
2	AM	4	U
2	AM	5	U
2	AM	6	U
2	AM	12	U
2	AM	13	U
2	AM	14	U
2	AM	19	U
3	A1	6	G
3	A1	12	U
3	A1	15	G
3	A1	19	A
3	A1	21	G
3	A1	25	C
3	A1	26	A
3	A1	29	U
3	A1	30	U
3	A1	32	A
3	A1	45	G
3	A1	46	G
3	A1	48	C
3	A1	50	A
3	A1	60	A
3	A1	61	G
3	A1	64	G
3	A1	65	A
3	A1	70	U
3	A1	86	G
3	A1	93	U
3	A1	100	G
3	A1	108	G
3	A1	109	A
3	A1	115	G
3	A1	118	U
3	A1	119	A

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Mol	Chain	Res	Type
3	A1	121	U
3	A1	122	G
3	A1	125	U
3	A1	149	A
3	A1	150	U
3	A1	158	G
3	A1	159	G
3	A1	167	A
3	A1	170	U
3	A1	182	A
3	A1	183	C
3	A1	197	A
3	A1	203	G
3	A1	210	C
3	A1	224	U
3	A1	225	C
3	A1	226	G
3	A1	237	G
3	A1	240	G
3	A1	244	U
3	A1	247	G
3	A1	257	G
3	A1	264	C
3	A1	274	A
3	A1	280	C
3	A1	290	C
3	A1	305	G
3	A1	306	A
3	A1	315	A
3	A1	316	C
3	A1	318	G
3	A1	332	G
3	A1	355	C
3	A1	357	G
3	A1	363	A
3	A1	366	A
3	A1	368	U
3	A1	376	G
3	A1	381	C
3	A1	390	U
3	A1	422	C
3	A1	425	G

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Mol	Chain	Res	Type
3	A1	427	U
3	A1	429	U
3	A1	432	A
3	A1	439	U
3	A1	451	A
3	A1	460	A
3	A1	466	A
3	A1	468	A
3	A1	484	G
3	A1	499	A
3	A1	500	G
3	A1	503	C
3	A1	504	C
3	A1	505	G
3	A1	509	A
3	A1	511	C
3	A1	522	C
3	A1	524	G
3	A1	549	C
3	A1	550	G
3	A1	559	A
3	A1	568	G
3	A1	572	A
3	A1	573	A
3	A1	577	G
3	A1	580	C
3	A1	597	G
3	A1	604	G
3	A1	615	G
3	A1	629	A
3	A1	632	U
3	A1	649	A
3	A1	651	C
3	A1	652	U
3	A1	654	G
3	A1	667	G
3	A1	680	C
3	A1	683	G
3	A1	684	U
3	A1	687	A
3	A1	691	G
3	A1	699	C

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Mol	Chain	Res	Type
3	A1	707	U
3	A1	713	G
3	A1	718	A
3	A1	723	U
3	A1	730	G
3	A1	743	A
3	A1	744	C
3	A1	755	G
3	A1	767	A
3	A1	771	G
3	A1	773	G
3	A1	777	A
3	A1	783	C
3	A1	793	U
3	A1	795	C
3	A1	796	C
3	A1	803	G
3	A1	805	C
3	A1	811	C
3	A1	814	A
3	A1	818	G
3	A1	821	G
3	A1	825	A
3	A1	826	C
3	A1	827	U
3	A1	844	G
3	A1	859	G
3	A1	863	U
3	A1	864	A
3	A1	867	G
3	A1	869	G
3	A1	870	U
3	A1	872	A
3	A1	874	G
3	A1	876	C
3	A1	881	G
3	A1	884	U
3	A1	886	G
3	A1	888	G
3	A1	891	U
3	A1	893	C
3	A1	914	A

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Mol	Chain	Res	Type
3	A1	921	U
3	A1	922	G
3	A1	923	A
3	A1	924	C
3	A1	931	C
3	A1	934	C
3	A1	937	A
3	A1	938	A
3	A1	961	U
3	A1	962	C
3	A1	964	A
3	A1	965	U
3	A1	968	A
3	A1	972	C
3	A1	975	A
3	A1	976	G
3	A1	979	C
3	A1	980	C
3	A1	981	U
3	A1	993	G
3	A1	997	U
3	A1	1000	A
3	A1	1004	A
3	A1	1016	A
3	A1	1025	U
3	A1	1026	G
3	A1	1028	C
3	A1	1036	A
3	A1	1049	U
3	A1	1053	G
3	A1	1054	C
3	A1	1056	U
3	A1	1061	G
3	A1	1062	U
3	A1	1064	G
3	A1	1067	A
3	A1	1077	G
3	A1	1083	U
3	A1	1084	G
3	A1	1103	C
3	A1	1106	G
3	A1	1109	C

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Mol	Chain	Res	Type
3	A1	1125	U
3	A1	1130	A
3	A1	1142	G
3	A1	1151	A
3	A1	1157	A
3	A1	1167	A
3	A1	1169	A
3	A1	1183	U
3	A1	1188	A
3	A1	1191	A
3	A1	1194	U
3	A1	1196	A
3	A1	1198	G
3	A1	1199	U
3	A1	1200	C
3	A1	1203	C
3	A1	1209	C
3	A1	1214	C
3	A1	1216	A
3	A1	1217	C
3	A1	1219	A
3	A1	1220	G
3	A1	1224	U
3	A1	1228	C
3	A1	1232	U
3	A1	1259	C
3	A1	1262	C
3	A1	1267	C
3	A1	1268	G
3	A1	1279	G
3	A1	1281	C
3	A1	1284	C
3	A1	1291	U
3	A1	1302	C
3	A1	1334	G
3	A1	1336	C
3	A1	1337	G
3	A1	1340	A
3	A1	1343	G
3	A1	1346	A
3	A1	1363	A
3	A1	1365	G

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Mol	Chain	Res	Type
3	A1	1367	C
3	A1	1382	C
3	A1	1391	U
3	A1	1395	C
3	A1	1397	C
3	A1	1399	C
3	A1	1405	G
3	A1	1407	C
3	A1	1414	U
3	A1	1416	G
3	A1	1418	A
3	A1	1420	U
3	A1	1422	G
3	A1	1428	A
3	A1	1441	A
3	A1	1443	C
3	A1	1445	U
3	A1	1459	G
3	A1	1461	G
3	A1	1472	U
3	A1	1474	U
3	A1	1476	A
3	A1	1482	G
3	A1	1483	A
3	A1	1497	G
3	A1	1498	U
3	A1	1503	A
3	A1	1504	G
3	A1	1510	C
3	A1	1518	A
3	A1	1520	C
3	A1	1526	G
3	A1	1530	G
24	BA	25	U
24	BA	29	A
24	BA	39	A
24	BA	40	U
24	BA	45	A
24	BA	50	A
24	BA	51	G
24	BA	60	C
24	BA	65	U

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Mol	Chain	Res	Type
24	BA	69	G
24	BA	76	G
24	BA	78	A
24	BA	79	G
24	BA	82	U
24	BA	88	C
24	BA	98	G
24	BA	102	G
24	BA	106	G
25	BB	6	A
25	BB	10	A
25	BB	13	A
25	BB	14	A
25	BB	16	C
25	BB	17	G
25	BB	18	U
25	BB	27	G
25	BB	40	U
25	BB	45	G
25	BB	48	G
25	BB	49	A
25	BB	61	C
25	BB	62	U
25	BB	64	A
25	BB	70	G
25	BB	74	A
25	BB	80	G
25	BB	82	U
25	BB	90	U
25	BB	91	A
25	BB	92	U
25	BB	95	A
25	BB	100	U
25	BB	101	A
25	BB	102	U
25	BB	105	C
25	BB	107	G
25	BB	112	U
25	BB	117	G
25	BB	120	U
25	BB	121	G
25	BB	125	A

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Mol	Chain	Res	Type
25	BB	126	A
25	BB	127	A
25	BB	147	C
25	BB	149	A
25	BB	151	C
25	BB	196	A
25	BB	198	C
25	BB	207	A
25	BB	221	A
25	BB	222	A
25	BB	226	A
25	BB	227	A
25	BB	228	C
25	BB	247	G
25	BB	249	C
25	BB	250	G
25	BB	269	C
25	BB	280	U
25	BB	301	G
25	BB	316	C
25	BB	317	G
25	BB	320	A
25	BB	321	U
25	BB	323	C
25	BB	329	G
25	BB	330	A
25	BB	331	C
25	BB	332	A
25	BB	333	G
25	BB	376	G
25	BB	378	C
25	BB	379	G
25	BB	384	A
25	BB	406	G
25	BB	411	G
25	BB	423	A
25	BB	427	U
25	BB	435	C
25	BB	438	G
25	BB	448	U
25	BB	449	A
25	BB	453	A

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Mol	Chain	Res	Type
25	BB	454	A
25	BB	456	C
25	BB	459	U
25	BB	464	U
25	BB	469	G
25	BB	471	A
25	BB	473	G
25	BB	476	G
25	BB	479	A
25	BB	497	A
25	BB	499	U
25	BB	503	A
25	BB	528	A
25	BB	529	A
25	BB	532	A
25	BB	533	G
25	BB	540	C
25	BB	546	U
25	BB	549	G
25	BB	552	U
25	BB	568	U
25	BB	570	G
25	BB	571	U
25	BB	575	A
25	BB	581	C
25	BB	593	U
25	BB	594	U
25	BB	596	U
25	BB	614	A
25	BB	619	G
25	BB	633	A
25	BB	651	G
25	BB	653	U
25	BB	664	G
25	BB	667	U
25	BB	670	A
25	BB	672	C
25	BB	673	C
25	BB	674	G
25	BB	678	C
25	BB	683	U
25	BB	685	A

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Mol	Chain	Res	Type
25	BB	690	G
25	BB	691	C
25	BB	694	U
25	BB	700	G
25	BB	701	G
25	BB	711	G
25	BB	713	G
25	BB	718	A
25	BB	727	A
25	BB	739	A
25	BB	740	C
25	BB	748	G
25	BB	761	A
25	BB	763	G
25	BB	764	A
25	BB	765	C
25	BB	768	G
25	BB	773	U
25	BB	774	G
25	BB	775	G
25	BB	781	A
25	BB	789	A
25	BB	793	A
25	BB	796	C
25	BB	809	G
25	BB	811	U
25	BB	814	C
25	BB	819	A
25	BB	824	U
25	BB	825	A
25	BB	864	G
25	BB	867	C
25	BB	878	A
25	BB	896	A
25	BB	903	C
25	BB	908	C
25	BB	918	A
25	BB	954	G
25	BB	957	C
25	BB	958	U
25	BB	959	A
25	BB	961	C

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Mol	Chain	Res	Type
25	BB	967	U
25	BB	968	C
25	BB	971	G
25	BB	973	A
25	BB	975	A
25	BB	976	G
25	BB	982	C
25	BB	1008	A
25	BB	1010	A
25	BB	1011	G
25	BB	1015	U
25	BB	1017	G
25	BB	1022	G
25	BB	1027	A
25	BB	1030	C
25	BB	1046	A
25	BB	1056	G
25	BB	1062	G
25	BB	1068	G
25	BB	1069	A
25	BB	1087	G
25	BB	1107	G
25	BB	1109	C
25	BB	1111	A
25	BB	1140	C
25	BB	1143	A
25	BB	1152	C
25	BB	1157	G
25	BB	1161	C
25	BB	1164	C
25	BB	1185	G
25	BB	1186	G
25	BB	1189	A
25	BB	1192	G
25	BB	1193	G
25	BB	1198	U
25	BB	1200	C
25	BB	1203	U
25	BB	1204	A
25	BB	1206	G
25	BB	1209	U
25	BB	1210	G

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Mol	Chain	Res	Type
25	BB	1211	C
25	BB	1212	G
25	BB	1214	A
25	BB	1226	A
25	BB	1235	G
25	BB	1240	U
25	BB	1247	A
25	BB	1250	G
25	BB	1251	C
25	BB	1252	G
25	BB	1253	A
25	BB	1259	G
25	BB	1263	U
25	BB	1270	C
25	BB	1273	U
25	BB	1274	A
25	BB	1284	A
25	BB	1286	A
25	BB	1287	A
25	BB	1305	C
25	BB	1308	A
25	BB	1309	G
25	BB	1314	C
25	BB	1322	A
25	BB	1323	C
25	BB	1324	G
25	BB	1325	U
25	BB	1333	G
25	BB	1340	U
25	BB	1341	G
25	BB	1343	G
25	BB	1348	C
25	BB	1349	C
25	BB	1356	G
25	BB	1361	G
25	BB	1362	C
25	BB	1379	U
25	BB	1391	U
25	BB	1398	C
25	BB	1403	A
25	BB	1419	A
25	BB	1425	G

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Mol	Chain	Res	Type
25	BB	1441	G
25	BB	1450	G
25	BB	1462	C
25	BB	1466	U
25	BB	1468	U
25	BB	1470	A
25	BB	1473	G
25	BB	1474	U
25	BB	1477	A
25	BB	1485	U
25	BB	1497	U
25	BB	1499	C
25	BB	1514	G
25	BB	1529	G
25	BB	1543	G
25	BB	1558	C
25	BB	1567	G
25	BB	1568	G
25	BB	1575	C
25	BB	1580	A
25	BB	1583	A
25	BB	1588	G
25	BB	1616	A
25	BB	1618	A
25	BB	1625	C
25	BB	1640	A
25	BB	1641	A
25	BB	1643	G
25	BB	1648	U
25	BB	1654	A
25	BB	1655	A
25	BB	1656	C
25	BB	1658	C
25	BB	1662	U
25	BB	1663	G
25	BB	1668	A
25	BB	1669	A
25	BB	1680	U
25	BB	1681	G
25	BB	1688	U
25	BB	1693	U
25	BB	1698	A

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Mol	Chain	Res	Type
25	BB	1699	G
25	BB	1702	G
25	BB	1715	G
25	BB	1717	A
25	BB	1756	G
25	BB	1766	G
25	BB	1767	G
25	BB	1773	A
25	BB	1774	C
25	BB	1775	U
25	BB	1778	U
25	BB	1780	A
25	BB	1789	A
25	BB	1791	A
25	BB	1799	G
25	BB	1800	C
25	BB	1804	C
25	BB	1805	A
25	BB	1806	C
25	BB	1810	A
25	BB	1813	G
25	BB	1821	A
25	BB	1825	U
25	BB	1829	A
25	BB	1833	C
25	BB	1837	C
25	BB	1846	G
25	BB	1847	A
25	BB	1874	C
25	BB	1887	C
25	BB	1889	A
25	BB	1890	A
25	BB	1896	G
25	BB	1899	A
25	BB	1902	C
25	BB	1906	G
25	BB	1913	A
25	BB	1915	U
25	BB	1934	C
25	BB	1935	G
25	BB	1940	U
25	BB	1941	C

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Mol	Chain	Res	Type
25	BB	1942	C
25	BB	1952	A
25	BB	1953	A
25	BB	1954	G
25	BB	1962	C
25	BB	1970	A
25	BB	1972	G
25	BB	1980	G
25	BB	1981	A
25	BB	1989	G
25	BB	1994	C
25	BB	2010	G
25	BB	2012	G
25	BB	2013	A
25	BB	2022	U
25	BB	2026	U
25	BB	2034	U
25	BB	2043	C
25	BB	2045	C
25	BB	2050	C
25	BB	2052	A
25	BB	2053	G
25	BB	2056	G
25	BB	2061	G
25	BB	2064	C
25	BB	2066	C
25	BB	2067	G
25	BB	2070	A
25	BB	2074	U
25	BB	2079	U
25	BB	2092	U
25	BB	2095	A
25	BB	2113	U
25	BB	2117	A
25	BB	2125	G
25	BB	2126	A
25	BB	2131	U
25	BB	2139	U
25	BB	2147	A
25	BB	2162	G
25	BB	2172	U
25	BB	2197	U

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Mol	Chain	Res	Type
25	BB	2199	A
25	BB	2202	U
25	BB	2203	U
25	BB	2225	A
25	BB	2228	G
25	BB	2238	G
25	BB	2240	U
25	BB	2242	G
25	BB	2244	U
25	BB	2248	C
25	BB	2252	G
25	BB	2256	G
25	BB	2267	A
25	BB	2270	A
25	BB	2272	U
25	BB	2274	A
25	BB	2275	C
25	BB	2277	G
25	BB	2278	A
25	BB	2282	G
25	BB	2285	C
25	BB	2289	G
25	BB	2290	G
25	BB	2311	A
25	BB	2313	C
25	BB	2322	A
25	BB	2324	U
25	BB	2325	G
25	BB	2334	U
25	BB	2339	C
25	BB	2345	G
25	BB	2346	A
25	BB	2358	A
25	BB	2366	A
25	BB	2372	U
25	BB	2374	C
25	BB	2375	G
25	BB	2377	A
25	BB	2385	C
25	BB	2389	G
25	BB	2390	U
25	BB	2420	C

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Mol	Chain	Res	Type
25	BB	2425	A
25	BB	2431	U
25	BB	2439	A
25	BB	2443	C
25	BB	2444	G
25	BB	2445	G
25	BB	2446	G
25	BB	2448	A
25	BB	2452	C
25	BB	2455	G
25	BB	2457	U
25	BB	2460	U
25	BB	2467	C
25	BB	2471	A
25	BB	2478	A
25	BB	2480	C
25	BB	2489	U
25	BB	2491	U
25	BB	2492	U
25	BB	2495	G
25	BB	2496	C
25	BB	2497	A
25	BB	2498	C
25	BB	2501	C
25	BB	2502	G
25	BB	2503	A
25	BB	2506	U
25	BB	2507	C
25	BB	2536	G
25	BB	2538	C
25	BB	2541	A
25	BB	2543	G
25	BB	2554	U
25	BB	2556	C
25	BB	2562	U
25	BB	2564	A
25	BB	2565	A
25	BB	2570	G
25	BB	2571	U
25	BB	2575	C
25	BB	2576	G
25	BB	2577	A

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Mol	Chain	Res	Type
25	BB	2579	C
25	BB	2580	U
25	BB	2589	A
25	BB	2593	U
25	BB	2594	C
25	BB	2613	U
25	BB	2620	C
25	BB	2622	U
25	BB	2629	U
25	BB	2638	G
25	BB	2660	A
25	BB	2675	A
25	BB	2677	G
25	BB	2691	C
25	BB	2694	G
25	BB	2708	G
25	BB	2711	A
25	BB	2714	G
25	BB	2731	G
25	BB	2752	C
25	BB	2756	U
25	BB	2765	A
25	BB	2772	C
25	BB	2773	C
25	BB	2776	A
25	BB	2779	U
25	BB	2799	A
25	BB	2800	A
25	BB	2820	A
25	BB	2822	G
25	BB	2827	C
25	BB	2840	C
25	BB	2848	G
25	BB	2858	C
25	BB	2872	A
25	BB	2874	C
25	BB	2878	U
25	BB	2880	C
25	BB	2886	A
25	BB	2890	G
25	BB	2894	G

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

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

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

There are no ligands in this entry.

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
25	BB	1
1	AP	1

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BB	1959:G	O3'	1960:A	P	3.49
1	AP	74:C	O3'	75:C	P	1.29

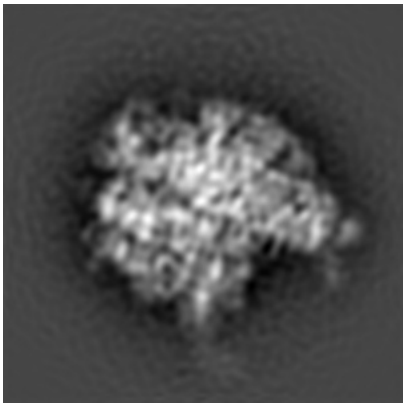
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-1056. These allow visual inspection of the internal detail of the map and identification of artifacts.

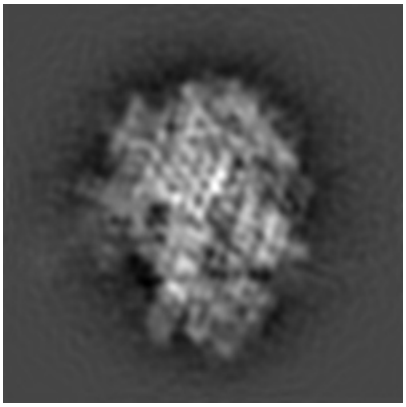
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

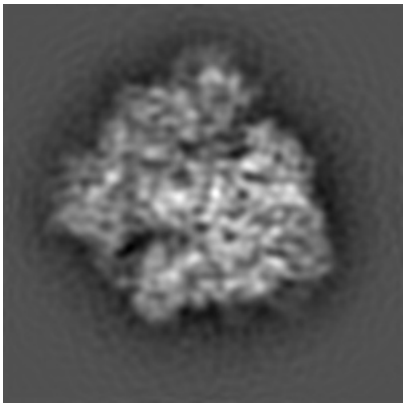
6.1.1 Primary map



X



Y

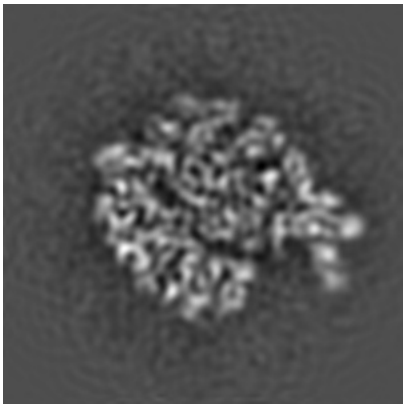


Z

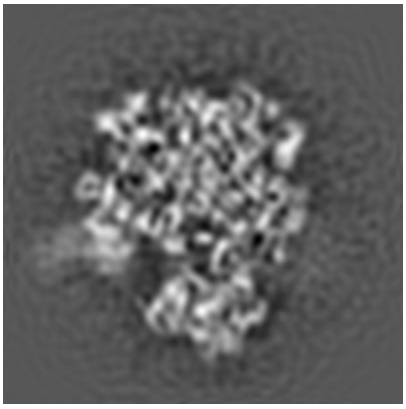
The images above show the map projected in three orthogonal directions.

6.2 Central slices

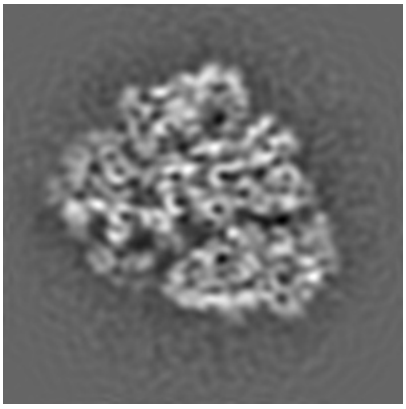
6.2.1 Primary map



X Index: 65



Y Index: 65

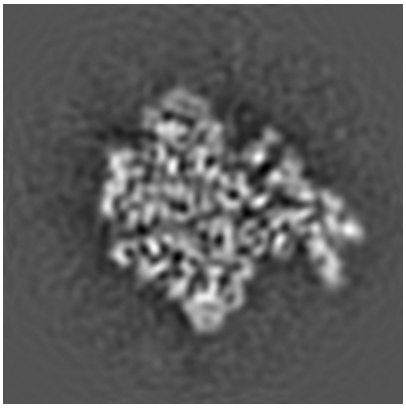


Z Index: 65

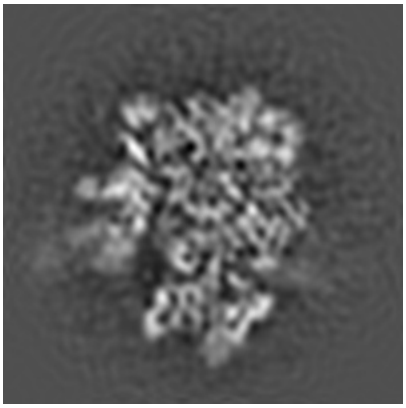
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

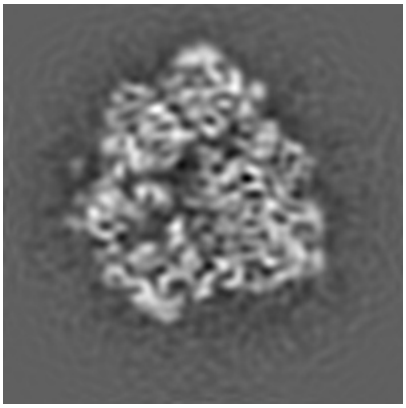
6.3.1 Primary map



X Index: 68



Y Index: 68

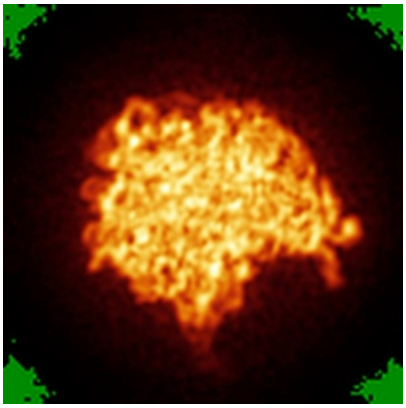


Z Index: 58

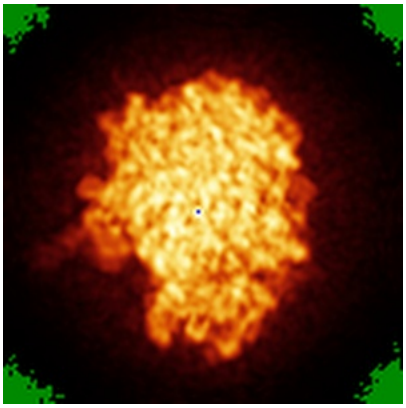
The images above show the largest variance slices of the map in three orthogonal directions.

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

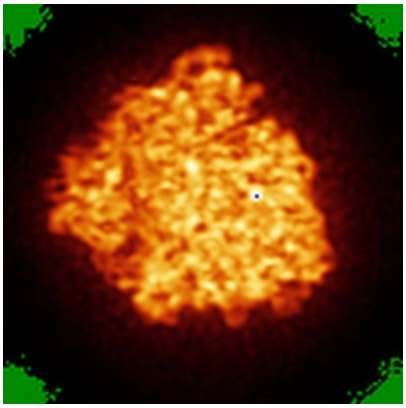
6.4.1 Primary map



X



Y

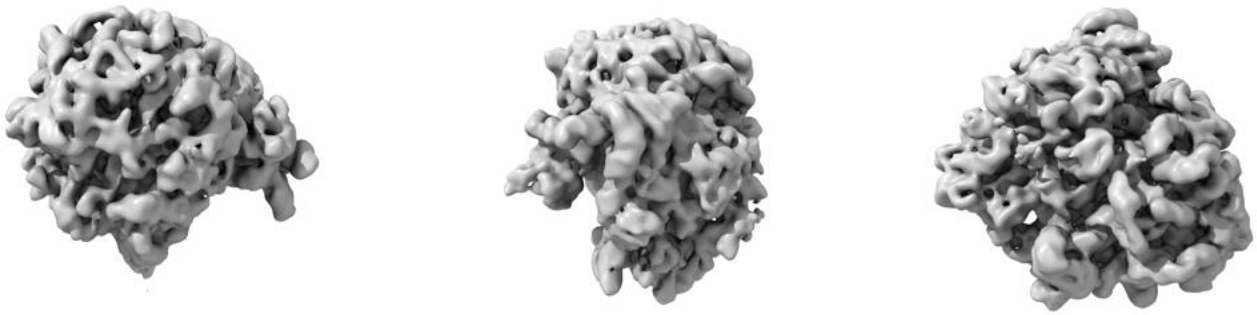


Z

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

6.5 Orthogonal surface views (i)

6.5.1 Primary map



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 43.4. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

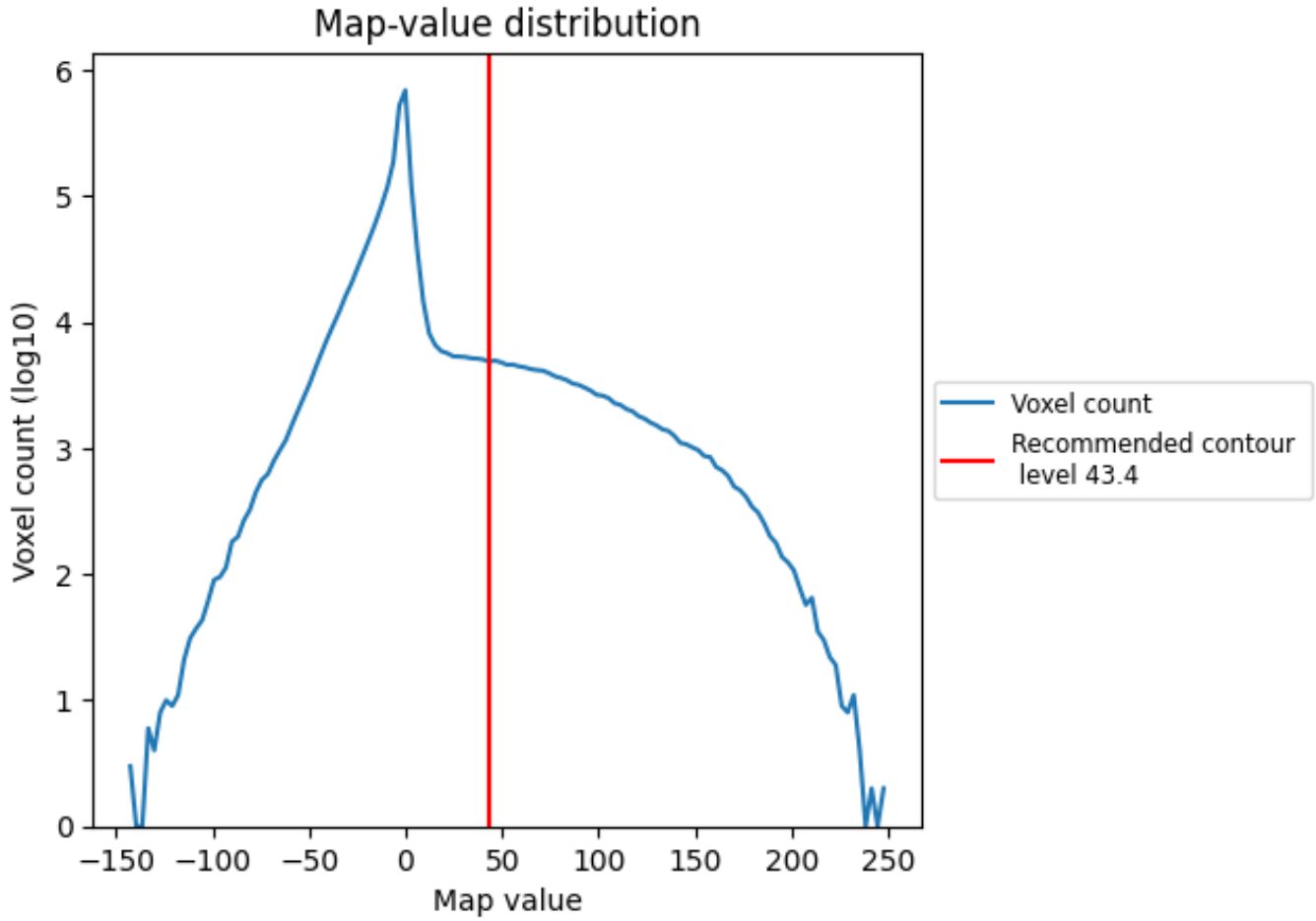
6.6 Mask visualisation (i)

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

7 Map analysis

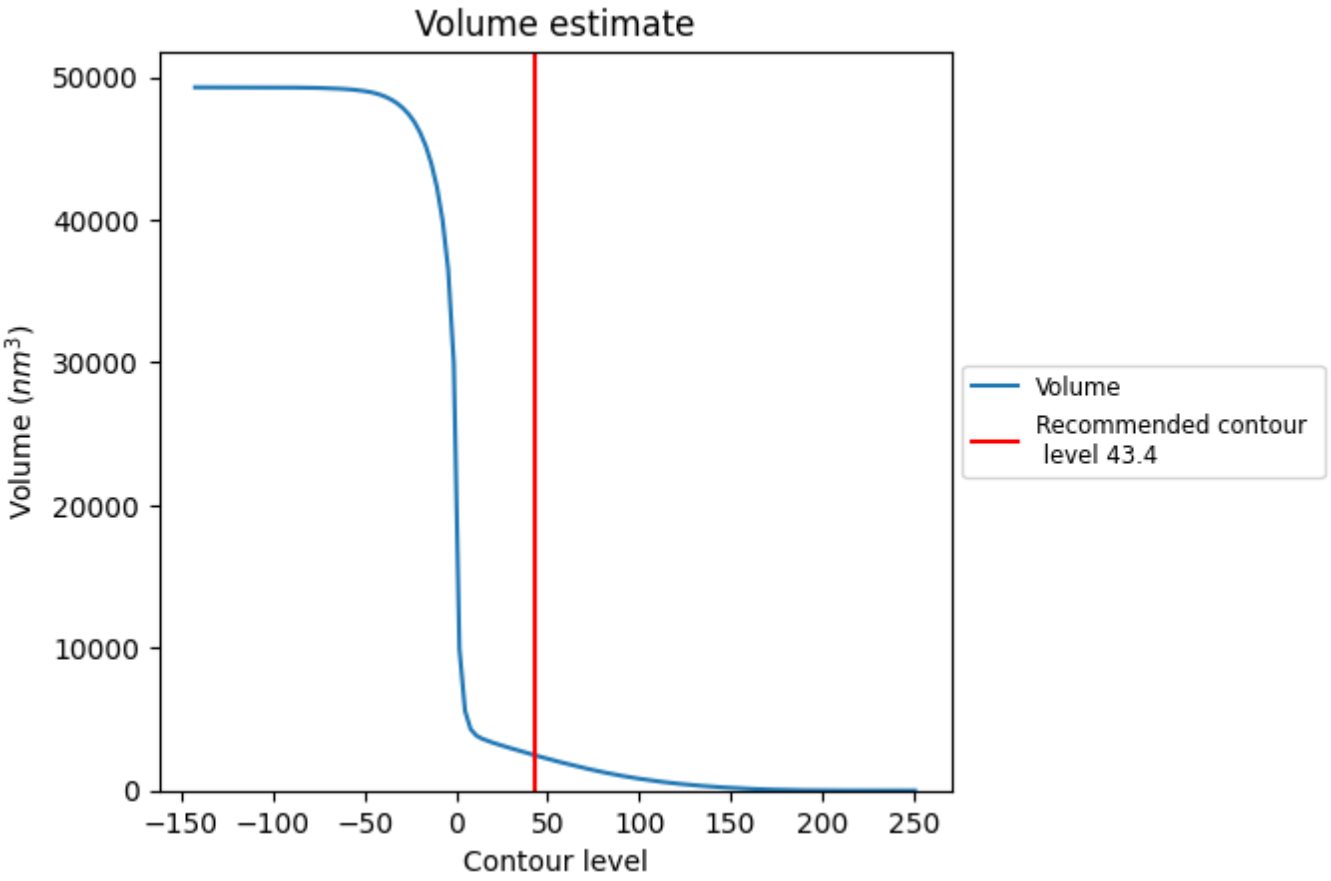
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

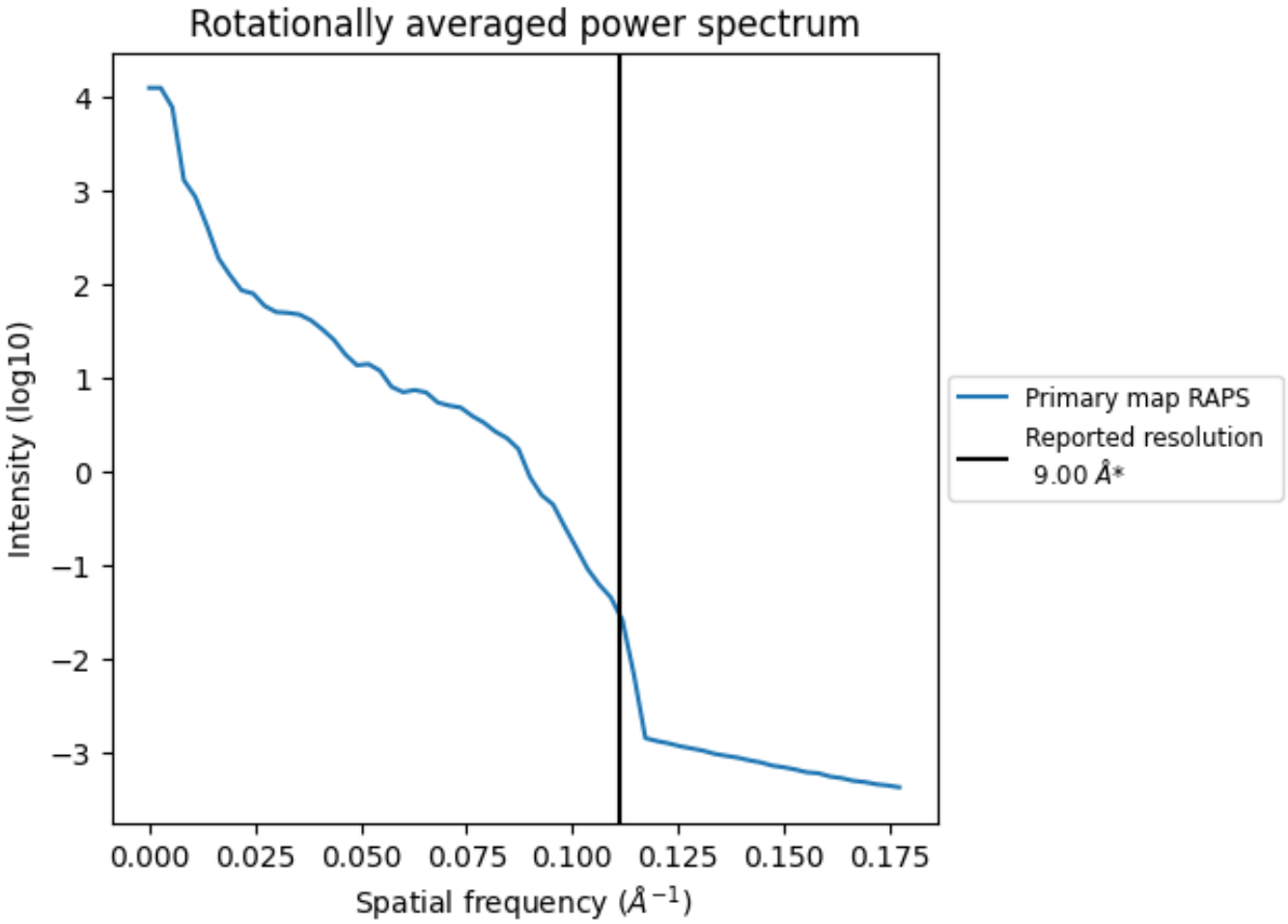
7.2 Volume estimate



The volume at the recommended contour level is 2462 nm^3; this corresponds to an approximate mass of 2224 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 0.111 Å^{-1}

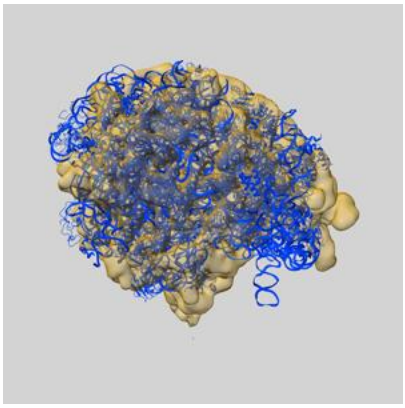
8 Fourier-Shell correlation (i)

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

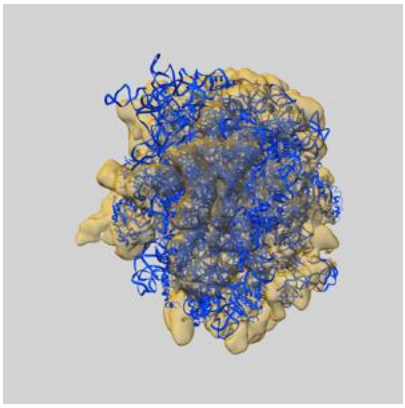
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-1056 and PDB model 4V66. Per-residue inclusion information can be found in section 3 on page 14.

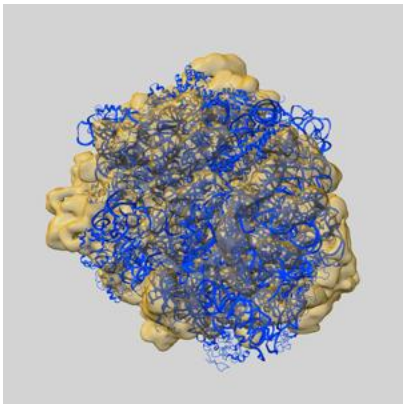
9.1 Map-model overlay



X



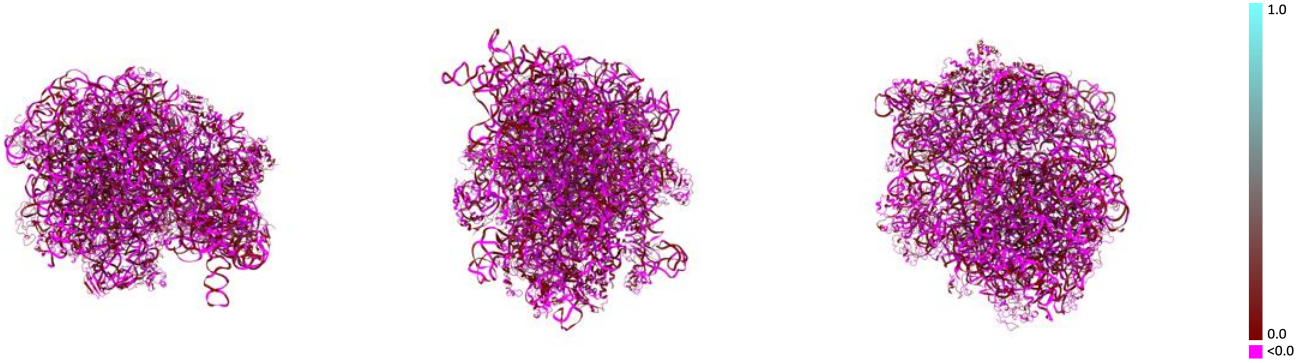
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 43.4 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.

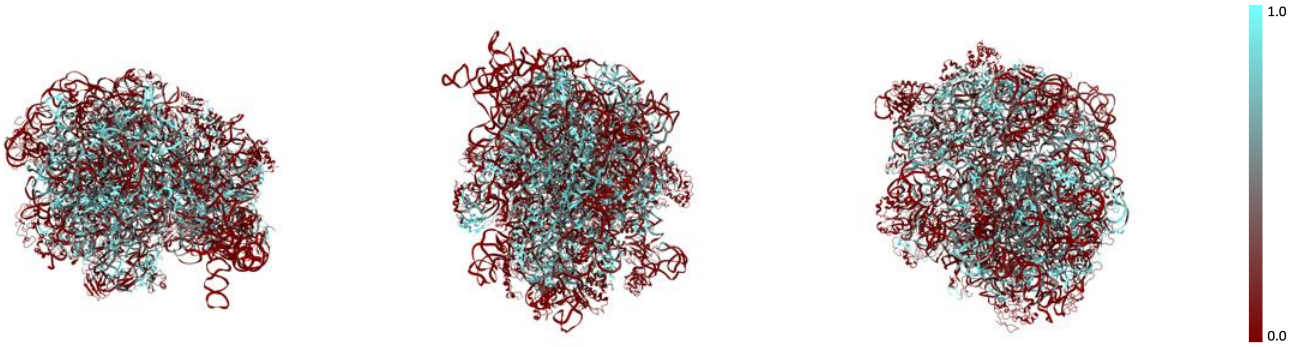
9.2 Q-score mapped to coordinate model



X Y Z

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

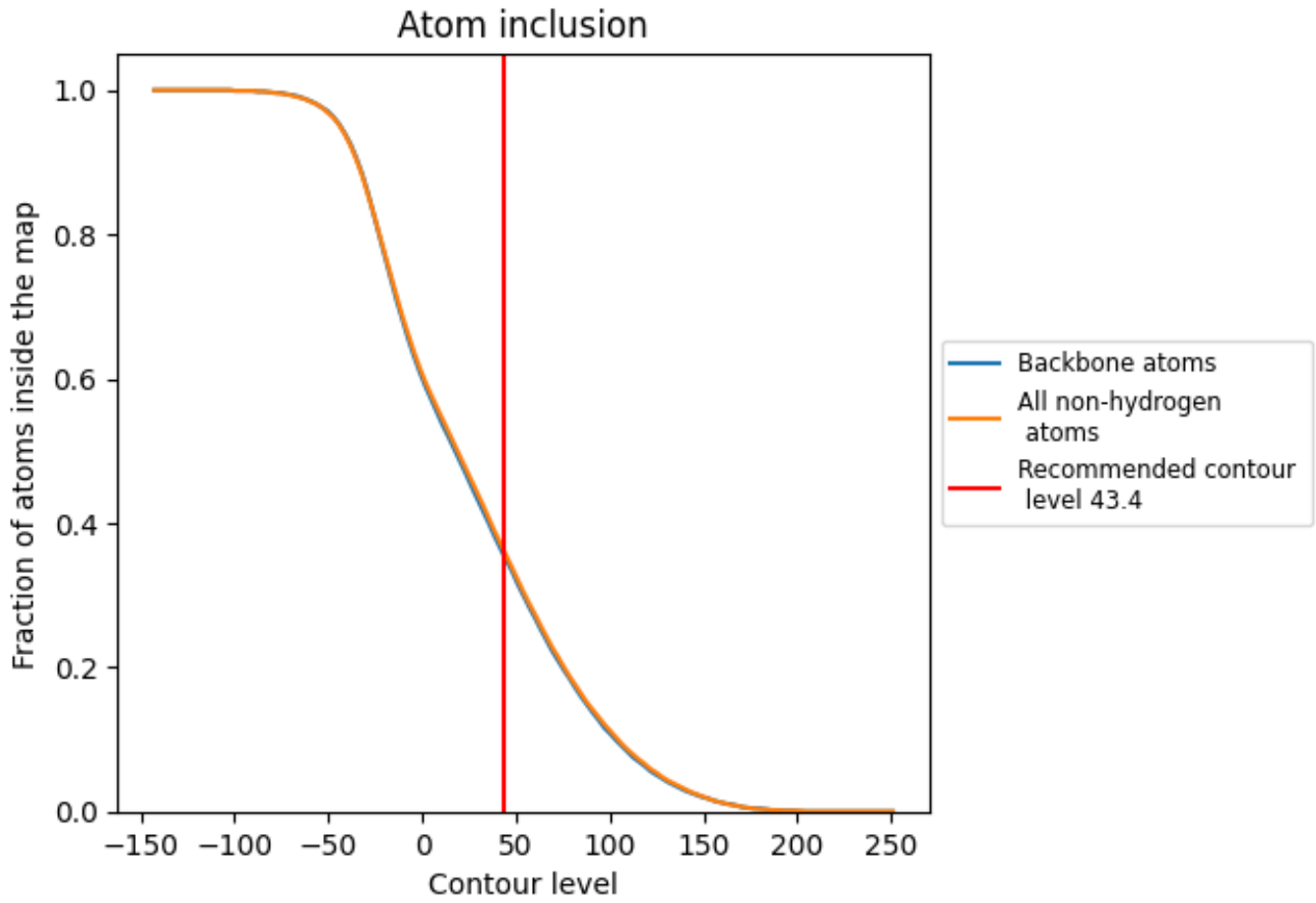
9.3 Atom inclusion mapped to coordinate model



X Y Z

The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (43.4).

9.4 Atom inclusion (i)



At the recommended contour level, 36% of all backbone atoms, 36% 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 (43.4) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.3630	-0.0040
A1	0.3040	-0.0060
AA	0.3110	0.0030
AB	0.2260	-0.0120
AC	0.4430	0.0120
AD	0.2320	-0.0130
AE	0.4020	-0.0090
AF	0.4050	-0.0120
AG	0.1040	-0.0300
AH	0.1730	0.0060
AI	0.0000	-0.0250
AJ	0.2610	-0.0340
AK	0.6440	0.0240
AL	0.0370	-0.0070
AM	0.7100	0.0400
AN	0.4180	0.0020
AO	0.6430	0.0220
AP	0.3780	-0.0140
AQ	0.3890	-0.0540
AR	0.4320	-0.0070
AS	0.5970	-0.0040
AT	0.2310	0.0030
AU	0.5160	-0.0040
AV	0.4660	0.0180
AW	0.1320	0.0180
AX	0.2560	-0.0200
B1	0.2470	-0.0070
B2	0.6610	0.0260
B3	0.1920	-0.0360
B4	0.0750	-0.0060
B5	0.5770	-0.0120
B6	0.5010	0.0050
BA	0.3050	-0.0250
BB	0.4050	-0.0030
BC	0.2330	-0.0090

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Chain	Atom inclusion	Q-score
BD	0.3820	-0.0020
BE	0.3730	-0.0020
BF	0.3480	-0.0040
BG	0.5840	-0.0030
BH	0.4220	0.0030
BI	0.4100	-0.0180
BJ	0.1770	-0.0330
BK	0.0770	0.0020
BL	0.4600	0.0040
BM	0.2620	-0.0100
BN	0.3830	0.0020
BO	0.0010	-0.0340
BP	0.5960	0.0340
BQ	0.4780	0.0290
BR	0.4430	-0.0030
BS	0.2920	0.0010
BT	0.4890	-0.0090
BU	0.1710	-0.0080
BV	0.4440	0.0120
BW	0.2550	-0.0220
BX	0.2890	-0.0030
BY	0.5370	0.0070
BZ	0.0450	-0.0170