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Erratum

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ERRATUM

VOLUME 24, NUMBERS 5–7, PAGES 419–421

In Volume 24, numbers 5–7, pages 419–421, in the article “Borano-Nucleotides: New Analogues to Circumvent HIV-1 RT-Mediated Nucleoside Drug-Resistance,” the following table was not included. The publisher regrets this error.

TABLE 1 Pre-Steady State Kinetic Constants of dATP/ddATP/BH₃-ddATP/dTTP/AZTTP/BH₃-AZTTP Incorporation by WT, Q151M_{complex} and K65R Mutant RTs, of dTTP/d4TTP/BH₃-d4TTP Incorporation by WT, Q151M and Q151M_{complex} RT Mutants, of dCTP/3TCTP/BH₃-3TCTP Incorporation by WT, M184V and K65R/M184V RT Mutants

RT	Nucleotide	Kd (μM)	Kpol (s ⁻¹)	Kpol/Kd	Selectivity ^f	Resistance ^g
WT	dATP ^a	7.5	50	6.7	7.4	
	ddATP ^{b,h}	8.0	7.2	0.91		
	BH ₃ -ddATP ^a	29.9	22.9	0.75	8.94	
Q151M _{complex}	dATP ^b	41	99	2.3	63.8	8.62
	ddATP ^b	11	0.38	0.036		
	BH ₃ -ddATP ^b	7.6	28	3.7	0.62	0.084
WT	dTTP ^a	17	13	0.75	0.41	
	AZTTP ^b	7.1	13	1.8		
	BH ₃ -AZTTP ^e	7.6	18.4	2.4	0.31	
Q151M _{complex}	dTTP ^b	9.7	7.6	0.79	7.18	17.51
	AZTP ^b	9.9	1.1	0.11		
	BH ₃ -AZTP ^b	13	14	1.1	0.72	1.76
WT	dATP ^a	7.47	50.16	6.71	34.95	
	ddATP ^{a,h}	33.8	6.49	0.192		
	BH ₃ -ddATP ^a	29.9	22.9	0.75	8.94	
K65R	dATP ^a	6.89	11.63	1.69	112.7	3.2
	ddATP ^a	47.54	0.71	0.015		
	BH ₃ -ddATP ^a	6.5	14.9	2.3	0.73	0.0816
WT	dTTP ^a	17	13	0.75	1.5	
	d4TTP ^d	21	11	0.51		
	BH ₃ -d4TTP ^d	19	16	0.85	0.88	
Q151M	dTTP ^b	14	17	1.2	4.1	2.8
	d4TTP ^d	23	6.7	0.29		
	BH ₃ -d4TTP ^d	14	20	1.4	0.86	1.0
Q151M _{complex}	dTTP ^b	9.7	7.6	0.79	7.0	4.7
	d4TTP ^d	19	2.2	0.12		
	BH ₃ -d4TTP ^d	14	10	0.77	1.0	1.2

(Continued on next page)

TABLE 1 Pre-Steady State Kinetic Constants of dATP/ddATP/BH₃-ddATP/dTTP/AZTTP/BH₃-AZTTP Incorporation by WT, Q151M_{complex} and K65R Mutant RTs, of dTTP/d4TTP/BH₃-d4TTP Incorporation by WT, Q151M and Q151M_{complex} RT Mutants, of dCTP/3TCTP/BH₃-3TCTP Incorporation by WT, M184V and K65R/M184V RT Mutants (*Continued*)

RT	Nucleotide	K _d (μM)	K _{pol} (s ⁻¹)	K _{pol} /K _d	Selectivity ^f	Resistance ^g
WT	dCTP ^b	7.9	7.3	0.93	50	
	3TCTP ^c	2.5	0.047	0.019		
	BH ₃ -3TCTP ^d	4.1	0.54	0.13	7	
M184V	dCTP ^c	21	9.5	0.45	1500	30
	3TCTP ^c	88	0.026	0.0003		
	BH ₃ -3TCTP ^d	46	0.36	0.0078	58	8.3
K65R/M184V	dCTP ^c	19	5.7	0.3	8900	180
	3TCTP ^c	89	0.003	0.000034		
	BH ₃ -3TCTP ^d	82	0.49	0.006	50	6.8

^aValues from (4), ^bfrom (8), ^cfrom (9), ^dfrom (10), ^efrom (7), ^fSelectivity = [k_{pol}/K_d (nucleotide)]/[k_{pol}/K_d (analogue)], ^gResistance = selectivity_{mutant}/selectivity_{WT/RT}, ^hK_d values for ddATP differ for these two sets of experiments because the assay conditions are different. When slow incorporation rates are measured, an excess of enzyme is required to avoid the influence of the off-rate due to multiple turnovers. The latter gives artificially high K_d values such as for ddATP in ref. (4). However, In ref. (4) artificially high K_d(ddATP) values were measured for both WT and K65R, and thus, the general conclusion regarding the cause of resistance is still valid. In subsequent works, this artifact was eliminated using a 2-fold excess of RT over primer/template (8, 9, 10).

VOLUME 24, NUMBERS 10–12, PAGES 1919–1945

In Volume 24, numbers 10–12, pages 1919–1945, in the article “Synthesis and Structural Analysis of Oxadiazole Carboxamide Deoxyribonucleoside Analogs,” the authors of this paper should be noted as follows, with the inclusion of Dr. Weidong Wu who currently appears in the acknowledgements on page 1919:

Olga Adelfinskaya, Weidong Wu, V. Jo Davisson, and Donald E. Bergstrom