

**Table S4. Pre-steady state kinetic constants for nucleoside incorporation by human mitochondrial polymerase- $\gamma$**

	$K_D$ $\mu\text{M}$	$k_{\text{pol}}$ [ $\text{s}^{-1}$ ]	$r_{\text{exo}}$ [ $\text{s}^{-1}$ ]	ref.
dATP	0.8	45	-*	[1]
dTTP	0.6	25	-*	[1]
dCTP	0.8	37	-*	[1]
dGTP	0.9	43	-*	[1]
TFV-DP	40.3	0.21	0.0007	[2]
AZT-TP	187	0.2	0.0004	[2]
D4T-TP	0.045	0.24	0.0004	[2]
FTC-TP	62.9	0.0086	0.0048	[3, 4]
3TC-TP	9.2	0.125	0.015	[2]
CBV-TP	13	0.0018	0.0016	[2]

\*  $r_{\text{pyro}}$  was set to value zero because of insufficient information.

## References

1. Johnson AA, Johnson KA (2001) Fidelity of nucleotide incorporation by human mitochondrial DNA polymerase. *J Biol Chem* 276: 38090–38096.
2. Johnson AA, Ray AS, Hanes J, Suo Z, Colacino JM, et al. (2001) Toxicity of antiviral nucleoside analogs and the human mitochondrial DNA polymerase. *J Biol Chem* 276: 40847–40857.
3. Wendelsdorf KV, Song Z, Cao Y, Samuels DC (2009) An analysis of enzyme kinetics data for mitochondrial DNA strand termination by nucleoside reverse transcription inhibitors. *PLoS Comput Biol* 5: e1000261.
4. Honkoop P, Scholte HR, de Man RA, Schalm SW (1997) Mitochondrial injury. Lessons from the fialuridine trial. *Drug Saf* 17: 1–7.