

Table 1. Rpb1-E1103G Mutation Decreases Transcription Fidelity In Vitro

Pol II Variant	NTP	k_{pol} , s^{-1}	K_D , μM	k_{pol}/K_D , $s^{-1}\mu M^{-1}$	Fidelity
WT	CTP (correct)	75 ± 4	68 ± 7	1.1 ± 0.17	
	UTP (incorrect)	0.0078 ± 0.0009	3531 ± 556	$(2.2 \pm 0.6) \times 10^{-6}$	$(5 \pm 2.1) \times 10^5$
Rpb1-E1103G	CTP (correct)	97 ± 7.3	42 ± 9	2.3 ± 0.66	
	UTP (incorrect)	0.164 ± 0.03	4326 ± 1063	$(3.8 \pm 1.63) \times 10^{-5}$	$(6 \pm 4.3) \times 10^4$

TEC9 was obtained on the template 45C and chased with 5–500 μM CTP or 0.1–5 mM UTP. The error values for k_{pol} and K_D estimates were obtained from the hyperbolic fit as described in the Supplemental Experimental Procedures.