

13 SUPPLEMENTARY MATERIALS

13.1 OLIGOANALYZER

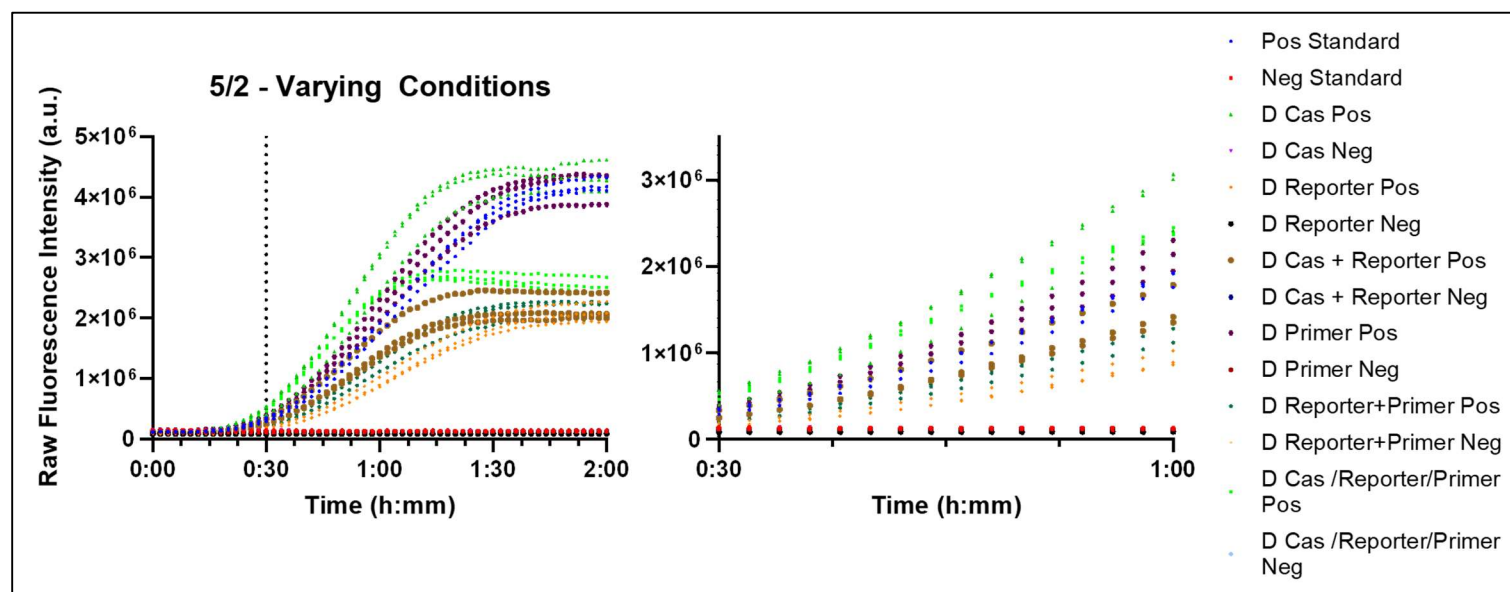
Name	Nucleotides	ΔG Hairpin (max)	ΔG Self Dimer sequence (max)	Self-Dimer (Max)	Ratio (ΔG /Self Dimer)	Where does it bind?
GTGC x 5.75	80	-3.45	-152.03	-6.76	22.490	Primer - Primer
Qin	57	-3.09	-106.84	-7.95	13.439	
Qin	57	-2.19	-105.48	-6.76	15.604	
GGGC x 35.75	200	-21.23	-565.81	-6.76	83.700	Repeat - Repeat
GTGC x 35.75	200	-50.75	-463.47	-6.76	68.561	
GGGC x	180	-17.84	-501.36	-6.76	74.166	
TCGG x 15	117	-5.84	-249.44	-10.14	24.600	
GTGC x 15	117	-19.79	-255.56	-6.76	37.805	
GCGT x 15	117	-20.04	-255.73	-6.76	37.830	
GCGT x 15.75	120	-22.82	-266	-9.89	26.896	
GGCA x 5.75	80	-4.64	-163.49	-12.47	12.111	Repeat + primer - repeat+ primer
TCGG x 5.75	80	-3.57	-159.99	-10.14	15.778	Primer - Primer
GTGC x 5.75	76	-3.45	-152.03	-6.76	22.490	Primer - Primer
GCGT x 5.75	80	-7.63	-165.53	-9.89	16.737	Recog + Repeat - Recong + Repeat
GGGC x 5.75	80	-2.3	-179.13	-6.76	26.499	Primer - Primer
GGAA x 5.75	80	-5.41	-152.33	-8.19	18.600	Repeat - Primer
GGGC x 1.75	64	-1.63	-127.57	-6.76	18.871	Primer - Primer
CCGG x 15		-3.2	-159.99	-9.45		Recog + Repeat
GGGG x 35.75	200		-544.37	-6.76	80.528	Primer - Primer
GAGA x 5.75	80	-6.46	-143.45	-6.76	21.22	Primer - Primer
GGGA x 5.75	80	-3.39	-161.24	-6.76	23.85	Primer - Primer

13.2 SEQUENCES

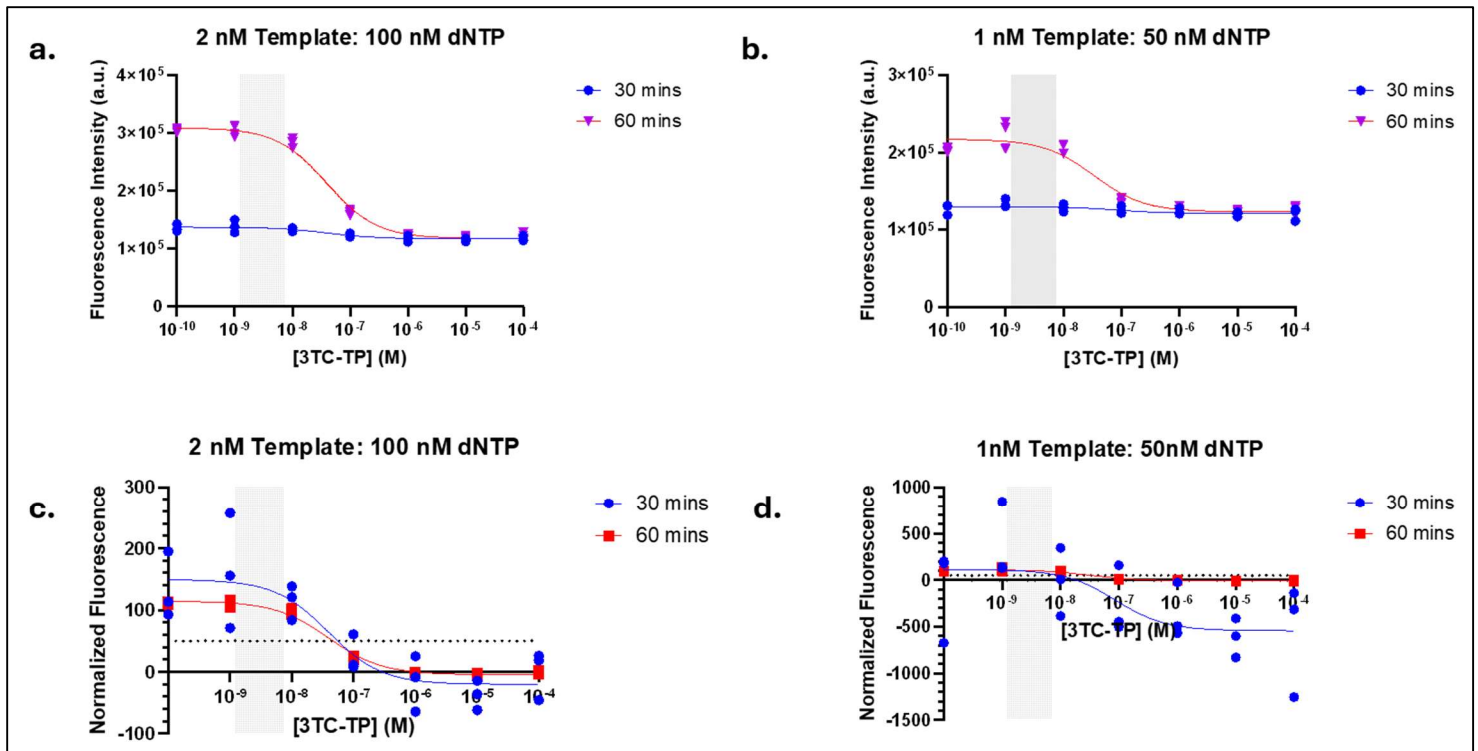
	Sequence
Original Template	TTTTTTTTTTTTTGGATGATGTGAAGGTGTTGTCG CTATCTTTCCTCTTAATTCGACG
GGGC80nt	TTTTTTTTTTTTTGGATGATGTGAAGGTGTTGTCG GGGCGGGCGGGCGGGCGGGCGGG CTATCTTTCCTCTTAATTCGACG
GTGT80nt	TTTTTTTTTTTTTGGATGATGTGAAGGTGTTGTCG GTGTGTGTGTGTGTGTGTGTGTGTG CTATCTTTCCTCTTAATTCGACG

Analyzed Templates

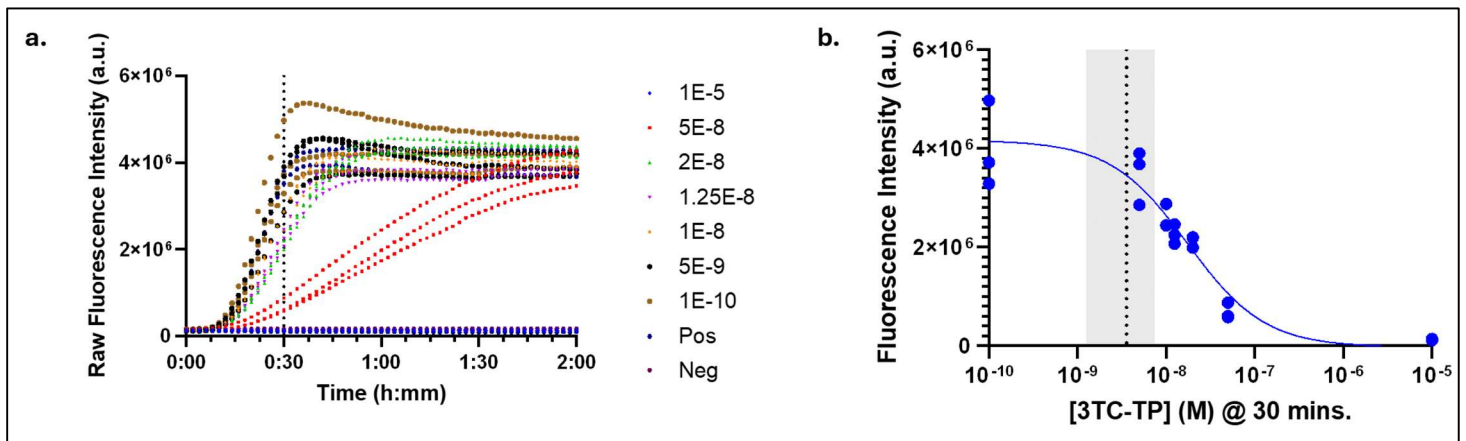
13.3 VARYING CONDITIONS



13.4 VARYING TEMPLATE NORMALIZATIONS AND RAW DATA



13.52.81 NM TEMPLATE IN DBS



Increasing template concentration to 2.81 nM conducted, as prior established protocols utilized 1 mM dTAGTP, 141 nM dCTP, and 2.81 nM GTGT80nt for other in lab REACTR assays. The average %CV across all concentrations was 13.58. Overall, this caused an increase in raw fluorescence intensity, with this increase was a significantly higher %CV, indicating issues with replicability using a higher template. Though reaction time as a whole has decreased drastically (Figure #), the rightwards shift away from the clinical range in the drug inhibition curve shows a decrease in sensitivity (Figure #).