Lab 23.08.18 Aptamer titration in PURE

1. Aim:

Test how low of aptamer trigger concentration can trigger our toehold and produce beta-gal

2. Materials:

- aptamer-trigger
- Toehold DNA
- Substrate
- Rnase inhibitors
- Nuclease free water
- PURExpress kit

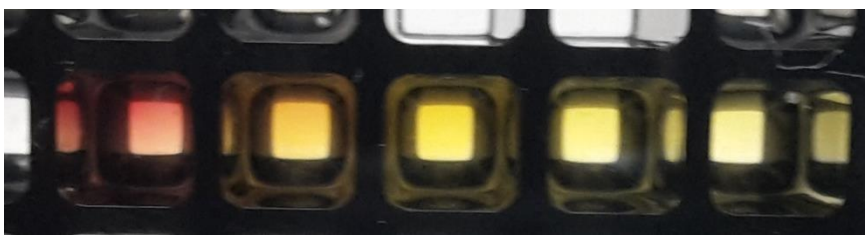
3. Procedure:

Add the following components to each tube:

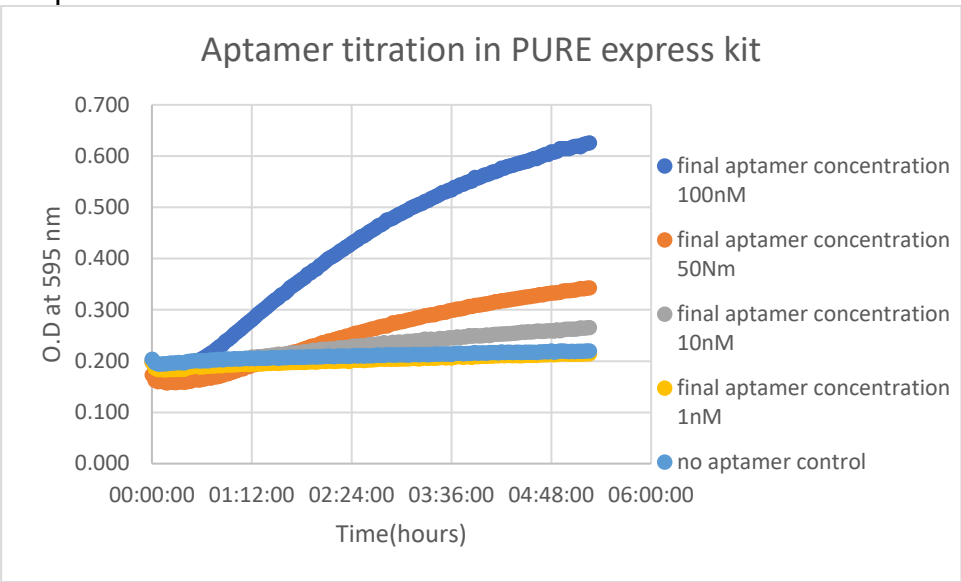
	Pure titration					
	concentration 100nM	concentration 50nM	concentration 10 NM	concentration 1nM		CONTROL
Substrate	0,2	0,2	0,2	0,2		0,2
SOLA	2	2	2	2		2
SOLB	1,5	1,5	1,5	1,5		1,5
RNASE INHIB	0,1	0,1	0,1	0,1		0,1
toehold	0,6	0,6	0,6	0,6		0,6
RNA	0,6	0,3	0,33	0,33		0
water	0	0,3				
total volume	5					

4. Results:

Photo of the plate after 6 hour run:
From left to right: Aptamer concentration at 100nM, 50nM, 10nM, 1nM, control



Graphs:



5. Conclusion:

It would be interesting to redo the experiments in lysate, also to do more titration of the aptamers in the 50-100 nM range

6. Comments (problems, what could be better, …):

7. Lab photos: