Lab 22.08.18 Test ssDNA short, RNA trigger, and the aptamer-trigger in lysate

1. Aim:

Test ssDNA short, RNA trigger, and the aptamer-trigger in both T7M15 with added GamS and Top10Gams

2. Materials:

- RNA trigger
- ssDNA trigger
- aptamer-trigger
- Toehold DNA
- T7 M15 lysate
- Top10GamS
- GamS
- Substrate
- Rnase inhibitors
- Buffer A
- Energy Solution
- Nuclease free water
- Incubator
- Pcr tubes

3. Procedure:

Add the following components to each tube:

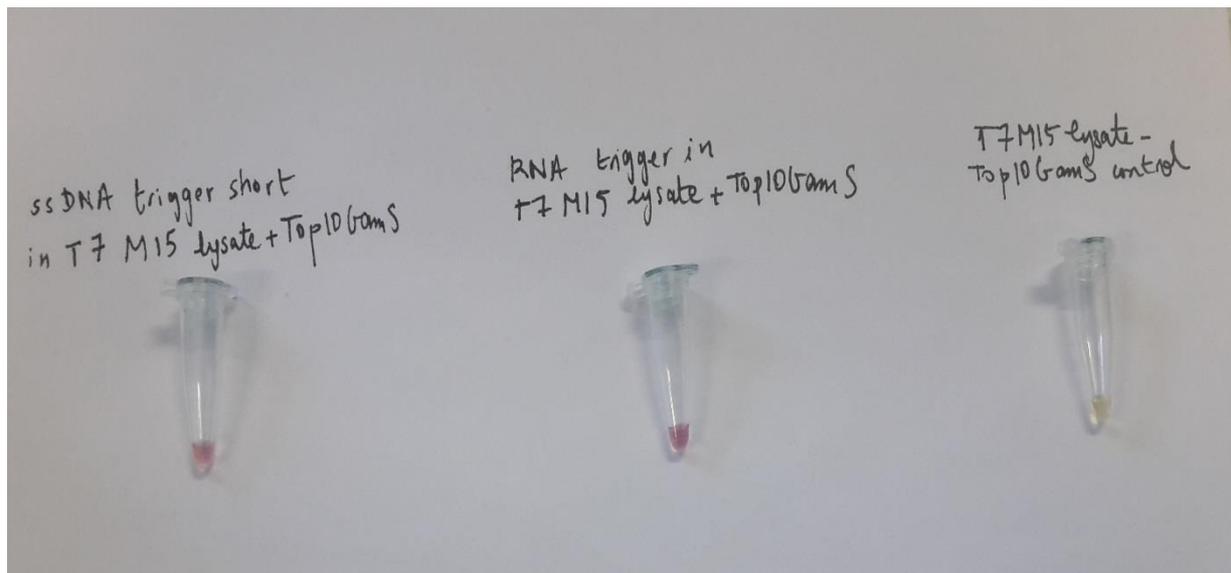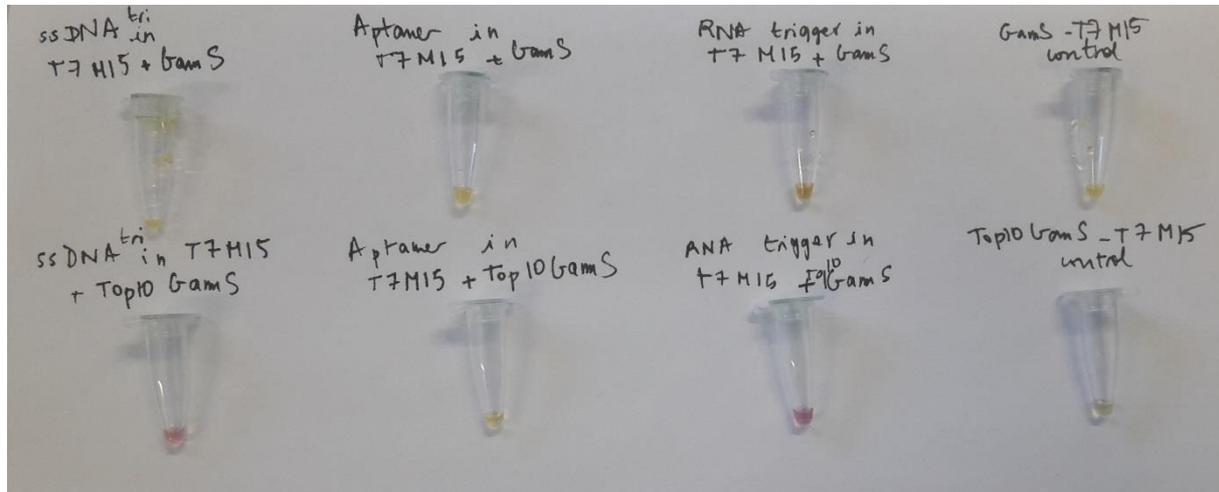| Incubations experiments	TEST toehold with aptamer ssdna long and rna in both gams and top10gams							
	tube1 ssDNA trigger	tube2 ssDNA trigger	tube3 apatmer	tube4 aptamer	tube5 rna	tube6 rna	tube7 top10c	tube8 gams c
ssDNA trigger/aptamer	0,2	0,2	0,2	0,2	0	0	0	0
RNA trigger	0	0	0	0	1,2	1,2	0	0
toehold	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6
substrate	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2
rnase inhibitors	0,2	0,2	0,2	0,2	0,2	0,2	0,2	0,2
lysate t7m15	2,5	1,25	2,5	1,25	2,5	1,25	1,25	2,5
bufferA	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
ES	2,5	2,5	2,5	2,5	2,5	2,5	2,5	2,5
lysate top10Gams	0	1,25	0	1,25	0	1,25	1,25	0
Gams	0,3	0	0,3	0	0,3	0	0	0,3
Nuclease fre water	1	1,3	1	1,3	0	0,3	1,5	1,2
Total volume	10							

4. Results:

Photos of the overnight results of the incubation:

5. Conclusion:

Some problems with triggers as experiments that worked efficiently before are problematic now

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

Order new triggers

7. Lab photos: