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# RCA of Circular Probe

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This protocol is to verify that circular probe can conduct RCA reaction.

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## Preparation

- 1 Dilute the 1 $\mu$ M Circular probe into 100nM
  - 1.1 Add  5  $\mu$ L of 1 $\mu$ M circular probe
  - 1.2 Add  45  $\mu$ L of RNase-free water

### 1.3 Spin down after vortex


#### Protocol

- 2 Add  **17.4 µL** RNase-free water into a eppendorf
- 3 Add  **3 µL** of 10X phi29 polymerase reaction buffer
- 4 Add  **3 µL** of 100nM circular probe
- 5 Add  **3 µL** of 100nM miRNA
- 6 Add  **3 µL** of 2mM dNTPs
- 7 Add  **0.6 µL** of 10U/µl Phi29 polymerase
- 8 Pipetting the reaction solution
- 9 Incubate for  **02:00:00** at  **Room temperature**
- 10 Add  **1.5 µL** of 20X evagreen dye

2h

11 Add  **1.5 µL** of 0.5M EDTA buffer to suspend the reaction

Measuring

12 Load  **20 µL** of reaction solution into 384-well plate

13 Measure the fluorescence excitation and emission intensity