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# Background control of Gotcha RCA V.2

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protocol .

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This protocol aims to verify that GotCha design works as expected.

Chia-Hsien Shih 2021. Background control of Gotcha RCA. [protocols.io](https://protocols.io/view/background-control-of-gotcha-rca-by5jpy4n)  
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## Preparation




- 1 Add **5  $\mu$ L** of functional beads(Gotcha) into eppendorf
- 2 Centrifuge for **15000 rpm, 00:05:00** and remove supernatant. Make sure that eppendorf<sup>5m</sup> should put on DynaMag when removing supernatant.


## Protocol of Control group without miRNA

- 3 Add **3  $\mu$ L** of 10X phi29 polymerase reaction buffer into eppendorf with functional beads


- 4 Add  **23.4 µL** RNase-free water
- 5 Add  **3 µL** of 2mM dNTPs
- 6 Add  **0.6 µL** of 10U/ul phi29 polymerase
- 7 Pipetting to mix well
- 8 Incubate for  **02:00:00** at  **Room temperature** 2h
- 9 Add  **1.5 µL** of 20X evagreen dye
- 10 Add  **1.5 µL** of 0.5M EDTA buffer to suspend the reaction

#### Protocol of Control group without phi29 polymerase

- 11 Add  **3 µL** of 10X phi29 polymerase reaction buffer into eppendorf with functional beads
- 12 Add  **21 µL** RNase-free water
- 13 Add  **3 µL** of 2mM dNTPs

- 14 Add  **3  $\mu$ L** of 100nM miRNA
- 15 Pipetting to mix well
- 16 Add  **1.5  $\mu$ L** of 20X evagreen dye
- 17 Add  **1.5  $\mu$ L** of 0.5M EDTA buffer to suspend the reaction

#### Measuring

- 18 Load  **20  $\mu$ L** of reaction solution into 384-well plate
- 19 Measure the fluorescence excitation and emission intensity