



Loop-Mediated Isothermal Amplification Kit (LAMP RNaseH2 probe based)

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Catalog Code: LAM-PB-1
LAM-PB-10

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Product Introduction

This product introduces RNaseH2 enzyme in LAMP reaction system, which greatly increase the specificity. LAMP-RNaseH2 kit is very suitable for SNP detection.

Materials supplied

Component	LAM-PB-1	LAM-PB-10
LAMP Reaction Buffer (2X)	0.7ml*2	14 ml*1
LAMP Enzyme Mix (RNaseH2) (25X)	100µl	1ml
Positive Control	80µl	800µl

Required materials

- i. Template DNA
 - ii. LAMP primers
 - iii. Nuclease-free water or ddH₂O
- Heating block or fluorescence reader with heating function, for example Q-PCR machine.

Storage

-20°C. Suggest aliquot. Avoid repeated freeze-thaw.

Preparation of reagents

1、 Prepare reactions as following table. Recommend to operate on ice.

Component	Volume	Working concentration
2×LAMP Reaction Buffer	12.5μl	1X
LAMP Enzyme Mix	1μl	-
10X Primers	2.5μl	1.6 μM FIP/BIP, 0.4 μM LF/LB, 0.2 μM F3/B3,
Probe (5μM)	1μl	200nM
模板DNA*	1μl	>10 copies or more
ddH2O	Up to25μl	---

*For positive control group, add 8μl Positive Control that provided in the kit. Template, primers, and probe with FAM label are already mixed as positive control.

2、 Read fluorescence in Q-PCR machine for 30 to 60 minutes at 65°C.

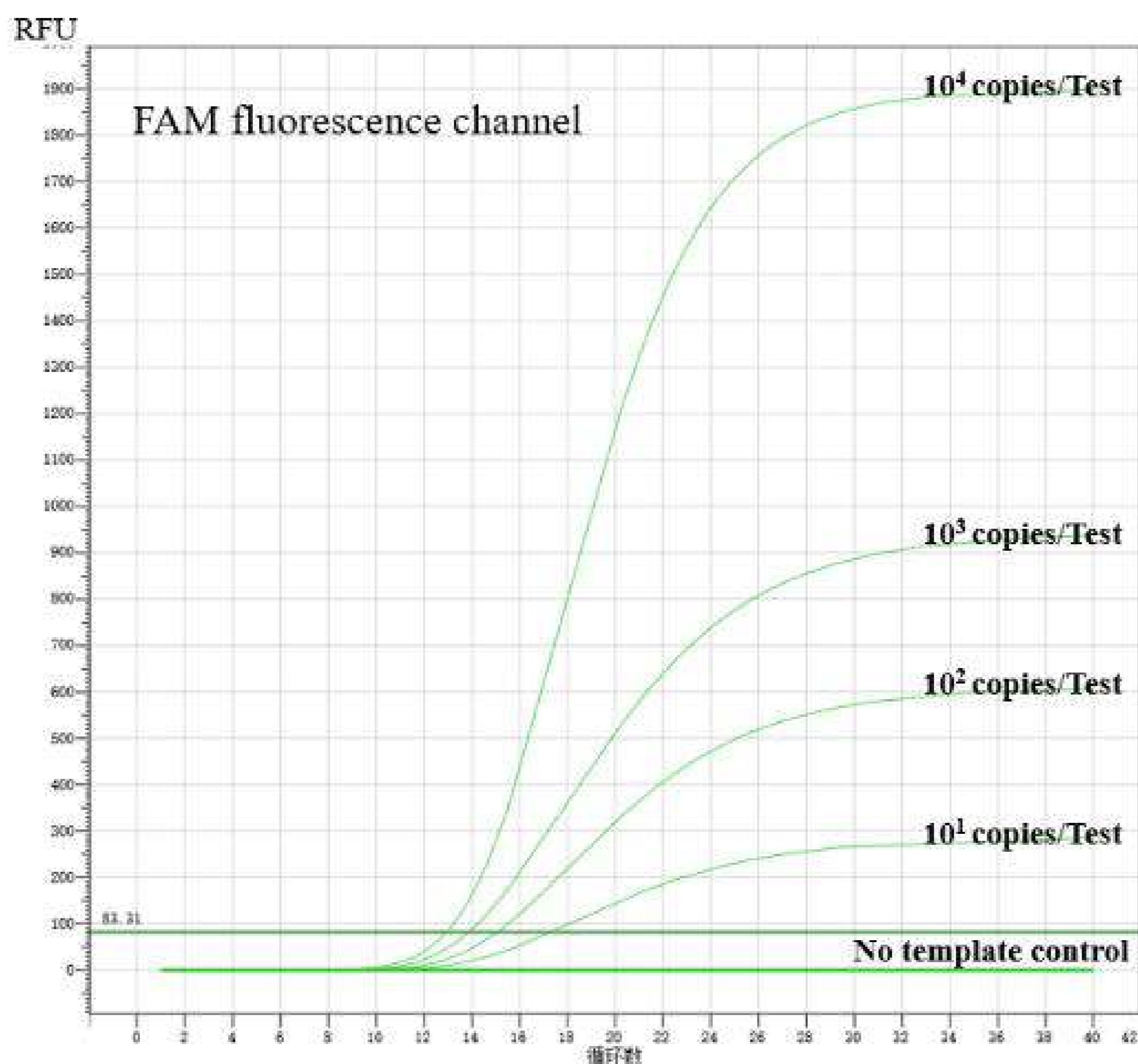


Figure1. typical curve

LAMP-RNasH2 probe design

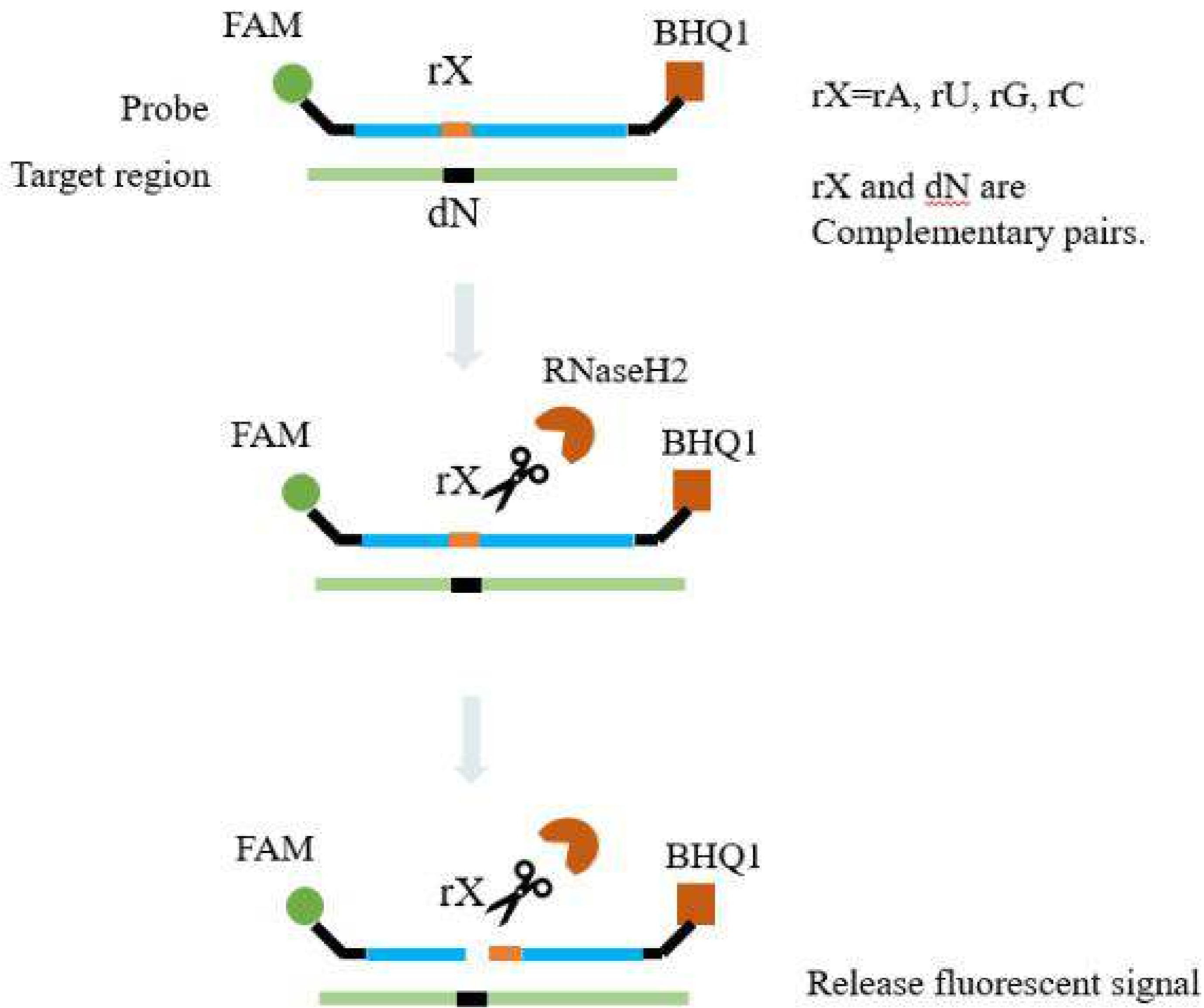
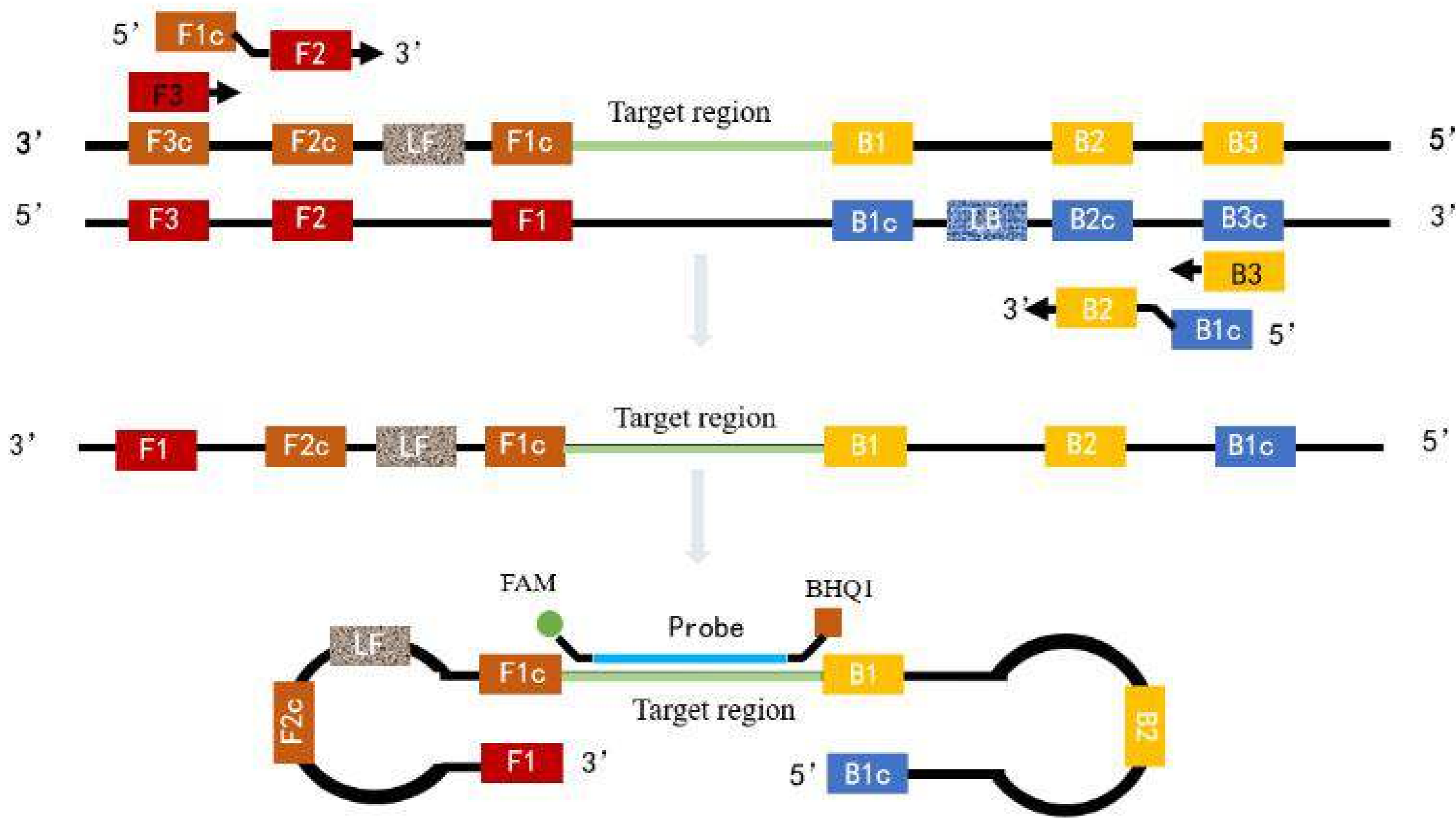


Figure 2. LAMP-RNaseH2 probe working principle

注意事项

Notes

- Designate and use distinct areas for sample preparation, reaction setup, and analysis to avoid carry-over contamination.
- It is recommended to add a negative control without template for each experiment.
- To guarantee good reproducibility, it is recommended that the template DNA be added last.
- For plasmid DNA, 10 fg~1ng is recommended. For genomic DNA, 10ng~100ng is recommended.
- If Q-PCR machine is used, please make sure to turn off the heat lid function or set to 65 °C.
- The length of the probe is typically limited to between 20 and 50 nt.