



Thermostable RNaseH2/ RNaseH II Instructions

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Catalog Code: RH2 -250
RH2 -2500

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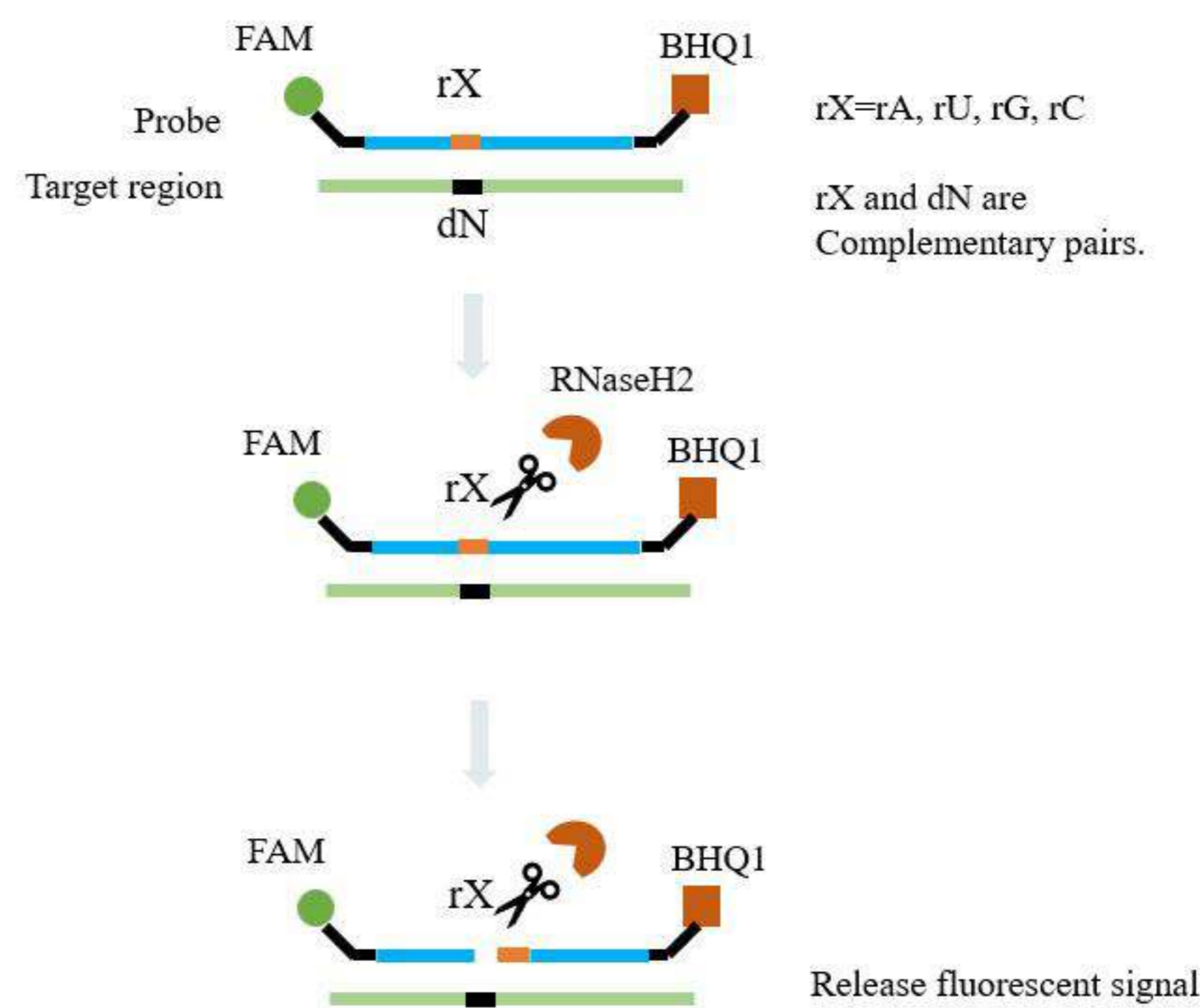
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Product Information

Product name	RNaseH2/RNaseH II
Expression system	Escherichia coli
Quality	Recombinant protein
Form	Liquid

Product Introduction

RNaseH2 (RNase H II) is an endogenous endoribonuclease that binds to RNA-DNA duplexes and cleaves the RNA strand, leaving a 5' phosphate and a 3' hydroxyl group. RNase H2 will cleave at a single ribonucleotide residue embedded within a heteroduplex. RNase H2 will not cleave single-stranded RNA. It can be used in RNase H-dependent PCR (rhPCR), LAMP and so on.



Storage

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

Materials supplied

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RNase H II (10U/μL)	250U	2500U

Unit definition

One unit is defined as the amount of enzyme required to yield a fluorescence signal consistent with the nicking of 100 pmol of synthetic double-stranded DNA substrate containing a single ribonucleotide near the quencher of a fluorophore/quencher pair in 30 minutes at 37°C.

Example of application in LAMP

Prepare reaction as described in the table below.

Component	Volume	Working concentration
LAMP Reaction Buffer (2X)	12.5µl	1X
Bst2.0 (8U/ul)	1µl	8U
RNase H II (10U/ul)	0.5ul	5U
Primers (10X)	2.5µl	1.6 µM FIP/BIP, 0.4 µM LF/LB, 0.2 µM F3/B3,
Probe (5µM)	1µl	200nM
Template	1µl	>10 copies or more
ddH2O	Up to 25µl	-

Set temperature at 65°C. Read fluorescence in real-time PCR machine every 1 min for 30 to 60 minutes.

Notes

- The enzyme is active at 50-75°C, and its dosage can be adjusted according to different reactions.
- The enzyme is extremely heat-resistant, and the activity of the enzyme is not significantly reduced at 95°C for 15min, and 0.1% SDS needs to be added if the enzyme is inactivated.

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