Thermostable RNase H

T751065

Store at -20℃

Introduction:

Thermostable RNase H is an endoribonuclease that remains active at high temperature (above 65℃) and specifically hydrolyzes RNA in DNA-RNA hybrids. It cannot hydrolyze the phosphodiester bonds of single- or double-stranded RNA or DNA.

Application:

1. Highly stringent RNA structure map description and site-specific RNA digestion.
2. digestion and removal of poly (A) tail of mRNA hybridized with oligo (dT).
3. mRNA removal after cDNA synthesis.
4. isothermal amplification experiments.
5. remove specific RNA sequences after hybridization with specific DNA sequences, such as rRNA removal, etc.

Definition of enzyme activity unit:

One unit is defined as the amount of enzyme required to produce 1 nmol of ribonucleotides from 40pmol of a fluorescently labeled 25 base pair RNA-DNA hybrid in a total reaction volume of 50μl in 20 minutes at 50℃.

Precautions:

1. The optimal reaction temperature of this product is higher than 65℃. Its activity at 65℃ is 3-4 times of that at 37℃. It remains active at 95℃.

2. This protocol uses the reaction temperature of 50℃. In practice, the reaction temperature can be increased appropriately to enhance its activity.

3. The reaction buffer of this product contains MgCl2. When Thermostable RNase H is applied to RNA-DNA hybrid or RNA samples at high temperatures, the reaction time and temperature should be controlled appropriately to avoid the metal-mediated degradation of ssRNA .

4. This product is for R&D only. Not for drug, household, or other uses.

5. For your safety and health, please wear a lab coat and disposable gloves during the operation.