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RNase H

#RNH-EE101

Product Component	Sizes
RNase H (5U/µL)	100U / 500U / 5000U
10X RNase H Reaction Buffer	300µL / 1.5mL / 14.5mL

Storage/Transport Transport on dry ice. Store at -20 ±5°C for 24 months. Avoid repeated freezing and thawing.
Form Liquid
Source *E. coli*
Concentration 5U/µL
RNase H Storage Buffer 10 mM Tris, 50 mM KCl, 1 mM DTT, 0.1 mM EDTA, 50% Glycerol, 200 µg/mL HSA, pH 7.4
10X RNase H Reaction Buffer 500 mM Tris-HCl, 750 mM KCl, 30 mM $MgCl_2$, 100mM DTT, pH 8.3
Unit Definition One unit (U) is defined as the amount of enzyme required to generate 1 nmol of ribonucleotides from 20 pmol of RNA-DNA hybrid in a 50 µL reaction within 20 minutes at 37°C.

Product Description
RNase H (Ribonuclease H) is an endoribonuclease that can specifically hydrolyze the phosphodiester bonds of RNA and degrades the RNA strand in the RNA-DNA hybrid. RNase H cannot hydrolyze phosphodiester bonds in single- or double-stranded DNA.

Applications
- Remove RNA from RNA-DNA hybrid
- Oligodeoxyribonucleotide-directed cleavage of RNA
- Remove poly(A) from mRNA in the presence of oligo(dT)

Recommended Protocol

1. Prepare the following reaction mixture.

Reagent	Volume
RNA-DNA hybrid	Up to 2µg
10X RNase H Reaction Buffer	10µL
RNase H (5U/µL)	1µL
Nuclease-free Water	Up to 100µL

2. Incubate at 37°C for 20 minutes.
3. Reaction can be terminated by either adding EDTA to a final concentration of 5 mM or heating at 65°C for 20 minutes.