RNase H

REF: EG20208S

Storage Condition

-20℃

Components

Component	Amount
RNase H (50 U/μl)	1000 U
5× RNase H Buffer	300 μl

Description

RNase H is a ribonuclease endonuclease that specifically cleaves the RNA strand in RNA-DNA hybrids. Its optimal pH is around 8.0. The activity of RNase H is dependent on the presence of Mg^{2+} or Mn^{2+}.

Applications

1. Okayama-Berg method for cDNA Cloning.
2. Detection of DNA-RNA hybrids.
3. Removal of Poly(A) tail from mRNA in the presence of Oligo(dT).

Definition of Activity Unit

One unit is defined as the amount of enzyme required to produce 1 nmol of acid-soluble product in 20 minutes at 30℃ and pH 7.7 using [^{3}H] poly(rA)·poly(dT) as a substrate.

Quality Control Assays

Endonuclease Activity

A 20 μl reaction containing 200 ng of supercoiled plasmid and 50 U of RNase H incubated for 4 hours at 37℃ results in <10% conversion to the nicked or linearized form as determined by agarose gel electrophoresis.

Non-specific Nuclease Activity

A 20 μl reaction containing 15 ng of dsDNA fragments and 50 U of RNase H incubated for 16 hours at 37℃ results in no detectable degradation of the dsDNA fragments as determined by agarose gel electrophoresis.

Ribonuclease Activity

A 20 μl reaction containing 1 μg of 16S, 23S rRNA and 50 U of RNase H incubated for 1 hour at 37℃ results in no change in the substrate detected by RNA electrophoresis.

Host-derived DNA

No host DNA contamination.

Notice

For your safety and health, please wear lab coats and disposable gloves for operation.

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