thermo scientific

PRODUCT INFORMATION

RNase A/T1 Mix

Pub. No. MAN0012005
Rev. Date 07 December 2016 (Rev. B.00)

Lot: _ **Expiry Date: _**

Store at -20 °C

Components	#EN0551
RNase A/T1 Mix 2 mg/mL of RNase A and 5000 U/mL of RNase T1	1 mL

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For Research Use Only. Not for use in diagnostic procedures.

Description

RNase A/T1 Mix combines the RNA degradation activity of both RNase A and RNase T1. The RNase A specifically hydrolyzes RNA at C and U residues; RNase T1 specifically hydrolyzes RNA at G residues (1).

Applications

- Removal of RNA from DNA preparations (2).
- Removal of RNA from recombinant protein preparations.
- Ribonuclease protection assays (1, 2).

Source

RNase A: Bovine pancreas.
RNase T1: *E.coli* cells with a cloned *rntA* gene of *Aspergillus oryzae.*

Unit Definition for RNase A

One unit of the enzyme causes an increase in absorbance of 1.0 at 260 nm when yeast RNA is hydrolyzed at 37 °C and pH 5.0. Fifty units are approximately equivalent to 1 Kunitz unit (3).

Unit Definition for RNase T1

One unit of the enzyme causes an increase in absorbance of 1.0 at 260 nm in 15 min when yeast RNA is hydrolyzed at 37 °C and pH 7.5.

Storage Buffer

The enzymes are supplied in: 50 mM Tris-HCl (pH 7.4), 50% (v/v) glycerol.

Inactivation

Not inactivated by heating, reliably removed by spin column or phenol/chloroform extraction.

Recommendations for Use

RNase digestion mixture for RNase protection assay (1): 10 mM Tris-HCl (pH 7.5), 300 mM NaCl, 5 mM EDTA (pH 7.5), 20 µL of RNase A/T1 Mix per 1 mL of reaction mixture.

CERTIFICATE OF ANALYSIS

Endodeoxyribonuclease Assay

No detectable degradation was observed after incubation of supercoiled plasmid DNA with RNase A/T1 Mix.

Labeled Oligonucleotide (LO) Assay

No detectable degradation after incubation of single-stranded or double-stranded radiolabeled oligonucleotides with RNase A/T1 Mix.

Protease Assay

No detectable degradation of protease substrate after incubation of FTC-casein with RNase A/T1 Mix.

Quality authorized by:  Jurgita Zilinskiene

References

1. Ausubel, F.M., et al., ed., Current Protocols in Molecular Biology, vol.1, John Wiley & Sons, Inc., Brooklyn, New York, 3.13.1-3.13.3, 1994-2004.
2. Sambrook, J., Russell, D.W., Molecular Cloning: A Laboratory Manual, the third edition, Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York, 2001.
3. Kunitz, M.A., A spectrophotometric method for measurement of ribonuclease activity, J. Biol. Chem., 164, 563-568, 1946.

PRODUCT USE LIMITATION

This product is developed, designed and sold exclusively *for research purposes and in vitro use only.* The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.

Please refer to www.thermofisher.com for Material Safety Data Sheet of the product.