Data sheet

RNase A

(DNase-free, proteinase-free)

Cat. No: EZ002
1 ml (10 mg/ml)

Introduction

RNase A (ribonuclease A) is a bovine pancreatic endoribonuclease that cleaves single-stranded RNA. It catalyzes the cleavage of the phosphodiester bond between the 5'-ribose of a nucleotide and the phosphate group attached to the 3'-ribose of an adjacent pyrimidine nucleotide. This cleavage forms a 2',3'-cyclic phosphate, which is then hydrolyzed to the corresponding 3'-nucleoside phosphate. This enzyme does not require co-factors and divalent cations for its activity.
RNase A is a single-chain polypeptide relatively small (124 residues, ~13.7 kDa) **purified from Bovine Pancreas**. DNase-free (no need to heat the RNase before use) and proteinase-free. Contains no endonuclease or exonuclease activity toward DNA substrates.

Applications

- RNA removal during DNA isolation
- RNA sequence analysis
- RNase protection assays
- RNA quantification or mapping
- Purifying plasmid DNA
- Genomic DNA isolation
- Molecular weight marker

Storage Buffer

50 mM sodium acetate, (pH 5.0) 0.3 mM EDTA, 50% glycerol.

Kit Contents

- RNase A Solution (10 mg/ml)

Storage

RNase A solutions retain enzymatic activity at room temperature or 2-8 ºC for extended periods. However store at –20 ºC in a freezer without a defrost cycle is recommended . Avoid freeze/thaw cycles.

Unit Definition

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.
50 units are approximately equivalent to 1 Kunitz unit.

Quality Control

Functionally tested for RNA degradation in a plasmid DNA purification protocol.
RNase A is free of contaminating exo- and endodeoxyribonuclease activities

Reaction conditions

The recommended working solution is 1-100 µg/ml (depending on the application). For the removal of RNA during preparation of plasmid DNA, a final concentration of 10 µg/ml is adequate. The RNase A digestion reaction is incubated for about 10 – 30 min at room temp or 37°C.

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.canvaxbiotech.com for Material Safety Data Sheet of the product.

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Notes