

RNase A

Cat No. EN-M-002-100

Size: 100 mg

Store at -20°C

MOLEQULE-ON®

Description

Ribonuclease A (RNase A) is an endoribonuclease that attacks at the 3'OH phosphate of a pyrimidine nucleotide. The sequence of pG-pG-pC-pA-pG will be cleaved into pG-pG-pCp and A-pG. The highest activity is exhibited with single stranded RNA.

Applications

RNase A is used to remove RNA from genomic DNA and plasmid preparations. It is also used in RNA sequence analysis and protection assays.

Features

- Molecular mass: 13.7 kDa (amino acid sequence)
- Extinction coefficient: $E_{1\%}^{1\text{cm}} = 7.1$ (280 nm)
- Isoelectric point: $pI = 9.6$
- Optimal temperature: 60 °C (activity range of 15–70 °C)
- Optimal pH: 7.6 (activity range of 6–10)
- Inhibitors: ribonuclease inhibitor
- Activity (Kunitz): ≥ 60 units/mg protein
- Stability: stable to both heat and detergent

Preparation

MOLEQULE-ON RNase A stock solution can be prepared in water at 10 mg/ml.

Note: Boiling stock solutions of this RNase A product to inactivate residual DNase is not necessary and may cause precipitation of RNase and possible loss of enzymatic activity. If RNase A solution is heated at a neutral pH, precipitation will occur. When heated at a lower pH, some precipitation may occur because of protein impurities that are present.