

Lyophilized RNase A Protocol

For research use only

Catalogue Number

RA0100 (100 mg), RA0250 (250 mg), RA0500 (500 mg), RA1000 (1 g)

Geneaid



CERTIFICATE NO. GANCITW08077
ISO 9001:2008 QMS

Introduction

RNase A is an endoribonuclease purified from bovine pancreas. RNase A is an important enzyme for the removal of RNA for RNA free DNA purification reactions such as plasmid DNA purification and genomic DNA purification, RNA removal from recombinant protein preparations, Ribonuclease protection assays, mapping single-base mutations in DNA/RNA. RNase A effectively cleaves the phosphodiester bond between the 5'-ribose of a nucleotide and the phosphate group attached to the 3'-ribose of an adjacent pyrimidine nucleotide which forms a 2',3'-cyclic phosphate which is then hydrolyzed to the corresponding 3'-nucleoside phosphate.

Specifications

- Lyophilized RNase A powder
- Storage: -20°C for extended periods, RNase A/ddH₂O solution should be stored at 2-8°C for up to 6 months
- Shipped at room temperature
- Molecular Weight: 13.7 kDa
- Certified TSE/BSE Free

Preparation

1. Add corresponding volume of sterilized ddH₂O into the tube containing RNase A powder according to the table below:

RNase A	ddH ₂ O	Concentration
100 mg	2 ml	50 mg/ml
250 mg	5 ml	50 mg/ml
500 mg	5 ml	100 mg/ml
1000 mg	10 ml	100 mg/ml

2. Mix by vortex to dissolve the RNase A powder completely.
3. Attach a 25 mm syringe filter with 0.45 µm membrane to a suitable volume syringe.
4. Transfer the RNase A solution to the syringe.
5. Press the RNase A solution through the syringe filter into a sterilized tube.
6. Store the sterilized RNase A solution at 2-8°C for up to 6 months.

RNase A Functional Test Data

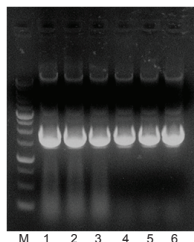


Figure 1. Plasmid DNA extraction was performed with and without RNase A treatment using the Presto™ Mini Plasmid Kit.

Lane 1-3: Plasmid DNA extraction without RNase A treatment.

(RNA contamination)

Lane 4-6: Plasmid DNA extraction with RNase A treatment.

(No RNA contamination)