

Recombinant RNase A (Liquid, DNase-Free)

Product description

Ribonuclease A (RNase A) is a non-specific endoribonuclease derived from bovine pancreas, engineered using protein engineering technology and produced via yeast expression and purification. It is free of bacterial endotoxins commonly associated with prokaryotic expression systems.

Functionally, RNase A is an endoribonuclease that hydrolyzes the phosphodiester bond between the 5'-ribose of a nucleotide and the 3'-ribose phosphate of an adjacent pyrimidine nucleotide (cytidine or uridine). This reaction generates a 2',3'-cyclic phosphate intermediate, which is subsequently hydrolyzed to the corresponding 3'-nucleotide phosphate. Thus, RNase A specifically cleaves single-stranded RNA after C and U residues. RNase A is highly stable and exhibits strong activity against single-stranded RNA.

This product is widely used to remove RNA contamination from DNA or protein samples.

It is free of endonucleases, exonucleases, and proteases.

Specifications

Cat NO.	10418ES01 / 10418ES05 / 10418ES10
Size	1 mL / 5 mL / 10 mL

Storage

This product should be stored at -25~-15°C for 1 year.

Notes

1. Shipment can be conducted on ice or at room temperature. Store at -25°C to -15°C upon receipt. If kept at 2-8°C for over one week after opening, filter sterilization is recommended to avoid microbial contamination.
2. For your safety and health, please wear a lab coat and disposable gloves during handling.
3. This product is for research use only!

Basic Information

CAS No.	9001-99-4
EC Number	3.1.27.5
Source	Recombinant yeast
Molecular Weight	14.3 kDa
Dilution Buffer	10 mM Tris-HCl (pH 8.0), 20 mM MgCl ₂
Storage Buffer	10 mM Tris-HCl (pH 8.0), 20 mM MgCl ₂ , 50% glycerol

Product Characteristics

Property	Specification
Appearance	Light yellow, clear solution
Electrophoretic Purity	≥90% (by SDS-PAGE)
Enzyme Activity	≥350 KU/mL
DNA/RNA Residue	None
DNase Contamination	None
Protease Contamination	<0.01 U/mg
Optimal pH	7.6 (functional range: pH 6–10)
Optimal Temperature	60°C (functional range: 15–70°C)

Instructions

1. Stock concentration: 10 mg/mL
2. Recommended working concentration: 10–20 µg/mL
3. Dilute the enzyme in the provided dilution buffer, or ensure the reaction mixture contains 20 mM Mg²⁺ when preparing the working solution.