RNase A (100 mg/mL)

Product Information

Product Name	Cat#	Size
RNase A (100 mg/mL)	10406ES03	1 mL

Product Description

Ribonuclease A (RNase A) is a single-stranded polypeptide containing 4 disulfide bonds with a molecular weight of about 13.7 kDa. RNase A is an endoribonuclease that specifically degrades single-stranded RNA at C and U residues. Specifically, the cleavage recognizes the phosphodiester bond formed by the 5'-ribose on a nucleotide and the phosphate group on the 3'-ribose of the adjacent pyrimidine nucleotide, so that the 2', 3' - Cyclic phosphates are hydrolyzed to the corresponding 3'-nucleoside phosphates (eg, pG-pG-pC-pA-pG is cleaved by RNase A to generate pG-pG-pCp and A-PG).

RNase A is the most active in cleaving single-stranded RNA and is active in a variety of reaction conditions: at low salt concentrations (0 to 100 mM NaCl), it can be used to cleave single-stranded RNA, double-stranded RNA, and RNA strands in RNA-DNA hybrids. while at high salt concentrations (≥0.3 M), RNase A can specifically cleave single-stranded RNA.

RNase A is most commonly used to remove RNA during the preparation of plasmid DNA or genomic DNA. Whether or not DNase is active during the preparation process can easily affect the reaction. The traditional method of boiling in a water bath can be used to inactivate DNase activity. In addition, this product can also be used in molecular biology experiments such as RNase protection analysis and RNA sequence analysis.

This product is supplied as a solution at a concentration of 100 mg/mL. Recommended working concentration is 1-100 μg/mL, depending on the type of application.

Shipping and Storage

The product is shipped with ice packs and can be stored at -20°C for two years. The storage buffer is 50 mM Tris-HCl (pH 7.4) and 50% (v/v) glycerol.

Cautions

1. For your safety and health, please wear lab coats and disposable gloves for operation.
2. This product is for research use ONLY!