

RNase A (Bovine Pancreas)

CAS: 9001-99-4, EC: 3.1.27.5

Synonyms: Ribonuclease I, Pancreatic ribonuclease, Ribonuclease A, RNase A, Endoribonuclease I

Product description

RNase A is an endoribonuclease that specifically degrades single-stranded RNA at C and U residues. It 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. The resulting 2', 3'-cyclic phosphate is hydrolyzed to the corresponding 3'-nucleoside phosphate. The highest activity is exhibited with single-stranded RNA. RNase A is a single chain polypeptide containing 4 disulfide bridges.

A major application for RNase A is the removal of RNA from preparations of plasmid DNA. The enzyme is active under a wide range of reaction conditions. At low salt concentrations (0 to 100 mM NaCl), RNase A cleaves single-stranded and double-stranded RNA as well the RNA strand in RNA-DNA hybrids. However, at NaCl concentrations of 0.3 M or higher, RNase A specifically cleaves single-stranded RNA.

Reconstitute RNase A

Dissolve in 20 mM Tris HCl, pH 7.5 and 50% glycerol, then store at -20~-8°C. Recommended concentration of RNase A is 10~100mg/mL.

Storage and Stability

Magen recommends storage at -20~-8°C, When stored at 2~8°C, the product retains activity for at least 2 years.

Applications

- RNA removal during Plasmid and Genomic DNA isolation
- Removal of RNA from recombinant protein preparations.

DNase-Free RNase Prepare:

Prepare a 10 mg/mL solution in 10 mM sodium acetate buffer, pH 5.2. Heat to 100°C for 15 minutes, allow to cool to room temperature, and then adjust to pH 7.4 using 0.1 volume of 1M Tris-HCl, pH 7.4. Aliquot and store at 2~8°C, ideally addition of glycerol to 50% when store at -20°C. DNase free RNase A is used at 10 ug/ml for removal of RNA from plasmid. RNase A can be added directly to Buffer P1 (Resuspend Buffer, HiPure Plasmid Mini Kit) or Tissue Digestion Buffer (Contain SDS/EDTA) at concentration of 50-150ug/ml. For the application, heating RNase is unnecessary.

Ordering information

CAT.No.	Product Name	Package
C12120	RNase A, Lyophilizate, >50U/mg of protein	1 g
C12121		10 g
C12122		100 g