

# RNase A Solution

Product	Con.	Cat#	Size
RNase A Solution	10mg/ml	IBS-BR003	10 ml
	100mg/ml	IBS-BR003a	10 ml

## Components : 10mg/ml RNase A Solution

The product is supplied in a solution containing 10 mM Tris-HCl, pH 7.5 and 15mM NaCl.

## Storage Conditions : Freeze

This product remains active for at least 2 years when stored properly at -20 °C. RNase A is a very stable enzyme and solutions have been reported to withstand temperatures up to 100 °C. At 100 °C, an RNase A solution is most stable between pH 2.0 and 4.5.

## Description :

A major application for Ribonuclease A (RNase A) is the removal of RNA from preparations of plasmid DNA. In this application, the presence of DNase activity as an impurity is a concern. The boiling-water bath method used to eliminate contaminating DNase activity has proven unreliable.

RNase A is an endoribonuclease that attacks at the 3' phosphate of a pyrimidine nucleotide. The sequence of pG-pG-pC-pA-pG will be cleaved to give pG-pG-pCp and A-pG. The highest activity is exhibited with single stranded RNA. RNase A is a single chain polypeptide containing 4 disulfide bridges. In contrast to RNase B, it is not a glycoprotein. RNase A can be inhibited by alkylation of His12 or His119, which are present in the active site of the enzyme. Activators of RNase A include potassium and sodium salts.

## Note :

RNase A is stable to both heat and detergents. In addition, it adsorbs strongly to glass. Scrupulous precautions are necessary to ensure RNase A residue does not cause artifacts in processes requiring intact RNA.