WIRAGEN
Enseignement et Recherche

TECHNICAL SHEET:

RNase A (High Purity)

Ref : EA17

Storage Temperature : -20℃

Product Description :

RNase A is an endoribonuclease that attacks at the 3' phosphate of a pyrimidinenucleotide. 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 containing4disulfidebridges. In contrast to RNase B, it is not a glycoprotein. RNase A can be inhibited by alkylation of His 12 or His 119, which are present in the active site of the enzyme. Activators of RNase A include potassium and sodium salts.

Molecular mass: ∼13.7 kDa (amino acid sequence)

Isoelectric point: pI = 9.6

Preparation :

An RNase A solution can be made free of DNase by boiling. According to a literature method, prepare a 10 mg/mL stock solution in 10 mM sodium acetate buffer, pH 5.2. Heat to100℃ for 15minutes; allow cooling to room temperature, and then adjusting to pH 7.4 using 0.1volumeof1MTris-HCl, pH 7. 4. Aliquot and store at –20 ℃. If RNase A is boiled at a neutral pH, precipitation will occur. When boiled at the lower pH, some precipitation may occur because of protein impurities that are present.

Stability :

Store at Rnase A at –20 ℃. Stock solutions stored in frozen aliquots remain activefor at least6months. RNase A is a very stable enzyme and solutions have been reported to with stand temperatures up to 100 ℃. At 100 ℃, an RNase A solution is most stable betweenpH2.0and4.5.

Procedure :

A major application for RNase A is the removal of RNA from preparations of plasmid DNA. For this application, DNase free RNase A is used at a final concentration of 10µg/mL.