



HIGH Purity RNase A, Bovine Pancreas

Catalog Number: RNASE100-01

Concentration: 100 mg/ml

Size: 1.5 ml

Storage: Short Term 4°C
Long Term -20°C

Description: Ribonuclease A (RNaseA) is a 117.3 kDa enzyme responsible for the degradation of RNA. The primary application of RNase A is to eliminate contaminating RNA from a variety of different DNA extractions.

Components: 1.5 ml Ribonuclease A (RNase)

RNase A Preparation: RNase A was prepared by solubilizing 150 mg of lyophilized RNase A from Bovine pancreas in 0.01M NaOAC (pH 5.2). The RNase preparation was heated to 100°C for and incubated here for a duration of 15min.

The RNase A solution was cooled to room temperature, and the pH was adjusted 7.0 via the addition of 1 M Tris (not pH adjusted).

To ensure maximum performance of RNase A we recommend measuring the pH prior to use and adjusting to pH of 7.0 if required.

Purity: RNase A has been purified using a proprietary chromatographic method, which eliminates all Dnase enzyme which may be present in the crude enzyme sample. As a result of this process RNase A (Cat# RNASE100-01) is fully certified to contain no Dnase contamination.

Units: 70 Kunitz units/mg protein

Enzyme Characteristics

Molecular Weight: 113.7 kDa

Extinction Coefficient: 2 E1% = 7.0 (280 nm)

Isoelectric Point: 9.6

Optimal Reaction Temperature: 60 °C (activity range of 15-70 °C)

Optimal Reaction pH: 6 - 7.6 (activity range of 6-10)

Inhibitors: All classes of ribonuclease inhibitors

Precautions and Disclaimer

This product is for Research use only, and is not suitable for drug, household, or other uses. Please consult the MSDS for information regarding hazards and safe handling practices.

Note: RNase A is stable to both heat and detergents. In addition, it adsorbs strongly to glass. Scrupulous precautions are necessary to insure that residues of RNase A do not cause artefacts in processes requiring intact RNA.

Storage/Stability:

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Quality, affordable solutions for your life sciences needs.

This product is stable for 3 years when stored at -20°C . RNase A is a very stable enzyme and solutions are capable of withstanding temperatures up to 100°C . For every day use RNase A needs only to be stored at 4°C . RNase A is stable at this temperature for 6 months. If entire 1.5ml will not be used in this time frame we recommend aliquotting RNase A into smaller quantities and storing the remainder at -20°C .

References

1. Smyth, D.G. *et al.*, J. Biol. Chem., **238**, 227-234 (1963).
2. Pace, C.N. *et al.*, Protein Science, **4**, 2411-2423 (1995).
3. Tanford, C., and Hauenstein, J. D., J. Am. Chem. Soc., **78**, 5287-5291 (1956).
4. Plummer, T.H., and Hirs, C.H.W., J. Biol. Chem., **238**, 1396-1397 (1963).
5. Heinrikson, R.L. *et al.*, J. Biol. Chem., **240**, 2921- 2934 (1965).
6. Schomberg, D., and Salzmann, M., Enzyme Handbook, Vol. 3, 1-3 under E.C. 3.1.27.5 (1990).
7. Burrell, M.M., Enzymes of Molecular Biology, Vol. 16, 263-270 (1993).
8. Crestfield, A.M. *et al.*, J. Biol. Chem., **238**, 618-621 (1963).
9. Sambrook, J. *et al.*, Molecular Cloning, A Laboratory Manual, 2nd ed., 1.51 (1989).
10. Sambrook, J. *et al.*, Molecular Cloning, A Laboratory Manual, 2nd ed., B.17.

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