

RNasin (RNase Inhibitor)

#R2011, 1,000U

Concentration: 40U/ μ l

Store at -20°C

For research only

In total 1 vial.

Description

RNasin is a ribonuclease inhibitor purified from human placenta. RNasin reduces the activity of RNase A-type enzymes in a variety of organisms.

Source

E.coli cells with a cloned gene encoding mammalian ribonuclease inhibitor.

Storage Buffer

20mM HEPES-NaOH (pH7.5), 50mM NaCl, 8mM DTT, 0.5mM ELUGENT Detergent and 50% (v/v) glycerol.

Feature

Free of endodeoxyribonucleases, exodeoxyribonucleases, ribonucleases and phosphatases.

Definition of Activity Unit

One unit of the protein inhibits the activity of 5ng RNase A by 50%.

Inhibitor activity is assayed in the following mixture: 100 mM Tris-HCl (pH 7.5), 1.2 mM EDTA, 0.1 mg/ml BSA, 100 ng/ml RNase A, 0.1 mg/ml *E.coli* [3H]-RNA, 50 mg/ml yeast RNA, 8 mM DTT.

Applications

- Inhibition of RNA degradation in the following procedures:
 - in vitro transcription;
 - cDNA synthesis;
 - in vitro translation;
 - isolation of mammalian cell fractions that contain mRNA protein complex.
- Separation and identification of specific ribonuclease activities.

- Studies of tumor suppression.

Quality Control

The absence of endodeoxyribonucleases, exodeoxyribonucleases, phosphatases and ribonucleases confirmed by appropriate quality tests. Functionally tested in RNA and cDNA synthesis.

Inhibition and Inactivation

- Inhibitors: common denaturants (SDS, urea and all oxidizing reagents (p-chloromercuribenzoate, dissolved oxygen, ions in their higher oxidation states) strongly inhibit RNase Inhibitor and release the RNase bound.
- Inactivated by heating at 75°C for 10min. Residual activity detectable after 10min heating at 70°C.

Note

- DTT provided in the Storage Buffer ensures stability during long term storage, but is not necessary for inhibitor activity.
- Recommended concentration: 1U/μl for a reaction mixture.

PRODUCT USE LIMITATION.

This product is developed, designed and sold exclusively *for research purposes and in vitro use only*. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals.