



RiboIN™ RNase Inhibitor

Cat. No. RI001-2500

Size: 2500U

Concentration: 40 U/ μ l

Cat. No. RI001-0400

Size: 400U

Concentration: 40 U/ μ l

Description

RiboIN™ RNase Inhibitor is a protein which specifically inhibits ribonucleases. It is used in applications such as *in vitro* translation, cDNA synthesis, RNA *in vitro* synthesis, RNA purifications, etc. RNase inhibitor is easier to use and eliminate than the vanadyl ribonucleosides. It has a high binding affinity for pancreatic-type ribonucleases such as RNase A. RiboIN™ RNase Inhibitor inhibits a broad range of RNases, including RNase A, RNase B, RNase C, but it is not effective against RNase 1, RNase T1, S1 Nuclease, RNase H.

Source

RiboIN™ RNase Inhibitor is purified by affinity chromatography which expressing a cloned porcine liver gene from a recombinant strain of *E. coli*. strain containing an overproducing clone of human placenta ribonuclease inhibitor

Storage Buffer

20 mM Tris-HCl (pH 8.0), 50 mM KCl, 0.5 mM EDTA, 8 mM DTT, and 50% (v/v) glycerol.

Storage Temperature

Store at -20°C

Storage Recommendations

Avoid multiple freeze-thaw cycles and exposure to frequent temperature changes. RiboIN™ RNase Inhibitor requires 1 mM DTT to maintain the activity.

Quality Control

One Unit Definition

One unit is the amount of protein required to inhibit the activity of 5 ng of RNase A by 50%.

Purity

RiboIN™ RNase Inhibitor has been experimented in 12.5% SDS-PAGE electrophoresis.

It's greater than 90% in purity. The specific activity is >80,000 units/mg.

Recommended Use

cDNA Synthesis: 40 units/20 μ l of reaction mixture, RiboIN™ RNase Inhibitor protects mRNA and improves total cDNA yields including percent total full length of cDNA.

RT-PCR: 40 units/20 μ l of reaction mixture.

In Vitro Transcription: 20-40 units/10 μ l of reaction mixture, RiboIN™ RNase Inhibitor has been shown to be useful for the isolation of intact RNA transcripts using T3, T7 and SP6 RNA Polymerases.

Applications

RNA purification

RT-PCR

in vitro RNA transcription

in vitro protein synthesis

cDNA preparation by reverse transcription

Separation and identification of specific ribonuclease activities