RiboIN™ RNase Inhibitor

Cat. No. SR001-2500	Size: 2500U	Concentration: 40 U/ µl
Cat. No. SR001-0400	Size: 400U	Concentration: 40 U/ µl

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 µl 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 µl of reaction mixture.
In Vitro Transcription: 20-40 units/10 µl 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