



RNase Inhibitor / Ribonuclease Inhibitor "Ready for Lyophilization"
Cat.-No: 105-350LY, 10.000 units

Applications for RNase Inhibitor:

- Inhibits common eukaryotic RNases
- Active over a broad pH range (pH 5-8)
- high levels of inhibition over a wide range of conditions

Description:

RNase Inhibitor is a recombinant human placental protein which inhibits ribonucleases (RNases) A, B and C. It does not inhibit RNase 1, RNase T1, S1 Nuclease, RNase H or RNase from *Aspergillus*. There is no inhibition of polymerase activity when the protein is used with Taq DNA Polymerase, AMV or M-MuLV Reverse Transcriptases, or Phage RNA Polymerases (SP6, T7, or T3).

Concentration: 400 u/μl (ready for lyophilization form supplied in trehalose without glycerol)

Storage and Dilution Buffer:

20 mM HEPES-KOH (pH7.6), 50 mM KCl, 0.5 mM EDTA, 5 mM TCEP and 0.75 M Trehalose

Unit definition RNase inhibitor:

One unit is the amount of enzyme required to inhibit by 50% the activity of 5 ng of RNase A at 25°C (This inhibitor activity is determined by its ability to inhibit hydrolysis of cyclic 2', 3'-CMP by RNase A).

Quality Control: Endonuclease: Contains no detectable endonuclease activity. Incubation of 200 units of enzyme with supercoiled plasmid produced no nicked molecules after a two hour incubation at 37°C as determined by ethidium-stained agarose gel electrophoresis.

Ribonuclease: No ribonuclease activity is observed after 1 μg of RNA is incubated with 200 units of enzyme for 60 minutes at 37°C. The RNA is electrophoresed on an agarose gel and stained with ethidium bromide. No latent ribonuclease activity is observed after 1 μg of RNA is incubated with 200 units of pre-heated enzyme for 60 minutes at 37°C. The RNA is electrophoresed on an agarose gel and stained with ethidium bromide.

DNase: 50 ng of radiolabelled DNA is incubated with 200 units of enzyme for 60 minutes at 37°C, and the release of radiolabelled nucleotides is monitored by scintillation counting of TCA-soluble material. Minimum passing specification is <3% release of input radioactivity into TCA-soluble material.

Usage or RNase inhibitor:

We recommend to use 1 unit per reaction unit

Note:

- Ribonuclease Inhibitor requires at least 0.5 mM TCEP or DTT to be active
- avoid temperatures above 50 °C and high concentrations of urea or other denaturing agents

Transportation: RNase inhibitor is shipped on blue ice

Storage: at -20°C – one year
at +4°C – 14 days

Order information:

Cat.-no	Description	Amount
105-350LY	Ribonuclease (RNase) Inhibitor "Ready for Lyophilization"	10.000 units

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