Datasheet

Description:
RNase Inhibitor is a recombinant human placental protein which inhibits ribonucleases (RNases) A, B and C. It does nit 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).

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

Concentration: 40 u/µl

Storage Buffer: 20 mM HEPES-KOH (pH7.6), 50 mM KCl, 8 mM DTT and 50% glycerol

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 250C (This inhibitor activity is determined by its ability to inhibit hydrolysis of cyclic 2', 3'-CMP by RNase A).

Usage or RNase inhibitor:
We recommend to use 1 unit per reaction unit

Note:
- Ribonoclease Inhibitor requires at least 1 mM DTT to be active
- Enzyme inhibits in a wide pH range, but most strongly at pH 7 - 8
- 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 for 24 months

Stability tests / Quality control / Comparison
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.

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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.

Order Information

Prod. No.	Description	Quantity
1905-310	Ribunuclease Inhibitor RNase Inhibitor	2000 u
1905-350	Ribunuclease Inhibitor RNase Inhibitor	10000 u

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