RNA 酶抑制剂说明书

Cat： AC13998
Size： 1000U/2000U/10000U
Storage： -20℃， Avoid multiple freeze-thaw cycles and exposure to frequent temperature changes.

Concentration： 40U/μL

Source: *E. coli* expressing a recombinant clone.

Description

RNasin Ribonuclease Inhibitors have broad-spectrum RNase inhibitory properties, including inhibition of eukaryotic RNases of the neutral type. The 50kDa protein exerts its inhibitory effect by noncovalently binding to RNases at a 1:1 ratio. The Ki value for the binding of RNasin Ribonuclease Inhibitor to RNase (e.g., RNase A) is approximately 10-14M. In addition, the kinetics of association for RNasin Ribonuclease Inhibitor is very rapid, ensuring immediate complexing and inhibition of RNase. RNasin Ribonuclease Inhibitors is purified using a combination of ion exchange and affinity chromatography. They are devoid of DNA exonuclease and endonuclease activity and RNase activity. Isolated from a recombinant *E. coli* strain, the N-terminus is an unblocked serine residue.

Unit Definition: One unit is defined as the amount of RNasin Ribonuclease Inhibitor required to inhibit the activity of 5ng of ribonuclease A by 50%. Activity is measured by the inhibition of hydrolysis of cytidine 2′,3′-cyclic monophosphate by ribonuclease A.

Enzyme Storage Buffer: RNasin Ribonuclease Inhibitor is supplied in 20mM HEPES-KOH (pH 7.6), 50mM KCl, 8mM DTT, 50% (v/v) glycerol.

General Considerations

Since ribonucleases typically retain activity under denaturing conditions, care must be taken to avoid denaturing RNasin Ribonuclease Inhibitor molecules that have complexed with ribonuclease. To prevent the release of active ribonuclease, temperatures greater than 50°C and high concentrations of urea or other denaturing agents should be avoided. RNasin Ribonuclease Inhibitors are active over a broad pH range. If diluted and stored for extended periods of time, include DTT (minimum concentration 1mM).

Usage Notes: RNasin Ribonuclease Inhibitor is active over a broad pH range. Concentration gradients may form in frozen products and should be dispersed upon thawing. Mix well prior to use.

Contaminant Activity

1. RNase Assays: No RNA degradation is detected.
2. DNase Assay: No DNA degradation is detected.
3. Endonuclease Assay: No DNA degradation is detected.
4. Physical Purity: The purity is >90% as judged by SDS-polyacrylamide gels.

Effectiveness of RNasin Ribonuclease Inhibitor Against Selected Nucleases.

Inhibits	Does Not Inhibit
RNase A	RNase T1
RNase B	S1 Nuclease
RNase C	RNase from *Aspergillus sp.*
human placental RNase	RNase H, RNase ONE Ribonuclease, Taq DNA polymerase, ImProm-II,AMV or M-MLV Reverse Transcriptase, SP6, T7 or T3 RNA polymerase