

Recombinant RNase Inhibitor (Murine)

Cat. No.: E125

01/ Product Description

Recombinant RNase Inhibitor (Murine) is a 50 kDa recombinant protein of murine origin. The inhibitor specifically inhibits RNases A, B and C. It inhibits RNases by binding noncovalently in a 1:1 ratio with high affinity. It is not effective against RNase 1, RNase T1, S1 Nuclease, RNase H or RNase from *Aspergillus*. In addition, no inhibition of polymerase activity is observed when RNase Inhibitor is used with Taq DNA Polymerase, AMV or M-MuLV Reverse Transcriptases, or Phage RNA Polymerases (SP6, T7, or T3).

Recombinant RNase Inhibitor (Murine) does not contain the pair of cysteines identified in the human version that is very sensitive to oxidation, which causes inactivation of the inhibitor. As a result, Recombinant RNase Inhibitor (Murine) has significantly improved resistance to oxidation compared to the human/porcine RNase inhibitors, and is stable at low DTT concentrations (less than 1 mM). This makes it ideal for reactions where high concentration DTT is adverse to the reaction (eg. Real-time RT-PCR).

02/ Applications

- 1) RT-PCR.
- 2) cDNA synthesis.
- 3) *In vitro* transcription/translation.
- 4) Enzymatic RNA labeling reaction.
- 5) Other applications where the integrity of RNA is important.

03/ Quality Control

After multiple column purifications, only a clear single target band was visible in SDS-PAGE gel detection; qPCR method detection showed no residual *E. coli* DNA and no endonuclease or exonuclease contamination.

04/ Storage Conditions

-20°C.

05/ Package Contents

Component	E125-01A (Size: 3000U)	E125-01B (Size: 15KU)
Recombinant RNase Inhibitor (Murine, 40U/μl)	75μl	375μl

06/ Unit Definition

One unit is defined as the amount of Recombinant RNase Inhibitor (Murine) required to inhibit the activity of 5 ng of RNase A by 50%. Activity is measured by the inhibition of hydrolysis of cytidine 2', 3'-cyclic monophosphate by RNase A.

07/ Notes

- 1) Recombinant RNase Inhibitor (Murine) is active over a wide pH range (pH5.0-9.0), maximum activity at pH7.0-8.0.
- 2) Inactivation: Temperature higher than 65°C or intense denaturation conditions for inactivation.

08/ Related Products

Cat#	Product Name	Cat#	Product Name
Z087	Taq antibody	E001	Taq DNA Polymerase
E063	Heat-labile Uracil-DNA Glycosylase	E097	HotStart Taq DNA Polymerase (B)
E060	Uracil-DNA Glycosylase (UDG)	E017	HotStart Taq DNA Polymerase
E108	HotStart Tth DNA Polymerase	M031	Thermostable Inorganic Pyrophosphatase
M001	T4 DNA Ligase	E127	DNase I
M005	T4 DNA Polymerase	E086-YSA	5×Multiplex PCR Mix
M007	Exonuclease III		