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Datasheet

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Murine RNase Inhibitor

Cat# EP2002 – 2000 U (50 rxn)

Storage at -20 ℃

INTRODUCTION

The Murine RNase inhibitor is a soluble mouse-source recombinant protein expressed in *E.coli*. It can inhibit all kinds of Rnase (RNase A, B, and C). The Murine RNase inhibitor is compatible with the M-MLV (H-) Reverse Transcriptase (ACE Biolabs, EP2001) and any kinds of DNA Polymerases. Compared with the human-source RNase inhibitor, the Murine RNase inhibitor doesn't contain the two Cys that is sensitive to oxidation, and therefore has a higher antioxidant activity and is more suitable for high-DTT-sensitive experiments (i.e. qPCR).

UNIT DEFINITION

One activity unit (U) is defined as the enzyme needed for inhibiting 50% activity of 5 ng RNase A. The activity of RNase A is detected by quantifying the hydrolysis of Cyclic 2', 3'-CMP to 3'-CMP.

PROTOCOL

Note:

1. The Murine RNase Inhibitor can inhibit RNase activity under a board spectrum of pH. The highest inhibitory activity is obtained at pH 7-8.
2. The activity of Murine RNase Inhibitor can be inactivated by bubbling or stirring intensely (i.e. Vortexing).
3. No inhibitory activity for RNase H.

1. Mix the following components in a RNase-free tube and mix gently

M-MLV (H-) Reverse Transcriptase (200U/µl)	1 µl
5X RT Reaction Buffer	4 µl
10 mM dNTP Mix	1 µl
Oligo $(dT)^{18}$ (50 µM)	1 µl
Murine RNase Inhibitor (40U/µl)	1 µl
Template RNA	10 pg-2.5µg
RNase-free ddH_2O	To 20 µl

2. Incubate at 50℃ for 45 min, then at 70℃ for 15 min.

3. The products can be stored at -20

PRODUCT USE LIMITATION

These products are intended for research use only.