

Murine RNase Inhibitor

Catalog # R301



Version 5.1

Vazyme biotech co., ltd.

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 HiScript II Reverse Transcriptase, MLV (H-) Reverse Transcriptase, 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).

Contents of Kits

Components	R301-01 2,000 U	R301-02 10,000 U	R301-03 20,000 U
Murine RNase Inhibitor (40 U/μl)	50 μl	250 μl	500 μl

Storage

Store at -20°C.

Application

1. 1st strand synthesis of cDNA
2. Polysome isolation
3. *in vitro* reverse transcription
4. *in vitro* cell-free translation system

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.

Notes

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.

Protocol

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

RNase-free ddH ₂ O	to 20 μl
5× HiScript II Buffer	4 μl
Oligo (dT) ₁₈ (50 μM)	1 μl
dNTP Mix (10 mM each)	1 μl
Murine RNase Inhibitor (40 U/μl)	1 μl
HiScript II Reverse Transcriptase (200 U/μl)	1 μl
Template RNA	10 pg-2.5 μg

2. Incubate at 50°C for 45 min, then at 70°C for 15 min.
3. The products can be stored at -20°C.



Vazyme Biotech Co., Ltd
www.vazyme.com

Order: global@vazyme.com

Support: support@vazyme.com

For research use only, not for use in diagnostic procedures.