

Murine RNase Inhibitor (200 U/ μ L, Glycerol-free)

Product Information

| Product Name | Cat# | Size |
|--|-----------|--------|
| Murine RNase Inhibitor (200 U/ μ L, Glycerol-free) | 10703ES05 | 2 KU |
| | 10703ES10 | 10 KU |
| | 10703ES60 | 100 KU |
| | 10703ES70 | 200 KU |

Product Description

Murine RNase Inhibitor is purified from a recombinant strain of *E. coli* in a soluble form. It specifically inhibits RNases A, B and C through binding noncovalently in a 1:1 ratio with high affinity. Recombinant murine RNase inhibitor does **NOT** contain 2 oxidation-sensitive cysteine which are contained in human-origin RNase inhibitor. Therefore, murine RNase inhibitor has high anti-oxidation activity and is more stable for low DTT experiments (< 1mmol/L). This product is validated for its compatibility with Hifair™ II Reverse Transcriptase (Cat#11110) and various DNA Polymerases. Murine RNase inhibitor is ideal for high-DTT-sensitive experiments, such as RT-PCR. The product can be used in cDNA Synthesis, polysome isolation and *In vitro* transcription/translation. This product does not contain glycerol and is designed for the preparation of lyophilized reagents.

Package Information

| Component Number | Component | Cat#/Size | | | |
|------------------|---|---------------------|----------------------|-----------------------|-----------------------|
| | | 10703ES05 (2 KU) | 10703ES10 (10 KU) | 10703ES60 (100 KU) | 10703ES70 (200 KU) |
| 10703 | Murine RNase Inhibitor (200 U/ μ L, Glycerol-free) | 10 μ L | 50 μ L | 500 μ L | 1 mL |

Shipping and Storage

The product is shipped with ice packs and can be stored at 4-8°C for 6 months.

Unit Definition

The required amount of RNase Inhibitor to inhibit 50% activity of 5 ng RNase A by 50%. The activity of RNase A is measured by hydrolyzing of cyclic 2', 3'-CMP to generate 3'-CMP.

Application Example (Reverse Transcription)

1. Add the following components to a nuclease-free microcentrifuge tube:

| Components | Volume (μL) |
|---|--------------------------------|
| RNase free ddH ₂ O | to 20 |
| 5× Hifair™ V Buffer | 4 |
| Oligo (dT) ₁₈ (50 $\mu\text{mol/L}$) | 1 |
| dNTP Mix (10 mmol/L each) | 1 |
| Murine RNase Inhibitor (200 U/ μL) | 0.2 |
| Hifair™ V Reverse Transcriptase (200 U/ μL) | 1 |
| RNA template | Total RNA:1 ng-5 μg |

2. Mix gently and centrifuge.

3. Incubate at 42°C for 45 min.

4. Inactivate the reaction by heating at 85°C for 5 min.

5. Store at -20°C.

Cautions

1. The product works in a wide pH range and exhibits maximal inhibitory activity at pH 7~8.

2. Please handle the product gently to avoid inactivation.

3. This product does not inhibit RNase H.

4. For your safety and health, please wear lab coats and disposable gloves for operation.