

## UCF.ME™ Murine RNase Inhibitor (40 U/μL)

### Product description

Murine RNase Inhibitor is purified from a recombinant strain of *E. coli* in a soluble form. It specifically inhibits the activity of RNases A, B and C through binding noncovalently in a 1:1 ratio with high affinity. This product can be compatible with Hifair™ III Reverse Transcriptase (Cat#11111ES) and various DNA polymerases verified by RT-PCR and RT-qPCR. 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), such as qPCR.

Compared with Murine RNase Inhibitor (40 U/μL) (Cat#10603ES), The host nucleic acid residue of UCF.ME™ Murine RNase Inhibitor (40 U/μL) is lower, which is suitable for application with more stringent requirements on background bacteria, such as pathogen microorganism detection.

### Specifications

Cat.No.	14672ES05 / 14672ES10 / 14672ES20 / 14672ES60 / 14672ES80 / 14672ES94
Size	2 KU / 10 KU / 20 KU / 100 KU / 1,000 KU / 20,000 KU
Unit Definition	The required amount of RNase Inhibitor to inhibit 50% activity of 5-ng RNase A is defined as one unit. The activity of RNase A is measured by hydrolyzing of cyclic 2', 3'-CMP to generate 3'-CMP.

### Components

Name	14672ES05	14672ES10	14672ES20	14672ES60	14672ES80	14672ES94
UCF.ME™ Murine RNase Inhibitor (40 U/μL)	50 μL	250 μL	500 μL	2.5 mL	25 mL	500 mL

### Storage

This product should be stored at -25~-15°C for 1 years.

### Instructions

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

Components	Volume (μL)
RNase-free ddH <sub>2</sub> O	to 20
5× Hifair™ III Buffer	4
Oligo (dT) <sub>18</sub> (50 μM)	1
dNTP Mix (10 mM each)	1
UCF.ME™ Murine RNase Inhibitor (40 U/μL)	1
Hifair™ III Reverse Transcriptase (200 U/μL)	1
RNA template	Total RNA:1 ng-5 μg

2. Mix gently.
3. Incubate at 42°C for 45 min, and inactivate the reaction by heating at 85°C for 5 min.
4. Store at -25~-15°C.

### **Notes**

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.