

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

### Product description

UCF.ME™ High Affinity RNase Inhibitor (40 U/μL) is a recombinant porcine RNase inhibitor expressed in *E. coli*. It specifically inhibits the activity of RNases A, B and C through binding noncovalently. This product can be compatible with Hifair™ Ultra Reverse Transcriptase (200 U/μL) (Cat#14604ES) and various DNA polymerases verified by RT-PCR and RT-qPCR. UCF.ME™ High Affinity RNase Inhibitor (40 U/μL) is lower with the purification process specially developed by YEASEN, which is suitable for application with more stringent requirements on background bacteria, such as pathogen microorganism detection.

### Specifications

Cat.No.	14675ES05 / 14675ES20 / 14675ES60
Size	2 KU / 20 KU / 100 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	14675ES05	14675ES20	14675ES60
UCF.ME™ High Affinity RNase Inhibitor (40 U/μL)	50 μL	500 μL	2.5 mL

### Storage

This product should be stored at -25~-15°C for 2 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™ Ultra Reverse Transcriptase Reaction Buffer*	4
Oligo (dT) <sub>18</sub> (50 μM)	1
dNTP Mix (10 mM each)	1
UCF.ME™ High Affinity RNase Inhibitor (40 U/μL)	0.5-1
Hifair™ Ultra Reverse Transcriptase (200 U/μL)*	1
RNA template	Total RNA: 1 ng-5 μg

\*According to the specific experimental application, 14604ES can be purchased for use together.

2. Thermal cycling protocol

Temperature	Time
50°C*	15 min

85°C**	5 min
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\*Reverse transcription temperature: When used with 14604ES, 50 °C is recommended; For high GC content templates or complex templates, the reverse transcription temperature can be increased to 55°C-60°C.

\*\*inactivate the reaction by heating at 85°C for 5 min.

3. The products of reverse transcriptase reaction can be immediately used for subsequent PCR or qPCR reactions, and can be stored at -25~-15°C for short-term storage. If long-term storage is required, it is recommended to store them at -80°C after packaging to avoid repeated freeze-thaw products.

## Notes

1. This product is for scientific research purposes only.
2. Please wear the necessary PPE, such lab coat and gloves, to ensure your health and safety.