Active Recombinant RNase Inhibitor

Cat. No. RNase Inhibitor-07M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	RNase Inhibitor is expressed in E.coli and is derived from the RNase Inhibitor gene of mice. DNA Exonuclease Activity: Negative DNA Endonuclease Activity: Negative RNase Activity: Negative Residual Host Cell Protein: ≤50 ppm Residual Host Cell DNA: ≤100 pg/mg
Species	Mouse
Source	E.coli
Description	It can form a 1: 1 complex with RNase to protect RNA from degradation. It is a broad-spectrum RNase inhibitor that can efficiently inhibit the activities of RNase A, RNase B, RNase C, and placental RNase, but it cannot inhibit the activities of RNase 1, RNase T1, S1 nuclease, RNase H, and RNase derived from the genus Aspergillus. RNase Inhibitor has excellent compatibility and will not interfere with the activities of conventional PCR, RT-PCR, and RNA transcriptase. It shows good inhibitory effects within the pH range of 5.0 to 8.0. Compared with the human-derived RNase Inhibitor, the mouse-derived RNase Inhibitor contains no two cysteines that are extremely sensitive to oxidation in human proteins, so it has higher antioxidant activity and is more suitable for experiments with a low DTT concentration.
Purity	≥ 95% by SDS-PAGE
Bio-activity	≥ 40 U/μL
Unit definition	1 U is defined as the amount of enzyme required to inhibit 50% of the activity of 5 ng

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	of RNase A.
Usage	1. It can be directly added to common reaction systems such as cDNA synthesis, in vitro transcription, and in vitro translation. The recommended dosage is a final concentration of 1-2 U/μL.
Applications	1. RT-PCR: Increase the synthesis amount of cDNA. 2. In vitro transcription and translation in a cell-free system. 3. Enzyme-catalyzed RNA labeling reactions. 4. Other reactions with high requirements for RNA integrity.
Note	1. Try to avoid freeze-thaw cycles of this product after receipt; 2. Please wear lab coat and disposable gloves when using; 3. This product should not be used directly for clinical diagnosis and treatment.
Stability	This product should be stored at -20 centigrade and can be stored for at least 18 months.
Storage	Store at -20 centigrade.
Storage Buffer	20mM HEPES-KOH, 50mM KCl, 8mM DTT, 50% Glycerol, pH=7.6
Shipping	Dry Ice

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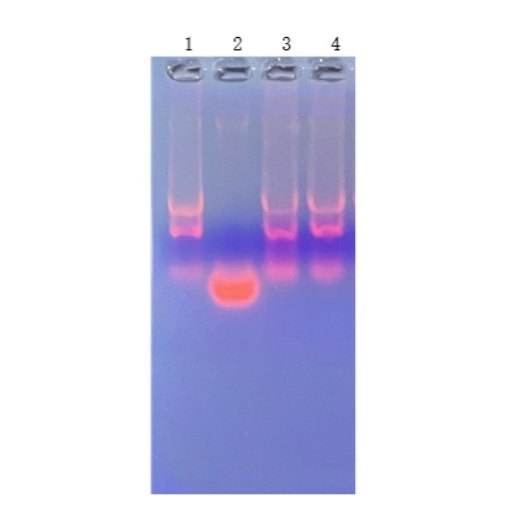
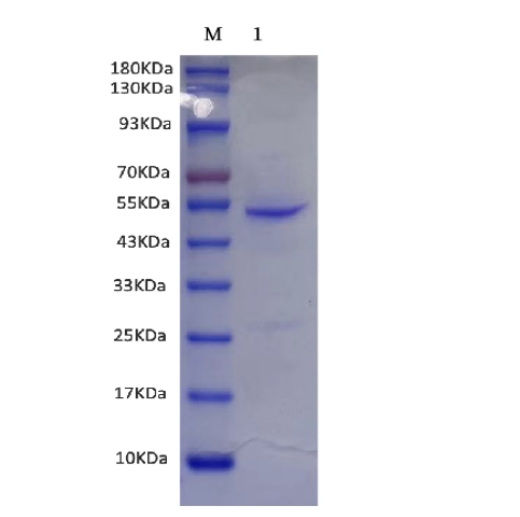
Detection of inhibition of RNase A activity	 1: 3 μg total human RNA; 2: 3 μg total human RNA+0.5 ng RNase A; 3: 3 μg total human RNA +0.5 ng RNase A+5U RNase Inhibitor (Well-known brand); 4: 3 μg total human RNA +0.5 ng RNase A+5U RNase Inhibitor (Ours);
SDS-PAGE	 M: Marker 1: Recombinant RNase inhibitor

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