

RNase Inhibitor Pro

Please read the manual carefully prior to use.

Cat. No. AI201

Version No. Version 1.0

Concentration: 40 units/μl

Storage: at -18°C or below for two years

Description

RNase Inhibitor Pro is a recombinant protein purified from *E. coli* strain carrying porcine ribonuclease inhibitor gene. It can specifically inhibits RNase A, RNase B, and RNase C, and not effective against RNase 1, RNase T1, S1 nuclease, RNase H and aspergillus-originated RNase. It has no inhibition effect on DNA Polymerase, AMV RTase, M-MLV RTase, SP6, T7 and T3 RNA Polymerases.

Applications

First-strand cDNA synthesis, isolation of polysomes, *in vitro* translation, *in vitro* transcription by cell-free systems, *in vitro* transcription of SP6 or T7 RNA polymerases.

Kit Contents

Component	AI201-01	AI201-02	AI201-03
RNase Inhibitor Pro	2000 units	5×2000 units	20000 units

Unit Definition

One unit is defined as the amount of enzyme required to inhibit 5 ng RNase A by 50%.

Storage Buffers

50 mM Tris-HCl (pH 7.5), 50 mM KCl, 5 mM DTT, 0.1% Triton X-100 and 50% glycerol

First-Strand cDNA Synthesis

1. Add the following components (Take the use with AE101 or AT101 as an example)

Component	Volume
Total RNA/mRNA	50 ng-5 μg/5-500 ng
Anchored Oligo(dT) ₁₈ (0.5 μg/ul)	1 μl
or Random Primer(N9)(0.1 μg/ul)	1 μl
or GSP	2 pmol
10 mM dNTPs	1 μl
5×RT Buffer	4 μl
RNase Inhibitor Pro	0.5 μl
<i>EasyScript</i> [®] RT / <i>TransScript</i> [®] RT	1 μl

2. Mix gently

- For Anchored Oligo(dT)₁₈ primer or GSP, incubate at 42°C for 30 minutes.
- For Random Primer, incubate at 25°C for 10 minutes, then at 42°C for 30 minutes.

3. Incubate at 85°C for 5 seconds to inactivate *EasyScript*[®]/*TransScript*[®] RT.

Notes

- The inhibition activity has a wide pH range, with maximum activity at pH 7.0-8.0.
- Foaming or strong agitation (Vortex, etc.) can cause inactivation.

For research use only, not for clinical diagnosis

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