

# RNase Inhibitor Pro

Please read the manual carefully prior to use.

**Cat. No.** AI201

**Version No.** Version 1.0

**Concentration:** 40 units/ $\mu$ l

**Storage:** at -20 °C 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 $\mu$ g/5-500 ng
Anchored Oligo(dT) <sub>18</sub> (0.5 $\mu$ g/ $\mu$ l) or Random Primer(N9)(0.1 $\mu$ g/ $\mu$ l) or GSP	1 $\mu$ l 1 $\mu$ l 2 pmol
10 mM dNTPs	1 $\mu$ l
5×RT Buffer	4 $\mu$ l
RNase Inhibitor Pro	0.5 $\mu$ l
<i>EasyScript</i> <sup>®</sup> RT/ <i>TransScript</i> <sup>®</sup> RT	1 $\mu$ l

2. Mix gently

- For Anchored Oligo(dT)<sub>18</sub> 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*<sup>®</sup>/*TransScript*<sup>®</sup> 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**

Version number: V1-202401

Service telephone +86-10-57815020

Service email complaints@transgen.com

