



## RNasin (RNase inhibitor)

**Cat: PE313**  
Conc. 40 units/ $\mu$ l

**Size: 5 x 1000 Units**  
Store at -20°C.

### Description

RNasin is a ribonuclease inhibitor extracted from human placenta with a molecular weight 51kDa. It inhibits the activity of RNase by specially binding up to RNase with a non-covalent bond. RNasin, free of RNase or Nickase, can maintain its activity at pH from 5 to 8, and the highest one at pH7.8. The concentration of RNasin is 40units/ $\mu$ l.

### Usage Recommendation

Always avoid multiple freeze-thaw cycles or exposure to frequent temperature changes. These fluctuations can greatly alter products stability.

### Storage Buffer

20mM Hepes-KOH, pH 7.6, 50mM KCl, 8mM DTT and 50% glycerol

### Unit Definition

One unit is defined as the amount of RNasin Ribonuclease Inhibitor required to inhibit by 50% the activity of 5ng of ribonuclease A.

### Frist-strand cDNA synthesis (20 $\mu$ l reaction volume)

#### step1

Total RNA or Poly(A)<sup>+</sup>RNA 1  $\mu$ g total RNA or 5~100 ng Poly(A)<sup>+</sup>RNA  
Oligo dT or N<sub>6</sub> 10~100pmoles  
DEPC water (RNase and DNase-free) variable volume

**Denature RNA and primer for 5 min at 70°C, and immediately cool on ice.**

#### step2

5×M-MLV RTase reaction buffer	4 $\mu$ l
100 mM DTT	2 $\mu$ l
dNTP (10 Mm each)	1 $\mu$ l
RNase inhibitor	20 units
M-MLV RTase	200 units
<hr/>	
Total (Step1+Step2)	20 $\mu$ l

**cDNA synthesis for 1 hr at 37~42°C**

### Accessory Products

The following products are available separately from Genbiotech.

Product	Quantity	Catalog no.
MMLV Reverse Transcriptase	10000 U	ME2305
AMV Reverse Transcriptase	500 U	FAM500
Oligo dT cellulose	250 mg	FOT250
DEPC	10 ml	FDP100
TRireagent®	100 ml	TR118100
TRireagent® LS (liquid samples)	100 ml	TR120100
Random primers	0.5 OD	RAN6