



## RNasin (RNase inhibitor)

**Cat: PE3011**  
Conc. 40 units/ $\mu$ l

**Size: 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        |