



**SMOBIO**

Small Bio, Smart Tool

[www.smobio.com](http://www.smobio.com)

## Product Information

RNAok™ series

### RNAok™ RNase Inhibitor

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<b>RI1000</b>	<b>2,000 units</b> RNase Inhibitor (20 U/μl)	100 μl
<b>RI1001</b>	<b>2,000 units x 5</b> RNase Inhibitor (20 U/μl)	100 μl x 5

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## Storage

-20°C for 24 months

## Description

The RNAok™ RNase Inhibitor is a recombinant mammalian RNase inhibitor which possesses very high affinity for eukaryotic pancreatic-type ribonuclease. The RNAok™ RNase Inhibitor forms a 1:1 complex with pancreatic RNase A by noncovalent binding, presenting a noncompetitive inhibitory activity on these pancreatic enzymes. RNAok™ RNase Inhibitor is active against RNase A, RNase B, RNase C but not RNase H, RNase I, RNase T1, RNase T2, and S1 nuclease. RNAok™ RNase Inhibitor is compatible with RT-PCR enzymes such as AMV, M-MLV and ExcelRT™ Reverse Transcriptase or *Taq* DNA polymerase.

## Application

- cDNA synthesis
- *in vitro* translation
- *in vitro* transcription
- One-step RT-PCR
- Separation and identification of specific ribonuclease activities

## **Recommended Use**

One microliter (20 units) RNAok™ RNase Inhibitor in total 20 µl of reaction mixture is suggested to protect mRNA and improve total cDNA yield in the first strand cDNA synthesis. The RNAok™ RNase Inhibitor is active at pH of 6.0-9.0. Should **NOT** be greater than 50°C to prevent inactivation of RNAok™ RNase Inhibitor.

## **Storage Buffer**

40 mM HEPES-KOH (pH 7.5), 100 mM KCl, 8 mM DTT, 0.1 mM EDTA, stabilizer and 50% (v/v) glycerol

## **Source:**

Recombinant protein from *E. coli* bacteria

## **Unit Definition**

One unit is defined as the amount of RNAok™ RNase Inhibitor required to inhibit the activity of 5 ng of RNase A by 50%.

## Quality Control Assays

### **RNase Assays:**

To test the presence of *E. coli* RNase activity, 1 µg of RNA is incubated with 200 units of RNAok™ RNase Inhibitor for 30 minutes at 37°C. The RNA is visualized on an ethidium bromide-stained agarose gel to verify the absence of degradation. To test for the presence of latent *E. coli* RNase activity, RNAok™ RNase Inhibitor is inactivated at 70°C for 15 minutes, and the equivalent of 200 units is incubated with 1 µg of RNA for 30 minutes at 37°C. The RNA is visualized on an ethidium bromide-stained agarose gel to verify the absence of RNA degradation.

### **DNase Assay:**

No contaminating endonuclease or exonuclease activity was detected using pUC19 incubated with RNAok™ RNase Inhibitor for 4 hours at 37°C.

## **Other Information**

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Caution: Not intended for human or animal diagnostic or therapeutic uses.

## Related Products

RP1000	ExcelRT Reverse Transcriptase, 20,000 U
RP1100	ExcelRT One-Step RT-PCR Kit, 50 RXN
RP1300	ExcelRT Reverse Transcription Kit, 100 RXN
RP1400	ExcelRT Reverse Transcription Kit II, 100 RXN
DM2100	ExcelBand 100 bp DNA Ladder, 500 $\mu$ l
DM3100	ExcelBand 1 KB (0.25-10 kb) DNA Ladder, 500 $\mu$ l
DM3200	ExcelBand 1 KB Plus (0.1-10 kb) DNA Ladder, 500 $\mu$ l
DL5000	FluoroDye DNA Fluorescent Loading Dye (Green, 6 $\times$ ), 1 ml
DS1000	FluoroStain DNA Fluorescent Staining Dye (Green, 10,000 $\times$ ), 500 $\mu$ l
NS1000	FluoroVue Nucleic Acid Gel Stain (10,000X), 500 $\mu$ l
TP1000	ExcelTaq DNA Polymerase, 500 U $\times$ 1
TP1200	ExcelTaq 5 $\times$ PCR Master Dye Mix, 200 RXN
TP1260	ExcelTaq 5 $\times$ Fluorescent PCR Master Mix Kit, 200 RXN
TP5000	ExcelTaq Hot Start II DNA Polymerase, 500 U
CV1100	GetClone PCR Cloning Vector II, 20 RXN

## Related Products, continued

- TQ1100 ExcelTaq 2X Q-PCR Master Mix (SYBR, no ROX), 200 RXN
- TQ1110 ExcelTaq 2X Q-PCR Master Mix (SYBR, ROX), 200 RXN
- TQ2110 ExcelTaq 2X Q-PCR Master Mix (TaqMan, ROX), 200 RXN
- CK1000 Champion E. coli Transformation Kit
- VE0100 B-BOX Blue Light LED epi-illuminator, AC 100-240V, 50/60Hz



## B-BOX™ Blue Light LED epi-illuminator



The latest version of the manual can be downloaded from [www.smobio.com/shop](http://www.smobio.com/shop).

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