



SMOBIO[®]

Small Bio, Smart Tool

www.smobio.com

Product Information

RNAok™ series

RNAok™ RNase Inhibitor

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

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

SMOBIO Technology, Inc. claims all warranties with respect to this document, expressed or implied, including but not limited to those of merchantability or fitness for a particular purpose. In no event shall SMOBIO Technology, Inc. be liable, whether in contract, tort, warranty, or under any statute or any other basis for special, incidental, indirect, punitive, multiple or consequential damages in connection with or arising from this document, including but not limited to the use thereof.

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 μ l
DM3100	ExcelBand 1 KB (0.25-10 kb) DNA Ladder, 500 μ l
DM3200	ExcelBand 1 KB Plus (0.1-10 kb) DNA Ladder, 500 μ l
DL5000	FluoroDye DNA Fluorescent Loading Dye (Green, 6 \times), 1 ml
DS1000	FluoroStain DNA Fluorescent Staining Dye (Green, 10,000 \times), 500 μ l
NS1000	FluoroVue Nucleic Acid Gel Stain (10,000X), 500 μ 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



SMOBio[®]
Small Bio, Smart Tool

The latest version of the manual can be downloaded from www.smobio.com/shop.

For Research use only

2023 ver. 2.4.0

P06-F11-A1