



RNaseOUT™ Recombinant Ribonuclease Inhibitor

Cat. no. 10777-019	Size 5,000 Units	Conc. 40 U/μL Store at -30°C to -10°C
Pub. Part no. 10777019.pps	MAN0000896	Rev. Date 27 Sep 2011

Description

RNaseOUT™ Ribonuclease (RNase) Inhibitor is purified by affinity chromatography from a recombinant strain of *E. coli* expressing a cloned porcine liver gene. This inhibitor has a very high binding affinity for pancreatic-type ribonucleases such as RNase A. Like other inhibitors of pancreatic ribonuclease, RNaseOUT™ Ribonuclease Inhibitor is an acidic protein. The recombinant RNase inhibitor has a molecular weight near 52,000 daltons. It forms a 1:1 complex with bovine pancreatic RNase A, and it is a noncompetitive inhibitor of these pancreatic enzymes. RNaseOUT™ Ribonuclease Inhibitor is active against RNase A, RNase B, and RNase C. It does not inhibit RNase 1, RNase T1, RNase T2, S1 nuclease, and RNase H.

Storage Buffer

20 mM Tris-HCl (pH 8), 50 mM KCl, 0.5 mM EDTA, 8 mM DTT, and 50% (v/v) glycerol

Storage Recommendations

Avoid exposing product to frequent changes in temperature. RNaseOUT™ Ribonuclease Inhibitor requires 1 mM DTT to maintain activity.

Reference

Blackburn, P. (1979) *J. Biol. Chem.* 254, 12484–12487.

Intended Use: For research use only.

Not intended for any animal or human therapeutic or diagnostic use.

Applications

cDNA Synthesis

When added to the reaction mixture (40 units/20 μ L of reaction mixture), RNaseOUT™ Ribonuclease Inhibitor protects mRNA and improves total cDNA yields including percent total full length of cDNA.

RT-PCR

RNaseOUT™ Ribonuclease Inhibitor is compatible with all enzymes used in RT-PCR. It has been used with the Elongase® Enzyme Mix in long RT-PCR mixture (40 units/20 μ L of reaction mixture).

In Vitro Transcription

RNaseOUT™ Ribonuclease Inhibitor has been shown to be useful for the isolation of intact RNA transcripts using T3, T7, and SP6 RNA Polymerases (20–40 units/10 μ L of reaction mixture).

Certificate of Analysis

The Certificate of Analysis (CofA) provides detailed quality control information for each product. The CofA is available on our website at www.invitrogen.com/support, and it is searchable by product lot number, which is printed on each box.

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