

RNAse Inhibitor

Cat. no. IC01

Storage: -20°C; for long term storage, store at -70°C.

Product Size

IC01 30 μl (40 U/ μl)

Introduction

This product is a special RNAse inhibitor existing in human placenta. It is essentially a protein with molecular weight of 51,000 Da and Isoelectric point of pH 4.7. RNAse inhibitor forms a stable complex with RNases, inactivating the RNase. It can keep mRNA intact to enhance transcription and translation efficiency, and to avoid negative influence of organic compound inhibitors.

This product has been tested in RT-PCR and is compatible with enzymes such as AMV, M-MLV Reverse Transcriptases or *Taq* DNA polymerases. RNAse inhibitor has also been tested and found to be compatible with quantitative, real-time RT-PCR reactions in a TaqMan Assav.

Features

- RNAse inhibitor efficiently inhibits the activity of eukaryotic RNaseA, RNaseB, RNaseC and human placenta RNase.
- Is compatible with enzymes including RNase H, Nuclease S1, RNA Polymerase SP6, T7, T3, Reverse transcriptase AMV or M-MLV, Taq DNA Polymerase, RNase T1. It has no influence upon the transcription and translation processes.
- Has wide pH activity ranges. (1 mM DTT in the buffer system is needed.)

Unite Definition

One unit is defined as the amount of RNAse inhibitor required to inhibit the activity of 5ng of RNase A by 50%. Activity is measured by the inhibition of hydrolysis of cytidine 2′,3′-cyclic monophosphate by RNase A.

Protocol

Add the RNAse inhibitor to the samples to a final concentration of 5U/ μl .

Note: the amount can be optimized for individual experiment. Usually, in reverse transcription reaction, 0.5 μ l-1 μ l (20-40 U) RNAse inhibitor is enough for a 20 μ l reaction system.

The product is used for research only, neither intended for the diagnosis, or treatment of a disease, nor for the food, or cosmetics etc.