Certificate of Analysis

Ribonuclease Inhibitor

Cat. No. 27052 50μl

SOURCE	Human Placena
CONCENTRACTION	40U /μl
STORAGE	Store at -20°C
STORAGE BUFFER	20mM HEPES-KOH (pH 7.5), 50mM KCl, 5mM DTT, 50% Glycerol
QC DATA	Nuclease activity is not detect ed

PURIFICATION

RNase inhibitor is purified from human placenta by affinity chromatograp hy on an immobilized RNase A column.

APPLICATION

- General RNase A inhibition
- Protection of mRNA in cDNA synthesis
- Improvement of protein translation performance
- Increased yields and activity of polysomes
- Improvement of in vitro virus replication
- Improvement of RNA translation in homologous systems

UNIT DEFINITION

One unit is the amount of enzyme required to inhibit by 50% the activity of 5 ng of Rnase A at 25oC (This inhibitor activity is determined by its ability to inhibi hydrolysis of cyclic 2', 3'-CMP by Rnase A).

QUALITY CONTROL

Nuclease activity is not detected in either of the following cases, as judge d from the agarose gel electrophoresis pattern.

After incubation of 1μg of DNA-Hind III fragments with 300 units of enzym e for 1 hour at 37°C

1) After incubation of 1μg of supercoiled pBR322 DNA with 300 units of enzyme for 1 hour at 37°C
2) Migrates as a single band of 50 kilodaltons in SDS-polyacrylamide gel electrophoresis.

Note : Enzyme inhibits in a wide pH range, but most strongly at pH 7 ~8.

Requires DTT of at least 1 mM to be active.

GENERAL USE

Use 1μl of RNase inhibitor in a 20μl of reaction