Tinzyme Co., Limited

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RNase Inhibitor, (Murine, Glycerol-Free)

Product Number: RNK35H200

Shipping and Storage

-20℃

Components

Component	RNK35H200
RNase Inhibitor, (Murine, Glycerol-Free)(200U/μl)	10μl

Description

This product is a recombinant mouse RNase inhibitor expressed and purified in Escherichia coli, with a molecular weight of approximately 50 kD. It can specifically inhibit the activity of RNase A, B, and C,Can form a 1:1 complex with RNase, thereby inhibiting its activity. This reaction is reversible, as urea and thiol reagents can dissociate the complex, causing RNase to be renaturated while inhibitors are irreversibly deactivated. When in use, it can be directly added to the reaction solution containing RNA. This product belongs to protein properties and is different from other competitive inhibitors (nucleic acids, inorganic phosphates). It can be easily removed from the reaction system by phenol treatment.

Compared with human RNase inhibitors, mouse RNase inhibitors have higher antioxidant activity and are more suitable for experiments with high DTT sensitivity.

This product does not contain ingredients such as glycerol that affect the freeze-drying process, and can be used for the preparation of freeze-drying reaction systems and product design.

Application

This product can be used in any experiment that requires avoidance of RNase interference to prevent RNA degradation, such as:

1. CDNA synthesis reaction.
2. External translation.
3. Polyribosome separation.
4. There is no cellular system transcription in vitro.

Unit definition

The amount of enzyme required to inhibit 50% of 5ng RNase A activity is defined as one activity unit (U). The activity of RNase A was quantitatively determined by inhibiting the hydrolysis of Cyclic2 ', 3' - CMP to generate 3 '- CMP

Quality control

After multiple column purifications, SDS-PAGE gel detection showed only a clear and single target band; The qPCR method detects no residual E. coli DNA and no contamination of nucleic acid endonucleases.

Note

1. The pH range for inhibiting RNase activity is wide (active between pH 5-9), with maximum activity observed at pH 7-8.
2. This inhibitor does not inhibit the activity of RNase H.
3. Higher than 65 ℃ or severe denaturation conditions can cause the inhibitory activity to disappear.
4. Avoid foaming, vigorous stirring, vortexing, and other operations to prevent deactivation of this product.