

Thermostable Inorganic Pyrophosphatase (2 U/μl)

Catalog # PYE-T5143



Product Details

This product is a purified recombinant inorganic pyrophosphatase (PPase) in Escherichia coli. Inorganic pyrophosphatase catalyzes the hydrolysis of inorganic pyrophosphate to form orthophosphate: $\text{P}_2\text{O}_7^{4-} + \text{H}_2\text{O} + \text{PPase} \rightarrow 2\text{HPO}_4^{2-}$ PPase can hydrolyze inorganic pyrophosphate generated with the reaction to avoid its inhibition of the reaction system. It can be used to increase RNA yield in reverse transcription reactions. This enzyme retains 80% activity after incubation at 100°C for 4 hours.

Application

- Increase RNA yield in transcription reaction;
- Enhance DNA replication;
- Hydrolyze inorganic pyrophosphate.

Unit Definition

One unit is the amount of enzyme that will generate 1 μmol of phosphate per minute from inorganic pyrophosphate under standard reaction conditions (at 75°C in 50 mM Tricine, pH 8.5, 1 mM MgCl₂, 0.32 mM PPi, reaction volume of 0.5 ml for 10 minute).

Purity

>95% as determined by SDS-PAGE.

Notes

This product is active in a variety of reaction buffers and can usually be added directly to amplification experiments such as HDA and LAMP.

Formulation

Supplied as 0.2 μm filtered solution in 20 mM Tris, 100 mM NaCl, 1 mM DTT, 0.1 mM EDTA, pH 8.0 with glycerol as protectant.

Contact us for customized product form or formulation.

Shipping and Storage

This product is supplied and shipped on dry ice.

This product is stable after storage at:

- This product is stable for up to 12 months at -20°C from date of receipt.

