

Active Recombinant Yeast Inorganic Pyrophosphatase

Cat. No. PPase-05Y **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Inorganic Pyrophosphatase is expressed in E.coli and is derived from the inorganic pyrophosphatase gene of yeast. DNA Exonuclease Activity: Negative DNA Endonuclease Activity: Negative RNase Activity: Negative Residual Host Cell DNA: <100 pg/mg Alkaline Phosphatase Activity: <0.01U/mg
Species	Yeast
Source	E.coli
Description	In the presence of magnesium ions, it can hydrolyze inorganic pyrophosphate into two molecules of phosphate. During the in vitro synthesis of RNA or the process of DNA polymerization, it can hydrolyze the by-product pyrophosphate generated into two molecules of phosphate, relieving the inhibitory effect of pyrophosphate on the reaction, and thus significantly increasing the synthesis amount of RNA or DNA.
Purity	≥ 95% by SDS-PAGE
Bio-activity	≥ 0.1 U/μL
Advantages	1. It can specifically hydrolyze pyrophosphate groups. 2. It has strong activity and high stability.
Unit definition	1 U is defined as the amount of enzyme required to catalyze the hydrolysis of pyrophosphate to produce 1 μmol of phosphate per minute under standard reaction conditions (The 0.5 mL reaction system contains 100mM Tris-HCl, pH 7.2, 2mM

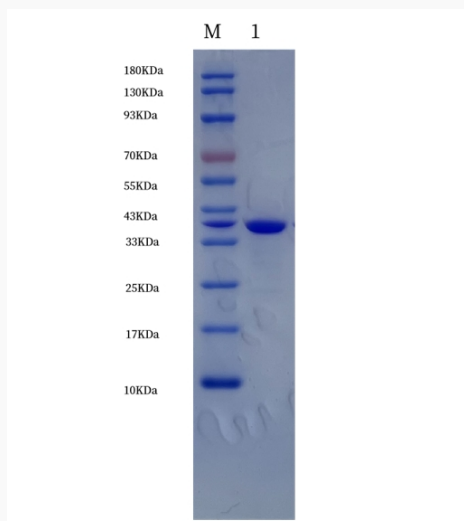
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	MgCl ₂ , and 2mM pyrophosphate; the reaction is carried out at 25 centigrade for 10 minutes).
Usage	1. This enzyme is active in a variety of buffers and can be directly added. The recommended final concentration is 0.05-1.0 U/mL. 2. The optimal reaction temperature of this enzyme is 25 centigrade. It is active within the temperature range of 16-37 centigrade, and its activity can be inactivated by heating at 65 centigrade.
Applications	1. In vitro synthesis of RNA 2. Prevent the accumulation of pyrophosphate during the process of DNA polymerization 3. Prevent pyrophosphate contamination in SNP genotyping experiments
Note	1. Try to avoid freeze-thaw cycles of this product after receipt; 2. Please wear lab coat and disposable gloves when using; 3. This product should not be used directly for clinical diagnosis and treatment.
Stability	This product should be stored at -20 centigrade and can be stored for at least 12 months.
Storage	Store at -20 centigrade.
Storage Buffer	20mM Tris-HCl, 1mM DTT, 0.1mM EDTA, 50% glycerol, pH8.0
Shipping	Dry Ice
GENE INFORMATION	
Synonyms	Inorganic Pyrophosphatase; PPase

SDS-PAGE



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