

Inorganic Pyrophosphatase (Yeast)

v. 240101

Catalog number	C15026-10U		
Package & Component	Cat.	Name	Amount
	C15026-10U	Inorganic Pyrophosphatase (Yeast) (0.1 U/μL)	10 U
Description	<p>Inorganic pyrophosphate (PPi) is generated as a reaction byproduct in many biosynthetic reactions which utilize ATP, including in vitro transcription and DNA polymerization. Inorganic pyrophosphatase (PPase) catalyzes the hydrolysis of inorganic pyrophosphate to orthophosphate ($P_2O_7^{-4} + H_2O + PPase \rightarrow 2HPO_4^{-2}$). PPase requires divalent metal cation (Mg^{2+}) for its enzymatic activity.</p>		
Source	Escherichia coli		
Purity	>98% as determined by SDS-PAGE (purified by Ni-NTA chromatography).		
Unit Definition	One unit is defined as the amount of the enzyme hydrolysis 1 μmol of inorganic pyrophosphate in 1 minutes at 25°C.		
Reaction Condition	Standard reaction: 100 mM Tris-HCl (pH 7.2), 2 mM $MgCl_2$ and 2 mM inorganic pyrophosphate.		
Storage Buffer	This enzyme is supplied in 20 mM Tris-HCl (pH 8.0), 100 mM KCl, 0.1 mM EDTA, 1 mM DTT and 50% glycerol.		
Storage	-20°C or -80°C for 12 months under sterile conditions from date of receipt.		
Application	Higher RNA yields in transcription reaction		
Notes	Inorganic Pyrophosphatase (Yeast) requires divalent metal cation (Mg^{2+}) for its enzymatic activity. This enzyme is widely used in RNA IVT reaction.		

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