Pyrophosphatase, Inorganic (Yeast)

Catalog No.: 2702-010 Size: 10 U
Catalog No.: 2702-100 Size: 100 U

Storage Condition

-20℃

Components

Component	2702-010	2702-100
Pyrophosphatase, Inorganic (Yeast) (0.1 U/μl)	10 U	100 U

Description

Pyrophosphatase, Inorganic (Yeast) is prepared from an *E. coli* strain with Pyrophosphatase gene from yeast. It is an enzyme that can catalyze the conversion of one molecule of pyrophosphate into two molecules of phosphate ions. This product is used in nucleic acid synthesis reactions to hydrolyze inorganic pyrophosphate generated during the reaction, thereby avoiding inhibition of the reaction and shifting the reaction equilibrium towards product formation. It can be used to increase nucleic acid yield in DNA amplification or in vitro transcription reactions. This product is active at temperatures ranging from 16 to 37℃ .

Definition of Activity Unit

One unit is the amount of enzyme that will generate 1 μmol of phosphate per minute from inorganic pyrophosphate under standard reaction conditions.

Quality Control Assays

Protein Purity

The enzyme is ≥95% pure as determined by SDS-PAGE analysis using Coomassie Blue staining.

Endonuclease Activity

A 20 μl reaction containing 200 ng of supercoiled plasmid and 0.1 U of Pyrophosphatase, Inorganic (Yeast) incubated for 4 hours at 37℃ results in <10% conversion to the nicked or linearized form as determined by agarose gel electrophoresis.

DNase Activity

A 20 μl reaction containing 15 ng of dsDNA fragments and 0.1 U of Pyrophosphatase, Inorganic (Yeast) incubated for 16 hours at 37℃ results in no detectable degradation of the dsDNA fragments as determined by agarose gel electrophoresis.

RNase Activity

A 10 μl reaction containing 500 ng of total RNA and 0.1 U of Pyrophosphatase, Inorganic (Yeast) incubated for 1 hours at 37℃ results in >90% of the substrate RNA remains intact as determined by agarose gel electrophoresis.

All products are for research only
BioCluster Biotech Ltd. All right reserved.