

User Manual

Version 2.0

Product name: Inorganic Pyrophosphatase, Thermostable

Cat #: TI-100, TI-200, TI-OEM

Description:

Inorganic pyrophosphatase (PPase) catalyzes the hydrolysis of inorganic pyrophosphate to form orthophosphate. It retains 100% activity after incubation at 100°C for 4 hours.

Application:

- Optimizes PCR through the elimination of pyrophosphate
- Catalyzes the conversion of inorganic pyrophosphate to orthophosphate
- Removes inhibiting amounts of pyrophosphates in the reaction

Source:

An *E. coli* strain carrying a plasmid encoding pyrophosphatase from the extreme thermophile *Thermococcus litoralis*.

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 (a 10 minute reaction at 75°C in 50 mM Tricine [pH 8.5], 1 mM MgCl₂, 0.32 mM PP_i, reaction volume of 0.5 ml).

Buffer:

20 mM Tris-HCl 100 mM KCl 1 mM Dithiothreitol 0.1 mM EDTA 50% Glycerol pH 8.0 @ 25°C

Recommended Storage Condition: -20°C

Reference:

Heinonen, J.K. and Lahti, R.J. (1981) Analytical Biochemistry, 113, 313-317.