

User Manual

Version 2.0

Product name: Inorganic Pyrophosphatase, *E. coli*

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

Description:

Inorganic pyrophosphatase (PPase) is ubiquitous in nature and plays an important role in energy metabolism, provides a thermodynamic pull for biosynthetic reactions, such as protein, RNA, and DNA synthesis.

Escherichia coli K-12 gene *ppa* encoding inorganic pyrophosphatase (PPase) was cloned and sequenced. The 5'-end of the *ppa* mRNA was identified by primer extension mapping.

Source:

E. coli strain carrying a plasmid encoding pyrophosphatase from *E. coli* K-12.

Application:

- Role in protein, RNA, and DNA synthesis
- Catalyzing the reaction $PP_i + H_2O > 2P_i$

Unit Definition:

One unit will release 1.0 μ mole of inorganic orthophosphate per minute at pH 9 at 25°C.

Recommended Storage Condition: -20°C

Reference:

Kornberg, A. 1962. On the metabolic significance of phosphorolytic and pyrophosphorolytic reactions, p. 251-264. In H. Kasha and P. Pullman (ed.), Horizons in biochemistry. Academic Press, New York.