

Native Baker's yeast (*S. cerevisiae*) Inorganic Pyrophosphatase

Cat. No. NATE-0354

Lot. No. (See product label)

Introduction

- Description** Pyrophosphatase (or inorganic pyrophosphatase) is an enzyme (EC 3.6.1.1) that catalyzes the conversion of one molecule of pyrophosphate to two phosphate ions. This is a highly exergonic reaction, and therefore can be coupled to unfavorable biochemical transformations in order to drive these transformations to completion. The functionality of this enzyme plays a critical role in lipid metabolism (including lipid synthesis and degradation), calcium absorption and bone formation, and DNA synthesis, as well as other biochemical transformations.
- Applications** Inorganic pyrophosphatase (PPase) is a ubiquitous enzyme catalyzing the reaction $\text{PPi} + \text{H}_2\text{O} \rightarrow 2\text{Pi}$. It plays an important role in protein, RNA, and DNA synthesis.
- Synonyms** Pyrophosphate phosphohydrolase; inorganic pyrophosphatase; EC 3.6.1.1; 9024-82-2; iphosphate phosphohydrolase

Product Information

- Source** Baker's yeast (*S. cerevisiae*)
- Form** Type I, lyophilized powder containing 90% buffer salts; Type II, Lyophilized powder containing 85% buffer salts.
- EC Number** EC 3.6.1.1
- CAS No.** 9024-82-2
- Molecular Weight** 71 kDa (homodimer consisting of two equal subunits of molecular weight 32-35 kDa)
- Activity** Type I, > 1,000 units/mg protein (BCA); Type II, > 500 units/mg protein (E1%/280).
- Isoelectric point** 4.75
- Unit Definition** One unit will liberate 1.0 μmole of inorganic orthophosphate per min at pH 7.2 at 25°C.

Storage and Shipping Information

- Storage** -20°C