

## Native *Bacillus stearothermophilus* Inorganic Pyrophosphatase

Cat. No. NATE-0353

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** *Bacillus stearothermophilus*

**Form** lyophilized powder

**EC Number** EC 3.6.1.1

**CAS No.** 9024-82-2

**Activity** 15-25 units/mg protein (biuret)

**Unit Definition** One unit will liberate 1.0  $\mu\text{mole}$  of inorganic orthophosphate per min at pH 9.0 at 50°C.

### Storage and Shipping Information

**Storage** 2-8°C