Creative Enzymes®

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

*Cat. No. NATE-0354*

*Lot. No.* (See product label)

## Introduction

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| ***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 PPi + H2O → 2Pi. 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

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| ***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

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| ***Storage*** | −20°C |