

Native Potato Acid Phosphatase

Cat. No. NATE-0083

Lot. No. (See product label)

Introduction

Description Acid phosphatases (APase) are a family of enzymes that non-specifically catalyze the hydrolysis of monoesters and anhydrides of phosphoric acid to produce inorganic phosphate at an optimum pH of 4 to 7. Acid phosphatase from potatoes is a 111 kDa dimer consisting of two subunits at 41 and 35 kDa. This phosphatase has also been shown to cleave DNA.

Applications Phosphatase acid from potato has been used in a study to develop a method of efficient enzymatic hydrolysis of polyprenyl pyrophosphates. It has also been used in a study to investigate the kinetics of the hydrolysis of sodium p-nitrophenylphosphate and other phosphoric acid monoesters.

Synonyms acid phosphatase; 9001-77-8; acid phosphomonoesterase; phosphomonoesterase; glycerophosphatase; acid monophosphatase; acid phosphohydrolase; acid phosphomonoester hydrolase; uteroferrin; acid nucleoside diphosphate phosphatase; orthophosphoric-monoester phosphohydrolase (acid optimum); EC 3.1.3.2; APase

Product Information

Source Potato

Form Type I, Type IV, ammonium sulfate suspension; Suspension in 1.8 M (NH₄)₂SO₄, 10 mM MgCl₂, pH 5.5; Type II, Type III, lyophilized powder.

EC Number EC 3.1.3.2

CAS No. 9001-77-8

Activity Type I, > 200 units/mg protein (biuret); Type II, 0.5-3.0 unit/mg solid; Type III, 3.0-10.0 units/mg solid; Type IV, > 10.0 units/mg protein (modified Warburg-Christian).

Unit Definition One unit will hydrolyze 1.0 µmole of p-nitrophenyl phosphate per min at pH 4.8 at 37°C.

Storage and Shipping Information

Storage 2-8°C