Creative Enzymes®

Native Chicken Alkaline phosphatase

Cat. No. NATE-0055

Lot. No. (See product label)

Introduction

Description	Alkaline phosphatase (ALP, ALKP, ALPase, Alk Phos) (EC 3.1.3.1) is a hydrolase enzyme responsible for removing phosphate groups from many types of molecules, including nucleotides, proteins, and alkaloids. The process of removing the phosphate group is called dephosphorylation. As the name suggests, alkaline phosphatases are most effective in an alkaline environment. It is sometimes used synonymously as basic phosphatase.
Synonyms	Alkaline phosphatase; ALP; ALKP; ALPase; Alk Phos; EC 3.1.3.1; Alkaline phosphomonoesterase; Glycerophosphatase; Phosphomonoesterase

Product Information

Species	Chicken
Source	Chicken Intestine.
Form	dried powder
EC Number	EC 3.1.3.1
CAS No.	9001-78-9
Molecular Weight	140 kDa
Purity	Partially purified
Activity	> 0.9 units per mg dry weight (25°C pH 8.8
Isoelectric point	5.7.
Optimum pH	42225
Composition	The enzyme is a zinc metallo-enzyme. Schüssler (1968) reports four isozymes. Chang and Moog (1972) found three isozymes in the enzyme from chicken duodenum.
Activators	Schüssler (1968) indicates activation by Mg2+. See Sivanaesan et al. (1991).
Inhibitors	Acidification to pH 4.5 reversibly inactivates the enzyme.
Pathway	Folate biosynthesis, organism-specific biosystem; Folate biosynthesis, conserved biosystem; Metabolic pathways, organism-specific biosystem
Unit Definition	One Unit hydrolyzes 1μmole of o-carboxyphenol phosphate per minute at 25°C, pH 8.8.

Storage and Shipping Information

Storage	Store at 2-8°C
Stability	The lyophilized preparation is stable for 1-2 years at 2-8°C.