

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 1 μ mole 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.