

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 4.2-2.5

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.

