

## Alkaline Phosphatase from Shrimp, Recombinant

Cat. No. NATE-0807

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. Shrimp alkaline phosphatase is a heat labile, hydrolase enzyme. It is a high specific activity alkaline phosphatase purified from a recombinant source. There are two preferred sites for enzyme activity: 5' protruding, recessive and blunt 5'-termini. The enzyme is irreversibly heat inactivated at 65°C for 15 minutes.

#### Applications

Alkaline phosphatase was used to examine its role in the prevention of high-fat-diet-induced metabolic syndrome in mice. It also may be used in pasteurization process for milks used in dairy products.

#### Synonyms

Alkaline phosphatase; ALP; ALKP; ALPase; Alk Phos; EC 3.1.3.1; Alkaline phosphomonoesterase; Glycerophosphatase; Phosphomonoesterase

### Product Information

#### Species

Shrimp

#### Source

Proprietary host

#### Form

Solution in 50% glycerol containing 25 mM Tris-HCl, pH 7.5, 1 mM MgCl<sub>2</sub>

#### EC Number

EC 3.1.3.1

#### CAS No.

9001-78-9

#### Concentration

>1,000 DEA units/ml

#### Unit Definition

One unit will hydrolyze 1  $\mu$ mole of 4-nitrophenyl phosphate per minute at pH 9.8 at 37 °C.

### Storage and Shipping Information

#### Storage

Store at -20°C