Creative Enzymes®

Native Porcine Esterase

Cat. No. NATE-0237

Lot. No. (See product label)

Introduction

Description	An esterase is a hydrolase that splits esters into acids and alcohols
Applications	Porcine liver esterase is used to catalyze the hydrolysis of pentaacetyl catechin and epicatechin for use in pharmaceutical and industrial applications. Pig liver esterase is commonly used for kinetic resolutions and assymetric synthesis in organic chemistry. Esterase from porcine liver has been used in a study to assess the effect of 5-aminolaevulinic acid peptide prodrugs on photosensitization for photodynamic therapy. Esterase from porcine liver has also been used in a study to investigate how site-specific atherogenic gene expression correlates with subsequent variable lesion development in coronary and peripheral vasculature. The enzyme from Creative Enzymes has been immobilised in hollow fibre ultrafiltration membrane and used for the asymmetric hydrolysis of a meso-diester. Esterase from Creative Enzymes has been used to investigate its effect on the release of methacrylic acid (MAA) and 2-hydroxyethyl methacrylate (HEMA) from adhesives formulated under conditions simulating wet bonding. It has been used to examine the ability of carboxylesterase activity to remove permethrin-and bifenthrin-ass ociated toxicity to Ceriodaphnia dubia and Hyalella azteca in a variety of matrices.
Synonyms	EC 3.1.1.1; ali-esterase; B-esterase; monobutyrase; cocaine esterase; procaine esterase; methylbutyrase; vitamin A esterase; butyryl esterase; carboxyesterase; carboxylate esterase; carboxylic esterase; methylbutyRate esterase; triacetin esterase; carboxyl ester hydrolase; butyRate esterase; methylbutyrase; α-carboxylesterase; propionyl esterase; nonspecific carboxylesterase; esterase D; esterase B; esterase A; serine esterase; carboxylic acid esterase; cocaine esterase; 9016-18-6

Product Information

Species	Porcine
Source	Porcine liver
Form	Type I, lyophilized powder, Crude powder containing <10% buffer salts; Type II, lyophilized powder; slightly beige; Type III, ammonium sulfate suspension, Suspension in 3.2 M (NH4)2SO4, pH 8.
EC Number	EC 3.1.1.1
CAS No.	9016-18-6
Activity	Type I, > 15 units/mg solid; Type II, > 50 units/mg; Type III, > 150 units/mg protein (biuret).
Unit Definition	One unit will hydrolyze 1.0 μmole of ethyl butyrate to butyric acid and ethanol per min at pH 8.0 at 25°C.

Storage and Shipping Information

Storage	−20°C