Creative Enzymes®

Native Microorganism Lipoprotein lipase

Cat. No. DIA-211

Lot. No. (See product label)

Introduction

Description	Lipoprotein lipase (LPL) (EC 3.1.1.34) is a member of the lipase gene family, which includes pancreatic lipase, hepatic lipase, and endothelial lipase. It is a water soluble enzyme that hydrolyzes triglycerides in lipoproteins, such as those found in chylomicrons and very low-density lipoproteins (VLDL), into two free fatty acids and one monoacylglycerol molecule. It is also involved in promoting the cellular uptake of chylomicron remnants, cholesterol-rich lipoproteins, and free fatty acids.
Applications	This enzyme is useful for enzymatic determination of triglyceride in serum when coupled with L-α-glycerophosphate oxidase and glycerol kinase. Usually, the reaction can be completed in 5 minutes at 37°C by using 2.5~3.0 units of the enzyme per test (3.0ml) at pH around 7.0.
Synonyms	Lipoprotein lipase; LPL; EC 3.1.1.34; Clearing factor lipase; Diacylglycerol lipase; Diglyceride lipase

Product Information

Source	Microorganism
Appearance	Light brown amorphous powder, lyophilized
EC Number	EC 3.1.1.34
CAS No.	9004-02-8
Activity	GradeⅢ 1.0U/mg-solid or more
Contaminants	Phosphatase 1.0×10^{-3}% Catalase 2.0×10^{-2}% NADH oxidase1.0×10^{-3}% Cholesterol oxidase 2.0×10^{-3}%
pH Stability	pH 5.5-10.0 (25°C, 20hr)
Optimum pH	8
Thermal stability	below 40°C (pH 7.0, 15min)
Optimum temperature	40-45°C
Inhibitors	Hg^{++}, Cu^{++}
Stabilizers	Mg^{++}, bovine serum albumin

Storage and Shipping Information

Stability	Store at -20°C