

Native Pseudomonas sp. Lipoprotein lipase

Cat. No. DIA-210

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

Pseudomonas sp.

Appearance

Light brown amorphous powder, lyophilized

EC Number

EC 3.1.1.34

CAS No.

9004-02-8

Molecular Weight

approx. 134 kDa

Activity

Grade III 20U/mg-solid or more (containing approx. 80% of stabilizers)

Contaminants

Phosphatase < $1.0 \times 10^{-3}\%$ Catalase < $2.0 \times 10^{-2}\%$ NADH oxidase < $1.0 \times 10^{-3}\%$
Cholesterol oxidase < $2.0 \times 10^{-3}\%$

Isoelectric point

5.95 \pm 0.05

pH Stability

pH 7.0-9.0 (25°C, 20hr)

Optimum pH

7.0-9.0

Thermal stability

below 55°C (pH 7.0, 10min)

Optimum temperature

45-50°C

Inhibitors

Hg⁺⁺, Ag⁺, ionic detergents

Stabilizers

Mg⁺⁺, Na-cholate, bovine serum albumin

Storage and Shipping Information

Stability

Stable at -20°C for at least one year