

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 GradeIII 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 ± 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