

## 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- $\alpha$ -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** Gradelll 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<sup>++</sup>, Ag<sup>+</sup>, ionic detergents

**Stabilizers** Mg<sup>++</sup>, Na-cholate, bovine serum albumin

### Storage and Shipping Information

**Stability** Stable at -20°C for at least one year