Creative Enzymes®

# Native Pseudomonas sp. Lipoprotein lipase

*Cat. No. DIA-210*

*Lot. No.* (See product label)

## Introduction

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| ***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

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| ***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 < $1.0\times10^{-3}$% Catalase < $2.0\times10^{-2}$% NADH oxidase< $1.0\times10^{-3}$% Cholesterol oxidase < $2.0\times10^{-3}$% |
| ***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

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