



## Rat lipoprotein lipase (LPL) ELISA kit (50-1600 U/L)

<b>Cat. No.:</b>	0126WXX-966
<b>Assay Type:</b>	Quantitative sandwich ELISA
<b>Target Species:</b>	Rat
<b>Assay Target:</b>	LPL
<b>Size:</b>	48T; 96T

This product is for research use only and is not intended for diagnostic use.

### Product Overview

#### Description

Rat lipoprotein lipase (LPL) ELISA kit (50-1600 U/L) is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of LPL in rat samples with a range of 50-1600 U/L and a minimum detectable dose (sensitivity) of 10 U/L. The kit is highly sensitive and easy to use.

#### Assay Principle

Purified rat LPL antibody is used to coat microelisa strip plate wells to create a solid-phase antibody. LPL and HRP-labeled LPL antibody are added to form an antibody-antigen-antibody-enzyme complex. After complete washing, the TMB substrate solution is added, turning blue under HRP catalysis. The reaction is terminated with a sulphuric acid solution, and the color change is measured at 450 nm. The LPL concentration is then determined by comparing the sample O.D. to the standard curve.

#### Background

LPL is an enzyme belonging to the lipoprotein lipase family. Its primary function is to break down triglycerides (a type of fat) in the blood. Specifically, LPL hydrolyzes triglycerides present in circulating lipoproteins such as chylomicrons and very low-density lipoproteins (VLDL). The free fatty acids and monoglycerides released during this process can be utilized by cells to generate energy or stored for later use. LPL's direct relevance to obesity research lies in its pivotal role in fat storage and metabolism. Given its central function in lipid metabolism, LPL has emerged as a key biological factor in obesity studies.

#### Synonyms

Clearing factor; Clearing factor lipase; EC 3.1.1.34



<b>EC NO.</b>	3.1.1.34
<b>Formula Weight</b>	53,162 Da
<b>Applications</b>	Rat lipoprotein lipase (LPL) ELISA kit (50-1600 U/L) is used to quantify LPL in serum, plasma, tissue homogenate, feces, and urine of rat, providing data to support research in a wide range of areas, including signal transduction, metabolism, obesity, etc.
<b>Research Area</b>	Signal Transduction; Metabolism; Obesity

## Specification

<b>Sample Type</b>	Serum; Plasma; Tissue homogenate; Feces; Urine
<b>Detection Range</b>	50-1600 U/L
<b>Sensitivity</b>	10 U/L
<b>Precision (Intra-assay)</b>	CV<15%
<b>Precision (Inter-assay)</b>	CV<15%
<b>Cross-reactivity</b>	No significant cross-reactivity or interference was observed.
<b>Storage</b>	Store at 2-8°C.