



Goat lipoprotein lipase (LPL) ELISA kit-Quantitative competitive

Cat. No.:	0126WXX-941
Assay Type:	Quantitative competitive ELISA
Target Species:	Goat
Assay Target:	LPL
Size:	48T; 96T

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

Product Overview

Description

Goat lipoprotein lipase (LPL) ELISA kit-Quantitative competitive is an ELISA-based *in vitro* research tool designed specifically for the quantitative detection of LPL in goat samples with a minimum detectable dose (sensitivity) of 0.1 ng/mL. The kit is highly sensitive and easy to use.

Assay Principle

This LPL ELISA Kit applies a competitive enzyme immunoassay technique utilizing a monoclonal anti-LPL antibody and an LPL-HRP conjugate. The sample and assay buffer are incubated together with the LPL-HRP conjugate in a pre-coated plate for one hour. During this period, LPL in the sample competes with the LPL-HRP conjugate for a limited number of binding sites on the immobilized antibody. After incubation, the wells are decanted and washed five times. An HRP substrate is then added, forming a blue complex that turns yellow upon the addition of a stop solution. The intensity of the color, measured at 450 nm, is inversely proportional to the LPL concentration in the sample. A standard curve is plotted to interpolate the concentration of LPL in each sample from the measured optical density (O.D.).

**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

EC NO.

3.1.1.34

Formula Weight

53,213 Da

Applications

Goat lipoprotein lipase (LPL) ELISA kit-Quantitative competitive is used to quantify LPL in serum, plasma, cell culture supernatants, body fluid, tissue homogenate of goat, providing data to support research in a wide range of areas, including signal transduction, metabolism, obesity, etc.

Research Area

Signal Transduction; Metabolism; Obesity

Specification

Sample Type

Serum; Plasma; Cell culture supernatants; Body fluid; Tissue homogenate

Sensitivity

0.1 ng/mL

Cross-reactivity

No significant cross-reactivity or interference was observed.

Storage

Store at 2-8°C.