

Lipoprotein Lipase Activity Fluorometric Assay Kit

Cat. No. Kit-0521 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Lipoprotein Lipase Activity Assay Kit (Fluorometric) is used to measure Lipoprotein lipase activity.

Description

Lipoprotein lipase (LPL) is a member of the lipase family that hydrolyzes triglycerides in chylomicrons and very low-density lipoprotein (VLDL). Digestion of triglycerides in VLDL by LPL leads to their conversion to intermediate-density lipoprotein (IDL) and then low-density lipoprotein (LDL). LPL is found attached to the luminal surface of endothelial cells in the heart, muscle, and adipose tissue. Mutations in lipoprotein lipase can lead to a variety of disorders such as lipoprotein metabolism, hypertriglyceridemia etc. Overexpression of LPL in mice has been shown to promote obesity and insulin resistance. The Lipoprotein Lipase Activity Assay Kit (Fluorometric) contains a quenched substrate that fluoresces upon hydrolysis by LPL. The fluorometric intensity is directly proportional to the amount of substrate hydrolyzed. This assay detects total lipase activity when no inhibitor is used. Comparing results in the presence or absence of an LPL inhibitor allows for quantification of LPL activity specifically. Our results indicate that the majority (~90%) of lipase activity detected by this kit in post-heparin treated mouse plasma is from LPL. To determine the exact LPL specific activity in mouse plasma, measure activity in pre- and post-heparin treated plasma.

Applications

Measurement of LPL activity in purified wild type or recombinant protein as well as in plasma, cell and tissue lysates.

Target Species

Mammals

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Usage	For research use only (RUO)
Storage	Store kit at 4°C, protected from light. Upon opening, use kit within 2 months.
Kit Components	LPL Assay Buffer 5 mL Substrate (in DMSO) 10 µL Positive Control (Lyophilized) 1 vial Inhibitor (Orlistat) 20 µL
Detection method	Fluorometric
Compatible Sample Types	Pure (wild type or recombinant) LPL protein Plasma Cell and Tissue lysate

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