

LPL (H-53): sc-32885

BACKGROUND

The lipase gene family belongs to one of the most robust genetic superfamilies found in living organisms, which includes esterases and thioesterases. Lipase gene products are related by tertiary structure rather than primary amino acid sequence. Members of the AB hydrolase subfamily include hepatic lipase (HL), endothelial lipase (EL), lipoprotein lipase (LPL) and pancreatic lipase (PL). HL balances the composition and transport of lipoproteins in human plasma. Synthesized in endothelial cells, EL hydrolyzes high density lipoproteins. LPL, a homodimer attached to the membrane by a GPI-anchor, mediates the hydrolysis of triglycerides of very low density lipoproteins and circulating chylomicrons. Defects in LPL may cause chylomicronemia syndrome or a form of lipoprotein lipase deficiency characterized by hypertriglyceridemia.

CHROMOSOMAL LOCATION

Genetic locus: LPL (human) mapping to 8p21.3; Lpl (mouse) mapping to 8 B3.3.

SOURCE

LPL (H-53) is a rabbit polyclonal antibody raised against amino acids 28-80 mapping near the N-terminus of LPL of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

LPL (H-53) is recommended for detection of LPL of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

LPL (H-53) is also recommended for detection of LPL in additional species, including canine.

Suitable for use as control antibody for LPL siRNA (h): sc-44900, LPL siRNA (m): sc-44901, LPL shRNA Plasmid (h): sc-44900-SH, LPL shRNA Plasmid (m): sc-44901-SH, LPL shRNA (h) Lentiviral Particles: sc-44900-V and LPL shRNA (m) Lentiviral Particles: sc-44901-V.

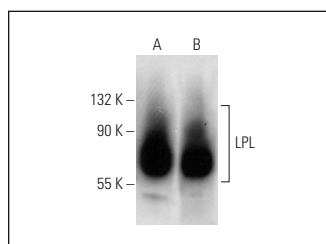
Molecular Weight of LPL: 56 kDa.

Positive Controls: rat heart extract: sc-2393 or mouse heart extract: sc-2254.

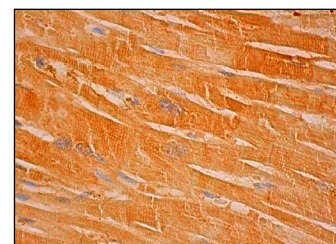
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



LPL (H-53): sc-32885. Western blot analysis of LPL expression in mouse heart (A) and rat heart (B) tissue extracts.



LPL (H-53): sc-32885. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

- Li, Y., et al. 2008. Molecular mechanism of age-specific hepatic lipid accumulation in PPAR α ^{+/-}:LDLR^{+/-} mice, an obese mouse model. *Lipids* 43: 301-312.
- Fernandez-Veledo, S., et al. 2008. Hyperinsulinemia induces Insulin resistance on glucose and lipid metabolism in a human adipocytic cell line: paracrine interaction with myocytes. *J. Clin. Endocrinol. Metab.* 93: 2866-2876.
- Kirpich, I.A., et al. 2010. Integrated hepatic transcriptome and proteome analysis of mice with high-fat diet-induced nonalcoholic fatty liver disease. *J. Nutr. Biochem.* 22: 38-45.
- Provost, P.R. and Tremblay, Y. 2010. Elevated expression of four apolipoprotein genes during the 32-35 week gestation window in the human developing lung. *Early Hum. Dev.* 86: 529-534.
- Stenger, C., et al. 2012. Brain region-specific immunolocalization of the lipolysis-stimulated lipoprotein receptor (LSR) and altered cholesterol distribution in aged LSR^{+/-} mice. *J. Neurochem.* 123: 467-476.



Try **LPL (F-1): sc-373759** or **LPL (5D2): sc-73646**, our highly recommended monoclonal alternatives to LPL (H-53). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **LPL (F-1): sc-373759**.