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LPL Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14170c

Specification

LPL Antibody (Center) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	P06858
Other Accession	Q06000, P49923, P11152, P11151, NP_000228.1, Q29524
Reactivity	**Human**
Predicted	**Bovine, Mouse, Pig, Rat, Sheep**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**300-327**

LPL Antibody (Center) - Additional Information

Gene ID 4023

Other Names
Lipoprotein lipase, LPL, LPL, LIPD

Target/Specificity
This LPL antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 300-327 amino acids from the Central region of human LPL.

Dilution
WB~~1:1000-1:2000
IHC-P~~1:10~50
FC~~1:25

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
LPL Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

LPL Antibody (Center) - Protein Information

Name LPL

Synonyms LIPD

Function Key enzyme in triglyceride metabolism. Catalyzes the hydrolysis of triglycerides from circulating chylomicrons and very low density lipoproteins (VLDL), and thereby plays an important role in lipid clearance from the blood stream, lipid utilization and storage (PubMed:11342582, PubMed:27578112, PubMed:8675619). Although it has both phospholipase and triglyceride lipase activities it is primarily a triglyceride lipase with low but detectable phospholipase activity (PubMed:12032167, PubMed:7592706). Mediates margination of triglyceride-rich lipoprotein particles in capillaries (PubMed:24726386). Recruited to its site of action on the luminal surface of vascular endothelium by binding to GPIHBP1 and cell surface heparan sulfate proteoglycans (PubMed:11342582, PubMed:27811232).

Cellular Location
Cell membrane {ECO:0000250|UniProtKB:P11151}; Peripheral membrane protein {ECO:0000250|UniProtKB:P11151}; Extracellular side {ECO:0000250|UniProtKB:P11151}. Secreted. Secreted, extracellular space, extracellular matrix. Note=Newly synthesized LPL binds to cell surface heparan proteoglycans and is then released by heparanase Subsequently, it becomes attached to heparan proteoglycan on endothelial cells (PubMed:27811232). Locates to the plasma membrane of microvilli of hepatocytes with triglyceride-rich lipoproteins (TRL) Some of the bound LPL is then internalized and located inside non- coated endocytic vesicles (By similarity) {ECO:0000250|UniProtKB:P11151, ECO:0000269|PubMed:27811232}

Tissue Location
Detected in blood plasma (PubMed:11893776, PubMed:12641539, PubMed:2340307). Detected in milk (at protein level) (PubMed:2340307).

LPL Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

LPL Antibody (Center) - Images

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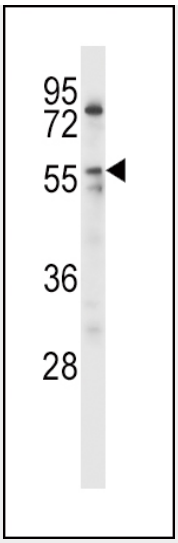
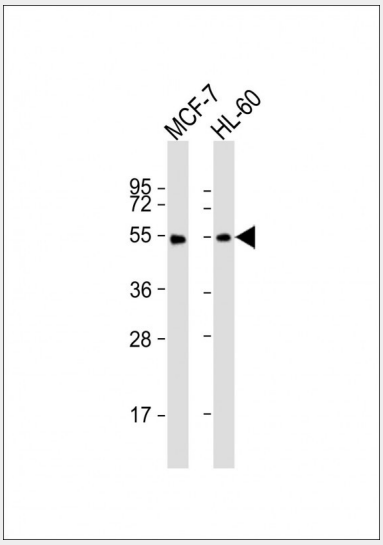


LPL Antibody (Center) (Cat. #AP14170c) western blot analysis in HL-60 cell line lysates (35ug/lane).This demonstrates the LPL antibody detected the LPL protein (arrow).



All lanes : Anti-LPL Antibody (Center) at 1:1000-1:2000 dilution Lane 1: MCF-7 whole cell lysate Lane 2: HL-60 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 53 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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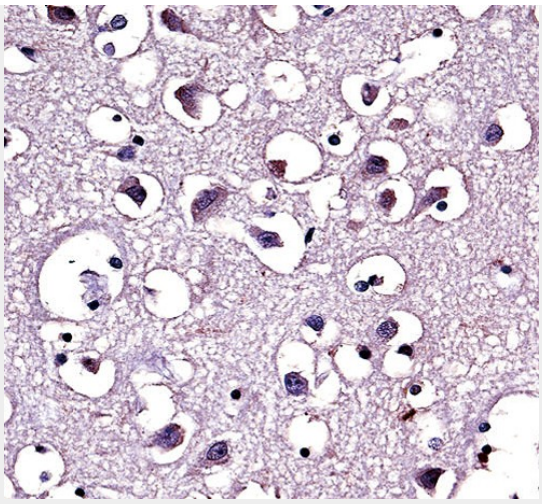
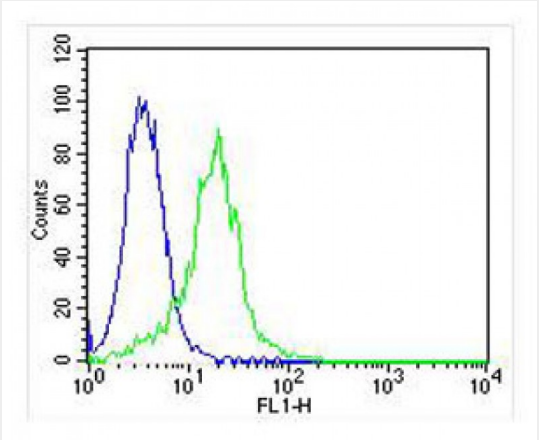


LPL Antibody (Center) (AP14170c)immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of LPL Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



Overlay histogram showing Hela cells stained with AP14170c (green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AP14170c, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Rabbit IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OH191631) at 1/400 dilution for 40 min at 37ºC. Isotype control antibody (blue line) was Rabbit IgG (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.

LPL Antibody (Center) - Background

LPL encodes lipoprotein lipase, which is expressed in heart, muscle, and adipose tissue. LPL functions as a homodimer, and has the dual functions of triglyceride hydrolase and ligand/bridging factor for receptor-mediated lipoprotein uptake. Severe mutations that cause LPL deficiency result in type I hyperlipoproteinemia, while less extreme mutations in LPL are linked to many disorders of lipoprotein metabolism. [provided by RefSeq].

LPL Antibody (Center) - References

Hu, M., et al. Pharmacogenet. Genomics 20(10):634-637(2010)
Romero, R., et al. Am. J. Obstet. Gynecol. 203 (4), 361 (2010) :
Johansen, C.T., et al. Nat. Genet. 42(8):684-687(2010)
Zabaneh, D., et al. PLoS ONE 5 (8) (2010) :
Jugessur, A., et al. PLoS ONE 5 (7), E11493 (2010) :