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LPL Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1272a

Product Information

Application	WB, E
Primary Accession	P06858
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2C5
Isotype	IgG1
Calculated MW	53162
Description	LPL: lipoprotein lipase, also known as LIPD, HDLCQ11. Entrez Protein: NP_000228. It 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.
Immunogen	Purified recombinant fragment of LPL expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	4023
Other Names	Lipoprotein lipase, LPL, 3.1.1.34, LPL, LIPD
Dilution	WB~~1/500 - 1/2000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	LPL Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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).

References

1. Obesity (Silver Spring). 2008 Jan;16(1):199-201. 2. Hum Mutat. 2009 Jan;30(1):49-55.

Images

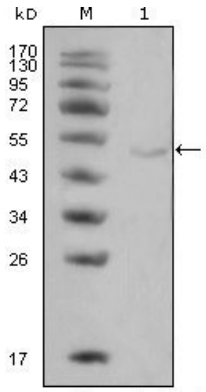


Figure 1: Western blot analysis using LPL mouse mAb against Hela cell lysate (1).

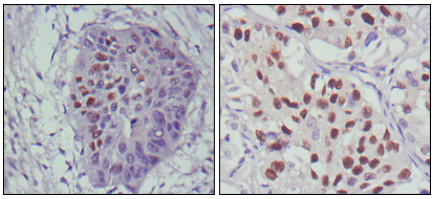


Figure 2: Immunohistochemical analysis of paraffin-embedded human esophageal cancer (left) and lung cancer (right), showing nuclear localization using p53 mouse mAb with DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.