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Lipoprotein lipase Rabbit pAb

Catalog # AP99779

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P06858
Other Accession	P06858
Reactivity	Rat, Human
Predicted	Pig, Mouse, Rabbit, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	53162
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human LPL protein
Epitope Specificity	301-400/475
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the AB hydrolase superfamily. Lipase family.Contains 1 PLAT domain.
SUBUNIT	Homodimer. Interacts with APOC2; the interaction activates LPL activity in the presence of lipids. Interacts with GPIHBP1.
Post-translational modifications	Tyrosine nitration after lipopolysaccharide (LPS) challenge down-regulates the lipase activity.
DISEASE	Defects in LPL are the cause of lipoprotein lipase deficiency (LPL deficiency) [MIM:238600]; also known as familial chylomicronemia or hyperlipoproteinemia type I. LPL deficiency chylomicronemia is a recessive disorder usually manifesting in childhood. On a normal diet, patients often present with abdominal pain, hepatosplenomegaly, lipemia retinalis, eruptive xanthomata, and massive hypertriglyceridemia, sometimes complicated with acute pancreatitis.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Lipoprotein lipase (LPL) is the central enzyme in plasma triglyceride hydrolysis and is secreted by macrophages in the subendothelial space. Evidence has been provided that LPL produced by macrophages in the vessel wall exerts proatherogenic effects. The atherogenic effects of LPL have been mainly attributed to its ability to favor lipid accumulation within macrophages present in the atherosclerotic lesion. Recently, it has also been shown that LPL promote the development of atherosclerosis through facilitation of monocyte adhesion to endothelial cells, stimulation of tumor necrosis factor alpha (TNF) secretion and induction of vascular smooth muscle cell proliferation.

Additional Information

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Gene ID	
Other Names	HDLCQ11; LIPD; LIPL_BOVIN; LPL; Phospholipase A1; 3.1.1.34; LIPL_HUMAN; LIPL_MOUSE; lipoprotein lipase
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=0.2 g/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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).

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