

Rabbit Anti-Lipoprotein lipase antibody

SL2336R

Product Name:	Lipoprotein lipase
Chinese Name:	内皮脂肪酶抗体
Alias:	Lipoprotein lipase; LIPD; LIPL_HUMAN; LPL; LPL protein; EC 3.1.1; EC 3.1.1.34; HDLCQ11; LPL; LPL protein; MGC137861.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human, Mouse, Rat, Dog, Pig, Cow, Horse, Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-
	Cyt=0.2µg/TestIF=1:100-500 (Paraffin sections need antigen repair)
	not yet tested in other applications.
	optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	53kDa
Cellular localization:	cytoplasmicThe cell membraneSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human LPL protein:301-400/475
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized
	antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	<u>PubMed</u>
Product Detail:	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, Jul 2008]

Function:

The primary function of this lipase is the hydrolysis of triglycerides of circulating chylomicrons and very low density lipoproteins (VLDL). Binding to heparin sulfate proteogylcans at the cell surface is vital to the function. The apolipoprotein, APOC2, acts as a coactivator of LPL activity in the presence of lipids on the luminal surface of vascular endothelium.

Subunit:

Homodimer. Interacts with APOC2; the interaction activates LPL activity in the presence of lipids. Interacts with GPIHBP1.

Subcellular Location:

Cell membrane, Lipid-anchor, GPI-anchor. Secreted. Note=Locates to the plasma membrane of microvilli of hepatocytes with triacyl-glycerol-rich lipoproteins (TRL). Some of the bound LPL is then internalized and located inside non-coated endocytic vesicles.

Tissue Specificity:

Detected in intestinal microvilli, hair cell stereocilia, and fibroblast filopodia, in spleen and other lymph node-containing organs. Expressed in peripheral blood T lymphocytes, neutrophils, monocytes, B lymphocytes, and myeloid cells.

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.

Similarity:

Belongs to the AB hydrolase superfamily. Lipase family. Contains 1 PLAT domain.

SWISS:

P06858

Gene ID:

4023

Database links:

Entrez Gene: 280843Cow

Entrez Gene: 4023Human

Entrez Gene: 16956Mouse

Omim: 238600Human

SwissProt: P11151Cow

SwissProt: P06858Human

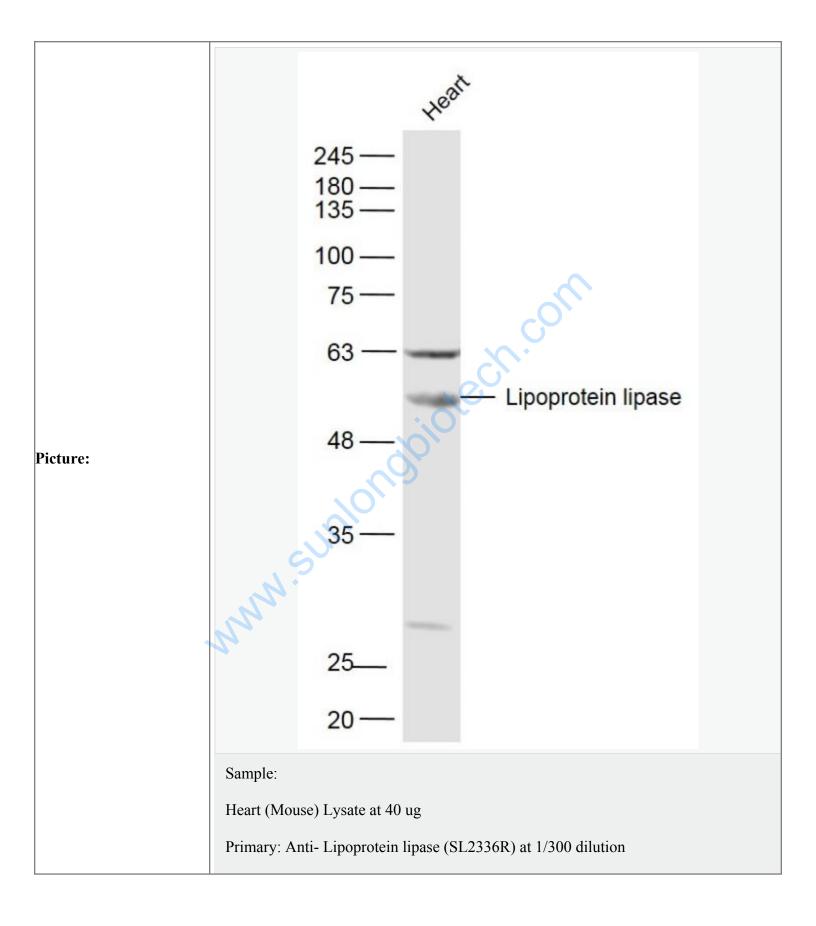
SwissProt: P11152Mouse

Unigene: 180878Human

Unigene: 1514Mouse

Important Note:

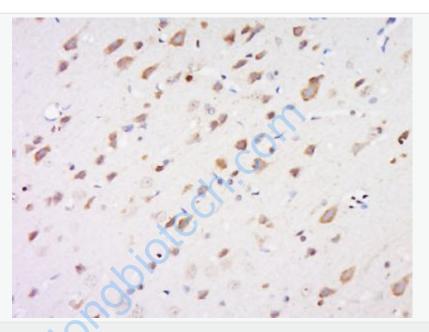
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



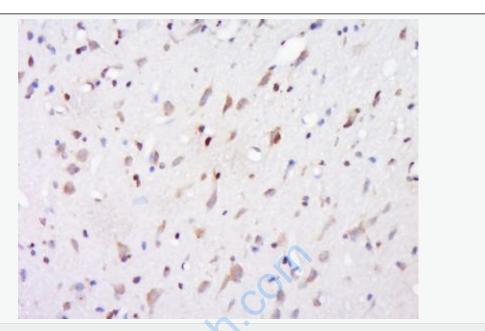
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 53 kD

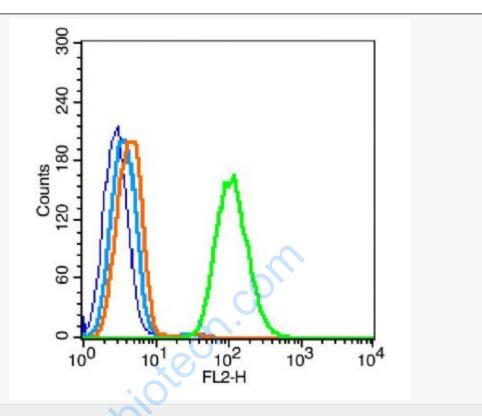
Observed band size: 53 kD



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Lipoprotein lipase) Polyclonal Antibody, Unconjugated (SL2336R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



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Blank control (blue line): raji(fixed with pre-warmed 4% paraformaldehyde for 30min at 37°C and then permeabilized with 90% ice-cold methanol for 30 min on ice)

Primary Antibody (green line): Rabbit Anti-Lipoprotein lipase antibody (SL2336R), Dilution: 0.2µg/10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG.

Secondary Antibody (white blue line): Goat anti-rabbit IgG-PE,Dilution: $1\mu g$ /test.