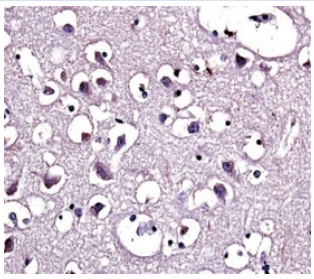
Lipoprotein Lipase Antibody / Fatty Acid Mobilization Protein Antibody (F43589)

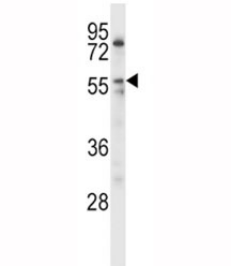
Catalog No.	Formulation	Size
F43589-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F43589-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

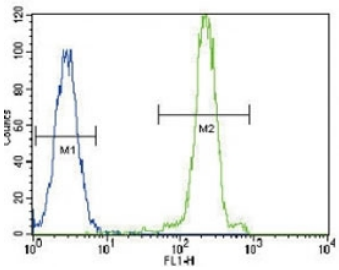
Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse, Rat, Bovine, Pig
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P06858
Applications	Western blot: 1:1000 IHC (Paraffin): 1:10-1:50 Flow Cytometry: 1:10-1:50
Limitations	This Lipoprotein Lipase Antibody / Fatty Acid Mobilization Protein Antibody is available for research use only.



Lipoprotein Lipase Antibody Human Brain IHC. Immunohistochemical staining of formalin-fixed, paraffin-embedded human brain tissue using Lipoprotein Lipase Antibody demonstrates cytoplasmic HRP-DAB brown staining within scattered neural cell populations against a background of neuropil-rich tissue architecture. The staining pattern is consistent with expression of Lipoprotein Lipase (LPL), a key enzyme involved in triglyceride hydrolysis, fatty acid mobilization, and lipid utilization. LPL contributes to lipid processing pathways that support cellular energy balance and membrane maintenance, processes that are particularly important in metabolically active tissues. The observed staining supports the role of LPL in regulating lipid availability and fatty acid utilization within the central nervous system.



Lipoprotein Lipase Antibody HL-60 Western Blot. Western blot analysis of HL-60 cell lysate using Lipoprotein Lipase Antibody demonstrates a distinct band at approximately 55 kDa, consistent with expression of Lipoprotein Lipase (LPL). LPL is a key enzyme involved in triglyceride hydrolysis, fatty acid mobilization, and lipid utilization, facilitating the release of free fatty acids from circulating lipoproteins for cellular uptake and metabolic activity. Detection of LPL in HL-60 cells supports its role in pathways governing lipid handling, energy metabolism, and cellular nutrient utilization. The observed signal at the expected molecular weight provides validation of target recognition by the antibody.



Lipoprotein Lipase Antibody HeLa Cell FACS. Flow cytometric analysis of HeLa cells using Lipoprotein Lipase Antibody demonstrates a pronounced rightward shift of the positive cell population (green) relative to the negative control (blue), consistent with expression of Lipoprotein Lipase (LPL). LPL is a key enzyme involved in triglyceride hydrolysis, fatty acid mobilization, and lipid utilization, facilitating the release of free fatty acids from circulating lipoproteins for cellular uptake and metabolic activity. Detection of LPL by flow cytometry supports its role in cellular lipid handling and nutrient utilization pathways. FITC-conjugated goat anti-rabbit secondary antibody was used for signal detection.

Description

Lipoprotein Lipase antibody is useful for studying Lipoprotein Lipase (LPL), a key extracellular enzyme that regulates lipid utilization by hydrolyzing triglycerides present within circulating lipoproteins. This process releases free fatty acids that can be transported into cells and utilized for energy production, membrane synthesis, signaling pathways, and lipid storage. Through its central role in fatty acid mobilization, LPL helps coordinate the distribution of metabolic fuel throughout the body and supports the energy requirements of numerous tissues.

LPL functions at the interface between circulating lipoproteins and peripheral tissues, where it controls the availability of fatty acids derived from triglyceride-rich particles. By regulating the liberation of fatty acids from lipoproteins, LPL influences cellular metabolism, nutrient utilization, growth, and tissue homeostasis. The enzyme therefore serves as a critical mediator linking lipid transport systems to intracellular metabolic demands.

As a fatty acid mobilization protein, LPL is essential for maintaining normal energy balance and lipid distribution. Fatty acids released through LPL activity can be oxidized to generate energy, incorporated into cellular membranes, or stored for future metabolic needs. Because efficient fatty acid delivery is required for normal physiologic function, LPL contributes to biologic processes associated with metabolism, development, tissue maintenance, and adaptation to changing nutritional conditions.

LPL has become an important target in studies of lipid metabolism, cardiovascular biology, obesity-associated pathways, metabolic regulation, and nutrient-responsive signaling networks. Alterations in fatty acid mobilization can influence lipid homeostasis, energy utilization, and tissue function, making LPL highly relevant to investigations of both normal physiology and disease-associated mechanisms. Analysis of LPL expression can therefore provide insight into pathways that govern lipid handling and cellular energy management.

Beyond its role in triglyceride hydrolysis, LPL participates in broader physiologic networks that influence lipid transport, metabolic adaptation, and nutrient partitioning among tissues. Because fatty acids serve as major energy substrates in many organs, proteins involved in fatty acid mobilization remain important subjects of investigation across multiple fields of biomedical research. These characteristics make LPL a valuable marker for studying lipid utilization and metabolic function.

Lipoprotein Lipase antibodies are commonly used in immunohistochemistry, western blotting, immunofluorescence, flow cytometry, and related protein detection applications. These reagents support investigations of fatty acid mobilization, lipid

metabolism, triglyceride processing, energy homeostasis, cardiovascular biology, and metabolic regulation. Lipoprotein Lipase antibody tools help researchers characterize the molecular pathways that control fatty acid availability and the mechanisms that govern lipid utilization within tissues.

Learn more about Lipoprotein Lipase function in lipid metabolism, triglyceride hydrolysis, fatty acid utilization, and metabolic regulation on our LPL Antibody page.

Application Notes

Titration of the Lipoprotein Lipase Antibody / Fatty Acid Mobilization Protein Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 300-327 from the human protein was used as the immunogen for this Lipoprotein Lipase / LPL antibody.

Storage

Aliquot the Lipoprotein Lipase / LPL antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

LPL Antibody, Triglyceride Lipase Antibody, Fatty Acid Mobilization Protein Antibody, Lipoprotein Processing Enzyme Antibody, Lipid Utilization Protein Antibody, Energy Metabolism Protein Antibody

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