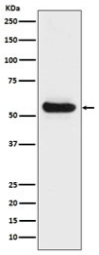
LPL Antibody / Lipid Metabolism Enzyme Antibody [clone ABDE-12] (RQ5165)

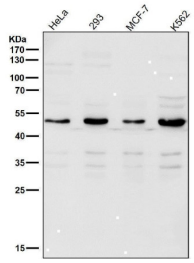
Catalog No.	Formulation	Size
RQ5165	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

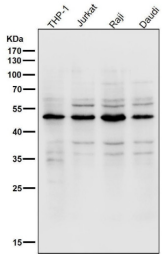
Availability	1-2 weeks
Species Reactivity	Human
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	ABDE-12
Purity	Affinity purified
UniProt	P06858
Applications	Western blot: 1:1000-1:5000
Limitations	This LPL Antibody / Lipid Metabolism Enzyme Antibody is available for research use only.



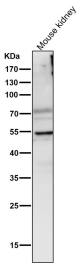
LPL Antibody Human Fetal Liver Western Blot. Western blot analysis of human fetal liver lysate using LPL Antibody / Lipid Metabolism Enzyme Antibody demonstrates a distinct band at approximately 53 kDa, consistent with the predicted molecular weight of Lipoprotein Lipase (LPL). LPL is a key enzyme involved 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 fetal liver tissue is consistent with the important role of lipid metabolism and nutrient processing during development, where efficient lipid utilization supports cellular growth, tissue maturation, and metabolic homeostasis.



LPL Antibody Multi-Cell Line Western Blot. Western blot analysis of human HeLa, HEK293, MCF-7, and K562 cell lysates using LPL Antibody demonstrates a prominent band at approximately 48-50 kDa across all tested cell lines, consistent with the expected molecular weight range 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 energy metabolism. Detection of LPL in multiple human cell lines supports its role in lipid processing and metabolic regulation across diverse cellular contexts. All lanes were probed using antibody diluted 1:2000 for 1 hour at room temperature.



LPL Antibody Hematopoietic Cell Line Western Blot. Western blot analysis of human THP-1, Jurkat, Raji, and Daudi cell lysates using LPL Antibody demonstrates a prominent band at approximately 48-50 kDa across all tested cell lines, 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 processes. Detection of LPL in monocyte-, T-cell-, and B-cell-derived cell lines supports its role in cellular lipid handling and energy metabolism across diverse hematopoietic cell populations. All lanes were probed using antibody diluted 1:2000 for 1 hour at room temperature.



LPL Antibody Mouse Kidney Western Blot. Western blot analysis of mouse kidney tissue lysate using LPL Antibody demonstrates a prominent 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 kidney tissue is consistent with the importance of lipid metabolism and energy homeostasis in renal physiology. Lane probed using antibody diluted 1:2000 for 1 hour at room temperature.

Description

LPL antibody is useful for studying Lipoprotein Lipase (LPL), a key enzyme involved in lipid metabolism and energy homeostasis. LPL catalyzes the hydrolysis of triglycerides contained within circulating chylomicrons and very low-density lipoproteins (VLDL), releasing free fatty acids that can be taken up and utilized by tissues for energy production, membrane synthesis, and lipid storage. Through this activity, LPL serves as a central regulator of lipid utilization and nutrient distribution throughout the body.

Lipoprotein Lipase is essential for maintaining normal lipid balance because it controls the availability of fatty acids derived from triglyceride-rich lipoproteins. By regulating lipid uptake and utilization, LPL influences cellular metabolism, energy production, tissue growth, and physiologic adaptation. The enzyme is particularly important in tissues with significant metabolic demands, where efficient fatty acid delivery is required to support normal cellular function and energy homeostasis.

As a lipid metabolism enzyme, LPL occupies a critical position at the interface between circulating lipid transport and cellular nutrient utilization. The protein contributes to pathways involved in fatty acid mobilization, lipid storage, metabolic regulation, and energy balance. Because lipid metabolism influences numerous biologic processes, LPL has become an important target in studies examining obesity, cardiovascular biology, metabolic disease, endocrine regulation, and nutrient-responsive signaling pathways.

Beyond its role in triglyceride hydrolysis, LPL participates in broader physiologic networks that influence tissue homeostasis, cellular growth, and metabolic adaptation. Proper regulation of lipid metabolism is required for normal development, maintenance of organ function, and responses to changing nutritional conditions. Consequently, alterations in LPL activity have been associated with disturbances in lipid handling and energy utilization, making the protein highly

relevant to investigations of metabolic health and disease-associated mechanisms.

LPL is widely studied in cardiovascular research because efficient lipoprotein processing is essential for maintaining normal circulating lipid levels and tissue lipid distribution. The enzyme also plays important roles in metabolic tissues where fatty acids serve as a major energy source. Analysis of LPL expression can therefore provide valuable insight into mechanisms that regulate lipid transport, nutrient utilization, and cellular metabolic activity.

LPL antibodies are commonly used in immunohistochemistry, western blotting, immunofluorescence, flow cytometry, and related protein detection applications. These reagents support investigations of lipid metabolism, fatty acid utilization, triglyceride processing, cardiovascular biology, metabolic regulation, and energy homeostasis. LPL antibody tools help researchers characterize the molecular pathways that govern lipid handling and the enzymatic processes that control nutrient availability within tissues.

Researchers studying lipid metabolism, fatty acid utilization, energy homeostasis, and nutrient-responsive signaling pathways may also be interested in our broader Metabolism Antibody collection.

Application Notes

Optimal dilution of the LPL Antibody / Lipid Metabolism Enzyme Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human Lipoprotein lipase / LPL was used as the immunogen for the LPL antibody.

Storage

Store the LPL antibody at -20oC.

Alternate Names

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

Copyright © NSJ Bioreagents. All rights reserved.