

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse Lipoprotein Lipase/LPL in Western blots. Detects human Lipoprotein Lipase/LPL in direct ELISAs and less than 1% cross-reactivity with recombinant human (rh) LIPG, rhLIPI, and rhPNLIPRP1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Lipoprotein Lipase/LPL Accession # P06858
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

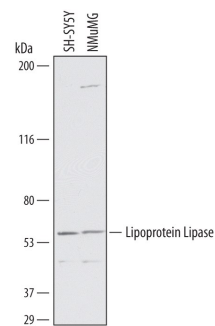
APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below
Immunohistochemistry	3-15 µg/mL	See Below

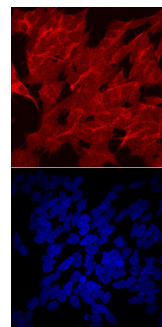
DATA

Western Blot



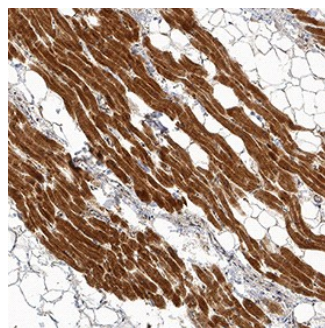
Detection of Human and Mouse Lipoprotein Lipase/LPL by Western Blot. Western blot shows lysates of SH-SY5Y human neuroblastoma cell line and NMuMG mouse mammary gland epithelial cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human Lipoprotein Lipase/LPL Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7197) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Lipoprotein Lipase/LPL at approximately 56 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

Immunocytochemistry



Lipoprotein Lipase/LPL in SH-SY5Y Human Cell Line. Lipoprotein Lipase/LPL was detected in immersion fixed SH-SY5Y human neuroblastoma cell line using Goat Anti-Human Lipoprotein Lipase/LPL Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7197) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red, upper panel; Catalog # NL001) and counterstained with DAPI (blue, lower panel). Specific staining was localized to cell surfaces and cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#). This application has not been tested in mouse samples.

Immunohistochemistry



Lipoprotein Lipase/LPL in Human Heart. Lipoprotein Lipase/LPL was detected in immersion fixed paraffin-embedded sections of human heart using Goat Anti-Human/Mouse Lipoprotein Lipase/LPL Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7197) at 3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Goat IgG VisUCyte™ HRP Polymer Antibody (Catalog # VC004). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cardiomyocytes. View our protocol for [IHC Staining with VisUCyte HRP Polymer Detection Reagents](#).

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

LPL (LipoProtein Lipase; also LIPD) is a 53-56 kDa glycoprotein member of the Lipase family, AB Hydrolase superfamily of molecules. It is produced by multiple cell types, including adipocytes, skeletal muscle cells and macrophages. Once secreted, the circulating enzyme ultimately becomes immobilized on the surface of endothelium by binding to cell surface heparan sulfate. Here, it hydrolyzes triglycerides embedded in chylomicrons and VLDLs by homodimerizing and interacting with apoC2. Mature human LPL is 448 amino acids (aa) in length. It contains an enzymatic region (aa 37-334) plus one protein-interaction PLAT domain (aa 341-465). Over aa 28-154, human LPL shares 91% aa identity with mouse LPL.