



Anti-Lipoprotein lipase monoclonal antibody, clone 6E3 [HRP] (DCABY-576)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

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| Antigen Description | A deficiency of LPL can result in hypertriglyceridemia, and many studies have focused on the critical role which LPL plays in the pathogenesis of atherosclerosis, and in particular the relationship between LPL and apolipoprotein E (ApoE), both of which are secreted in significant amounts by macrophages in developing arterial wall lesions. |
| Specificity | Mouse anti Lipoprotein Lipase antibody, clone 6E3 specifically recognizes an epitope within amino acids 380-410 of lipoprotein lipase (LPL), a member of the AB hydrolase superfamily, which plays a pivotal role in lipoprotein metabolism and transport, acting as the key enzyme in the hydrolysis of triglycerides and very low density lipoproteins (VLDLs), and the release of free fatty acids into peripheral tissues. Mouse anti Lipoprotein Lipase antibody, clone 6E3 is a unique antibody which differentiates between monomeric inactive and dimeric active LPL, and binds to LPL sequences involved in LPL, LPL receptor, and heparin interactions. Mouse anti Lipoprotein Lipase antibody, clone 6E3 has been shown to inhibit the activity of human LPL, and is widely used in human studies. |
| Target | Lipoprotein lipase |
| Immunogen | Purified bovine milk lipoprotein lipase |
| Isotype | IgG1 |
| Source/Host | Mouse |
| Species Reactivity | Bovine, Chicken, Guinea pig, Human, Rat |
| Clone | 6E3 |
| Conjugate | HRP |
| Applications | ELISA, Immunoprecipitation, Western Blot |

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| Preparation | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant |
| Format | Purified IgG conjugated to Horseradish Peroxidase (HRP) - liquid |
| Size | 100 µg |
| Buffer | Phosphate buffered saline |
| Preservative | None |
| Storage | Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. Should this product contain a precipitate we recommend microcentrifugation before use. |

GENE INFORMATION

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| Gene Name | LPL lipoprotein lipase [Bos taurus (cattle)] |
| Official Symbol | LPL |
| Synonyms | LPL; lipoprotein lipase |
| Entrez Gene ID | 280843 |
| Protein Refseq | NP_001068588 |
| UniProt ID | P11151 |
| Chromosome Location | chromosome: 8 |
| Pathway | Adipogenesis; Alzheimer's disease; Chylomicron-mediated lipid transport; Developmental Biology; Disease; Diseases associated with visual transduction; Fatty Acid Beta Oxidation; Glycerolipid metabolism; Lipid digestion, mobilization, and transport; Lipoprotein metabolism; Metabolism; Metabolism of lipids and lipoproteins; PPAR signaling pathway; Retinoid metabolism and transport; Signal Transduction; Statin Pathway; Transcriptional Regulation of White Adipocyte Differentiation; Triacylglyceride |
| Function | apolipoprotein binding;heparin binding;lipoprotein lipase activity;phospholipase activity;protein binding;receptor binding;triglyceride lipase activity |
| References | <ol style="list-style-type: none"> 1. Peterson, J. et al. (1992) Human lipoprotein lipase: relationship of activity, heparin affinity, and conformation as studied with monoclonal antibodies. J. Lipid Res. 33: 1165-1170. 2. Chang, S-F. et al. (1998) Detailed characterization of the binding site of the lipoprotein lipase-specific monoclonal antibody 5D2.J. Lipid Res. 39: 2350-2359. |

3. Hussain, M.M. et al. (2000) High affinity binding between lipoprotein lipase and lipoproteins involves multiple ionic and hydrophobic interactions, does not require enzyme activity, and is modulated by glycosaminoglycans. *J. Biol. Chem.* 275: 29324-29330.
