SANTA CRUZ BIOTECHNOLOGY, INC.

Endothelial Lipase (4A9): sc-517036

BACKGROUND

The Lipase gene family belongs to one of the most robust genetic superfamilies found in living organisms, which includes esterases and thioesterases. Members of the AB hydrolase subfamily include hepatic lipase (HL), endothelial lipase (EDL or EL), lipoprotein lipase (LPL), pancreatic lipase (PL), gastric lipase (GL) and LCAT. These family members play a crucial role in the metabolism of lipids. Defects in LPL may cause chylomicronemia syndrome or a form of lipoprotein lipase deficiency characterized by hypertriglyceridemia. Endothelial lipase, which also is known as endothelial cell-derived lipase, has both triglyceride and phospholipase activity. This protein, which is synthesized in endothelial cells, can bind heparin. It is expressed primarily in placenta, liver, thyroid, kidney, lung, testis and ovary tissue.

REFERENCES

1. Jaye, M., et al. 1999. A novel endothelial-derived lipase that modulates HDL metabolism. Nat. Genet. 21: 424-428.
2. McCoy, M.G., et al. 2002. Characterization of the lipolytic activity of Endothelial Lipase. J. Lipid Res. 43: 921-929.
3. Kojma, Y., et al. 2004. Endothelial Lipase modulates monocyte adhesion to the vessel wall. A potential role in inflammation. J. Biol. Chem. 279: 54032-54038.
4. Gauster, M., et al. 2005. Endothelial Lipase is inactivated upon cleavage by the members of the proprotein convertase family. J. Lipid Res. 46: 977-987.
5. Gauster, M., et al. 2005. Endothelial Lipase releases saturated and unsaturated fatty acids of high density lipoprotein phosphatidylcholine. J. Lipid Res. 46: 1517-1525.
6. Kratky, D., et al. 2005. Endothelial Lipase provides an alternative pathway for FFA uptake in lipoprotein lipase-deficient mouse adipose tissue. J. Clin. Invest. 115: 161-167.
7. Liu, T., et al. 2005. Human plasma N-glycoproteome analysis by immuno-affinity subtraction, hydrazide chemistry, and mass spectrometry. J. Proteome Res. 4: 2070-2080.

CHROMOSOMAL LOCATION

Genetic locus: LIPG (human) mapping to 18q21.1.

SOURCE

Endothelial Lipase (4A9) is a mouse monoclonal antibody raised against amino acids 21-500 representing full length Endothelial Lipase of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Endothelial Lipase (4A9) is recommended for detection of Endothelial Lipase of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Endothelial Lipase siRNA (h): sc-60581, Endothelial Lipase shRNA Plasmid (h): sc-60581-SH and Endothelial Lipase shRNA (h) Lentiviral Particles: sc-60581-V.

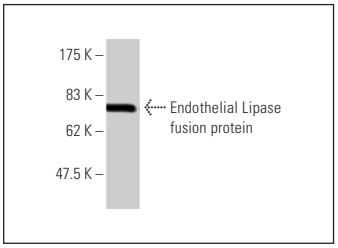
Molecular Weight of Endothelial Lipase: 55 kDa.

Positive Controls: Endothelial Lipase transfected 293T whole cell lysate.

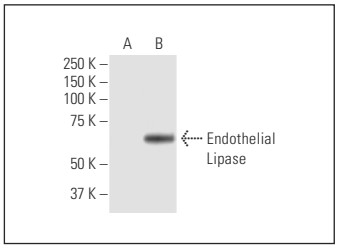
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Endothelial Lipase (4A9): sc-517036. Western blot analysis of human recombinant Endothelial Lipase fusion protein.



Endothelial Lipase (4A9): sc-517036. Western blot analysis of Endothelial Lipase expression in non-transfected (**A**) and Endothelial Lipase transfected (**B**) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.