

ELOVL5 (E-10): sc-398653

BACKGROUND

Elongation of very long chain fatty acid-like (ELOVL) proteins 1-6 are members of the ELO family of proteins, which play an important role in tissue-specific biosynthesis of very long chain fatty acids and sphingolipids. The ELOVL proteins act as catalysts in fatty acid elongation reduction and localize to the endoplasmic reticulum (ER). Elongation of very long chain fatty acids protein 5 (ELOVL5), also known as HELO1 (human elongase 1), is predominantly expressed in adrenal gland and testis, but is also found in lung, brain and prostate tissue. ELOVL5 participates in the elongation of monounsaturated and polyunsaturated fatty acids of 18 to 20 carbons and thereby regulates the activity of PPAR α . In addition, ELOVL5 localizes to the sebaceous glands of the pheromone-producing region of skin and may be associated with pheromone production and regulation.

REFERENCES

- Leonard, A.E., et al. 2000. Cloning of a human cDNA encoding a novel enzyme involved in the elongation of long-chain polyunsaturated fatty acids. *Biochem. J.* 350: 765-770.
- Inagaki, K., et al. 2002. Identification and expression of a rat fatty acid elongase involved in the biosynthesis of C18 fatty acids. *Biosci. Biotechnol. Biochem.* 66: 613-621.
- Leonard, A.E., et al. 2002. Identification and expression of mammalian long-chain PUFA elongation enzymes. *Lipids* 37: 733-740.
- Mamalakos, G., et al. 2004. Depression and adipose polyunsaturated fatty acids in an adolescent group. *Prostaglandins Leukot. Essent. Fatty Acids* 71: 289-294.

CHROMOSOMAL LOCATION

Genetic locus: *Elovl5* (mouse) mapping to 9 E1.

SOURCE

ELOVL5 (E-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 244-277 near the C-terminus of ELOVL5 of rat origin.

PRODUCT

Each vial contains 200 μ g IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ELOVL5 (E-10) is available conjugated to agarose (sc-398653 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398653 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398653 PE), fluorescein (sc-398653 FITC), Alexa Fluor[®] 488 (sc-398653 AF488), Alexa Fluor[®] 546 (sc-398653 AF546), Alexa Fluor[®] 594 (sc-398653 AF594) or Alexa Fluor[®] 647 (sc-398653 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-398653 AF680) or Alexa Fluor[®] 790 (sc-398653 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398653 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

ELOVL5 (E-10) is recommended for detection of ELOVL5 of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ELOVL5 siRNA (m): sc-62270, ELOVL5 shRNA Plasmid (m): sc-62270-SH and ELOVL5 shRNA (m) Lentiviral Particles: sc-62270-V.

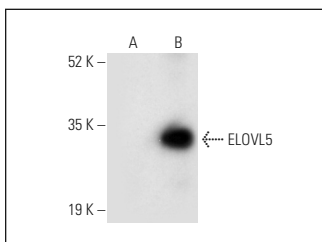
Molecular Weight of ELOVL5: 35 kDa.

Positive Controls: ELOVL5 (m): 293T Lysate: sc-120012.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



ELOVL5 (E-10): sc-398653. Western blot analysis of ELOVL5 expression in non-transfected: sc-117752 (A) and mouse ELOVL5 transfected: sc-120012 (B) 293T whole cell lysates.

STORAGE

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

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.

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