

ELOVL7 (V-25): sc-133545

BACKGROUND

Elongation of very long chain fatty acid-like (ELOVL) proteins 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. Fatty acids are important in many biological processes including fetal growth and development, brain development, inflammatory response and retinal function. The ELOVL proteins function as elongases and catalyze fatty acid elongation reduction and localize to the endoplasmic reticulum (ER). Elongation of very long chain fatty acids protein 7 (ELOVL7) is involved in lipogenesis and its expression is regulated by PPAR α . ELOVL7 is a 281 amino acid protein and the gene encoding ELOVL7 maps to chromosome 5q12.1.

REFERENCES

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2. Zhang, K., et al. 2001. A 5-bp deletion in ELOVL4 is associated with two related forms of autosomal dominant macular dystrophy. *Nat. Genet.* 27: 89-93.
3. Kohlwein, S.D., et al. 2001. Tsc13p is required for fatty acid elongation and localizes to a novel structure at the nuclear-vacuolar interface in *Saccharomyces cerevisiae*. *Mol. Cell. Biol.* 21: 109-125.
4. Moon, Y.A., et al. 2001. Identification of a mammalian long chain fatty acyl elongase regulated by sterol regulatory element-binding proteins. *J. Biol. Chem.* 276: 45358-45366.
5. Leonard, A.E., et al. 2002. Identification and expression of mammalian long-chain PUFA elongation enzymes. *Lipids* 37: 733-740.
6. Zhang, X.M., et al. 2003. ELOVL4 mRNA distribution in the developing mouse retina and phylogenetic conservation of ELOVL4 genes. *Mol. Vis.* 9: 301-307.
7. Jakobsson, A., et al. 2005. Differential regulation of fatty acid elongation enzymes in brown adipocytes implies a unique role for ELOVL3 during increased fatty acid oxidation. *Am. J. Physiol. Endocrinol. Metab.* 289: E517-E526.
8. Jakobsson, A., et al. 2006. Fatty acid elongases in mammals: their regulation and roles in metabolism. *Prog. Lipid Res.* 45: 237-249.
9. Liton, P.B., et al. 2006. Genome-wide expression profile of human trabecular meshwork cultured cells, nonglaucomatous and primary open angle glaucoma tissue. *Mol. Vis.* 12: 774-790.

STORAGE

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

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: ELOVL7 (human) mapping to 5q12.1.

SOURCE

ELOVL7 (V-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic ELOVL7 peptide of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

ELOVL7 (V-25) is recommended for detection of ELOVL7 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 ELOVL7 siRNA (h): sc-62273, ELOVL7 shRNA Plasmid (h): sc-62273-SH and ELOVL7 shRNA (h) Lentiviral Particles: sc-62273-V.

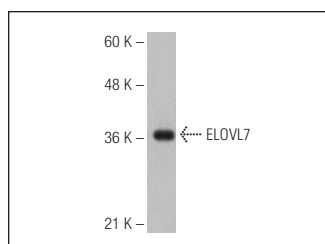
Molecular Weight of ELOVL7: 33 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), 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



ELOVL7 (V-25): sc-133545. Western blot analysis of ELOVL7 expression in Hep G2 whole cell lysate.

RESEARCH USE

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