ELOVL7 Antibody
Catalog # ASC11083

Specification

ELOVL7 Antibody - Product Information

Application	**WB, IHC, IF**
Primary Accession	**A1L3X0**
Other Accession	**NP_001098028, 157388949**
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**ELOVL7 antibody can be used for detection of ELOVL7 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.**

ELOVL7 Antibody - Additional Information

Gene ID	**79993**

Target/Specificity
ELOVL7;

Reconstitution & Storage
ELOVL7 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
ELOVL7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ELOVL7 Antibody - Protein Information

Name ELOVL7 {ECO:0000255|HAMAP-Rule:MF_03207}

Function
Catalyzes the first and rate-limiting reaction of the four reactions that constitute the long-chain fatty acids elongation cycle. This endoplasmic reticulum-bound enzymatic process allows the addition of 2 carbons to the chain of long- and very long-chain fatty acids (VLCFAs) per cycle. Condensing enzyme with higher activity toward C18 acyl-CoAs, especially C18:3(n-3) acyl-CoAs and C18:3(n-6)-CoAs. Also active toward C20:4-, C18:0-, C18:1-, C18:2- and C16:0-CoAs, and weakly toward C20:0-CoA. Little or no activity toward C22:0-, C24:0-, or C26:0-CoAs. May participate in the production of saturated and polyunsaturated VLCFAs of different chain lengths that are involved in multiple biological processes as precursors of membrane lipids and lipid mediators.

Cellular Location

Endoplasmic reticulum membrane {ECO:0000255|HAMAP-Rule:MF_03207, ECO:0000269|PubMed:20937905}; Multi- pass membrane protein {ECO:0000255|HAMAP-Rule:MF_03207}
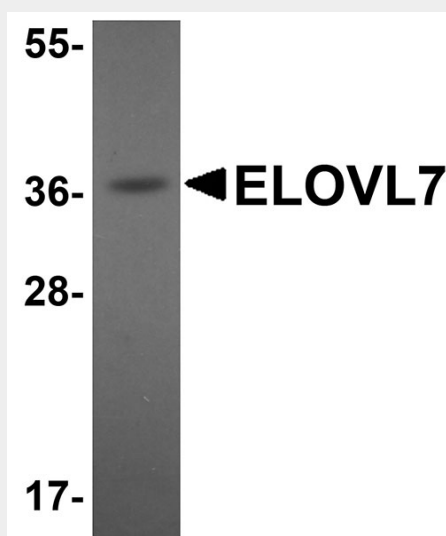
Tissue Location
Expressed in most tissues except heart and skeletal muscle.

ELOVL7 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
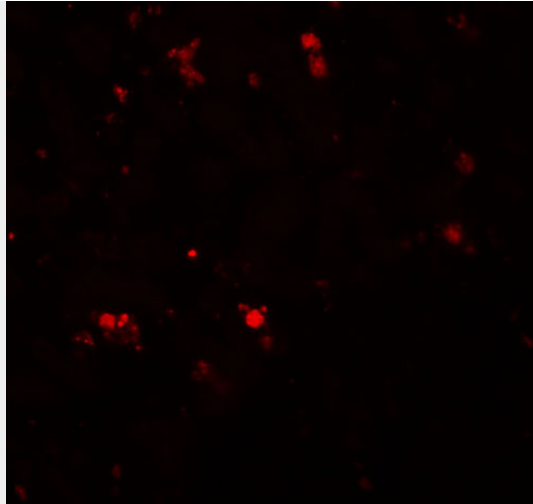- Flow Cytomety
- Cell Culture

ELOVL7 Antibody - Images

Western blot analysis of ELOVL7 in human liver tissue lysate with ELOVL7 antibody at 1 µg/mL.
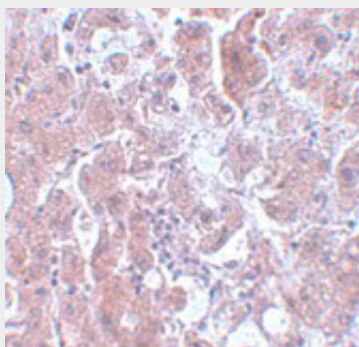
Immunohistochemistry of ELOVL7 in human liver tissue with ELOVL7 antibody at 5 µg/mL.

Immunofluorescence of ELOVL7 in human liver tissue with ELOVL7 antibody at 20 µg/mL.

ELOVL7 Antibody - Background

ELOVL7 Antibody: Lipogenesis is a key event in the energy storage system and is controlled by the transcription factor sterol regulatory element-binding protein (SREBP)-1. Elongation of very long chain fatty acids protein 7 (ELOVL7) is a member of fatty acyl-CoA elongase gene family that elongates saturated very-long-chain fatty acids (SVLFA, C20:0-) and has been suggested to be involved in prostate cancer growth through saturated long-chain fatty acid metabolism. The metabolic pathways of long-chain fatty acids play an important role in the maintenance of membrane lipid composition and the generation of cell signaling precursor molecules such as eicosanoids and sphingosine-1 phosphate. Overexpression of ELOVL7 results in lipid accumulation in differentiated adipocytes; its expression is regulated by the microRNA miR-219.

ELOVL7 Antibody - References

Tamura K, Makino A, Hullin-Matsuda F, et al. Novel lipogenic enzyme ELOVL7 is involved in prostate cancer growth through saturated long-chain fatty acid metabolism. Cancer Res.2009; 69:8133-40.
Leonard AE, Pereira SL, Sprecher H, et al. Elongation of long-chain fatty acids. Prog. Lipid Res.2004; 43:36-54.
Shin D, Shin JY, McManus MT, et al. Dicer ablation in oligodendrocytes provokes neuronal impairment in mice. Ann. Neurol.2009; 66:843-57.