

**ELOVL6 Antibody**  
Catalog # ASC10681**Specification****ELOVL6 Antibody - Product Information**

|                   |   |
|-------------------|---|
| Application       | WB, IHC, IF   |
| Primary Accession | <a href="#">O9H5J4</a>  |
| Other Accession   | <a href="#">NP_076995</a> , <a href="#">13129088</a>  |
| Reactivity        | Human, Mouse, Rat   |
| Host              | Rabbit  |
| Clonality         | Polyclonal  |
| Isotype           | IgG   |
| Calculated MW     | Predicted: 29 kDa   |
| Application Notes | Observed: 28 kDa KDa<br>ELOVL6 antibody can be used for detection of ELOVL6 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL. |

**ELOVL6 Antibody - Additional Information**

|                    |       |
|--------------------|-------|
| Gene ID            | 79071 |
| Target/Specificity |       |
| ELOVL6;            |       |

**Reconstitution & Storage**

ELOVL6 antibody can be stored at 4°C for three months and -20°C, 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**

ELOVL6 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**ELOVL6 Antibody - Protein Information**

**Name** ELOVL6 {ECO:0000255|HAMAP-Rule:MF\_03206}

**Synonyms** FACE, LCE

**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 that elongates fatty acids with 12, 14 and 16 carbons with higher activity toward C16:0 acyl-CoAs. Catalyzes the synthesis of unsaturated C16 long chain fatty acids and, to a lesser extent, C18:0 and those with low desaturation degree. May participate in the production

of saturated and monounsaturated 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\_03206, ECO:0000269|PubMed:20937905}; Multi-pass membrane protein {ECO:0000255|HAMAP-Rule:MF\_03206}

#### Tissue Location

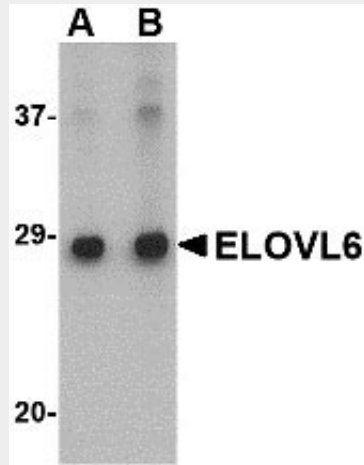
Ubiquitous..

### ELOVL6 Antibody - Protocols

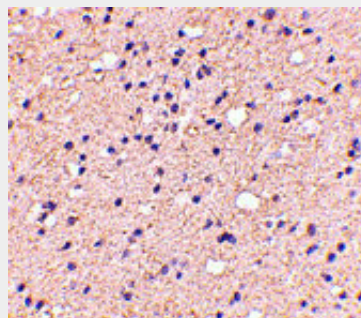
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

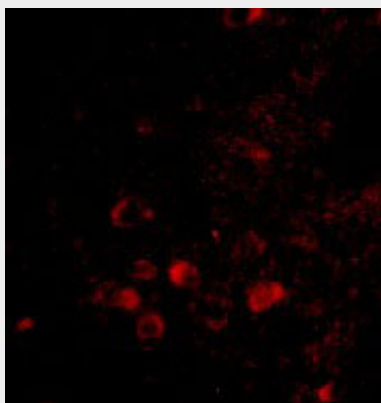
### ELOVL6 Antibody - Images



Western blot analysis of ELOVL6 in Human brain tissue lysate with ELOVL6 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of ELOVL6 in human brain tissue with ELOVL6 antibody at 5 µg/mL.



Immunofluorescence of ELOVL6 in Human Brain tissue with ELOVL6 antibody at 20 µg/mL.

### **ELOVL6 Antibody - Background**

**ELOVL6 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 6 (ELOVL6) is a member of fatty acyl-CoA elongase gene family that converts palmitic to stearic acid and it has been shown to be a target of SREBP-1, playing an important role in de novo synthesis of long-chain saturated and monosaturated fatty acids in conjunction with fatty acid synthase and stearoyl-CoA desaturase. ELOVL6 was predicted to be important for tissue fatty acid composition. Recent studies suggest that inhibition of this elongase could be a new therapeutic approach for ameliorating insulin resistance, diabetes and cardiovascular risks, even in the presence of a continuing state of obesity.

### **ELOVL6 Antibody - References**

Moon YA, Shah NA, Mohapatra S, et al. Identification of a mammalian long chain fatty acyl elongase regulated by sterol regulatory element-binding proteins. *J. Biol. Chem.* 2001; 276:45358-66.  
Matsuzaka T, Shimano H, Yahaqi N, et al. Cloning and characterization of a mammalian fatty acyl-CoA elongase as a lipogenic enzyme regulated by SREBPs. *J. Lipid Res.* 2002; 43:911-20.  
Matsuzaka T, Shimano H, Yahaqi N, et al. Crucial role of a long-chain fatty acid elongase, Elovl6, in obesity-induced insulin resistance. *Nat. Med.* 2007; 13:1193 -202.