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ELOVL5 Rabbit mAb

Catalog # AP74814

Product Information

Application	WB, FC
Primary Accession	Q9NYP7
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	35293

Additional Information

Gene ID	60481
Other Names	ELOVL5
Dilution	WB~~1:500-1:1000 FC~~1:20-1:50
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

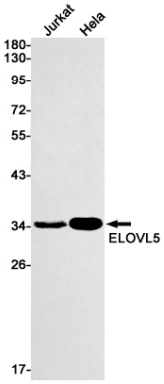
Name	ELOVL5 {ECO:0000255|HAMAP-Rule:MF_03205}
Synonyms	ELOVL2
Function	Catalyzes the first and rate-limiting reaction of the four reactions that constitute the long-chain fatty acids elongation cycle. This endoplasmic reticulum-bound enzymatic process allows the addition of 2 carbons to the chain of long- and very long-chain fatty acids (VLCFAs) per cycle. Condensing enzyme that acts specifically toward polyunsaturated acyl-CoA with the higher activity toward C18:3(n-6) acyl-CoA. May participate in the production of monounsaturated and of polyunsaturated VLCFAs of different chain lengths that are involved in multiple biological processes as precursors of membrane lipids and lipid mediators (By similarity) (PubMed:10970790, PubMed:20937905). In conditions where the essential linoleic and alpha linoleic fatty acids are lacking it is also involved in the synthesis of Mead acid from oleic acid (By similarity).

Cellular Location	Endoplasmic reticulum membrane {ECO:0000255|HAMAP-Rule:MF_03205, ECO:0000269|PubMed:20937905}; Multi- pass membrane protein {ECO:0000255|HAMAP-Rule:MF_03205}. Cell projection, dendrite {ECO:0000255|HAMAP-Rule:MF_03205, ECO:0000269|PubMed:25065913}. Note=In Purkinje cells, the protein localizes to the soma and proximal portion of the dendritic tree {ECO:0000255|HAMAP-Rule:MF_03205, ECO:0000269|PubMed:25065913}
Tissue Location	Ubiquitous. Highly expressed in the adrenal gland and testis. Weakly expressed in prostate, lung and brain. Expressed in the cerebellum.

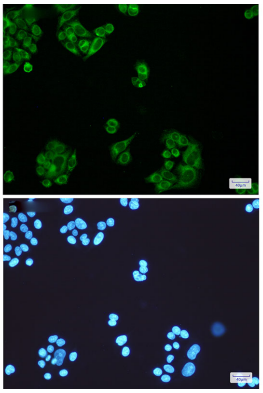
Background

Very long-chain fatty acid elongase 5 (ELOVL5) is a key enzyme for the endogenous synthesis of long-chain unsaturated fatty acids. A critical role of ELOVL5 in elongating fatty acid substrates ranging from 16 to 20 carbons was reported in humans and rodents (PMID: 29454701). ELOVL5 is involved in metastasis through lipid droplets-regulated TGF-β receptor expression and is a predictive biomarker of metastatic ER+ breast cancer (PMID: 36056008). Western blot analysis detected ELOVL51 at an apparent molecular mass of ~25 kDa (PMID: 36056008, 32527375).

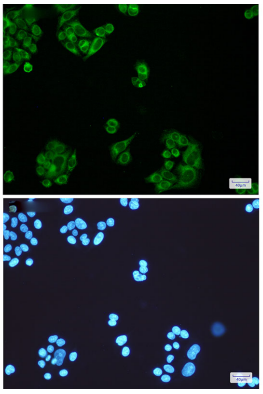
Images



Western blot analysis of ELOVL5 in Jurkat, Hela lysates using ELOVL5 antibody.



Immunocytochemistry analysis of ELOVL5(green) in Hela using ELOVL5 antibody,and DAPI(blue)



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