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ELOVL1 Rabbit pAb

Catalog # AP99292

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9BW60
Other Accession	Q9BW60
Reactivity	Rat
Predicted	Human, Mouse, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	32663
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human ELOVL1
Epitope Specificity	201-279/279
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the ELO family.
SUBUNIT	Interacts with LASS2, TECR and HSD17B12.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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 1 (ELOVL1), also referred to as Ssc1, is the human homolog of the yeast ELO3 protein. It is expressed in a variety of tissues and at especially high levels in stomach, skin, intestine, kidney and lung. ELOVL1 participates in the elongation of very long chain saturated and monounsaturated fatty acids of up to 26 carbons and may be required for the development of a barrier in epithelial cells and skin. ELOVL1 is also important for the formation of Myelin in the central nervous system. Impaired ELOVL1 activity may be associated with disorders of sphingolipid metabolism.

Additional Information

Gene ID	64834
Other Names	ELOV1_HUMAN; ELOVL1; 3-keto acyl-CoA synthase ELOVL1; ELOVL fatty acid elongase 1 (ELOVL FA elongase 1); Elongation of very long chain fatty acids protein 1; Very long chain 3-ketoacyl-CoA synthase 1; Very long chain 3-oxoacyl-CoA synthase 1; 2.3.1.199; SSC1; ELOV1_MOUSE; ELOVL fatty acid elongase 1; elongation of very long chain fatty acids (FEN1/Elo2, SUR4/Elo3, yeast)-like 1

Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	ELOVL1 (HGNC:14418)
Synonyms	SSC1
Function	Catalyzes the first and rate-limiting reaction of the four reactions that constitute the long-chain fatty acids elongation cycle (PubMed:29496980, PubMed:30487246). 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 exhibits activity toward saturated and monounsaturated acyl-CoA substrates, with the highest activity towards C22:0 acyl-CoA. May participate in the production of both saturated and monounsaturated VLCFAs of different chain lengths that are involved in multiple biological processes as precursors of membrane lipids and lipid mediators. Important for saturated C24:0 and monounsaturated C24:1 sphingolipid synthesis (PubMed:20937905). Indirectly inhibits RPE65 via production of VLCFAs.
Cellular Location	Endoplasmic reticulum membrane {ECO:0000255|HAMAP-Rule:MF_03201, ECO:0000269|PubMed:20937905, ECO:0000269|PubMed:30487246}; Multi-pass membrane protein {ECO:0000255|HAMAP-Rule:MF_03201}
Tissue Location	Ubiquitous.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.