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ACSL3 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16647b

Product Information

Application	WB, E
Primary Accession	O95573
Other Accession	Q63151, NP_976251.1, NP_004448.2
Reactivity	Human
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36192
Calculated MW	80420
Antigen Region	528-556

Additional Information

Gene ID	2181
Other Names	Long-chain-fatty-acid--CoA ligase 3, Long-chain acyl-CoA synthetase 3, LACS 3, ACSL3, ACS3, FACL3, LACS3
Target/Specificity	This ACSL3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 528-556 amino acids from the C-terminal region of human ACSL3.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ACSL3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ACSL3 (HGNC:3570)
Synonyms	ACS3, FACL3, LACS3

Function	Acyl-CoA synthetases (ACSL) activates long-chain fatty acids for both synthesis of cellular lipids, and degradation via beta- oxidation (PubMed:22633490). Required for the incorporation of fatty acids into phosphatidylcholine, the major phospholipid located on the surface of VLDL (very low density lipoproteins) (PubMed:18003621). Has mainly an anabolic role in energy metabolism. Mediates hepatic lipogenesis. Preferentially uses myristate, laurate, arachidonate and eicosapentaenoate as substrates. Both isoforms exhibit the same level of activity (By similarity).
Cellular Location	Mitochondrion outer membrane; Single-pass type III membrane protein. Peroxisome membrane; Single-pass type III membrane protein. Microsome membrane; Single-pass type III membrane protein. Endoplasmic reticulum membrane; Single-pass type III membrane protein

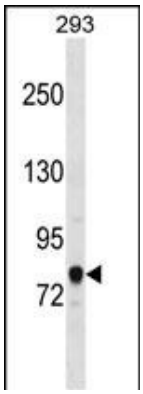
Background

The protein encoded by this gene is an isozyme of the long-chain fatty-acid-coenzyme A ligase family. Although differing in substrate specificity, subcellular localization, and tissue distribution, all isozymes of this family convert free long-chain fatty acids into fatty acyl-CoA esters, and thereby play a key role in lipid biosynthesis and fatty acid degradation. This isozyme is highly expressed in brain, and preferentially utilizes myristate, arachidonate, and eicosapentaenoate as substrates. The amino acid sequence of this isozyme is 92% identical to that of rat homolog. Two transcript variants encoding the same protein have been found for this gene.

References

Weedon-Fekjaer, M.S., et al. J. Lipid Res. 51(7):1886-1896(2010)
Cao, A., et al. J. Biol. Chem. 285(22):16664-16674(2010)
Perera, F., et al. PLoS ONE 4 (2), E4488 (2009) :
Yao, H., et al. J. Biol. Chem. 283(2):849-854(2008)
Jia, Z., et al. J. Mol. Neurosci. 33(1):25-31(2007)

Images



ACSL3 Antibody (C-term) (Cat. #AP16647b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the ACSL3 antibody detected the ACSL3 protein (arrow).