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Anti-ACSL1 Picoband Antibody

Catalog # ABO11643

Product Information

Application	WB, IHC-P
Primary Accession	P33121
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Long-chain-fatty-acid--CoA ligase 1(ACSL1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2180
Other Names	Long-chain-fatty-acid--CoA ligase 1, 6.2.1.3, Acyl-CoA synthetase 1, ACS1, Long-chain acyl-CoA synthetase 1, LACS 1, Long-chain acyl-CoA synthetase 2, LACS 2, Long-chain fatty acid-CoA ligase 2, Palmitoyl-CoA ligase 1, Palmitoyl-CoA ligase 2, ACSL1, FACL1, FACL2, LACS, LACS1, LACS2
Calculated MW	77943
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 □g/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 □g/ml, Human, Mouse, Rat
Subcellular Localization	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 .
Tissue Specificity	Highly expressed in liver, heart, skeletal muscle, kidney and erythroid cells, and to a lesser extent in brain, lung, placenta and pancreas. .
Source	Eukaryota
Protein Name	Long-chain-fatty-acid--CoA ligase 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E. coli-derived human ACSL1 recombinant protein (Position: D604-V698). Human ACSL1 shares 81.1% and 86.3% amino acid (aa) sequence identity with

	mouse and rat ACSL1, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

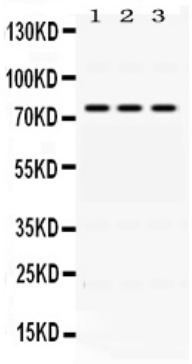
Protein Information

Name	ACSL1 (HGNC:3569)
Function	Catalyzes the conversion of long-chain fatty acids to their active form acyl-CoAs for both synthesis of cellular lipids, and degradation via beta-oxidation (PubMed:21242590, PubMed:22633490, PubMed:24269233). Preferentially uses palmitoleate, oleate and linoleate (PubMed:24269233). Preferentially activates arachidonate than epoxyeicosatrienoic acids (EETs) or hydroxyeicosatrienoic acids (HETEs) (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
Tissue Location	Highly expressed in liver, heart, skeletal muscle, kidney and erythroid cells, and to a lesser extent in brain, lung, placenta and pancreas.

Background

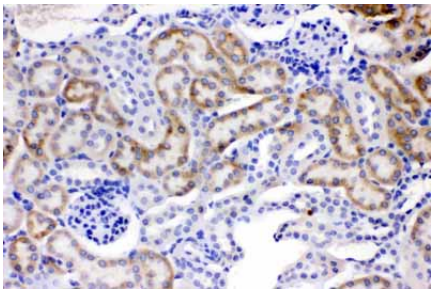
Long-chain-fatty-acid â€”CoA ligase 1 is an enzyme that in humans is encoded by the ACSL1 gene. The protein encoded by this gene is an isozyme of the long-chain fatty-acid-coenzyme A ligase family. Although differing in substrate specificity, subcellular localization, and tissue distribution, all isozymes 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. Several transcript variants encoding different isoforms have been found for this gene. This specific protein is most commonly found in mitochondria and peroxisomes.

Images

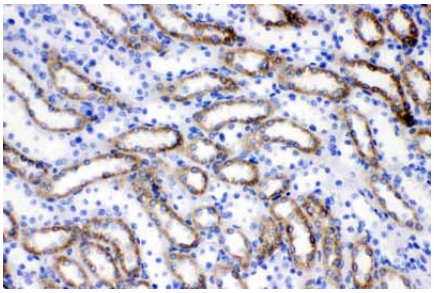


Western blot analysis of ACSL1 expression in rat liver extract (lane 1) HEPA whole cell lysates (lane 2) and A549 whole cell lysates (lane 3). ACSL1 at 78KD was detected using rabbit anti- ACSL1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11643) at 0.5 Â¼g/mL. The blot was developed using chemiluminescence (ECL) method .

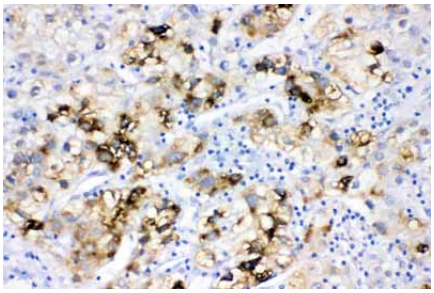
ACSL1 was detected in paraffin-embedded sections of mouse kidney tissues using rabbit anti- ACSL1 Antigen Affinity purified polyclonal antibody (Catalog #



ABO11643) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .



ACSL1 was detected in paraffin-embedded sections of rat kidney tissues using rabbit anti- ACSL1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11643) at 1 ??g/mL. The immunohistochemical section was developed using SABC method .



ACSL1 was detected in paraffin-embedded sections of human liver cancer tissues using rabbit anti- ACSL1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11643) at 1 □¼g/mL. The immunohistochemical section was developed using SABC method .

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