

Anti-ACSL1 Picoband Antibody
Catalog # ABO11643**Specification****Anti-ACSL1 Picoband Antibody - Product Information**

Application	WB, IHC
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.

Anti-ACSL1 Picoband Antibody - 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 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat
Western blot, 0.1-0.5 µg/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. .

Protein Name

Long-chain-fatty-acid--CoA ligase 1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

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 reconstitution, 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.

Anti-ACSL1 Picoband Antibody - 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](http://www.uniprot.org/citations/21242590), PubMed:[22633490](http://www.uniprot.org/citations/22633490), PubMed:[24269233](http://www.uniprot.org/citations/24269233)). Preferentially uses palmitoleate, oleate and linoleate (PubMed:[24269233](http://www.uniprot.org/citations/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

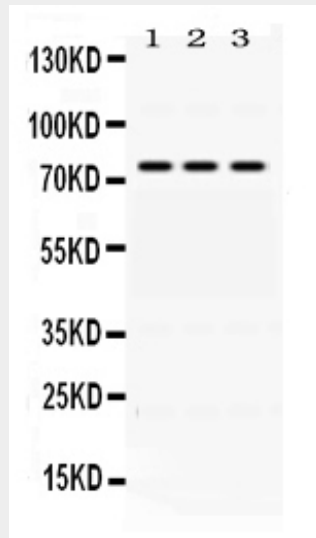
Highly expressed in liver, heart, skeletal muscle, kidney and erythroid cells, and to a lesser extent in brain, lung, placenta and pancreas.

Anti-ACSL1 Picoband Antibody - Protocols

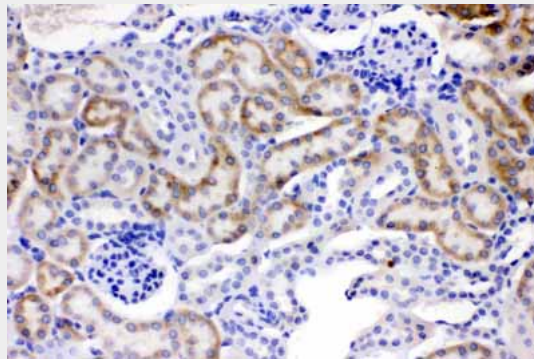
Provided below are standard protocols that you may find useful for product applications.

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

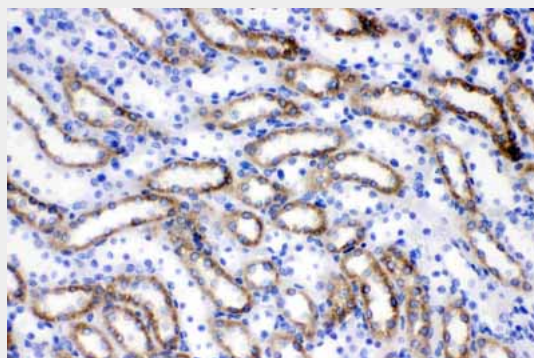
Anti-ACSL1 Picoband Antibody - Images



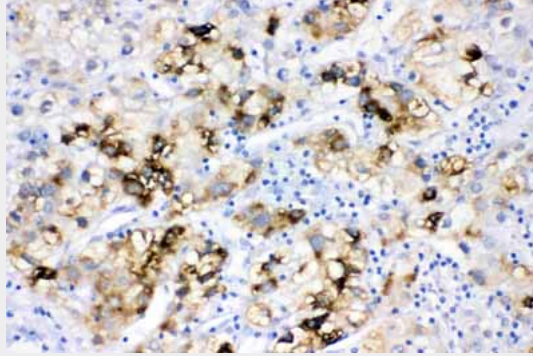
Western blot analysis of ACSL1 expression in rat liver extract (lane 1) HEPA whole cell lysates (lane 2) and A549 whole cell lysates (lane 3). ACSL1 at 78KD was detected using rabbit anti-ACSL1 Antigen Affinity purified polyclonal antibody (Catalog # ABO11643) at 0.5 μ g/mL. The blot was developed using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

Anti-ACSL1 Picoband Antibody - Background

Long-chain-fatty-acid-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.