

ACSL1 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP58260

Product Information

Application WB, IHC-P, IHC-F, IF, E

Primary Accession P33121

Reactivity Rat, Pig, Dog, Bovine

Host Rabbit Clonality Polyclonal Calculated MW 77943 **Physical State** Liquid

Immunogen KLH conjugated synthetic peptide derived from human ACSL1

501-600/698 **Epitope Specificity**

Isotype IgG

affinity purified by Protein A **Purity**

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SUBCELLULAR 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

SIMILARITY Belongs to the ATP-dependent AMP-binding enzyme family.

Important Note This product as supplied is intended for research use only, not for use in

human, therapeutic or diagnostic applications.

The protein encoded by this gene is an isozyme of the long-chain **Background Descriptions**

> 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. [provided by

RefSeq, Jul 2008].

Additional Information

Gene ID 2180

Other Names Long-chain-fatty-acid--CoA ligase 1, 6.2.1.3, Acyl-CoA synthetase 1, ACS1,

Arachidonate--CoA ligase, 6.2.1.15, ACSL1 (HGNC:3569)

Target/Specificity Highly expressed in liver, heart, skeletal muscle, kidney and erythroid cells,

and to a lesser extent in brain, lung, placenta and pancreas.

WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000 Dilution

-10000

Format 0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce **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 ACSL1 (<u>HGNC:3569</u>)

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:<u>21242590</u>, PubMed:<u>22633490</u>, PubMed:<u>24269233</u>). Preferentially uses palmitoleate, oleate and linoleate (PubMed:<u>24269233</u>). 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.

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