

Anti-ACSL3 Picoband Antibody

Catalog # ABO10325

Product Information

Application	WB
Primary Accession	O95573
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Long-chain-fatty-acid--CoA ligase 3(ACSL3) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2181
Other Names	Long-chain-fatty-acid--CoA ligase 3, 6.2.1.3, Long-chain acyl-CoA synthetase 3, LACS 3, ACSL3, ACS3, FACL3, LACS3
Calculated MW	80420
Application Details	Western blot, 0.1-0.5 µg/ml, Human
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 .
Source	Eukaryota
Protein Name	Long-chain-fatty-acid--CoA ligase 3
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Immunogen	E.coli-derived human ACSL3 recombinant protein (Position: M12-I224). Human ACSL3 shares 91.1% and 90.1% amino acid (aa) sequence identity with mouse and rat ACSL3, 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.

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

Long-chain-fatty-acid CoA ligase 3 is an enzyme that in humans is encoded by the ACSL3 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. 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.

Images



Western blot analysis of ACSL3 expression in HEPG2 whole cell lysates (lane 1). ACSL3 at 80KD was detected using rabbit anti- ACSL3 Antigen Affinity purified polyclonal antibody (Catalog # ABO10325) at 0.5 $\mu\text{g/mL}$. The blot was developed using chemiluminescence (ECL) method .

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