

ACSL1 (H-65): sc-98925

BACKGROUND

Acyl-CoA synthetases, also known as long-chain fatty-acid CoA synthases (FACL) or palmitoyl-CoA ligases, include ACSL1-6, which are all single-pass membrane proteins localizing to the mitochondrion, microsome or peroxisome. ACSL proteins are important for synthesis of cellular lipids and for β -oxidation degradation. Specifically, ACSL proteins catalyze the activation of long-chain fatty acids to acyl-CoAs, which can be metabolized to form CO_2 , triacylglycerol (TAG), phospholipids (PL) and cholesteryl esters (CE). ACSL1 is highly expressed in liver and preferentially utilizes palmitoleate, oleate and linoleate.

REFERENCES

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3. Muoio, D.M., Lewin, T.M., Wiedmer, P. and Coleman, R.A. 2000. Acyl-CoAs are functionally channeled in liver: potential role of acyl-CoA synthetase. *Am. J. Physiol. Endocrinol. Metab.* 279: E1366-E1373.
4. Lewin, T.M., Kim, J.H., Granger, D.A., Vance, J.E. and Coleman, R.A. 2001. Acyl-CoA synthetase isoforms 1, 4 and 5 are present in different subcellular membranes in rat liver and can be inhibited independently. *J. Biol. Chem.* 276: 24674-24679.
5. Coleman, R.A., Lewin, T.M., Van Horn, C.G. and Gonzalez-Baró, M.R. 2002. Do long-chain acyl-CoA synthetases regulate fatty acid entry into synthetic versus degradative pathways? *J. Nutr.* 132: 2123-2126.
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CHROMOSOMAL LOCATION

Genetic locus: ACSL1 (human) mapping to 4q35.1; Acs1 (mouse) mapping to 8 B1.1.

SOURCE

ACSL1 (H-65) is a rabbit polyclonal antibody raised against amino acids 1-65 mapping at the N-terminus of ACSL1 of human origin.

PRODUCT

Each vial contains 200 μg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

ACSL1 (H-65) is recommended for detection of ACSL1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μg per 100-500 μg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

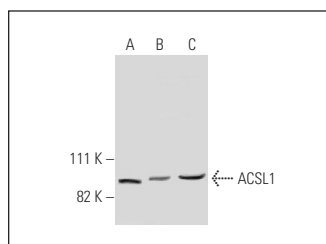
ACSL1 (H-65) is also recommended for detection of ACSL1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ACSL1 siRNA (h): sc-60615, ACSL1 siRNA (m): sc-60616, ACSL1 shRNA Plasmid (h): sc-60615-SH, ACSL1 shRNA Plasmid (m): sc-60616-SH, ACSL1 shRNA (h) Lentiviral Particles: sc-60615-V and ACSL1 shRNA (m) Lentiviral Particles: sc-60616-V.

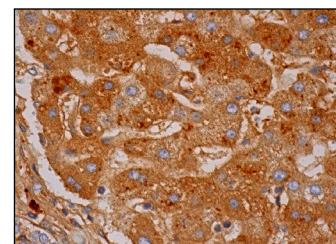
Molecular Weight of ACSL1: 78/83 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Raji whole cell lysate: sc-364236.

DATA



ACSL1 (H-65): sc-98925. Western blot analysis of ACSL1 expression in HeLa (A), Jurkat (B) and Raji (C) whole cell lysates.



ACSL1 (H-65): sc-98925. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes and Bile duct cells.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **ACSL1 (3G4): sc-293281**, our highly recommended monoclonal alternative to ACSL1 (H-65).