

ACSVL4 (C-15): sc-5835

BACKGROUND

Acyl-coenzyme A synthetases (ACSSs) are a large family of related enzymes known to catalyze the fundamental initial reaction in fatty acid metabolism. The ACS family is roughly characterized based on fatty acid chain length preference among different members. The nomenclature in the ACS family reflects this relationship and includes short-chain ACS (ACSS), medium-chain ACS (ACSM), long-chain ACS (ACSL) and very long-chain ACS (ACSVL). ACSVL family members are capable of activating both long-chain fatty acids (LCFAs) and very long-chain (VLCFAs) fatty acids. There are six members of the human ACSVL subfamily which have been described as solute carrier family 27A (SLC27A) gene products. They represent a group of evolutionarily conserved fatty acid transport proteins (FATPs) recognized for their role in facilitating translocation of long-chain fatty acids across the plasma membrane. The family nomenclature has recently been unified with their respective acyl-CoA synthetase family designations: ACSVL1 (FATP2), ACSVL2 (FATP6), ACSVL3 (FATP3), ACSVL4 (FATP4), ACSVL5 (FATP1) and ACSVL6 (FATP5). ACSVLs have unique expression patterns and are found in major organs of fatty acid metabolism, such as adipose tissue, liver, heart and kidney.

CHROMOSOMAL LOCATION

Genetic locus: SLC27A4 (human) mapping to 9q34.11; Slc27a4 (mouse) mapping to 2 B.

SOURCE

ACSVL4 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of ACSVL4 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.

Blocking peptide available for competition studies, sc-5835 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ACSVL4 (C-15) is recommended for detection of ACSVL4 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ACSVL4 (C-15) is also recommended for detection of ACSVL4 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ACSVL4 siRNA (h): sc-37094, ACSVL4 siRNA (m): sc-37095, ACSVL4 shRNA Plasmid (h): sc-37094-SH, ACSVL4 shRNA Plasmid (m): sc-37095-SH, ACSVL4 shRNA (h) Lentiviral Particles: sc-37094-V and ACSVL4 shRNA (m) Lentiviral Particles: sc-37095-V.

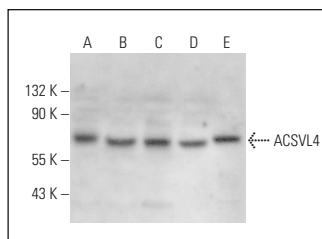
Molecular Weight of ACSVL4: 70 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, K-562 whole cell lysate: sc-2203 or Jurkat whole cell lysate: sc-2204.

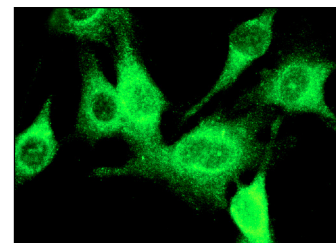
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ACSVL4 (C-15): sc-5835. Western blot analysis of ACSVL4 expression in HeLa (A), Jurkat (B), K-562 (C), Hep G2 (D) and PC-12 (E) whole cell lysates.



ACSVL4 (C-15): sc-5835. Immunofluorescence staining of methanol-fixed Sol8 cells showing membrane localization.

SELECT PRODUCT CITATIONS

- Herrmann, T., et al. 2004. Iron overload in adult Hfe-deficient mice independent of changes in the steady-state expression of the duodenal iron transporters DMT1 and Ireg1/ferroportin. *J. Mol. Med.* 82: 39-48.

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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **ACSVL4 (H-6): sc-393309** or **ACSVL4 (B-5): sc-101271**, our highly recommended monoclonal alternatives to ACSVL4 (C-15).