

ACSVL6 (C-8): sc-377374

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 amongst 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 (LCFAs) and very long-chain fatty acids (VLCFAs). There are six members of the human ACSVL sub-family 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 (FATP1), ACSVL5 (FATP4) 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.

REFERENCES

1. Schaffer, J.E., et al. 1994. Expression cloning and characterization of a novel adipocyte long chain fatty acid transport protein. *Cell* 79: 427-436.
2. Hirsch, D., et al. 1998. A family of fatty acid transporters conserved from mycobacterium to man. *Proc. Natl. Acad. Sci. USA* 95: 8625-8629.
3. Abumrad, N., et al. 1999. Membrane proteins implicated in long-chain fatty acid uptake by mammalian cells: CD36, FATP, FABPm. *Biochim. Biophys. Acta* 1441: 4-13.
4. Martin, G., et al. 2000. The human fatty acid transport protein-1 (SLC27A1; FATP-1) cDNA and gene: organization, chromosomal localization, and expression. *Genomics* 66: 296-304.

CHROMOSOMAL LOCATION

Genetic locus: SLC27A5 (human) mapping to 19q13.43.

SOURCE

ACSVL6 (C-8) is a mouse monoclonal antibody raised against amino acids 587-632 mapping near the C-terminus of ACSVL6 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ACSVL6 (C-8) is available conjugated to agarose (sc-377374 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377374 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377374 PE), fluorescein (sc-377374 FITC), Alexa Fluor® 488 (sc-377374 AF488), Alexa Fluor® 546 (sc-377374 AF546), Alexa Fluor® 594 (sc-377374 AF594) or Alexa Fluor® 647 (sc-377374 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377374 AF680) or Alexa Fluor® 790 (sc-377374 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

ACSVL6 (C-8) is recommended for detection of ACSVL6 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for ACSVL6 siRNA (h): sc-75000, ACSVL6 shRNA Plasmid (h): sc-75000-SH and ACSVL6 shRNA (h) Lentiviral Particles: sc-75000-V.

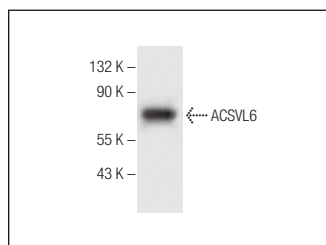
Molecular Weight of ACSVL6: 75 kDa.

Positive Controls: human liver extract: sc-363766.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



ACSVL6 (C-8): sc-377374. Western blot analysis of ACSVL6 expression in human liver tissue extract.

SELECT PRODUCT CITATIONS

1. Asimakopoulou, A., et al. 2020. Deletion of Perilipin 5 protects against hepatic injury in nonalcoholic fatty liver disease via missing inflammasome activation. *Cells* 9: 1346.

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.