SANTA CRUZ BIOTECHNOLOGY, INC.

ACSM3 (M-50): sc-134658

BACKGROUND

The acyl-CoA synthetase medium-chain (ACSM) family is comprised of ACSM1, ACSM2A, ACSM2B, ACSM3, ACSM4 and ACSM5, which encode for enzymes catalyzing the activation of medium-chain length fatty acids. ACSM3 is a 586 amino acid protein has a broad substrate specificity and utilizes magnesium as a cofactor. The gene encoding ACSM3 maps to human chromosome 16, which encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

REFERENCES

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3. Forabosco, P., et al. 2006. Meta-analysis of genome-wide linkage studies of systemic lupus erythematosus. Genes Immun. 7: 609-614.
4. Carneiro, L.A., et al. 2007. Nod-like receptors in innate immunity and inflammatory diseases. Ann. Med. 39: 581-593.
5. Gervasini, C., et al. 2007. High frequency of mosaic CREBBP deletions in Rubinstein-Taybi syndrome patients and mapping of somatic and germ-line breakpoints. Genomics 90: 567-573.
6. King, K., et al. 2007. Identification, evolution, and association study of a novel promoter and first exon of the human NOD2 (CARD15) gene. Genomics 90: 493-501.
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8. Tattoli, I., et al. 2007. The Nodosome: Nod1 and Nod2 control bacterial infections and inflammation. Semin. Immunopathol. 29: 289-301.
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CHROMOSOMAL LOCATION

Genetic locus: ACSM3 (human) mapping to 16p12.3; Acsm3 (mouse) mapping to 7 F2.

SOURCE

ACSM3 (M-50) is a rabbit polyclonal antibody raised against amino acids 1-50 mapping at the N-terminus of ACSM3 of mouse origin.

PRODUCT

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

APPLICATIONS

ACSM3 (M-50) is recommended for detection of ACSM3 of mouse, rat and, to a lesser extent, 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).

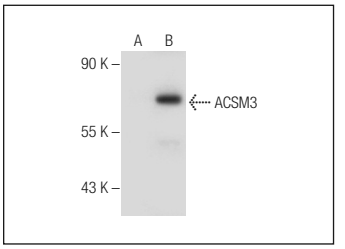
Suitable for use as control antibody for ACSM3 siRNA (h): sc-93546, ACSM3 siRNA (m): sc-140831, ACSM3 shRNA Plasmid (h): sc-93546-SH, ACSM3 shRNA Plasmid (m): sc-140831-SH, ACSM3 shRNA (h) Lentiviral Particles: sc-93546-V and ACSM3 shRNA (m) Lentiviral Particles: sc-140831-V.

Molecular Weight of ACSM3: 66/49 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ACSM3 (M-50): sc-134658. Western blot analysis of ACSM3 expression in non-transfected: sc-117752 (**A**) and human ACSM3 transfected: sc-173265 (**B**) 293T whole cell lysates.

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.