

# ACSM3 (H-60): sc-134657

## 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

1. Ben Hamida, C., et al. 1997. Homozygosity mapping of giant axonal neuropathy gene to chromosome 16q24.1. *Neurogenetics* 1: 129-133.
2. Karlsson, J., et al. 2003. Novel quantitative trait loci controlling development of experimental autoimmune encephalomyelitis and proportion of lymphocyte subpopulations. *J. Immunol.* 170: 1019-1026.
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. 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.
6. 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.

## CHROMOSOMAL LOCATION

Genetic locus: ACSM3 (human) mapping to 16p12.2; *Acs3* (mouse) mapping to 7 F2.

## SOURCE

ACSM3 (H-60) is a rabbit polyclonal antibody raised against amino acids 1-60 mapping at the N-terminus of ACSM3 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

ACSM3 (H-60) is recommended for detection of ACSM3 of human and, to a lesser extent, mouse and rat 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.

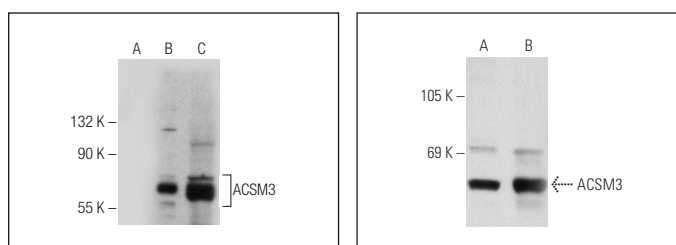
Molecular Weight of ACSM3: 66/49 kDa.

Positive Controls: A549 cell lysate: sc-2413, OV-90 whole cell lysate: sc-364191 or ACSM3 (h): 293T Lysate: sc-173265.

## 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 (H-60): sc-134657. Western blot analysis of ACSM3 expression in non-transfected: sc-117752 (A) and human ACSM3 transfected: sc-173265 (B) 293T whole cell lysates and mouse kidney tissue extract (C).

ACSM3 (H-60): sc-134657. Western blot analysis of ACSM3 expression in A549 (A) and OV-90 (B) whole cell lysates.

## RESEARCH USE

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