

ACSM4 (D-20): sc-244867

BACKGROUND

ACSM4 (acyl-CoA synthetase medium-chain family member 4), also known as acyl-coenzyme A synthetase ACSM4, mitochondrial, is a 580 amino acid protein belonging to the ATP-dependent AMP-binding enzyme family. Encoded by a gene that maps to human chromosome 12p13.31, ACSM4 participates in ATP binding, metal ion binding, nucleotide binding and butyrate-CoA ligase and fatty-acyl-CoA synthase activities. ACSM4 exhibits mitochondrial subcellular localization and uses magnesium or manganese as a cofactor. Containing a medium-chain fatty acid, ACSM4 functions in CoA ligase activity with broad substrate specificity (*in vitro*). ACSM4 also acts on acids from C₄ to C₁₁, as well as the corresponding 3-hydroxy- and 2,3- or 3,4-unsaturated acids (*in vitro*). ACSM4 also displays significant association with AIDS progression.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: *Acs4* (mouse) mapping to 7 F2.

SOURCE

ACSM4 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ACSM4 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.

Blocking peptide available for competition studies, sc-244867 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ACSM4 (D-20) is recommended for detection of ACSM4 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other ACSM family members.

ACSM4 (D-20) is also recommended for detection of ACSM4 in additional species, including equine.

Suitable for use as control antibody for ACSM4 siRNA (m): sc-140832, ACSM4 shRNA Plasmid (m): sc-140832-SH and ACSM4 shRNA (m) Lentiviral Particles: sc-140832-V.

Molecular Weight of ACSM4: 66 kDa.

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) 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.

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.