

# ACSS1 (V-16): sc-85256

## BACKGROUND

ACSS1 (acyl-CoA synthetase short-chain family member 1), also known as ACAS2L or AceCS2L, is a 689 amino acid protein that localizes to the mitochondrial matrix and belongs to the ATP-dependent AMP-binding enzyme family. Functioning primarily as a cardiac enzyme, ACSS1 catalyzes the ATP-dependent conversion of acetate and CoA (coenzyme A) to acetyl-CoA, which is then utilized for the oxidation of acetate within the tricarboxylic acid cycle. ACSS1 is expressed as two alternatively spliced isoforms and is encoded by a gene which maps to chromosome 20. Comprising approximately 2% of the human genome, chromosome 20 contains nearly 63 million bases that encode over 600 genes, some of which are associated with Creutzfeldt-Jakob disease, amyotrophic lateral sclerosis, spinal muscular atrophy, ring chromosome 20 epilepsy syndrome and Alagille syndrome.

## CHROMOSOMAL LOCATION

Genetic locus: ACSS1 (human) mapping to 20p11.21; *Acss1* (mouse) mapping to 2 G3.

## SOURCE

ACSS1 (V-16)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ACSS1 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85256 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

ACSS1 (V-16) is recommended for detection of ACSS1 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), immunohistochemistry (including paraffin-embedded sections) (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 ACSS2.

ACSS1 (V-16) is also recommended for detection of ACSS1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ACSS1 siRNA (h): sc-72439, ACSS1 siRNA (m): sc-140834, ACSS1 shRNA Plasmid (h): sc-72439-SH, ACSS1 shRNA Plasmid (m): sc-140834-SH, ACSS1 shRNA (h) Lentiviral Particles: sc-72439-V and ACSS1 shRNA (m) Lentiviral Particles: sc-140834-V.

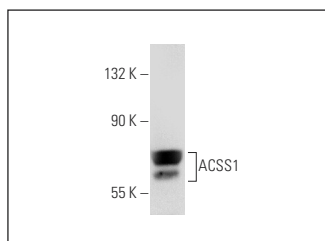
Molecular Weight of ACSS1: 75 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

## 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



ACSS1 (V-16): sc-85256. Western blot analysis of ACSS1 expression in NIH/3T3 whole cell lysate.

## RESEARCH USE

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

## PROTOCOLS

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


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Try **ACSS1 (D-7): sc-377149** or **ACSS1 (A-10): sc-373847**, our highly recommended monoclonal alternatives to ACSS1 (V-16).