

# ACSS1 (m2): 293T Lysate: sc-126384

## 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.

## REFERENCES

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4. Fujino, T., et al. 2001. Acetyl-CoA synthetase 2, a mitochondrial matrix enzyme involved in the oxidation of acetate. *J. Biol. Chem.* 276: 11420-11426.
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8. Elghezel, H., et al. 2007. Ring chromosome 20 syndrome without deletions of the subtelomeric and CHRNA4-KCNQ2 genes loci. *Eur. J. Med. Genet.* 50: 441-445.
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## CHROMOSOMAL LOCATION

Genetic locus: *Acsc1* (mouse) mapping to 2 G3.

## PRODUCT

ACSS1 (m2): 293T Lysate represents a lysate of mouse ACSS1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

## STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

ACSS1 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ACSS1 antibodies. Recommended use: 10-20 µl per lane.

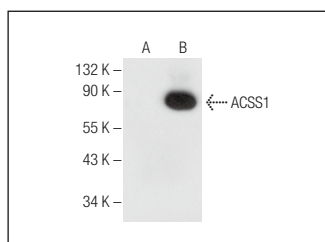
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ACSS1 (D-7): sc-377149 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse ACSS1 expression in ACSS1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

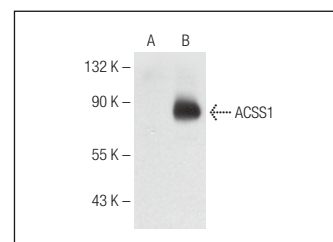
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA



ACSS1 (D-7): sc-377149. Western blot analysis of ACSS1 expression in non-transfected: sc-117752 (A) and mouse ACSS1 transfected: sc-126384 (B) 293T whole cell lysates.



ACSS1 (A-10): sc-373847. Western blot analysis of ACSS1 expression in non-transfected: sc-117752 (A) and mouse ACSS1 transfected: sc-126384 (B) 293T whole cell lysates.

## 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) for detailed protocols and support products.