SANTA CRUZ BIOTECHNOLOGY, INC.

AdSS1 (N-16): sc-30467

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Adenylosuccinate synthetase isozyme 1 (AdSS1), also known as IMP-aspartate ligase 1, is a cytoplasmic homodimer belonging to the adenylosuccinate synthetase family. The gene coding for the protein maps against chromosome 14q32.33. AdSS1 catalyses the committer step in the biosynthesis of AMP. It is a target for antibiotics, herbicides and antitumor drugs due to its importance in purine biosynthesis. AdSS1 is upregulated during muscle development and is highly expressed in muscle tissues such as skeletal muscle, tongue, heart and esophagus.

REFERENCES

1. Guicherit, O.M., et al. 1994. Amplification of an adenylosuccinate synthetase gene in alanosine-resistant murine T-lymphoma cells. Molecular cloning of a cDNA encoding the "non-muscle" isozyme. J. Biol. Chem. 269: 4488-4496.
2. Lewis, A.L., et al. 1996. Structure and expression of the murine muscle adenylosuccinate synthetase gene. J. Biol. Chem. 271: 22647-22656.

CHROMOSOMAL LOCATION

Genetic locus: ADSSL1 (human) mapping to 14q32.33; Adssl1 (mouse) mapping to 12 F1.

SOURCE

AdSS1 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of AdSS1 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.

Blocking peptide available for competition studies, sc-30467 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

AdSS1 (N-16) is recommended for detection of AdSS1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

AdSS1 (N-16) is also recommended for detection of AdSS1 in additional species, including bovine and porcine.

Suitable for use as control antibody for AdSS1 siRNA (h): sc-105046, AdSS1 siRNA (m): sc-140889, AdSS1 shRNA Plasmid (h): sc-105046-SH, AdSS1 shRNA Plasmid (m): sc-140889-SH, AdSS1 shRNA (h) Lentiviral Particles: sc-105046-V and AdSS1 shRNA (m) Lentiviral Particles: sc-140889-V.

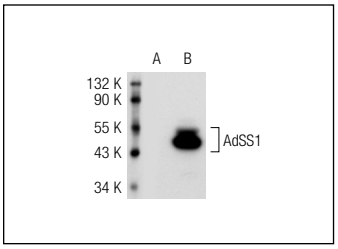
Molecular Weight of AdSS1: 48 kDa.

Positive Controls: rat skeletal muscle extract sc-364810, human skeletal muscle extract: sc-363776 or AdSS1 (h): 293T Lysate: sc-116225.

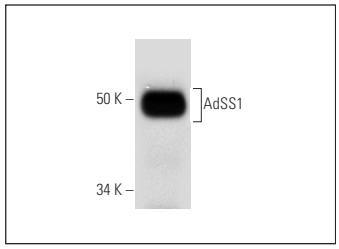
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



AdSS1 (N-16): sc-30467. Western blot analysis of AdSS1 expression in non-transfected: sc-117752 (**A**) and human AdSS1 transfected: sc-116225 (**B**) 293T whole cell lysates.



AdSS1 (N-16): sc-30467. Western blot analysis of AdSS1 expression in human skeletal muscle tissue extract.

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.