

AdSS1 (K-12): sc-30468

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

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3. Wang, W., et al. 1997. Relationship of conserved residues in the IMP binding site to substrate recognition and catalysis in *Escherichia coli* adenylosuccinate synthetase. *J. Biol. Chem.* 272: 16911-16916.
4. Lewis, A.L., et al. 1999. Combinatorial interactions regulate cardiac expression of the murine adenylosuccinate synthetase 1 gene. *J. Biol. Chem.* 274: 14188-14197.
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6. Wen, H.Y., et al. 2002. The adenylosuccinate synthetase-1 gene is activated in the hypertrophied heart. *J. Cell. Mol. Med.* 6: 235-243.
7. Iancu, C.V., et al. 2002. IMP, GTP, and 6-phosphoryl-IMP complexes of recombinant mouse muscle adenylosuccinate synthetase. *J. Biol. Chem.* 277: 26779-26787.

CHROMOSOMAL LOCATION

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

SOURCE

AdSS1 (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region 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-30468 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

AdSS1 (K-12) 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), 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 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.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.


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Satisfaction
Guaranteed

Try **AdSS1 (G-9): sc-166401** or **AdSS1 (H-2): sc-166470**, our highly recommended monoclonal alternatives to AdSS1 (K-12).