SANTA CRUZ BIOTECHNOLOGY, INC.

AdSS2 (N-11): sc-33327

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cellular signal transduction pathways are initiated by the binding of external signals, such as steroids, charged-small molecules or proteins, to their respective receptors. These signaling pathways are important in eliciting a cellular response to external stimuli. Proteins involved in signaling pathways may have several different regulatory and/or enzymatic functions, including recruitment, activation, phosphorylation, maintenance and transport. Mutations in these pathways may be implicated in a variety of diseases, suggesting that these intermediary proteins may be potential therapeutic targets. Adenylosuccinate synthetase 2 (AdSS2 or AMPSase 2) is important in the AMP biosynthesis pathway (purine nucleotide biosynthesis). It is a cytoplasmic protein that belongs to the adenylosuccinate synthetase family of proteins. AdSS2 can form homodimers.

REFERENCES

1. Powell, S.M., et al. 1992. Cloning and characterization of the cDNA encoding human adenylosuccinate synthetase. FEBS Lett. 303: 4-10.
2. Xia, Y., et al. 2000. Electrical stimulation of neonatal cardiac myocytes activates the NFAT3 and GATA4 pathways and up-regulates the adenylosuccinate synthetase 1 gene. J. Biol. Chem. 275: 1855-1863.
3. Iancu, C.V., et al. 2002. Feedback inhibition and product complexes of recombinant mouse muscle adenylosuccinate synthetase. J. Biol. Chem. 277: 40536-40543.
4. Wen, H.Y., et al. 2002. The adenylosuccinate synthetase 1 gene is activated in the hypertrophied heart. J. Cell. Mol. Med. 6: 235-243.
5. Mahnke, D.K., et al. 2005. Calcium activates erythrocyte AMP deaminase [isoform E (AMPD3)] through a protein-protein interaction between calmodulin and the N-terminal domain of the AMPD3 polypeptide. Biochemistry 44: 5551-5559.

CHROMOSOMAL LOCATION

Genetic locus: ADSS (human) mapping to 1q44; Adss (mouse) mapping to 1 H4.

SOURCE

AdSS2 (N-11) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of AdSS2 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-33327 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

AdSS2 (N-11) is recommended for detection of AdSS2 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).

AdSS2 (N-11) is also recommended for detection of AdSS2 in additional species, including bovine and porcine.

Suitable for use as control antibody for AdSS2 siRNA (h): sc-44960, AdSS2 siRNA (m): sc-44961, AdSS2 shRNA Plasmid (h): sc-44960-SH, AdSS2 shRNA Plasmid (m): sc-44961-SH, AdSS2 shRNA (h) Lentiviral Particles: sc-44960-V and AdSS2 shRNA (m) Lentiviral Particles: sc-44961-V.

Molecular Weight of AdSS2: 91 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.

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.