

ACSBG2 (S-16): sc-162481

BACKGROUND

ACSBG2 (acyl-CoA synthetase bubblegum family member 2), also known as BGR, BRGL or PRDNY3, is a 666 amino acid protein belonging to the ATP-dependent AMP-binding enzyme family and the bubblegum subfamily. Encoded by a gene that maps to human chromosome 19p13.3, ACSBG2 exhibits testis-specific expression; highest levels are found in adult testis, with weak to moderate levels in fetal and elderly testis. Existing as four alternatively spliced isoforms, ACSBG2 localizes to cytoplasm and peripheral membrane. ACSBG2 participates in ATP and nucleotide binding, acyl-CoA thioesterase activity, ligase activity and long-chain fatty acid-CoA ligase activity. ACSBG2 also mediates activation of long-chain fatty acids for both synthesis of cellular lipids and degradation via β -oxidation, and displays increased ability to activate oleic and linoleic acid. ACSBG2 may play a role in spermatogenesis.

REFERENCES

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- Fraisl, P., et al. 2006. A novel mammalian bubblegum-related acyl-CoA synthetase restricted to testes and possibly involved in spermatogenesis. *Arch. Biochem. Biophys.* 451: 23-33.
- Pei, Z., et al. 2006. The second member of the human and murine bubblegum family is a testis- and brainstem-specific acyl-CoA synthetase. *J. Biol. Chem.* 281: 6632-6641.
- Watkins, P.A., et al. 2007. Evidence for 26 distinct acyl-coenzyme A synthetase genes in the human genome. *J. Lipid Res.* 48: 2736-2750.
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- Pei, Z., et al. 2009. Acyl-CoA synthetase VL3 knockdown inhibits human glioma cell proliferation and tumorigenicity. *Cancer Res.* 69: 9175-9182.
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CHROMOSOMAL LOCATION

Genetic locus: ACSBG2 (human) mapping to 19p13.3.

SOURCE

ACSBG2 (S-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ACSBG2 of human origin.

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.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-162481 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ACSBG2 (S-16) is recommended for detection of ACSBG2 of 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); non cross-reactive with ACSBG1.

Suitable for use as control antibody for ACSBG2 siRNA (h): sc-97139, ACSBG2 shRNA Plasmid (h): sc-97139-SH and ACSBG2 shRNA (h) Lentiviral Particles: sc-97139-V.

Molecular Weight of ACSBG2: 74 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.