SANTA CRUZ BIOTECHNOLOGY, INC.

ACSL6 (G-20): sc-48004

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Acyl-CoA synthetases, also known as long-chain fatty-acid CoA synthases (FACL) or Palmitoyl-CoA ligases, include ACSL1-6, which are all single-pass membrane proteins localizing to the mitochondrion, microsome or peroxisome. ACSL proteins are important for synthesis of cellular lipids and for β-oxidation degradation. Specifically, ACSL proteins catalyze the activation of long-chain fatty acids to acyl-CoAs, which can be metabolized to form CO2, triacylglycerol (TAG), phospholipids (PL) and cholesteryl esters (CE). ACSL6 has been shown to be an ETV6 fusion partner gene in a recurrent t(5;12) (q31;p13) translocation in a patient with refractory anemia with excess blasts (RAEB) with basophilia, a patient with acute myelogenous leukemia (AML) with eosinophilia, and a patient with acute eosinophilic leukemia (AEL).

REFERENCES

1. Yagasaki, F., et al. 2000. Fusion of TEL/ETV6 to a novel ACS2 in myelodysplastic syndrome and acute myelogenous leukemia with t(5;12)(q31;p13). Genes Chromosomes Cancer 26: 192-202.
2. Malhotra, K.T., et al. 2000. Identification and molecular characterization of acyl-CoA synthetase in human erythrocytes and erythroid precursors. Biochem. J. 344: 135-143.
3. Muoio, D.M., et al. 2001. Acyl-CoAs are functionally channeled in liver: potential role of acyl-CoA synthetase. Am. J. Physiol. Endocrinol. Metab. 279: 1366-1373.
4. Coleman, R.A., et al. 2002. Do long-chain acyl-CoA synthetases regulate fatty acid entry into synthetic versus degradative pathways? J. Nutr. 132: 2123-2126.
5. Qiao, S. and Tuohimaa, P. 2004. The role of long-chain fatty-acid-CoA ligase 3 of prostate cancer LNCaP cell growth. Biochem. Biophys. Res. Commun. 319: 358-368.

CHROMOSOMAL LOCATION

Genetic locus: ACSL6 (human) mapping to 5q31.1; Acsl6 (mouse) mapping to 11 B1.3.

SOURCE

ACSL6 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ACSL6 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-48003 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

ACSL6 (G-20) is recommended for detection of ACSL6 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ACSL6 (G-20) is also recommended for detection of ACSL6 in additional species, including equine, canine, porcine and avian.

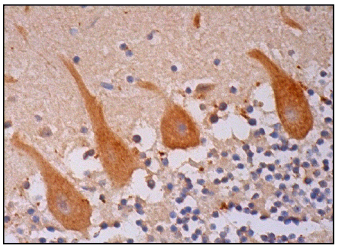
Suitable for use as control antibody for ACSL6 siRNA (h): sc-60623, ACSL6 siRNA (m): sc-60624, ACSL6 shRNA Plasmid (h): sc-60623-SH, ACSL6 shRNA Plasmid (m): sc-60624-SH, ACSL6 shRNA (h) Lentiviral Particles: sc-60623-V and ACSL6 shRNA (m) Lentiviral Particles: sc-60624-V.

Molecular Weight of ACSL6: 70 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



ACSL6 (G-20): sc-48004. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebellum tissue showing cytoplasmic staining of Purkinje cells, cells in granular layer and cells in molecular layer.

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.