SANTA CRUZ BIOTECHNOLOGY, INC.

LPAAT-β (Q-16): sc-68588

BACKGROUND

Phosphatidic acid and lysophosphatidic acid are phospholipids involved in lipid biosynthesis and signal transduction. LPAAT-β (lysophosphatidic acid acyltransferase, β), also known as AGPAT2, BSCL, BSCL1, LPAAB or 1-AGPAT2 (1-acylglycerol-3-phosphate O-acyltransferase 2), is a multi-pass membrane protein localized to the endoplasmic reticulum that catalyzes the synthesis of phosphatidic acid from lysophosphatidic acid. Predominantly expressed in heart and liver, LPAAT-β belongs to the LPAAT family of proteins that have a well-known role in lipid biosynthesis. In addition, LPAAT family members may also play a role in tumor progression. Mutations in the gene encoding LPAAT-β can result in the autosomal recessive disorder CGL1 (congenital generalized lipodystrophy type 1). CGL1, also known as Berardinelli-Seip congenital lipodystrophy type 1 (BSCL1), is a disorder characterized by Insulin resistance, early onset of diabetes, hepatic steatosis, scarcity of adipose tissue and hypertriglyceridemia.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Agpat2 (mouse) mapping to 2 A3.

SOURCE

LPAAT-β (Q-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of LPAAT-β of mouse 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-68588 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

LPAAT-β (Q-16) is recommended for detection of LPAAT-β of mouse and rat 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 LPAAT-β siRNA (m): sc-75690, LPAAT-β shRNA Plasmid (m): sc-75690-SH and LPAAT-β shRNA (m) Lentiviral Particles: sc-75690-V.

Molecular Weight of LPAAT-β: 31 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.

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.