SANTA CRUZ BIOTECHNOLOGY, INC.

Lipin-3 (C-19): sc-50056

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The Power to Question

BACKGROUND

The Lipin family of nuclear proteins contains three members: Lipin-1, Lipin-2 and Lipin-3, all of which contain a nuclear signal sequence, a highly conserved amino-terminal (NLIP) domain and a carboxy-terminal (CLIP) domain. Lipin-1 is crucial for normal adipose tissue development and metabolism. Lipin-1 selectively activates a subset of PGC-1α target pathways, including fatty acid oxidation and mitochondrial oxidative phosphorylation, by inducing expression of the nuclear receptor PPARα. Lipin-1 also inactivates the lipogenic program and suppresses circulating lipid levels. Lipin-2 is linked to Majeed syndrome, an autosomal recessive, autoinflammatory disorder. Lipin-3 is an 851 amino acid protein that localizes to the nucleus. Lipin-3 observations are useful in studies related to adipose tissue development in the context of obesity, fatty liver dystrophy, lipodystrophy, Insulin resistance and type 2 diabetes.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: LPIN3 (human) mapping to 20q12; Lpin3 (mouse) mapping to 2 H2.

SOURCE

Lipin-3 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Lipin-3 of human origin.

RESEARCH USE

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

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-50056 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Lipin-3 (C-19) is recommended for detection of Lipin-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

Lipin-3 (C-19) is also recommended for detection of Lipin-3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Lipin-3 siRNA (h): sc-60944, Lipin-3 siRNA (m): sc-60945, Lipin-3 shRNA Plasmid (h): sc-60944-SH, Lipin-3 shRNA Plasmid (m): sc-60945-SH, Lipin-3 shRNA (h) Lentiviral Particles: sc-60944-V and Lipin-3 shRNA (m) Lentiviral Particles: sc-60945-V.

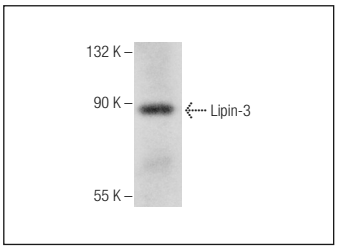
Molecular Weight of Lipin-3: 94 kDa.

Positive Controls: mouse heart extract: sc-2254.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



Lipin-3 (C-19): sc-50056. Western blot analysis of Lipin-3 expression in mouse heart tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.