

Lipin-1 (S-15): sc-50052

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-1 α target pathways, including fatty acid oxidation and mitochondrial oxidative phosphorylation, by inducing expression of the nuclear receptor PPAR α . Lipin-1 also inactivates the lipogenic program and suppresses circulating lipid levels. An abundance of Lipin-1 promotes fat accumulation and Insulin sensitivity, whereas a deficiency in Lipin-1 may deter normal adipose tissue development, resulting in Insulin resistance and lipodystrophy, a heterogeneous group of disorders characterized by loss of body fat, fatty liver, hypertriglyceridemia and Insulin resistance.

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CHROMOSOMAL LOCATION

Genetic locus: LPIN1 (human) mapping to 2p25.1; Lpin1 (mouse) mapping to 12 A1.1.

SOURCE

Lipin-1 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Lipin-1 of human origin.

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-50052 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Lipin-1 (S-15) is recommended for detection of Lipin-1 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).

Suitable for use as control antibody for Lipin-1 siRNA (h): sc-60940, Lipin-1 siRNA (m): sc-60941, Lipin-1 shRNA Plasmid (h): sc-60940-SH, Lipin-1 shRNA Plasmid (m): sc-60941-SH, Lipin-1 shRNA (h) Lentiviral Particles: sc-60940-V and Lipin-1 shRNA (m) Lentiviral Particles: sc-60941-V.

Molecular Weight of Lipin-1: 140 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.


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Try **Lipin-1 (B-12): sc-376874**, our highly recommended monoclonal alternative to Lipin-1 (S-15).