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. 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.

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: LPIN1 (human) mapping to 2p25.1; Lipin1 (mouse) mapping to 12 A1.1.

SOURCE

Lipin-1 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Lipin-1 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-50049 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

Lipin-1 (C-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), 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), 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).

Lipin-1 (C-15) is also recommended for detection of Lipin-1 in additional species, including equine and canine. 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: 102 kDa.

Positive Controls: Lipin-1 (h): 293T Lysate: sc-114816 or Jurkat whole cell lysate: sc-2204.

CHROMOSOMAL LOCATION

Genetic locus: LPIN1 (human) mapping to 2p25.1; Lipin1 (mouse) mapping to 12 A1.1.

SOURCE

Lipin-1 (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Lipin-1 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-50049 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

Lipin-1 (C-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), 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), 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).

Lipin-1 (C-15) is also recommended for detection of Lipin-1 in additional species, including equine and canine. 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: 102 kDa.

Positive Controls: Lipin-1 (h): 293T Lysate: sc-114816 or Jurkat whole cell lysate: sc-2204.

DATA

SELECT PRODUCT CITATIONS


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.

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