

Perilipin (K-13): sc-47320

BACKGROUND

The PAT (Perilipin, adipophilin, TIP47) family proteins are evolutionary related proteins associated with lipid droplets and implicated in intracellular lipid metabolism. The phosphoprotein Perilipin (Peri), also designated lipid droplet-associated protein, belongs to the Perilipin sub-family of proteins. It localizes on the surface of intracellular lipid droplets within adipocytes, where it protects lipid storage droplets by coating them in adipocytes until they are digested by hormone sensitive lipase (HSL), thereby modulating adipocyte lipid metabolism. As a critical regulator of lipolysis, elevated Perilipin levels have been linked to obesity as the absence results in leanness. When the protein is in its phosphorylated state, it is maximally sensitive to HSL.

REFERENCES

1. Qi, L., et al. 2004. Gender-specific association of a Perilipin gene haplotype with obesity risk in a white population. *Obes. Res.* 12: 1758-1765.
2. Tansey, J.T., et al. 2004. The central role of Perilipin a in lipid metabolism and adipocyte lipolysis. *IUBMB Life* 56: 379-385.

CHROMOSOMAL LOCATION

Genetic locus: PLIN1 (human) mapping to 15q26.1; Plin1 (mouse) mapping to 7 D3.

SOURCE

Perilipin (K-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Perilipin 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-515648 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Perilipin (K-13) is recommended for detection of Perilipin 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).

Perilipin (K-13) is also recommended for detection of Perilipin in additional species, including bovine.

Suitable for use as control antibody for Perilipin siRNA (h): sc-61322, Perilipin siRNA (m): sc-61323, Perilipin shRNA Plasmid (h): sc-61322-SH, Perilipin shRNA Plasmid (m): sc-61323-SH, Perilipin shRNA (h) Lentiviral Particles: sc-61322-V and Perilipin shRNA (m) Lentiviral Particles: sc-61323-V.

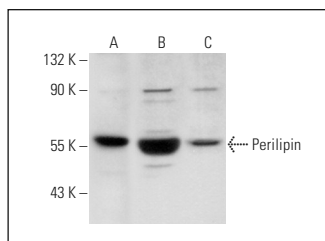
Molecular Weight of Perilipin: 57 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, KNRK whole cell lysate: sc-2214 or 3T3-L1 cell lysate: sc-2243.

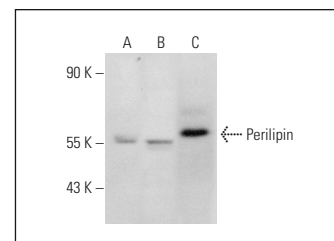
RECOMMENDED SECONDARY REAGENTS

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



Perilipin (K-13): sc-47320. Western blot analysis of Perilipin expression in 3T3-L1 (A), Hep G2 (B) and NIH/3T3 (C) whole cell lysates.



Perilipin (K-13): sc-47320. Western blot analysis of Perilipin expression in 3T3-L1 (A), Hep G2 (B) and KNRK (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Moreno-Castellanos, N., et al. 2015. The effects of bariatric surgery-induced weight loss on adipose tissue in morbidly obese women depends on the initial metabolic status. *Obes. Surg.* 26: 1757-1767.

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.



Try **Perilipin (G-2): sc-390169**, our highly recommended monoclonal alternative to Perilipin (K-13).