SANTA CRUZ BIOTECHNOLOGY, INC.

Perilipin (H-300): sc-67164

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The Power to Question

BACKGROUND

The PAT (Perilipin, adipophilin, TIP47) family proteins are evoluntionarily 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 subfamily 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.

CHROMOSOMAL LOCATION

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

SOURCE

Perilipin (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at the N-terminus 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.

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.

APPLICATIONS

Perilipin (H-300) 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), 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).

Perilipin (H-300) is also recommended for detection of Perilipin in additional species, including equine and porcine.

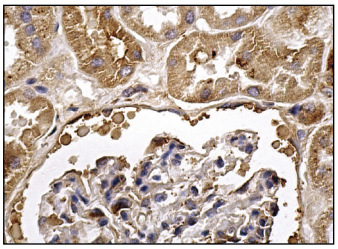
Suitable for use as control antibody for Perilipin siRNA (h): sc-61322, Perilipin siRNA (m): sc-61323, Perilipin shRNA Plasmid (h): sc-61322-SH, Perilipin shRNA Plasmid (m): sc-61323-SH, Perilipin shRNA (h) Lentiviral Particles: sc-61322-V and Perilipin shRNA (m) Lentiviral Particles: sc-61323-V.

Molecular Weight of Perilipin: 57 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Perilipin (H-300): sc-67164. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules.

SELECT PRODUCT CITATIONS

1. Akimoto, N., et al. 2005. Expression of perilipin A on the surface of lipid droplets increases along with the differentiation of hamster sebocytes *in vivo* and *in vitro*. J. Invest. Dermatol. 124: 1127-1133.
2. Chen, X., et al. 2010. β2-Adrenergic receptor desensitization in perirenal adipose tissue in fetuses and lambs with placental insufficiency-induced intrauterine growth restriction. J. Physiol. 588: 3539-3549.
3. Liu, L.R., et al. 2011. Serum amyloid A induces lipolysis by downregulating perilipin through ERK1/2 and PKA signaling pathways. Obesity 19: 2301-2309.
4. Swist, E., et al. 2011. Excess dietary iodine differentially affects thyroid gene expression in diabetes, thyroiditis-prone versus -resistant BioBreeding (BB) rats. Mol. Nutr. Food Res. 55: 1875-1886.
5. Galateanu, B., et al. 2012. Layer-shaped alginate hydrogels enhance the biological performance of human adipose-derived stem cells. BMC Biotechnol. 12: 35.

MONOS Satisfaction Guaranteed

Try **Perilipin (G-2): sc-390169**, our highly recommended monoclonal alternative to Perilipin (H-300).