

# ADRP (N-20): sc-32448

## BACKGROUND

Mannose 6-phosphate receptors (MPRs) deliver lysosomal hydrolase to endosomes from the Golgi and back again. Cargo selection protein TIP47, also designated placental protein 17, is required for the transport from endosomes to the *trans*-Golgi network and interacts with the cytoplasmic domains of both cation-dependent and cation-independent MPRs. Another member of the perilipin family, Adipophilin (ADRP), is a protein associated with the globule surface membrane material of milk lipid globules. The phosphoprotein Perilipin (Peri) is located 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 lipase. As a critical regulator of lipolysis, elevated Perilipin levels have been linked to obesity.

## REFERENCES

- Heid, H.W., et al. 1996. Adipocyte differentiation-related protein is secreted into milk as a constituent of milk lipid globule membrane. *Biochem. J.* 320: 1025-1030.
- Souza, S.C., et al. 2002. Modulation of hormone-sensitive lipase and protein kinase A-mediated lipolysis by perilipin A in an adenoviral reconstituted system. *J. Biol. Chem.* 277: 8267-8272.
- Kern, P.A., et al. 2004. Perilipin expression in human adipose tissue is elevated with obesity. *J. Clin. Endocrinol. Metab.* 89: 1352-1358.
- Elchalal, U., et al. 2005. Insulin and fatty acids regulate the expression of the fat droplet-associated protein adipophilin in primary human trophoblasts. *Am. J. Obstet. Gynecol.* 193: 1716-1723.
- Wolins, N.E., et al. 2005. S3-12, Adipophilin, and TIP47 package lipid in adipocytes. *J. Biol. Chem.* 280: 19146-19155.
- Gross, D.N., et al. 2005. Dynamics of lipid droplet associated proteins during hormonally stimulated lipolysis in engineered adipocytes: stabilization and lipid droplet binding of ADRP/adipophilin. *Mol. Endocrinol.* 20: 459-466.

## CHROMOSOMAL LOCATION

Genetic locus: ADRP (human) mapping to 9p22.1; Adfp (mouse) mapping to 4 C4.

## SOURCE

ADRP (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of ADRP 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-32448 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

ADRP (N-20) is recommended for detection of ADRP 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), 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).

ADRP (N-20) is also recommended for detection of ADRP in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for ADRP siRNA (h): sc-44841, ADRP siRNA (m): sc-44842, ADRP shRNA Plasmid (h): sc-44841-SH, ADRP shRNA Plasmid (m): sc-44842-SH, ADRP shRNA (h) Lentiviral Particles: sc-44841-V and ADRP shRNA (m) Lentiviral Particles: sc-44842-V.

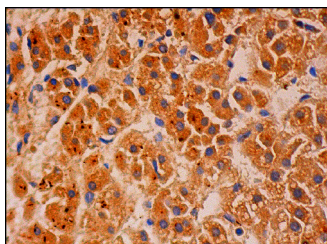
Molecular Weight of ADRP: 48 kDa.

Positive Controls: human liver extract: sc-363766.

## 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



ADRP (N-20): sc-32448. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

## RESEARCH USE

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

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Try **ADRP (B-6): sc-377429**, our highly recommended monoclonal alternative to ADRP (N-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **ADRP (B-6): sc-377429**.