

# ADRP (B-6): sc-377429

## 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 peripilin 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.

## CHROMOSOMAL LOCATION

Genetic locus: PLIN2 (human) mapping to 9p22.1.

## SOURCE

ADRP (B-6) is a mouse monoclonal antibody raised against amino acids 321-400 mapping near the C-terminus of ADRP of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ADRP (B-6) is available conjugated to agarose (sc-377429 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377429 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377429 PE), fluorescein (sc-377429 FITC), Alexa Fluor<sup>®</sup> 488 (sc-377429 AF488), Alexa Fluor<sup>®</sup> 546 (sc-377429 AF546), Alexa Fluor<sup>®</sup> 594 (sc-377429 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-377429 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-377429 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-377429 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

ADRP (B-6) is recommended for detection of ADRP of human origin by Western Blotting (starting dilution 1:100, 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).

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

Molecular Weight of ADRP: 48 kDa.

Positive Controls: human liver extract: sc-363766.

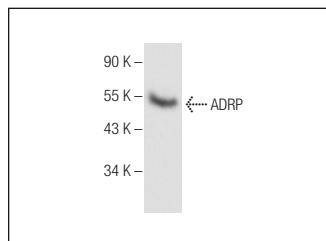
## RESEARCH USE

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

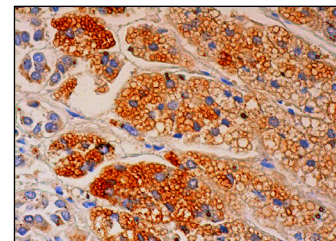
## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## DATA



ADRP (B-6): sc-377429. Western blot analysis of ADRP expression in human liver tissue extract.



ADRP (B-6): sc-377429. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

1. Listenberger, L.L., et al. 2016. Fluorescent detection of lipid droplets and associated proteins. *Curr. Protoc. Cell Biol.* 71: 4.31.1-4.31.14.
2. Gang, D.G., et al. 2018. Sebaceous cell differentiation in a canine oral papilloma. *J. Vet. Diagn. Invest.* 30: 569-571.
3. Chen, X., et al. 2019. Influence of recipient site on the function and survival of fat grafts. *Ann. Plast. Surg.* 82: 110-115.
4. Asiabi, P., et al. 2020. Immunodetection and quantification of enzymatic markers in theca cells: the early process of ovarian steroidogenesis. *Biol. Reprod.* 102: 145-155.
5. Su, K., et al. 2020. Liraglutide attenuates renal tubular ectopic lipid deposition in rats with diabetic nephropathy by inhibiting lipid synthesis and promoting lipolysis. *Pharmacol. Res.* 156: 104778.
6. Lee, E.S., et al. 2020. Curcumin analog CUR5-8 ameliorates nonalcoholic fatty liver disease in mice with high-fat diet-induced obesity. *Metabolism* 103: 154015.
7. Kuramoto, K., et al. 2021. Inhibition of the lipid droplet-peroxisome proliferator-activated receptor  $\alpha$  axis suppresses cancer stem cell properties. *Genes* 12: 99.
8. Guillon, C., et al. 2021. Glycation by glyoxal leads to profound changes in the behavior of dermal fibroblasts. *BMJ Open Diabetes Res. Care* 9: e002091.
9. Hussain, S.S., et al. 2021. RalA and PLD1 promote lipid droplet growth in response to nutrient withdrawal. *Cell Rep.* 36: 109451.
10. Yako, T., et al. 2022. Lipid droplet accumulation promotes RPE dysfunction. *Int. J. Mol. Sci.* 23: 1790.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.