SANTA CRUZ BIOTECHNOLOGY, INC.

Acrp30 (N-20)-R: sc-17044-R

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Acrp30 (adipocyte complement-related protein or AdipoQ) is a secretory protein made exclusively in adipocytes with mRNA induced over 100-fold during adipocyte differentiation. Post-transcriptional modification of Acrp30 yields several oligomeric forms of varying molecular weight, including a monomer, a dimer, a trimer, a hexamer and a polymer. Acrp30 is an abundant serum protein, secreted exclusively from fat cells, and is implicated in energy homeostasis and obesity. Due to the dysregulation of Acrp30 in cases of obesity in humans and mice and the strong structural similarity to TNFα, Acrp30 is a suspected regulator of whole body energy homeostasis. In addition, regulated exocytosis of Acrp30 appears to require phosphatidylinositol-3-kinase activity, since Insulin-stimulated Acrp30 secretion is blocked by pharmacologic inhibitors of this enzyme.

CHROMOSOMAL LOCATION

Genetic locus: ADIPOQ (human) mapping to 3q27.3; Adipoq (mouse) mapping to 16 B1.

SOURCE

Acrp30 (N-20)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of Acrp30 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-17044 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Acrp30 (N-20)-R is recommended for detection of mature Acrp30 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Acrp30 (N-20)-R is also recommended for detection of mature Acrp30 in additional species, including porcine.

Suitable for use as control antibody for Acrp30 siRNA (h): sc-43600, Acrp30 siRNA (m): sc-45891, Acrp30 shRNA Plasmid (h): sc-43600-SH, Acrp30 shRNA Plasmid (m): sc-45891-SH, Acrp30 shRNA (h) Lentiviral Particles: sc-43600-V and Acrp30 shRNA (m) Lentiviral Particles: sc-45891-V.

Molecular Weight of Acrp30: 30 kDa.

Positive Controls: 3T3-L1 cell lysate: sc-2243 or MIA PaCa-2 cell lysate: sc-2285.

STORAGE

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

SELECT PRODUCT CITATIONS

1. Haluzik, M.M., et al. 2006. Improvement of Insulin sensitivity after peroxisome proliferator-activated receptor-α agonist treatment is accompanied by paradoxical increase of circulating resistin levels. Endocrinology 147: 4517-4524.
2. Caminos, J.E., et al. 2008. Novel expression and direct effects of adiponectin in the rat testis. Endocrinology 149: 3390-3402.
3. Sundbom, M., et al. 2008. Inhibition of 11βHSD1 with the S-phenylethylaminothiazolone BVT116429 increases adiponectin concentrations and improves glucose homeostasis in diabetic KKAy mice. BMC Pharmacol. 8: 3.
4. Greenstein, A.S., et al. 2009. Local inflammation and hypoxia abolish the protective anticontractile properties of perivascular fat in obese patients. Circulation 119: 1661-1670.
5. Schupp, M., et al. 2009. Retinol saturase promotes adipogenesis and is downregulated in obesity. Proc. Natl. Acad. Sci. USA 106: 1105-1110.
6. Wang, J., et al. 2010. Relationship of adiponectin and resistin levels in umbilical serum, maternal serum and placenta with neonatal birth weight. Aust. N. Z. J. Obstet. Gynaecol. 50: 432-438.
7. Maillard, V., et al. 2010. Effect of adiponectin on bovine granulosa cell steroidogenesis, oocyte maturation and embryo development. Reprod. Biol. Endocrinol. 8: 23.
8. Paschke, L., et al. 2010. Adiponectin and adiponectin receptor system in the rat adrenal gland: ontogenetic and physiologic regulation, and its involvement in regulating adrenocortical growth and steroidogenesis. Peptides 31: 1715-1724.
9. Kraus, D., et al. 2012. Interactions of Adiponectin and lipopolysaccharide from *Porphyromonas gingivalis* on human oral epithelial Cells. PLoS ONE 7: e30716.
10. Flajollet, S., et al. 2012. Increased adipogenesis in cultured embryonic chondrocytes and in adult bone marrow of dominant negative Erg transgenic mice. PLoS ONE 7: e48656.

RESEARCH USE

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