SANTA CRUZ BIOTECHNOLOGY, INC.

AdipoR2 (C-12): sc-46751

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Adiponectin is a circulating hormone secreted by adipocytes that improves the metabolism of glucose and lipids, and is expressed at low levels in those with obesity and diabetes. Adiponectin receptors AdipoR1 and AdipoR2, also designated progestin and AdipoQ receptor family members I and II, respectively, regulate fatty acid oxidation and the uptake of glucose by adiponectin. Each receptor activates a unique set of signaling molecules including AMPK, p38, MAPK and PPARα. AdipoR1 has a high affinity for globular adiponectin and low affinity for full length adiponectin, while AdipoR2 has an intermediate affinity for both forms. AdipoR1 and AdipoR2 are mainly expressed in liver and muscle. Adiponectin, AdipoR1 and AdipoR2 are all associated with body composition, Insulin sensitivity and metabolic parameters. Physical training increases circulating adiponectin and mRNA expression of AdipoR1 and AdipoR2 in muscle, which may mediate the improvement of Insulin resistance and the metabolic syndrome in response to exercise.

CHROMOSOMAL LOCATION

Genetic locus: ADIPOR2 (human) mapping to 12p13.33; Adipor2 (mouse) mapping to 6 F1.

SOURCE

AdipoR2 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of AdipoR2 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-46751 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

AdipoR2 (C-12) is recommended for detection of AdipoR2 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).

AdipoR2 (C-12) is also recommended for detection of AdipoR2 in additional species, including equine, canine, bovine, porcine and avian.

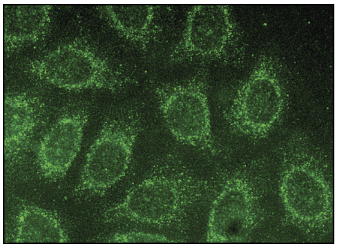
Suitable for use as control antibody for AdipoR2 siRNA (h): sc-60125, AdipoR2 siRNA (m): sc-60126, AdipoR2 shRNA Plasmid (h): sc-60125-SH, AdipoR2 shRNA Plasmid (m): sc-60126-SH, AdipoR2 shRNA (h) Lentiviral Particles: sc-60125-V and AdipoR2 shRNA (m) Lentiviral Particles: sc-60126-V.

Molecular Weight of AdipoR2: 44 kDa.

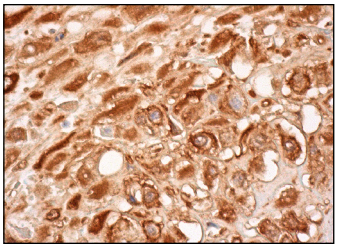
RECOMMENDED SECONDARY REAGENTS

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



AdipoR2 (C-12): sc-46751. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.



AdipoR2 (C-12): sc-46751. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of trophoblastic cells.

SELECT PRODUCT CITATIONS

1. Tong, K.M., et al. 2011. Adiponectin increases MMP-3 expression in human chondrocytes through adipor1 signaling pathway. J. Cell. Biochem. 112: 1431-1440.
2. Eguchi, R., et al. 2011. Fish oil consumption prevents glucose intolerance and hypercorticosteronemy in footshock-stressed rats. Lipids Health Dis. 10: 71.
3. Tsukada, T., et al. 2011. Adiponectin receptor-1 expression is associated with good prognosis in gastric cancer. J. Exp. Clin. Cancer Res. 30: 107.
4. Otvos, L., et al. 2011. Design and development of a peptide-based adiponectin receptor agonist for cancer treatment. BMC Biotechnol. 11: 90.
5. Perri, A., et al. 2013. Adiponectin is expressed and secreted by renal tubular epithelial cells. J. Nephrol. E-published.

RESEARCH USE

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