

AP05202CP-N**Adiponectin Receptor 1 Control Peptide****Alternate names:**

ADIPOR1, CGI-45, PAQR1, Progestin and adipoQ receptor family member I

Quantity:

50 µg

Background:

Acrp30 is a hormone secreted by adipocytes that acts as an antidiabetic and anti-atherogenic adipokine. Levels of adiponectin in the blood are decreased under conditions of obesity, insulin resistance and type 2 diabetes. Administration of adiponectin causes glucose-lowering effects and ameliorates insulin resistance in mice. Conversely, adiponectin-deficient mice exhibit insulin resistance and diabetes. This insulin-sensitizing effect of adiponectin seems to be mediated by an increase in fatty-acid oxidation through activation of AMP kinase and PPAR- α . Cloning of complementary DNAs encoding adiponectin receptors 1 and 2 (AdipoR1 and AdipoR2) have shown that AdipoR1 is abundantly expressed in skeletal muscle, whereas AdipoR2 is predominantly expressed in the liver. These two adiponectin receptors are predicted to contain seven transmembrane domains, but are structurally and functionally distinct from G-protein-coupled receptors. Expression of AdipoR1/R2 or suppression of AdipoR1/R2 expression by small-interfering RNA supports the conclusion that they serve as receptors for globular and full-length adiponectin, and that they mediate increased AMP kinase and PPAR- α ligand activities, as well as fatty-acid oxidation and glucose uptake by adiponectin. Widely expressed. Highly expressed in skeletal muscle. ADR 1 is expressed at intermediate level in brain, heart, spleen, kidney, liver, placenta, lung and peripheral blood leukocytes. Weakly expressed in colon, thymus and small intestine.

Uniprot ID:[Q96A54](#)**NCBI:**[NP_001121159.1](#)**GeneID:**[51094](#)**Format:****State:** Liquid purified peptide**Buffer System:** Phosphate buffered saline with 0.08% sodium azide**Applications:**

Incubate antibody neat with at least a 50 fold stoichiometric excess of blocking peptide at 37°C for 20 minutes (molecular weights of peptide and antibody are ~2.5 kDa and ~160 kDa, respectively). Antibody can then be diluted to a concentration suitable for Western blot.

Example: 10 µl or 10 µg of rabbit anti-Adiponectin Receptor 1 is added to 10 µg of blocking peptide for a total volume of 20 µl. The mixture is allowed to incubate for 20 minutes at 37°C prior to dilution in suitable buffer (for Western blot, etc.).

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity:

Control peptide for antibody AP05202PU-N only.

Storage:

Store (in aliquots) at -20°C.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.