

Code No. 18993

**Anti-Human
Adiponectin Receptor 1 Rabbit IgG Affinity Purify**

Volume : 100 µg

Introduction : It has been reported that mast cells secrete various bioactive substances (adipokines), in addition to serving as a place for energy storage. Adiponectin has been shown to be one of the adipokines possessing anti-diabetic, anti-atherosclerotic and anti-inflammatory actions. It was recently shown that the blood adiponectin levels were reduced in cases of obesity. As a result, adiponectin has been attracting close attention as a factor playing a central role in the development of the metabolic syndrome. More recently, adiponectin receptors, Adiponectin Receptor 1 (AdipoR1) and Adiponectin Receptor 2 (AdipoR2) have been identified, inviting very close attention. AdipoR1 is expressed throughout the living body, but its expression is particularly prominent in the skeletal muscles. Unlike the G-protein-coupled receptors (GPCR) reported previously, AdipoR1 can be topologically characterized by an intracellular N-terminal and extracellular C-terminal. Structurally, this receptor seems to belong to a new family of receptors different from the GPCR. AdipoR1 serves as a receptor for globular adiponectin and full-length adiponectin. It has been shown that this receptor transmits signals for suppression of glycogenesis and stimulation of fat burning and sugar utilization through activation of AMP kinase, p36MAPK and PPAR α . Measurement of AdipoR1 is expected to be useful in not only diabetes-related research, but also research on inflammation, atherosclerosis and, as has been shown more recently, tumors.

Antigen : Synthetic peptide of a part of human Adiponectin Receptor 1

Purification : Purified with antigen peptide

Form : Lyophilized product from 1 % BSA in PBS containing 0.05% NaN₃

How to use : 1.0 mL deionized water will be added to the product (the conc. comes up 100 µg /mL)

Stability : Lyophilized product, 5 years at 2 – 8 °C
: Solution, 2 years at –20 °C

Application : This antibody can be used for western blotting in concentration of 1 - 5 µg /mL.

Specificity : Not cross-react with Adiponectin Receptor 2.
Cross-reacts with Mouse

Reference : 1. Yamauchi T, Kamon J, Ito Y, Tsuchida A, Yokomizo T, Kita S, Sugiyama T, Miyagishi M, Hara K, Tsunoda M, Murakami K, Ohteki T, Uchida S, Takekawa S, Waki H, Tsuno NH, Shibata Y, Terauchi Y, Froguel P, Tobe K, Koyasu S, Taira K, Kitamura T, Shimizu T, Nagai R, Kadowaki T. Cloning of adiponectin receptors that mediate antidiabetic metabolic effects. *Nature*. 2003 Jun 12;423(6941):762-9.
2. Tsuchida A, Yamauchi T, Ito Y, Hada Y, Maki T, Takekawa S, Kamon J, Kobayashi M, Suzuki R, Hara K, Kubota N, Terauchi Y, Froguel P, Nakae J, Kasuga M, Accili D, Tobe K, Ueki K, Nagai R, Kadowaki T. Insulin/Foxo1 pathway regulates expression levels of adiponectin receptors and adiponectin sensitivity. *J Biol Chem*. 2004 Jul 16;279(29):30817-22.
3. Tsuchida A, Yamauchi T, Takekawa S, Hada Y, Ito Y, Maki T, Kadowaki T. Peroxisome proliferator-activated receptor (PPAR) α activation increases adiponectin receptors and reduces obesity-related inflammation in adipose tissue: comparison of activation of PPAR α , PPAR γ , and their combination. *Diabetes*. 2005 Dec;54(12):3358-70.

For Non-Clinical Research Use Only