

Code No. 18995

**Anti-Human
Adiponectin Receptor 2 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. AdipoR2 is expressed particularly prominently in the liver. Unlike the G-protein-coupled receptors (GPCR) reported previously, AdipoR2 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. AdipoR2 serves as a receptor for globular adiponectin and full-length adiponectin, and has been shown to transmit signals for the stimulation of fat burning, etc., through activation of PPAR α and the AMP kinase. Measurement of AdipoR2 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 2 (MGMSPLLQAHAMEKM)

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 : Cross reacts with mouse
Not cross-react to Adiponectin Receptor 1

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.

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