

Code No. 18995

**Anti-Human  
Adiponectin Receptor 2 Rabbit IgG Affinity Purify**Volume : 100  $\mu$ g  
Lot No : 0B-623

**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 $\alpha$  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 human Adiponectin Receptor 2

**Purification** : Purified with antigen peptide

**Form** : Lyophilized product from 1% BSA in PBS containing 0.05% NaN<sub>3</sub>

**How to use** : 1.0mL distilled water will be added to the product (The conc. comes up 100  $\mu$ g/mL)

**Dilution** : PBS (pH7.4) containing 1% BSA, 0.05% NaN<sub>3</sub>

**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  $\mu$ g/mL.

**Specificity** : Non cross-react with Adiponectin Receptor 1  
Cross-react 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, N.H., Shibata, Y., Terauchi, Y., Froguel, P., Tobe, K., Koyasu, S., Taira, K., Kitamura, T., Shimizu, T., Nagai, R., and Kadowaki, T. Cloning of adiponectin receptors that mediate antidiabetic metabolic effects. *Nature* 423:762-769, 2003.  
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., and Kadowaki, T. Insulin/Foxo1 pathway regulates expression levels of adiponectin receptors and adiponectin sensitivity. *J. Biol. Chem.* 279: 30817-30822, 2004.  
3. Tsuchida, A., Yamauchi, T., Takekawa, S., Hada, Y., Ito, Y., Maki, T., and Kadowaki, T. Peroxisome Proliferator-Activated Receptor (PPAR) $\alpha$  Activation Increases Adiponectin Receptors and Reduces Obesity-Related Inflammation in Adipose Tissue: Comparison of Activation of PPAR $\alpha$ , PPAR $\gamma$  and Their Combination. *Diabetes* 54:3358-3370, 2005.

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