

Product Specification Sheet

Adiponectin Receptor 2 (ADIPOR2) Antibodies

Cat. # ADIPOR21-A Rabbit Anti-Mouse ADIPOR2 IgG # 1 (aff pure) **SIZE:** 100 ug

Cat. # ADIPOR21-P Mouse ADIPOR2 Control/blocking Peptide #1 **SIZE:** 100 ug

Acrp30 (adipocyte complement-related protein of 30 kDa), also known as AdipoQ, APM1, Adiponectin, Gelatin binding protein 28 kDa/GBP28 or adipocyte most abundant gene transcript) was identified as a novel adipocyte-specific synthesized and secreted protein with structural resemblance to complement factor C1q. Like adipsin, Acrp30 secretion is induced ~10-fold during adipocyte differentiation. Plasma levels are reduced in obese humans, and low levels are associated with insulin-resistance. Treatment of db/db mice with TZD increased Acrp30 levels. Acrp30 is proteolytically cleaved at 104 aa to generate the **globular Acrp30 (gAcrp30)**. Administration of gAcrp30 into mice fed a diet high in fat and sugar caused substantial weight loss. A marked reduction in plasma triglycerides, glucose, and free fatty acids was attributed due in part to increased fatty acid oxidation by muscle. Full length Acrp30 was less potent than gAcrp30.

Human Adiponectin receptor 2/ADIPOR2, (mouse, rat and human 386-aa, ~42-43 kda predicted mol wt). Human and ADIPOR2 proteins are 95.2% homologous. ADIPOR2 is alternatively spliced to an isoforms-2 (missing 284-386 aa etc). ADIPOR2 is highly expressed in liver. Expressed at intermediate level in heart, kidney, lung and skeletal muscle. it is Weakly expressed in brain, spleen and testis

Source of Antigen and Antibodies

Antigen	15-aa peptide from Mouse ADIPOR2/ADR2 (protein accession #Q8BQS5, refs 1), designated ADIPOR21-P or Control Peptide/blocking peptide) conjugated to KLH. Epitope location ~ N-terminus, Cytoplasmic domain
Ab Host/type	Rabbit, Polyclonal, Aff pure IgG (cat # ADIPOR21-A) purified over antigen-agarose column
2-ab	Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

100 ug/100ul solution lyophilized powder

Supplied in **Buffer:** PBS+0.1% BSA

Reconstitute powder in PBS at 1mg/ml

Control/blocking peptide

100 ug/100 ul solution lyophilized powder

Supplied in **Buffer:** PBS pH 7.5,

Reconstitute powder in PBS at 1 mg/ml.

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting (1-10 ug/ml for affinity pure antibody using ECL technique).

ELISA: Control peptide can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (0.5-1 ug/ml for affinity pure).

Histochemistry & Immunofluorescence: Not tested. We recommend the use of aff pure IgG at 2-20 ug/ml. (see published refs 2 using this antibody and at the web site).

Cross-reactivity

The mouse ADIPOR21-P shows 100% sequence homology with rat, chicken, duck, bovine, pig, 93% in human, frog, and fugu ADIPOR2. No significant sequence homology is seen with ADIPOR1. Antibody crossreactivity in various other species is not established. The control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking experiments (use 5-10 ug control peptide per 1 ug of aff pure IgG or 1 ul antiserum) to confirm antibody specificity (see detailed protocol at:the website).

General References: Yamauchi, T et al (2003) Nature 423, 762-769; NCBI Annotation Project (Feb 2003) Direct submission, NCBI, NIH, Bethesda, MD-20894.

(2) Citations of ADI's Antibodies (see web site for updated list)

- Fujioka D, 2006, Am J Physiol Heart Circ Physiol, 290: H2409 - H2416 WB IHC
- Ding X, 2005, Am. J. Pathol., 166: 1655 – 1669, WB
- Mistry T 2006, BBRC 348, 832-838, IF
- Rovin BH, 2006, Clin. Immunol. 120, 99-105 WB
- Takemura Y, 2006, Endocrinology, 318, 117-123 WB

*This product is for In vitro research use only.

Related material available from ADI

ADIPOR21-A-P 70808A

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