ALPHA DIAGNOSTIC INTERNATIONAL

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Product Specification Sheet

gAcrp30 (adipocyte complement-related protein of 30 kDa)Antibodies

Cat # ACRP304-S	Rabbit Anti-Human gAcrp30 antiserum	**SIZE**: 100 ul
Cat # ACRP304-C	Recombinant, purified Human gAcrp30 protein for WB	**SIZE**: 100 ul

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 (mouse 247 aa, rat human 244 aa; chromosome 3q27) consists of a predicted NT-signal sequence 91-14 aa), followed by a 27-aa unique region, and then by 22 perfect Gly-X-Pro or Gly-X-X collagen like repeats, and a globular segment at the C-terminus. Structurally, but at the sequence level, Acrp30 resembles other collagen-like and globular domain proteins (lung surfactant protein and hepatocytes mannan-binding proteins). 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. Therefore, gAcrp30 may open new avenues to control obesity.

Human gAcrp30 for **western blot +ve control (Cat # ACRP304-C)** is supplied in SDS-PAGE sample buffer (reduced). This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. It is supplied in 100 ul/vial. For WB, heat once and load 10 ul/lane and visualize with appropriate antibodies. If the product has been stored for several weeks, then it is recommended to 5 ul of fresh 2x sample buffer per 10 ul of protein control solution prior to heating and loading on gels. This preparation is intended for qualitative purpose and not to serve as standard of known concentration. Store frozen in suitable aliquots. Do not freeze, thaw, or hear repeatedly

Source of Antigen and Antibodies

Antigen	**Human gAcrp30** (16.6 kDa protein) was expressed in E. coli and purified to >98% purity. It was injected into rabbits to produce antibodies (Cat # ACRP304-S).
Ab Host/type	**Goat Anti-rabbit IgG-HRP** cat # 20320 (AP, biotin, FITC conjugates also available)
2-ab	Cat # 20320, goat anti-rabbit IgG-HRP (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

Antiserum (unpurified, undiluted)

100 ul/vial solution — 50 ul/vial lyophilized powder

contains 0.05% sodium azide

Reconstitute pwder in the original vol. of water

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

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 lyophilized items.

Recommended Usage

Western blot: Optimal dilution must be determined by user. We suggest initial testing of antiserum at 1:1K-1:5K. Full length gAcrp30 is ~30 kDa. However, recombinant Acrp30 has given a mol wt of ~37 kDa (1). gAcrp30 is ~16 kDa.

ELISA (1:10-50K; 10-100 ng of control peptide/well).

Immunohistochemistry: not tested. We suggest testing of aff pure IgG at 2-20 ug/ml.

Specificity and crossreactivity

Antibody to gACRP30 reacts with human protein. Antibody cross-reactivity in various other species has not been studied. Control proteins, full length human Acrp30 and gAcrp30, and mouse gAcrp30 are also available for control studies.

General References: (1) Scherer PE et al (1995) JBC 270, 26746; Hu E et al (1996) JBC 271, 10697; Das K et al (2001) BBRC 280, 1120; Fruebis J et al (2001) PNAS 98, 2005; Maeda K et al (1996) BBRC 221, 286, Schaffler A et al (1998) BBA 1399, 187; Schaffler A et al (1999) BBRC 260, 416;

This product is for In vitro research use only.

Related items available.

ELISA kits for mouse and human Acrp30 and gAcrp30

ACRP304-S-C 70808A

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