

Product Specification Sheet

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

Cat # ACRP303-P	Mouse gAcrp30 control/blocking peptide # 3	SIZE: 100 ug
Cat # ACRP303-S	Rabbit Anti-Mouse gAcrp30 antiserum # 3	SIZE: 100 ul
Cat # ACRP303-A	Rabbit Anti-Mouse gAcrp30 IgG # 3, aff. Pure IgG	SIZE: 100 ug
Cat # ACRP303-C	Recombinant, purified Mouse gAcrp30 protein for Western	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 adipon, Acrp30 secretion is induced ~10-fold during adipocyte differentiation. Plasma levels are reduced in obese humans, and low levels are associated with insulin-resistance. 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. 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.

Sources of antigen and antibodies

Antigen	11-aa peptide from mouse gAcrp30 (gene accession # Q60994; refs 1); Designation (#ACRP303-P, control/blocking peptide) conjugated to KLH. Epitope location ~ C-terminus
Ab Host/type	Rabbit, Polyclonal unpurified antiserum (#ACRP303-S) and IgG, purified over antigen-agarose (Cat # ACRP303-A)
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control IgG	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Mouse gAcrp30 (145-aa, ~16 kDa) protein was expressed and purified to >95% purity. For **western blot +ve control (Cat # ACRP303-C)**, it 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 heat repeatedly.

Form & Storage of Antibodies/Peptide Control

Antiserum (unpurified)

100ul solution lyophilized powder
 Supplied in Buffer: 0.05% azide
Reconstitute powder in 100 ul PBS

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 blot: We suggest initial testing of antiserum at 1:1K-1:5K and aff pure IgG at 1-5 ug/ml using ECL. Full length Acrp30 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.

Specificity and crossreactivity

Mouse gACRP303-P sequence is 93% conserved in bovine, grouper, rabbit, canine, rat, 87% in rabbit, human, monkey, 81% in pig, 92% in fox, raccoon., 75% in chicken, duck, 73% in frog and zebra fish. This sequence has no significant sequence similarity with the related protein C1q. Since the epitope to ACRP303-S antibody is located near the C-terminus, this antibody will detect both the globular (truncated) and full length Acrp30 proteins. Antibody cross-reactivity in various species has not been studied. Control peptide, because of its low mol. Wt (<3 kDa), is not suitable for Western. It should be used for ELISA or antibody blocking (use 5-10 ug per 1 ul of antiserum or 1 ug of aff pure IgG) to confirm antibody specificity.

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;

This product is for In vitro research use only.

Human and mouse Acrpro and gACRP30 ELISA kits

ACRP303-S-A-P-C

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