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Product Specification Sheet

Mouse Complement C1q Antibodies

Cat # C1Q13-M	**Rat** monoclonal anti-Mouse C1q IgG	**SIZE**: 100 ug
Cat # C1Q13-MB	**Rat** monoclonal anti-Mouse C1q IgG-Biotinylated	**SIZE**: 50 ug
Cat # C1Q11-C	Human C1q protein Western blot +ve control	**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. C1q is serum glycoprotein of 18-polypeptides chains consisting of three non-identical subunits, A (29 kDa), B (26 kDa), and C (246 aa, 19 kDa) in molar ratio of 1:2:2. C1Q in the plasma is complexed with two proenzymes C1r and two C1s molecule to form the first component of complement (C1). Activation of complement via classical pathway is triggered by binding of globular head of C1q to immune complexes containing IgG (Fc-region) or IgM or to a variety of other activating substances, including C-reactive protein, retrovirus, and mitochondria. Subsequent to C1q binding, c1r and C1s are converted to proteolytic enzymes that are responsible to continuation of activation via the classical pathway.

Sources of antigen and antibodies

Mouse C1q was used to generate monoclonal antibodies generated in **rats**. A clone (designated C1Q13-M, IgG1) was expanded as ascites and used for the purification of C1Q13-M by protein A/G affinity chromatography. The purified antibody (#C1Q13-M) is supplied in PBS, pH 7.4, 0.1% BSA in liquid (1 mg/ml) or in powder form. **Reconstitute** powder in PBS at 1 mg/ml**.** Store powder and solution at -20oC for long term storage.

Cat # C1Q13-MB, Purified IgG was biotinylated (F/P; 10-20:1) and supplied in PBS, pH 7.4, 0.2% BSA and 0.05% azide in solution (50 ug/250 ul or 200 ug/ml) or in powder. **Reconstitute** powder in 250 ul PBS for 200 ug/ml solution or prepare other stocks as required. Store at -20oC in suitable aliquots.

Goat Anti-Rat IgG-HRP cat # 50320 (AP, biotin, FITC conjugates also available)

Negative Control rat IgG- #20005-1 can be used –ve control for ELISA, western etc.

Human C1Q11 protein for Western blot +ve control (**Cat # C1Q11-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **C1Q11**-C for good visibility with antibody Cat # **C1Q11**-S or other antibodies. Store at –20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **C1Q11**-C solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. This preparation is intended for qualitative purpose and not to serve as standard of known concentration. Do not freeze, thaw, or hear repeatedly

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 using ECL. Native c1q is ~410 kDa.**

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

Immunohistochemistry**: not tested.**

Specificity and crossreactivity

Anti-human C1q yielded a single precipitin arc against the whole human serum proteins in immunoelectrophoresis. Antibody cross-reactivity in various other species has not been studied.

General References: (1) Loos et al (1980) J. Immunol. 124, 59; Kolb WP et al (1979) J. Immunol. 122, 2103; Petry F et al (1996) Immunogenetics 43, 370; 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.

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; **Email**: service@4adi.com

India Contact:
Life Technologies (India) Pvt. Ltd.
306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444
Email: customerservice@lifetechindia.com Website: www.lifetechindia.com