

C1q-A (C-14) : sc-27660

BACKGROUND

C1q, a subcomponent of the classical complement pathway, is composed of nine subunits that mediate classical complement activation and thereby play an important role in the immune response. Six of these subunits are disulfide-linked dimers of chains A and B, while three of these subunits, designated C1q-A through C1q-C, are disulfide-linked dimers of chain C. The presence of receptors for C1q on effector cells modulates its activity, which may be antibody-dependent or independent. Macrophages are the primary source of C1q, while anti-inflammatory drugs as well as cytokines differentially regulate expression of the mRNA as well as the protein. However, its ability to modulate the interaction of platelets with collagen and immune complexes suggests C1q influences homeostasis as well as other immune activities, and perhaps thrombotic complications resulting from immune injury. Defects in C1q-A, C1q-B and C1q-C cause inactivation of the classical pathway, leading to a rare genetic disorder characterized by lupus-like symptoms.

REFERENCES

1. Peerschke, E.I. and Ghebrehiwet, B. 1998. Platelet receptors for the complement component C1q: implications for hemostasis and thrombosis. *Immunobiology* 199: 239-249.
2. Hiepe, F., et al. 1999. C1q: a multifunctional ligand for a new immunoadsorption treatment. *Ther. Apher.* 3: 246-251.
3. Kishore, U. and Reid, K.B. 2000. C1q: structure, function, and receptors. *Immunopharmacology* 49: 159-170.
4. Faust, D. and Loos, M. 2002. *In vitro* modulation of C1q mRNA expression and secretion by interleukin-1, interleukin-6, and interferon- γ in resident and stimulated murine peritoneal macrophages. *Immunobiology* 206: 368-376.
5. Faust, D., et al. 2002. Anti-inflammatory drugs modulate C1q secretion in human peritoneal macrophages *in vitro*. *Biochem. Pharmacol.* 64: 457-462.
6. Petry, F. and Loos, M. 2005. Common silent mutations in all types of hereditary complement C1q deficiencies. *Immunogenetics* 57: 566-571.

CHROMOSOMAL LOCATION

Genetic locus: C1QA (human) mapping to 1p36.12.

SOURCE

C1q-A (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of C1q-A of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27660 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

C1q-A (C-14) is recommended for detection of precursor and mature C1q-A of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

C1q-A (C-14) is also recommended for detection of precursor and mature C1q-A in additional species, including equine and porcine.

Suitable for use as control antibody for C1q-A siRNA (h): sc-43651, C1q-A shRNA Plasmid (h): sc-43651-SH and C1q-A shRNA (h) Lentiviral Particles: sc-43651-V.

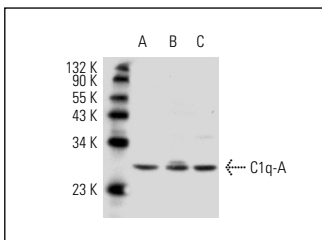
Molecular Weight of C1q-A: 29 kDa.

Positive Controls: ECV304 cell lysate: sc-2269, U-937 cell lysate: sc-2239 or THP-1 cell lysate: sc-2238.

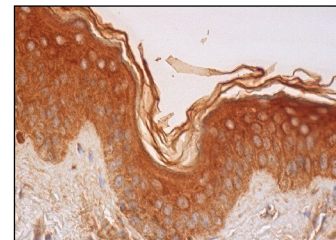
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz[™]: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



C1q-A (C-14): sc-27660. Western blot analysis of C1q-A expression in U-937 (A), THP-1 (B) and ECV304 (C) whole cell lysates.



C1q-A (C-14): sc-27660. Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of keratinocytes, melanocytes, epidermal cells and Langerhans.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.