

C1q-A (H-40): sc-25855

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 (H-40) is a rabbit polyclonal antibody raised against amino acids 161-200 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.

STORAGE

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

APPLICATIONS

C1q-A (H-40) is recommended for detection of precursor and mature C1q-A of human and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

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.

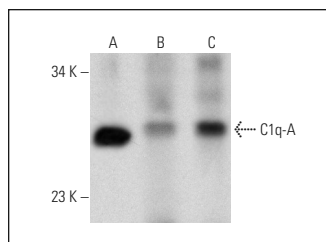
Molecular Weight of C1q-A: 29 kDa.

Positive Controls: ECV304 cell lysate: sc-2269, human spleen extract: sc-363779 or human kidney extract: sc-363764.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



C1q-A (H-40): sc-25855. Western blot analysis of C1q-A expression in ECV304 whole cell lysate (A) and human spleen (B) and human kidney (C) tissue extracts.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.