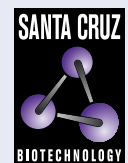


C1q-C (A-12): sc-365301



The Power to Question

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.

CHROMOSOMAL LOCATION

Genetic locus: C1QC (human) mapping to 1p36.12.

SOURCE

C1q-C (A-12) is a mouse monoclonal antibody raised against amino acids 101-155 of C1q-C of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

C1q-C (A-12) is available conjugated to agarose (sc-365301 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365301 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365301 PE), fluorescein (sc-365301 FITC), Alexa Fluor® 488 (sc-365301 AF488), Alexa Fluor® 546 (sc-365301 AF546), Alexa Fluor® 594 (sc-365301 AF594) or Alexa Fluor® 647 (sc-365301 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365301 AF680) or Alexa Fluor® 790 (sc-365301 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

C1q-C (A-12) is recommended for detection of precursor and mature C1q-C of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

Suitable for use as control antibody for C1q-C siRNA (h): sc-72202, C1q-C shRNA Plasmid (h): sc-72202-SH and C1q-C shRNA (h) Lentiviral Particles: sc-72202-V.

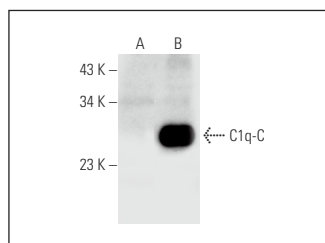
Molecular Weight of C1q-C: 27 kDa.

Positive Controls: C1q-C (h2): 293 Lysate: sc-128184.

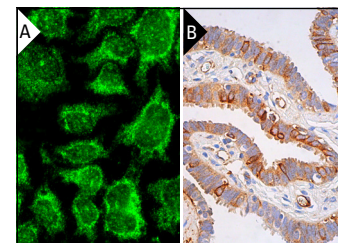
STORAGE

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

DATA



C1q-C (A-12): sc-365301. Western blot analysis of C1q-C expression in non-transfected: sc-110760 (A) and human C1q-C transfected: sc-128184 (B) 293 whole cell lysates.



C1q-C (A-12): sc-365301. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of cells in red pulp and membrane and cytoplasmic staining of endothelial cells (B).

SELECT PRODUCT CITATIONS

- Davis, S.E., et al. 2014. Masking of $\beta(1-3)$ -glucan in the cell wall of *Candida albicans* from detection by innate immune cells depends on phosphatidylserine. *Infect. Immun.* 82: 4405-4413.
- Liddelew, S.A., et al. 2017. Neurotoxic reactive astrocytes are induced by activated microglia. *Nature* 541: 481-487.
- Lopez-Sanchez, C., et al. 2020. Early reactive A1 astrocytes induction by the neurotoxin 3-nitropropionic acid in rat brain. *Int. J. Mol. Sci.* 21: 3609.
- Chen, L., et al. 2021. Cholecystokinin octapeptide improves hippocampal glutamatergic synaptogenesis and postoperative cognition by inhibiting induction of A1 reactive astrocytes in aged mice. *CNS Neurosci. Ther.* 27: 1374-1384.
- Lopez-Sanchez, C., et al. 2022. Kaempferol prevents the activation of complement C3 protein and the generation of reactive A1 astrocytes that mediate rat brain degeneration induced by 3-nitropropionic acid. *Food Chem. Toxicol.* 164: 113017.

RESEARCH USE

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

PROTOCOLS

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