

# C1QBP (1.T.22): sc-70471

## BACKGROUND

The human complement subcomponent C1q associates with C1r and C1s in order to yield the first component of the serum complement system (SCS). The SCS contains over 30 glycoproteins that influence physiological mechanisms of the body in response to immune complex (the classical pathway), carbohydrate (the lectin pathway) or bacterial (alternative pathway) initiation. C1q binding protein (C1QBP), also designated gC1q-R, p32 (p33) or HABP1 (hyaluronan-binding protein 1), is known to bind the globular heads of C1q molecules and inhibit C1 activation. C1QBP has been described as a complement receptor for C1q on B cells, neutrophils and mast cells. The C1QBP protein may form homodimers. C1QBP is expressed in vascular endothelial cells and has been found to be a multifunctional protein interacting with elements of complement, coagulation and kinin systems. In addition, C1QBP is a subunit of pre-mRNA splicing factor SF2/ASF.

## REFERENCES

1. Krainer, A.R., et al. 1991. Functional expression of cloned human splicing factor SF2: homology to RNA-binding proteins, U1 70K, and *Drosophila* splicing regulators. *Cell* 66: 383-394.
2. Deb, T.B., et al. 1996. Molecular cloning of human fibroblast hyaluronic acid-binding protein confirms its identity with P-32, a protein co-purified with splicing factor SF2. Hyaluronic acid-binding protein as P-32 protein, co-purified with splicing factor SF2. *J. Biol. Chem.* 271: 2206-2212.
3. Guo, N., et al. 1997. Assignment of C1QBP encoding the C1q globular domain binding protein (gC1q-R) to human chromosome 17 band p13.3 by *in situ* hybridization. *Cytogenet. Cell Genet.* 77: 283-284.
4. Dedio, J., et al. 1998. The multiligand-binding protein gC1qR, putative C1q receptor, is a mitochondrial protein. *J. Immunol.* 160: 3534-3542.
5. Dedio, J., et al. 1999. Subcellular targeting of multiligand-binding protein gC1qR. *Immunopharmacology* 45: 1-5.
6. Tye, A.J., et al. 2001. The human gC1qR/p32 gene, C1qBP. Genomic organization and promoter analysis. *J. Biol. Chem.* 276: 17069-17075.
7. Danet, G.H., et al. 2002. C1qRp defines a new human stem cell population with hematopoietic and hepatic potential. *Proc. Natl. Acad. Sci. USA* 99: 10441-10445.
8. Yin, W., et al. 2007. Classical pathway complement activation on human endothelial cells. *Mol. Immunol.* 44: 2228-2234.

## CHROMOSOMAL LOCATION

Genetic locus: C1QBP (human) mapping to 17p13.2; C1qbp (mouse) mapping to 11 B4.

## SOURCE

C1QBP (1.T.22) is a mouse monoclonal antibody raised against recombinant C1QBP corresponding to mature C1QBP (amino acids 74-282).

## STORAGE

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

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for biological studies, sc-70471 L, 200 µg/0.1 ml.

C1QBP (1.T.22) is available conjugated to either phycoerythrin (sc-70471 PE) or fluorescein (sc-70471 FITC), 200 µg/ml, for IF, IHC(P) and FCM.

## APPLICATIONS

C1QBP (1.T.22) is recommended for detection of mature form of C1QBP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells); blocks C1q/C1QBP interaction.

Suitable for use as control antibody for C1QBP siRNA (h): sc-42880, C1QBP siRNA (m): sc-42881, C1QBP shRNA Plasmid (h): sc-42880-SH, C1QBP shRNA Plasmid (m): sc-42881-SH, C1QBP shRNA (h) Lentiviral Particles: sc-42880-V and C1QBP shRNA (m) Lentiviral Particles: sc-42881-V.

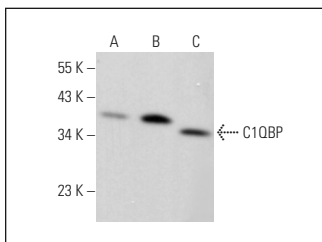
Molecular Weight of C1QBP: 33 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, HEK293 whole cell lysate: sc-45136 or HeLa whole cell lysate: sc-2200.

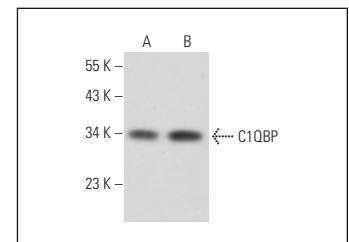
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

## DATA



C1QBP (1.T.22): sc-70471. Western blot analysis of C1QBP expression in OVCAR-3 (A), HeLa (B) and HEK293 (C) whole cell lysates.



C1QBP (1.T.22): sc-70471. Western blot analysis of C1QBP expression in IMR-32 (A) and HeLa (B) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.