

GC1qR (C1QBP) Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP7839b**Specification**

GC1qR (C1QBP) Antibody (C-term) Blocking peptide - Product InformationPrimary Accession [Q07021](#)**GC1qR (C1QBP) Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 708**Other Names**

Complement component 1 Q subcomponent-binding protein, mitochondrial, ASF/SF2-associated protein p32, Glycoprotein gC1qBP, C1qBP, Hyaluronan-binding protein 1, Mitochondrial matrix protein p32, gC1q-R protein, p33, C1QBP, GC1QBP, HABP1, SF2P32

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP7839b](/products/AP7839b) was selected from the C-term region of human C1QBP. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

GC1qR (C1QBP) Antibody (C-term) Blocking peptide - Protein Information**Name** C1QBP**Synonyms** GC1QBP, HABP1, SF2P32**Function**

Is believed to be a multifunctional and multicompartamental protein involved in inflammation and infection processes, ribosome biogenesis, protein synthesis in mitochondria, regulation of apoptosis, transcriptional regulation and pre-mRNA splicing. At the cell surface is thought to act as an endothelial receptor for plasma proteins of the complement and kallikrein-kinin cascades. Putative receptor for C1q; specifically binds to the globular 'heads' of C1q thus inhibiting C1; may perform the receptor function through a complex with C1qR/CD93. In complex with cytokeratin-1/KRT1 is a high affinity receptor for kininogen-1/HMWK. Can also bind other plasma proteins, such as coagulation factor XII leading to its autoactivation. May function to bind initially

fluid kininogen-1 to the cell membrane. The secreted form may enhance both extrinsic and intrinsic coagulation pathways. It is postulated that the cell surface form requires docking with transmembrane proteins for downstream signaling which might be specific for a cell-type or response. By acting as C1q receptor is involved in chemotaxis of immature dendritic cells and neutrophils and is proposed to signal through CD209/DC-SIGN on immature dendritic cells, through integrin alpha-4/beta-1 during trophoblast invasion of the decidua, and through integrin beta-1 during endothelial cell adhesion and spreading. Signaling involved in inhibition of innate immune response is implicating the PI3K-AKT/PKB pathway. Required for protein synthesis in mitochondria (PubMed:28942965). In mitochondrial translation may be involved in formation of functional 55S mitoribosomes; the function seems to involve its RNA-binding activity. May be involved in the nucleolar ribosome maturation process; the function may involve the exchange of FBL for RRP1 in the association with pre-ribosome particles. Involved in regulation of RNA splicing by inhibiting the RNA-binding capacity of SRSF1 and its phosphorylation. Is required for the nuclear translocation of splicing factor U2AF1L4. Involved in regulation of CDKN2A- and HRK-mediated apoptosis. Stabilizes mitochondrial CDKN2A isoform smARF. May be involved in regulation of FOXC1 transcriptional activity and NFY/CCAAT-binding factor complex- mediated transcription. May play a role in antibacterial defense as it can bind to cell surface hyaluronan and inhibit Streptococcus pneumoniae hyaluronate lyase. May be involved in modulation of the immune response; ligation by HCV core protein is resulting in suppression of interleukin-12 production in monocyte-derived dendritic cells. Involved in regulation of antiviral response by inhibiting RIGI- and IFIH1-mediated signaling pathways probably involving its association with MAVS after viral infection.

Cellular Location

Mitochondrion matrix. Nucleus. Nucleus, nucleolus Cell membrane; Peripheral membrane protein; Extracellular side. Secreted. Cytoplasm. Note=Seems to be predominantly localized to mitochondria. Secreted by activated lymphocytes. Localizes to the nucleolus when coexpressed with POLGARF (PubMed:32958672). Interaction with POLGARF is likely to result in prevention of C1QBP maturation and redirection from mitochondria to nucleoli (PubMed:32958672)

Tissue Location

Expressed on cell surface of peripheral blood cells (at protein level); Surface expression is reported for macrophages and monocyte-derived dendritic cells.

GC1qR (C1QBP) Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

GC1qR (C1QBP) Antibody (C-term) Blocking peptide - Images

GC1qR (C1QBP) Antibody (C-term) Blocking peptide - Background

The human complement subcomponent C1q associates with C1r and C1s in order to yield the first component of the serum complement system. C1QBP is known to bind to the globular heads of C1q molecules and inhibit C1 activation. This protein has also been identified as the p32 subunit of pre-mRNA splicing factor SF2, as well as a hyaluronic acid-binding protein.

GC1qR (C1QBP) Antibody (C-term) Blocking peptide - References

Biswas,A.K., PLoS Pathog. 3 (9), 1271-1280 (2007)Ghebrehiwet,B., Adv. Exp. Med. Biol. 598, 181-197 (2007)Kitazawa,S., Histochem. Cell Biol. 126 (6), 665-677 (2006)