10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-GC1q R Picoband Antibody

Catalog # ABO12606

Specification

Anti-GC1q R Picoband Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q07021
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Complement component 1 Q subcomponent-binding protein, mitochondrial(C1QBP) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-GC1q R Picoband Antibody - 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

Calculated MW
31362 MW KDa

Application Details
Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization
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

Tissue Specificity
through integrin alpha-4/beta-1 during trophoblast invasion of the decidua

Source
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. 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. In infection processes acts as an attachment site for microbial proteins

Protein Name
including Listeria monocytogenes internalin B and Staphylococcus aureus protein A. May play a role in antibacterial defense as it can bind to cell surface hyaluronan and inhibit Streptococcus pneumoniae hyaluronate lyase. Involved in replication of Rubella virus. May be involved in modulation of the immune response; ligation by HCV core protein is resulting in suppresion of interleukin-12 production in monocyte-derived dendritic cells. Involved in regulation of antiviral response by inhibiting DDX58- and IFIH1- mediated signaling pathways probably involving its association with MAVS after viral infection. Involved in HIV-1 replication

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E. coli-derived human GC1q R recombinant protein (Position: E190-Q282). Human GC1q R shares 92.5% and 93.5% amino acid (aa) sequence identity with mouse and rat GC1q R, respectively.

Purification
Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Sequence Similarities
Mitochondrion matrix. Nucleus. Cell membrane; Peripheral membrane protein; Extracellular side. Secreted. Cytoplasm. Nucleus, nucleolus. Seems to be predominantly localized to mitochondria. Secreted by activated lymphocytes.

Anti-GC1q R Picoband Antibody - Protein Information

Name C1QBP

Synonyms GC1QBP, HABP1, SF2P32

Function
Multifunctional and multicompartmental protein involved in inflammation and infection processes, ribosome biogenesis, protein synthesis in mitochondria, regulation of apoptosis, transcriptional regulation and pre-mRNA splicing (PubMed:10022843, PubMed:10479529, PubMed:10722602, PubMed:11086025, PubMed:<a href="http://www.uniprot.org/citations/11859136"

target="_blank">11859136, PubMed:15243141, PubMed:16140380, PubMed:16177118, PubMed:17881511, PubMed:18676636, PubMed:19004836, PubMed:19164550, PubMed:20810993, PubMed:21536856, PubMed:21544310, PubMed:22700724, PubMed:28942965, PubMed:8662673, PubMed:8710908, PubMed:9461517). At the cell surface is thought to act as an endothelial receptor for plasma proteins of the complement and kallikrein-kinin cascades (PubMed:10479529, PubMed:11859136, PubMed:8662673, PubMed:8710908). 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 (PubMed:20810993, PubMed:8195709). In complex with cytokeratin-1/KRT1 is a high affinity receptor for kininogen-1/HMWK (PubMed:21544310). 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 (PubMed:16140380, PubMed:22700724, PubMed:9461517). Signaling involved in inhibition of innate immune response is implicating the PI3K-AKT/PKB pathway (PubMed:16177118). 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 (By similarity). Acts as a RNA modification reader, which specifically recognizes and binds mitochondrial RNAs modified by C5-methylcytosine (m5C) in response to stress, and promotes recruitment of the mitochondrial degradosome complex, leading to their degradation (PubMed:39019044). 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 (By similarity). Involved in regulation of RNA splicing by inhibiting the RNA-binding capacity of SRSF1 and its phosphorylation (PubMed:10022843, PubMed:21536856). Is required for the nuclear translocation of splicing factor U2AF1L4 (By similarity). Involved in regulation of CDKN2A- and HRK-mediated apoptosis. Stabilizes mitochondrial CDKN2A isoform smARF (PubMed:17486078). May be involved in regulation of FOXC1 transcriptional activity

and NFY/CCAAT- binding factor complex-mediated transcription (PubMed:15243141, PubMed:18676636). May play a role in antibacterial defense as it can bind to cell surface hyaluronan and inhibit Streptococcus pneumoniae hyaluronate lyase (PubMed:19004836). 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 (PubMed:11086025, PubMed:17881511). Involved in regulation of antiviral response by inhibiting RIGI- and IFIH1-mediated signaling pathways probably involving its association with MAVS after viral infection (PubMed:19164550). Acts as a regulator of DNA repair via homologous recombination by inhibiting the activity of MRE11: interacts with unphosphorylated MRE11 and RAD50 in absence of DNA damage, preventing formation and activity of the MRN complex. Following DNA damage, dissociates from phosphorylated MRE11, allowing formation of the MRN complex (PubMed:31353207).

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.

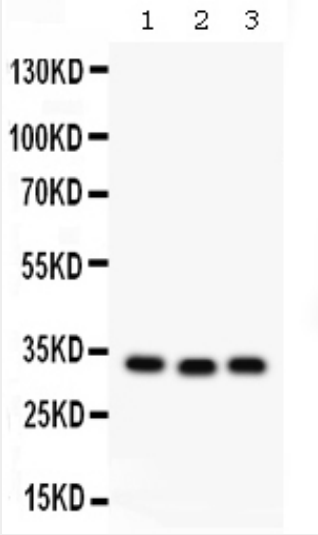
Anti-GC1q R Picoband Antibody - Protocols

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

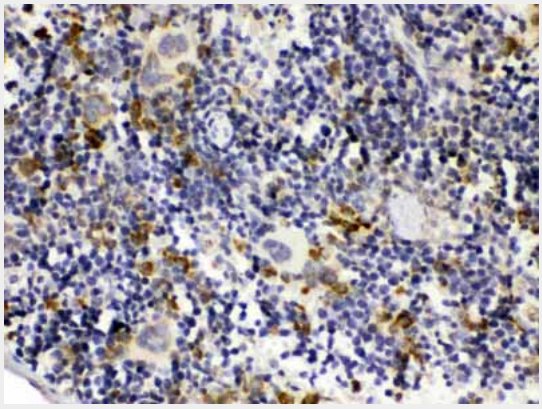
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-GC1q R Picoband Antibody - Images

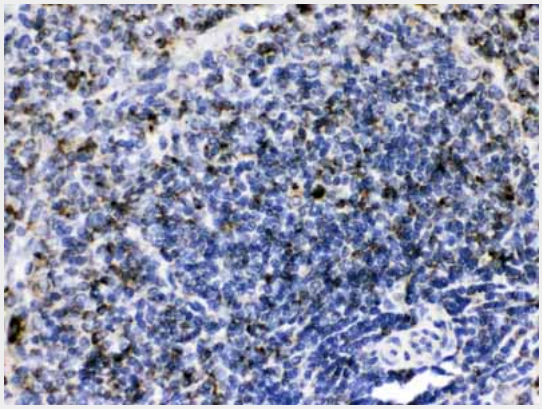
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Western blot analysis of GC1q R expression in rat liver extract (lane 1), mouse spleen extract (lane 2) and MCF-7 whole cell lysates (lane 3). GC1q R at 33KD was detected using rabbit anti-GC1q R Antigen Affinity purified polyclonal antibody (Catalog # ABO12606) at 0.5 Î¼g/mL. The blot was developed using chemiluminescence (ECL) method .

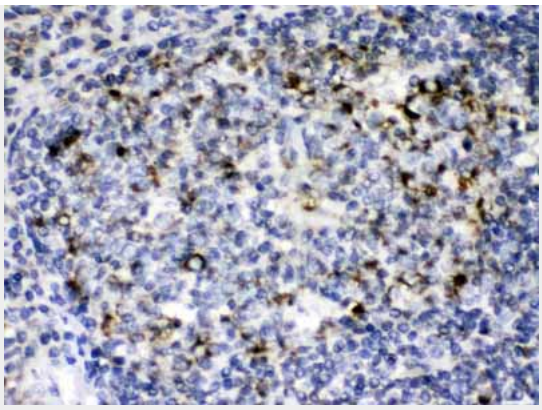


GC1q R was detected in paraffin-embedded sections of mouse spleen tissues using rabbit anti-GC1q R Antigen Affinity purified polyclonal antibody (Catalog # ABO12606) at 1 Î¼g/mL. The immunohistochemical section was developed using SABC method .



GC1q R was detected in paraffin-embedded sections of rat spleen tissues using rabbit anti- GC1q R Antigen Affinity purified polyclonal antibody (Catalog # ABO12606) at 1 Î¼g/mL. The immunohistochemical section was developed using SABC method .

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



GC1q R was detected in paraffin-embedded sections of human tonsil tissues using rabbit anti-GC1q R Antigen Affinity purified polyclonal antibody (Catalog # ABO12606) at 1 ??g/mL. The immunohistochemical section was developed using SABC method .

Anti-GC1q R Picoband Antibody - Background

Complement component 1 Q subcomponent-binding protein, mitochondrial is a protein that in humans is encoded by the C1QBP gene. This gene is mapped to 17p13.3 in a region conserved with mouse chromosome 11. The human complement subcomponent C1q associates with C1r and C1s in order to yield the first component of the serum complement system. The protein encoded by this gene 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.