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12-8504: Anti-Human GC1q R (C1QBP)– Purified in vivo GOLD™ Functional Grade Antibody (Clone 60.11)

Clonality :	Monoclonal
Clone Name :	60.11
Application :	IHC,FACS,WB
Reactivity :	Human
Gene :	gC1qR
Gene ID :	708
Uniprot ID :	Q07021
Format :	Purified
Alternative Name :	C1QBP, p32, HABP1, gC1qR
Isotype :	Mouse IgG1 κ
Immunogen Information :	Recombinant human gC1qR (C1QBP) fusion protein

Description

Specificity: Activity is directed against the mature form of the human globular C1q Receptor (gC1qR), also known as C1QBP or p32. Clone 60.11 specifically recognizes an epitope within the N-terminal region (residues 76–93) of the mature protein, which corresponds to the high-affinity binding site for C1q. It recognizes both monomeric and homotrimeric forms but does not bind to truncated variants lacking the N-terminal binding domain.

The globular C1q Receptor (gC1qR), encoded by the C1QBP gene, is a highly acidic, doughnut-shaped homotrimer that serves as a central hub for complement activation and inflammatory signaling. While predominantly mitochondrial (where it regulates oxidative phosphorylation), surface-translocated gC1qR acts as a receptor for the globular heads of C1q, the recognition molecule of the classical complement pathway.

Beyond complement, gC1qR interacts with the kinin-kallikrein system (Factor XII, High-Molecular-Weight Kininogen) to drive the production of bradykinin, a potent vasoactive peptide that promotes vascular permeability and inflammation. In the context of cancer, surface gC1qR facilitates tumor cell proliferation and migration by activating the PI3K/Akt and ERK signaling pathways. It also suppresses the oxidative burst in phagocytes, thereby aiding tumor immune evasion.

Clone 60.11 is a functional blocking antibody widely utilized to dissect these pathogenic axes. By binding specifically to the C1q-binding site, 60.11 prevents the interaction between gC1qR and C1q, effectively neutralizing downstream inflammatory signals. In preclinical models of triple-negative breast cancer (TNBC), treatment with 60.11 significantly inhibited tumor growth and reduced angiogenesis (CD31+ vessel density) by blocking gC1qR-dependent mitogenic signaling. Additionally, 60.11 has been shown to reduce tissue colonization by Staphylococcus aureus in models of infective endocarditis, as the bacteria exploit host gC1qR to adhere to endothelial cells.

Product Info

Amount :	5mg / 1mg
Purification :	≥95% monomer by analytical SEC·>95% by SDS Page Preparation: Functional grade preclinical antibodies are manufactured in an animal free facility using only in vitro protein free cell culture techniques and are purified by a multi-step process including the use of protein A or G to assure extremely low levels of endotoxins, leachable protein A or aggregates.

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Content :	Concentration: ≥ 5.0 mg/ml Formulation: This monoclonal antibody is aseptically packaged and formulated in 0.01 M phosphate buffered saline (150 mM NaCl) PBS pH 7.2 - 7.4 with no carrier protein, potassium, calcium or preservatives added. Due to inherent biochemical properties of antibodies, certain products may be prone to precipitation over time. Precipitation may be removed by aseptic centrifugation and/or filtration.
Storage condition :	Functional grade preclinical antibodies may be stored sterile as received at 2-8°C for up to one month. For longer term storage, aseptically aliquot in working volumes without diluting and store at ≤ -70°C. Avoid Repeated Freeze Thaw Cycles.

Application Note

FC,
Functional Blockade (C1q binding inhibition)