Datasheet for ABIN2191879

anti-C1QBP antibody

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Overview

Quantity:	100 µg
Target:	C1QBP
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This C1QBP antibody is un-conjugated
Application:	Western Blotting (WB), Immunoprecipitation (IP), Immunofluorescence (IF), Flow Cytometry (FACS), Functional Studies (Func), Immunoassay (IA)

Product Details

Clone:	74-5-2
Isotype:	IgG1
Cross-Reactivity (Details):	Cross reactivity: Rat : Yes
Sterility:	0.2 µm filtered

Target Details

Target:	C1QBP
Abstract:	C1QBP Products
Background:	The monoclonal antibody 74.5.2 recognizes a cell membrane C1q binding molecule that recognises the globular heads of C1q. It is also present in plasma and the extracellular matrix. The molecule is an unusually acidic, single chain protein with an apparent molecular weight of

Target Details

	33 kDa. It does not possess a conventional sequence motif compatible with a membrane spanning segment nor a consensus site for a GPI anchor. gC1qR migrates as a single chain under both reducing and non-reducing conditions, but it behaves as an oligomer on gel-filtration in non-dissociating conditions. Its multimer formation may be a critical process by which the gC1qR molecule increases its affinity for multivalent ligands such as C1q. gC1qR has been shown to inhibit complement activation by preventing the binding of C1q to antibodies, suggesting that the binding site for gC1qR and the binding site for immune complexes, which are present on the C1q globular 'heads', may be located at the same position. gC1qR is capable of interacting with several proteins involved in blood clotting, namely, thrombin, prothrombin, the heparinbinding form of vitronectin, the ternary complex, vitronectin-thrombin-antithrombin, as well as high-molecular-weight kininogen and Hageman factor. Besides its role in the complement pathway, gC1qR participates in enhancement of Fc-receptor and CR1-mediated phagocytosis, procoagulant activity on platelets, and chemotactic activity on mast cells, eosinophils, neutrophils, and fibroblasts. gC1qR is expressed on a wide variety of cells and can serve as a binding site for plasma and microbial proteins. Its antigenic sites may be cryptic on cells in suspension but become exposed when the cells are fixed by bifunctional cross-linkers. Probably it is also expressed on the cell membrane as a tetramer. Crosslinking or activation may thus bring about a tetrameric assembly of gC1qR followed by a conformational change within the molecule, thereby exposing epitopes which are otherwise hidden. A form of gC1qR is also found inside the cell. Intracellular gC1qR has been shown to bind the cytoplasmic tail of the α1B-adrenergic receptor and to PKCμ. The monoclonal antibody 74.5.2 is directed against epitopes in the XC15 peptide that contains a binding site for high-molecular-weight kininogen and Factor XII.
Pathways:	Ribonucleoprotein Complex Subunit Organization, Ribosome Assembly

Application Details

Application Notes:	For flow cytometry and Western blotting, dilutions to be used depend on detection system applied. It is recommended that users test the reagent and determine their own optimal dilutions. The typical starting working dilution is 1:50. For functional studies, in vitro dilutions have to be optimized in user's experimental setting. Website:
Restrictions:	For Research Use only

Handling

Buffer:	PBS, containing 0.1 % bovine serum albumin.

Handling

Storage:	4 °C
Storage Comment:	Product should be stored at 4 °C. Under recommended storage conditions, product is stable for one year.
Expiry Date:	12 months

Publications

Product cited in:

Sansonno, Tucci, Ghebrehiwet, Lauletta, Peerschke, Conteduca, Russi, Gatti, Sansonno, Dammacco: "Role of the receptor for the globular domain of C1q protein in the pathogenesis of hepatitis C virus-related cryoglobulin vascular damage." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 183, Issue 9, pp. 6013-20, (2009) (PubMed).

Peerschke, Bayer, Ghebrehiwet, Xiong: "gC1qR/p33 blockade reduces Staphylococcus aureus colonization of target tissues in an animal model of infective endocarditis." in: **Infection and immunity**, Vol. 74, Issue 8, pp. 4418-23, (2006) (PubMed).

Ghebrehiwet, Lim, Kumar, Feng, Peerschke: "gC1q-R/p33, a member of a new class of multifunctional and multicompartmental cellular proteins, is involved in inflammation and infection." in: **Immunological reviews**, Vol. 180, pp. 65-77, (2001) (PubMed).

Ghebrehiwet, Lu, Zhang, Lim, Eggleton, Leigh, Reid, Peerschke: "Identification of functional domains on gC1Q-R, a cell surface protein that binds to the globular "heads" of C1Q, using monoclonal antibodies and synthetic peptides." in: **Hybridoma**, Vol. 15, Issue 5, pp. 333-42, (1997) (PubMed).