

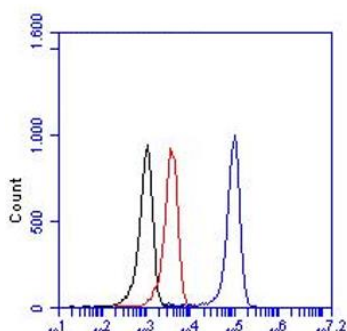
**CERTIFICATE OF ANALYSIS – TECHNICAL DATA SHEET**

<b>Product name</b>	gC1q-R, Human, clone 74.5.2		
<b>Catalog number</b>	HM2015-20UG		
<b>Lot number</b>	-	<b>Expiry date</b>	-
<b>Volume</b>	200 µl	<b>Amount</b>	20 µg
<b>Formulation</b>	0.2 µm filtered in PBS+0.1%BSA	<b>Concentration</b>	100 µg/ml
<b>Host Species</b>	Mouse IgG1	<b>Conjugate</b>	None
<b>Endotoxin</b>	<24 EU/mg	<b>Purification</b>	Protein G
<b>Storage</b>	4°C		

**Application notes**

	IHC-F	IHC-P	IF	FC	FS	IA	IP	W
Reference #			2	2,4	2,3	1,4	1	1,3
Yes			•	•	•	•	•	•
No								
N.D.	•	•						

N.D.= Not Determined; IHC = Immuno histochemistry; F = Frozen sections; P = Paraffin sections; IF = Immuno Fluorescence; FC = Flow Cytometry; FS = Functional Studies; IA = Immuno Assays; IP = Immuno Precipitation; W = Western blot



FC: detection of gC1q-R in THP-1 cells. Red, black and blue line represent the isotype control, cells only and HM2015 with a concentration of 2 µg/250000 cells, respectively.

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.

**General Information**
**Description**

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 33 kDa. It does not possess a conventional sequence motif compatible with a membrane spanning segment nor a consensus site for a GPI anchor. gC1q-R 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 gC1q-R molecule increases its affinity for multivalent ligands such as C1q. gC1q-R has been shown to inhibit complement activation by preventing the binding of C1q to antibodies, suggesting that the binding site for gC1q-R and the binding site for immune complexes, which are present on the C1q globular 'heads', may be located at the same position. gC1q-R 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, gC1q-R participates in enhancement of Fc-receptor and CR1-mediated phagocytosis, procoagulant activity on platelets, and chemotactic activity on mast cells, eosinophils, neutrophils, and fibroblasts. gC1q-R 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 gC1q-R followed by a conformational change within the molecule, thereby exposing epitopes which are otherwise hidden. A form of gC1q-R is also found inside the cell. Intracellular gC1q-R has been shown to bind the cytoplasmic tail of the  $\alpha$ 1B-adrenergic receptor and to PKC $\mu$ . 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. Clone 74.5.2 recognizes both the mature (74 – 282) and truncated form, lacking residues 74-95.

<b>Immunogen</b>	Recombinant gC1q-R corresponding to mature GC1q-R (amino acids 74-282)
<b>Aliases</b>	Complement component 1 Q subcomponent-binding protein, mitochondrial, ASF/SF2-associated protein p32, Glycoprotein gC1qBP, C1qBP, Hyaluronan-binding protein 1, Mitochondrial matrix protein p32, p33
<b>Gene</b>	Gene name: C1QBP, GC1QBP, HABP1, SF2P32
<b>References</b>	<ol style="list-style-type: none"><li>1. Ghebrehwet, B et al; 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. <i>Hybridoma</i> 1996, 5: 333</li><li>2. Ghebrehwet, B et al; gC1q-R/p33, a member of a new class of multifunctional and multicompartmental cellular proteins, is involved in inflammation and infection. <i>Immunol Rev</i> 2001, 180: 65</li><li>3. Peerschke, E et al; gC1qR/p33 blockade reduces <i>Staphylococcus aureus</i> colonization of target tissues in an animal model of infective endocarditis. <i>Infect Immun</i> 2006, 74: 4418</li><li>4. Sansonno, D et al; Role of the receptor for the globular domain of C1q protein in the pathogenesis of hepatitis C virus-related cryoglobulin vascular damage. <i>J Immunol</i> 2009, 183: 6013</li></ol>
<b>Storage&amp;stability</b>	Product should be stored at 4°C. Under recommended storage conditions, product is stable for at least one year.
<b>Precautions</b>	For research use only. Not for use in or on humans or animals or for diagnostics. It is the responsibility of the user to comply with all local/state and federal rules in the use of this product. Hycult Biotech is not responsible for any patent infringements that might result from the use or derivation of this product.

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We hereby certify that the above-stated information is correct and that this product has been successfully tested by the Quality Control Department. This product was released for sale according to the existing specifications. This document has been produced electronically and is valid without a signature.

Approved by Manager of QC  
Brenda Teunissen

Date  
16/11/2020

Do you have any questions or comments regarding this product? Please contact us via [support@hycultbiotech.com](mailto:support@hycultbiotech.com).