

Datasheet: MCA2603

**BATCH NUMBER 157427**

<b>Description:</b>	MOUSE ANTI HUMAN C1q
<b>Specificity:</b>	C1q
<b>Other names:</b>	COMPLEMENT COMPONENT 1q
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	004-43.X (3R9/2)
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 ml

## Product Details

### Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			
Immunohistology - Frozen	▪			1:500 - 1:1000
ELISA	▪			
Western Blotting	▪			
Immunofluorescence	▪			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A
<b>Buffer Solution</b>	Borate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
<b>Approx. Protein</b>	IgG concentration 1.09 mg/ml

## Concentrations

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**Immunogen** Globular head domain of C1q, purified from human plasma.

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## External Database Links

### UniProt:

[P02745](#) [Related reagents](#)

[P02746](#) [Related reagents](#)

[P02747](#) [Related reagents](#)

### Entrez Gene:

[712](#) C1QA [Related reagents](#)

[713](#) C1QB [Related reagents](#)

[714](#) C1QC [Related reagents](#)

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**Synonyms** C1QG

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**RRID** AB\_2067258

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**Specificity** **Mouse anti human C1q antibody, clone 004-43.X (3R9/2)**, recognizes human complement component 1 q (C1q), a ~156 kDa secreted protein. C1q associates with proenzymes C1r and C1s to form the calcium-dependent C1 complex, the first component of the serum complement system. C1q is composed of six A-, six B-chains and six C-polypeptide chains. Each chain contains a collagen-like region located near the N-terminus and a C-terminal globular region. These regions bind the Fc region of IgM and IgG molecules, initiating the classical pathway of complement activation. C1q deficiency has been associated with lupus erythematosus and glomerulonephritis ([Troedson \*et al.\* 2013](#)).

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**Immunohistology** For best results Bio-Rad recommend [HISTAR](#) detection kits.

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**Histology Positive Control Tissue** Kidney from patients with streptococcal glomerulonephritis

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**References**

1. Gershov, D. *et al.* (2000) C-Reactive protein binds to apoptotic cells, protects the cells from assembly of the terminal complement components, and sustains an antiinflammatory innate immune response: implications for systemic autoimmunity. [J Exp Med. 192 \(9\): 1353-64.](#)
2. Castellano, G. *et al.* (2010) Therapeutic targeting of classical and lectin pathways of complement protects from ischemia-reperfusion-induced renal damage. [Am J Pathol. 176: 1648-59.](#)
3. Ma, W. *et al.* (2012) RAGE binds C1q and enhances C1q-mediated phagocytosis. [Cell Immunol. 274: 72-82.](#)
4. Lachmann, N. *et al.* (2013) Systematic comparison of four cell- and Luminex-based methods for assessment of complement-activating HLA antibodies. [Transplantation. 95 \(5\): 694-700.](#)
5. Cai, Y. *et al.* (2015) C1q protein binds to the apoptotic nucleolus and causes C1

protease degradation of nucleolar proteins. [J Biol Chem. 290 \(37\): 22570-80.](#)

6. Madhukaran, S.P. *et al.* (2015) Decidual expression and localization of human surfactant protein SP-A and SP-D, and complement protein C1q. [Mol Immunol. 66 \(2\): 197-207.](#)

7. Kashiwagi, N. *et al.* (2017) Method for measuring anti-drug antibody [US Patent Application US20170315118A1](#)

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<b>Storage</b>	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	Guaranteed until date of expiry. Please see product label.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10077 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA260310077">https://www.bio-rad-antibodies.com/SDS/MCA260310077</a>
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
'M379036:210324'

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