

Technically  
Speaking

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for the Science of Tomorrow™

**Anti-Human Complement Component C1q  
Monoclonal Antibody**

Catalogue#	Format	Size	Concentration	Isotype Control
CL7611AP	Purified	250 µg	1.0 mg/ml	CLCMG100
CL7611B	Biotin	100 µg	0.1 mg/ml	CLCMG115
CL7611F	FITC	100 µg	0.1 mg/ml	CLCMG101
CL7611PE	PE	50 µg	0.1 mg/ml	CLCMG104
CL7611PE-SP	PE	100µg	0.2mg/ml	CLCMG104
CL7611APC	APC	100 µg	0.1 mg/ml	CLCMG105

Isotype: Mouse IgG<sub>1</sub>

**DESCRIPTION:**

Cedarlane's Anti-Human Complement Component C1q Monoclonal Antibody detects the C1q portion of the macromolecular C1 complex. C1 exists in the serum and consists of C1q and 2 molecules each of C1r and C1s, held together in a complex (C1qr2s2) stabilized by Ca<sup>2+</sup> ions. C1q specifically binds surface bound IgG and IgM to facilitate complement activation via the classical pathway. The C1q subunit is made up of an umbrella-like radial array of six chains, each of which has a globular head connected by a collagen-like arm to a central stalk. The C1q molecule is 460 kDa (hexamer of three pairs of chains; 22, 23, 24 kDa). Note that the specific epitope (subunit) which this antibody recognizes has not yet been determined.

**PRESENTATION:**

**Purified:** Purified IgG buffered in PBS and 0.02% NaN<sub>3</sub>. (Purified from ascitic fluid via Protein G Chromatography). For maximum recovery of contents, spin down tube before use.

**Biotin, FITC, PE, APC:** Biotin/FITC/PE/APC conjugated IgG buffered in PBS, 0.02% NaN<sub>3</sub> and EIA grade BSA as a stabilizing protein to bring total protein concentration to 4-5 mg/ml.

**STORAGE/STABILITY:**

For all formats, store at 4°C. DO NOT FREEZE **PE and APC** conjugates. For long term storage (**Purified, Biotin, FITC**), aliquot and freeze unused portion at -20°C in volumes appropriate for single usage. Avoid freeze/thaw cycles.

**APPLICATION:**

This antibody has been reported to work in ELISA, Western Blotting and flow cytometry. It has also been reported to cross-react with dog C1q.

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## **SPECIFICATIONS:**

Clone: MhC5B9

### Hybridoma Production:

Immunization:

Immunogen: Syngeneic thymocytes incubated with mouse (IgG2a) anti-murine Thy 1.2 and human serum.

Donor: BALB/c mice

Fusion Partner: Mouse myeloma cell line P3X63 Ag. 8.653

Specificity: Human Complement Component C1q.

## **TEST RESULTS:**

### Tissue Distribution by Flow Cytometry Analysis:

Cell Concentration:  $1 \times 10^6$  cells per tests

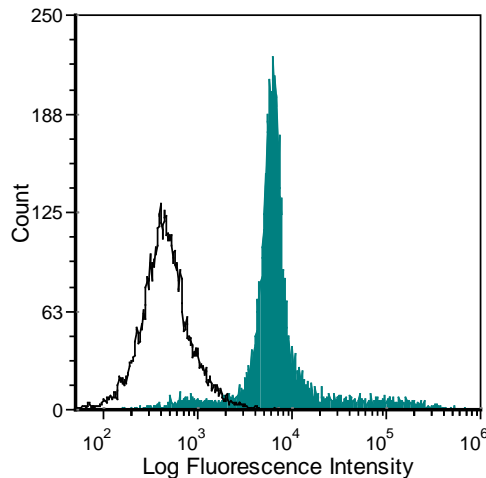
Antibody Concentration Used:  $0.5 \mu\text{g}/10^6$  cells

### Cell Source:

Balb/c Thymus (Activated with anti-Mouse CD90, Fresh human serum, and 5 mM EDTA)

### Percentage of cells stained above control:

42.6%



Balb/c mouse thymocytes incubated with anti-mouse CD90 (Thy 1.2) (clone: 5a-8) + fresh human serum + 5 mM EDTA were stained with anti-C1q (clone: MhC5B9) (filled histogram) or mouse IgG1 isotype control (open histogram).

**N.B. Appropriate control samples should always be included in any labeling studies.**

**\* For optimal results in various applications, it is recommended that each investigator determine dilutions appropriate for individual use.**

## **REFERENCES:**

- Schuh R, Kremmer E, Ego E, Wasiliu M and Thierfelder S. 1992. **Determination of monoclonal antibody specificity by immunoadsorption and western blotting.** *J Immunol Methods.* July 31; 152(1): 59-67.
- Zwirner J, Wittig A, Kremmer E, Gotze O. (1998) **A novel ELISA for the evaluation of the classical pathway of complement.** *J. Immunol. Methods.* 211: 183-190.
- Nielsen C, Ostergaard O, Stener L, et al. (2012) **Increased IgG on Cell-Derived Plasma Microparticles in Systemic Lupus Erythematosus Is Associated With Autoantibodies and Complement Activation.** *Arthritis and Rheumatism.* 64(4):1227-36.

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