

## Datasheet: MCA2389A700

|                      |                                       |
|----------------------|---------------------------------------|
| <b>Description:</b>  | RAT ANTI MOUSE Ly-6C:Alexa Fluor® 700 |
| <b>Specificity:</b>  | Ly-6C                                 |
| <b>Other names:</b>  | Lymphocyte antigen 6C2                |
| <b>Format:</b>       | ALEXA FLUOR® 700                      |
| <b>Product Type:</b> | Monoclonal Antibody                   |
| <b>Clone:</b>        | ER-MP20                               |
| <b>Isotype:</b>      | IgG2a                                 |
| <b>Quantity:</b>     | 100 TESTS/1ml                         |

### 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 | ▪   |    |                | Neat               |

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>                 | Mouse   |                   |                     |                   |                 |     |     |
|---------------------------------------|---|-------------------|---------------------|-------------------|-----------------|-----|-----|
| <b>Product Form</b>                   | Purified IgG conjugated to Alexa Fluor 700 - liquid   |                   |                     |                   |                 |     |     |
| <b>Max Ex/Em</b>                      | <table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>Alexa Fluor®700</td> <td>702</td> <td>723</td> </tr> </tbody> </table> | Fluorophore       | Excitation Max (nm) | Emission Max (nm) | Alexa Fluor®700 | 702 | 723 |
| Fluorophore                           | Excitation Max (nm)   | Emission Max (nm) |                     |                   |                 |     |     |
| Alexa Fluor®700                       | 702   | 723               |                     |                   |                 |     |     |
| <b>Preparation</b>                    | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant   |                   |                     |                   |                 |     |     |
| <b>Buffer Solution</b>                | Phosphate buffered saline   |                   |                     |                   |                 |     |     |
| <b>Preservative</b>                   | 0.09% Sodium Azide  |                   |                     |                   |                 |     |     |
| <b>Stabilisers</b>                    | 1% Bovine Serum Albumin   |                   |                     |                   |                 |     |     |
| <b>Approx. Protein Concentrations</b> | IgG concentration 0.05 mg/ml  |                   |                     |                   |                 |     |     |

|                                |   |
|--------------------------------|---|
| <b>Immunogen</b>               | Balb/c macrophage precursor cell hybrids.   |
| <b>External Database Links</b> | <b>UniProt:</b><br><a href="#">P0CW03</a> <a href="#">Related reagents</a>  |
| <b>Fusion Partners</b>         | Spleen cells from immunised rats were fused with cells of the Y3-Ag1.2.3 myeloma cell line.   |
| <b>Specificity</b>             | <p><b>Rat anti Mouse Ly-6C antibody, clone ER-MP20</b> recognizes murine Ly-6C, a 131 amino acid ~14 kDa differentiation antigen, expressed on macrophage/dendritic cell precursors in mid-stage development (late CFU-M, monoblasts and immature monocytes), granulocytes, and on a wide range of endothelial cells and subpopulations of B- and T-lymphocytes.</p> <p>Rat anti Mouse Ly-6C antibody, clone ER-MP20 is able to distinguish multiple mouse blood monocyte subsets: immature Ly-6C<sup>hi</sup> monocytes are recruited to acute peripheral inflammation and develop into Ly-6C<sup>+</sup> exudate macrophages, whereas more mature Ly-6C<sup>lo</sup> monocytes are precursors for tissue macrophages and dendritic cells in steady state.</p> <p>Rat anti Mouse Ly-6C, clone ER-MP20 can be used in conjunction with clone <a href="#">ER-MP12</a> in two colour flow cytometric analysis, to identify different stages of myeloid progenitor cells in mouse bone marrow (<a href="#">Leenen et al. 1990</a>).</p> <p>Rat anti Mouse Ly-6C was originally described as recognizing a protein encoded by the LY6C gene. It has subsequently become apparent that the LY6C locus demonstrates polymorphism and the LY6C gene has been re-designated <a href="#">LY6C2</a>. The <a href="#">LY6C1</a> gene encodes a similar protein with ~95% sequence homology to LY6C2.</p> |
| <b>Flow Cytometry</b>          | <p>Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.</p> <p>The Fc region of monoclonal antibodies may bind to cells expressing low affinity Fc receptors. This may be reduced through the use of the <a href="#">SeroBlock FcR</a> reagent.</p>   |
| <b>References</b>              | <ol style="list-style-type: none"> <li>Zhang, Y. &amp; Bliska, J.B. (2010) YopJ-promoted cytotoxicity and systemic colonization are associated with high levels of murine interleukin-18, gamma interferon, and neutrophils in a live vaccine model of <i>Yersinia pseudotuberculosis</i> infection. <a href="#">Infect Immun 78: 2329-41.</a></li> <li>Leenen, P.J. et al. (1990) Murine macrophage precursor characterization. II. Monoclonal antibodies against macrophage precursor antigens. <a href="#">Eur J Immunol. 20 (1): 27-34.</a></li> <li>de Bruijn, M.F. et al. (1998) Bone marrow cellular composition in Listeria monocytogenes infected mice detected using ER-MP12 and ER-MP20 antibodies: a flow cytometric alternative to differential counting. <a href="#">J Immunol Methods. 217 (1-2): 27-39.</a></li> <li>Schatteman, G.C. et al. (2010) Lin- Cells Mediate Tissue Repair by Regulating MCP-1/CCL-2. <a href="#">Am J Pathol. 177: 2002-10.</a></li> <li>Baumeister, T. et al. (2003) Interleukin-3Ralpha+ myeloid dendritic cells and mast cells develop simultaneously from different bone marrow precursors in cultures with</li> </ol>   |

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**Storage**

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use

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**Guarantee**

12 months from date of despatch

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**Acknowledgements**

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**Health And Safety Information**      Material Safety Datasheet documentation #10041 available at:  
10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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**Regulatory**                      For research purposes only

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## Related Products

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 700 \(MCA1212A700\)](#)

### Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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