

## Datasheet: MCA2293GA

|                      |                       |
|----------------------|-----------------------|
| <b>Description:</b>  | RAT ANTI MOUSE CD107b |
| <b>Specificity:</b>  | CD107b                |
| <b>Other names:</b>  | MAC-3                 |
| <b>Format:</b>       | Purified              |
| <b>Product Type:</b> | Monoclonal Antibody   |
| <b>Clone:</b>        | M3/84                 |
| <b>Isotype:</b>      | IgG1                  |
| <b>Quantity:</b>     | 0.1 mg                |

## 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 (1)         | ▪   |    |                | 1/50 - 1/100       |
| Immunohistology - Frozen   | ▪   |    |                |                    |
| Immunohistology - Paraffin | ▪   |    |                |                    |
| ELISA                      |     |    | ▪              |                    |
| Immunoprecipitation        | ▪   |    |                |                    |
| Western Blotting           | ▪   |    |                |                    |

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

**(1)Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.**

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|------------------------|---|
| <b>Target Species</b>  | Mouse   |
| <b>Product Form</b>    | Purified IgG - liquid   |
| <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 Stabilisers</b>       | 0.09% Sodium Azide  |
| <b>Carrier Free</b>                   | Yes   |
| <b>Approx. Protein Concentrations</b> | IgG concentration 1.0 mg/ml   |
| <b>Immunogen</b>                      | Glycoproteins purified from mouse peritoneal macrophage membranes.  |
| <b>External Database Links</b>        | <p><b>UniProt:</b><br/> <a href="#">P17047</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">16784</a>    Lamp2    <a href="#">Related reagents</a></p>   |
| <b>Synonyms</b>                       | Lamp-2  |
| <b>RRID</b>                           | AB_2134762  |
| <b>Fusion Partners</b>                | Spleen cells from immunised Lewis rats were fused with cells of the mouse P3-NSI/1-Ag4-1 myeloma cell line.   |
| <b>Specificity</b>                    | <p><b>Rat anti Mouse CD107b antibody, clone M3/84</b> recognizes murine CD107b, also known as MAC-3 and LAMP-2. CD107b is a transmembrane glycoprotein that is associated with lysosomal membranes and is primarily expressed on mononuclear phagocytes. Expression of CD107b does vary between cell populations and the molecular weight of CD107b can vary between ~92-120 kDa. CD107b is involved in aspects of leucocyte adhesion (<a href="#">Kannan <i>et al.</i> 1996</a>).</p> <p>The expression of CD107b is predominantly cytoplasmic - flow cytometry results are improved by the use of a membrane permeabilisation procedure prior to staining.</p>  |
| <b>Flow Cytometry</b>                 | Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul.   |
| <b>References</b>                     | <ol style="list-style-type: none"> <li>1. Springer, T.A. (1981) Monoclonal antibody analysis of complex biological systems. Combination of cell hybridization and immunoadsorbents in a novel cascade procedure and its application to the macrophage cell surface. <a href="#">J Biol Chem. 256 (8): 3833-9.</a></li> <li>2. Flotte, T.J. <i>et al.</i> (1983) Dendritic cell and macrophage staining by monoclonal antibodies in tissue sections and epidermal sheets. <a href="#">Am J Pathol. 111 (1): 112-24.</a></li> <li>3. Ho, M.K. &amp; Springer, T.A. (1983) Tissue distribution, structural characterization, and biosynthesis of Mac-3, a macrophage surface glycoprotein exhibiting molecular weight heterogeneity. <a href="#">J Biol Chem. 258 (1): 636-42.</a></li> <li>4. Ulrich, R. <i>et al.</i> (2010) Machine learning approach identifies new pathways associated with demyelination in a viral model of multiple sclerosis. <a href="#">J Cell Mol Med. 14 (1-2): 434-48.</a></li> <li>5. Amirbekian, V. <i>et al.</i> (2007) Detecting and assessing macrophages in vivo to evaluate atherosclerosis noninvasively using molecular MRI. <a href="#">Proc Natl Acad Sci U S A. 104: 961-6.</a></li> <li>6. Fan, D. <i>et al.</i> (2014) Differential role of TIMP2 and TIMP3 in cardiac hypertrophy,</li> </ol> |

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**Storage**

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

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. 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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| <b>Guarantee</b> | 12 months from date of despatch |
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| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10040 available at:<br>10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a> |
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|-------------------|----------------------------|
| <b>Regulatory</b> | For research purposes only |
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## Related Products

### Recommended Secondary Antibodies

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|--|---|
| Goat Anti Rat IgG (STAR69...)                  | <a href="#">FITC</a>                                |
| Goat Anti Rat IgG (STAR73...)                  | <a href="#">RPE</a>                                 |
| Rabbit Anti Rat IgG (STAR16...)                | <a href="#">DyLight@800</a>                         |
| Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) | <a href="#">DyLight@800</a>                         |
| Goat Anti Rat IgG (STAR72...)                  | <a href="#">HRP</a>                                 |
| Rabbit Anti Rat IgG (STAR21...)                | <a href="#">HRP</a>                                 |
| Rabbit Anti Rat IgG (STAR17...)                | <a href="#">FITC</a>                                |
| Goat Anti Rat IgG (STAR131...)                 | <a href="#">Alk. Phos.</a> , <a href="#">Biotin</a> |

|                                  |   |                  |   |               |   |
|----------------------------------|---|------------------|---|---------------|---|
| <b>North &amp; South America</b> | Tel: +1 800 265 7376<br>Fax: +1 919 878 3751<br>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<br>Fax: +44 (0)1865 852 739<br>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<br>Fax: +49 (0) 89 8090 95 50<br>Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a> |
|----------------------------------|---|------------------|---|---------------|---|

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