

## Datasheet: MCA275GA

|                      |                               |
|----------------------|-------------------------------|
| <b>Description:</b>  | MOUSE ANTI RAT CD11b          |
| <b>Specificity:</b>  | CD11b                         |
| <b>Other names:</b>  | INTEGRIN ALPHA M CHAIN, MAC-1 |
| <b>Format:</b>       | Purified                      |
| <b>Product Type:</b> | Monoclonal Antibody           |
| <b>Clone:</b>        | OX-42                         |
| <b>Isotype:</b>      | IgG2a                         |
| <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                 | ▪   |    |                | 1/50 - 1/100       |
| Immunohistology - Frozen       | ▪   |    |                | 1/50 - 1/100       |
| Immunohistology - Paraffin (1) |     |    | ▪              |                    |
| ELISA                          |     |    | ▪              |                    |
| Immunoprecipitation            | ▪   |    |                |                    |
| Western Blotting               |     |    | ▪              |                    |
| Immunofluorescence             | ▪   |    |                |                    |

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)**OX-42 is reported to be suitable for paraffin-embedded sections following PLP fixation ([Whiteland et al., 1995](#)).**

|                        |   |
|------------------------|---|
| <b>Target Species</b>  | Rat   |
| <b>Product Form</b>    | Purified IgG - liquid   |
| <b>Preparation</b>     | Purified IgG prepared by affinity chromatography on Protein A 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>                      | Resident rat peritoneal macrophages.  |
| <b>RRID</b>                           | AB_566455   |
| <b>Fusion Partners</b>                | Spleen cells from immunised BALB/c mice were fused with cells of the NSO/U mouse myeloma cell line.   |
| <b>Specificity</b>                    | <p><b>Mouse anti Rat CD11b, clone OX-42</b> recognizes rat CD11b, also known as <a href="#">integrin alpha-M</a>, the receptor for the iC3b component of complement. CD11b is a 1151 amino acid single pass type 1 transmembrane glycoprotein possessing a single <a href="#">vWFA</a> domain and multiple <a href="#">FG-GAP</a> repeats. CD11b is expressed on most macrophages, including resident and activated peritoneal macrophages and Kupffer cells and around 35% of alveolar macrophages. The antibody also labels dendritic cells, granulocytes and <a href="#">microglia</a> in the brain (<a href="#">Robinson et al.1986</a>).</p> <p>Mouse anti Rat CD11b, clone OX-42 is reported to inhibit complement mediated rosettes (<a href="#">Robinson et al.1986</a>) as well as inhibit myelin binding and uptake (<a href="#">van der Laan et al.1996</a>).</p>  |
| <b>Flow Cytometry</b>                 | Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.   |
| <b>References</b>                     | <ol style="list-style-type: none"> <li>1. Robinson, A.P. <i>et al.</i> (1986) Macrophage heterogeneity in the rat as delineated by two monoclonal antibodies MRC OX-41 and MRC OX-42, the latter recognizing complement receptor type 3. <a href="#">Immunology. 57 (2): 239-47.</a></li> <li>2. Milligan, C.E. <i>et al.</i> (1991) Differential immunochemical markers reveal the normal distribution of brain macrophages and microglia in the developing rat brain. <a href="#">J Comp Neurol. 314 (1): 125-35.</a></li> <li>3. Yrjanheikki, J. <i>et al.</i> (1999) A tetracycline derivative, minocycline, reduces inflammation and protects against focal cerebral ischemia with a wide therapeutic window. <a href="#">Proc Natl Acad Sci U S A. 96: 13496-500.</a></li> <li>4. Draskovic-Pavlovic, B. <i>et al.</i> (1999) Differential effects of anti-rat CD11b monoclonal antibodies on granulocyte adhesiveness. <a href="#">Immunology. 96: 83-9.</a></li> <li>5. Kielian, T. and Hickey, W.F. (2000) Proinflammatory cytokine, chemokine, and cellular adhesion molecule expression during the acute phase of experimental brain abscess development. <a href="#">Am J Pathol. 157: 647-58.</a></li> <li>6. Choi, S.H. <i>et al.</i> (2003) Thrombin-induced microglial activation produces degeneration of nigral dopaminergic neurons <i>in vivo</i>. <a href="#">J Neurosci. 23: 5877-86.</a></li> <li>7. Bruce-Keller, A.J. <i>et al.</i> (2003) Synaptic transport of human immunodeficiency virus-Tat protein causes neurotoxicity and gliosis in rat brain. <a href="#">J Neurosci. 23: 8417-22.</a></li> <li>8. Jin, S.X. <i>et al.</i> (2003) p38 mitogen-activated protein kinase is activated after a spinal</li> </ol> |

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**Storage**

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee**

12 months from date of despatch

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**Health And Safety**

Material Safety Datasheet documentation #10040 available at:

**Information** <https://www.bio-rad-antibodies.com/SDS/MCA275GA>  
10040

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

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

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA1210\)](#)

|                                  |   |                  |   |               |   |
|----------------------------------|---|------------------|---|---------------|---|
| <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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Printed on 25 Mar 2023

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