

## Datasheet: MCA275B

<b>Description:</b>	MOUSE ANTI RAT CD11b:Biotin
<b>Specificity:</b>	CD11b
<b>Other names:</b>	INTEGRIN ALPHA M CHAIN, MAC-1
<b>Format:</b>	Biotin
<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	▪			Neat - 1/10
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (1)			▪	

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 conjugated to Biotin - 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</b>	0.09% Sodium Azide
<b>Stabilisers</b>	1.0% Bovine Serum Albumin

<b>Approx. Protein Concentrations</b>	IgG concentration 0.1 mg/ml
<b>Immunogen</b>	Resident rat peritoneal macrophages.
<b>RRID</b>	AB_323662
<b>Fusion Partners</b>	Spleen cells from immunized 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 nerve ligation in spinal cord microglia and dorsal root ganglion neurons and contributes to the generation of neuropathic pain. <a href="#">J Neurosci. 23: 4017-22.</a></li> <li>9. Walczak, P. <i>et al.</i> (2004) Do hematopoietic cells exposed to a neurogenic environment mimic properties of endogenous neural precursors? <a href="#">J Neurosci Res. 76: 244-54.</a></li> <li>10. Stidworthy, M.F. <i>et al.</i> (2004) Notch1 and Jagged1 are expressed after CNS</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  
Information**

Material Safety Datasheet documentation #10041 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA275B>  
10041

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**Regulatory**

For research purposes only

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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)  
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