

## Datasheet: MCA189B

**BATCH NUMBER 160928**

<b>Description:</b>	MOUSE ANTI RAT IgM HEAVY CHAIN:Biotin
<b>Specificity:</b>	IgM HEAVY CHAIN
<b>Format:</b>	Biotin
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MARM-4
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.5 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			▪	
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			125ng/ml as detecting antibody

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.

<b>Target Species</b>	Rat
<b>Product Form</b>	Purified IgG conjugated to Biotin - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide 50% Glycerol
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml

<b>Immunogen</b>	IR202 rat IgM myeloma protein
<b>RRID</b>	AB_321875
<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.
<b>Specificity</b>	<b>Mouse anti Rat IgM Heavy Chain antibody, clone MARM-4</b> recognizes the mu heavy chain of rat immunoglobulin and does not cross-react with other immunoglobulin classes.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Bazin, H. <i>et al.</i> (1974) Three classes and four (sub)classes of rat immunoglobulins: IgM, IgA, IgE and IgG1, IgG2a, IgG2b, IgG2c. <a href="#">Eur J Immunol. 4 (1): 44-8.</a></li> <li>2. Bazin, H. <i>et al.</i> (1978) Transplantable IgD immunoglobulin-secreting tumors in rat. <a href="#">J Immunol. 121 (5): 2077-82.</a></li> <li>3. Khalifeh, M.S. <i>et al.</i> (2010) Investigation of the role of tumour necrosis factor-<math>\alpha</math>, interleukin-1<math>\beta</math>, interleukin-10, nitric oxide and rheumatoid factor-immunoglobulin M in a rat model of arthritis. <a href="#">Lab Anim. 44: 143-9.</a></li> <li>4. Bézie, S. <i>et al.</i> (2015) Compensatory Regulatory Networks between CD8 T, B, and Myeloid Cells in Organ Transplantation Tolerance. <a href="#">J Immunol. 195 (12): 5805-15.</a></li> <li>5. Ueta, H. <i>et al.</i> (2018) Single blood transfusion induces the production of donor-specific alloantibodies and regulatory T cells mainly in the spleen. <a href="#">Int Immunol. 30 (2): 53-67.</a></li> </ol>
<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>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.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10049 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA189B">https://www.bio-rad-antibodies.com/SDS/MCA189B</a> 10049
<b>Regulatory</b>	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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Printed on 18 Jan 2024