

## Datasheet: MCA189

**BATCH NUMBER 156391**

<b>Description:</b>	MOUSE ANTI RAT IgM HEAVY CHAIN
<b>Specificity:</b>	IgM HEAVY CHAIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MARM-4
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.25 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	▪			5ug/ml as coating antibody
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.

<b>Target Species</b>	Rat
<b>Product Form</b>	Purified IgG - 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>	0.1% Sodium Azide
<b>Approx. Protein</b>	IgG concentration 1.0 mg/ml

## Concentrations

**Immunogen** IR202 rat IgM myeloma protein

**RRID** AB\_321874

**Fusion Partners** Spleen cells from immunized BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.

**Specificity** **Mouse anti Rat IgM Heavy Chain antibody, clone MARM-4** recognizes the mu heavy chain of rat immunoglobulin and does not cross-react with other immunoglobulin classes.

**ELISA** This antibody may be used as a coating antibody in a sandwich ELISA in combination with clone MARK-1/MARL-15 (Product code MCA1296P) as detection reagent and purified rat IgM (Product code PRP08).

**References**

1. Bazin, H. *et al.* (1974) Three classes and four (sub)classes of rat immunoglobulins: IgM, IgA, IgE and IgG1, IgG2a, IgG2b, IgG2c. [Eur J Immunol. 4 \(1\): 44-8.](#)
2. Bazin, H. *et al.* (1978) Transplantable IgD immunoglobulin-secreting tumors in rat. [J Immunol. 121 \(5\): 2077-82.](#)
3. Khalifeh, M.S. *et al.* (2010) Investigation of the role of tumour necrosis factor- $\alpha$ , interleukin-1 $\beta$ , interleukin-10, nitric oxide and rheumatoid factor-immunoglobulin M in a rat model of arthritis. [Lab Anim. 44: 143-9.](#)
4. Bézie, S. *et al.* (2015) Compensatory Regulatory Networks between CD8 T, B, and Myeloid Cells in Organ Transplantation Tolerance. [J Immunol. 195 \(12\): 5805-15.](#)
5. Ueta, H. *et al.* (2018) Single blood transfusion induces the production of donor-specific alloantibodies and regulatory T cells mainly in the spleen. [Int Immunol. 30 \(2\): 53-67.](#)

**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.

**Guarantee** 12 months from date of despatch

**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA18910040>

**Regulatory** For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)

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

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