

## Datasheet: MCA278

<b>Description:</b>	MOUSE ANTI RAT IgG2a HEAVY CHAIN
<b>Specificity:</b>	IgG2a HEAVY CHAIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MARG2a-1
<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	▪			1.25ug/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 Concentrations</b>	IgG concentration 1 mg/ml

<b>Immunogen</b>	Purified rat IgG2a.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P20760</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">679045</a>    LOC679045    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_322914
<b>Fusion Partners</b>	Spleen cells from immunized Balb/c mice were fused with cells of the PAI-0 mouse myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Rat IgG2a heavy chain antibody, clone MARG2a-1</b> recognizes the rat gamma 2a immunoglobulin heavy chain, and does not cross-react with other immunoglobulin classes or subclasses.</p> <p>Avidity of Mouse anti Rat IgG2a heavy chain antibody, clone MARG2a-1 for rat IgG2a = <math>2.1 \times 10^9 \text{ M}^{-1}</math>.</p>
<b>ELISA</b>	<p>This product may be used in an indirect ELISA or as a capture antibody in a sandwich ELISA together with <a href="#">MCA1296P</a> as detection reagent.</p> <p>Purified rat IgA (<a href="#">PRP04</a>) may be used as a standard.</p>
<b>References</b>	<ol style="list-style-type: none"> <li>Bazin, H. <i>et al.</i> (1973) Brief communication: Transplantable immunoglobulin-secreting tumors in rats. V. Monoclonal immunoglobulins secreted by 250 ileocecal immunocytomas in LOU-Wsl rats. <a href="#">J Natl Cancer Inst. 51 (4): 1359-61.</a></li> <li>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>Sandin, L.C. <i>et al.</i> (2014) Locally delivered CD40 agonist antibody accumulates in secondary lymphoid organs and eradicates experimental disseminated bladder cancer. <a href="#">Cancer Immunol Res. 2 (1): 80-90.</a></li> <li>Bézie, S. <i>et al.</i> (2015) Fibrinogen-like protein 2/fibroleukin induces long-term allograft survival in a rat model through regulatory B cells. <a href="#">PLoS One. 10 (3): e0119686.</a></li> <li>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>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> <li>Huizinga, R. <i>et al.</i> (2012) Sialylation of <i>Campylobacter jejuni</i> lipo-oligosaccharides: impact on phagocytosis and cytokine production in mice. <a href="#">PLoS One. 7 (3): e34416.</a></li> </ol>
<b>Further Reading</b>	<ol style="list-style-type: none"> <li>Köhler, G. &amp; Milstein, C. (1975) Continuous cultures of fused cells secreting antibody of predefined specificity. <a href="#">Nature. 256 (5517): 495-7.</a></li> <li>Bazin, H. <i>et al.</i> (1978) Transplantable IgD immunoglobulin-secreting tumors in rat. <a href="#">J. Immunol. 121: 2077-2082.</a></li> <li>Shulman, M. <i>et al.</i> (1978) A better cell line for making hybridomas secreting specific</li> </ol>

antibodies. [Nature. 276 \(5685\): 269-70.](#)

---

**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.

---

**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/MCA278>  
10040

---

**Regulatory** For research purposes only

---

## Related Products

### Recommended Secondary Antibodies

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

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA1209\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide** Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

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)

'M383973:210513'

Printed on 18 Apr 2024

---

© 2024 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)