

## Datasheet: MCA278

**BATCH NUMBER 161147**

<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</b>	IgG concentration 1 mg/ml

## Concentrations

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**Immunogen** Purified rat IgG2a.

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## External Database Links

### UniProt:

[P20760](#)    [Related reagents](#)

### Entrez Gene:

[679045](#)    LOC679045    [Related reagents](#)

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**RRID** AB\_322914

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

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**Specificity** **Mouse anti Rat IgG2a heavy chain antibody, clone MARG2a-1** recognizes the rat gamma 2a immunoglobulin heavy chain, and does not cross-react with other immunoglobulin classes or subclasses.

Avidity of Mouse anti Rat IgG2a heavy chain antibody, clone MARG2a-1 for rat IgG2a =  $2.1 \times 10^9 \text{ M}^{-1}$ .

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**ELISA** This product may be used in an indirect ELISA or as a capture antibody in a sandwich ELISA together with [MCA1296P](#) as detection reagent.

Purified rat IgA ([PRP04](#)) may be used as a standard.

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## References

1. Bazin, H. *et al.* (1973) Brief communication: Transplantable immunoglobulin-secreting tumors in rats. V. Monoclonal immunoglobulins secreted by 250 ileocecal immunocytomas in LOU-Wsl rats. [J Natl Cancer Inst. 51 \(4\): 1359-61.](#)
  2. 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.](#)
  3. Sandin, L.C. *et al.* (2014) Locally delivered CD40 agonist antibody accumulates in secondary lymphoid organs and eradicates experimental disseminated bladder cancer. [Cancer Immunol Res. 2 \(1\): 80-90.](#)
  4. Bézie, S. *et al.* (2015) Fibrinogen-like protein 2/fibroleukin induces long-term allograft survival in a rat model through regulatory B cells. [PLoS One. 10 \(3\): e0119686.](#)
  5. 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.](#)
  6. 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.](#)
  7. Huizinga, R. *et al.* (2012) Sialylation of *Campylobacter jejuni* lipo-oligosaccharides: impact on phagocytosis and cytokine production in mice. [PLoS One. 7 \(3\): e34416.](#)
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## Further Reading

1. Köhler, G. & Milstein, C. (1975) Continuous cultures of fused cells secreting antibody of predefined specificity. [Nature. 256 \(5517\): 495-7.](#)
2. Bazin, H. *et al.* (1978) Transplantable IgD immunoglobulin-secreting tumors in rat. [J.](#)

[Immunol. 121: 2077-2082.](#)

3. Shulman, M. *et al.* (1978) A better cell line for making hybridomas secreting specific antibodies. [Nature. 276 \(5685\): 269-70.](#)

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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 #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA278>  
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**Regulatory** For research purposes only

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## 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 \(MCA1209\)](#)

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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 Apr 2024