

Datasheet: MCA278

BATCH NUMBER 167304

Description:	MOUSE ANTI RAT IgG2a HEAVY CHAIN
Specificity:	IgG2a HEAVY CHAIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MARG2a-1
Isotype:	IgG1
Quantity:	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.

	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.

Target Species	Rat
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.1% Sodium Azide
Approx. Protein	IgG concentration 1 mg/ml

Concentrations

Immunogen Purified rat IgG2a.

External Database Links

UniProt:

[P20760](#)

[Related reagents](#)

Entrez Gene:

[679045](#)

LOC679045

[Related reagents](#)

RRID AB_322914

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

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 = $2.1 \times 10^9 \text{ M}^{-1}$.

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.

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.](#)

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.](#)

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.
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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
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Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA278 10040
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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 \(MCA1209\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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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