

Datasheet: MCA191

Description:	MOUSE ANTI RAT IgA HEAVY CHAIN
Specificity:	IgA HEAVY CHAIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	MARA-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	▪			5ug/ml as coating antibody
Immunoprecipitation			▪	
Western Blotting			▪	
Immunofluorescence	▪			

Where this product 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 product 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 IR1060 IgA rat myeloma protein.

RRID AB_322196

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

Specificity **Mouse anti Rat IgA Heavy Chain antibody, clone MARA-1** recognizes the alpha heavy chain of rat immunoglobulin. Mouse anti Rat IgA Heavy Chain antibody, clone MARA-1 shows no cross-reactivity with other rat immunoglobulin classes.

ELISA Mouse anti Rat IgA Heavy Chain antibody, clone MARA-1 may be used as a coating antibody in a sandwich ELISA in combination with Mouse anti Rat κ/λ antibody, clone MARK-1/MARL-15 ([MCA1296P](#)) as detection reagent and purified rat IgA ([PRP01](#)) as antigen..

References

1. Bjersing, J.L. *et al.* (2002) Loss of ileal IgA+ plasma cells and of CD4+ lymphocytes in ileal Peyer's patches of vitamin A deficient rats. [Clin Exp Immunol. 130: 404-8.](#)
2. Budeč, M. *et al.* (2007) Possible mechanism of acute effect of ethanol on intestinal IgA expression in rat. [Int Immunopharmacol. 7: 858-63.](#)
3. Budeč, M. *et al.* (2009) Blockade of nitric oxide synthesis modulates rat immunoglobulin A. [Neuroimmunomodulation. 16: 155-61.](#)
4. Hahn, A. *et al.* (2010) Mesenteric lymph nodes are not required for an intestinal immunoglobulin A response to oral cholera toxin. [Immunology. 129: 427-36.](#)
5. Herías, M.V. *et al.* (1999) Immunomodulatory effects of Lactobacillus plantarum colonizing the intestine of gnotobiotic rats [Clin Exp Immunol. 116: 283-90.](#)
6. Ito, H. *et al.* (2011) Degree of polymerization of inulin-type fructans differentially affects number of lactic acid bacteria, intestinal immune functions, and immunoglobulin A secretion in the rat cecum. [J Agric Food Chem. 59 \(10\): 5771-8.](#)
7. Kushnir, N. *et al.* (1998) Dendritic cells and resting B cells form clusters in vitro and in vivo: T cell independence, partial LFA-1 dependence, and regulation by cross-linking surface molecules. [J Immunol. 160: 1774-81.](#)
8. Goodrich, M.E. and McGee, D.W. (1998) Regulation of mucosal B cell immunoglobulin secretion by intestinal epithelial cell-derived cytokines. [Cytokine. 10: 948-55.](#)
9. Heel, K.A. *et al.* (1998) The effect of minimum luminal nutrition on mucosal cellularity and immunity of the gut. [J Gastroenterol Hepatol. 13: 1015-9.](#)
10. Pérez-Cano FJ (2005) Neonatal immunoglobulin secretion and lymphocyte phenotype in rat small intestine lamina propria. [Pediatr Res. 58: 164-9.](#)
11. Peng, Z. *et al.* (1996) Cross-reactivity and molecular mass of the epsilon chains of the IgE antibodies in dogs, humans, rats, and mice. [Int Arch Allergy Immunol. 110: 149-55.](#)
12. Nayak, B.N. *et al.* (2009) Energy-restricted diets result in higher numbers of CD4+, CD8+, immunoglobulins (A, M, and G), and CD45RA cells in spleen and CD4+, immunoglobulin A, and CD45RA cells in colonic lamina propria of rats. [Nutr Res. 2009 Jul;29\(7\):487-93.](#)
13. Komura, M. *et al.* (2014) A short-term ingestion of fructo-oligosaccharides increases immunoglobulin A and mucin concentrations in the rat cecum, but the effects are

attenuated with the prolonged ingestion. [Biosci Biotechnol Biochem. 78: 1592-602.](#)
 14. Ito, H. *et al.* (2011) Degree of polymerization of inulin-type fructans differentially affects number of lactic acid bacteria, intestinal immune functions, and immunoglobulin A secretion in the rat cecum. [J Agric Food Chem. 59: 5771-8.](#)
 15. Hino, S. *et al.* (2020) Mucin-Derived O-Glycans Act as Endogenous Fiber and Sustain Mucosal Immune Homeostasis via Short-Chain Fatty Acid Production in Rat Cecum. [J Nutr. 150 \(10\): 2656-65.](#)

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: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
 Goat Anti Mouse IgG (STAR77...) [HRP](#)
 Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
 Rabbit Anti Mouse IgG (STAR8...) [DyLight@800](#)
 Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
 Goat Anti Mouse IgG (STAR76...) [RPE](#)
 Goat Anti Mouse IgG (STAR70...) [FITC](#)
 Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)
 Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
 Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@680](#),
[DyLight@800](#), [FITC](#), [HRP](#)

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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