

## Datasheet: MCA191

**BATCH NUMBER 148514**

<b>Description:</b>	MOUSE ANTI RAT IgA HEAVY CHAIN
<b>Specificity:</b>	IgA HEAVY CHAIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MARA-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	▪			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.

<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 IR1060 IgA rat myeloma protein.
<b>RRID</b>	AB_322196
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse SP2/0 myeloma cell line.
<b>Specificity</b>	<b>Mouse anti Rat IgA Heavy Chain antibody, clone MARA-1</b> 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.
<b>ELISA</b>	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 $\kappa/\lambda$ antibody, clone MARK-1/MARL-15 ( <a href="#">MCA1296P</a> ) as detection reagent and purified rat IgA ( <a href="#">PRP01</a> ) as antigen..
<b>References</b>	<ol style="list-style-type: none"> <li>1. Bjersing, J.L. <i>et al.</i> (2002) Loss of ileal IgA+ plasma cells and of CD4+ lymphocytes in ileal Peyer's patches of vitamin A deficient rats. <a href="#">Clin Exp Immunol. 130: 404-8.</a></li> <li>2. Budeč, M. <i>et al.</i> (2007) Possible mechanism of acute effect of ethanol on intestinal IgA expression in rat. <a href="#">Int Immunopharmacol. 7: 858-63.</a></li> <li>3. Budeč, M. <i>et al.</i> (2009) Blockade of nitric oxide synthesis modulates rat immunoglobulin A. <a href="#">Neuroimmunomodulation. 16: 155-61.</a></li> <li>4. Hahn, A. <i>et al.</i> (2010) Mesenteric lymph nodes are not required for an intestinal immunoglobulin A response to oral cholera toxin. <a href="#">Immunology. 129: 427-36.</a></li> <li>5. Herías, M.V. <i>et al.</i> (1999) Immunomodulatory effects of Lactobacillus plantarum colonizing the intestine of gnotobiotic rats <a href="#">Clin Exp Immunol. 116: 283-90.</a></li> <li>6. Ito, H. <i>et al.</i> (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. <a href="#">J Agric Food Chem. 59 (10): 5771-8.</a></li> <li>7. Kushnir, N. <i>et al.</i> (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. <a href="#">J Immunol. 160: 1774-81.</a></li> <li>8. Goodrich, M.E. and McGee, D.W. (1998) Regulation of mucosal B cell immunoglobulin secretion by intestinal epithelial cell-derived cytokines. <a href="#">Cytokine. 10: 948-55.</a></li> <li>9. Heel, K.A. <i>et al.</i> (1998) The effect of minimum luminal nutrition on mucosal cellularity and immunity of the gut. <a href="#">J Gastroenterol Hepatol. 13: 1015-9.</a></li> <li>10. Pérez-Cano FJ (2005) Neonatal immunoglobulin secretion and lymphocyte phenotype in rat small intestine lamina propria. <a href="#">Pediatr Res. 58: 164-9.</a></li> <li>11. Peng, Z. <i>et al.</i> (1996) Cross-reactivity and molecular mass of the epsilon chains of the IgE antibodies in dogs, humans, rats, and mice. <a href="#">Int Arch Allergy Immunol. 110: 149-55.</a></li> <li>12. Nayak, B.N. <i>et al.</i> (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. <a href="#">Nutr Res. 2009 Jul;29(7):487-93.</a></li> <li>13. Komura, M. <i>et al.</i> (2014) A short-term ingestion of fructo-oligosaccharides increases</li> </ol>

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: <https://www.bio-rad-antibodies.com/SDS/MCA19110040>

#### Regulatory

For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
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>

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

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