

Datasheet: MCA191

BATCH NUMBER 170767

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 Concentrations	IgG concentration 1 mg/ml
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 for the evaluation of rat IgA expression in a sandwich ELISA in combination with Mouse anti Rat κ/λ antibody, clone MARK-1/MARL-15 (MCA1296P) as detection reagent.
References	<ol style="list-style-type: none"> 1. 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. 2. Kushnir, N. <i>et al.</i> (1998) Dendritic cells and resting B cells form clusters <i>in vitro</i> and <i>in vivo</i>: T cell independence, partial LFA-1 dependence, and regulation by cross-linking surface molecules. J Immunol. 160: 1774-81. 3. Herías, M.V. <i>et al.</i> (1999) Immunomodulatory effects of Lactobacillus plantarum colonizing the intestine of gnotobiotic rats Clin Exp Immunol. 116: 283-90. 4. 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. Clin Exp Immunol. 130: 404-8. 5. Pérez-Cano FJ (2005) Neonatal immunoglobulin secretion and lymphocyte phenotype in rat small intestine lamina propria. Pediatr Res. 58: 164-9. 6. Budeč, M. <i>et al.</i> (2007) Possible mechanism of acute effect of ethanol on intestinal IgA expression in rat. Int Immunopharmacol. 7: 858-63. 7. 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. Nutr Res. 2009 Jul;29(7):487-93. 8. Budeč, M. <i>et al.</i> (2009) Blockade of nitric oxide synthesis modulates rat immunoglobulin A. Neuroimmunomodulation. 16: 155-61. 9. Hahn, A. <i>et al.</i> (2010) Mesenteric lymph nodes are not required for an intestinal immunoglobulin A response to oral cholera toxin. Immunology. 129: 427-36. 10. 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. J Agric Food Chem. 59: 5771-8. 11. Komura, M. <i>et al.</i> (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. 12. Tulinská, J. <i>et al.</i> (2018) Humoral and cellular immune response in Wistar Han RCC rats fed two genetically modified maize MON810 varieties for 90 days (EU 7th Framework Programme project GRACE). Arch Toxicol. 92 (7): 2385-99.

13. 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 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/MCA191>

Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...) [HRP](#)
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
Goat Anti Mouse IgG (STAR70...) [FITC](#)
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
Goat Anti Mouse IgG (STAR76...) [RPE](#)
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 (Fc) (STAR120...) [FITC](#), [HRP](#)
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)

Recommended Negative Controls

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

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M404545:220831'

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