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 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	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. *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. 3. Herías, M.V. *et al.* (1999) Immunomodulatory effects of Lactobacillus plantarum colonizing the intestine of gnotobiotic rats Clin Exp Immunol. 116: 283-90. 4. 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. 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. *et al.* (2007) Possible mechanism of acute effect of ethanol on intestinal IgA expression in rat. Int Immunopharmacol. 7: 858-63. 7. 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. 8. Budeč, M. *et al.* (2009) Blockade of nitric oxide synthesis modulates rat immunoglobulin A. Neuroimmunomodulation. 16: 155-61. 9. 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. 10. 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. 11. 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. 12. Tulinská, J. *et al.* (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 10040
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)

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

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

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