Datasheet: MCA191F

BATCH NUMBER 060815

Description:	MOUSE ANTI RAT IgA HEAVY CHAIN:FITC
Specificity:	IgA HEAVY CHAIN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	MARA-1
Isotype:	IgG1
Quantity:	0.5 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	▪			5ug/ml
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	

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 conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation

Purified IgG prepared by affinity chromatography from tissue culture supernatant

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.1% Sodium Azide
50% Glycerol

Approx. Protein

IgG concentration 1 mg/ml

Concentrations	
Immunogen	Purified IR1060 IgA rat myeloma protein.
RRID	AB_322198
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.
Flow Cytometry	Use 50ul of the suggested working dilution to label 10^6 cells in 100ul.
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. This product is photosensitive and should be protected from light. 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 #10328 available at: https://www.bio-rad-antibodies.com/SDS/MCA191F 10328
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA1209F)

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
'M365892:200529'

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