

Datasheet: MCA421

Description:	RAT ANTI MOUSE IgG2a HEAVY CHAIN
Specificity:	IgG2a HEAVY CHAIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	LO-MG2a-7
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			■	

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	Mouse
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 1.0mg/ml
Immunogen	Purified IgG from BALB/c mice.
External Database Links	UniProt: P01863 Related reagents

[P01865](#) [Related reagents](#)

[P01864](#) [Related reagents](#)

Entrez Gene:

[380793](#) Igh-1a [Related reagents](#)

[380793](#) Igh-1a [Related reagents](#)

[380793](#) Igh-1a [Related reagents](#)

Fusion Partners	Spleen cells from immunised LOU/c rats were fused with cells of the rat IR983F myeloma cell line.
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Specificity	Rat anti Mouse IgG2a:Biotin, clone LO-MG2a-7 recognizes the gamma 2a heavy chain of mouse immunoglobulin and does not cross-react with other murine immunoglobulin classes or subclasses. Rat anti Mouse IgG2a Heavy Chain antibody, clone LO-MG2a-7 recognizes an allotypic determinant upon mouse IgG2a. It recognizes the IgH1a allotype (as expressed in Balb/c mice), but not the IgH1b allotype (as expressed in C57/BL mice).
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References	1. Jarman, E.R. & Lamb, J.R. (2004) Reversal of established CD4+ type 2 T helper-mediated allergic airway inflammation and eosinophilia by therapeutic treatment with DNA vaccines limits progression towards chronic inflammation and remodelling. Immunology. 112 (4): 631-42. 2. Bazin, H. (1982) Production of rat monoclonal antibodies with the LOU rat non secreting IR983F myeloma cell line. Prot Biol Fluids 615 - 8. Pergamon Press, Oxford and New York. 3. Nagao, K. <i>et al.</i> (2003) Role of prostaglandin I2 in airway remodeling induced by repeated allergen challenge in mice. Am J Respir Cell Mol Biol. 29: 314-20. 4. Bazin, H. <i>et al.</i> (1984) Rat monoclonal antibodies. I. Rapid purification from in vitro culture supernatants. J Immunol Methods. 66 (2): 261-9. 5. Bazin, H. <i>et al.</i> (1984) Rat monoclonal antibodies. II. A rapid and efficient method of purification from ascitic fluid or serum. J Immunol Methods. 71 (1): 9-16. 6. Ramos, J.D.A. <i>et al.</i> (2009) Characterization of Blo t 11 Monoclonal Antibodies with Constant Region Mutations Philippine Science Letters 2: 38- 48. 7. Ormstad, H. <i>et al.</i> (2003) The effect of endotoxin on the production of IgE, IgG1 and IgG2a antibodies against the cat allergen Fel d 1 in mice Toxicology. 188: 309-18. 8. Ormstad, H. <i>et al.</i> (2000) The fungal cell wall component beta-1,3-glucan has an adjuvant effect on the allergic response to ovalbumin in mice. J Toxicol Environ Health A. 61: 55-67. 9. Hall, G. <i>et al.</i> (2003) Suppression of allergen reactive Th2 mediated responses and pulmonary eosinophilia by intranasal administration of an immunodominant peptide is linked to IL-10 production. Vaccine. 21: 549-61. 10. Tan, L.K. <i>et al.</i> (2006) Intramuscular immunization with DNA construct containing Der p 2 and signal peptide sequences primed strong IgE production. Vaccine. 24: 5762-71. 11. Instanes, C. and Hetland, G. (2004) Deoxynivalenol (DON) is toxic to human colonic, lung and monocytic cell lines, but does not increase the IgE response in a mouse model for allergy. Toxicology. 204: 13-21. 12. Liedén, A. <i>et al.</i> (2009) Cornulin, a marker of late epidermal differentiation, is down-regulated in eczema. Allergy. 64:304-11. 13. Wolfowicz, C.B. <i>et al.</i> (2003) Expression and immunogenicity of the major house dust mite allergen Der p 1 following DNA immunization. Vaccine. 21: 1195-204. 14. Hayes, K.S. <i>et al.</i> (2017) Chronic <i>Trichuris muris</i> infection causes neoplastic change in the intestine and exacerbates tumour formation in APC min/+ mice. PLoS Negl Trop Dis. 11 (6): e0005708.
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Further Reading	1. Querinjean, P. <i>et al.</i> (1972) Transplantable immunoglobulin-secreting tumours in rats. Purification and chemical characterization of four kappa chains from LOU-Wsl rats. Eur J Biochem. 31 (2): 354-9.
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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.
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Shelf Life	18 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10303 available at: 10303: https://www.bio-rad-antibodies.com/uploads/MSDS/10303.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®549 , DyLight®649 , DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP

Recommended Negative Controls

[RAT IgG1 NEGATIVE CONTROL \(MCA1211\)](#)

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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