

## Datasheet: MCA421P

**BATCH NUMBER 168915**

<b>Description:</b>	RAT ANTI MOUSE IgG2a HEAVY CHAIN:HRP
<b>Specificity:</b>	IgG2a HEAVY CHAIN
<b>Format:</b>	HRP
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	LO-MG2a-7
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA	▪			0.5ug/ml
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.

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG conjugated to Horseradish Peroxidase (HRP) - 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>	0.01% Thiomersal 50% Glycerol
<b>Approx. Protein Concentrations</b>	IgG concentration 1 mg/ml

Immunogen	Purified IgG from BALB/c mice.
External Database Links	<p><b>UniProt:</b></p> <p><a href="#">P01863</a>    <a href="#">Related reagents</a></p> <p><a href="#">P01865</a>    <a href="#">Related reagents</a></p> <p><a href="#">P01864</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">380793</a>    Igh-1a    <a href="#">Related reagents</a></p> <p><a href="#">380793</a>    Igh-1a    <a href="#">Related reagents</a></p> <p><a href="#">380793</a>    Igh-1a    <a href="#">Related reagents</a></p>
RRID	AB_321825
Fusion Partners	Spleen cells from immunised LOU/c rats were fused with cells of the rat IR983F myeloma cell line.
Specificity	<b>Rat anti Mouse IgG2a:Biotin, clone LO-MG2a-7</b> 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).
References	<ol style="list-style-type: none"> <li>1. Bazin, H. (1982) Production of rat monoclonal antibodies with the LOU rat non secreting IR983F myeloma cell line. <i>Prot Biol Fluids</i> 615 - 8. Pergamon Press, Oxford and New York.</li> <li>2. Bazin, H. <i>et al.</i> (1984) Rat monoclonal antibodies. I. Rapid purification from in vitro culture supernatants. <a href="#">J Immunol Methods. 66 (2): 261-9.</a></li> <li>3. Bazin, H. <i>et al.</i> (1984) Rat monoclonal antibodies. II. A rapid and efficient method of purification from ascitic fluid or serum. <a href="#">J Immunol Methods. 71 (1): 9-16.</a></li> <li>4. 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. <a href="#">J Toxicol Environ Health A. 61: 55-67.</a></li> <li>5. Nagao, K. <i>et al.</i> (2003) Role of prostaglandin I2 in airway remodeling induced by repeated allergen challenge in mice. <a href="#">Am J Respir Cell Mol Biol. 29: 314-20.</a></li> <li>6. 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 <a href="#">Toxicology. 188: 309-18.</a></li> <li>7. 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. <a href="#">Vaccine. 21: 549-61.</a></li> <li>8. Wolfowicz, C.B. <i>et al.</i> (2003) Expression and immunogenicity of the major house dust mite allergen Der p 1 following DNA immunization. <a href="#">Vaccine. 21: 1195-204.</a></li> <li>9. 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. <a href="#">Vaccine. 24: 5762-71.</a></li> <li>10. Ramos, J.D.A. <i>et al.</i> (2009) Characterization of Blo t 11 Monoclonal Antibodies with Constant Region Mutations <a href="#">Phil Sci Lett 2: 38- 48.</a></li> <li>11. Liedén, A. <i>et al.</i> (2009) Cornulin, a marker of late epidermal differentiation, is</li> </ol>

down-regulated in eczema. [Allergy. 64:304-11.](#)

12. Hayes, K.S. *et al.* (2017) Chronic *Trichuris muris* infection causes neoplastic change in the intestine and exacerbates tumour formation in APC min/+ mice. [PLoS Negl Trop Dis. 11 \(6\): e0005708.](#)

13. DeGiovanni, C. *et al.* (2019) Cancer Vaccines Co-Targeting HER2/Neu and IGF1R. [Cancers \(Basel\). 11 \(4\) Apr 11 \[Epub ahead of print\].](#)

14. Steel, N. *et al.* (2019) TGF $\beta$ -activation by dendritic cells drives Th17 induction and intestinal contractility and augments the expulsion of the parasite *Trichinella spiralis*. in mice. [PLoS Pathog. 15 \(4\): e1007657.](#)

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#### Further Reading

1. Querinjean, P. *et al.* (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

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.

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#### Guarantee

12 months from date of despatch

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#### Health And Safety Information

Material Safety Datasheet documentation #10097 available at: <https://www.bio-rad-antibodies.com/SDS/MCA421P>  
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#### Regulatory

For research purposes only

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## Related Products

### Recommended Useful Reagents

[AbGUARD® HRP STABILIZER PLUS \(BUF052A\)](#)

[AbGUARD® HRP STABILIZER PLUS \(BUF052B\)](#)

[AbGUARD® HRP STABILIZER PLUS \(BUF052C\)](#)

[TMB CORE \(BUF056A\)](#)

[TMB CORE+ \(BUF062A\)](#)

[TMB SIGNAL+ \(BUF054A\)](#)

**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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