

## Datasheet: MCA51G

<b>Description:</b>	MOUSE ANTI RAT MHC CLASS I RT1A
<b>Specificity:</b>	MHC CLASS I RT1A
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	OX-18
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	1 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
Flow Cytometry	▪			1/50 - 1/100
Immunohistology - Frozen (1)	▪			
Immunohistology - Paraffin		▪		
ELISA	▪			
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.

**(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.**

<b>Target Species</b>	Rat
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline

<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Rat spleen cell glycoproteins
<b>RRID</b>	AB_322393
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse P3X63Ag8.653 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Rat MHC Class I RT1A antibody, clone OX-18</b> recognizes a monomorphic determinant of rat MHC Class I (RT1A), expressed by all rat strains. However, quantitative measurements suggest that not all of the class I molecules are recognized.</p> <p>Mouse anti Rat MHC Class I RT1A antibody, clone OX-18 has been used in immunoaffinity purification of rat MHC class I molecules (<a href="#">Fukumoto <i>et al.</i> 1982</a>).</p> <p>Mouse anti Rat MHC Class I RT1A antibody, clone OX-18 is routinely tested in flow cytometry on rat splenocytes.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>Immunohistology</b>	Acetone fixation recommended - the antigen is sensitive to fixation with paraformaldehyde.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Fukumoto, T. <i>et al.</i> (1982) Mouse monoclonal antibodies against rat major histocompatibility antigens. Two Ia antigens and expression of Ia and class I antigens in rat thymus. <a href="#">Eur J Immunol. 12 (3): 237-43.</a></li> <li>2. Bukovský, A. <i>et al.</i> (1984) Association of some cell surface antigens of lymphoid cells and cell surface differentiation antigens with early rat pregnancy. <a href="#">Immunology. 52: 631-40</a></li> <li>3. Osawa, H. <i>et al.</i> (1985) Inhibition of IL 2-dependent proliferation of rat T lymphoblasts by the monoclonal antibody ART62 which reacts with MHC class 1 antigens. <a href="#">J Immunol. 134 (6): 3901-6.</a></li> <li>4. Chacon, M.A. &amp; Boulanger, L.M. (2013) MHC class I protein is expressed by neurons and neural progenitors in mid-gestation mouse brain. <a href="#">Mol Cell Neurosci. 52: 117-27.</a></li> <li>5. Fujikawa, L.S. <i>et al.</i> (1989) Class II antigens on retinal vascular endothelium, pericytes, macrophages, and lymphocytes of the rat. <a href="#">Invest Ophthalmol Vis Sci. 30 (1): 66-73.</a></li> <li>6. Zhai, Y. and Knechtle, S. <i>et al.</i> (1998) Two distinct forms of soluble MHC class I molecules synthesized by different mechanisms in normal rat cells in vitro <a href="#">Human Immunol. 59: 404-14</a></li> <li>7. Baca Jones, C.C. <i>et al.</i> (2009) Rat cytomegalovirus infection depletes MHC II in bone marrow derived dendritic cells. <a href="#">Virology. 388: 78-90.</a></li> <li>8. Edamura, M. <i>et al.</i> (2014) Functional deficiency of MHC class I enhances LTP and</li> </ol>

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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 #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA51G10040>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
Goat Anti Mouse IgG IgA IgM (STAR87...) [HRP](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),  
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),  
[FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Goat Anti Mouse IgG (STAR77...) [HRP](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

### Recommended Negative Controls

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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