

Datasheet: MCA51G

BATCH NUMBER 166279

Description:	MOUSE ANTI RAT MHC CLASS I RT1A
Specificity:	MHC CLASS I RT1A
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	OX-18
Isotype:	IgG1
Quantity:	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.

	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.

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

Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Rat spleen cell glycoproteins
RRID	AB_322393
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse P3X63Ag8.653 myeloma cell line.
Specificity	<p>Mouse anti Rat MHC Class I RT1A antibody, clone OX-18 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 (Fukumoto <i>et al.</i> 1982).</p> <p>Mouse anti Rat MHC Class I RT1A antibody, clone OX-18 is routinely tested in flow cytometry on rat splenocytes.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
Immunohistology	Acetone fixation recommended - the antigen is sensitive to fixation with paraformaldehyde.
References	<ol style="list-style-type: none"> 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. Eur J Immunol. 12 (3): 237-43. 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. Immunology. 52: 631-40 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. J Immunol. 134 (6): 3901-6. 4. Chacon, M.A. & Boulanger, L.M. (2013) MHC class I protein is expressed by neurons and neural progenitors in mid-gestation mouse brain. Mol Cell Neurosci. 52: 117-27. 5. Fujikawa, L.S. <i>et al.</i> (1989) Class II antigens on retinal vascular endothelium, pericytes, macrophages, and lymphocytes of the rat. Invest Ophthalmol Vis Sci. 30 (1): 66-73. 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 Human Immunol. 59: 404-14 7. Baca Jones, C.C. <i>et al.</i> (2009) Rat cytomegalovirus infection depletes MHC II in bone marrow derived dendritic cells. Virology. 388: 78-90. 8. Edamura, M. <i>et al.</i> (2014) Functional deficiency of MHC class I enhances LTP and

- abolishes LTD in the nucleus accumbens of mice. [PLoS One. 9 \(9\): e107099.](#)
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Presentation by HLA Class I on Anterior Pituitary Cells [J Endoc Soc. 3 \(11\): 1969-78.](#)
27. Kanie, K. *et al.* (2019) Pathogenesis of Anti-PIT-1 Antibody Syndrome: PIT-1
Presentation by HLA Class I on Anterior Pituitary Cells. [J Endocr Soc. 3 \(11\): 1969-78.](#)

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/MCA51G>
10040

Regulatory For research purposes only

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 \(MCA1209\)](#)

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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Printed on 18 Jan 2024