

## Datasheet: MCA2392T

<b>Description:</b>	RAT ANTI MOUSE CD301
<b>Specificity:</b>	CD301
<b>Other names:</b>	MACROPHAGE GALACTOSE SPECIFIC LECTIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	ER-MP23
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	25 µg

## Product Details

**RRID** AB\_1101876

### 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	▪			1/100 - 1/200
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (1)	▪			
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	
Immunofluorescence	▪			

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)Heat mediated antigen retrieval is required prior to staining paraffin-embedded sections with this antibody. Bio-Rad recommend citrate buffer, pH6.0, for this purpose.**

<b>Target Species</b>	Mouse
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G 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>	Balb/c macrophage precursor cell hybrids.
<b>Fusion Partners</b>	Cells from immunised rats were fused with cells of the rat Y3-Ag1.2.3 myeloma cell line.
<b>Specificity</b>	<p><b>Rat anti Mouse CD301 antibody, clone ER-MP23</b> recognizes murine CD301, a ~38 kDa cell surface protein, otherwise known as macrophage galactose N-acetylgalactosamine lectin (MGL) or dendritic cell asialoglycoprotein (DC-ASGPR).</p> <p>In mice, CD301 is predominantly expressed on mature macrophages found associated with a wide range of connective tissues including macrophages in the dermis and the pancreas. Clone ER-MP23 also detects a population of dendritic cells in lymphoid tissue, which are probably recent immigrants from peripheral connective tissue sites. Expression of CD301 is induced by alternative (i.e. IL-4/IL-13 mediated) activation of macrophages and dendritic cells, but not all CD301 positive cells are necessarily IL-4/IL-13 stimulated.</p> <p>Rat anti Mouse CD301 antibody, clone ER-MP23 is reported to block the function of mouse CD301 (<a href="#">Dupasquier et al. 2006</a>). Rat anti Mouse CD301 antibody, clone ER-MP23 binds both MGL1 and MGL2 homologues.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Leenen, P.J <i>et al.</i> (1994) Markers of mouse macrophage development detected by monoclonal antibodies. <a href="#">J Immunol Methods. 174 (1-2): 5-19.</a></li> <li>2. Geutskens, S.B. <i>et al.</i> (2005) Macrophages in the murine pancreas and their involvement in fetal endocrine development <i>in vitro</i>. <a href="#">J Leukoc Biol. 78 (4): 845-52.</a></li> <li>3. Abadie, V. <i>et al.</i> (2005) Neutrophils rapidly migrate via lymphatics after <i>Mycobacterium bovis</i> BCG intradermal vaccination and shuttle live bacilli to the draining lymph nodes. <a href="#">Blood. 106: 1843-50.</a></li> <li>4. Dupasquier, M. <i>et al.</i> (2004) Macrophages and dendritic cells constitute a major subpopulation of cells in the mouse dermis. <a href="#">J Invest Dermatol. 123: 876-9.</a></li> <li>5. Sindrilaru, A. <i>et al.</i> (2011) An unrestrained proinflammatory M1 macrophage population induced by iron impairs wound healing in humans and mice. <a href="#">J Clin Invest. 121: 985-97.</a></li> <li>6. Westcott, D.J. <i>et al.</i> (2009) MGL1 promotes adipose tissue inflammation and insulin resistance by regulating 7/4hi monocytes in obesity. <a href="#">J Exp Med. 206: 3143-56.</a></li> <li>7. Fischer-Posovszky, P. <i>et al.</i> (2011) Targeted deletion of adipocytes by apoptosis leads to adipose tissue recruitment of alternatively activated m2 macrophages. <a href="#">Endocrinology. 152: 3074-81.</a></li> <li>8. Spite, M. <i>et al.</i> (2011) Deficiency of the Leukotriene B4 Receptor, BLT-1, Protects against Systemic Insulin Resistance in Diet-Induced Obesity. <a href="#">J Immunol. 187: 1942-9.</a></li> <li>9. Raes, G. <i>et al.</i> (2005) Macrophage galactose-type C-type lectins as novel markers for alternatively activated macrophages elicited by parasitic infections and allergic airway inflammation. <a href="#">J Leukoc Biol. 77: 321-7.</a></li> <li>10. Freire, T. <i>et al.</i> (2010) Glycosidic Tn-based vaccines targeting dermal dendritic cells favor germinal center B-cell development and potent antibody response in the absence of adjuvant. <a href="#">Blood. 116: 3526-36.</a></li> <li>11. Lumeng, C.N. <i>et al.</i> (2008) Phenotypic switching of adipose tissue macrophages with obesity is generated by spatiotemporal differences in macrophage subtypes. <a href="#">Diabetes. 57: 3239-46.</a></li> <li>12. Blyszczuk, P. <i>et al.</i> (2013) Nitric oxide synthase 2 is required for conversion of pro-fibrogenic inflammatory CD133(+) progenitors into F4/80(+) macrophages in experimental autoimmune myocarditis. <a href="#">Cardiovasc Res. 97 (2): 219-29.</a></li> </ol>

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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.

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**Guarantee**

18 months from date of despatch.

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**Health And Safety Information**

Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight®800</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®800</a>

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL \(MCA1212\)](#)

<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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Printed on 11 Oct 2019