

## Datasheet: MCA2391T

<b>Description:</b>	RAT ANTI MOUSE ER-MP58
<b>Specificity:</b>	ER-MP58
<b>Other names:</b>	MYELOID PRECURSOR ANTIGEN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	ER-MP58
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	25 µg

## 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	▪			
Immunohistology - Frozen	▪			1/25 - 1/100
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

Where this product 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 product for use in their own system using appropriate negative/positive controls.

<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 (NaN <sub>3</sub> )

<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>RRID</b>	AB_2095211
<b>Fusion Partners</b>	Cells from immunized rats were fused with cells of the Y3-Ag1.2.3 myeloma cell line.
<b>Specificity</b>	<p><b>Rat anti Mouse ER-MP58 antibody, clone ER-MP58</b> recognizes the murine antigen ER-MP58, which is expressed by all bone marrow-derived M-CSF- and GM-CSF-responsive myeloid blood cell precursors.</p> <p>The expression of ER-MP58 remains at a high level throughout the precursor/monocyte stage and is down-regulated upon maturation into mature macrophages. The ER-MP58 antigen is used to distinguish between early myeloid-committed cells, haematopoietic progenitors cells and as a marker for macrophage development in bone marrow. ER-MP58 is suitable for the identification of myeloid haemopoietic islands in various organs, and for embryonic tissues.</p>
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
<b>References</b>	<ol style="list-style-type: none"> <li>1. Leenen, P.J. <i>et al.</i> (1990) Murine macrophage precursor characterization. II. Monoclonal antibodies against macrophage precursor antigens. <a href="#">Eur J Immunol. 20 (1): 27-34.</a></li> <li>2. Henkel, G.W. <i>et al.</i> (1999) Commitment to the monocytic lineage occurs in the absence of the transcription factor PU.1. <a href="#">Blood. 93 (9): 2849-58.</a></li> <li>3. Nikolic, T. <i>et al.</i> (2003) Developmental stages of myeloid dendritic cells in mouse bone marrow. <a href="#">Int Immunol. 15 (4): 515-24.</a></li> <li>4. 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>5. Sunderkötter, C. <i>et al.</i> (2004) Subpopulations of mouse blood monocytes differ in maturation stage and inflammatory response. <a href="#">J Immunol. 172: 4410-7.</a></li> <li>6. Chan, J. <i>et al.</i>, (1998) Macrophage lineage cells in inflammation: characterization by colony-stimulating factor-1 (CSF-1) receptor (c-Fms), ER-MP58, and ER-MP20 (Ly-6C) expression. <a href="#">Blood. 1998 Aug 92: 1423-31.</a></li> <li>7. Oomen, S.P. <i>et al.</i> (2002) Somatostatin is a selective chemoattractant for primitive (CD34(+)) hematopoietic progenitor cells. <a href="#">Exp Hematol. 30: 116-25.</a></li> <li>8. Wynn, A.A. <i>et al.</i> (2001) Role of granulocyte/macrophage colony-stimulating factor in zymocel-induced hepatic granuloma formation. <a href="#">Am J Pathol. 158: 131-45.</a></li> <li>9. Rössner, S. <i>et al.</i> (2005) Myeloid dendritic cell precursors generated from bone marrow suppress T cell responses via cell contact and nitric oxide production <i>in vitro</i>. <a href="#">Eur J Immunol. 35: 3533-44.</a></li> <li>10. Goossens, P. <i>et al.</i> (2011) Myeloid IκBα deficiency promotes atherogenesis by enhancing leukocyte recruitment to the plaques. <a href="#">PLoS One. 6: e22327.</a></li> <li>11. Iwasaki, Y. <i>et al.</i> (2011) <i>In situ</i> proliferation and differentiation of macrophages in dental pulp. <a href="#">Cell Tissue Res. 346: 99-109.</a></li> </ol>

12. Hoeksema, M.A. *et al.* (2014) Targeting macrophage Histone deacetylase 3 stabilizes atherosclerotic lesions. [EMBO Mol Med. pii: e201404170.](#)
13. Oliveira, M.A. *et al.* (2003) Immature macrophages derived from mouse bone marrow produce large amounts of IL-12p40 after LPS stimulation. [J Leukoc Biol. 74: 857-67.](#)
14. de Bruijn, M.F. *et al.* (1996) High-level expression of the ER-MP58 antigen on mouse bone marrow hematopoietic progenitor cells marks commitment to the myeloid lineage. [Eur J Immunol. 26: 2850-8.](#)
15. Welzen-Coppens, J.M. *et al.* (2012) Abnormalities of dendritic cell precursors in the pancreas of the NOD mouse model of diabetes. [Eur J Immunol. 42: 186-94.](#)
16. Neele, A.E. *et al.* (2018) Myeloid Kdm6b deficiency results in advanced atherosclerosis. [Atherosclerosis. 275: 156-165.](#)
17. Luque-Martin, R. *et al.* (2019) Targeting Histone Deacetylases in Myeloid Cells Inhibits Their Maturation and Inflammatory Function With Limited Effects on Atherosclerosis. [Front Pharmacol. 10: 1242.](#)

<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2391T">https://www.bio-rad-antibodies.com/SDS/MCA2391T</a> 10040
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®800</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR16...)	<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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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)

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