

Datasheet: MCA2391

BATCH NUMBER 0915R

Description:	RAT ANTI MOUSE ER-MP58
Specificity:	ER-MP58
Other names:	MYELOID PRECURSOR ANTIGEN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	ER-MP58
Isotype:	IgG2a
Quantity:	0.25 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	▪			
Immunohistology - Frozen	▪			1/25 - 1/100
Immunohistology - Paraffin			▪	
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.

Target Species	Mouse
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein G
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Balb/c macrophage precursor cell hybrids
RRID	AB_931727
Fusion Partners	Cells from immunized rats were fused with cells of the Y3-Ag1.2.3 myeloma cell line.
Specificity	<p>Rat anti Mouse ER-MP58 antibody, clone ER-MP58 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>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Leenen, P.J. <i>et al.</i> (1990) Murine macrophage precursor characterization. II. Monoclonal antibodies against macrophage precursor antigens. Eur J Immunol. 20 (1): 27-34. 2. Henkel, G.W. <i>et al.</i> (1999) Commitment to the monocytic lineage occurs in the absence of the transcription factor PU.1. Blood. 93 (9): 2849-58. 3. Nikolic, T. <i>et al.</i> (2003) Developmental stages of myeloid dendritic cells in mouse bone marrow. Int Immunol. 15 (4): 515-24. 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>. J Leukoc Biol. 78 (4): 845-52. 5. Sunderkötter, C. <i>et al.</i> (2004) Subpopulations of mouse blood monocytes differ in maturation stage and inflammatory response. J Immunol. 172: 4410-7. 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. Blood. 1998 Aug 92: 1423-31. 7. Oomen, S.P. <i>et al.</i> (2002) Somatostatin is a selective chemoattractant for primitive (CD34(+)) hematopoietic progenitor cells. Exp Hematol. 30: 116-25. 8. Wynn, A.A. <i>et al.</i> (2001) Role of granulocyte/macrophage colony-stimulating factor in zymocel-induced hepatic granuloma formation. Am J Pathol. 158: 131-45. 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>. Eur J Immunol. 35: 3533-44. 10. Goossens, P. <i>et al.</i> (2011) Myeloid IκBα deficiency promotes atherogenesis by enhancing leukocyte recruitment to the plaques. PLoS One. 6: e22327. 11. Iwasaki, Y. <i>et al.</i> (2011) <i>In situ</i> proliferation and differentiation of macrophages in dental pulp. Cell Tissue Res. 346: 99-109.

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.](#)

Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. Should this product contain a precipitate we recommend microcentrifugation before use.
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/MCA2391 10040
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight@550 , DyLight@650 , DyLight@800
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR16...)	DyLight@800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin

Recommended Negative Controls

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

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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