Datasheet: MCA2391T

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:	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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			
Immunohistology - Frozen	▪			1/25 - 1/100
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.

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

Fusion Partners	Cells from immunized rats were fused with cells of the Y3-Ag1.2.3 myeloma cell line.
Specificity	**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. 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 and other haematopoietic progenitors cells in the BM. The antigen has been used as a marker of murine macrophage development in the BM. ER-MP58 is suitable for the identification of myeloid haemopoietic islands in various organs, and for embryonal studies.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells in 100ul.
References	1. Leenen, P.J. *et al.* (1990) Murine macrophage precursor characterization. II. Monoclonal antibodies against macrophage precursor antigens. Eur J Immunol. 20 (1): 27-34. 2. Henkel, G.W. *et al.* (1999) Commitment to the monocytic lineage occurs in the absence of the transcription factor PU.1. Blood. 93 (9): 2849-58. 3. Nikolic, T. *et al.* (2003) Developmental stages of myeloid dendritic cells in mouse bone marrow. Int Immunol. 15 (4): 515-24. 4. Geutskens, S.B. *et al.* (2005) Macrophages in the murine pancreas and their involvement in fetal endocrine development *in vitro*. J Leukoc Biol. 78 (4): 845-52. 5. Sunderkötter, C. *et al.* (2004) Subpopulations of mouse blood monocytes differ in maturation stage and inflammatory response. J Immunol. 172: 4410-7. 6. Chan, J. *et al.*, (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. *et al.* (2002) Somatostatin is a selective chemoattractant for primitive (CD34(+)) hematopoietic progenitor cells. Exp Hematol. 30: 116-25. 8. Wynn, A.A. *et al.* (2001) Role of granulocyte/macrophage colony-stimulating factor in zymocel-induced hepatic granuloma formation. Am J Pathol. 158: 131-45. 9. Rössner, S. *et al.* (2005) Myeloid dendritic cell precursors generated from bone marrow suppress T cell responses via cell contact and nitric oxide production *in vitro*. Eur J Immunol. 35: 3533-44. 10. Goossens, P. *et al.* (2011) Myeloid IκBα deficiency promotes atherogenesis by enhancing leukocyte recruitment to the plaques. PLoS One. 6: e22327. 11. Iwasaki, Y. *et al.* (2011) *In situ* proliferation and differentiation of macrophages in dental pulp. Cell Tissue Res. 346: 99-109. 12. Mossink, M.H. *et al.* (2003) Unimpaired dendritic cell functions in MVP/LRP knockout mice. Immunology. 110: 58-65. 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. Hoeksema, M.A. *et al.* (2014) Targeting macrophage Histone deacetylase 3 stabilizes atherosclerotic lesions. EMBO Mol Med. pii: e201404170.
Storage	Store at +4^{o}C. DO NOT FREEZE.

	This product should be stored undiluted. Should this product contain a precipitate we recommend microcentrifugation before use.
Shelf Life	12 months from date of despatch.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®649, DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos., Biotin
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP

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

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