

Datasheet: MCA1849

Description:	RAT ANTI MOUSE MARCO
Specificity:	MARCO
Other names:	SCAVENGER RECEPTOR
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	ED31
Isotype:	IgG1
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	▪			1/200 - 1/400
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			
Immunofluorescence	▪			

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.

Target Species	Mouse
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 (NaN ₃)

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	CHO cells expressing mouse MARCO.
External Database Links	<p>UniProt: Q60754 Related reagents</p> <p>Entrez Gene: 17167 Marco Related reagents</p>
RRID	AB_322923
Fusion Partners	Spleen cells from immunised rats were fused with cells of the mouse SP2/0 myeloma cell line.
Specificity	<p>Rat anti Mouse MARCO antibody, clone ED31 recognizes the murine cell surface antigen designated MARCO (Macrophage receptor with collagenous structure), which is a member of the class A scavenger receptor family.</p> <p>MARCO is expressed by distinct populations of macrophages in the spleen and lymph nodes, but is rapidly induced on macrophages in other tissues (e.g. Liver Kupffer cells) during infection or LPS treatment.</p> <p>Rat anti Mouse MARCO antibody, clone ED31 binds to the C-terminal cysteine rich domain of MARCO, and has been shown to block ligand binding.</p>
References	<ol style="list-style-type: none"> van der Laan, L.J. <i>et al.</i> (1997) Macrophage scavenger receptor MARCO: <i>in vitro</i> and <i>in vivo</i> regulation and involvement in the anti-bacterial host defense. Immunol Lett. 57 (1-3): 203-8. van der Laan, L.J. <i>et al.</i> (1999) Regulation and functional involvement of macrophage scavenger receptor MARCO in clearance of bacteria <i>in vivo</i>. J Immunol. 162 (2): 939-47. Whitman, S.C. <i>et al.</i> (2002) Macrophage-specific expression of class A scavenger receptors in LDL receptor(-/-) mice decreases atherosclerosis and changes spleen morphology. J Lipid Res. 43: 1201-8. Granucci, F. <i>et al.</i> (2003) The scavenger receptor MARCO mediates cytoskeleton rearrangements in dendritic cells and microglia. Blood. 102: 2940-7. Karlsson, M.C. <i>et al.</i> (2003) Macrophages control the retention and trafficking of B lymphocytes in the splenic marginal zone. J Exp Med. 198: 333-40. Grolleau, A. <i>et al.</i> (2003) Inducible expression of macrophage receptor Marco by dendritic cells following phagocytic uptake of dead cells uncovered by oligonucleotide arrays. J Immunol. 171: 2879-88. Taylor, P.R. <i>et al.</i> (2004) Development of a specific system for targeting protein to metallophilic macrophages. Proc Natl Acad Sci U S A. 101: 1963-8. Kang, Y.S. <i>et al.</i> (2004) The C-type lectin SIGN-R1 mediates uptake of the capsular

- polysaccharide of *Streptococcus pneumoniae* in the marginal zone of mouse spleen. [Proc Natl Acad Sci U S A. 101: 215-20.](#)
9. Alarcón, R. *et al.* (2005) Expression of scavenger receptors in glial cells. Comparing the adhesion of astrocytes and microglia from neonatal rats to surface-bound beta-amyloid. [J Biol Chem. 280: 30406-15.](#)
10. Anthony, R.M. *et al.* (2008) Identification of a receptor required for the anti-inflammatory activity of IVIG. [Proc Natl Acad Sci U S A. 105: 19571-8.](#)
11. Beamer, C.A. and Holian. A. (2008) Silica suppresses Toll-like receptor ligand-induced dendritic cell activation. [FASEB J. 22: 2053-63.](#)
12. Dioszeghy, V. *et al.* (2008) 12/15-Lipoxygenase regulates the inflammatory response to bacterial products *in vivo*. [J Immunol. 181: 6514-24.](#)
13. Hsu, K.M. *et al.* (2009) Murine cytomegalovirus displays selective infection of cells within hours after systemic administration. [J Gen Virol. 90: 33-43.](#)
14. Devey, L. *et al.* (2009) Tissue-resident macrophages protect the liver from ischemia reperfusion injury via a heme oxygenase-1-dependent mechanism. [Mol Ther. 17: 65-72.](#)
15. Tighe, R.M. *et al.* (2011) Ozone Inhalation Promotes CX3CR1-Dependent Maturation of Resident Lung Macrophages That Limit Oxidative Stress and Inflammation. [J Immunol. 187: 4800-8.](#)
16. Mattsson, J. *et al.* (2011) Complement activation and complement receptors on follicular dendritic cells are critical for the function of a targeted adjuvant. [J Immunol. 187: 3641-52.](#)
17. Fukui Y *et al.* (2013) Effect of *Lactobacillus brevis* KB290 on the cell-mediated cytotoxic activity of mouse splenocytes: a DNA microarray analysis. [Br J Nutr. 110 \(9\): 1617-29.](#)
18. Marrella, V. *et al.* (2015) IL-10 critically modulates B cell responsiveness in Rankl^{-/-} mice. [J Immunol. 194 \(9\): 4144-53.](#)
19. Kolan, S.S. *et al.* (2015) Lack of non-hematopoietic SIRP α signaling disturbs the splenic marginal zone architecture resulting in accumulation and displacement of marginal zone B cells. [Biochem Biophys Res Commun. 460 \(3\): 645-50.](#)
20. Flores, M *et al.* (2015) Fc γ RIIB prevents inflammatory type I IFN production from plasmacytoid dendritic cells during a viral memory response. [J Immunol. 194 \(9\): 4240-50.](#)
21. Martinez, N. *et al.* (2016) Impaired Recognition of *Mycobacterium tuberculosis* by Alveolar Macrophages From Diabetic Mice. [J Infect Dis. 214 \(11\): 1629-1637.](#)
22. Parsa, R. *et al.* (2016) BAFF-secreting neutrophils drive plasma cell responses during emergency granulopoiesis. [J Exp Med. 213 \(8\): 1537-53.](#)
23. Hayashi, M. *et al.* (2017) Advax, a Delta Inulin Microparticle, Potentiates In-built Adjuvant Property of Co-administered Vaccines. [EBioMedicine. 15: 127-36.](#)
24. Zhao, Z. *et al.* (2019) Neutrophil-Derived MRP14 Supports Plasma Cell Commitment and Protects Myeloma Cells from Apoptosis. [J Immunol Res. 2019: 9561350.](#)
25. Hamasaki, M. *et al.* (2020) Transcriptional profiling of murine macrophages stimulated with cartilage fragments revealed a strategy for treatment of progressive osteoarthritis. [Sci Rep. 10 \(1\): 7558.](#)
26. Lucas, C.J. *et al.* (2023) Chikungunya virus infection disrupts lymph node lymphatic endothelial cell composition and function via MARCO. [bioRxiv. Oct 13 \[Epub ahead of print\].](#)
27. Amon, L. *et al.* (2024) Clec12A, CD301b, and Fc γ RIIB/III define the heterogeneity of murine DC2s and DC3s. [Cell Rep. 43 \(3\): 113949.](#)

28. Maler, M.D. *et al.* (2024) Type I Interferon, Induced by Adenovirus or Adenoviral Vector Infection, Regulates the Cytokine Response to Lipopolysaccharide in a Macrophage Type-Specific Manner. [J Innate Immun. 16 \(1\): 226-47.](#)

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/MCA1849>
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Regulatory For research purposes only

Related Products

Recommended Secondary Antibodies

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

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