

Datasheet: MCA1849FT

Description:	RAT ANTI MOUSE MARCO:FITC
Specificity:	MARCO
Other names:	SCAVENGER RECEPTOR
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	ED31
Isotype:	IgG1
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	▪			1/5 - 1/10

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 conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid						
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>FITC</td> <td>490</td> <td>525</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	FITC	490	525
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
FITC	490	525					
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant						
Buffer Solution	Phosphate buffered saline						
Preservative	0.09% Sodium Azide						
Stabilisers	1% Bovine Serum Albumin						
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml						
Immunogen	CHO cells expressing mouse MARCO.						
External Database Links	UniProt: Q60754 Related reagents						

Entrez Gene:

[17167](#) Marco [Related reagents](#)

Fusion Partners Spleen cells from immunised rats were fused with cells of the mouse SP2/0 myeloma cell line.

Specificity **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.

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.

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.

Flow Cytometry Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

The Fc region of monoclonal antibodies may bind non-specifically to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR ([BUF041A/B](#)).

References

1. van der Laan, L.J. *et al.* (1999) Regulation and functional involvement of macrophage scavenger receptor MARCO in clearance of bacteria *in vivo*. [J Immunol. 162 \(2\): 939-47.](#)
2. van der Laan, L.J. *et al.* (1997) Macrophage scavenger receptor MARCO: *in vitro* and *in vivo* regulation and involvement in the anti-bacterial host defense. [Immunol Lett. 57 \(1-3\): 203-8.](#)
3. Dioszeghy, V. *et al.* (2008) 12/15-Lipoxygenase regulates the inflammatory response to bacterial products *in vivo*. [J Immunol. 181: 6514-24.](#)
4. 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.](#)
5. Hsu, K.M. *et al.* (2009) Murine cytomegalovirus displays selective infection of cells within hours after systemic administration. [J Gen Virol. 90: 33-43.](#)
6. Kang, Y.S. *et al.* (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.](#)
7. Karlsson, M.C. *et al.* (2003) Macrophages control the retention and trafficking of B lymphocytes in the splenic marginal zone. [J Exp Med. 198: 333-40.](#)
8. Taylor, P.R. *et al.* (2004) Development of a specific system for targeting protein to metallophilic macrophages. [Proc Natl Acad Sci U S A. 101: 1963-8.](#)
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. Granucci, F. *et al.* (2003) The scavenger receptor MARCO mediates cytoskeleton rearrangements in dendritic cells and microglia. [Blood. 102: 2940-7.](#)
13. 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.](#)
14. 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.](#)
15. Hayashi, M. *et al.* (2016) Advax, a Delta Inulin Microparticle, Potentiates In-built Adjuvant

Property of Co-administered Vaccines. [EBioMedicine. Dec 1. pii: S2352-3964\(16\)30519-9. \[Epub ahead of print\]](#)

16. Martinez, N. *et al.* (2016) Impaired Recognition of *Mycobacterium tuberculosis* by Alveolar Macrophages From Diabetic Mice. [J Infect Dis. 214 \(11\): 1629-1637.](#)

17. Parsa, R. *et al.* (2016) BAFF-secreting neutrophils drive plasma cell responses during emergency granulopoiesis. [J Exp Med. 213 \(8\): 1537-53.](#)

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.](#)

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. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation available at:
Material Safety Datasheet Documentation #10041 available at:
<https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG1 NEGATIVE CONTROL:FITC \(MCA1211F\)](#)

North & South Tel: +1 800 265 7376

America 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

'M302059:170109'

Printed on 13 Jan 2018

© 2018 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)