

Datasheet: MCA2281FB

Description:	RAT ANTI MOUSE CD200R:FITC
Specificity:	CD200R
Other names:	OX2R
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	OX-110
Isotype:	IgG2a
Quantity:	0.5 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	▪			1/10 - 1/20

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 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 Stabilisers	0.09% sodium azide (NaN ₃) 1% bovine serum albumin						
Approx. Protein Concentrations	IgG concentration 0.5 mg/ml						

Immunogen Fusion protein mCD200RCD4d3+4

External Database

Links

UniProt:

[Q9ES57](#) [Related reagents](#)

Entrez Gene:

[57781](#) Cd200r1 [Related reagents](#)

Synonyms

Mox2r, Ox2r

RRID

AB_566620

Specificity

Rat anti Mouse CD200R antibody, clone OX-110 recognizes mouse CD200R, a cell surface glycoprotein (also known as OX2R. Mouse CD200R is a 326 amino acid, ~48 kDa single pass type I transmembrane glycoprotein, expressed primarily by peripheral blood monocytes and neutrophils but also by other leucocytes including T-lymphocytes and mast cells ([Wright et al.2003](#)). CD200-CD200R interaction may be involved in the control of myeloid cellular function ([Minas and Liversidge 2006](#)).

Rat anti Mouse CD200R antibody, clone OX-110 has been used successfully for the immunohistochemical detection of CD200R expressing cells on acetone fixed cryosections of murine synovial tissue ([Simelyte et al. 2008](#)).

Flow Cytometry

Use 10µl of the suggested working dilution to label 10⁶ cells in 100µl. The Fc region of monoclonal antibodies may bind to cells expressing low affinity Fc receptors. This may be reduced by using SeroBlock FcR ([BUF041A/BUF041B](#)).

References

1. Wright, G.J. *et al.* (2003) Characterization of the CD200 receptor family in mice and humans and their interactions with CD200. [J Immunol. 171 \(6\): 3034-46.](#)
2. Zhao, J. *et al.* (2009) Evasion by stealth: inefficient immune activation underlies poor T cell response and severe disease in SARS-CoV-infected mice. [PLoS Pathog. 5 \(10\): e1000636.](#)
3. Björck, P. *et al.* (2011) Plasmacytoid Dendritic Cell Dichotomy: Identification of IFN- α Producing Cells as a Phenotypically and Functionally Distinct Subset. [J Immunol. 186: 1477-85.](#)
4. Dellacasa-Lindberg, I. *et al.* (2011) Migratory Activation of Primary Cortical Microglia upon Infection with *Toxoplasma gondii*. [Infect Immun. 79: 3046-52.](#)
5. Krejsek, J. *et al.* (2010) Expression of CD200/CD200R regulatory molecules on granulocytes and monocytes is modulated by cardiac surgical operation. [Perfusion 25: 389-97.](#)
6. Rijkers, E.S. *et al.* (2008) The inhibitory CD200R is differentially expressed on human and mouse T and B lymphocytes. [Mol Immunol. 45: 1126-35.](#)
7. Costello, D.A. *et al.* (2011) Long term potentiation is impaired in membrane glycoprotein CD200-deficient mice: a role for Toll-like receptor activation. [J Biol Chem. 286 \(40\): 34722-32.](#)
8. Simelyte, E. *et al.* (2008) CD200-Fc, a novel antiarthritic biologic agent that targets proinflammatory cytokine expression in the joints of mice with collagen-induced arthritis.

[Arthritis Rheum. 58: 1038-43.](#)

9. Whitmore, L.C. *et al.* (2014) NOX2 protects against progressive lung injury and multiple organ dysfunction syndrome. [Am J Physiol Lung Cell Mol Physiol. 307: L71-82.](#)

10. Chitnis, T. *et al.* (2007) Elevated neuronal expression of CD200 protects Wilds mice from inflammation-mediated neurodegeneration. [Am J Pathol. 170: 1695-712.](#)

11. Larson, D. *et al.* (2012) Chronic helminth infection reduces basophil responsiveness in an IL-10-dependent manner. [J Immunol. 188: 4188-99.](#)

12. Torrero, M.N. *et al.* (2009) CD200R surface expression as a marker of murine basophil activation. [Clin Exp Allergy. 39 \(3\): 361-9.](#)

13. Hernangómez M *et al.* (2012) CD200-CD200R1 interaction contributes to neuroprotective effects of anandamide on experimentally induced inflammation. [Glia 60 \(9\): 1437-50.](#)

14. Bain, C.C. & Mowat, A.M. (2012) CD200 receptor and macrophage function in the intestine. [Immunobiology 217 \(6\): 643-51.](#)

15. Seeds, R.E. *et al.* (2011) The role of myeloid receptors on murine plasmacytoid dendritic cells in induction of type I interferon. [Int Immunopharmacol. 11 \(7\): 794-801.](#)

16. Akkaya, M. *et al.* (2013) Dissection of agonistic and blocking effects of CD200 receptor antibodies. [PLoS One 8 \(5\): e63325.](#)

17. Cassard L *et al.* (2012) Fcγ receptors inhibit mouse and human basophil activation. [J Immunol. 189 \(6\): 2995-3006.](#)

18. Liu, J.Q. *et al.* (2016) A Critical Role for CD200R Signaling in Limiting the Growth and Metastasis of CD200+ Melanoma. [J Immunol. Jul 6. pii: 1600052. \[Epub ahead of print\]](#)

19. Toya, E.E. & Ohba, M. (2015) Improved Long-term Culture of Epidermal Stem Cells Utilizing CD200R-expressing Feeder Cells [Showa Uni J Med Sci 27 \(2\) 83-91.](#)

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

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2281FB>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:FITC \(MCA1212F\)](#)

North & South America Tel: +1 800 265 7376
Fax: +1 919 878 3751

Worldwide Tel: +44 (0)1865 852 700
Fax: +44 (0)1865 852 739

Europe Tel: +49 (0) 89 8090 95 21
Fax: +49 (0) 89 8090 95 50

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

'M413944:221129'

Printed on 19 Oct 2023
