

# Datasheet: MCA2281F

Description:	RAT ANTI MOUSE CD200R:FITC			
Specificity:	CD200R			
Other names:	OX2R			
Format:	FITC			
Product Type:	Monoclonal Antibody			
Clone:	OX-110			
Isotype:	lgG2a			
Quantity:	0.1 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 <u>www.bio-</u> rad-antibodies.com/protocols.							
		Yes	No	Not Determined	Suggested Dilution			
	Flow Cytometry	•			1/10			
	Where this product has not been tested for use in a particular technique this does not							
	necessarily exclude its a guide only. It is recon system using appropria	nmended tha	t the use	er titrates the product f	g dilutions are given as or use in their own			
Target Species	Mouse							
Product Form	Purified IgG conjugated	d to Fluoresc	ein Isoth	iocyanate Isomer 1 (F	ITC) - liquid			
Max Ex/Em	Fluorophore FITC	Excitation Ma 490	ax (nm)	Emission Max (nm) 525				
Preparation	Purified IgG prepared b supernatant	by affinity chr	omatogra	aphy on Protein G fror	m tissue culture			
Buffer Solution	Phosphate buffered saline							
Preservative Stabilisers	0.09% sodium azide (NaN <sub>3</sub> ) 1% bovine serum albumin							
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml							

Immunogen	Fusion protein mCD200RCD4d3+4
External Database Links	UniProt: <u>Q9ES57</u> Related reagents Entrez Gene:
	57781 Cd200r1 Related reagents
Synonyms	Mox2r, Ox2r
RRID	AB_566619
Specificity	<b>Rat anti Mouse CD200R antibody, clone OX-110</b> 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 ( <u>Wright <i>et al.</i>2003</u> ). CD200-CD200R interaction may be involved in the control of myeloid cellular function ( <u>Minas and Liversidge 2006</u> ).
	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 ( <u>Simelyte <i>et al.</i> 2008</u> ).
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> 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 ( <u>BUF041A/BUF041B</u> ).
References	<ol> <li>Wright, G.J. <i>et al.</i> (2003) Characterization of the CD200 receptor family in mice and humans and their interactions with CD200. <u>J Immunol. 171 (6): 3034-46.</u></li> <li>Zhao, J. <i>et al.</i> (2009) Evasion by stealth: inefficient immune activation underlies poor T cell response and severe disease in SARS-CoV-infected mice. <u>PLoS Pathog. 5 (10):</u> <u>e1000636.</u></li> <li>Björck, P. <i>et al.</i> (2011) Plasmacytoid Dendritic Cell Dichotomy: Identification of IFN-{alpha} Producing Cells as a Phenotypically and Functionally Distinct Subset. J <u>Immunol. 186: 1477-85.</u></li> <li>Dellacese Lindherg, L <i>et al.</i> (2011) Migratery Activation of Primary Cortical Migraphic</li> </ol>
	<ul> <li>4. Dellacasa-Lindberg, I. <i>et al.</i> (2011) Migratory Activation of Primary Cortical Microglia upon Infection with <i>Toxoplasma gondii</i>. Infect Immun. 79: 3046-52.</li> <li>5. Krejsek, J. <i>et al.</i> (2010) Expression of CD200/CD200R regulatory molecules on granulocytes and monocytes is modulated by cardiac surgical operation. Perfusion 25: 389-97.</li> <li>6. Rijkers, E.S. <i>et al.</i> (2008) The inhibitory CD200R is differentially expressed on human and mouse T and B lymphocytes. Mol Immunol. 45: 1126-35.</li> <li>7. Costello, D.A. <i>et al.</i> (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.</li> <li>8. Simelyte, E. <i>et al.</i> (2008) CD200-Fc, a novel antiarthritic biologic agent that targets proinflammatory cytokine expression in the joints of mice with collagen-induced arthritis.</li> </ul>

Arthritis Rheum. 58: 1038-43.

	9. Whitmore, L.C. et al. (2014) NOX2 protects against progressive lung injury and multiple
	organ dysfunction syndrome. <u>Am J Physiol Lung Cell Mol Physiol. 307: L71-82.</u>
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	from inflammation-mediated neurodegeneration. <u>Am J Pathol. 170: 1695-712.</u>
	11. Larson, D. et al. (2012) Chronic helminth infection reduces basophil responsiveness in
	an IL-10-dependent manner. <u>J Immunol. 188: 4188-99.</u>
	12. Torrero, M.N. et al. (2009) CD200R surface expression as a marker of murine basophil
	activation. <u>Clin Exp Allergy. 39 (3): 361-9.</u>
	13. Hernangómez M et al. (2012) CD200-CD200R1 interaction contributes to
	neuroprotective effects of anandamide on experimentally induced inflammation. Glia 60
	<u>(9): 1437-50.</u>
	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 <i>et al.</i> (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	Material Safety Datasheet documentation #10041 available at:
Information	https://www.bio-rad-antibodies.com/SDS/MCA2281F
	10041
Regulatory	For research purposes only

## **Related Products**

### **Recommended Negative Controls**

RAT IgG2a NEGATIVE CONTROL:FITC (MCA1212F)

#### **Recommended Useful Reagents**

MOUSE SEROBLOCK FcR (BUF041A)

North & South	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-r	ad.com	Email: antibody_sales_uk@bio	-rad.com	Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M413941:221129'

#### Printed on 19 Oct 2023

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