

Datasheet: MCA2281PET

Description:	RAT ANTI MOUSE CD200R:RPE
Specificity:	CD200R
Other names:	OX2R
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	OX-110
Isotype:	IgG2a
Quantity:	25 TESTS

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	■			Neat

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 R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 0.25 ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% sodium azide (NaN ₃)		
Stabilisers	1% bovine serum albumin		
	5% sucrose		

Immunogen	Fusion protein mCD200RCD4d3+4
External Database Links	UniProt: Q9ES57 Related reagents Entrez Gene: 57781 Cd200r1 Related reagents
Synonyms	Mox2r, Ox2r
RRID	AB_2244386
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. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (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. <i>et al.</i> (2011) Migratory Activation of Primary Cortical Microglia upon Infection with <i>Toxoplasma gondii</i>. Infect Immun. 79: 3046-52. 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. 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. 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. 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.

[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 Wlds 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.](#)

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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	Prior to reconstitution store at +4°C. After reconstitution store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
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Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA2281PET 20487
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:RPE \(MCA1212PE\)](#)

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Europe

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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M419631:230616'

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