

## Datasheet: MCA2281A647T

<b>Description:</b>	RAT ANTI MOUSE CD200R:Alexa Fluor® 647
<b>Specificity:</b>	CD200R
<b>Other names:</b>	OX2R
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	OX-110
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	25 TESTS/0.25ml

## 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	■			Neat

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.

<b>Target Species</b>	Mouse						
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor® 647 - liquid						
<b>Max Ex/Em</b>	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>Alexa Fluor®647</td> <td>650</td> <td>665</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Alexa Fluor®647	650	665
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
Alexa Fluor®647	650	665					
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant						
<b>Buffer Solution</b>	Phosphate buffered saline						
<b>Preservative</b>	0.09% Sodium Azide						
<b>Stabilisers</b>	1% Bovine Serum Albumin						
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml						
<b>Immunogen</b>	Fusion protein mCD200RCD4d3+4						
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">Q9ES57</a> <a href="#">Related reagents</a>						

**Entrez Gene:**

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

**Synonyms**

Mox2r, Ox2r

**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](#)). Studies suggest that 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 10ul of the suggested working dilution to label 10<sup>6</sup> 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. 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- $\alpha$  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 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.](#)
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](#)

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#### 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.

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#### Shelf Life

18 months from date of despatch.

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#### Acknowledgements

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#### Health And Safety Information

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

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#### Regulatory

For research purposes only

## Related Products

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA1212A647\)](#)

### Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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