

## Datasheet: MCA1958A647

<b>Description:</b>	RAT ANTI MOUSE CD200:Alexa Fluor® 647
<b>Specificity:</b>	CD200
<b>Other names:</b>	OX2
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	OX-90
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	100 TESTS/1ml

### 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 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.

<b>Target Species</b>	Mouse		
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor® 647 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	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 (NaN <sub>3</sub> )		
<b>Stabilisers</b>	1% bovine serum albumin		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml		

<b>Immunogen</b>	Mouse CD200-rat CD4 fusion protein.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">O54901</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">17470</a> Cd200    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Mox2
<b>Fusion Partners</b>	Spleen cells from immunised rats were fused with cells of the rat Y3 myeloma cell line
<b>Specificity</b>	<p><b>Rat anti Mouse CD200 antibody, clone OX-90</b> recognizes the mouse CD200 cell surface antigen, also known as OX2.</p> <p>CD200 is expressed by splenic B lymphocytes, follicular dendritic cells, splenic endothelium and by neurons.</p> <p>The CD200 - CD200 ligand system is of importance in the control of macrophage and granulocyte activation.</p>
<b>Flow Cytometry</b>	<p>Use 10µl of the suggested working dilution to label 10<sup>6</sup> cells in 100µl.</p> <p>The Fc region of monoclonal antibodies may bind to cells expressing low affinity fc receptors. This may be reduced by using SeroBlock FcR (<a href="#">BUF041A/BUF041B</a>).</p>
<b>References</b>	<ol style="list-style-type: none"> <li>Hoek, R.M. <i>et al.</i> (2000) Down-regulation of the macrophage lineage through interaction with OX2 (CD200). <a href="#">Science. 290 (5497): 1768-71.</a></li> <li>Nathan, C. &amp; Muller, W.A. (2001) Putting the brakes on innate immunity: a regulatory role for CD200? <a href="#">Nat Immunol. 2 (1): 17-9.</a></li> <li>Rijkers, E.S. (2007) Ligation of CD200R by CD200 is not required for normal murine myelopoiesis. <a href="#">Eur J Haematol. 79: 410-6.</a></li> <li>Rijkers, E.S. <i>et al.</i> (2008) The inhibitory CD200R is differentially expressed on human and mouse T and B lymphocytes. <a href="#">Mol Immunol. 45: 1126-35.</a></li> <li>Burger, P.E. <i>et al.</i> (2009) High aldehyde dehydrogenase activity: a novel functional marker of murine prostate stem/progenitor cells. <a href="#">Stem Cells. 27: 2220-8.</a></li> <li>Ko, Y.C. <i>et al.</i> (2009) Endothelial CD200 is heterogeneously distributed, regulated and involved in immune cell-endothelium interactions. <a href="#">J Anat. 214: 183-95.</a></li> <li>Koning, N. <i>et al.</i> (2009) Distribution of the immune inhibitory molecules CD200 and CD200R in the normal central nervous system and multiple sclerosis lesions suggests neuron-glia and glia-glia interactions. <a href="#">J Neuropathol Exp Neurol. 68: 159-67.</a></li> <li>Seeds, R.E. <i>et al.</i> (2011) The role of myeloid receptors on murine plasmacytoid dendritic cells in induction of type I interferon. <a href="#">Int Immunopharmacol. 11 (7): 794-801.</a></li> <li>Garza, L.A. <i>et al.</i> (2011) Bald scalp in men with androgenetic alopecia retains hair follicle stem cells but lacks CD200-rich and CD34-positive hair follicle progenitor cells. <a href="#">J Clin Invest. 121: 613-22.</a></li> <li>Montiel, M. <i>et al.</i> (2015) Melatonin decreases brain apoptosis, oxidative stress, and CD200 expression and increased survival rate in mice infected by Venezuelan equine</li> </ol>

encephalitis virus. [Antivir Chem Chemother. 24 \(3-4\): 99-108.](#)

11. Liu, J.Q. *et al.* (2016) A Critical Role for CD200R Signaling in Limiting the Growth and Metastasis of CD200+ Melanoma. [J Immunol. 197 \(4\): 1489-97.](#)

12. Liu, C. *et al.* (2018) The role of N-glycosylation of CD200-CD200R1 interaction in classical microglial activation. [J Inflamm \(Lond\). 15: 28.](#)

13. Tonecka, K. *et al.* (2021) The CD200 Regulates Inflammation in Mice Independently of TNF- $\alpha$  Production. [Int J Mol Sci. 22 \(10\): 5358.](#)

14. Pannunzio, B. *et al.* (2022) CD200R1 Contributes to Successful Functional Reinnervation after a Sciatic Nerve Injury [Cells. 11 \(11\): 1786.](#)

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**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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1958A647>  
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**Regulatory** For research purposes only

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## 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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