Datasheet: MCA2281A647

Description:	RAT ANTI MOUSE CD200R:Alexa Fluor® 647
Specificity:	CD200R
Other names:	OX2R
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	OX-110
Isotype:	IgG2a
Quantity:	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.

	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 Alexa Fluor® 647 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®647	650	665

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 0.05 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_566615
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 10^6 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-{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.

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20. Lago, N. *et al.* (2018) CD200 modulates spinal cord injury neuroinflammation and outcome through CD200R1. Brain Behav Immun. 73: 416-26.
21. Qian, H. *et al.* (2023) Activation of the CD200/CD200R1 axis attenuates neuroinflammation and improves postoperative cognitive dysfunction via the PI3K/Akt /NF-κB signaling pathway in aged mice. Inflamm Res. 72 (12): 2127-44.

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

Acknowledgements

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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2281A647 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 (MCA1212A647)

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

'M413940:221129'

Printed on 23 May 2025

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