Datasheet: MCA1958F

Description:	RAT ANTI MOUSE CD200:FITC
Specificity:	CD200
Other names:	OX2
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	OX-90
Isotype:	IgG2a
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 www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/5

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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

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 0.1mg/ml

Immunogen	Mouse CD200-rat CD4 fusion protein.
External Database Links	**UniProt:** O54901 Related reagents **Entrez Gene:** 17470 Cd200 Related reagents
Synonyms	Mox2
RRID	AB_323318
Fusion Partners	Spleen cells from immunised rats were fused with cells of the rat Y3 myeloma cell line
Specificity	**Rat anti Mouse CD200 antibody, clone OX-90** recognizes the mouse CD200 cell surface antigen, also known as OX2. CD200 is expressed by splenic B lymphocytes, follicular dendritic cells, splenic endothelium and by neurons. The CD200 - CD200 ligand system is of importance in the control of macrophage and granulocyte activation.
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. Hoek, R.M. *et al.* (2000) Down-regulation of the macrophage lineage through interaction with OX2 (CD200). Science. 290 (5497): 1768-71. 2. Nathan, C. & Muller, W.A. (2001) Putting the brakes on innate immunity: a regulatory role for CD200? Nat Immunol. 2 (1): 17-9. 3. Rijkers, E.S. (2007) Ligation of CD200R by CD200 is not required for normal murine myelopoiesis. Eur J Haematol. 79: 410-6. 4. 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. 5. Burger, P.E. *et al.* (2009) High aldehyde dehydrogenase activity: a novel functional marker of murine prostate stem/progenitor cells. Stem Cells. 27: 2220-8. 6. Ko, Y.C. *et al* (2009) Endothelial CD200 is heterogeneously distributed, regulated and involved in immune cell-endothelium interactions. J Anat. 214: 183-95. 7. Koning, N. *et al.* (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. J Neuropathol Exp Neurol. 68: 159-67. 8. 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. 9. Garza, L.A. *et al.* (2011) Bald scalp in men with androgenetic alopecia retains hair follicle stem cells but lacks CD200-rich and CD34-positive hair follicle progenitor cells. J Clin Invest. 121: 613-22.

10. Montiel, M. *et al.* (2015) Melatonin decreases brain apoptosis, oxidative stress, and CD200 expression and increased survival rate in mice infected by Venezuelan equine 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. Lago, N. *et al.* (2018) CD200 modulates spinal cord injury neuroinflammation and outcome through CD200R1. Brain Behav Immun. 73: 416-26.
14. Tonecka, K. *et al.* (2021) The CD200 Regulates Inflammation in Mice Independently of TNF-α Production. Int J Mol Sci. 22 (10): 5358.
15. Pannunzio, B. *et al.* (2022) CD200R1 Contributes to Successful Functional Reinnervation after a Sciatic Nerve Injury Cells. 11 (11): 1786.

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 Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1958F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:FITC (MCA1212F)

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
'M412321:221110'

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