

Datasheet: MCA1439PE

Description:	RAT ANTI MOUSE CD19:RPE
Specificity:	CD19
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	6D5
Isotype:	IgG2a
Quantity:	100 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 - 1/10

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 1 ml distilled water						
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>RPE 488nm laser</td> <td>496</td> <td>578</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	RPE 488nm laser	496	578
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 Human K562 cell line transfected with murine CD19.

External Database

Links

UniProt:

[P25918](#) [Related reagents](#)

Entrez Gene:

[12478](#) Cd19 [Related reagents](#)

RRID

AB_321344

Fusion Partners

Spleen cells from immunised rats were fused with cells of the P3X63.Ag8.653 myeloma cell line.

Specificity

Rat anti Mouse CD19 antibody, clone 6D5 recognizes the murine CD19 cell surface antigen, a ~95 kDa glycoprotein expressed by B lymphocytes. Rat anti Mouse CD19 antibody, clone 6D5 recognizes the same, or a closely related epitope as clone Rat anti Mouse CD19 antibody, clone ID3 in cross-competition assays.

StarBright Violet 670 conjugated Rat anti Mouse CD19 antibody, clone 6D5 (**MCA1439SBV670**) has been used successfully to label cells in an organ-on-chip platform by immunofluorescence ([Cook *et al.* 2024 \[preprint\]](#)).

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. Vernooy, J.H. *et al.* (2002) Long-term intratracheal lipopolysaccharide exposure in mice results in chronic lung inflammation and persistent pathology. [Am J Respir Cell Mol Biol. 26 \(1\): 152-9.](#)
2. Andrew, D. and Aspinall, R. (2001) Il-7 and not stem cell factor reverses both the increase in apoptosis and the decline in thymopoiesis seen in aged mice. [J Immunol. 166: 1524-30.](#)
3. Bermudez-Fajardo, A. *et al.* (2011) The effect of *Chlamydomonas pneumoniae* Major Outer Membrane Protein (MOMP) on macrophage and T cell-mediated immune responses. [Immunobiology. 216: 152-63.](#)
4. De Jesus, M. *et al.* (2009) Galactoxylomannan-mediated immunological paralysis results from specific B cell depletion in the context of widespread immune system damage. [J Immunol. 183: 3885-94.](#)
5. Jégou, J.F. *et al.* (2007) C3d binding to the myelin oligodendrocyte glycoprotein results in an exacerbated experimental autoimmune encephalomyelitis. [J Immunol. 178: 3323-31.](#)
6. Starck, J. *et al.* (2010) Inducible Fli-1 gene deletion in adult mice modifies several myeloid lineage commitment decisions and accelerates proliferation arrest and terminal erythrocytic differentiation. [Blood. 116: 4795-805.](#)
7. Scotland, R.S. *et al.* (2011) Sex differences in resident immune cell phenotype underlie more efficient acute inflammatory responses in female mice. [Blood. 118 \(22\): 5918-27.](#)
8. White, H.N. and Meng, Q.H. (2012) Recruitment of a Distinct but Related Set of VH Sequences into the Murine CD21hi/CD23- Marginal Zone B Cell Repertoire to That Seen

- in the Class-Switched Antibody Response. [J Immunol. 188: 287-93.](#)
9. Reynaud, J.M. *et al.* (2014) Human herpesvirus 6A infection in CD46 transgenic mice: viral persistence in the brain and increased production of proinflammatory chemokines via Toll-like receptor 9. [J Virol. 88: 5421-36.](#)
 10. Candolfi, M. *et al.* (2011) B cells are critical to T-cell-mediated antitumor immunity induced by a combined immune-stimulatory/conditionally cytotoxic therapy for glioblastoma. [Neoplasia. 13: 947-60.](#)
 11. Takabayashi, H. *et al.* (2014) Anti-inflammatory activity of bone morphogenetic protein signaling pathways in stomachs of mice. [Gastroenterology. 147: 396-406.e7.](#)
 12. Weiss-Gayet, M. *et al.* (2016) Notch Stimulates Both Self-Renewal and Lineage Plasticity in a Subset of Murine CD9High Committed Megakaryocytic Progenitors. [PLoS One. 11 \(4\): e0153860.](#)
 13. Meng, Q.H. & White, H.N. (2017) CD21^{int} CD23⁺ follicular B cells express antigen-specific secretory IgM mRNA as primary and memory responses. [Immunology. 151 \(2\): 211-8.](#)
 14. Mccubbrey, A.L. *et al.* (2016) MicroRNA-34a Negatively Regulates Efferocytosis by Tissue Macrophages in Part via SIRT1. [J Immunol. 196 \(3\): 1366-75.](#)
 15. Vila-Caballer, M. *et al.* (2019) Disruption of the CCL1-CCR8 axis inhibits vascular Treg recruitment and function and promotes atherosclerosis in mice. [J Mol Cell Cardiol. 132: 154-63.](#)
 16. Domingues, C.S. *et al.* (2020) Host Genetics Background Influence in the Intragastric *Trypanosoma cruzi* Infection. [Front Immunol. 11: 566476.](#)
 17. Cook, S.R. *et al.* (2024) A 3D-printed multi-compartment organ-on-chip platform with a tubing-free pump models communication with the lymph node. [bioRxiv. Aug 04 \[Epub ahead of print\].](#)
 18. Lepland, A. *et al.* (2024) Therapeutic Tumor Macrophage Reprogramming in Breast Cancer Through a Peptide-Drug Conjugate [bioRxiv 12 Aug \[Epub ahead of print\].](#)

Storage Prior to reconstitution store at +4°C. Following 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.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #20487 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1439PE> 20487

Regulatory For research purposes only

Related Products

Recommended Negative Controls

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

Recommended Useful Reagents

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

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

North & South Tel: +1 800 265 7376

America 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

'M419765:230616'

Printed on 24 Feb 2025

© 2025 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)