Datasheet: MCA1439

BATCH NUMBER 171793

Description:	RAT ANTI MOUSE CD19
Specificity:	CD19
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	6D5
Isotype:	IgG2a
Quantity:	0.25 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	▪			1/25 - 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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 - liquid
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)
Carrier Free	Yes

Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Human K562 cell line transfected with murine CD19.
External Database Links	**UniProt:** P25918 Related reagents **Entrez Gene:** 12478 Cd19 Related reagents
RRID	AB_321342
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 10^6 cells in 100µl
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 *Chlamydophila 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.
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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	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.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA1439
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800

Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight®550, DyLight®650, DyLight®800
Goat Anti Rat IgG (STAR131...)	Alk. Phos., Biotin
Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (STAR69...)	FITC

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL (MCA1212)

Product inquiries: www.bio-rad-antibodies.com/technical-support

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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