

# Datasheet: MCA1439A700

**BATCH NUMBER 164071**

<b>Description:</b>	RAT ANTI MOUSE CD19:Alexa Fluor® 700
<b>Specificity:</b>	CD19
<b>Format:</b>	ALEXA FLUOR® 700
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	6D5
<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® 700 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®700	702	723
<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 Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )		
	1% bovine serum albumin		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml		

Immunogen	Human K562 cell line transfected with murine CD19.
External Database Links	<p><b>UniProt:</b>  <a href="#">P25918</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">12478</a>    Cd19    <a href="#">Related reagents</a></p>
RRID	AB_844483
Fusion Partners	Spleen cells from immunised rats were fused with cells of the P3X63.Ag8.653 myeloma cell line.
Specificity	<p><b>Rat anti Mouse CD19 antibody, clone 6D5</b> 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.</p> <p>StarBright Violet 670 conjugated Rat anti Mouse CD19 antibody, clone 6D5 (<b>MCA1439SBV670</b>) has been used successfully to label cells in an organ-on-chip platform by immunofluorescence (<a href="#">Cook et al. 2024 [preprint]</a>).</p>
Flow Cytometry	<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>
References	<ol style="list-style-type: none"> <li>Vernooy, J.H. <i>et al.</i> (2002) Long-term intratracheal lipopolysaccharide exposure in mice results in chronic lung inflammation and persistent pathology. <a href="#">Am J Respir Cell Mol Biol. 26 (1): 152-9.</a></li> <li>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. <a href="#">J Immunol. 166: 1524-30.</a></li> <li>Bermudez-Fajardo, A. <i>et al.</i> (2011) The effect of <i>Chlamydomonas pneumoniae</i> Major Outer Membrane Protein (MOMP) on macrophage and T cell-mediated immune responses. <a href="#">Immunobiology. 216: 152-63.</a></li> <li>De Jesus, M. <i>et al.</i> (2009) Galactoxylomannan-mediated immunological paralysis results from specific B cell depletion in the context of widespread immune system damage. <a href="#">J Immunol. 183: 3885-94.</a></li> <li>Jégou, J.F. <i>et al.</i> (2007) C3d binding to the myelin oligodendrocyte glycoprotein results in an exacerbated experimental autoimmune encephalomyelitis. <a href="#">J Immunol. 178: 3323-31.</a></li> <li>Starck, J. <i>et al.</i> (2010) Inducible Fli-1 gene deletion in adult mice modifies several myeloid lineage commitment decisions and accelerates proliferation arrest and terminal erythrocytic differentiation. <a href="#">Blood. 116: 4795-805.</a></li> <li>Scotland, R.S. <i>et al.</i> (2011) Sex differences in resident immune cell phenotype underlie more efficient acute inflammatory responses in female mice. <a href="#">Blood. 118 (22): 5918-27.</a></li> <li>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</li> </ol>

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11. Takabayashi, H. *et al.* (2014) Anti-inflammatory activity of bone morphogenetic protein signaling pathways in stomachs of mice. [Gastroenterology. 147: 396-406.e7.](#)

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13. Meng, Q.H. & White, H.N. (2017) CD21<sup>int</sup> CD23<sup>+</sup> 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	<p>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.</p> <p>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.</p>
Guarantee	12 months from date of despatch
Acknowledgements	<p>This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or <a href="mailto:outlicensing@thermofisher.com">outlicensing@thermofisher.com</a></p>

<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1439A700">https://www.bio-rad-antibodies.com/SDS/MCA1439A700</a> 10041
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 700 \(MCA1212A700\)](#)

### Recommended Useful Reagents

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

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)  
'M409684:221020'

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