

## Datasheet: MCA1940PE

<b>Description:</b>	MOUSE ANTI HUMAN CD19:RPE
<b>Specificity:</b>	CD19
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	LT19
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](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>	Human		
<b>Product Form</b>	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
<b>Reconstitution</b>	Reconstitute with 1 ml distilled water		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	RPE 488nm laser	496	578
<b>Preparation</b>	Antibody purified from tissue culture supernatant		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative</b>	0.09% sodium azide (NaN <sub>3</sub> )		
<b>Stabilisers</b>	1% bovine serum albumin		
	5% sucrose		
<b>External Database Links</b>	<b>UniProt:</b>		

**Entrez Gene:**

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RRID                    AB\_323282

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**Specificity**            **Mouse anti Human CD19 antibody, clone LT19** recognizes human CD19 also known as T-cell surface antigen Leu-12 or B-lymphocyte surface antigen B4. CD19 is a ~95 kDa type I single pass transmembrane glycoprotein expressed on follicular dendritic cells and B-cells during maturation but is lost on development into plasma cells ([de Rie et al. 1989](#)).

CD19 is the broadest lineage specific marker for B cells and functions as a B-cell co-receptor in conjunction with CD21 ([Bradbury et al. 1992](#)), CD9, CD81 and CD82 ([Horváth et al. 1998](#)). CD19 is implicated in the down-regulation of B cell growth and proliferation ([Pezzutto et al. 1987](#)).

[MCA1940SBV670](#) has been shown to recognize CD19 on mouse lymph node in live fluorescent IHC ([Cook et al. 2024](#)).

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**Flow Cytometry**            Use 10µl of the suggested working dilution to label 10<sup>6</sup> cells or cells or 100µl whole blood

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- References**
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  2. Allen, J.S. *et al.* (2009) Plasmacytoid dendritic cells are proportionally expanded at diagnosis of type 1 diabetes and enhance islet autoantigen presentation to T-cells through immune complex capture. [Diabetes. 58: 138-45.](#)
  3. McIntosh, K. *et al.* (2006) The immunogenicity of human adipose-derived cells: temporal changes *in vitro*. [Stem Cells. 24: 1246-53.](#)
  4. Sengstake, S. *et al.* (2006) CD21 and CD62L shedding are both inducible via P2X7Rs. [Int Immunol. 18 \(7\): 1171-8.](#)
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12. Dorvignit, D. *et al.* (2012) Expression and biological characterization of an anti-CD20 biosimilar candidate antibody: a case study. [MAbs. 4 \(4\): 488-96.](#)
13. Karlsen, M. *et al.* (2015) TLR-7 and -9 Stimulation of Peripheral Blood B Cells Indicate Altered TLR Signalling in Primary Sjögren's Syndrome Patients by Increased Secretion of Cytokines. [Scand J Immunol. 82 \(6\): 523-31.](#)
14. Clark, L.E. *et al.* (2018) Vaccine-elicited receptor-binding site antibodies neutralize two New World hemorrhagic fever arenaviruses. [Nat Commun. 9 \(1\): 1884.](#)
15. Gu, Y. *et al.* (2019) Defining the structural basis for human alloantibody binding to human leukocyte antigen allele HLA-A\*11:01. [Nat Commun. 10 \(1\): 893.](#)
16. Yang, C. *et al.* (2013) B cells promote tumor progression via STAT3 regulated-angiogenesis. [PLoS One. 8 \(5\): e64159.](#)
17. Cook, S.R. *et al.* (2024) Multi-organ immunity on a 3D-printed multi-tissue chip with tubing-free impeller pump. [bioRxiv. Jun 01 \[Epub ahead of print\].](#)

<b>Storage</b>	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.
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20487 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1940PE">https://www.bio-rad-antibodies.com/SDS/MCA1940PE</a> 20487
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

<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)  
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