

## Datasheet: MCA2454

<b>Description:</b>	MOUSE ANTI HUMAN CD19
<b>Specificity:</b>	CD19
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	LE-CD19
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.2 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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			1/100 - 1/200
Immunohistology - Frozen			▪	
Immunohistology - Paraffin (2)	▪			1/100 - 1/200
ELISA	▪			
Immunoprecipitation	▪			
Western Blotting	▪			Reducing conditions

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

**(1)Membrane permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code [BUF09](#)) for this purpose.**

**(2)This product requires antigen retrieval using heat treatment prior to staining of paraffin sections.Sodium citrate buffer pH 6.0 is recommended for this purpose.**

<b>Target Species</b>	Human
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline

<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	CD19 peptide CGPDPAWGGGGGRMGWSTR (C-terminus) coupled to KLH.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P15391</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">930</a>    CD19    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_566586
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the X63-Ag8.653 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Human CD19 antibody, clone LE-CD19</b> recognizes an epitope within the C-terminal cytoplasmic tail sequence of human CD19, a single pass type I transmembrane glycoprotein containing two <a href="#">C2 type Ig-like</a> domains in the N-terminal extracellular region and four potential phosphorylation sites for tyrosine together with a single serine in the cytoplasmic region.</p> <p>Human CD19 is expressed on virtually all cells of the B-cell lineage with the exception of plasma cells and plays a regulatory role in B-cell differentiation and proliferation.</p> <p>B-cells are essential for antibody production and mutations in the CD19 gene can lead to an immunodeficiency syndrome, CIVD3 characterized by hypogammaglobulinemia leading to recurrent infections and the inability to mount an antibody mediated response to immune insult. Although immunoglobulin production is impaired B-cell precursors appear in normal numbers together with some reduction in more mature B-cell forms (<a href="#">van Zelm et al. 2006</a>). B-cells have also been implicated in the progression and pathogenesis of multiple sclerosis and are common components of both active and chronic MS lesions and well as the CSF (<a href="#">Ritchie et al. 2004</a>)</p> <p>Mouse anti Human CD19 antibody, clone LE-CD19 has been successfully employed for the immunohistochemical demonstration of CD19 in formalin fixed, paraffin embedded tissues (<a href="#">Streeck, H. et al. 2011</a>) and for the detection of CD19 in cell lysates by Western blotting.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label $1 \times 10^6$ cells in 100ul.
<b>Histology Positive Control Tissue</b>	Tonsil

<b>References</b>	<ol style="list-style-type: none"> <li>1. Ogembo, J.G. <i>et al.</i> (2012) SIRPα/CD172a and FHOD1 Are Unique Markers of Littoral Cells, a Recently Evolved Major Cell Population of Red Pulp of Human Spleen. <a href="#">J Immunol. 188: 4496-505.</a></li> <li>2. Streeck, H. <i>et al.</i> (2011) Epithelial adhesion molecules can inhibit HIV-1-specific CD8<sup>+</sup> T-cell functions <a href="#">Blood. 117: 5112-22.</a></li> <li>3. Herting, F. <i>et al.</i> (2014) Enhanced anti-tumor activity of the glycoengineered type II CD20 antibody obinutuzumab (GA101) in combination with chemotherapy in xenograft models of human lymphoma. <a href="#">Leuk Lymphoma. 55 (9): 2151-60.</a></li> <li>4. Inoue, T. <i>et al.</i> (2010) Differential expression of glycogenes in tonsillar B lymphocytes in association with proteinuria and renal dysfunction in IgA nephropathy. <a href="#">Clin Immunol. 136 (3): 447-55.</a></li> <li>5. Yang, C. <i>et al.</i> (2013) Prognostic significance of B-cells and pSTAT3 in patients with ovarian cancer. <a href="#">PLoS One. 8 (1): e54029.</a></li> <li>6. Nichele, I. <i>et al.</i> (2012) VR09 cell line: an EBV-positive lymphoblastoid cell line with <i>in vivo</i>. characteristics of diffuse large B cell lymphoma of activated B-cell type. <a href="#">PLoS One. 7 (12): e52811.</a></li> <li>7. Heylmann, D. <i>et al.</i> (2021) Comparison of DNA repair and radiosensitivity of different blood cell populations. <a href="#">Sci Rep. 11 (1): 2478.</a></li> </ol>
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<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>Storage in frost-free freezers is not recommended.</p> <p>This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.</p>
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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10040 available at: 10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a></p>
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR8...)	<a href="#">DyLight@800</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight@488</a> , <a href="#">DyLight@680</a> , <a href="#">DyLight@800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>

## Recommended Negative Controls

### MOUSE IgG1 NEGATIVE CONTROL (MCA928)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto: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](mailto: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](mailto:antibody_sales_de@bio-rad.com)

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