

Datasheet: MCA2454

BATCH NUMBER 1803

Description:	MOUSE ANTI HUMAN CD19
Specificity:	CD19
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	LE-CD19
Isotype:	IgG1
Quantity:	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.

	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.

Target Species	Human
Product Form	Purified IgG - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	CD19 peptide CGPDPAWGGGGGRMGWSTR (C-terminus) coupled to KLH.
External Database Links	UniProt: P15391 Related reagents Entrez Gene: 930 CD19 Related reagents
RRID	AB_566586
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the X63-Ag8.653 myeloma cell line.
Specificity	Mouse anti Human CD19 antibody, clone LE-CD19 recognizes an epitope within the C-terminal cytoplasmic tail sequence of human CD19, a single pass type I transmembrane glycoprotein containing two C2 type Ig-like domains in the N-terminal extracellular region and four potential phosphorylation sites for tyrosine together with a single serine in the cytoplasmic region. 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. 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 (van Zelm et al. 2006). 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 (Ritchie et al. 2004) Mouse anti Human CD19 antibody, clone LE-CD19 has been successfully employed for the immunohistochemical demonstration of CD19 in formalin fixed, paraffin embedded tissues (Streeck, H. et al. 2011) and for the detection of CD19 in cell lysates by Western blotting.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.

**Histology Positive
Control Tissue**

Tonsil

References

1. Ogembo, J.G. *et al.* (2012) SIRPα/CD172a and FHOD1 Are Unique Markers of Littoral Cells, a Recently Evolved Major Cell Population of Red Pulp of Human Spleen. [J Immunol. 188: 4496-505.](#)
2. Streeck, H. *et al.* (2011) Epithelial adhesion molecules can inhibit HIV-1-specific CD8⁺ T-cell functions [Blood. 117: 5112-22.](#)
3. Herting, F. *et al.* (2014) Enhanced anti-tumor activity of the glycoengineered type II CD20 antibody obinutuzumab (GA101) in combination with chemotherapy in xenograft models of human lymphoma. [Leuk Lymphoma. 55 \(9\): 2151-60.](#)
4. Inoue, T. *et al.* (2010) Differential expression of glycogenes in tonsillar B lymphocytes in association with proteinuria and renal dysfunction in IgA nephropathy. [Clin Immunol. 136 \(3\): 447-55.](#)
5. Yang, C. *et al.* (2013) Prognostic significance of B-cells and pSTAT3 in patients with ovarian cancer. [PLoS One. 8 \(1\): e54029.](#)
6. Nichele, I. *et al.* (2012) VR09 cell line: an EBV-positive lymphoblastoid cell line with *in vivo*. characteristics of diffuse large B cell lymphoma of activated B-cell type. [PLoS One. 7 \(12\): e52811.](#)
7. Heylmann, D. *et al.* (2021) Comparison of DNA repair and radiosensitivity of different blood cell populations. [Sci Rep. 11 \(1\): 2478.](#)

Storage

Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
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.

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/MCA2454>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP

Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®550](#),
[DyLight®650](#), [DyLight®680](#), [DyLight®800](#),
[FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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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