

## Datasheet: MCA1940GA

**BATCH NUMBER 151083**

|                      |                       |
|----------------------|-----------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD19 |
| <b>Specificity:</b>  | CD19                  |
| <b>Format:</b>       | Purified              |
| <b>Product Type:</b> | Monoclonal Antibody   |
| <b>Clone:</b>        | LT19                  |
| <b>Isotype:</b>      | IgG1                  |
| <b>Quantity:</b>     | 0.1 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             | ▪   |    |                | 1/50 - 1/100       |
| Immunohistology - Frozen   | ▪   |    |                |                    |
| Immunohistology - Paraffin |     |    | ▪              |                    |
| ELISA                      |     |    | ▪              |                    |
| Immunoprecipitation        | ▪   |    |                |                    |
| Western Blotting           |     |    | ▪              |                    |

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.

|                                 |   |
|---------------------------------|---|
| <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>Approx. Protein</b>          | IgG concentration 1.0 mg/ml   |

## Concentrations

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### External Database

#### Links

#### UniProt:

[P15391](#)   [Related reagents](#)

#### Entrez Gene:

[930](#) CD19   [Related reagents](#)

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#### RRID

AB\_323731

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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](#)).

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#### Flow Cytometry

Use 10ul of the suggested working dilution to label  $10^6$  cells in 100ul.

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#### References

1. Hughes, G.J. *et al.* (2007) Virus immunocapture provides evidence of CD8 lymphocyte-derived HIV-1 *in vivo*. [AIDS. 21: 1507-13.](#)
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.](#)
5. Villarroel Dorrego, M. *et al.* (2006) Transfection of CD40 in a human oral squamous cell carcinoma keratinocyte line upregulates immune potency and costimulatory molecules. [Br J Dermatol. 154: 231-8.](#)
6. Franz, B. *et al.* (2011) *Ex vivo* characterization and isolation of rare memory B cells with antigen tetramers. [Blood. 118: 348-57.](#)
7. Lacal, P.M. *et al.* (2013) Glucocorticoid-induced tumor necrosis factor receptor family-related ligand triggering upregulates vascular cell adhesion molecule-1 and intercellular adhesion molecule-1 and promotes leukocyte adhesion. [J Pharmacol Exp Ther. 347: 164-72.](#)
8. Franz, B. *et al.* (2011) *Ex vivo* characterization and isolation of rare memory B cells with antigen tetramers. [Blood. 118: 348-57.](#)
9. Girbl, T. *et al.* (2013) CD40-mediated activation of chronic lymphocytic leukemia cells promotes their CD44-dependent adhesion to hyaluronan and restricts CCL21-induced motility. [Cancer Res. 73: 561-70.](#)
10. Hertzberg, L. *et al.* (2010) Down syndrome acute lymphoblastic leukemia, a highly heterogeneous disease in which aberrant expression of CRLF2 is associated with mutated

- JAK2: a report from the International BFM Study Group. [Blood. 115: 1006-17.](#)
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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.](#)

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**Storage** Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1940GA>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Secondary Antibodies

- Goat Anti Mouse IgG (STAR77...) [HRP](#)
- Rabbit Anti Mouse IgG (STAR12...) [RPE](#)
- Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)
- Goat Anti Mouse IgG (STAR76...) [RPE](#)
- Rabbit Anti Mouse IgG (STAR13...) [HRP](#)
- Goat Anti Mouse IgG (STAR70...) [FITC](#)
- Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight@488](#), [DyLight@550](#), [DyLight@650](#), [DyLight@680](#), [DyLight@800](#), [FITC](#), [HRP](#)
- Rabbit Anti Mouse IgG (STAR9...) [FITC](#)
- Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)

### Recommended Negative Controls

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

|                                  |   |                  |   |               |   |
|----------------------------------|---|------------------|---|---------------|---|
| <b>North &amp; South America</b> | Tel: +1 800 265 7376<br>Fax: +1 919 878 3751<br>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<br>Fax: +44 (0)1865 852 739<br>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<br>Fax: +49 (0) 89 8090 95 50<br>Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a> |
|----------------------------------|---|------------------|---|---------------|---|

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

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