

# Datasheet: MCA1195PE

**BATCH NUMBER 169494**

|                      |                           |
|----------------------|---------------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD21:RPE |
| <b>Specificity:</b>  | CD21                      |
| <b>Other names:</b>  | CR2                       |
| <b>Format:</b>       | RPE                       |
| <b>Product Type:</b> | Monoclonal Antibody       |
| <b>Clone:</b>        | LB21                      |
| <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 - 1/5         |

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.

|                          |                                                                                                                                                                                                                                                                                                                                             |                     |                   |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------|
| Target Species           | Human                                                                                                                                                                                                                                                                                                                                       |                     |                   |
| Species Cross Reactivity | Reacts with: Sheep, Mink, Bovine, Goat, Cat<br><b>N.B.</b> Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. |                     |                   |
| Product Form             | Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized                                                                                                                                                                                                                                                                             |                     |                   |
| Reconstitution           | Reconstitute with 1 ml distilled water                                                                                                                                                                                                                                                                                                      |                     |                   |
| Max Ex/Em                | Fluorophore                                                                                                                                                                                                                                                                                                                                 | Excitation Max (nm) | Emission Max (nm) |
|                          | RPE 488nm laser                                                                                                                                                                                                                                                                                                                             | 496                 | 578               |
| Preparation              | Purified IgG prepared by ion exchange chromatography from ascites                                                                                                                                                                                                                                                                           |                     |                   |

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Buffer Solution</b>          | Phosphate buffered saline                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Preservative Stabilisers</b> | 0.09% sodium azide (NaN <sub>3</sub> )<br>1% bovine serum albumin<br>5% sucrose                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>                | Human IM9 cell line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>External Database Links</b>  | <b>UniProt:</b><br><a href="#">P20023</a> <a href="#">Related reagents</a><br><br><b>Entrez Gene:</b><br><a href="#">1380</a> CR2 <a href="#">Related reagents</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Synonyms</b>                 | C3DR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>RRID</b>                     | AB_321348                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Fusion Partners</b>          | Spleen cells from immunised BALB/c mice were fused with cells of the mouse Sp2/0 myeloma cell line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Specificity</b>              | <b>Mouse anti Human CD21 antibody, clone LB21</b> recognizes the human Complement receptor type 2, also known as CD21 or the Epstein-Barr virus receptor. CD21 is a ~14 kDa cell surface glycoprotein expressed by mature B cells and by follicular dendritic cells. The molecule acts as a receptor for complement components C3d, C3dg and iC3b, as well as for Epstein Barr Virus. It forms part of a large signal transduction complex in association with CD19.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Flow Cytometry</b>           | Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells or 100µl whole blood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>References</b>               | <ol style="list-style-type: none"> <li>1. Furukawa, Y. <i>et al.</i> (2000) Frequent reversible membrane damage in peripheral blood B cells in human T cell lymphotropic virus type I (HTLV-I)-associated myelopathy/tropical spastic paraparesis (HAM/TSP). <a href="#">Clin Exp Immunol. 120 (2): 307-16.</a></li> <li>2. Aichele, A. <i>et al.</i> (2006) Redox regulation of CD21 shedding involves signaling via PKC and indicates the formation of a juxtamembrane stalk. <a href="#">J Cell Sci. 119: 2892-902.</a></li> <li>3. Sengstake, S. <i>et al.</i> (2006) CD21 and CD62L shedding are both inducible via P2X7Rs. <a href="#">Int Immunol. 18: 1171-8.</a></li> <li>4. Griebel, P.J. <i>et al.</i> (2007) Cross-reactivity of mAbs to human CD antigens with sheep leukocytes. <a href="#">Vet Immunol Immunopathol. 119: 115-22.</a></li> <li>5. Aasted, B. <i>et al.</i> (2007) Reactivity of monoclonal antibodies to human CD antigens with cells from mink. <a href="#">Vet Immunol Immunopathol. 119: 27-37.</a></li> <li>6. Sopp, P. <i>et al.</i> (2007) Cross-reactivity of mAbs to human CD antigens with cells from cattle. <a href="#">Vet Immunol Immunopathol. 119: 106-14.</a></li> <li>7. Davis, W.C. <i>et al.</i> (2007) Use of flow cytometry to identify monoclonal antibodies that recognize conserved epitopes on orthologous leukocyte differentiation antigens in goats, llamas, and rabbits. <a href="#">Vet Immunol Immunopathol. 119: 123-30.</a></li> <li>8. Angel, C.E. <i>et al.</i> (2009) Distinctive localization of antigen-presenting cells in human</li> </ol> |

lymph nodes. [Blood. 113: 1257-67.](#)

9. Meister, R.K. *et al.* (2007) Progress in the discovery and definition of monoclonal antibodies for use in feline research. [Vet Immunol Immunopathol. 119: 38-46.](#)

10. Clutterbuck, E.A. *et al.* (2012) Pneumococcal conjugate and plain polysaccharide vaccines have divergent effects on antigen-specific B cells. [J Infect Dis. 205: 1408-16.](#)

11. Damgaard, B.M. *et al.* (2012) The effects of feed restriction on physical activity, body weight, physiology, haematology and immunology in female mink. [Res Vet Sci. 93: 936-42.](#)

12. Stachowiak, B. & Weingartl, H.M. (2012) Nipah virus infects specific subsets of porcine peripheral blood mononuclear cells. [PLoS One. 7 \(1\): e30855.](#)

13. Pooley, H.B. *et al.* (2022) Sheep vaccinated against paratuberculosis have increased levels of B cells infiltrating the intestinal tissue. [Vet Immunol Immunopathol. 252: 110482.](#)

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**Storage**

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.

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**Guarantee**

12 months from date of despatch

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**Health And Safety Information**

Material Safety Datasheet documentation #20487 available at:  
<https://www.bio-rad-antibodies.com/SDS/MCA1195PE>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Negative Controls

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

### Recommended Useful Reagents

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

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

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://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](http://bio-rad-antibodies.com/datasheets)

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