

## Datasheet: MCA1031SBUV510

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| <b>Description:</b>  | RAT ANTI MOUSE CD45:StarBright UltraViolet 510 |
| <b>Specificity:</b>  | CD45   |
| <b>Other names:</b>  | LCA  |
| <b>Format:</b>       | StarBright UltraViolet 510                     |
| <b>Product Type:</b> | Monoclonal Antibody                            |
| <b>Clone:</b>        | YW62.3   |
| <b>Isotype:</b>      | IgG2b  |
| <b>Quantity:</b>     | 100 TESTS/0.5ml                                |

### 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>           | Mouse   |                            |                          |
| <b>Product Form</b>             | Purified IgG conjugated to StarBright UltraViolet 510 - liquid  |                            |                          |
| <b>Max Ex/Em</b>                | <b>Fluorophore</b>  | <b>Excitation Max (nm)</b> | <b>Emission Max (nm)</b> |
|                                 | StarBright UltraViolet 510  | 340                        | 513                      |
| <b>Preparation</b>              | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant           |                            |                          |
| <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>0.1% Pluronic F68<br>0.1% PEG 3350 |                            |                          |

0.05% Tween 20

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| <b>Immunogen</b> | Mouse spleen cells. |
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| <b>External Database Links</b> | <b>UniProt:</b><br><a href="#">P06800</a> <a href="#">Related reagents</a>          |
|                                | <b>Entrez Gene:</b><br><a href="#">19264</a> Ptprc <a href="#">Related reagents</a> |

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| <b>Synonyms</b> | Ly-5 |
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| <b>Fusion Partners</b> | Spleen cells from immunised DA rats were fused with cells of the rat Y3/Ag1.2.3 myeloma cell line. |
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| <b>Specificity</b> | <p><b>Rat anti Mouse CD45 antibody, clone YW62.3</b> recognizes the murine CD45 cell surface antigen, a single pass type1 transmembrane glycoprotein also known as protein tyrosine phosphatase receptor type C (PTPRC) and originally termed Leucocyte Common Antigen (LCA). CD45 is a 180-220kDa glycoprotein expressed by all leucocytes.</p> <p>CD45 is encoded by 3 alleles in mice, differentially expressed by various inbred strains. The Ly5 gene was originally described with the gene product LY5.1 expressed in C57bl/6 and Ly5.2 expressed in SJL strains (<a href="#">Komura et al. 1975</a>), this was subsequently expanded to include a third allele encoding Ly5.3 (<a href="#">Shen et al. 1986</a>). Further, in 1987 a reversal of nomenclature was instigated resulting in the allele in C57bl/6 becoming Ly5<sup>b</sup> encoding Ly5.2 and the allele in SJL mice becoming Ly5<sup>a</sup> encoding Ly5.1 (<a href="#">Morse et al. 1987</a>). Further changes were made in 1992 with Ly5.1 becoming CD45.1 (SJL) and Ly5.2 becoming CD45.2 (C57bl/6). Finally, following work demonstrating homology between the CD45 antigen and a receptor linked protein tyrosine phosphatase the CD45<sup>a</sup> gene was renamed Ptprc<sup>a</sup> and CD45<sup>b</sup> renamed Ptprc<sup>b</sup> (<a href="#">Charbonneau et al. 1988</a>; <a href="#">Zebedee et al. 1991</a>).</p> <p>A number of different isoforms of CD45 are expressed on murine leucocytes depending on the pattern of alternative splicing of 3 exons termed A, B and C encoding regions of ~ 50 amino acids located at the N terminal region of the extracellular portion of CD45. The restricted proteins are termed CD45R with a designation depending on the expressed codon product. (<a href="#">Birkeland et al. 1989</a>).</p> <p>Rat anti mouse CD45 antibody, clone YW62.3 is reactive with all isoforms of murine CD45.</p> <p>N.B. Some reactivity with human tissue has been observed.</p> |
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| <b>Flow Cytometry</b> | Use 5µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application. |
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| <b>Storage</b>           | Store at +4°C. DO NOT FREEZE.<br>This product should be stored undiluted.                        |
| <b>Guarantee</b>         | 12 months from date of despatch  |
| <b>Acknowledgements</b>  | This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts. |
| <b>Health And Safety</b> | Material Safety Datasheet documentation #20471 available at:                                     |

**Information** <https://www.bio-rad-antibodies.com/SDS/MCA1031SBUV510>  
20471

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**Regulatory** For research purposes only

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## Related Products

### Recommended Useful Reagents

[MOUSE SEROBLOCK FcR \(BUF041A\)](#)

[MOUSE SEROBLOCK FcR \(BUF041B\)](#)

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

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**Printed on 08 Mar 2024**

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