

## Datasheet: MCA1031SBY605

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|----------------------|-------------------------------------------|
| <b>Description:</b>  | RAT ANTI MOUSE CD45:StarBright Yellow 605 |
| <b>Specificity:</b>  | CD45                                      |
| <b>Other names:</b>  | LCA                                       |
| <b>Format:</b>       | StarBright Yellow 605                     |
| <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 (1) | ■   |    |                | 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.

**(1) Staining at lower temperatures generally requires longer incubation to reach antibody binding equilibrium, and this effect is more pronounced for StarBright Dyes due to their larger size. For optimum staining, Bio-Rad recommends incubating samples either overnight at 4°C or 1 hour at room temperature.**

|                        |                                                                                               |                            |                          |
|------------------------|-----------------------------------------------------------------------------------------------|----------------------------|--------------------------|
| <b>Target Species</b>  | Mouse                                                                                         |                            |                          |
| <b>Product Form</b>    | Purified IgG conjugated to StarBright Yellow 605 - liquid                                     |                            |                          |
| <b>Max Ex/Em</b>       | <b>Fluorophore</b>                                                                            | <b>Excitation Max (nm)</b> | <b>Emission Max (nm)</b> |
|                        | StarBright Yellow 605                                                                         | 572                        | 606                      |
| <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</b>    | 0.09% Sodium Azide (NaN <sub>3</sub> )                                                        |                            |                          |

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|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Stabilisers</b>                    | 1% Bovine Serum Albumin<br>0.1% Pluronic F68<br>0.1% PEG 3350<br>0.05% Tween 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Approx. Protein Concentrations</b> | For information on the concentration of our StarBright Dye conjugated reagents please visit our <a href="#">FAQ</a> page.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Immunogen</b>                      | Mouse spleen cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>External Database Links</b>        | <p><b>UniProt:</b><br/> <a href="#">P06800</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">19264</a>   Ptprc   <a href="#">Related reagents</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Synonyms</b>                       | Ly-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Fusion Partners</b>                | Spleen cells from immunised DA rats were fused with cells of the rat Y3/Ag1.2.3 myeloma cell line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <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> |

N.B. Some reactivity with human tissue has been observed.

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| <b>Flow Cytometry</b> | Use 5µl of the suggested working dilution to label $0.5 \times 10^6$ cells in 100µl. Best practices suggest a 5 min centrifugation at 6,000g prior to sample application.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage</b>                       | This product is shipped at ambient temperature.<br>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 Information</b> | Material Safety Datasheet documentation #20471 available at:<br><a href="https://www.bio-rad-antibodies.com/SDS/MCA1031SBY605">https://www.bio-rad-antibodies.com/SDS/MCA1031SBY605</a> |
| <b>Regulatory</b>                    | For research purposes only                                                                                                                                                              |

## Related Products

### Recommended Useful Reagents

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

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

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

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