

## Datasheet: MCA1031SBUV795

| Description:  | RAT ANTI MOUSE CD45:StarBright UltraViolet 795 |  |  |
|---------------|------------------------------------------------|--|--|
| Specificity:  | CD45                                           |  |  |
| Other names:  | LCA                                            |  |  |
| Format:       | StarBright UltraViolet 795                     |  |  |
| Product Type: | Monoclonal Antibody                            |  |  |
| Clone:        | YW62.3                                         |  |  |
| Isotype:      | lgG2b                                          |  |  |
| Quantity:     | 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 <u>www.bio-rad-antibodies.com/protocols</u> . |                 |           |                          |                     |  |  |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-----------|--------------------------|---------------------|--|--|
|                             |                                                                                                                                                                                                                                                                                                                                                                                    | Yes             | No        | Not Determined           | Suggested Dilution  |  |  |
|                             | Flow Cytometry                                                                                                                                                                                                                                                                                                                                                                     | -               |           |                          | Neat                |  |  |
|                             | Where this product ha                                                                                                                                                                                                                                                                                                                                                              | s not been test | ted for u | ise in a particular tech | nique 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.                                                                                                                                              |                 |           |                          |                     |  |  |
| Target Species              | Mouse                                                                                                                                                                                                                                                                                                                                                                              |                 |           |                          |                     |  |  |
| Product Form                | Purified IgG conjugated to StarBright UltraViolet 795 - liquid                                                                                                                                                                                                                                                                                                                     |                 |           |                          |                     |  |  |
| Max Ex/Em                   | Fluorophore                                                                                                                                                                                                                                                                                                                                                                        | Excitation Max  | x (nm)    | Emission Max (nm)        |                     |  |  |
|                             | StarBright UltraViolet<br>795                                                                                                                                                                                                                                                                                                                                                      | 340             |           | 792                      |                     |  |  |
| Preparation                 | Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant                                                                                                                                                                                                                                                                                      |                 |           |                          |                     |  |  |
| Buffer Solution             | Phosphate buffered saline                                                                                                                                                                                                                                                                                                                                                          |                 |           |                          |                     |  |  |
| Preservative<br>Stabilisers | 0.09% sodium azide (I<br>1% bovine serum albu<br>0.1% Pluronic F68<br>0.1% PEG 3350                                                                                                                                                                                                                                                                                                |                 |           |                          |                     |  |  |

|                            | 0.05% Tween 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Immunogen                  | Mouse spleen cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |
| External Database<br>Links | UniProt:<br><u>P06800</u> <u>Related reagents</u><br>Entrez Gene:<br><u>19264</u> Ptprc <u>Related reagents</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |  |
| Synonyms                   | Ly-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |  |
| Fusion Partners            | Spleen cells from immunised DA rats were fused with cells of the rat Y3/Ag1.2.3 myeloma cell line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |
| Specificity                | <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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |
|                            | CD45 is encoded by 3 alleles in mice, differentially expressed by various inbred strains.<br>The Ly5 gene was originally described with the gene product LY5.1 expressed in C57bl/6<br>and Ly5.2 expressed in SJL strains (Komura <i>et al.</i> 1975), this was subsequently expanded<br>to include a third allele encoding Ly5.3 (Shen <i>et al.</i> 1986). Further, in 1987 a reversal of<br>nomenclature was instigated resulting in the allele in C57bl/6 becoming Ly5 <sup>b</sup> encoding<br>Ly5.2 and the allele in SJL mice becoming Ly5 <sup>a</sup> encoding Ly5.1 (Morse <i>et al.</i> 1987).<br>Further changes were made in 1992 with Ly5.1 becoming CD45.1 (SJL) and Ly5.2<br>becoming CD45.2 (C57bl/6). Finally, following work demonstrating homology between the<br>CD45 antigen and a receptor linked protein tyrosine phosphatase the CD45 <sup>a</sup> gene was<br>renamed Ptprc <sup>a</sup> and CD45 <sup>b</sup> renamed Ptprc <sup>b</sup> (Charbonneau <i>et al.</i> 1988; Zebedee <i>et al.</i><br>1991). |  |  |
|                            | A number of different isoforms of CD45 are expressed on murine leucocytes depending<br>on the pattern of alternative splicing of 3 exons termed A, B and C encoding regions of ~<br>50 amino acids located at the N terminal region of the extracellular portion of CD45. The<br>restricted proteins are termed CD45R with a designation depending on the expressed<br>codon product. ( <u>Birkeland <i>et al.</i> 1989</u> ).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |  |
|                            | Rat anti mouse CD45 antibody, clone YW62.3 is reactive with all isoforms of murine CD45.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |  |
|                            | N.B. Some reactivity with human tissue has been observed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |  |  |
| Flow Cytometry             | 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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| Storage           | Store at +4°C. DO NOT FREEZE.                                                                                                                                                           |
|                   | This product should be stored undiluted.                                                                                                                                                |
| Guarantee         | 12 months from date of despatch                                                                                                                                                         |
| Acknowledgements  | This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts                                                                                         |
| Health And Safety | Material Safety Datasheet documentation #20471 available at:                                                                                                                            |

| Informati                | on <u>https://wv</u><br>20471                                                 | https://www.bio-rad-antibodies.com/SDS/MCA1031SBUV795<br>20471 |                                                                                      |                 |                                                                                                  |  |  |
|--------------------------|-------------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------|--|--|
| Regulato                 | <b>ry</b> For resea                                                           | irch purpose                                                   |                                                                                      |                 |                                                                                                  |  |  |
| Relate                   | d Products                                                                    |                                                                |                                                                                      |                 |                                                                                                  |  |  |
| Recomn                   | nended Useful Reag                                                            | ents                                                           |                                                                                      |                 |                                                                                                  |  |  |
|                          | EROBLOCK FcR (BUF04<br>EROBLOCK FcR (BUF04                                    |                                                                |                                                                                      |                 |                                                                                                  |  |  |
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