

## Datasheet: MCA1031SBV440

**BATCH NUMBER 100005054**

<b>Description:</b>	RAT ANTI MOUSE CD45:StarBright Violet 440
<b>Specificity:</b>	CD45
<b>Other names:</b>	LCA
<b>Format:</b>	StarBright Violet 440
<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 Violet 440 - liquid						
<b>Max Ex/Em</b>	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>StarBright Violet 440</td> <td>385</td> <td>438</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	StarBright Violet 440	385	438
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
StarBright Violet 440	385	438					
<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> ) 1% Bovine Serum Albumin 0.1% Pluronic F68 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> <a href="#">P06800</a> <a href="#">Related reagents</a>
	<b>Entrez Gene:</b> <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 5ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul. Best practices suggest a 5 minutes centrifugation at 6,000g prior to sample application.
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<b>References</b>	1. Watt, S.M. <i>et al.</i> (1987) Cell-surface markers on haemopoietic precursors. Reagents for
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<b>Storage</b>	Store at +4°C. DO NOT FREEZE. 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: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1031SBV440">https://www.bio-rad-antibodies.com/SDS/MCA1031SBV440</a> 20471
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Useful Reagents

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

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

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