

## Datasheet: MCA1042PB

<b>Description:</b>	RAT ANTI DOG CD45:Pacific Blue ®
<b>Specificity:</b>	CD45
<b>Format:</b>	Pacific Blue®
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	YKIX716.13
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	100 TESTS/1ml

## 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 - 1/10

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 systems with appropriate negative/positive controls.

<b>Target Species</b>	Dog		
<b>Product Form</b>	Purified IgG conjugated to Pacific Blue - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Pacific Blue®	410	455
<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		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml		
<b>Immunogen</b>	Canine thymocytes.		

<b>Fusion Partners</b>	Spleen cells from immunized DA rats were fused with cells of the Y3/Ag1.2.3 rat myeloma cell line.
<b>Specificity</b>	<b>Rat anti Dog CD45 antibody, clone YKIX716.13</b> recognizes canine CD45 also known as leukocyte common antigen lustered as Canine CD45 in the First Canine Leukocyte Antigen Workshop (CLAW). Clone YKIX 716.13: immunoprecipitates an antigen of ~180/200 kDa from Con-A blasts ( <a href="#">Cobbold et al. 1994</a> ). CD45 is expressed on all leukocytes in canine peripheral blood. Rat anti Dog CD45 antibody, clone YKIX716.13 reacts with CD45 on all outbred mongrels and beagles tested and may be against CD45RB isoform.
<b>Flow Cytometry</b>	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl
<b>References</b>	<ol style="list-style-type: none"> <li>1. Cobbold, S. &amp; Metcalfe, S. (1994) Monoclonal antibodies that define canine homologues of human CD antigens: summary of the First International Canine Leukocyte Antigen Workshop (CLAW). <a href="#">Tissue Antigens. 43 (3): 137-54.</a></li> <li>2. Zentek, J. et al. (2002) Morphology and immunopathology of the small and large intestine in dogs with nonspecific dietary sensitivity. <a href="#">J Nutr. 132: 1652S-4S.</a></li> <li>3. Sanchez, M.A. et al. (2004) Organ-specific immunity in canine visceral leishmaniasis: analysis of symptomatic and asymptomatic dogs naturally infected with <i>Leishmania chagasi</i>. <a href="#">Am J Trop Med Hyg. 70: 618-24.</a></li> <li>4. Reis, A.B. et al (2006) Phenotypic features of circulating leucocytes as immunological markers for clinical status and bone marrow parasite density in dogs naturally infected by <i>Leishmania chagasi</i>. <a href="#">Clin Exp Immunol. 146: 303-11.</a></li> <li>5. Comazzi, S. et al. (2006) Flow cytometric patterns in blood from dogs with non-neoplastic and neoplastic hematologic diseases using double labeling for CD18 and CD45. <a href="#">Vet Clin Pathol. 35: 47-54.</a></li> <li>6. Stein, V.M. et al. (2008) Immunophenotypical characterization of monocytes in canine distemper virus infection. <a href="#">Vet Microbiol. 131:237-46.</a></li> <li>7. Tominaga, M. et al. (2010) Flow cytometric analysis of peripheral blood and tumor-infiltrating regulatory T cells in dogs with oral malignant melanoma. <a href="#">J Vet Diagn Invest. 22: 438-41.</a></li> <li>8. Hunter, M.J. et al. (2011) Gene therapy of canine leukocyte adhesion deficiency using lentiviral vectors with human CD11b and CD18 promoters driving canine CD18 expression. <a href="#">Mol Ther. 19: 113-21.</a></li> <li>9. Giantin, M. et al. (2013) Evaluation of tyrosine-kinase receptor c-KIT (c-KIT) mutations, mRNA and protein expression in canine leukemia: might c-KIT represent a therapeutic target? <a href="#">Vet Immunol Immunopathol. 152: 325-32.</a></li> <li>10. Trichler, S.A. et al. (2013) Ultra-pure platelet isolation from canine whole blood. <a href="#">BMC Vet Res. 9: 144.</a></li> <li>11. Aricò, A. et al. (2013) The role of vascular endothelial growth factor and matrix metalloproteinases in canine lymphoma: <i>in vivo</i> and <i>in vitro</i> study. <a href="#">BMC Vet Res. 9: 94.</a></li> <li>12. Michael, H.T. et al. (2013) Isolation and characterization of canine natural killer cells. <a href="#">Vet Immunol Immunopathol. 155 (3): 211-7.</a></li> <li>13. Aresu, L. et al. (2014) VEGF and MMP-9: biomarkers for canine lymphoma. <a href="#">Vet Comp Oncol. 12: 29-36.</a></li> <li>14. Gelain, M.E. et al. (2014) CD44 in canine leukemia: analysis of mRNA and protein</li> </ol>

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<b>Storage</b>	<p>This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	<p>This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchased product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or <a href="mailto:outlicensing@thermofisher.com">outlicensing@thermofisher.com</a></p>
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1042PB">https://www.bio-rad-antibodies.com/SDS/MCA1042PB</a></p> <p>10041</p>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Negative Controls

[RAT IgG2b NEGATIVE CONTROL:Pacific Blue® \(MCA6006PB\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)

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