

# Datasheet: MCA1038PB

**BATCH NUMBER 166539**

<b>Description:</b>	RAT ANTI DOG CD4:Pacific Blue®
<b>Specificity:</b>	CD4
<b>Format:</b>	Pacific Blue®
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	YKIX302.9
<b>Isotype:</b>	IgG2a
<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 - 1/5

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 system using 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		

Immunogen	Canine concanavilin A activated T cell blasts.
External Database Links	<p><b>UniProt:</b>  <a href="#">P33705</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">403931</a>    CD4    <a href="#">Related reagents</a></p>
RRID	AB_2077612
Fusion Partners	Spleen cells from immunized DA rats were fused with cells of the Y3/Ag1.2.3 rat myeloma cell line.
Specificity	<p><b>Rat anti Dog CD4 antibody, clone YKIX302.9</b>, is a monoclonal antibody specific for the canine CD4 cell surface antigen. Clone YKIX302.9 was clustered at the first Canine Leukocyte Antigen Workshop (CLAW) [<a href="#">Cobbold et al. 1992</a>] along with clone <a href="#">CA13.1E4</a>.</p> <p>Rat anti Dog CD4 antibody, clone YKIX302.9 partially depletes circulating T lymphocytes when administered <i>in vivo</i>, but alone is not sufficient to prolong allograft survival in a canine transplant model (<a href="#">Watson et al. 1993</a>).</p> <p>Uniquely amongst mammals, canine CD4 is expressed by neutrophils as well as by lymphocyte subsets (<a href="#">Moore et al. 1992</a>).</p>
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells or 100µl whole blood
References	<ol style="list-style-type: none"> <li>1. Watson, C.J. <i>et al.</i> (1993) CD4 and CD8 monoclonal antibody therapy: strategies to prolong renal allograft survival in the dog. <a href="#">Br J Surg. 80 (11): 1389-92.</a></li> <li>2. Gorman, S.D. <i>et al.</i> (1994) Isolation and expression of cDNA encoding the canine CD4 and CD8 alpha antigens. <a href="#">Tissue Antigens. 43 (3): 184-8.</a></li> <li>3. Out, T.A. <i>et al.</i> (2002) Local T-cell activation after segmental allergen challenge in the lungs of allergic dogs. <a href="#">Immunology. 105: 499-508.</a></li> <li>4. Benyacoub, J. <i>et al.</i> (2003) Supplementation of food with <i>Enterococcus faecium</i> (SF68) stimulates immune functions in young dogs. <a href="#">J Nutr. 133: 1158-62.</a></li> <li>5. Bauer, T.R. Jr. <i>et al.</i> (2006) Correction of the disease phenotype in canine leukocyte adhesion deficiency using ex vivo hematopoietic stem cell gene therapy. <a href="#">Blood. 108: 3313-20.</a></li> <li>6. Reis, A.B. <i>et al.</i> (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>7. Miranda, S. <i>et al.</i> (2007) Characterization of circulating lymphocyte subpopulations in canine leishmaniasis throughout treatment with antimonials and allopurinol. <a href="#">Vet Parasitol. 144 (3-4): 251-60.</a></li> <li>8. Yasuda, N. <i>et al.</i> (2008) CC chemokine receptor 4-positive CD4(+) lymphocytes in peripheral blood increases during maturation in healthy beagles. <a href="#">J Vet Med Sci. 70 (9): 989-92.</a></li> <li>9. Papadogiannakis, E.I. <i>et al.</i> (2009) Determination of intracellular cytokines IFN-gamma</li> </ol>

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<b>Storage</b>	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.
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Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1038PB">https://www.bio-rad-antibodies.com/SDS/MCA1038PB</a> 10041
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## Related Products

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:PacificBlue® \(MCA6005PB\)](#)

[RAT IgG2a NEGATIVE CONTROL:Pacific Blue® \(MCA1212PB\)](#)

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