

# Datasheet: MCA1038PB

**BATCH NUMBER 158246**

<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		
	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 immunised 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 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or 100ul whole blood.
References	<ol style="list-style-type: none"> <li>Schaut, R.G. <i>et al.</i> (2016) Recovery of antigen-specific T cell responses from dogs infected with <i>Leishmania (L.) infantum</i> by use of vaccine associated TLR-agonist adjuvant. <a href="#">Vaccine. 34 (44): 5225-34.</a></li> <li>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>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>Papadogiannakis, E.I. <i>et al.</i> (2009) Determination of intracellular cytokines IFN-gamma and IL-4 in canine T lymphocytes by flow cytometry following whole-blood culture. <a href="#">Can J Vet Res. 73 (2): 137-43.</a></li> <li>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>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>Araújo, M.S. <i>et al.</i> (2011) Immunological changes in canine peripheral blood leukocytes triggered by immunization with first or second generation vaccines against canine visceral leishmaniasis. <a href="#">Vet Immunol Immunopathol. 141: 64-75.</a></li> <li>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> </ol>

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#### Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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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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<b>Regulatory</b>	For research purposes only
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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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