

## Datasheet: MCA1038PE

**BATCH NUMBER 151151**

<b>Description:</b>	RAT ANTI DOG CD4:RPE
<b>Specificity:</b>	CD4
<b>Format:</b>	RPE
<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 - 1/10

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 system using appropriate negative/positive controls.

<b>Target Species</b>	Dog		
<b>Product Form</b>	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
<b>Reconstitution</b>	Reconstitute with 1.0 ml distilled water		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	RPE 488nm laser	496	578
<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		
	5% Sucrose		

<b>Immunogen</b>	Canine concanavilin A activated T cell blasts.
<b>External Database Links</b>	<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>
<b>RRID</b>	AB_323495
<b>Fusion Partners</b>	Spleen cells from immunised DA rats were fused with cells of the Y3/Ag1.2.3 rat myeloma cell line.
<b>Specificity</b>	<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>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or 100ul whole blood.
<b>References</b>	<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 <i>ex vivo</i> 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**

Prior to reconstitution store at +4°C. Following reconstitution store at +4°C.

DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. 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 #20487 available at: 20487: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/20487.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/20487.pdf</a>
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:RPE \(MCA6005PE\)](#)

[RAT IgG2a NEGATIVE CONTROL:RPE \(MCA1212PE\)](#)

<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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