

Datasheet: MCA1038PE

BATCH NUMBER 149096

Description:	RAT ANTI DOG CD4:RPE
Specificity:	CD4
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	YKIX302.9
Isotype:	IgG2a
Quantity:	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.

	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.

Target Species	Dog		
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1.0 ml distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant.		
Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide		
	1%	Bovine Serum Albumin	
	5%	Sucrose	

Immunogen	Canine concanavilin A activated T cell blasts.
External Database Links	<p>UniProt: P33705 Related reagents</p> <p>Entrez Gene: 403931 CD4 Related reagents</p>
RRID	AB_323495
Fusion Partners	Spleen cells from immunised DA rats were fused with cells of the Y3/Ag1.2.3 rat myeloma cell line.
Specificity	<p>Rat anti Dog CD4 antibody, clone YKIX302.9, 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) [Cobbold et al. 1992] along with clone CA13.1E4.</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 (Watson et al. 1993).</p> <p>Uniquely amongst mammals, canine CD4 is expressed by neutrophils as well as by lymphocyte subsets (Moore et al. 1992).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells or 100ul whole blood.
References	<ol style="list-style-type: none"> 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. Vaccine. 34 (44): 5225-34. Gorman, S.D. <i>et al.</i> (1994) Isolation and expression of cDNA encoding the canine CD4 and CD8 alpha antigens. Tissue Antigens. 43 (3): 184-8. Watson, C.J. <i>et al.</i> (1993) CD4 and CD8 monoclonal antibody therapy: strategies to prolong renal allograft survival in the dog. Br J Surg. 80 (11): 1389-92. 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. Can J Vet Res. 73 (2): 137-43. 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. Blood. 108: 3313-20. 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>. Clin Exp Immunol. 146: 303-11. 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. Vet Immunol Immunopathol. 141: 64-75. Benyacoub, J. <i>et al.</i> (2003) Supplementation of food with <i>Enterococcus faecium</i> (SF68) stimulates immune functions in young dogs. J Nutr. 133: 1158-62.

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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.

Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #20487 available at: 20487: https://www.bio-rad-antibodies.com/uploads/MSDS/20487.pdf
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

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

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

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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