

Datasheet: MCA1038A700

Description:	cription: RAT ANTI DOG CD4:Alexa Fluor® 70			
Specificity:	CD4			
Format:	ALEXA FLUOR® 700			
Product Type:	Monoclonal Antibody			
Clone:	YKIX302.9			
lsotype:	lgG2a			
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 <u>www.bio-</u>					
	rad-antibodies.com/protocols. Yes No Not Determined Suggested Dilutio					
	Flow Cytometry	163	NO	Not Determined	Suggested Dilution Neat - 1/10	
		as not been te	ested for	use in a particular tecl		
	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 Alexa Fluor 700 - liquid					
Max Ex/Em	Fluorophore	Excitation M	ax (nm)	Emission Max (nm)		
	Alexa Fluor®700	702		723		
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 (NaN ₃) 1% bovine serum albumin					
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml					
Immunogen	Canine concanavilin A activated T cell blasts.					

External Database Links	UniProt: <u>P33705</u> <u>Related reagents</u> Entrez Gene: <u>403931</u> CD4 <u>Related reagents</u>				
Fusion Partners	Spleen cells from immunized DA rats were fused with cells of the Y3/Ag1.2.3 rat myeloma cell line.				
Specificity	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 <i>et al.</i> 1992] along with clone CA13.1E4.				
	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 <i>et al.</i> 1993).				
	Uniquely amongst mammals, canine CD4 is expressed by neutrophils as well as by lymphocyte subsets (<u>Moore <i>et al.</i> 1992</u>).				
Flow Cytometry	Use 10µl of the suggested working dilution to label 10^6 cells or 100µl whole blood				
References	 Use 10µl of the suggested working dilution to label 10⁶ cells or 100µl whole blood 1. Watson, C.J. <i>et al.</i> (1993) CD4 and CD8 monoclonal antibody therapy: strategies to prolong renal allograft survival in the dog. <u>Br J Surg. 80 (11): 1389-92.</u> 2. Gorman, S.D. <i>et al.</i> (1994) Isolation and expression of cDNA encoding the canine CD4 and CD8 alpha antigens. <u>Tissue Antigens. 43 (3): 184-8.</u> 3. Out, T.A. <i>et al.</i> (2002) Local T-cell activation after segmental allergen challenge in the lungs of allergic dogs. <u>Immunology. 105: 499-508.</u> 4. Benyacoub, J. <i>et al.</i> (2003) Supplementation of food with <i>Enterococcus faecium</i> (SF68 stimulates immune functions in young dogs. <u>J Nutr. 133: 1158-62.</u> 5. 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. <u>Blood. 108: 3313-20.</u> 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> Clin Exp Immunol. 146: 303-11. 7. Miranda, S. <i>et al.</i> (2008) CC chemokine receptor 4-positive CD4(+) lymphocytes in peripheral blood increases during maturation in healthy beagles. <u>J Vet Med Sci. 70 (9): 989-92.</u> 9. 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. <u>Can J Vet Res. 73 (2): 137-43.</u> 10. Estrela-Lima, A. <i>et al.</i> (2010) Immunophenotypic features of tumor infiltrating lymphocytes from mammary carcinomas in female dogs associated with prognostic factor infiltrating lymphocytes from mammary carcinomas in female dogs associated with prognostic factor infiltrating lymphocytes from mammary carcinomas in female dogs associated with prognostic factor infiltrating lymphocytes from mammary carcinomas in female dogs associated				

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	Single-Cell RNA Sequencing. Immunohorizons. 7 (11): 788-805.
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	marker of acute myeloid leukemia in dogs. Front Vet Sci. 11: 1405297.
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	myeloid leukemia. <u>Vet Clin Pathol. 53 (4): 448-457.</u>
Storage	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.
	Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.
Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1038A700 10041

Related Products

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 700 (MCA1212A700)

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

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