Datasheet: MCA1038APC

BATCH NUMBER 1701

Description:	RAT ANTI DOG CD4:APC
Specificity:	CD4
Format:	APC
Product Type:	Monoclonal Antibody
Clone:	YKIX302.9
Isotype:	IgG2a
Quantity:	100 TESTS

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 product 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 product for use in their own system using appropriate negative/positive controls.

Target Species

Dog

Product Form

Purified IgG conjugated to Allophycocyanin (APC) - lyophilised

Reconstitution

Reconstitute with 1.0 ml distilled water

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
APC	650	661

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	**UniProt:** P33705 Related reagents **Entrez Gene:** 403931 CD4 Related reagents
RRID	AB_10843309
Fusion Partners	Spleen cells from immunised 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 *et al.* 1992] along with clone CA13.1E4. Rat anti Dog CD4 antibody, clone YKIX302.9 partially depletes circulating T lymphocytes when administered *in vivo*, but alone is not sufficient to prolong allograft survival in a canine transplant model (Watson *et al.* 1993). Uniquely amongst mammals, canine CD4 is expressed by neutrophils as well as by lymphocyte subsets (Moore *et al.* 1992).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 cells or 100ul whole blood.
References	1. Schaut, R.G. *et al.* (2016) Recovery of antigen-specific T cell responses from dogs infected with *Leishmania (L.) infantum* by use of vaccine associated TLR-agonist adjuvant. Vaccine. 34 (44): 5225-34. 2. Gorman, S.D. *et al.* (1994) Isolation and expression of cDNA encoding the canine CD4 and CD8 alpha antigens. Tissue Antigens. 43 (3): 184-8. 3. Watson, C.J. *et al.* (1993) CD4 and CD8 monoclonal antibody therapy: strategies to prolong renal allograft survival in the dog. Br J Surg. 80 (11): 1389-92. 4. Papadogiannakis, E.I. *et al.* (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. 5. Bauer. T.R. Jr. *et al.* (2006) Correction of the disease phenotype in canine leukocyte adhesion deficiency using *ex vivo* hematopoietic stem cell gene therapy. Blood. 108: 3313-20. 6. Reis, A.B. *et al.* (2006) Phenotypic features of circulating leucocytes as immunological markers for clinical status and bone marrow parasite density in dogs naturally infected by *Leishmania chagasi*. Clin Exp Immunol. 146: 303-11. 7. Araújo, M.S. *et al.* (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. 8. Benyacoub, J. *et al.* (2003) Supplementation of food with *Enterococcus faecium* (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	18 months from date of reconstitution.
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1038APC

	10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:APC (MCA6005APC)

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

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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