Datasheet: MCA1044F

Description:	RAT ANTI DOG MHC CLASS II MONOMORPHIC:FITC
Specificity:	MHC CLASS II MONOMORPHIC
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	YKIX334.2
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

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

Species Cross Reactivity

Does not react with:Hooded Seal

Product Form

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

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

IgG concentration 0.1 mg/ml

Concentrations	
Immunogen	Con A activated canine peripheral blood cells.
RRID	AB_322642
Fusion Partners	Spleen cells from immunized DA rats were fused with cells of the rat Y3/Ag1.2.3 myeloma cell line.
Specificity	**Rat anti Dog MHC Class II Monomorphic antibody, clone YKIX334.2** recognizes a monomorphic epitope on canine MHC Class II and was classified at the First Canine Leucocyte Antigen Workshop (Cobbold *et al.* 1994).The major histocompatibility complex (MHC) is a cluster of genes that are important in the immune response to infections. In dogs, this is referred to as the dog leukocyte antigen (DLA) region. Rat anti Dog MHC Class II immunoprecipitates an antigen of ~32/34 kDa and blocks the proliferation of MHC Class II dependent responses *in vitro*. In dogs, MHC Class II is expressed by all peripheral blood mononuclear cells.
Flow Cytometry	Use 10µl of the suggested working dilution to label 10^6 cells in 100µl
References	1. Cobbold, S. & Metcalfe, S. (1994) Monoclonal antibodies that define canine homologues of human CD antigens: summary of the First International Canine Leukocyte Antigen Workshop (CLAW). Tissue Antigens. 43 (3): 137-54. 2. Watson, C.J. *et al.* (1994) Immunosuppression of canine renal allograft recipients by CD4 and CD8 monoclonal antibodies. Tissue Antigens. 43 (3): 155-62. 3. Liu, Y. *et al.* (2000) Immunosuppressant-free allotransplantation of the tracheaThe antigenicity of tracheal grafts can be reduced by removing the epithelium and mixed glands from the graft by detergent treatment. J Thorac Cardiovasc Surg. 120: 108-14. 4. Sanchez, M.A. *et al.* (2004) Organ-specific immunity in canine visceral leishmaniasis: analysis of symptomatic and asymptomatic dogs naturally infected with *Leishmania chagasi.* Am J Trop Med Hyg. 70: 618-24. 5. 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. 6. Bonnefont-Rebeix, C. *et al.* (2007) Toll-like receptor 3 (TLR3): a new marker of canine monocytes-derived dendritic cells (cMo-DC). Vet Immunol Immunopathol. 2007 Jul 15;118(1-2):134-9. 7. Schütze, N. *et al.* (2009) Inactivated parapoxvirus ovis activates canine blood phagocytes and T lymphocytes. Vet Microbiol. 137: 260-7. 8. Bund, D. *et al.* (2010) Canine-DCs using different serum-free methods as an approach to provide an animal-model for immunotherapeutic strategies. Cell Immunol. 263: 88-98. 9. Mito, K. *et al.* (2010) IFNγ markedly cooperates with intratumoral dendritic cell vaccine in dog tumor models. Cancer Res. 70: 7093-101. 10. 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. 11. Larsen, A.K. *et al.* (2013) Entry and elimination of marine mammal Brucella spp. by hooded seal (Cystophora cristata) alveolar macrophages *in vitro*. PLoS One. 8: e70186.

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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. This product is photosensitive and should be protected from light.
Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1044F 10041
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

RAT IgG2a NEGATIVE CONTROL:FITC (MCA6005F)
RAT IgG2a NEGATIVE CONTROL:FITC (MCA1212F)

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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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