

## Datasheet: MCA1044F

### BATCH NUMBER 1015

<b>Description:</b>	RAT ANTI DOG MHC CLASS II MONOMORPHIC:FITC
<b>Specificity:</b>	MHC CLASS II MONOMORPHIC
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	YKIX334.2
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Dog		
<b>Species Cross Reactivity</b>	Does not react with:Hooded Seal		
<b>Product Form</b>	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	FITC	490	525
<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		

<b>Approx. Protein Concentrations</b>	IgG concentration 0.1 mg/ml
<b>Immunogen</b>	Con A activated canine peripheral blood cells.
<b>RRID</b>	AB_322642
<b>Fusion Partners</b>	Spleen cells from immunised DA rats were fused with cells of the rat Y3/Ag1.2.3 myeloma cell line.
<b>Specificity</b>	<b>Rat anti Dog MHC Class II Monomorphic antibody, clone YKIX334.2</b> recognizes a monomorphic epitope on canine MHC Class II and was classified at the First Canine Leucocyte Antigen Workshop ( <a href="#">Cobbold et al. 1994</a> ). 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 <i>in vitro</i> . In dogs, MHC Class II is expressed by all peripheral blood mononuclear cells.
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>Cobbold, S. &amp; Metcalfe, S. (1994) Monoclonal antibodies that define canine homologues of human CD antigens: summary of the First International Canine Leukocyte Antigen Workshop (CLAW). <a href="#">Tissue Antigens. 43 (3): 137-54.</a></li> <li>Watson, C.J. et al. (1994) Immunosuppression of canine renal allograft recipients by CD4 and CD8 monoclonal antibodies. <a href="#">Tissue Antigens. 43 (3): 155-62.</a></li> <li>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 <i>Leishmania chagasi</i>. <a href="#">Clin Exp Immunol. 146: 303-11.</a></li> <li>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. <a href="#">Vet Immunol Immunopathol. 141: 64-75.</a></li> <li>Bonnefont-Rebeix, C. et al. (2007) Toll-like receptor 3 (TLR3): a new marker of canine monocytes-derived dendritic cells (cMo-DC). <a href="#">Vet Immunol Immunopathol. 2007 Jul 15;118(1-2):134-9.</a></li> <li>Bund, D. et al. (2010) Canine-DCs using different serum-free methods as an approach to provide an animal-model for immunotherapeutic strategies. <a href="#">Cell Immunol. 263: 88-98.</a></li> <li>Mito, K. et al. (2010) IFN<math>\gamma</math> markedly cooperates with intratumoral dendritic cell vaccine in dog tumor models. <a href="#">Cancer Res. 70: 7093-101.</a></li> <li>Sanchez, M.A. et al. (2004) Organ-specific immunity in canine visceral leishmaniasis: analysis of symptomatic and asymptomatic dogs naturally infected with <i>Leishmania chagasi</i>. <a href="#">Am J Trop Med Hyg. 70: 618-24.</a></li> <li>Schütze, N. et al. (2009) Inactivated parapoxvirus ovis activates canine blood phagocytes and T lymphocytes. <a href="#">Vet Microbiol. 137: 260-7.</a></li> <li>Liu, Y. et al. (2000) Immunosuppressant-free allotransplantation of the trachea The antigenicity of tracheal grafts can be reduced by removing the epithelium and mixed glands from the graft by detergent treatment. <a href="#">J Thorac Cardiovasc Surg. 120: 108-14.</a></li> <li>Larsen, A.K. et al. (2013) Entry and elimination of marine mammal <i>Brucella</i> spp. by</li> </ol>

- hooded seal (*Cystophora cristata*) alveolar macrophages *in vitro*. [PLoS One. 8: e70186.](#)
12. Bonnefont-Rebeix, C. *et al.* (2016) Characterization of a novel canine T-cell line established from a spontaneously occurring aggressive T-cell lymphoma with large granular cell morphology. [Immunobiology. 221 \(1\): 12-22.](#)
13. Lin, S-C. *et al.* (2014) Immune Characterization of Peripheral Blood Mononuclear cells of the Dogs Restored from Inoculation of Canine Transmissible Venereal Tumor Cells. [Tai Vet J. 40 \(04\): 181-90.](#)
14. Constantinoiu, C.C. *et al.* (2015) Mucosal tolerance of the hookworm *Ancylostoma caninum* in the gut of naturally infected wild dogs. [Parasite Immunol. Jul 27 \[Epub ahead of print\].](#)
15. Lu, T. *et al.* (2017) Effects of cryopreservation on tracheal allograft antigenicity in dogs. [J Thorac Dis. 9 \(7\): 2038-2047.](#)

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**Storage** Store at +4°C or at -20°C if preferred.  
This product should be stored undiluted. This product is photosensitive and should be protected from light.

Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**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/MCA1044F>  
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**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](https://www.bio-rad-antibodies.com/datasheets)

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