

Datasheet: MCA1044A647

BATCH NUMBER 152598

Description:	RAT ANTI DOG MHC CLASS II MONOMORPHIC:Alexa Fluor® 647
Specificity:	MHC CLASS II MONOMORPHIC
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	YKIX334.2
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		
Species Cross Reactivity	Does not react with:Hooded Seal		
Product Form	Purified IgG conjugated to Alexa Fluor 647 - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665
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	Con A activated canine peripheral blood cells.
Fusion Partners	Spleen cells from immunised 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 <i>in vitro</i> . In dogs, MHC Class II is expressed by all peripheral blood mononuclear cells.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 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. Watson, C.J. <i>et al.</i> (1994) Immunosuppression of canine renal allograft recipients by CD4 and CD8 monoclonal antibodies. Tissue Antigens. 43 (3): 155-62. 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. Bonnefont-Rebeix, C. <i>et al.</i> (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. Bund, D. <i>et al.</i> (2010) Canine-DCs using different serum-free methods as an approach to provide an animal-model for immunotherapeutic strategies. Cell Immunol. 263: 88-98. Mito, K. <i>et al.</i> (2010) IFNγ markedly cooperates with intratumoral dendritic cell vaccine in dog tumor models. Cancer Res. 70: 7093-101. Sanchez, M.A. <i>et al.</i> (2004) Organ-specific immunity in canine visceral leishmaniasis: analysis of symptomatic and asymptomatic dogs naturally infected with <i>Leishmania chagasi</i>. Am J Trop Med Hyg. 70: 618-24. Schütze, N. <i>et al.</i> (2009) Inactivated parapoxvirus ovis activates canine blood phagocytes and T lymphocytes. Vet Microbiol. 137: 260-7. Liu, Y. <i>et al.</i> (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. J Thorac Cardiovasc Surg. 120: 108-14. Larsen, A.K. <i>et al.</i> (2013) Entry and elimination of marine mammal <i>Brucella</i> spp. by hooded seal (<i>Cystophora cristata</i>) alveolar macrophages <i>in vitro</i>. PLoS One. 8: e70186. Bonnefont-Rebeix, C. <i>et al.</i> (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.](#)

Storage	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. 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/MCA1044A647
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Regulatory	For research purposes only
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Related Products

Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA6005A647\)](#)

[RAT IgG2a NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA1212A647\)](#)

Product inquiries: www.bio-rad-antibodies.com/technical-support

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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