

Datasheet: MCA1037A647

BATCH NUMBER 172996

Description:	RAT ANTI DOG CD5:Alexa Fluor®647
Specificity:	CD5
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	YKIX322.3
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 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 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	0.09% sodium azide (NaN ₃)		
Stabilisers	1% bovine serum albumin		
Approx. Protein Concentrations	IgG concentration 0.05mg/ml		

Immunogen	Concanavalin A activated canine peripheral blood cells
RRID	AB_10842661
Fusion Partners	Spleen cells from an immunized DA rat were fused with cells of the rat Y3/Ag1.2.3 myeloma cell line
Specificity	<p>Rat anti Dog CD5 antibody, clone YKIX322.3 recognizes canine CD5, a 67 kDa cell surface type 1 transmembrane glycoprotein also known as lymphocyte antigen T1, Ly-1 or Leu-1. CD5 is expressed on the surface of T-cells and thymocytes, CD5 is also expressed by NK cells at low levels (Huang et al. 2008). Rat anti dog CD5, clone YKIX322.3 was clustered as canine CD5 in the First Canine Leucocyte Antigen Workshop (Cobbold et al. 1994).</p> <p>In a study of 73 cases of canine chronic lymphocytic leukemia (CLL) CD5 expression was absent on all cases of B-cell CLL as defined by CD21 expression and lack of CD3 or other T cell antigen expression (Vernau and Moore 1999). Rat anti dog CD5 serves as a useful marker for the discrimination of canine leukemias of differing origins (Deravi et al. 2017).</p>
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells or 100µl of whole blood
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. Hewicker-Trautwein, M. et al. (1999) Immunocytochemical demonstration of lymphocyte subsets and MHC class II antigen expression in synovial membranes from dogs with rheumatoid arthritis and degenerative joint disease. Vet Immunol Immunopathol. 67 (4): 341-57. Vernau, W. & Moore, P.F. (1999) An immunophenotypic study of canine leukemias and preliminary assessment of clonality by polymerase chain reaction. Vet Immunol Immunopathol. 69: 145-64. Guarga, J.L. et al. (2002) Evaluation of a specific immunochemotherapy for the treatment of canine visceral leishmaniasis. Vet Immunol Immunopathol. 88: 13-20. Burnett, R.C. et al. (2003) Diagnosis of canine lymphoid neoplasia using clonal rearrangements of antigen receptor genes. Vet Pathol. 40: 32-41. Lamerato-Kozicki, A.R. et al. (2006) Canine hemangiosarcoma originates from hematopoietic precursors with potential for endothelial differentiation. Exp Hematol. 34 (7): 870-8. Fosmire, S.P. et al. (2007) Inactivation of the p16 cyclin-dependent kinase inhibitor in high-grade canine non-Hodgkin's T-cell lymphoma. Vet Pathol. 44: 467-78. Huang, Y.C. (2008) CD5-low expression lymphocytes in canine peripheral blood show characteristics of natural killer cells. J Leukoc Biol. 84: 1501-10. 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. GomesMde, O. et al. (2011) Old beagle dogs have lower faecal concentrations of some fermentation products and lower peripheral lymphocyte counts than young adult beagles. Br J Nutr. 106 Suppl 1: S187-90.

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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

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Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1037A647>

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Recommended Negative Controls

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

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