

Datasheet: MCA1042PE

BATCH NUMBER 160697

Description: RAT ANTI DOG CD45:RPE	
CD45	
RPE	
Monoclonal Antibody	
YKIX716.13	
lgG2b	
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 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			
Product Form	Purified IgG conjugate	ed to R. Phycoerythrin	(RPE) - lyophilized	
Reconstitution	Reconstitute with 1ml	distilled water		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)	
	RPE 488nm laser	496	578	
Preparation	Purified IgG prepared supernatant	by affinity chromatogi	raphy on Protein G from tissue cul	
Buffer Solution	Phosphate buffered sa	aline		
Preservative	0.09% Sodium Azide			
Stabilisers	1% Bovine Serum Albumin			
	1% Bovine Serum	Albumin		

Immunogen	Canine thymocytes.
RRID	AB_322644
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 CD45 antibody, clone YKIX716.13 recognizes canine CD45 also known as leukocyte common antigen lustered as Canine CD45 in the First Canine Leukocyte Antigen Workshop (CLAW). Clone YKIX 716.13: immunoprecipitates an antigen of ~180/200 kDa from Con-A blasts (Cobbold et al. 1994). CD45 is expressed on all leukocytes in canine peripheral blood. Rat anti Dog CD45 antibody, clone YKIX716.13 reacts with CD45 on all outbred mongrels and beagles tested and may be against CD45RB isoform.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul.

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. 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.
- 3. Stein, V.M. et al. (2008) Immunophenotypical characterization of monocytes in canine distemper virus infection. Vet Microbiol. 131:237-46.
- 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. Modiano, J.F. and Helfand, S.C. (2011) Early detection of hemangiosarcoma and angiosarcoma Patent Application No.11/662529
- 6. Tominaga, M. et al. (2010) Flow cytometric analysis of peripheral blood and tumorinfiltrating regulatory T cells in dogs with oral malignant melanoma. J Vet Diagn Invest. 22: 438-41.
- 7. Zentek, J. et al. (2002) Morphology and immunopathology of the small and large intestine in dogs with nonspecific dietary sensitivity. J Nutr. 132: 1652S-4S.
- 8. Hunter, M.J. et al. (2011) Gene therapy of canine leukocyte adhesion deficiency using lentiviral vectors with human CD11b and CD18 promoters driving canine CD18 expression. Mol Ther. 19: 113-21.
- 9. Comazzi, S. et al. (2006) Flow cytometric patterns in blood from dogs with non-neoplastic and neoplastic hematologic diseases using double labeling for CD18 and CD45. Vet Clin Pathol. 35: 47-54.
- 10. Giantin, M. et al. (2013) Evaluation of tyrosine-kinase receptor c-KIT (c-KIT) mutations, mRNA and protein expression in canine leukemia: might c-KIT represent a therapeutic target? Vet Immunol Immunopathol. 152: 325-32.
- 11. Trichler, S.A. et al. (2013) Ultra-pure platelet isolation from canine whole blood. BMC Vet Res. 9: 144.
- 12. Aresu, L. et al. (2014) VEGF and MMP-9: biomarkers for canine lymphoma. Vet Comp.

Oncol. 12: 29-36.

- 13. Salinas Tejedor, L. *et al.* (2015) Mesenchymal stem cells do not exert direct beneficial effects on CNS remyelination in the absence of the peripheral immune system. <u>Brain Behav Immun. pii: S0889-1591(15)00233-0.</u>
- 14. Muir, P. *et al.* (2016) Autologous Bone Marrow-Derived Mesenchymal Stem Cells Modulate Molecular Markers of Inflammation in Dogs with Cruciate Ligament Rupture. <u>PLoS One. 11 (8): e0159095.</u>
- 15. Poggi, A. *et al.* (2017) Prognostic significance of Ki67 evaluated by flow cytometry in dogs with high-grade B-cell lymphoma. <u>Vet Comp Oncol. 15 (2): 431-440.</u>
- 16. Zeira, O. *et al.* (2015) Adult autologous mesenchymal stem cells for the treatment of suspected non-infectious inflammatory diseases of the canine central nervous system: safety, feasibility and preliminary clinical findings. <u>J Neuroinflammation</u>. 12: 181.
- 17. Gelain, M.E. *et al.* (2014) CD44 in canine leukemia: analysis of mRNA and protein expression in peripheral blood. Vet Immunol Immunopathol. 159 (1-2): 91-6.
- 18. Michael, H.T. *et al.* (2013) Isolation and characterization of canine natural killer cells. Vet Immunol Immunopathol. 155 (3): 211-7.
- 19. Nishimura, T. *et al.* (2017) Feeder-independent canine induced pluripotent stem cells maintained under serum-free conditions. <u>Mol Reprod Dev. 84 (4): 329-339.</u>
- 20. 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.
- 21. Bearden, R.N. *et al.* (2017) *In-vitro* characterization of canine multipotent stromal cells isolated from synovium, bone marrow, and adipose tissue: a donor-matched comparative study. <u>Stem Cell Res Ther. 8 (1): 218.</u>
- 22. Lee, S.H. *et al.* (2016) Impact of local injection of brain-derived neurotrophic factor-expressing mesenchymal stromal cells (MSCs) combined with intravenous MSC delivery in a canine model of chronic spinal cord injury. Cytotherapy. Oct 28 [Epub ahead of print]. 23. Hansmann, F. *et al.* (2018) Beneficial and detrimental impact of transplanted canine adipose-derived stem cells in a virus-induced demyelinating mouse model. Vet Immunol Immunopathol. 202: 130-40.
- 24. Aricò, A. *et al.* (2013) The role of vascular endothelial growth factor and matrix metalloproteinases in canine lymphoma: *in vivo* and *in vitro* study. <u>BMC Vet Res. 9: 94.</u>
 25. Reineking, W. *et al.* (2018) Canine primary jejunal and colonic epithelial cells predominantly express TLR5 and TLR9 but do not change TLR expression pattern after stimulation with certain Toll-like receptor ligands. <u>Vet Immunol Immunopathol. 206: 16-24.</u>
 26. Martini, V. *et al.* (2019) Prognostic role of non-neoplastic lymphocytes in lymph node aspirates from dogs with diffuse large B-cell lymphoma treated with chemo-immunotherapy. <u>Res Vet Sci. 125: 130-5.</u>
- 27. Wolf-Ringwall, A. *et al.* (2020) Prospective evaluation of flow cytometric characteristics, histopathologic diagnosis and clinical outcome in dogs with naïve B-cell lymphoma treated with a 19-week CHOP protocol. <u>Vet Comp Oncol. 18 (3): 342-52.</u>
 28. Sayag, D. *et al.* (2020) Proof-of-concept study: Evaluation of plasma and urinary electrolytes as markers of response to L-asparaginase therapy in dogs with high-grade lymphoma. <u>Vet Clin Pathol. 49 (3): 476-83.</u>
- 29. Lee, J. *et al.* (2021) Canine Natural Killer Cell-Derived Exosomes Exhibit Antitumor Activity in a Mouse Model of Canine Mammary Tumor. <u>Biomed Res Int. 2021: 6690704.</u> 30. Wi, H. *et al.* (2021) Immunosuppression-enhancing effect of the administration of

allogeneic canine adipose-derived mesenchymal stem cells (cA-MSCs) compared with autologous cA-MSCs *in vitro*. J Vet Sci. 22 (5): e63.

31. Grudzien, M. *et al.* (2021) A newly established canine NK-type cell line and its cytotoxic properties. <u>Vet Comp Oncol. 19 (3): 567-577.</u>

32. Stein, L. *et al.* (2021) Immunophenotypic Characterization of Canine Nodal T-Zone Lymphoma. Vet Pathol. 58 (2): 288-92.

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	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #20487 available at: https://www.bio-rad-antibodies.com/SDS/MCA1042PE 20487
Regulatory	For research purposes only

Related Products

Recommended Negative Controls

RAT IgG2b NEGATIVE CONTROL:RPE (MCA6006PE)

North & South Tel: +1 800 265 7376

America Fax: +1 919 878 3751

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Europe

Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_us@bio-rad.com

Email: antibody_sales_uk@bio-rad.com

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 'M375252:210104'

Printed on 05 Mar 2024

© 2024 Bio-Rad Laboratories Inc | Legal | Imprint