

Datasheet: MCA1041A488

Description:	RAT ANTI DOG CD44:Alexa Fluor® 488
Specificity:	CD44
Other names:	H-CAM, PGP-1
Format:	ALEXA FLUOR® 488
Product Type:	Monoclonal Antibody
Clone:	YKIX337.8.7
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	▪			1/10 - 1/20

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

Species Cross Reactivity

Reacts with: Raccoon

N.B. Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

Product Form

Purified IgG conjugated to Alexa Fluor 488 - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®488	495	519

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 0.05mg/ml
Immunogen	Concanavilin A activated Canine T cells.
External Database Links	<p>UniProt: Q28284 Related reagents</p> <p>Entrez Gene: 403939 CD44 Related reagents</p>
RRID	AB_10926391
Fusion Partners	Spleen cells from immunised DA rats were fused with cells of the rat Y3/Ag1.2.3.myeloma cell line.
Specificity	<p>Rat anti Dog CD44 antibody, clone YKIX337.8.7 recognises canine CD44, also known as H-CAM, a single-pass type 1 membrane of approximately 90 kDa expressed by most leucocytes and epithelial cells. CD44 expression is markedly increased upon cell activation (Aldinger et al. 2000).</p> <p>CD44 is involved in cell-cell, cell adhesion and cell migration and is the principal cellular receptor for hyaluronate via it's LINK domain, additionally CD44 also interacts with other ligands including collagens and metalloproteinases.</p> <p>Studies have demonstrated that altered CD44 expression is detected in a many forms of invasive and metastatic cancers, CD44 expression has been observed on canine mammary and melanocytic tumors (Serra et al. 2004).</p>
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. Stein, V.M. et al. (2008) Immunophenotypical characterization of monocytes in canine distemper virus infection. Vet Microbiol. 131:237-46. Salvatierra, A. et al. (2001) Antithrombin III prevents early pulmonary dysfunction after lung transplantation in the dog. Circulation. 104: 2975-80. 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>. Am J Trop Med Hyg. 70: 618-24. Stein, V.M. et al. (2004) Characterization of canine microglial cells isolated ex vivo. Vet Immunol Immunopathol. 99: 73-85. Heinrich, F. et al. (2015) Immunophenotyping of immune cell populations in the raccoon

- (*Procyon lotor*). [Vet Immunol Immunopathol. 168 \(3-4\): 140-6.](#)
7. 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. [Stem Cell Res Ther. 8 \(1\): 218.](#)
 8. Trindade, A.B. *et al.* (2017) Mesenchymal-like stem cells in canine ovary show high differentiation potential. [Cell Prolif. 50 \(6\)Oct 08 \[Epub ahead of print\].](#)
 9. Muir, P. *et al.* (2016) Autologous Bone Marrow-Derived Mesenchymal Stem Cells Modulate Molecular Markers of Inflammation in Dogs with Cruciate Ligament Rupture. [PLoS One. 11 \(8\): e0159095.](#)
 10. 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. [Brain Behav Immun. 50: 155-65.](#)
 11. Heinrich, F. *et al.* (2015) Passage-dependent morphological and phenotypical changes of a canine histiocytic sarcoma cell line (DH82 cells). [Vet Immunol Immunopathol. 163 \(1-2\): 86-92.](#)
 12. Wijekoon, H.M.S. *et al.* (2017) Differentiation potential of synoviocytes derived from joints with cranial cruciate ligament rupture and medial patella luxation in dogs. [Res Vet Sci. 114: 370-7.](#)
 13. 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.](#)
 14. Elshafae, S.M. *et al.* (2017) The Effect of a Histone Deacetylase Inhibitor (AR-42) on Canine Prostate Cancer Growth and Metastasis. [Prostate. 77 \(7\): 776-93.](#)
 15. Gouveia, G.M. *et al.* (2013) Analysis of cancer stem cells in dog's mammary neoplasias. [Braz J Vet Med, 35\(3\), 229-35.](#)

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

Acknowledgements This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com

Health And Safety Material Safety Datasheet documentation #10041 available at:

Information10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

RegulatoryFor research purposes only

North & South Tel: +1 800 265 7376**America** Fax: +1 919 878 3751Email: antibody_sales_us@bio-rad.com**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

Email: antibody_sales_uk@bio-rad.com**Europe**

Tel: +49 (0) 89 8090 95 21

Fax: +49 (0) 89 8090 95 50

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

'M384689:210513'

Printed on 06 Jan 2022

© 2022 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)