

Datasheet: MCA1041GA

Description:	RAT ANTI DOG CD44
Specificity:	CD44
Other names:	H-CAM, PGP-1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	YKIX337.8.7
Isotype:	IgG2a
Quantity:	0.1 mg

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
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting			▪	

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

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 - liquid

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)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/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>
Fusion Partners	Spleen cells from immunized 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 recognizes 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 its LINK domain, additionally CD44 interacts with other ligands including collagens and metalloproteinases.</p> <p>Altered CD44 expression is detected in many forms of invasive and metastatic cancer, CD44 expression has been observed on canine mammary and melanocytic tumors (Serra et al. 2004).</p>
Flow Cytometry	Use 10µl of the suggested working dilution to label 10 ⁶ cells in 100µl
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.

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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.](#)
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16. Yamauchi, A. *et al.* (2023) Negative Influence of Aging on Differentiation and Proliferation of CD8(+) T-Cells in Dogs. [Vet Sci. 10 \(9\): 541.](#)
17. Yang, V.K. *et al.* (2021) Intravenous administration of allogeneic Wharton jelly-derived mesenchymal stem cells for treatment of dogs with congestive heart failure secondary to myxomatous mitral valve disease. [Am J Vet Res. 82 \(6\): 487-93.](#)
18. Crain, S.K. *et al.* (2019) Extracellular Vesicles from Wharton's Jelly Mesenchymal Stem Cells Suppress CD4 Expressing T Cells Through Transforming Growth Factor Beta and Adenosine Signaling in a Canine Model. [Stem Cells Dev. 28 \(3\): 212-26.](#)
19. Utumi, P.H. *et al.* (2020) Cytotoxicity of fluconazole on canine dental pulp-derived stem cells. [J Oral Biol Craniofac Res. 10 \(4\): 361-8.](#)

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.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1041GA>

RegulatoryFor research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight@800
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight@550 , DyLight@650 , DyLight@800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin

Recommended Useful Reagents

[MOUSE ANTI DOG CD34:RPE \(MCA2411PE\)](#)[MOUSE ANTI DOG CD34:FITC \(MCA2411F\)](#)[MOUSE ANTI DOG CD34:Alexa Fluor® 647 \(MCA2411A647\)](#)[MOUSE ANTI DOG CD34 \(MCA2411GA\)](#)**North & South** Tel: +1 800 265 7376**America** Fax: +1 919 878 3751Email: antibody_sales_us@bio-rad.com**Worldwide**

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