Datasheet: MCA1041GA

BATCH NUMBER 156645

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	**UniProt:** Q28284 Related reagents **Entrez Gene:** 403939 CD44 Related reagents
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 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 (Alldinger *et al.* 2000). 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. 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).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 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. Stein, V.M. *et al.* (2008) Immunophenotypical characterization of monocytes in canine distemper virus infection. Vet Microbiol. 131:237-46. 3. Salvatierra, A. *et al.* (2001) Antithrombin III prevents early pulmonary dysfunction after lung transplantation in the dog. Circulation. 104: 2975-80. 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. Stein, V.M. *et al.* (2004) Characterization of canine microglial cells isolated *ex vivo.* Vet Immunol Immunopathol. 99: 73-85.
6. 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	Store at +4°C or at -20°C if preferred. This product should be stored undiluted. Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. 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 #10040 available at: https://www.bio-rad-antibodies.com/SDS/MCA1041GA 10040
Regulatory	For 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)

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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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