

## Datasheet: MCA1041GA

**BATCH NUMBER 1114**

<b>Description:</b>	RAT ANTI DOG CD44
<b>Specificity:</b>	CD44
<b>Other names:</b>	H-CAM, PGP-1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	YKIX337.8.7
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	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](http://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.

<b>Target Species</b>	Dog
<b>Species Cross Reactivity</b>	<p>Reacts with: Raccoon</p> <p><b>N.B.</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.</p>
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture

supernatant

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<b>Buffer Solution</b>	Phosphate buffered saline
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<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> )
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<b>Carrier Free</b>	Yes
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<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
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<b>Immunogen</b>	Concanavilin A activated Canine T cells.
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<b>External Database Links</b>	<b>UniProt:</b> <a href="#">Q28284</a> <a href="#">Related reagents</a>  <b>Entrez Gene:</b> <a href="#">403939</a> CD44 <a href="#">Related reagents</a>
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<b>Fusion Partners</b>	Spleen cells from immunised DA rats were fused with cells of the rat Y3/Ag1.2.3.myeloma cell line.
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<b>Specificity</b>	<p><b>Rat anti Dog CD44 antibody, clone YKIX337.8.7</b> 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 (<a href="#">Aldinger et al. 2000</a>).</p> <p>CD44 is involved in cell-cell, cell adhesion and cell migration and is the principal cellular receptor for hyaluronate via its <a href="#">LINK</a> 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 (<a href="#">Serra et al. 2004</a>).</p>
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<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
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<b>References</b>	<ol style="list-style-type: none"><li>1. Cobbold, S. &amp; Metcalfe, S. (1994) Monoclonal antibodies that define canine homologues of human CD antigens: summary of the First International Canine Leukocyte Antigen Workshop (CLAW). <a href="#">Tissue Antigens. 43 (3): 137-54.</a></li><li>2. Stein, V.M. et al. (2008) Immunophenotypical characterization of monocytes in canine distemper virus infection. <a href="#">Vet Microbiol. 131:237-46.</a></li><li>3. Salvatierra, A. et al. (2001) Antithrombin III prevents early pulmonary dysfunction after lung transplantation in the dog. <a href="#">Circulation. 104: 2975-80.</a></li><li>4. 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>. <a href="#">Am J Trop Med Hyg. 70: 618-24.</a></li></ol>
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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.](#)

<b>Storage</b>	<p>Store at +4°C or at -20°C if preferred.</p> <p>This product should be stored undiluted.</p> <p>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.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1041GA">https://www.bio-rad-antibodies.com/SDS/MCA1041GA</a></p> <p>10040</p>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight@800</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight@550</a> , <a href="#">DyLight@650</a> , <a href="#">DyLight@800</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos.</a> , <a href="#">Biotin</a>

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

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