

# Datasheet: MCA2411PE

**BATCH NUMBER 1710**

<b>Description:</b>	MOUSE ANTI DOG CD34:RPE
<b>Specificity:</b>	CD34
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	1H6
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat

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>Product Form</b>	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
<b>Reconstitution</b>	Reconstitute with 1 ml distilled water		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	RPE 488nm laser	496	578
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative Stabilisers</b>	0.09% Sodium Azide		
	1%	Bovine Serum Albumin	
	5%	Sucrose	

Immunogen	Canine CD34 fusion protein.
External Database Links	<p><b>UniProt:</b>  <a href="#">Q28270</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">415130</a>    CD34    <a href="#">Related reagents</a></p>
RRID	AB_609594
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS-1/FOX-NY myeloma cell line.
Specificity	<p><b>Mouse anti dog CD34 antibody, clone 1H6</b> recognizes the canine homologue of CD34, a glycosylated type 1 transmembrane protein of approximately 110 kDa (<a href="#">McSweeney et al. 1998</a>) expressed on the cell surface of endothelial cells and haematopoietic stem cells.</p> <p>Mouse anti dog CD34 antibody, clone 1H6 is a key marker of canine hematopoietic progenitor cells and is reported for use in CD34+ enrichment assays, (<a href="#">Goerner et al. 2001</a>) and (<a href="#">Horn et al. 2004</a>).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul.
References	<ol style="list-style-type: none"> <li>Goerner, M. <i>et al.</i> (1999) The use of granulocyte colony-stimulating factor during retroviral transduction on fibronectin fragment CH-296 enhances gene transfer into hematopoietic repopulating cells in dogs. <a href="#">Blood. 94 (7): 2287-92.</a></li> <li>Bhattacharya, V. <i>et al.</i> (2000) Enhanced endothelialization and microvessel formation in polyester grafts seeded with CD34(+) bone marrow cells. <a href="#">Blood. 95 (2): 581-5.</a></li> <li>Goerner, M. <i>et al.</i> (2001) Sustained multilineage gene persistence and expression in dogs transplanted with CD34(+) marrow cells transduced by RD114-pseudotype oncoretrovirus vectors. <a href="#">Blood. 98 (7): 2065-70.</a></li> <li>Georges, G. <i>et al.</i> (2001) Engraftment of DLA-haploidentical marrow with ex vivo expanded, retrovirally transduced cytotoxic T lymphocytes. <a href="#">Blood. 98:3447-55.</a></li> <li>Horn, P.A. <i>et al.</i> (2004) Efficient lentiviral gene transfer to canine repopulating cells using an overnight transduction protocol. <a href="#">Blood. 103 (10): 3710-6.</a></li> <li>Avallone, G. <i>et al.</i> (2007) The spectrum of canine cutaneous perivascular wall tumors: morphologic, phenotypic and clinical characterization. <a href="#">Vet Pathol. 44 (5): 607-20.</a></li> <li>Palmieri, C. <i>et al.</i> (2013) Use of electron microscopy to classify canine perivascular wall tumors. <a href="#">Vet Pathol. 50 (2): 226-33.</a></li> <li>Bearden, R.N. <i>et al.</i> (2017) <i>In-vitro</i> characterization of canine multipotent stromal cells isolated from synovium, bone marrow, and adipose tissue: a donor-matched comparative study. <a href="#">Stem Cell Res Ther. 8 (1): 218.</a></li> <li>Trindade, A.B. <i>et al.</i> (2017) Mesenchymal-like stem cells in canine ovary show high differentiation potential. <a href="#">Cell Prolif. Oct 08 [Epub ahead of print].</a></li> <li>Lee, S.H. <i>et al.</i> (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. <a href="#">Cytotherapy. Oct 28 [Epub ahead of print].</a></li> </ol>

11. 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.](#)
12. Rajawat, Y.S. *et al.* (2021) *In Vivo* Gene Therapy for Canine SCID-X1 Using Cocal-Pseudotyped Lentiviral Vector. [Hum Gene Ther. 32 \(1-2\): 113-27.](#)
13. Grudzien, M. *et al.* (2021) A newly established canine NK-type cell line and its cytotoxic properties. [Vet Comp Oncol. 19 \(3\): 567-77.](#)
14. Tongu, E.A.O. *et al.* (2021) Allogenic mesenchymal stem cell-conditioned medium does not affect sperm parameters and mitigates early endometrial inflammatory responses in mares. [Theriogenology. 169: 1-8.](#)
15. Jaensch, S. *et al.* (2022) Clinicopathologic and immunophenotypic features in dogs with presumptive large granular lymphocyte leukaemia [Australian Veterinary Journal. \[Epub ahead of print\].](#)

<b>Further Reading</b>	1. McSweeney, P. <i>et al.</i> (1996) Canine CD34: cloning of the cDNA and evaluation of an antiserum to recombinant protein. <a href="#">Blood. 88:1992-2003.</a>
<b>Storage</b>	Prior to reconstitution store at +4°C. After reconstitution store at +4°C. DO NOT FREEZE. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20487 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2411PE20487">https://www.bio-rad-antibodies.com/SDS/MCA2411PE20487</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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