

## Datasheet: MCA2411A647

<b>Description:</b>	MOUSE ANTI DOG CD34:Alexa Fluor® 647
<b>Specificity:</b>	CD34
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	1H6
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			Neat - 1/10

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 Alexa Fluor®647- liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®647	650	665
<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		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml		

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_2074486
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 $1 \times 10^6$ 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>

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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. \[Epub ahead of print\].](#)
16. Salari Sedigh, H. *et al.* (2023) *In vitro* investigation of canine periodontal ligament-derived mesenchymal stem cells: A possibility of promising tool for periodontal regeneration. [J Oral Biol Craniofac Res. 13 \(3\): 403-11.](#)
17. Papa, P.M. *et al.* (2023) Intratesticular transplantation of allogenic mesenchymal stem cells mitigates testicular destruction after induced heat stress in Miniature-horse stallions. [J Equine Vet Sci. 132: 104961.](#)
18. Rezaei, M. *et al.* (2019) Transplantation of Bone Marrow-Derived Mesenchymal Stem Cells, Platelet-Rich Plasma, and Fibrin Glue for Periodontal Regeneration. [Int J Periodontics Restorative Dent. 39 \(1\): e32-e45.](#)
19. 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.](#)
20. 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.](#)
21. Sheng, R. *et al.* (2023) Prognostic significance of CD25 expression in dogs with a noninvasive diagnosis of B-cell lymphoma treated with CHOP chemotherapy. [Vet Comp Oncol. 21 \(1\): 28-35.](#)
22. Millanta, F. *et al.* (2020) Cytologic grading of canine and feline spindle-cell sarcomas of soft tissues and its correlation with histologic grading. [Top Companion Anim Med. 41: 100458.](#)
23. Rogato, F. *et al.* (2024) Leukemia cutis as a prominent clinical sign in a dog with acute myeloid leukemia. [Vet Clin Pathol. 53 \(4\): 448-57.](#)

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#### Further Reading

1. McSweeney, P. *et al.* (1996) Canine CD34: cloning of the cDNA and evaluation of an antiserum to recombinant protein. [Blood. 88:1992-2003.](#)

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#### 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.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2411A647>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

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'M385407:210513'

**Printed on 23 May 2025**

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