

Datasheet: MCA2411F

BATCH NUMBER 158805

Description:	MOUSE ANTI DOG CD34:FITC
Specificity:	CD34
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	1H6
Isotype:	IgG1
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	▪			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.

Target Species	Dog		
Product Form	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	FITC	490	525
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		

Immunogen	Canine CD34 fusion protein.
External Database Links	<p>UniProt: Q28270 Related reagents</p> <p>Entrez Gene: 415130 CD34 Related reagents</p>
RRID	AB_2275714
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>Mouse anti dog CD34 antibody, clone 1H6 recognizes the canine homologue of CD34, a glycosylated type 1 transmembrane protein of approximately 110 kDa (McSweeney et al. 1998) 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, (Goerner et al. 2001) and (Horn et al. 2004).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1×10^6 cells in 100ul.
References	<ol style="list-style-type: none"> 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. Blood. 94 (7): 2287-92. Bhattacharya, V. <i>et al.</i> (2000) Enhanced endothelialization and microvessel formation in polyester grafts seeded with CD34(+) bone marrow cells. Blood. 95 (2): 581-5. 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. Blood. 98 (7): 2065-70. Georges, G. <i>et al.</i> (2001) Engraftment of DLA-haploidentical marrow with ex vivo expanded, retrovirally transduced cytotoxic T lymphocytes. Blood. 98:3447-55. Horn, P.A. <i>et al.</i> (2004) Efficient lentiviral gene transfer to canine repopulating cells using an overnight transduction protocol. Blood. 103 (10): 3710-6. Avallone, G. <i>et al.</i> (2007) The spectrum of canine cutaneous perivascular wall tumors: morphologic, phenotypic and clinical characterization. Vet Pathol. 44 (5): 607-20. Palmieri, C. <i>et al.</i> (2013) Use of electron microscopy to classify canine perivascular wall tumors. Vet Pathol. 50 (2): 226-33. 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. Stem Cell Res Ther. 8 (1): 218. Trindade, A.B. <i>et al.</i> (2017) Mesenchymal-like stem cells in canine ovary show high differentiation potential. Cell Prolif. Oct 08 [Epub ahead of print]. 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. Cytotherapy. Oct 28 [Epub ahead of print].

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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.](#)
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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 allogenic 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.](#)

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.](#)

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.

Guarantee

12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10041 available at:
<https://www.bio-rad-antibodies.com/SDS/MCA2411F>
10041

Regulatory For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

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Printed on 25 Mar 2024

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