

Datasheet: MCA1777S BATCH NUMBER 160246

Description:	MOUSE ANTI DOG CD11b		
Specificity:	CD11b		
Other names:	INTEGRIN ALPHA M CHAIN, MAC-1		
Format:	S/N		
Product Type:	Monoclonal Antibody		
Clone:	CA16.3E10		
Isotype:	IgG1		
Quantity:	2 ml		

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
Immunohistology - Frozen (1)	-			
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 recommended dilutions are given as guide only. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

(1)The epitope recognised by this antibody is reported to be sensitive to formaldehyde fixation and tissue processing. Bio-Rad recommends the use of acetone fixation for frozen sections.

Target Species	Dog
Species Cross	Reacts with: Goat, Cat, Mustelid, Pig
Reactivity	N.B. Antibody reactivity and working

Reacts with: Goat, Cat, Mustelid, Pig, Bovine, Mink, Beluga whale

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	Tissue Culture Supernatant - liquid
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	<0.1% Sodium Azide (NaN ₃)
Immunogen	Affinity purified beta-2 integrins from splenic lysate
RRID	AB_322922
Specificity	Mouse anti Dog CD11b antibody, clone CA16.3E10 is a monoclonal antibody recognizing the canine CD11b cell surface antigen, a member of the alpha integrin family. CD11b forms one of the possible alpha chains of the canine leukocyte adhesion complexes (LeuCAMs), these contain a common 95 kDa β chain (CD18) non-covalently bound to either a 150 kDa (CD11c), 165 kDa (CD11b) or 180 kDa (CD11a) α chain (Moore et al. 1990. The CD11/CD18 complex is also known as the CR3 receptor. Canine CD11b is expressed by granulocytes, monocytes, NK cells and some macrophages. Mouse anti Dog CD11b antibody, clone CA16.3E10 has been used to evaluate the effect of anesthetic administration of CD11b expression on canine neutrophils (Maeda et al. 2010) demonstrating attenuation of CD11b expression at high concentrations administered lidocaine hydrochloride and reduced adhesion of neutrophils to endothelium.
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells or 100ul whole blood
References	 Danilenko, D.M. <i>et al.</i> (1992) Canine leukocyte cell adhesion molecules (LeuCAMs): characterization of the CD11/CD18 family. <u>Tissue Antigens 40: 13-21.</u> Brodersen, R. <i>et al.</i> (1998) Analysis of the immunological cross reactivities of 213 well characterized monoclonal antibodies with specificities against various leucocyte surface antigens of human and 11 animal species. <u>Vet Immunol Immunopathol. 64 (1): 1-13.</u> Sampaio, W.M. (2007) In vitro binding and survival assays of <i>Leishmania</i> parasites to peripherical blood monocytes and monocyte-derived macrophages isolated from dogs naturally and experimentally infected with <i>Leishmania chagasi</i>. <u>BMC Vet Res. 3:11.</u>

- naturally and experimentally infected with *Leishmania chagasi*. <u>BMC Vet Res. 3:11.</u>
- 4. Maiolini, A. et al. (2012) Toll-like receptors 4 and 9 are responsible for the maintenance of the inflammatory reaction in canine steroid-responsive meningitis-arteritis, a large animal model for neutrophilic meningitis. J Neuroinflammation. 9: 226.
- 5. Yuasa, K. et al. (2007) Injection of a recombinant AAV serotype 2 into canine skeletal muscles evokes strong immune responses against transgene products. Gene Ther. 14: 1249-60.
- 6. Kamstock, D. et al. (2006) Liposome-DNA complexes infused intravenously inhibit tumor angiogenesis and elicit antitumor activity in dogs with soft tissue sarcoma. Cancer Gene Ther. 13: 306-17.
- 7. Sherger, M. et al. (2012) Identification of myeloid derived suppressor cells in the peripheral blood of tumor bearing dogs. BMC Vet Res. 8: 209.
- 8. Gregorevic, P. et al. (2009) Evaluation of vascular delivery methodologies to enhance rAAV6-mediated gene transfer to canine striated musculature. Mol Ther. 17: 1427-33.

- 9. Figueiredo, M.M. *et al.* (2013) Expression of Toll-like Receptors 2 and 9 in cells of dog jejunum and colon naturally infected with *Leishmania infantum*. BMC Immunol. 14: 22.
- 10. Thompson, L.A. & Romano, T.A. (2015) Beluga (*Delphinapterus leucas*) granulocytes and monocytes display variable responses to *in vitro*. pressure exposures. <u>Front Physiol.</u> 6: 128.
- 11. Kuraoka, M. *et al.* (2016) Serum Osteopontin as a Novel Biomarker for Muscle Regeneration in Duchenne Muscular Dystrophy. <u>Am J Pathol. 186 (5): 1302-12.</u>
- 12. Gow, A.G. *et al.* (2016) Low-Density Lipoprotein Uptake Demonstrates a Hepatocyte Phenotype in the Dog, but Is Nonspecific. <u>Stem Cells Dev. 25 (1): 90-100.</u>
- 13. Paltrinieri, S. *et al.* (2012) Flow cytometric detection of alpha-1-acid glycoprotein on feline circulating leucocytes. Aust Vet J. 90 (8): 291-6.
- 14. Michael, H.T. *et al.* (2013) Isolation and characterization of canine natural killer cells. Vet Immunol Immunopathol. 155 (3): 211-7.
- 15. Vermeulen, B.L. *et al.* (2013) Suppression of NK cells and regulatory T lymphocytes in cats naturally infected with feline infectious peritonitis virus. <u>Vet Microbiol. 164 (1-2):</u> 46-59.
- 16. Guth, A.M. *et al.* (2013) Liposomal clodronate treatment for tumour macrophage depletion in dogs with soft-tissue sarcoma. <u>Vet Comp Oncol. 11 (4): 296-305.</u>
- 17. Wijewardana, V. *et al.* (2013) Production of canine soluble CD40 ligand to induce maturation of monocyte derived dendritic cells for cancer immunotherapy. <u>Vet Immunol Immunopathol</u>. 156 (1-2): 121-7.
- 18. Mastrorilli, C. *et al.* (2012) Multifocal cutaneous histiocytic sarcoma in a young dog and review of histiocytic cell immunophenotyping. Vet Clin Pathol. 41 (3): 412-8.
- 19. Yu, D.H. *et al.* (2012) Pathophysiologic and immunologic changes in a canine endotoxemia over a period of 24 hours. J Vet Med Sci. 74 (5): 537-44.
- 20. Olyslaegers, D.A. *et al.* (2013) Altered expression of adhesion molecules on peripheral blood leukocytes in feline infectious peritonitis. Vet Microbiol. 166 (3-4): 438-49.
- 21. Wasserman, J. *et al.* (2012) Suppression of canine myeloid cells by soluble factors from cultured canine tumor cells. Vet Immunol Immunopathol. 145 (1-2): 420-30.
- 22. Kruger, E.F. *et al.* (2003) Bovine monocytes induce immunoglobulin production in peripheral blood B lymphocytes. Dev Comp Immunol. 27 (10): 889-97.
- 23. Kuraoka, M. *et al.* (2016) Serum Osteopontin as a Novel Biomarker for Muscle Regeneration in Duchenne Muscular Dystrophy. <u>Am J Pathol. 186 (5): 1302-12.</u>
- 24. Beirão, B.C.B. *et al.* (2020) A blocking antibody against canine CSF-1R maturated by limited CDR mutagenesis <u>Antibody Ther: 3.3: 193–204.</u>
- 25. Wang, L. *et al.* (2019) Electroacupuncture-induced cannabinoid receptor expression in repair of abducens nerve. Int J Neurosci. 129 (9): 923-9.
- 26. Hutchison, S. *et al.* (2019) Characterization of myeloid-derived suppressor cells and cytokines GM-CSF, IL-10 and MCP-1 in dogs with malignant melanoma receiving a GD3-based immunotherapy. <u>Vet Immunol Immunopathol. 216: 109912.</u>
- 27. Jarosz, ł. *et al.* (2021) The Effect of Feed Supplementation with EM Bokashi® Multimicrobial Probiotic Preparation on Selected Parameters of Sow Colostrum and Milk as Indicators of the Specific and Nonspecific Immune Response. <u>Probiotics Antimicrob Proteins. Oct 01 [Epub ahead of print].</u>
- 28. Beirão, B.C.B. *et al.* (2020) A blocking antibody against canine CSF-1R maturated by limited CDR mutagenesis. Antib Ther. 3 (3): 193-204.
- 29. Knebel, A. et al. (2021) Measurement of canine Th17 cells by flow cytometry. Vet

Immunol Immunopathol. 243: 110366.

30. Riccardo, F. *et al.* (2022) Antigen mimicry as an effective strategy to induce CSPG4-targeted immunity in dogs with oral melanoma: a veterinary trial. <u>J Immunother Cancer.</u> 10(5):e004007. [Epub ahead of print].

31. Troupel, T. *et al.* (2022) Generalised idiopathic polymyositis mimicking masticatory myositis in a dog Vet Rec Case Rep. [Epub ahead of print].

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.

Guarantee	12 months from date of despatch
Health And Safety Information	Material Safety Datasheet documentation #10053 available at: https://www.bio-rad-antibodies.com/SDS/MCA1777S 10053
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) RPE

Goat Anti Mouse IgG IgA IgM (STAR87...) HRP

Goat Anti Mouse IgG (STAR76...) RPE

Goat Anti Mouse IgG (STAR70...) FITC

Rabbit Anti Mouse IgG (STAR13...) HRP

Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP

Rabbit Anti Mouse IgG (STAR9...) FITC

Goat Anti Mouse IgG (STAR77...) HRP

Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South Tel: +1 800 265 7376 Worldwide

America Fax: +1 919 878 3751 Fax: +44 (0)1865 852 739 Fax: +49 (0) 89 8090 95 50

Europe

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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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