

Datasheet: MCA1777S BATCH NUMBER 164244

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:	lgG1
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 product 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 product 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, Bovine, Mink, Beluga whale
Reactivity	N.B. Antibody reactivity and working conditions may vary between a

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.

Consider	M (1.D 0044) (1. I 0.440.0540.1
RRID	AB_322922
Immunogen	Affinity purified beta-2 integrins from splenic lysate
Preservative Stabilisers	<0.1% sodium azide (NaN ₃)
Product Form	Tissue culture supernatant - liquid

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 10µl of the suggested working dilution to label 10⁶ cells or 100µl whole blood

References

- 1. Danilenko, D.M. *et al.* (1992) Canine leukocyte cell adhesion molecules (LeuCAMs): characterization of the CD11/CD18 family. <u>Tissue Antigens 40: 13-21.</u>
- 2. Brodersen, R. *et al.* (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>
- 3. Kruger, E.F. *et al.* (2003) Bovine monocytes induce immunoglobulin production in peripheral blood B lymphocytes. Dev Comp Immunol. 27 (10): 889-97.
- 4. Kamstock, D. *et al.* (2006) Liposome-DNA complexes infused intravenously inhibit tumor angiogenesis and elicit antitumor activity in dogs with soft tissue sarcoma. <u>Cancer Gene Ther.</u> 13: 306-17.
- 5. Sampaio, W.M. (2007) *In vitro* binding and survival assays of *Leishmania* parasites to peripherical blood monocytes and monocyte-derived macrophages isolated from dogs naturally and experimentally infected with *Leishmania chagasi*. <u>BMC Vet Res. 3:11.</u>
- 6. Yuasa, K. *et al.* (2007) Injection of a recombinant AAV serotype 2 into canine skeletal muscles evokes strong immune responses against transgene products. <u>Gene Ther. 14:</u> 1249-60.
- 7. Gregorevic, P. *et al.* (2009) Evaluation of vascular delivery methodologies to enhance rAAV6-mediated gene transfer to canine striated musculature. <u>Mol Ther. 17: 1427-33.</u>
- 8. 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. <u>J Neuroinflammation</u>. 9: 226.
- 9. Sherger, M. *et al.* (2012) Identification of myeloid derived suppressor cells in the peripheral blood of tumor bearing dogs. <u>BMC Vet Res. 8: 209.</u>

- 10. 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.
- 11. Paltrinieri, S. *et al.* (2012) Flow cytometric detection of alpha-1-acid glycoprotein on feline circulating leucocytes. <u>Aust Vet J. 90 (8): 291-6.</u>
- 12. Yu, D.H. *et al.* (2012) Pathophysiologic and immunologic changes in a canine endotoxemia over a period of 24 hours. <u>J Vet Med Sci. 74 (5): 537-44.</u>
- 13. 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.
- 14. 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.
- 15. 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.
- 16. Michael, H.T. *et al.* (2013) Isolation and characterization of canine natural killer cells. Vet Immunol Immunopathol. 155 (3): 211-7.
- 17. Olyslaegers, D.A. *et al.* (2013) Altered expression of adhesion molecules on peripheral blood leukocytes in feline infectious peritonitis. <u>Vet Microbiol. 166 (3-4): 438-49.</u>
- 18. 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>
- 19. 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.
- 20. 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.
- 21. Gow, A.G. *et al.* (2016) Low-Density Lipoprotein Uptake Demonstrates a Hepatocyte Phenotype in the Dog, but Is Nonspecific. Stem Cells Dev. 25 (1): 90-100.
- 22. Kuraoka, M. *et al.* (2016) Serum Osteopontin as a Novel Biomarker for Muscle Regeneration in Duchenne Muscular Dystrophy. Am J Pathol. 186 (5): 1302-12.
- 23. Wang, L. *et al.* (2019) Electroacupuncture-induced cannabinoid receptor expression in repair of abducens nerve. Int J Neurosci. 129 (9): 923-9.
- 24. 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. Vet Immunol Immunopathol. 216: 109912.
- 25. Beirão, B.C.B. *et al.* (2020) A blocking antibody against canine CSF-1R maturated by limited CDR mutagenesis Antibody Ther: 3.3: 193–204.
- 26. Beirão, B.C.B. *et al.* (2020) A blocking antibody against canine CSF-1R maturated by limited CDR mutagenesis. <u>Antib Ther. 3 (3): 193-204.</u>
- 27. Jarosz, Ł. *et al.* (2022) 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</u> Proteins. 14 (6): 1029-1041.
- 28. Knebel, A. *et al.* (2021) Measurement of canine Th17 cells by flow cytometry. <u>Vet Immunol Immunopathol. 243: 110366.</u>
- 29. 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.

30. Troupel, T. *et al.* (2022) Generalised idiopathic polymyositis mimicking masticatory myositis in a dog <u>Veterinary Record Case Reports. 2022;10:e452</u>

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

For research purposes only

Related Products

Regulatory

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...) <u>FITC</u>
Goat Anti Mouse IgG (STAR77...) <u>HRP</u>

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

America Fax: +1 919 878 3751

Worldwide

Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Europe

Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50

Email: antibody_sales_us@bio-rad.com

Email: antibody_sales_uk@bio-rad.com

Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M416185:230214'

Printed on 10 Mar 2025