# Datasheet: MCA1777S

## BATCH NUMBER 153146

| | |
|---|---|
| **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 Reactivity**

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** | 0.09% Sodium Azide |
| **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.<br><br>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** | 1. Danilenko, D.M. *et al*. (1992) Canine leukocyte cell adhesion molecules (LeuCAMs): characterization of the CD11/CD18 family. Tissue Antigens 40: 13-21.<br>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. Vet Immunol Immunopathol. 64 (1): 1-13.<br>3. 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*. BMC Vet Res. 3:11.<br>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.<br>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.<br>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.<br>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.<br>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. Front Physiol. 6: 128.
11. 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.
12. 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.
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. Vet Microbiol. 164 (1-2): 46-59.
16. Guth, A.M. *et al.* (2013) Liposomal clodronate treatment for tumour macrophage depletion in dogs with soft-tissue sarcoma. Vet Comp Oncol. 11 (4): 296-305.
17. Wijewardana, V. *et al.* (2013) Production of canine soluble CD40 ligand to induce maturation of monocyte derived dendritic cells for cancer immunotherapy. Vet Immunol Immunopathol. 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. Am J Pathol. 186 (5): 1302-12.
24. 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.
25. Wang, L. *et al.* (2019) Electroacupuncture-induced cannabinoid receptor expression in repair of abducens nerve. Int J Neurosci. 129 (9): 923-9.

| | |
|---|---|
| **Storage** | Store at +4$^{o}$C or at -20$^{o}$C if preferred.<br><br>This product should be stored undiluted.<br><br>Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use. |
| **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 |
| Goat Anti Mouse IgG (H/L) (STAR117...) | Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP |
| Goat Anti Mouse IgG (STAR77...) | HRP |
| Goat Anti Mouse IgG (Fc) (STAR120...) | FITC, HRP |
| Rabbit Anti Mouse IgG (STAR13...) | HRP |
| Rabbit Anti Mouse IgG (STAR9...) | FITC |

### Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)


| | | | | | |
|---|---|---|---|---|---|
| **North & South America** | Tel: +1 800 265 7376<br>Fax: +1 919 878 3751<br>Email: antibody_sales_us@bio-rad.com | **Worldwide** | Tel: +44 (0)1865 852 700<br>Fax: +44 (0)1865 852 739<br>Email: antibody_sales_uk@bio-rad.com | **Europe** | Tel: +49 (0) 89 8090 95 21<br>Fax: +49 (0) 89 8090 95 50<br>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

'M365712:200529'

**Printed on 04 Apr 2024**

© 2024 Bio-Rad Laboratories Inc | Legal | Imprint