

## Datasheet: MCA2538F

<b>Description:</b>	MOUSE ANTI HUMAN CD79a:FITC
<b>Specificity:</b>	CD79a
<b>Other names:</b>	MB-1
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	HM57
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://www.bio-rad-antibodies.com/protocols).

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	▪			Neat

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) Membrane permeabilization is required for this application. The use of Leucoperm (Product Code [BUF09](#)) is recommended for this purpose.**

<b>Target Species</b>	Human
<b>Species Cross Reactivity</b>	<p>Reacts with: Mouse, Rabbit, Horse, Pig, Monkey, Rat, Bovine, Guinea Pig, Fallow deer, American Bison, Red deer, Ferret, Goat, Dog</p> <p><b>N.B.</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.</p>
<b>Product Form</b>	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid
<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 (NaN <sub>3</sub> ) 1% Bovine Serum Albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 0.1 mg/ml
<b>Immunogen</b>	Synthetic peptide corresponding to 202-216 amino acid sequence of human mb-1
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P11912</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">973</a>    CD79A    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	IGA, MB1
<b>RRID</b>	AB_905976
<b>Fusion Partners</b>	Spleen cells from immunized Balb/c mice were fused with cells of the Sp2/0 myeloma cell line
<b>Specificity</b>	<p><b>Mouse anti Human CD79a antibody, clone HM57</b> recognizes an epitope within the cytoplasmic domain of CD79a. CD79a, also known as mb-1, is a 45 kDa protein that is expressed by B lymphocytes during differentiation from early pre-B cell stage through to plasma cells.</p> <p>The CD79a molecule associates with CD79b (B29) to form a heterodimer that is non-covalently linked to surface immunoglobulin, forming the B-cell receptor (BCR) complex. The CD79a/CD79b heterodimers are also necessary for intracellular signaling following antigen-binding to surface immunoglobulin.</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul
<b>References</b>	<ol style="list-style-type: none"> <li>Jones, M. <i>et al.</i> (1993) Detection of T and B cells in many animal species using cross-reactive anti-peptide antibodies. <a href="#">J Immunol. 150 (12): 5429-35.</a></li> <li>Nelson, D.D. <i>et al.</i> (2010) CD8(+)/perforin(+)/WC1(-) gammadelta T cells, not CD8(+) alphabeta T cells, infiltrate vasculitis lesions of American bison (<i>Bison bison</i>) with experimental sheep-associated malignant catarrhal fever. <a href="#">Vet Immunol Immunopathol. 136: 284-91.</a></li> <li>De Schauwer, C. <i>et al.</i> (2012) In search for cross-reactivity to immunophenotype equine mesenchymal stromal cells by multicolor flow cytometry. <a href="#">Cytometry A. 81 (4): 312-23.</a></li> <li>Spaas, J.H. <i>et al.</i> (2013) Culture and characterisation of equine peripheral blood mesenchymal stromal cells. <a href="#">Vet J. 195 (1): 107-13.</a></li> <li>Moore, P.F. <i>et al.</i> (2013) Canine inflamed nonepitheliotropic cutaneous T-cell lymphoma: a diagnostic conundrum. <a href="#">Vet Dermatol. 24 (1): 204-11.e44-5.</a></li> <li>De Schauwer, C. <i>et al.</i> (2014) Characterization and profiling of immunomodulatory genes of equine mesenchymal stromal cells from non-invasive sources. <a href="#">Stem Cell Res</a></li> </ol>

[Ther. 5 \(1\): 6.](#)

7. Bozkurt, Y.A., *et al.* (2014) Histological and immunohistological studies of the structure of lymph nodes in Kilis goats. [Biotech Histochem. 89\(6\):440-5.](#)
8. Paebst, F. *et al.* (2014) Comparative immunophenotyping of equine multipotent mesenchymal stromal cells: an approach toward a standardized definition. [Cytometry A. 85 \(8\): 678-87.](#)
9. Gelain ME *et al.* (2014) CD44 in canine leukemia: analysis of mRNA and protein expression in peripheral blood. [Vet Immunol Immunopathol. 159 \(1-2\): 91-6.](#)
10. Claessen, C. *et al.* (2015) Equid herpesvirus 1 (EHV1) infection of equine mesenchymal stem cells induces a pUL56-dependent downregulation of select cell surface markers. [Vet Microbiol. 176 \(1-2\): 32-9.](#)
11. Aresu, L. *et al.* (2015) Canine indolent and aggressive lymphoma: clinical spectrum with histologic correlation. [Vet Comp Oncol. 13 \(4\): 348-62.](#)
12. Poggi, A. *et al.* (2015) Flow cytometric evaluation of ki67 for the determination of malignancy grade in canine lymphoma. [Vet Comp Oncol. 13 \(4\): 475-80.](#)
13. Froment, R. & Bédard, C. (2016) Marked hyperphosphatasemia associated with an acute leukemia in a Great Dane. [Vet Clin Pathol. 45 \(3\): 459-65.](#)
14. Schinköthe J *et al.* (2016) Characterization of tuberculous granulomas in different stages of progression and associated tertiary lymphoid tissue in goats experimentally infected with *Mycobacterium avium* subsp. *hominissuis*. [Comp Immunol Microbiol Infect Dis. 47: 41-51.](#)
15. Novacco, M. *et al.* (2016) Prognostic factors in canine acute leukaemias: a retrospective study. [Vet Comp Oncol. 14 \(4\): 409-16.](#)
16. Hillmann, A. *et al.* (2016) Comparative Characterization of Human and Equine Mesenchymal Stromal Cells: A Basis for Translational Studies in the Equine Model. [Cell Transplant. 25 \(1\): 109-24.](#)
17. Long, H. *et al.* (2016) Polyostotic Lymphoma in a Ferret (*Mustela putorius furo*). [J Comp Pathol. 154 \(4\): 341-4.](#)
18. Wessels, M. *et al.* (2017) Systemic necrotizing polyarteritis in three weaned lambs from one flock. [J Vet Diagn Invest 29 \(5\) :733-37.](#)
19. Uitterdijk, A. *et al.* (2017) Time course of VCAM-1 expression in reperfused myocardial infarction in swine and its relation to retention of intracoronary administered bone marrow-derived mononuclear cells. [PLoS One. 12 \(6\): e0178779.](#)
20. Nagata, K. *et al.* (2017) Epstein-Barr Virus Lytic Reactivation Activates B Cells Polyclonally and Induces Activation-Induced Cytidine Deaminase Expression: A Mechanism Underlying Autoimmunity and Its Contribution to Graves' Disease. [Viral Immunol. 30 \(3\): 240-9.](#)
21. Collins, J.J.P. *et al.* (2018) Impaired Angiogenic Supportive Capacity and Altered Gene Expression Profile of Resident CD146<sup>+</sup> Mesenchymal Stromal Cells Isolated from Hyperoxia-Injured Neonatal Rat Lungs. [Stem Cells Dev. 27 \(16\): 1109-24.](#)
22. Murphy, E.G. *et al.* (2019) First detection of Hepatitis E virus (Orthohepevirus C) in wild brown rats (*Rattus norvegicus*.) from Great Britain. [Zoonoses Public Health. 66 \(6\): 686-94.](#)
23. Skovdal, S.M. *et al.* (2019) Inhaled nebulized glatiramer acetate against Gram-negative bacteria is not associated with adverse pulmonary reactions in healthy, young adult female pigs. [PLoS One. 14 \(10\): e0223647.](#)
24. Mu&tilde;oz-Silvestre, A. *et al.* (2020) Pathogenesis of Intradermal Staphylococcal

- Infections: Rabbit Experimental Approach to Natural *Staphylococcus aureus* Skin Infections. [Am J Pathol. 190 \(6\): 1188-210.](#)
25. Forner, R. *et al.* (2021) Distribution difference of colostrum-derived B and T cells subsets in gilts and sows. [PLoS One. 16 \(5\): e0249366.](#)
26. Matsuyama, S. *et al.* (2021) Properties of macrophages and lymphocytes appearing in rat renal fibrosis followed by repeated injection of cisplatin. [J Vet Med Sci. 83 \(9\): 1435-42.](#)
27. Carroll, C.S.E. *et al.* (2021) Simple and effective bacterial-based intratumoral cancer immunotherapy. [J Immunother Cancer.9\(9\):e002688.](#)
28. Maciag, S.S. *et al.* (2022) The influence of source of porcine colostrum in development of early immune ontogeny in the piglet [Res Sq. Mar 24 \[Epub ahead of print\].](#)
29. do Prado Duzanski, A. *et al.* (2022) Cell-mediated immunity and expression of MHC class I and class II molecules in dogs naturally infected by canine transmissible venereal tumor: Is there complete spontaneous regression outside the experimental CTVT? [Res Vet Sci. 145: 193-204.](#)
30. Korbonits, L. *et al.* (2022) *Mycobacterium avium* subsp. *paratuberculosis* Infected Cows Reveal Divergent Immune Response in Bovine Peripheral Blood Derived Lymphocyte Proteome. [Metabolites. 12 \(10\): 924.](#)
31. Schilloks, M.C. *et al.* (2023) Effects of GHR Deficiency and Juvenile Hypoglycemia on Immune Cells of a Porcine Model for Laron Syndrome. [Biomolecules. 13 \(4\): 597.](#)
32. dos Santos, M.C. *et al.* (2023) Effect of yeast extracted  $\beta$ -glucans on the immune response and reproductive performance of gilts in the adaptation, gestation, and lactation periods [Livestock Science. 275: 105289.](#)
33. Viitanen, S.J. *et al.* (2023) *Escherichia coli*-associated follicular cystitis in dogs: Clinical and pathologic characterization. [J Vet Intern Med. 37 \(3\): 1059-66.](#)
34. Martini, V. *et al.* (2018) A retrospective study of flow cytometric characterization of suspected extranodal lymphomas in dogs. [J Vet Diagn Invest. 30 \(6\): 830-6.](#)
35. Cha, S. *et al.* (2023) Non-B, Non-T Acute Lymphoblastic Leukemia in a Cat [Journal of Veterinary Clinics. 40 \(4\): 298-302.](#)
36. Giese, I.M. *et al.* (2020) Chronic Hyperglycemia Drives Functional Impairment of Lymphocytes in Diabetic INS(C94Y) Transgenic Pigs. [Front Immunol. 11: 607473.](#)
37. Keller, A.K. *et al.* (2019) POST-TRAUMATIC OCULAR LYMPHOMA IN THREE RABBITS (*ORYCTOLAGUS CUNICULUS*) [Journal of Exotic Pet Medicine. 28: 154-61.](#)
38. Maciag, S. *et al.* (2022) Effects of freezing storage on the stability of maternal cellular and humoral immune components in porcine colostrum. [Vet Immunol Immunopathol. 254: 110520.](#)
39. Haach, V. *et al.* (2023) A polyvalent virosomal influenza vaccine induces broad cellular and humoral immunity in pigs. [Virology. 20 \(1\): 181.](#)
40. Moellerberndt, J. *et al.* (2024) Impact of platelet lysate on immunoregulatory characteristics of equine mesenchymal stromal cells. [Front Vet Sci. 11: 1385395.](#)
41. Hukkinen, V.M. *et al.* (2025) Recurrent bacterial pneumonia in Irish Wolfhounds - histopathology and characterization of bronchial cartilage changes. [J Comp Pathol. 217: 25-33.](#)

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#### Further Reading

1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. [Vet Res. 39: 54.](#)
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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/MCA2538F>  
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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

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

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

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