

Datasheet: MCA2538F BATCH NUMBER 166594

Description:	MOUSE ANTI HUMAN CD79a:FITC		
Specificity:	CD79a		
Other names:	MB-1		
Format:	FITC		
Product Type:	Monoclonal Antibody		
Clone:	HM57		
Isotype:	lgG1		
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 (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 <u>BUF09</u>) is recommended for this purpose.

Target Species	Human
Species Cross Reactivity	Reacts with: Mouse, Rabbit, Horse, Pig, Monkey, Rat, Bovine, Guinea Pig, Fallow deer, American Bison, Red deer, Ferret, Goat, Dog 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	Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution	Phosphate buffered saline		
Preservative Stabilisers	0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		
Immunogen	Synthetic peptide corresponding to 202-216 amino acid sequence of human mb-1		
External Database Links	UniProt: P11912 Related reagents Entrez Gene: 973 CD79A Related reagents		
Synonyms	IGA, MB1		
RRID	AB_905976		
Fusion Partners	Spleen cells from immunized Balb/c mice were fused with cells of the Sp2/0 myeloma cell line		
Specificity	Mouse anti Human CD79a antibody, clone HM57 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. 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.		
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul		
References	 Jones, M. et al. (1993) Detection of T and B cells in many animal species using cross-reactive anti-peptide antibodies. <u>J Immunol. 150 (12): 5429-35.</u> Nelson, D.D. et al. (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. <u>Vet Immunol Immunopathol. 136: 284-91.</u> De Schauwer, C. et al. (2012) In search for cross-reactivity to immunophenotype equine mesenchymal stromal cells by multicolor flow cytometry. <u>Cytometry A. 81 (4): 312-23.</u> Spaas, J.H. et al. (2013) Culture and characterisation of equine peripheral blood mesenchymal stromal cells. <u>Vet J. 195 (1): 107-13.</u> Moore, P.F. et al. (2013) Canine inflamed nonepitheliotropic cutaneous T-cell lymphoma: a diagnostic conundrum. <u>Vet Dermatol. 24 (1): 204-11.e44-5.</u> 		

- genes of equine mesenchymal stromal cells from non-invasive sources. <u>Stem Cell Res</u> Ther. 5 (1): 6.
- 7. Bozkurt, Y.A., *et al.* (2014) Histological and immunohistological studies of the structure of lymph nodes in Kilis goats. <u>Biotech Histochem. 89(6):440-5.</u>
- 8. Paebst, F. *et al.* (2014) Comparative immunophenotyping of equine multipotent mesenchymal stromal cells: an approach toward a standardized definition. <u>Cytometry A.</u> 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. <u>Vet Microbiol. 176 (1-2): 32-9.</u>
- 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. <u>Vet Clin Pathol. 45 (3): 459-65.</u>
- 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. <u>Vet Comp Oncol. 14 (4): 409-16.</u>
- 16. Hillmann, A. *et al.* (2016) Comparative Characterization of Human and Equine Mesenchymal Stromal Cells: A Basis for Translational Studies in the Equine Model. <u>Cell Transplant</u>. 25 (1): 109-24.
- 17. Long, H. *et al.* (2016) Polyostotic Lymphoma in a Ferret (*Mustela putorius furo*). <u>J</u> 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. <u>PLoS One. 12 (6): e0178779.</u>
- 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. <u>Viral Immunol.</u> 30 (3): 240-9.
- 21. Collins, J.J.P. *et al.* (2018) Impaired Angiogenic Supportive Capacity and Altered Gene Expression Profile of Resident CD146⁺ Mesenchymal Stromal Cells Isolated from Hyperoxia-Injured Neonatal Rat Lungs. <u>Stem Cells Dev. 27 (16): 1109-24.</u>
- 22. Murphy, E.G. *et al.* (2019) First detection of Hepatitis E virus (Orthohepevirus C) in wild brown rats (*Rattus norvegicus*.) from Great Britain. <u>Zoonoses Public Health. 66 (6): 686-94.</u>
- 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. <u>PLoS One. 14 (10): e0223647.</u>

- 24. Mu&mtilde;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. <u>PLoS One. 16 (5): e0249366.</u>
- 26. Matsuyama, S. *et al.* (2021) Properties of macrophages and lymphocytes appearing in rat renal fibrosis followed by repeated injection of cisplatin. <u>J Vet Med Sci. 83 (9): 1435-42.</u>
- 27. Carroll, C.S.E. *et al.* (2021) Simple and effective bacterial-based intratumoral cancer immunotherapy. <u>J Immunother Cancer.9(9):e002688.</u>
- 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? <u>Res</u> 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. <u>Metabolites. 12 (10): 924.</u>
- 31. Schilloks, M.C. *et al.* (2023) Effects of GHR Deficiency and Juvenile Hypoglycemia on Immune Cells of a Porcine Model for Laron Syndrome. <u>Biomolecules</u>. 13 (4): 597.
- 32. dos Santos, M.C. *et al.* (2023) Effect of yeast extracted β-glucans on the immune response and reproductive performance of gilts in the adaptation, gestation, and lactation periods Livestock Science. 275: 105289.
- 33. Haach, V. *et al.* (2023) A polyvalent virosomal influenza vaccine induces broad cellular and humoral immunity in pigs. <u>Virol J. 20 (1): 181.</u>
- 34. Viitanen, S.J. *et al.* (2023) *Escherichia coli*-associated follicular cystitis in dogs: Clinical and pathologic characterization. <u>J Vet Intern Med. 37 (3): 1059-66.</u>
- 35. 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.
- 36. Cha, S. *et al.* (2023) Non-B, Non-T Acute Lymphoblastic Leukemia in a Cat <u>Journal of</u> Veterinary Clinics. 40 (4): 298-302.
- 37. Giese, I.M. *et al.* (2020) Chronic Hyperglycemia Drives Functional Impairment of Lymphocytes in Diabetic INS(C94Y) Transgenic Pigs. <u>Front Immunol. 11: 607473.</u>
 38. Keller, A.K. *et al.* (2019) POST-TRAUMATIC OCULAR LYMPHOMA IN THREE RABBITS (*ORYCTOLAGUS CUNICULUS*) <u>Journal of Exotic Pet Medicine. 28: 154-61.</u>

Further Reading

1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.

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.

Health And Safety
Information

Material Safety Datasheet documentation #10041 available at:
https://www.bio-rad-antibodies.com/SDS/MCA2538F
10041

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA928F)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

 North & South
 Tel: +1 800 265 7376
 Worldwide
 Tel: +44 (0)1865 852 700
 Europe
 Tel: +49 (0) 89 8090 95 21

 America
 Fax: +1 919 878 3751
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