Datasheet: MCA2538GA

BATCH NUMBER 162901

Description:	MOUSE ANTI HUMAN CD79a
Specificity:	CD79a
Other names:	MB-1
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	HM57
Isotype:	IgG1
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)	▪			1/50 - 1/100
Immunohistology - Frozen	▪			
Immunohistology - Paraffin (2)	▪			1/100 - 1/500
ELISA			▪	
Immunoprecipitation			▪	

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 permeabilisation is required for this application. Bio-Rad recommends the use of Leucoperm™ (Product Code BUF09) for this purpose.**

(2)**This product requires antigen retrieval using heat treatment prior to staining of paraffin sections. Sodium citrate buffer pH 6.0 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

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 - 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)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0mg/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_905980
Fusion Partners	Spleen cells from immunised 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.
Histology Positive Control Tissue	Human tonsil
References	1. Mason, D.Y. *et al.* (1991) The IgM-associated protein mb-1 as a marker of normal and

neoplastic B cells. J Immunol. 147 (11): 2474-82.
2. Jones, M. *et al.* (1993) Detection of T and B cells in many animal species using cross-reactive anti-peptide antibodies. J Immunol. 150 (12): 5429-35.
3. Christgau, M. *et al.* (1998) Characterization of immunocompetent cells in the diseased canine periodontium. J Histochem Cytochem. 46: 1443-54.
4. Spaas, J.H. *et al.* (2013) Culture and characterisation of equine peripheral blood mesenchymal stromal cells. Vet J. 195 (1): 107-13.
5. Nelson, D.D. *et al.* (2010) CD8(+)/perforin(+)/WC1(-) gammadelta T cells, not CD8(+) alphabeta T cells, infiltrate vasculitis lesions of American bison (*Bison bison*) with experimental sheep-associated malignant catarrhal fever. Vet Immunol Immunopathol. 136: 284-91.
6. De Schauwer, C. *et al.* (2012) In search for cross-reactivity to immunophenotype equine mesenchymal stromal cells by multicolor flow cytometry. Cytometry A. 81 (4): 312-23.
7. Long, H. *et al.* (2016) Polyostotic Lymphoma in a Ferret (*Mustela putorius furo*). J Comp Pathol. 154 (4): 341-4.
8. 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.
9. 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.
10. Froment R & Bédard C (2016) Marked hyperphosphatasemia associated with an acute leukemia in a Great Dane. Vet Clin Pathol. Aug 18. [Epub ahead of print]
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. 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.
14. 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.
15. De Schauwer, C. *et al.* (2014) Characterization and profiling of immunomodulatory genes of equine mesenchymal stromal cells from non-invasive sources. Stem Cell Res Ther. 5 (1): 6.
16. 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.
17. Novacco, M. *et al.* (2015) Prognostic factors in canine acute leukaemias: a retrospective study. Vet Comp Oncol. Jan 26. [Epub ahead of print]
18. 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.
19. Moore, P.F. *et al.* (2013) Canine inflamed nonepitheliotropic cutaneous T-cell lymphoma: a diagnostic conundrum. Vet Dermatol. 24 (1): 204-11.e44-5.
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. Mar 23. [Epub ahead of print]
21. Wessels, M. *et al.* (2017) Systemic necrotizing polyarteritis in three weaned lambs from one flock. J Vet Diagn Invest. May 1:1040638717709856. [Epub ahead of print]
22. 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.
23. Forner, R. *et al.* (2021) Distribution difference of colostrum-derived B and T cells subsets in gilts and sows. PLoS One. 16 (5): e0249366.
24. 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.
25. 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.
26. 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. Stem Cells Dev. 27 (16): 1109-24.
27. 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.
28. 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.
29. Carroll, C.S.E. *et al.* (2021) Simple and effective bacterial-based intratumoral cancer immunotherapy. J Immunother Cancer. 9 (9): e002688.[Epub ahead of print].
30. 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.
31. 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].

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.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10040 available at:
https://www.bio-rad-antibodies.com/SDS/MCA2538GA
10040

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
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

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South America Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com

Worldwide Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com

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

'M383819:210513'

Printed on 24 Sep 2024