

Datasheet: MCA2538A647T

#### **BATCH NUMBER 164586**

Description:	MOUSE ANTI HUMAN CD79a:Alexa Fluor® 647		
Specificity:	CD79a		
Other names:	MB-1		
Format:	ALEXA FLUOR® 647		
Product Type:	Monoclonal Antibody		
Clone:	HM57		
Isotype:	lgG1		
Quantity:	25 TESTS/0.25ml		

# **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 <a href="www.bio-rad-antibodies.com/protocols">www.bio-rad-antibodies.com/protocols</a>.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry (1)	-			1/5 - 1/10

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	American Bison, Re <b>N.B.</b> Antibody reactivity is derived	e, Rabbit, Horse, Pig, Mo ed deer, Ferret, Goat tivity and working condit I from testing within our I cations from the originato	ions may vary betwee aboratories, peer-rev	en species. Cross riewed publications or
Product Form	Purified IgG conjug	ated to Alexa Fluor® 64	7 - liquid	
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)	
	Alexa Fluor®647	650	665	

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 <sub>3</sub> )  1% Bovine Serum Albumin			
Approx. Protein Concentrations	IgG concentration 0.05mg/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_1102331			
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 <sup>6</sup> cells in 100ul.			
References	<ol> <li>Mason, D.Y. et al. (1991) The IgM-associated protein mb-1 as a marker of normal and neoplastic B cells. <u>J Immunol. 147 (11): 2474-82.</u></li> <li>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></li> <li>Christgau, M. et al. (1998) Characterization of immunocompetent cells in the diseased canine periodontium. <u>J Histochem Cytochem. 46: 1443-54.</u></li> <li>Spaas, J.H. et al. (2013) Culture and characterisation of equine peripheral blood mesenchymal stromal cells. <u>Vet J. 195 (1): 107-13.</u></li> <li>Nelson, D.D. et al. (2010) CD8(+)/perforin(+)/WC1(-) gammadelta T cells, not CD8(+)</li> </ol>			

- alphabeta T cells, infiltrate vasculitis lesions of American bison (*Bison bison*) with experimental sheep-associated malignant catarrhal fever. <u>Vet Immunol Immunopathol.</u> 136: 284-91.
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- 7. Long, H. *et al.* (2016) Polyostotic Lymphoma in a Ferret (*Mustela putorius furo*). <u>J Comp Pathol. 154 (4): 341-4.</u>
- 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.
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- 10. 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>
- 11. Aresu, L. *et al.* (2015) Canine indolent and aggressive lymphoma: clinical spectrum with histologic correlation. <u>Vet Comp Oncol. 13 (4): 348-62.</u>
- 12. Poggi, A. *et al.* (2015) Flow cytometric evaluation of ki67 for the determination of malignancy grade in canine lymphoma. <u>Vet Comp Oncol. 13 (4): 475-80.</u>
- 13. Gelain ME *et al.* (2014) CD44 in canine leukemia: analysis of mRNA and protein expression in peripheral blood. <u>Vet Immunol Immunopathol.</u> 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. <u>Cytometry A.</u> 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. <u>Stem Cell Res</u> Ther. 5 (1): 6.
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- 19. 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>
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- 21. Wessels, M. *et al.* (2017) Systemic necrotizing polyarteritis in three weaned lambs from one flock. <u>J Vet Diagn Invest 29 (5):733-37.</u>
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subsets in gilts and sows. PLoS One. 16 (5): e0249366.

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- 28. Mu&mtilde;oz-Silvestre, A. *et al.* (2020) Pathogenesis of Intradermal Staphylococcal Infections: Rabbit Experimental Approach to Natural *Staphylococcus aureus* Skin Infections. <u>Am J Pathol. 190 (6): 1188-210.</u>
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- 32. 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>

#### **Further Reading**

1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. <u>Vet Res. 39: 54.</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. This product is photosensitive and should be protected from light.

## Guarantee

12 months from date of despatch

## Acknowledgements

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Health And Safety Information

Material Safety Datasheet documentation #10041 available at:

https://www.bio-rad-antibodies.com/SDS/MCA2538A647T

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**Regulatory** For research purposes only

# **Related Products**

## **Recommended Negative Controls**

MOUSE IgG1 NEGATIVE CONTROL: Alexa Fluor® 647 (MCA928A647)

## **Recommended Useful Reagents**

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

Fax: +1 919 878 3751

North & South Tel: +1 800 265 7376

America

Worldwide

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

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