

## Datasheet: MCA2538A647T

|                      |   |
|----------------------|---|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD79a:Alexa Fluor® 647 |
| <b>Specificity:</b>  | CD79a                                   |
| <b>Other names:</b>  | MB-1                                    |
| <b>Format:</b>       | ALEXA FLUOR® 647                        |
| <b>Product Type:</b> | Monoclonal Antibody                     |
| <b>Clone:</b>        | HM57                                    |
| <b>Isotype:</b>      | IgG1                                    |
| <b>Quantity:</b>     | 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 [www.bio-rad-antibodies.com/protocols](http://www.bio-rad-antibodies.com/protocols).

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

|                                       |  |                                   |                                 |
|---------------------------------------|--|-----------------------------------|---------------------------------|
| <b>Target Species</b>                 | Human  |                                   |                                 |
| <b>Species Cross Reactivity</b>       | Reacts with: Mouse, Dog, Rabbit, Horse, Pig, Monkey, Rat, Bovine, Chicken, Guinea Pig, Fallow deer, American Bison, Red deer, Ferret, Goat<br><b>N.B.</b> Antibody reactivity and working conditions may vary between species. |                                   |                                 |
| <b>Product Form</b>                   | Purified IgG conjugated to Alexa Fluor® 647 - liquid   |                                   |                                 |
| <b>Max Ex/Em</b>                      | <b>Fluorophore</b><br>Alexa Fluor®647  | <b>Excitation Max (nm)</b><br>650 | <b>Emission Max (nm)</b><br>665 |
| <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> )<br>1% Bovine Serum Albumin  |                                   |                                 |
| <b>Approx. Protein Concentrations</b> | IgG concentration 0.05mg/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><br/> <a href="#">P11912</a>   <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">973</a>   CD79A   <a href="#">Related reagents</a></p>   |
| <b>Synonyms</b>                | IGA, MB1   |
| <b>Fusion Partners</b>         | Spleen cells from immunised 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>Mason, D.Y. <i>et al.</i> (1991) The IgM-associated protein mb-1 as a marker of normal and neoplastic B cells. <a href="#">J Immunol. 147 (11): 2474-82.</a></li> <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>Christgau, M. <i>et al.</i> (1998) Characterization of immunocompetent cells in the diseased canine periodontium. <a href="#">J Histochem Cytochem. 46: 1443-54.</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>Del Cacho, E. <i>et al.</i> (2009) Avian follicular and interdigitating dendritic cells: isolation and morphologic, phenotypic, and functional analyses. <a href="#">Vet Immunol Immunopathol. 129 (1-2): 66-75.</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>Long, H. <i>et al.</i> (2016) Polyostotic Lymphoma in a Ferret (<i>Mustela putorius furo</i>). <a href="#">J Comp Pathol. 154 (4): 341-4.</a></li> <li>Schinköthe J <i>et al.</i> (2016) Characterization of tuberculous granulomas in different stages of progression and associated tertiary lymphoid tissue in goats experimentally infected with <i>Mycobacterium avium</i> subsp. <i>hominissuis</i>. <a href="#">Comp Immunol Microbiol Infect Dis. 47: 41-51.</a></li> <li>Bozkurt, Y.A., <i>et al.</i> (2014) Histological and immunohistological studies of the structure of lymph nodes in Kilis goats. <a href="#">Biotech Histochem. 89(6):440-5.</a></li> <li>Froment R &amp; Bédard C (2016) Marked hyperphosphatasemia associated with an acute leukemia in a Great Dane. <a href="#">Vet Clin Pathol. Aug 18. [Epub ahead of print]</a></li> <li>Aresu, L. <i>et al.</i> (2015) Canine indolent and aggressive lymphoma: clinical spectrum with histologic correlation. <a href="#">Vet Comp Oncol. 13 (4): 348-62.</a></li> <li>Poggi, A. <i>et al.</i> (2015) Flow cytometric evaluation of ki67 for the determination of malignancy grade in canine lymphoma. <a href="#">Vet Comp Oncol. 13 (4): 475-80.</a></li> <li>Gelain ME <i>et al.</i> (2014) CD44 in canine leukemia: analysis of mRNA and protein expression in</li> </ol> |

- peripheral blood. [Vet Immunol Immunopathol. 159 \(1-2\): 91-6.](#)
15. 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.](#)
  16. 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.](#)
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  20. Moore, P.F. *et al.* (2013) Canine inflamed nonepitheliotropic cutaneous T-cell lymphoma: a diagnostic conundrum. [Vet Dermatol. 24 \(1\): 204-11.e44-5.](#)
  21. 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. \[Epub ahead of print\]](#)
  22. Wessels, M. *et al.* (2017) Systemic necrotizing polyarteritis in three weaned lambs from one flock. [J Vet Diagn Invest. May 1:1040638717709856. \[Epub ahead of print\]](#)
  23. 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.](#)

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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** Store at +4°C or at -20°C if preferred.  
 Storage in frost-free freezers is not recommended.  
 This product should be stored undiluted. This product is photosensitive and should be protected from light.  
 Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Shelf Life** 18 months from date of despatch.

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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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 \(BUF070B\)](#)

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