

## Datasheet: MCA591

**BATCH NUMBER 163240**

|                      |                       |
|----------------------|-----------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD56 |
| <b>Specificity:</b>  | CD56                  |
| <b>Other names:</b>  | N-CAM                 |
| <b>Format:</b>       | Purified              |
| <b>Product Type:</b> | Monoclonal Antibody   |
| <b>Clone:</b>        | ERIC-1                |
| <b>Isotype:</b>      | IgG1                  |
| <b>Quantity:</b>     | 0.2 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             |     | ■  |                |                    |
| Immunohistology - Frozen   | ■   |    |                | 1/50 - 1/100       |
| Immunohistology - Paraffin |     |    | ■              |                    |
| ELISA                      | ■   |    |                | 80ng/ml            |
| Immunoprecipitation        |     |    | ■              |                    |
| Immunoblotting             | ■   |    |                |                    |

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

|                                 |                                                                                                |
|---------------------------------|------------------------------------------------------------------------------------------------|
| <b>Target Species</b>           | Human                                                                                          |
| <b>Product Form</b>             | Purified IgG - 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> | <0.1% Sodium Azide (NaN <sub>3</sub> )                                                         |

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Approx. Protein Concentrations    | IgG concentration 1.0 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Immunogen                         | Human retinoblastoma tumour cells.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| External Database Links           | <p><b>UniProt:</b><br/> <a href="#">P13591</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">4684</a>    NCAM1    <a href="#">Related reagents</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Synonyms                          | NCAM                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| RRID                              | AB_321501                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Fusion Partners                   | Spleen cells from immunized BALB/c mice were fused with cells of the P3/X63.Ag8 mouse myeloma line.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Specificity                       | <b>Mouse anti Human CD56 antibody, clone ERIC-1</b> recognizes N-CAM expressed on developing and adult neuroectodermal tissues in humans. Neuroectodermal tumours also stain including Glioma, ependymoma, neuroblastoma, medulloblastoma, retinoblastoma and teratoma. Oat cell carcinoma and Wilms tumour are also highly reactive. Mouse anti Human CD56 antibody, clone ERIC-1 will react on Natural Killer cells and recognizes 140, 180 and 120 kDa NCAM isoforms.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Histology Positive Control Tissue | Neuroblastoma                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| References                        | <ol style="list-style-type: none"> <li>1. Bourne, S.P. <i>et al.</i> (1991) A monoclonal antibody (ERIC-1), raised against retinoblastoma, that recognizes the neural cell adhesion molecule (NCAM) expressed on brain and tumours arising from the neuroectoderm. <a href="#">J Neurooncol. 10 (2): 111-9.</a></li> <li>2. Criel, A. <i>et al.</i> (1997) Further characterization of morphologically defined typical and atypical CLL: a clinical, immunophenotypic, cytogenetic and prognostic study on 390 cases. <a href="#">Br J Haematol. 97 (2): 383-91.</a></li> <li>3. Cameron, A.L. <i>et al.</i> (2002) Natural killer and natural killer-T cells in psoriasis. <a href="#">Arch Dermatol Res. 294 (8): 363-9.</a></li> <li>4. Quenby, S. <i>et al.</i> (2005) Prednisolone reduces preconceptual endometrial natural killer cells in women with recurrent miscarriage. <a href="#">Fertil Steril. 84 (4): 980-4.</a></li> <li>5. McIntosh K <i>et al.</i> (2006) The immunogenicity of human adipose-derived cells: temporal changes <i>in vitro</i>. <a href="#">Stem Cells. 24 (5): 1246-53.</a></li> <li>6. Whitworth, M.K. <i>et al.</i> (2007) Cervical leukocyte sub-populations in idiopathic preterm labour. <a href="#">J Reprod Immunol. 75: 48-55.</a></li> <li>7. Preuß, C. <i>et al.</i> (2012) Immune-mediated necrotizing myopathy is characterized by a specific Th1-M1 polarized immune profile. <a href="#">Am J Pathol. 181 (6): 2161-71.</a></li> <li>8. Debeer, S. <i>et al.</i> (2013) Comparative histology and immunohistochemistry of porcine versus human skin. <a href="#">Eur J Dermatol. 23 (4): 456-66.</a></li> <li>9. Salvatore, G. <i>et al.</i> (2015) Human monocyte-derived dendritic cells turn into foamy dendritic cells with IL-17A. <a href="#">J Lipid Res. 56 (6): 1110-22.</a></li> </ol> |

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12. Siebert, E. *et al.* (2021) Systemic sclerosis-associated myositis features minimal inflammation and characteristic capillary pathology. [Acta Neuropathol. 141 \(6\): 917-27.](#)
13. Meinhardt, J. *et al.* (2021) Olfactory transmucosal SARS-CoV-2 invasion as a port of central nervous system entry in individuals with COVID-19. [Nat Neurosci. 24 \(2\): 168-75.](#)
14. Vogt, S. *et al.* (2023) Morphological and molecular comparison of HIV-associated and sporadic inclusion body myositis. [J Neurol. 270 \(9\): 4434-43.](#)
15. Englert, B. *et al.* (2024) "Amyopathic" MDA5-positive dermatomyositis with severe lung involvement presenting with net myositic morphological features- Insights from an autopsy study [Neuromuscular Disorders. 03 Feb \[Epub ahead of print\].](#)

|                                      |                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage</b>                       | <p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.</p> |
| <b>Guarantee</b>                     | 12 months from date of despatch                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Health And Safety Information</b> | <p>Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA591">https://www.bio-rad-antibodies.com/SDS/MCA591</a></p> <p>10040</p>                                                                                                                                                                                                          |
| <b>Regulatory</b>                    | For research purposes only                                                                                                                                                                                                                                                                                                                                                                          |

## Related Products

### Recommended Secondary Antibodies

|                                         |                                                                                                                                                                                                                               |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Rabbit Anti Mouse IgG (STAR12...)       | <a href="#">RPE</a>                                                                                                                                                                                                           |
| Goat Anti Mouse IgG IgA IgM (STAR87...) | <a href="#">HRP</a>                                                                                                                                                                                                           |
| Goat Anti Mouse IgG (STAR76...)         | <a href="#">RPE</a>                                                                                                                                                                                                           |
| Goat Anti Mouse IgG (STAR70...)         | <a href="#">FITC</a>                                                                                                                                                                                                          |
| Goat Anti Mouse IgG (H/L) (STAR117...)  | <a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a> |
| Rabbit Anti Mouse IgG (STAR9...)        | <a href="#">FITC</a>                                                                                                                                                                                                          |
| Goat Anti Mouse IgG (STAR77...)         | <a href="#">HRP</a>                                                                                                                                                                                                           |
| Goat Anti Mouse IgG (Fc) (STAR120...)   | <a href="#">FITC</a> , <a href="#">HRP</a>                                                                                                                                                                                    |
| Rabbit Anti Mouse IgG (STAR13...)       | <a href="#">HRP</a>                                                                                                                                                                                                           |

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

|                                  |                                                                                                                                         |                  |                                                                                                                                                 |               |                                                                                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>North &amp; South America</b> | Tel: +1 800 265 7376<br>Fax: +1 919 878 3751<br>Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a> | <b>Worldwide</b> | Tel: +44 (0)1865 852 700<br>Fax: +44 (0)1865 852 739<br>Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a> | <b>Europe</b> | Tel: +49 (0) 89 8090 95 21<br>Fax: +49 (0) 89 8090 95 50<br>Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a> |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|

batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)

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