

## Datasheet: MCA2338GA

**BATCH NUMBER 167942**

|                      |                        |
|----------------------|------------------------|
| <b>Description:</b>  | MOUSE ANTI BOVINE CD13 |
| <b>Specificity:</b>  | CD13                   |
| <b>Format:</b>       | Purified               |
| <b>Product Type:</b> | Monoclonal Antibody    |
| <b>Clone:</b>        | CC81                   |
| <b>Isotype:</b>      | IgG1                   |
| <b>Quantity:</b>     | 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](http://www.bio-rad-antibodies.com/protocols).

|                            | Yes | No | Not Determined | Suggested Dilution |
|----------------------------|-----|----|----------------|--------------------|
| Flow Cytometry             | ▪   |    |                | 1/100 - 1/1000     |
| Immunohistology - Frozen   | ▪   |    |                | 1/25 - 1/50        |
| Immunohistology - Paraffin |     |    | ▪              |                    |
| ELISA                      |     |    | ▪              |                    |
| Immunoprecipitation        |     |    | ▪              |                    |
| Western Blotting           |     |    | ▪              |                    |

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.

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|---------------------------------|---|
| <b>Target Species</b>           | Bovine  |
| <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> | 0.09% sodium azide (NaN <sub>3</sub> )  |
| <b>Carrier Free</b>             | Yes   |

|                                       |   |
|---------------------------------------|---|
| <b>Approx. Protein Concentrations</b> | IgG concentration 1.0 mg/ml   |
| <b>Immunogen</b>                      | Cells from cattle intestine.  |
| <b>External Database Links</b>        | <p><b>UniProt:</b><br/> <a href="#">P79098</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">404191</a>    ANPEP    <a href="#">Related reagents</a></p>  |
| <b>Synonyms</b>                       | APN   |
| <b>Specificity</b>                    | <b>Mouse anti bovine CD13, clone CC81</b> , recognises bovine CD13, a 150 kDa type II membrane protein shown to be a metallopeptidase in humans. In cattle the antigen recognised by clone CC81 is primarily expressed on enterocytes and cells with a dendritic morphology in the small intestine. Clone CC81 also defines a subpopulation of dendritic cells in afferent lymph that are CC81 Ag +ve and SIRPalpha -ve, which show differences in their capacities to stimulate T cells and cytokine synthesis compared to the CC81 Ag -ve SIRPalpha +ve dendritic cells.  |
| <b>Flow Cytometry</b>                 | Use 10µl of the suggested working dilution to label 10 <sup>6</sup> cells in 100µl  |
| <b>References</b>                     | <ol style="list-style-type: none"> <li>Howard, C.J. <i>et al.</i> (1997) Identification of two distinct populations of dendritic cells in afferent lymph that vary in their ability to stimulate T cells. <a href="#">J Immunol. 159 (11): 5372-82.</a></li> <li>Hope, J.C. <i>et al.</i> (2001) Differences in the induction of CD8+ T cell responses by subpopulations of dendritic cells from afferent lymph are related to IL-1 alpha secretion. <a href="#">J Leukoc Biol. 69 (2): 271-9.</a></li> <li>Stephens, S. A. <i>et al.</i> (2003) Differences in cytokine synthesis by the sub-populations of dendritic cells from afferent lymph. <a href="#">Immunology. 110: 48-57.</a></li> <li>Bastos, R.G. <i>et al.</i> (2008) Bovine NK cells acquire cytotoxic activity and produce IFN-gamma after stimulation by <i>Mycobacterium bovis</i> BCG or <i>Babesia bovis</i>-exposed splenic dendritic cells. <a href="#">Vet Immunol Immunopathol. 124: 302-12.</a></li> <li>Schneider DA <i>et al.</i> (2011) Dynamics of bovine spleen cell populations during the acute response to <i>Babesia bovis</i> infection: an immunohistological study. <a href="#">Parasite Immunol. 33 (1): 34-44.</a></li> <li>Fries, P.N. <i>et al.</i> (2011) Age-related changes in the distribution and frequency of myeloid and T cell populations in the small intestine of calves. <a href="#">Cell Immunol. 271 (2): 428-37.</a></li> <li>Fries, P. <i>et al.</i> (2011) Mucosal dendritic cell subpopulations in the small intestine of newborn calves. <a href="#">Dev Comp Immunol. 35 (10): 1040-51.</a></li> <li>Toka, F.N. <i>et al.</i> (2011) Rapid and transient activation of γδ T cells to IFN-γ production, NK cell-like killing, and antigen processing during acute virus infection. <a href="#">J Immunol. 186 (8): 4853-61.</a></li> </ol> |
| <b>Storage</b>                        | 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.

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| <b>Guarantee</b> | 12 months from date of despatch |
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| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10040 available at:<br><a href="https://www.bio-rad-antibodies.com/SDS/MCA2338GA">https://www.bio-rad-antibodies.com/SDS/MCA2338GA</a><br>10040 |
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| <b>Regulatory</b> | For research purposes only |
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## 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> ,<br><a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> ,<br><a href="#">FITC</a> , <a href="#">HRP</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>   |
| Rabbit Anti Mouse IgG (STAR9...)        | <a href="#">FITC</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> |
|----------------------------------|---|------------------|---|---------------|---|

To find 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)  
'M429753:240424'

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