

## Datasheet: MCA2041GA

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|----------------------|--------------------------|
| <b>Description:</b>  | MOUSE ANTI BOVINE CD172a |
| <b>Specificity:</b>  | CD172a                   |
| <b>Other names:</b>  | SIRP ALPHA               |
| <b>Format:</b>       | Purified                 |
| <b>Product Type:</b> | Monoclonal Antibody      |
| <b>Clone:</b>        | CC149                    |
| <b>Isotype:</b>      | IgG2b                    |
| <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 - 1/200      |
| Immunohistology - Frozen   |     |    | ■              |                    |
| Immunohistology - Paraffin |     |    | ■              |                    |
| ELISA                      |     |    | ■              |                    |
| Immunoprecipitation        |     |    | ■              |                    |
| Western Blotting           |     |    | ■              |                    |

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>                 | Bovine  |
| <b>Product Form</b>                   | Purified IgG - liquid   |
| <b>Preparation</b>                    | Purified IgG prepared by affinity chromatography on Protein G 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>External Database Links</b>        | <b>UniProt:</b>   |

**Entrez Gene:**

[327666](#)   SIRPA   [Related reagents](#)

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**Synonyms**      MYD1, PTPNS1, SHPS1, SIRP

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**Specificity**      **Mouse anti Bovine CD172a antibody, clone CC149** recognizes bovine CD172a, also known as MyD-1 antigen and SIRPA. CD172a is a ~55 kDa single pass type 1 membrane protein belonging to the family of signal regulatory proteins (SIRP). CD172a has been identified as the receptor for CD47.

Bovine CD172a is strongly expressed by splenic macrophages, monocytes and a subset of afferent lymph veiled cells (ALVC) and by dendritic cells in the skin.

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**Flow Cytometry**      Use 10ul of the suggested working dilution to label 10<sup>6</sup> cells in 100ul.

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**References**

1. Howard, C.J. *et al.* (1999) Dendritic cells in cattle: phenotype and function. [Vet Immunol Immunopathol. 72 \(1-2\): 119-24.](#)
2. Price, S.J. & Hope, J.C.. (2009) Enhanced secretion of interferon-gamma by bovine gammadelta T cells induced by coculture with *Mycobacterium bovis*-infected dendritic cells: evidence for reciprocal activating signals. [Immunology. 126:201-8](#)
3. Waters, W.R. (2009) Signal regulatory protein alpha (SIRPalpha) cells in the adaptive response to ESAT-6/CFP-10 protein of tuberculous mycobacteria. [PLoS One. 4: e6414.](#)
4. Brackenbury, L.S. *et al.* (2005) Identification of a cell population that produces alpha/beta interferon *in vitro* and *in vivo* in response to noncytopathic bovine viral diarrhea virus. [J Virol. 79: 7738-44.](#)
5. Smith, R. *et al.* (2003) A novel MyD-1 (SIRP-1alpha) signaling pathway that inhibits LPS-induced TNFalpha production by monocytes. [Blood. 102: 2532-40.](#)
6. Jensen, K. *et al.* (2014) Comparison of small interfering RNA (siRNA) delivery into bovine monocyte-derived macrophages by transfection and electroporation. [Vet Immunol Immunopathol. 158 : 224-32.](#)
7. Tahoun, A. *et al.* (2015) Functional analysis of bovine TLR5 and association with IgA responses of cattle following systemic immunisation with H7 flagella. [Vet Res. 46: 9.](#)
8. Hussen J *et al.* (2014) The chemokine CCL5 induces selective migration of bovine classical monocytes and drives their differentiation into LPS-hyporesponsive macrophages *in vitro*. [Dev Comp Immunol. 47 \(2\): 169-77.](#)
9. Eger, M. *et al.* (2015) Impacts of parturition and body condition score on glucose uptake capacity of bovine monocyte subsets. [Vet Immunol Immunopathol. 166 \(1-2\): 33-42.](#)
10. Vachierey N *et al.* (2015) An *in vitro* model to assess the immunosuppressive effect of tick saliva on the mobilization of inflammatory monocyte-derived cells. [Vet Res. 46 \(1\): 117.](#)
11. Pridans, C. *et al.* (2016) A Csf1r-EGFP Transgene Provides a Novel Marker for Monocyte Subsets in Sheep. [J Immunol. 197 \(6\): 2297-305.](#)
12. Herry, V. *et al.* (2017) Local immunization impacts the response of dairy cows to *Escherichia coli* mastitis. [Sci Rep. 7 \(1\): 3441.](#)

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**Storage**      Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. 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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| <b>Guarantee</b> | 18 months from date of despatch. |
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| <b>Health And Safety Information</b> | Material Safety Datasheet documentation #10040 available at:<br>10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a> |
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|-------------------|----------------------------|
| <b>Regulatory</b> | For research purposes only |
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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)  
Goat Anti Mouse IgG (STAR77...) [HRP](#)  
Rabbit Anti Mouse IgG (STAR12...) [RPE](#)  
Rabbit Anti Mouse IgG (STAR8...) [DyLight®800](#)  
Rabbit Anti Mouse IgG (STAR13...) [HRP](#)  
Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Goat Anti Mouse IgG (STAR70...) [FITC](#)  
Goat Anti Mouse IgG (Fc) (STAR120...) [FITC](#), [HRP](#)  
Rabbit Anti Mouse IgG (STAR9...) [FITC](#)  
Human Anti Mouse IgG2b (HCA038...) [FITC](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®549](#),  
[DyLight®649](#), [DyLight®680](#), [DyLight®800](#),  
[FITC](#), [HRP](#)

### Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL \(MCA691\)](#)

### Recommended Useful Reagents

[BOVINE DENDRITIC CELL GROWTH KIT \(PBP014KZZ\)](#)  
[BOVINE DENDRITIC CELL GROWTH KIT \(PBP015KZZ\)](#)  
[MOUSE ANTI BOVINE CD205:FITC \(MCA1651F\)](#)  
[MOUSE ANTI BOVINE CD205 \(MCA1651GA\)](#)

|                                  |   |                  |   |               |   |
|----------------------------------|---|------------------|---|---------------|---|
| <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> |
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