

## Datasheet: MCA2041C

<b>Description:</b>	MOUSE ANTI BOVINE CD172a:RPE-Cy5
<b>Specificity:</b>	CD172a
<b>Other names:</b>	SIRP ALPHA
<b>Format:</b>	RPE-CY5
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	CC149
<b>Isotype:</b>	IgG2b
<b>Quantity:</b>	100 TESTS/1ml

## 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	■			Neat
Immunofluorescence			■	

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.

<b>Target Species</b>	Bovine		
<b>Product Form</b>	Purified IgG conjugated to R. Phycoerythrin (RPE) -Cy5 - lyophilized		
<b>Reconstitution</b>	Reconstitute with 1.0ml distilled water Care should be taken during reconstitution as the protein may appear as a film at the bottom of the vial. Bio-Rad recommend that the vial is gently mixed after reconstitution.		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	RPE-Cy5 488nm laser	496	667
<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</b>	0.09% Sodium Azide (NaN <sub>3</sub> )		
<b>Stabilisers</b>	1% Bovine Serum Albumin 5% Sucrose		

### External Database Links

**UniProt:**

[O46631](#)

[Related reagents](#)

**Entrez Gene:**

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

**Synonyms**

MYD1, PTPNS1, SHPS1, SIRP

**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.

**Flow Cytometry**

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

**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. Vachier 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.](#)

**Storage**

Store at +4°C. DO NOT FREEZE.

This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.

**Guarantee**

12 months from date of reconstitution.

**Acknowledgements**

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**Health And Safety Information** Material Safety Datasheet documentation #10075 available at:  
10075: <https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL:RPE-Cy5 \(MCA691C\)](#)

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