

Datasheet: MCA2041C

Description:	MOUSE ANTI BOVINE CD172a:RPE-Cy5
Specificity:	CD172a
Other names:	SIRP ALPHA
Format:	RPE-CY5
Product Type:	Monoclonal Antibody
Clone:	CC149
Isotype:	IgG2b
Quantity:	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.

	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.

Target Species	Bovine								
Product Form	Purified IgG conjugated to R. Phycoerythrin (RPE) -Cy5 - lyophilized								
Reconstitution	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.								
Max Ex/Em	<table><tr><th>Fluorophore</th><th>Excitation Max (nm)</th><th>Emission Max (nm)</th></tr><tr><td>RPE-Cy5 488nm laser</td><td>496</td><td>667</td></tr></table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	RPE-Cy5 488nm laser	496	667		
Fluorophore	Excitation Max (nm)	Emission Max (nm)							
RPE-Cy5 488nm laser	496	667							
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant								
Buffer Solution	Phosphate buffered saline								
Preservative	0.09% Sodium Azide (NaN ₃)								
Stabilisers	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 10⁶ 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 gamma delta 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. Hussien 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.

Shelf Life

12 months from date of reconstitution.

Acknowledgements

Cy® and CyDye® are registered trademarks of GE Healthcare

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

Regulatory For research purposes only

Related Products

Recommended Negative Controls

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

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: antibody_sales_us@bio-rad.com	Worldwide	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: antibody_sales_uk@bio-rad.com	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
----------------------------------	---	------------------	---	---------------	---

'M303533:170222'

Printed on 27 May 2018

© 2018 Bio-Rad Laboratories Inc | [Legal](#) | [Imprint](#)