

Datasheet: MCA833A647

**BATCH NUMBER 173519**

<b>Description:</b>	MOUSE ANTI BOVINE CD2:Alexa Fluor® 647
<b>Specificity:</b>	CD2
<b>Other names:</b>	LFA-2
<b>Format:</b>	ALEXA FLUOR® 647
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	CC42
<b>Isotype:</b>	IgG1
<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 - 1/10

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.

### Target Species

Bovine

### Species Cross Reactivity

Reacts with: Goat

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

### Product Form

Purified IgG conjugated to Alexa Fluor 647 - liquid

Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Alexa Fluor®647	650	665

### Preparation

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> ) 1% Bovine Serum Albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">Q148M9</a> <a href="#">Related reagents</a>
<b>Fusion Partners</b>	Spleen cells from an immunised mouse were fused with cells of the mouse NS1 myeloma cell line
<b>Specificity</b>	<b>Mouse anti Bovine CD2, clone CC42</b> , recognizes the bovine homologue of human CD2.  Clone CC42 inhibits rosetting with SRBC and stains cells in primary and secondary lymphoid organs in patterns consistent with those seen by human CD2 monoclonal antibodies.
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Davis, W.C. &amp; Splitter, G.S. (1991) Individual antigens of cattle. Bovine CD2 (BoCD2). <a href="#">Vet Immunol Immunopathol. 27: 43-50.</a></li> <li>2. Sopp, P. <i>et al.</i> (1991) Investigating monoclonal antibodies to bovine "null" cell antigens using two-colour immunofluorescence. <a href="#">Vet Immunol Immunopathol. 27 (1-3): 163-8.</a></li> <li>3. Eskra, L. <i>et al.</i> (1991) Effect of monoclonal antibodies on in vitro function of T-cell subsets. <a href="#">Vet Immunol Immunopathol. 27 (1-3): 215-22.</a></li> <li>4. Gutierrez, M. <i>et al.</i> (1999) The detection of CD2+, CD4+, CD8+, and WC1+ T lymphocytes, B cells and macrophages in fixed and paraffin embedded bovine tissue using a range of antigen recovery and signal amplification techniques. <a href="#">Vet Immunol Immunopathol. 71 (3-4): 321-34.</a></li> <li>5. Fikri, Y. <i>et al.</i> (2000) Purification and characterisation of bovine WC1+ gammadelta T lymphocytes from peripheral blood. <a href="#">Vet Res. 31: 229-39.</a></li> <li>6. Brackenbury, L.S. <i>et al.</i> (2005) Identification of a cell population that produces alpha/beta interferon in vitro and in vivo in response to noncytopathic bovine viral diarrhea virus. <a href="#">J Virol. 79: 7738-44.</a></li> <li>7. Wilson, E. <i>et al.</i> (1999) A circulating bovine gamma delta T cell subset, which is found in large numbers in the spleen, accumulates inefficiently in an artificial site of inflammation: correlation with lack of expression of E-selectin ligands and L-selectin. <a href="#">J Immunol. 162: 4914-9.</a></li> <li>8. Weiss, D.J. <i>et al.</i> (2006) Mucosal immune response in cattle with subclinical Johne's disease. <a href="#">Vet Pathol. 43: 127-35.</a></li> <li>9. Grell, S.N. <i>et al.</i> (2005) Age-dependent differences in cytokine and antibody responses after experimental RSV infection in a bovine model. <a href="#">Vaccine 23: 3412-23.</a></li> <li>10. Bednarek, D. <i>et al.</i> (2003) Effect of steroidal and non-steroidal anti-inflammatory drugs in combination with long-acting oxytetracycline on non-specific immunity of calves</li> </ol>

suffering from enzootic bronchopneumonia. [Vet Microbiol. 96: 53-67.](#)

11. Hamilton, C.A. *et al.* (2017) Frequency and phenotype of natural killer cells and natural killer cell subsets in bovine lymphoid compartments and blood. [Immunology. 151 \(1\): 89-97.](#)

12. Elsayed, M.S.A.E. *et al.* (2022) Real-time PCR using *atpE*, conventional PCR targeting different regions of difference, and flow cytometry for confirmation of *Mycobacterium bovis*. in buffaloes and cattle from the Delta area of Egypt. [BMC Microbiol. 22 \(1\): 154.](#)

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**Storage**

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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**Guarantee**

12 months from date of despatch

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**Acknowledgements**

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**Health And Safety Information**

Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA833A647>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 \(MCA928A647\)](#)

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

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

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