

Datasheet: MCA2436F

**BATCH NUMBER 164009**

<b>Description:</b>	MOUSE ANTI BOVINE CD80:FITC
<b>Specificity:</b>	CD80
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	IL-A159
<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	▪			Neat - 1/10
Immunofluorescence			▪	

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: Sheep

**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 Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

### Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml
External Database Links	UniProt: <a href="#">O46405</a> <a href="#">Related reagents</a>
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the X63.Ag8.653 myeloma cell line.
Specificity	<b>Mouse anti Bovine CD80 antibody, clone IL-A159</b> recognizes the bovine CD80 cell surface antigen, expressed by dendritic cells, activated macrophages and activated B cells. CD80 plays a key role in co-stimulation of T cells during the primary immune response.
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul
References	<ol style="list-style-type: none"> <li>Glew, E.J. <i>et al.</i> (2003) Differential effects of bovine viral diarrhoea virus on monocytes and dendritic cells. <a href="#">J Gen Virol. 84 (Pt 7): 1771-80.</a></li> <li>Rhodes, S.G. <i>et al.</i> (2003) 1,25-dihydroxyvitamin D3 and development of tuberculosis in cattle. <a href="#">Clin Diagn Lab Immunol. 10 (6): 1129-35.</a></li> <li>Epardaud, M. <i>et al.</i> (2004) Enrichment for a CD26hi SIRP- subset in lymph dendritic cells from the upper aero-digestive tract. <a href="#">J Leukoc Biol. 76 (3): 553-61.</a></li> <li>Langelaar, M.F. <i>et al.</i> (2005) <i>Mycobacterium avium</i> ssp. <i>paratuberculosis</i> recombinant heat shock protein 70 interaction with different bovine antigen-presenting cells. <a href="#">Scand J Immunol. 61 (3): 242-50.</a></li> <li>Bonneau, M. <i>et al.</i> (2006) Migratory monocytes and granulocytes are major lymphatic carriers of Salmonella from tissue to draining lymph node. <a href="#">J Leukoc Biol. 79: 268-76.</a></li> <li>Hart, J. <i>et al.</i> (2011) <i>Theileria annulata</i>-transformed cell lines are efficient antigen-presenting cells for <i>in vitro</i> analysis of CD8 T cell responses to bovine herpesvirus-1. <a href="#">Vet Res. 42: 119.</a></li> <li>Ikebuchi, R. <i>et al.</i> (2013) Blockade of bovine PD-1 increases T cell function and inhibits bovine leukemia virus expression in B cells <i>in vitro</i>. <a href="#">Vet Res. 44: 59.</a></li> <li>Totté P <i>et al.</i> (2015) Free exopolysaccharide from <i>Mycoplasma mycoides</i> subsp. <i>mycoides</i> possesses anti-inflammatory properties. <a href="#">Vet Res. 46 (1): 122.</a></li> <li>Corripio-Miyar, Y. <i>et al.</i> (2017) 1,25-Dihydroxyvitamin D3 modulates the phenotype and function of Monocyte derived dendritic cells in cattle. <a href="#">BMC Vet Res. 13 (1): 390.</a></li> <li>Risalde, M.A. <i>et al.</i> (2020) BVDV permissiveness and lack of expression of co-stimulatory molecules on PBMCs from calves pre-infected with BVDV. <a href="#">Comp Immunol Microbiol Infect Dis. 68: 101388.</a></li> <li>Edwards, J.H. <i>et al.</i> (2021) Integration and functional performance of a decellularised porcine superflexor tendon graft in an ovine model of anterior cruciate ligament reconstruction. <a href="#">Biomaterials. 279: 121204.</a></li> </ol>

12. Marzo, S. *et al.* (2021) Characterisation of dendritic cell frequency and phenotype in bovine afferent lymph reveals kinetic changes in costimulatory molecule expression [Vet Immunol Immunopathol. 19 Nov: 110363.](#)
13. Liu, J. *et al.* (2020) *Theileria annulata*. transformation altered cell surface molecules expression and endocytic function of monocyte-derived dendritic cells. [Ticks Tick Borne Dis. 11 \(3\): 101365.](#)
14. Stabel, J.R. *et al.* (2022) B cell phenotypes and maturation states in cows naturally infected with *Mycobacterium avium* subsp. *Paratuberculosis*. [PLoS One. 17 \(12\): e0278313.](#)
15. Vafaei, T. *et al.* (2022) Repopulation of decellularised porcine pulmonary valves in the right ventricular outflow tract of sheep: Role of macrophages. [J Tissue Eng. 13: 20417314221102680.](#)
16. Wu, H. *et al.* (2023) Electrical stimulation of piezoelectric BaTiO<sub>3</sub> coated Ti6Al4V scaffolds promotes anti-inflammatory polarization of macrophages and bone repair via MAPK/JNK inhibition and OXPHOS activation. [Biomaterials. 293: 121990.](#)
17. Vohra, P. *et al.* (2019) Nature and consequences of interactions between Salmonella enterica serovar Dublin and host cells in cattle. [Vet Res. 50 \(1\): 99.](#)

<b>Storage</b>	<p>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.</p> <p>Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2436F10041">https://www.bio-rad-antibodies.com/SDS/MCA2436F10041</a></p>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

### Recommended Useful Reagents

[BOVINE DENDRITIC CELL GROWTH KIT \(PBP014KZZ\)](#)

[BOVINE DENDRITIC CELL GROWTH KIT \(PBP015KZZ\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 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 Fax: +44 (0)1865 852 739 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 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://www.bio-rad-antibodies.com/datasheets)

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