

Datasheet: MCA2431F

BATCH NUMBER 167893

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| Description: | MOUSE ANTI BOVINE CD40:FITC |
| Specificity: | CD40 |
| Format: | FITC |
| Product Type: | Monoclonal Antibody |
| Clone: | IL-A156 |
| Isotype: | IgG1 |
| Quantity: | 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.

| | 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

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|-----------------------------------|---|
| Buffer Solution | Phosphate buffered saline |
| Preservative Stabilisers | 0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin |
| Approx. Protein Concentrations | IgG concentration 0.1 mg/ml |
| External Database Links | <p>UniProt: Q28203 Related reagents</p> <p>Entrez Gene: 286849 CD40 Related reagents</p> |
| Synonyms | TNFRSF5 |
| Fusion Partners | Spleen cells from immunised BALB/c mice were fused with cells of the X63.Ag8.653 myeloma cell line |
| Specificity | <p>Mouse anti Bovine CD40 antibody, clone IL-A156 recognizes the bovine Tumor necrosis factor receptor superfamily member 5, also known as CD40 or B-cell surface antigen CD40. CD40 is a 260 amino acid single pass type 1 transmembrane glycoprotein with a predicted molecular mass of 31 kDa. Bovine CD40 also has an N terminal signal peptide of 20 amino acids. Bovine CD40 is expressed by B lymphocytes and a subset of T lymphocytes.</p> <p>CD40 plays an important role in the differentiation of B lymphocytes into effector cells, and is also involved in interactions between T and B lymphocytes.</p> |
| Flow Cytometry | Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul |
| References | <ol style="list-style-type: none"> 1. Haas, K.M. <i>et al.</i> (2001) Enhancing effects of anti-CD40 treatment on the immune response of SCID-bovine mice to <i>Trypanosoma congolense</i> infection. J Leukoc Biol. 70: 931-40. 2. Norimatsu, M. <i>et al.</i> (2003) Differential response of bovine monocyte-derived macrophages and dendritic cells to infection with <i>Salmonella typhimurium</i> in a low-dose model <i>in vitro</i>. Immunology 108: 55- 61. 3. Glew, E.J. <i>et al.</i> (2003) Differential effects of bovine viral diarrhoea virus on monocytes and dendritic cells. J Gen Virol. 84 (Pt 7): 1771-80. 4. Epardaud, M. <i>et al.</i> (2004) Enrichment for a CD26^{hi} SIRP- subset in lymph dendritic cells from the upper aero-digestive tract. J Leukoc Biol. 76 (3): 553-61. 5. 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. Scand J Immunol. 61 (3): 242-50. 6. Corripio-Miyar, Y. <i>et al.</i> (2015) Phenotypic and functional analysis of monocyte populations in cattle peripheral blood identifies a subset with high endocytic and allogeneic T-cell stimulatory capacity. Vet Res. 46: 112. |

7. Totté, P. *et al.* (2015) Free exopolysaccharide from *Mycoplasma mycoides* subsp. *mycoides* possesses anti-inflammatory properties. [Vet Res. 46 \(1\): 122.](#)
8. 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.](#)
9. Kornuta, C.A. *et al.* (2021) MAN α 1-2MAN decorated liposomes enhance the immunogenicity induced by a DNA vaccine against BoHV-1. [Transbound Emerg Dis. 68 \(2\): 587-97.](#)
10. 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.](#)

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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. |
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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.

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| Guarantee | 12 months from date of despatch |
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| Health And Safety Information | Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA2431F 10041 |
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| Regulatory | For research purposes only |
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Related Products

Recommended Negative Controls

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

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|---|---|--|
| 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 |
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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)
 'M428974:240305'

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