

## Datasheet: MCA2431PE

<b>Description:</b>	MOUSE ANTI BOVINE CD40:RPE
<b>Specificity:</b>	CD40
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	IL-A156
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 TESTS

## 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

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 <b>N.B.</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 R. Phycoerythrin (RPE) - lyophilized		
Reconstitution	Reconstitute with 1.0 ml 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	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	RPE 488nm laser	496	578
Preparation	Purified IgG prepared by affinity chromatography on Protein G from tissue culture		

supernatant

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Buffer Solution	Phosphate buffered saline
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Preservative	0.09% Sodium Azide (NaN <sub>3</sub> )
Stabilisers	1% Bovine Serum Albumin
	5% Sucrose

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External Database Links	<b>UniProt:</b> <a href="#">Q28203</a> <a href="#">Related reagents</a>
	<b>Entrez Gene:</b> <a href="#">286849</a> CD40 <a href="#">Related reagents</a>

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Synonyms	TNFRSF5
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Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the X63.Ag8.653 myeloma cell line
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Specificity	<b>Mouse anti Bovine CD40 antibody, clone IL-A156</b> 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.
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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.

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Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul
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References	<ol style="list-style-type: none"><li>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. <a href="#">J Leukoc Biol. 70: 931-40.</a></li><li>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>. <a href="#">Immunology 108: 55- 61.</a></li><li>3. 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>4. Epardaud, M. <i>et al.</i> (2004) Enrichment for a CD26<sup>hi</sup> SIRP- subset in lymph dendritic cells from the upper aero-digestive tract. <a href="#">J Leukoc Biol. 76 (3): 553-61.</a></li><li>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. <a href="#">Scand J Immunol. 61 (3): 242-50.</a></li><li>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. <a href="#">Vet Res. 46: 112.</a></li></ol>
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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 $\alpha$ 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.](#)
11. Gilbert, F.B. *et al.* (2025) Expression of Fc $\mu$ R by bovine mononuclear blood leukocytes. [Dev Comp Immunol. 162: 105304.](#)

<b>Storage</b>	<p>This product is shipped at ambient temperature.</p> <p>Prior to reconstitution store at +4°C.</p> <p>Following reconstitution store at +4°C.</p> <p>DO NOT FREEZE.</p> <p>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.</p>
<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #20487 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2431PE">https://www.bio-rad-antibodies.com/SDS/MCA2431PE</a></p> <p>20487</p>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

<b>North &amp; South America</b>	<p>Tel: +1 800 265 7376</p> <p>Fax: +1 919 878 3751</p> <p>Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a></p>	<b>Worldwide</b>	<p>Tel: +44 (0)1865 852 700</p> <p>Fax: +44 (0)1865 852 739</p> <p>Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a></p>	<b>Europe</b>	<p>Tel: +49 (0) 89 8090 95 21</p> <p>Fax: +49 (0) 89 8090 95 50</p> <p>Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a></p>
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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://bio-rad-antibodies.com/datasheets)  
'M440626:250523'

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