

Datasheet: MCA2431PE

BATCH NUMBER INN1111

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

	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

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 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
Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide (NaN ₃)
Stabilisers	1% Bovine Serum Albumin 5% Sucrose
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"> 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. Eparaud, 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. 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. 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. 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. Totté, P. <i>et al.</i> (2015) Free exopolysaccharide from <i>Mycoplasma mycoides</i> subsp. <i>mycoides</i> possesses anti-inflammatory properties. Vet Res. 46 (1): 122.

7. Corripio-Miyar, Y. *et al.* (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.](#)
8. 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.](#)
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. 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.](#)

Storage

Prior to reconstitution store at +4°C.
 Following reconstitution 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.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #20487 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2431PE>
 20487

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

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

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