

Datasheet: MCA2431PE

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 (NaN₃)
Stabilisers 1% Bovine Serum Albumin
5% Sucrose

External Database Links

UniProt:

[Q28203](#) [Related reagents](#)

Entrez Gene:

[286849](#) CD40 [Related reagents](#)

Synonyms TNFRSF5

Fusion Partners Spleen cells from immunised BALB/c mice were fused with cells of the X63.Ag8.653 myeloma cell line

Specificity **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.

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.

Flow Cytometry Use 10ul of the suggested working dilution to label 1x10⁶ cells in 100ul

References

1. Langelaar, M.F. *et al.* (2005) *Mycobacterium avium* ssp. *paratuberculosis* recombinant heat shock protein 70 interaction with different bovine antigen-presenting cells. [Scand J Immunol. 61 \(3\): 242-50.](#)
2. Epardaud, M. *et al.* (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.](#)
3. Glew, E.J. *et al.* (2003) Differential effects of bovine viral diarrhoea virus on monocytes and dendritic cells. [J Gen Virol. 84 \(Pt 7\): 1771-80.](#)
4. Norimatsu, M. *et al.* (2003) Differential response of bovine monocyte-derived macrophages and dendritic cells to infection with *Salmonella typhimurium* in a low-dose model *in vitro*. [Immunology 108: 55- 61.](#)
5. Haas, K.M. *et al.* (2001) Enhancing effects of anti-CD40 treatment on the immune response of SCID-bovine mice to *Trypanosoma congolense* infection. [J Leukoc Biol. 70: 931-40.](#)
6. Totté, P. *et al.* (2015) Free exopolysaccharide from *Mycoplasma mycoides* subsp. *mycoides* 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.](#)

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:
20487: <https://www.bio-rad-antibodies.com/uploads/MSDS/20487.pdf>

Regulatory For research purposes only

Related Products

Recommended Negative Controls

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

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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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