

Datasheet: MCA2678PE

Description:	MOUSE ANTI BOVINE CD14:RPE
Specificity:	CD14
Format:	RPE
Product Type:	Monoclonal Antibody
Clone:	CC-G33
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 product 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 product for use in their own system using appropriate negative/positive controls.

Target Species

Bovine

Species Cross Reactivity

Reacts with: Sheep, Human, Water Buffalo

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

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
RPE 488nm laser	496	578
RPE 561nm laser	546	578

Preparation

Purified IgG prepared by affinity chromatography on Protein A

Buffer Solution	Phosphate buffered saline
Preservative	0.09% Sodium Azide (NaN ₃)
Stabilisers	1% Bovine Serum Albumin 5% Sucrose
Immunogen	Partially purified polypeptides isolated from bovine leucocyte cell surface membrane.
External Database Links	<p>UniProt: Q95122 Related reagents</p> <p>Entrez Gene: 281048 CD14 Related reagents</p>
Fusion Partners	Spleen cells from immunised Balb/c mice were fused with cells of the NS1 myeloma cell line.
Specificity	<p>Mouse anti Bovine CD14, clone CC-G33 is a monoclonal antibody recognizing bovine CD14, a GPI-anchored membrane glycoprotein and monocyte/macrophage differentiation antigen, belonging to the lipopolysaccharide receptor family, also expressed weakly on microglia and Langerhans cells.</p> <p>CD14 acts as a receptor for the potent bacterial endotoxin, lipopolysaccharide (LPS), facilitated by LPS-binding protein (LBP). The binding of LPS to CD14 results in cell activation and the release of cytokines and the inflammatory response, and has been shown to upregulate the cell surface expression of adhesion molecules.</p> <p>Mouse anti Bovine CD14 clone CC-G33 cross-reacts with human CD14 expressed on transfected COS-7 cells, and also recognises an epitope on ovine CD14, see Sopp et al. 1996 for details. CC-G33 has also been shown to be reactive with CD14 from the Water buffalo (<i>Bubalus bubalis</i>), see Mirielli et al. 2013.</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 1x10 ⁶ cells in 100ul
References	<ol style="list-style-type: none"> Villarreal-Ramos, B. <i>et al.</i> (2006) Influence of the nature of the antigen on the boosting of responses to mycobacteria in <i>M. bovis</i>-BCG vaccinated cattle. Vaccine. 24 (47-48): 6850-8. Pirson, C. <i>et al.</i> (2012) Differential effects of Mycobacterium bovis - derived polar and apolar lipid fractions on bovine innate immune cells. Vet Res. 43: 54. Berthon, P. & Hopkins, J. (1996) Ruminant cluster CD14. Vet Immunol Immunopathol. 52 (4): 245-8. Glew, E.J. <i>et al.</i> (2003) Differential effects of bovine viral diarrhoea virus on monocytes and dendritic cells. J Gen Virol. 84: 1771-80. Harris, J. <i>et al.</i> (2003) Expression of caveolin by bovine lymphocytes and antigen-presenting cells. Immunology. 105: 190-5. Yamakawa, Y. <i>et al.</i> (2008) Identification and functional characterization of a bovine orthologue to DC-SIGN. J Leukoc Biol. 83: 1396-403.

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Storage	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. 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

'M375523:210104'

Printed on 05 Oct 2021

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