

Datasheet: MCA1647G

Description:	MOUSE ANTI BOVINE CD1w3
Specificity:	CD1w3
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	CC43
Isotype:	IgG2b
Quantity:	0.25 mg

Product Details

RRID AB_905939

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	▪			1/100
Immunohistology - Frozen			▪	
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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: Goat, Sheep
N.B. Antibody reactivity and working conditions may vary between species.

Product Form Purified IgG - liquid

Preparation Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant

Buffer Solution Phosphate buffered saline

Preservative Stabilisers 0.09% Sodium Azide

Carrier Free Yes

Approx. Protein IgG concentration 1.0 mg/ml

Concentrations

Specificity

Mouse anti Bovine CD1w3 antibody, clone CC43 recognises the bovine CD1w3 cell surface antigen, a ~44kDa molecule expressed as a heterodimer with beta 2 microglobulin.

Bovine CD1w3 is expressed by immature cortical thymocytes but not by mature CD2+ or WC1+ cells in peripheral lymphoid tissues. It is also expressed by B cells, monocytes and subsets of dendritic cells. Further refinement of the binding specificity of Mouse anti Bovine CD1w3 antibody, clone CC43 indicates that the antibody binds to the bovine CD1d molecule ([Nguyen 2013](#)). Bovine CD1d binds short chain glycosphingolipids ([Wang et al. 2012](#)).

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul.

References

1. Howard, C.J. *et al.* (1993) A new bovine leukocyte antigen cluster comprising two monoclonal antibodies, CC43 and CC118, possibly related to CD1. [Vet Immunol Immunopathol. 39: 69-76.](#)
 2. Naessens, J. *et al.* (1993) Cross-reactivity of workshop antibodies with cells from domestic and wild ruminants. [Vet Immunol Immunopathol. 39 \(1-3\): 283-90.](#)
 3. Naessens, J. *et al.* (1997) Nomenclature and characterization of leukocyte differentiation antigens in ruminants. [Immunol Today. 18 \(8\): 365-8.](#)
 4. Howard, C.J. & Naessens, J. (1993) Summary of workshop findings for cattle (tables 1 and 2). [Vet Immunol Immunopathol. 39 \(1-3\): 25-47.](#)
 5. Nguyen, T.K. *et al.* (2013) The bovine CD1D gene has an unusual gene structure and is expressed but cannot present α -galactosylceramide with a C26 fatty acid. [Int Immunol. 25: 91-8.](#)
 6. Van Rhijn, I. *et al.* (2006) The bovine CD1 family contains group 1 CD1 proteins, but no functional CD1d. [J Immunol. 176: 4888-93.](#)
 7. Rhind, S.M. *et al.* (1996) Discrimination of two subsets of CD1 molecules in the sheep. [Vet Immunol Immunopathol. 52: 265-70.](#)
 8. Gibson, A. *et al.* (2012) Identification of a lineage negative cell population in bovine peripheral blood with the ability to mount a strong type I interferon response. [Dev Comp Immunol. 36: 332-41.](#)
 9. Goldfinch, N. *et al.* (2010) Conservation of mucosal associated invariant T (MAIT) cells and the MR1 restriction element in ruminants, and abundance of MAIT cells in spleen. [Vet Res. 41: 62.](#)
 10. Gunnes, G. *et al.* (2000) Accessory cell populations in draining lymph nodes of lambs in the elicitation phase of DNCB-induced contact hypersensitivity. [Vet Immunol Immunopathol. 76: 75-88.](#)
 11. Jörundsson, E. (2000) Distribution of MHC-II and CD1 molecules in the skin of lambs and changes during experimentally-induced contact hypersensitivity. [Vet Immunol Immunopathol. 74: 87-101.](#)
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Storage

Store at +4°C or at -20°C if preferred.

This product should be stored undiluted.

Storage in frost free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

18 months from date of despatch.

Health And Safety Information

Material Safety Datasheet documentation #10040 available at: 10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos. , HRP
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR8...)	DyLight@800
Rabbit Anti Mouse IgG (STAR13...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Human Anti Mouse IgG2b (HCA038...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight@488 , DyLight@549 , DyLight@649 , DyLight@680 , DyLight@800 , FITC , HRP

Recommended Negative Controls

[MOUSE IgG2b NEGATIVE CONTROL \(MCA691\)](#)

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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Printed on 02 Jan 2019