

Datasheet: MCA6079 BATCH NUMBER 154493

Description:	MOUSE ANTI BOVINE CD172a
Specificity:	CD172a
Other names:	MyD-1 ANTIGEN, SIRP ALPHA
Format:	Con S/N
Product Type:	Monoclonal Antibody
Clone:	DH59B
Isotype:	lgG1
Quantity:	0.1 mg

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 - 1/10
Immunohistology - Frozen	•			

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: Bison, Water Buffalo, Sheep, Horse, Dog, Cat 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	Concentrated tissue culture supernatant - liquid
Preparation	Concentrated tissue culture supernatant clarified by filtration through a 0.2 micrometer filter
Buffer Solution	Serum free tissue culture medium containing proprietary protein free supplement

Preservative Stabilisers
Approx. Protein Concentrations

0.09% Sodium Azide (NaN₃)

IgG concentration 1.0 mg/ml

Immunogen

Cells from multiple species with the final screening of the fusion on cells from dog

External Database Links

UniProt:

O46631 Related reagents

Entrez Gene:

327666 SIRPA Related reagents

Synonyms

MYD1, PTPNS1, SHPS1, SIRP

Specificity

Mouse anti Bovine CD172a, clone DH59B, recognizes bovine CD172a also known as SIRP alpha or MyD-1 antigen. CD172a is a transmembrane signal regulatory protein expressed primarily by macrophages, monocytes, dendritic cells, granulocytes, myeloid progenitors, hematopoietic stem cells, and neurons (<u>Barclay et al. 2006</u>). The extracellular region of SIRP family consists of three immunoglobulin superfamily (IgSF) domains; two IgC and one IgV domain (<u>Barclay et al. 2006</u>).

The IgV domain of CD172a binds to CD47 (<u>Hatherley et al. 2007</u>). The binding domain of CD172a is analogous to that of immunoglobulins and T cell receptors and is involved in myeloid cell activation (<u>Berg et al. 2004</u>). However, signaling via CD172a is mainly inhibitory to cell function and phagocytosis (<u>Oldenborg et al. 2001</u>). CD172a expressing cells are stimulated in *Mycobacterium tuberculosis* infection, influencing migration of dendritic cells and macrophages, phagocytosis, and granuloma formation (<u>Waters et al. 2009</u>).

Flow Cytometry

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

References

- 1. Herrmann L.M. *et al.* (2003) CD21-positive follicular dendritic cells: A possible source of PrPSc in lymph node macrophages of scrapie-infected sheep. <u>Am J Pathol. 162 (4):</u> 1075-81
- 2. Davis W.C. *et al.* (2007) Use of flow cytometry to identify monoclonal antibodies that recognize conserved epitopes on orthologous leukocyte differentiation antigens in goats, llamas, and rabbits. Vet Immunol Immunopathol. 119 (1-2): 123-30.
- 3. Ibrahim S. *et al.* (2007) Screening of anti-human leukocyte monoclonal antibodies for reactivity with equine leukocytes. Vet Immunol Immunopathol. 119 (1-2): 63-80.
- 4. Mérant C. *et al.* (2009) Young foal and adult horse monocyte-derived dendritic cells differ by their degree of phenotypic maturity. Vet Immunol Immunopathol. 131 (1-2): 1-8.
- 5. Contreras G.A. *et al.* (2010) Lipomobilization in periparturient dairy cows influences the composition of plasma nonesterified fatty acids and leukocyte phospholipid fatty acids. <u>J</u> Dairy Sci. 93 (6): 2508-16.
- 6. Herrmann-Hoesing L.M. *et al.* (2010) Ovine progressive pneumonia virus capsid antigen as found in CD163- and CD172a-positive alveolar macrophages of persistently

infected sheep. Vet Pathol. 47 (3): 518-28.

Storage	Store at +4°C. DO NOT FREEZE. 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 #20389 available at: https://www.bio-rad-antibodies.com/SDS/MCA6079 20389
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...) **RPE** Goat Anti Mouse IgG IgA IgM (STAR87...) HRP Goat Anti Mouse IgG (STAR76...) **RPE** Goat Anti Mouse IgG (STAR70...) **FITC** Rabbit Anti Mouse IgG (STAR13...) **HRP** Goat Anti Mouse IgG (Fc) (STAR120...) FITC, HRP Rabbit Anti Mouse IgG (STAR9...) **FITC** Goat Anti Mouse IgG (STAR77...) **HRP** Goat Anti Mouse IgG (H/L) (STAR117...) Alk. Phos., DyLight®488, DyLight®550,

DyLight®650, DyLight®680, DyLight®800,

FITC, HRP

Recommended Useful Reagents

MOUSE ANTI BOVINE CD14 (MCA6085)

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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 'M334801:181203'

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