Datasheet: MCA6079

BATCH NUMBER 169059

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:	IgG1
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	0.09% Sodium Azide (NaN_3)
Approx. Protein Concentrations	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 (Barclay *et al.* 2006). The extracellular region of SIRP family consists of three immunoglobulin superfamily (IgSF) domains; two IgC and one IgV domain (Barclay *et al.* 2006). The IgV domain of CD172a binds to CD47 (Hatherley *et al.* 2007).The binding domain of CD172a is analogous to that of immunoglobulins and T cell receptors and is involved in myeloid cell activation (Berg *et al.*2004). However, signaling via CD172a is mainly inhibitory to cell function and phagocytosis (Oldenborg *et al.* 2001). CD172a expressing cells are stimulated in *Mycobacterium tuberculosis* infection, influencing migration of dendritic cells and macrophages, phagocytosis, and granuloma formation (Waters *et al.* 2009).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10^6 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. Am J Pathol. 162 (4): 1075-81 2. 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. 3. 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. 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. J 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.
7. Baillou, A. *et al.* (2024) Characterization of intestinal mononuclear phagocyte subsets in young ruminants at homeostasis and during *Cryptosporidium parvum* infection Front Immunol. 15: 1379798 [Epub ahead of print].

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
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP

Recommended Useful Reagents

MOUSE ANTI BOVINE CD14 (MCA6085)

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Europe Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets
'M418629:230427'

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