Datasheet: MCA2316F

BATCH NUMBER 169735

Description:	MOUSE ANTI PIG CD169:FITC
Specificity:	CD169
Other names:	SIALOADHESIN
Format:	FITC
Product Type:	Monoclonal Antibody
Clone:	3B11/11
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

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

Pig

Product Form

Purified IgG conjugated to Fluorescein Isothiocyanate Isomer 1 (FITC) - liquid

Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
FITC	490	525

Preparation

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

Buffer Solution

Phosphate buffered saline

Preservative Stabilisers

0.09% sodium azide (NaN_3)
1% bovine serum albumin

Approx. Protein

IgG concentration 0.1 mg/ml

Concentrations	
Immunogen	Porcine alveolar macrophages.
External Database Links	**UniProt:** A7LCJ3 Related reagents **Entrez Gene:** 397623 SIGLEC-1 Related reagents
Synonyms	SA, SN
RRID	AB_566566
Fusion Partners	Spleen cells from immunized BALB/c mice were fused with cells of the mouse X63-Ag.8.653 myeloma cell line.
Specificity	**Mouse anti Pig CD169, clone 3B11/11** recognizes porcine CD169, also known as sialoadhesin or Siglec-1, a member of the sialic acid binding immunoglobulin-like lectin (Siglec) family. CD169 was originally identified in mice and identified as the sialic acid dependent Sheep erythrocyte receptor (Crocker *et al.*1986). CD169 has subsequently been identified in rat (van den Berg *et al.* 1992), human (Mucklow *et al.* 1995) and pig (Vanderheijden *et al.* 2003) . Mouse anti Porcine CD169, clone 3B1/11 was originally raised as part of a panel of anti porcine macrophage monoclonal antibodies raised against isolated porcine alveolar macrophages (Bullido *et al.* 1997). Immunohistochemical analysis indicated restriction to macrophage populations mainly in the spleen, lymph nodes, liver and Peyer's patches. Originally described as a non phagocytic intercellular adhesion receptor, work on porcine CD169 indicated that it may play a role as a viral adhesion receptor (Delputte *et al.* 2006) and as a targeted receptor for the delivery of toxins and antigens (Delputte *et al.* 2011) . Mouse anti pig CD169, clone 3B11/11 detects a band of approximately 190 kDa in alveolar macrophage extracts under non-reducing conditions (Revilla *et al* 2009).
Flow Cytometry	Use 10µl of the suggested working dilution to 1x10^6 cells in 100µl
References	1. Thacker, E. *et al.* (2001) Summary of workshop findings for porcine myelomonocytic markers. Vet Immunol Immunopathol. 80 (1-2): 93-109. 2. Perdiguero, B. & Blasco, R. (2006) Interaction between vaccinia virus extracellular virus envelope A33 and B5 glycoproteins. J Virol. 80 (17): 8763-77. 3. Perdiguero, B. *et al.* (2008) Vaccinia virus A34 glycoprotein determines the protein composition of the extracellular virus envelope. J Virol. 82 (5): 2150-60. 4. Revilla, C. *et al.* (2009) Targeting to porcine sialoadhesin receptor improves antigen presentation to T cells. Vet Res. 40 (3): 14. 5. Ezquerra, A. *et al.* (2009) Porcine myelomonocytic markers and cell populations. Dev

Comp Immunol. 33 (3): 284-98.
6. Prather, R.S. *et al.* (2013) An Intact Sialoadhesin (Sn/SIGLEC1/CD169) Is Not Required for Attachment/Internalization of the Porcine Reproductive and Respiratory Syndrome Virus. J Virol. 87: 9538-46.
7. Costa-Hurtado, M. *et al.* (2013) Changes in macrophage phenotype after infection of pigs with *Haemophilus parasuis* strains with different levels of virulence. Infect Immun. 81 (7): 2327-33.
8. Rodríguez-Gómez IM *et al.* (2015) PRRSV-infected monocyte-derived dendritic cells express high levels of SLA-DR and CD80/86 but do not stimulate PRRSV-naïve regulatory T cells to proliferate. Vet Res. 46: 54.
9. Whitworth, K.M. *et al.* (2016) Gene-edited pigs are protected from porcine reproductive and respiratory syndrome virus. Nat Biotechnol. 34 (1): 20-2.
10. Singleton, H. *et al.* (2016) Establishing Porcine Monocyte-Derived Macrophage and Dendritic Cell Systems for Studying the Interaction with PRRSV-1. Front Microbiol. 7: 832.
11. Burkard, C. *et al.* (2017) Precision engineering for PRRSV resistance in pigs: Macrophages from genome edited pigs lacking CD163 SRCR5 domain are fully resistant to both PRRSV genotypes while maintaining biological function. PLoS Pathog. 13 (2): e1006206.
12. Wells, K.D. *et al.* (2017) Replacement of Porcine CD163 Scavenger Receptor Cysteine-Rich Domain 5 with a CD163-Like Homolog Confers Resistance of Pigs to Genotype 1 but Not Genotype 2 Porcine Reproductive and Respiratory Syndrome Virus. J Virol. 91 (2): pii: e01521-16.
13. Chen, J. *et al.* (2019) Generation of Pigs Resistant to Highly Pathogenic-Porcine Reproductive and Respiratory Syndrome Virus through Gene Editing of CD163. Int J Biol Sci. 15 (2): 481-492.
14. Li, P. *et al.* (2020) Susceptibility of porcine pulmonary microvascular endothelial cells to porcine reproductive and respiratory syndrome virus. J Vet Med Sci. 82 (9): 1404-9.
15. Álvarez, B. *et al.* (2023) Porcine Macrophage Markers and Populations: An Update. Cells. 12 (16) :2103.
16. Durazo-Martinez, K. *et al.* (2024) Porcine peritoneal macrophages are susceptible to porcine reproductive and respiratory syndrome virus infection. Front Microbiol. 15: 1505900.

Further Reading

1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.

Storage

This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10041 available at:
https://www.bio-rad-antibodies.com/SDS/MCA2316F

Regulatory	For research purposes only

Related Products

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL:FITC (MCA928F)

Product inquiries: www.bio-rad-antibodies.com/technical-support

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

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