

Datasheet: MCA2316GA

Description:	MOUSE ANTI PIG CD169
Specificity:	CD169
Other names:	SIALOADHESIN
Format:	Purified
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	▪			1/10 - 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. It is recommended that the user titrates the antibody for use in their own system using appropriate negative/positive controls.

Target Species	Pig
Product Form	Purified IgG - liquid
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)
Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Porcine alveolar macrophages.

**External Database
Links**

UniProt:

[A7LCJ3](#) [Related reagents](#)

Entrez Gene:

[397623](#) SIGLEC-1 [Related reagents](#)

Synonyms

SA, SN

Fusion Partners

Spleen cells from immunised 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 10ul of the suggested working dilution to 1x10⁶ cells in 100ul.

**Histology Positive
Control Tissue**

Porcine spleen

References

1. Thacker, E. *et al.* (2001) Summary of workshop findings for porcine myelomonocytic markers. [Vet Immunol Immunopathol. 80 \(1-2\): 93-109.](#)
2. 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.](#)
3. Revilla, C. *et al.* (2009) Targeting to porcine sialoadhesin receptor improves antigen presentation to T cells. [Vet Res. 40 \(3\): 14.](#)
4. 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.](#)
5. 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.](#)
6. Perdiguero, B. *et al.* (2008) Vaccinia virus A34 glycoprotein determines the protein composition of the extracellular virus envelope. [J Virol. 82 \(5\): 2150-60.](#)
7. Perdiguero, B. & Blasco, R. (2006) Interaction between vaccinia virus extracellular virus envelope A33 and B5 glycoproteins. [J Virol. 80 \(17\): 8763-77.](#)
8. 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.](#)
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. 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.](#)
 11. Ezquerro, A. *et al.* (2009) Porcine myelomonocytic markers and cell populations. [Dev Comp Immunol. 33 \(3\): 284-98.](#)
 12. 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.](#)
 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.](#)

Further Reading	1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.
Storage	Store at +4°C or at -20°C if preferred. Storage in frost-free freezers is not recommended. This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. 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 #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](#)
- Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®680](#), [DyLight®800](#), [FITC](#), [HRP](#)

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA928\)](#)

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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