

## Datasheet: MCA2316F

<b>Description:</b>	MOUSE ANTI PIG CD169:FITC
<b>Specificity:</b>	CD169
<b>Other names:</b>	SIALOADHESIN
<b>Format:</b>	FITC
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	3B11/11
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	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](http://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	0.09% sodium azide (NaN <sub>3</sub> )		
Stabilisers	1% bovine serum albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		

Immunogen	Porcine alveolar macrophages.
External Database Links	<p><b>UniProt:</b>  <a href="#">A7LCJ3</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">397623</a>    SIGLEC-1    <a href="#">Related reagents</a></p>
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	<p><b>Mouse anti Pig CD169, clone 3B11/11</b> 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 (<a href="#">Crocker et al.1986</a>). CD169 has subsequently been identified in rat (<a href="#">van den Berg et al. 1992</a>), human (<a href="#">Mucklow et al. 1995</a>) and pig (<a href="#">Vanderheijden et al. 2003</a>) .</p> <p>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 (<a href="#">Bullido et al. 1997</a>). Immunohistochemical analysis indicated restriction to macrophage populations mainly in the spleen, lymph nodes, liver and Peyer's patches.</p> <p>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 (<a href="#">Delputte et al. 2006</a>) and as a targeted receptor for the delivery of toxins and antigens (<a href="#">Delputte et al. 2011</a>) .</p> <p>Mouse anti pig CD169, clone 3B11/11 detects a band of approximately 190 kDa in alveolar macrophage extracts under non-reducing conditions (<a href="#">Revilla et al 2009</a>).</p>
Flow Cytometry	Use 10µl of the suggested working dilution to 1x10 <sup>6</sup> cells in 100µl
References	<ol style="list-style-type: none"> <li>1. Thacker, E. <i>et al.</i> (2001) Summary of workshop findings for porcine myelomonocytic markers. <a href="#">Vet Immunol Immunopathol. 80 (1-2): 93-109.</a></li> <li>2. Perdiguero, B. &amp; Blasco, R. (2006) Interaction between vaccinia virus extracellular virus envelope A33 and B5 glycoproteins. <a href="#">J Virol. 80 (17): 8763-77.</a></li> <li>3. Perdiguero, B. <i>et al.</i> (2008) Vaccinia virus A34 glycoprotein determines the protein composition of the extracellular virus envelope. <a href="#">J Virol. 82 (5): 2150-60.</a></li> <li>4. Revilla, C. <i>et al.</i> (2009) Targeting to porcine sialoadhesin receptor improves antigen presentation to T cells. <a href="#">Vet Res. 40 (3): 14.</a></li> <li>5. Ezquerro, A. <i>et al.</i> (2009) Porcine myelomonocytic markers and cell populations. <a href="#">Dev Comp Immunol. 33 (3): 284-98.</a></li> <li>6. Prather, R.S. <i>et al.</i> (2013) An Intact Sialoadhesin (Sn/SIGLEC1/CD169) Is Not Required</li> </ol>

- 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.](#)

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<b>Further Reading</b>	1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. <a href="#">Vet Res. 39: 54.</a>
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<b>Storage</b>	<p>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.</p> <p>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.</p>
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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	<p>Material Safety Datasheet documentation #10041 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA2316F">https://www.bio-rad-antibodies.com/SDS/MCA2316F</a></p> <p>10041</p>
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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:FITC \(MCA928F\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto: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](mailto: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](mailto:antibody_sales_de@bio-rad.com)

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