

## Datasheet: MCA1971SBV440

<b>Description:</b>	MOUSE ANTI PIG CD16:StarBright Violet 440
<b>Specificity:</b>	CD16
<b>Other names:</b>	FcRIII
<b>Format:</b>	StarBright Violet 440
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	G7
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 TESTS/0.5ml

### 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 StarBright Violet 440 - liquid

#### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
StarBright Violet 440	383	436

#### 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<sub>3</sub>)  
 1% Bovine Serum Albumin  
 0.1% Pluronic F68  
 0.1% PEG 3350  
 0.05% Tween 20

<b>Approx. Protein Concentrations</b>	For information on the concentration of our StarBright Dye conjugated reagents please visit our <a href="#">FAQ</a> page.
<b>Immunogen</b>	Porcine peripheral blood leucocytes
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q28942</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">397684</a>    FCGR3B    <a href="#">Related reagents</a></p>
<b>Fusion Partners</b>	Spleen cells from immunized Balb/c mice were fused with cells of the mouse P3-X63-Ag8.653 myeloma cell line
<b>Specificity</b>	<p><b>Mouse anti Pig CD16, clone G7</b> recognizes porcine CD16 also known as Fc-gamma RIII or the low affinity IgG (Fc) receptor III. Clone G7 was clustered as CD16 at the Second International Workshop to Define Swine Cluster of Differentiation (CD) Antigens (<a href="#">Saalmuller et al. 1998</a>).</p> <p>Mouse anti pig CD16 immunoprecipitates a protein of ~40 kDa from porcine neutrophils and NK cells (<a href="#">Wierda et al. 1993</a>). Subsequent cloning and characterization of the G7 molecule indicated that G7 was the porcine homologue of Human CD16 (<a href="#">Halloran et al. 1994</a>).</p>
<b>Flow Cytometry</b>	Use 5µl of the suggested working dilution to label 0.5x10 <sup>6</sup> cells in 100µl. Best practices suggest a 5 min centrifugation at 6,000g prior to sample application.
<b>References</b>	<ol style="list-style-type: none"> <li>1. Wierda, W.G. <i>et al.</i> (1993) Two distinct porcine natural killer lytic trigger molecules as PNK-E/G7 molecular complex. <a href="#">Cell Immunol. 146 (2): 270-83.</a></li> <li>2. Halloran, P.J. <i>et al.</i> (1994) Biochemical characterization of the porcine Fc gamma RIII alpha homologue G7. <a href="#">Cell Immunol. 158 (2): 400-13.</a></li> <li>3. Sánchez, C. <i>et al.</i> (1999) The porcine 2A10 antigen is homologous to human CD163 and related to macrophage differentiation. <a href="#">J Immunol. 162 (9): 5230-7.</a></li> <li>4. Terzic, S. <i>et al.</i> (2002) Immunophenotyping of leukocyte subsets in peripheral blood and palatine tonsils of prefattening pigs. <a href="#">Vet Res Commun. 26: 273 - 83.</a></li> <li>5. Vincent, I.E. <i>et al.</i> (2003) Dendritic cells harbor infectious porcine circovirus type 2 in the absence of apparent cell modulation or replication of the virus. <a href="#">J Virol. 77: 13288 - 300.</a></li> <li>6. Summerfield, A. <i>et al.</i> (2003) Porcine peripheral blood dendritic cells and natural interferon-producing cells. <a href="#">Immunology 110: 440-9.</a></li> <li>7. Inman, C.F. <i>et al.</i> (2010) Rearing environment affects development of the immune system in neonates. <a href="#">Clin Exp Immunol. 160 (3): 431-9.</a></li> <li>8. Inman, C.F. <i>et al.</i> (2010) Dendritic cells interact with CD4 T cells in intestinal mucosa. <a href="#">J Leukoc Biol. 88 (3): 571-8.</a></li> <li>9. Devriendt, B. <i>et al.</i> (2010) Targeting of <i>Escherichia coli</i> F4 fimbriae to Fcγ receptors enhances the maturation of porcine dendritic cells. <a href="#">Vet Immunol Immunopathol. 135 (3-4): 188-98.</a></li> </ol>

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**Further Reading**

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**Storage**

This product is shipped at ambient temperature.  
Store at +4°C. DO NOT FREEZE.  
This product should be stored undiluted.

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<b>Guarantee</b>	12 months from date of despatch
<b>Acknowledgements</b>	This product is covered by U.S. Patent No. 10,150,841 and related U.S. and foreign counterparts
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #20471 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1971SBV440">https://www.bio-rad-antibodies.com/SDS/MCA1971SBV440</a>
<b>Regulatory</b>	For research purposes only

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://www.bio-rad-antibodies.com/technical-support)

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