

## Datasheet: MCA1447GA

**BATCH NUMBER 172186**

<b>Description:</b>	MOUSE ANTI PIG CD45 ALLOTYPIC VARIANT
<b>Specificity:</b>	CD45 ALLOTYPIC VARIANT
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	MAC323
<b>Isotype:</b>	IgG2a
<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	▪			1/25 - 1/100
Immunohistology - Frozen	▪			1/10
Immunohistology - Paraffin	▪			1/10
Immunohistology - Resin (1)	▪			1/10
Immunoprecipitation	▪			

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.

**(1) This product requires antigen retrieval using heat treatment of resin sections. This product does not require antigen retrieval prior to staining paraffin sections.**

<b>Target Species</b>	Pig
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% sodium azide (NaN <sub>3</sub> )

<b>Carrier Free</b>	Yes
<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Porcine peripheral blood lymphocytes
<b>Fusion Partners</b>	Spleen cells from immunized BALB/c mice were fused with cells of the mouse NS1 myeloma cell line
<b>Specificity</b>	<b>Mouse anti Pig CD45 allotypic variant antibody, clone MAC323</b> recognizes an allotypic determinant of porcine CD45, also known as the leucocyte common antigen (LCA). Mouse anti Pig CD45 allotypic variant antibody, clone MAC323 has been shown to recognize CD45 in pigs of the Large White and German Landrace strains. Another antibody, clone <a href="#">K252.1E4</a> , recognizes a monomorphic determinant on porcine CD45. When K252.1E4 is used in conjunction with MAC323, it can be shown that MAC323 stains a subset of the leukocytes that are detected by K252.1E4; indicating a loss of the epitope in MAC323 <sup>-ve</sup> animals rather than loss of the CD45 antigen. Cross-breeding positive vs. negative animals indicate that the MAC323 gene is inherited in a simple Mendelian autosomal dominant pattern ( <a href="#">Binns et al. 1995</a> ).
<b>References</b>	<ol style="list-style-type: none"> <li>1. Anttila, A. <i>et al.</i> (2003) T-cell-mediated mucosal immunity is attenuated in experimental necrotizing enterocolitis. <a href="#">Pediatr Surg Int. 19: 326-30.</a></li> <li>2. Richter, Y. <i>et al.</i> (2004) Dynamic flow alterations dictate leukocyte adhesion and response to endovascular interventions. <a href="#">J Clin Invest. 113: 1607-14.</a></li> <li>3. Goodchild, T. <i>et al.</i> (2006) Safety of intramyocardial injection of autologous bone marrow cells to treat myocardial ischemia in pigs. <a href="#">Cardiovasc Revasc Med. 7: 136-45.</a></li> <li>4. Kozian, A. <i>et al.</i> (2010) Increased alveolar damage after mechanical ventilation in a porcine model of thoracic surgery. <a href="#">J Cardiothorac Vasc Anesth. 24 (4): 617-23.</a></li> <li>5. Nugent, H.M. <i>et al.</i> (2012) Ultrasound-guided percutaneous delivery of tissue-engineered endothelial cells to the adventitia of stented arteries controls the response to vascular injury in a porcine model. <a href="#">J Vasc Surg. 56 (4): 1078-88.</a></li> <li>6. van Ditzhuijzen, N.S. <i>et al.</i> (2017) Neoatherosclerosis development following bioresorbable vascular scaffold implantation in diabetic and non-diabetic swine. <a href="#">PLoS One. 12 (9): e0183419.</a></li> <li>7. Katileba, K. <i>et al.</i> (2022) Expression of CSF1, AR, and SRD5A2 during Postnatal Development of the Boar Reproductive Tract. <a href="#">Animals (Basel). 12 (17): 2167.</a></li> </ol>
<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>
<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.</p>

<b>Guarantee</b>	12 months from date of despatch
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1447GA">https://www.bio-rad-antibodies.com/SDS/MCA1447GA</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®550</a> , <a href="#">DyLight®650</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>

### Recommended Negative Controls

[MOUSE IgG2a NEGATIVE CONTROL \(MCA929\)](#)

### Recommended Useful Reagents

[MOUSE ANTI PIG CD3:FITC \(MCA5951F\)](#)

**Product inquiries:** [www.bio-rad-antibodies.com/technical-support](http://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](http://bio-rad-antibodies.com/datasheets)  
'M409738:221020'

Printed on 25 Mar 2026