

## Datasheet: MCA1447

<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>	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	■			
Immunohistology - Frozen	■			1/10
Immunohistology - Paraffin	■			1/10
Immunohistology - Resin (1)	■			1/10
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. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the antibody 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 ion exchange chromatography
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<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 Leucocyte common antigen (LCA). The antibody has been shown to recognise pigs of strains Large White and German Landrace. Another antibody <a href="#">K252.1E4</a> , recognizes a monomorphic determinant on porcine CD45. When the latter is used in conjunction with MAC323 it is noted that MCA323 stains a subset of animals that stain with K252.1E4 indicating loss of the epitope in MCA323 <sup>-ve</sup> animals rather than the loss of CD45 antigen. Cross-breeding studies in 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. Binns, R.M. <i>et al.</i> (1995) Genetically determined CD45 variant of value in leucocyte tracing <i>in vivo</i> in the pig. <a href="#">Immunology 86: 25-33.</a></li> <li>2. 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>3. 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>4. 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>5. 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>6. 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>7. VanDitzhuijzen, 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> </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>Store at +4°C or at -20°C if preferred.</p> <p>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.</p>
<b>Shelf Life</b>	18 months from date of despatch.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: 10040: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf</a>
<b>Regulatory</b>	For research purposes only

## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...) [RPE](#)  
Goat Anti Mouse IgG IgA IgM (STAR87...) [Alk. Phos.](#), [HRP](#)  
Goat Anti Mouse IgG (H/L) (STAR117...) [Alk. Phos.](#), [DyLight®488](#), [DyLight®549](#), [DyLight®649](#), [DyLight®680](#), [DyLight®800](#),

	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR8...)	<a href="#">DyLight®800</a>
Goat Anti Mouse IgG (STAR70...)	<a href="#">FITC</a>
Human Anti Mouse IgG2a (HCA037...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR13...)	<a href="#">HRP</a>

## Recommended Negative Controls

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

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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