

## Datasheet: MCA1748GA

**BATCH NUMBER 164614**

<b>Description:</b>	RAT ANTI PIG CD144
<b>Specificity:</b>	CD144
<b>Other names:</b>	VE-CADHERIN
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	123
<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		▪		
Immunohistology - Frozen	▪			
Immunohistology - Paraffin			▪	
ELISA			▪	
Immunoprecipitation			▪	
Western Blotting	▪			

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.

<b>Target Species</b>	Pig
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G 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 VE-cadherin/human IgG Fc fusion protein.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">O02840</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">414737</a>    CDH5    <a href="#">Related reagents</a></p>
<b>Specificity</b>	<p><b>Rat anti Pig CD144 antibody, clone 123</b> recognizes a ~120-130 kDa a single pass type I membrane protein considered to be the porcine homologue of human CD144, also known as VE-Cadherin or Cadherin-5.</p> <p>VE-cadherin is expressed by endothelial cells and is important in cell-cell adhesion, tight junction integrity and vascular permeability (<a href="#">Tinsley et al. 1999</a>). VE-Cadherin is highly susceptible to proteolytic degradation.</p> <p>Western blotting and immunofluorescence using Rat anti Porcine CD144 antibody, clone 123 demonstrates rearrangement and upregulation of VE-cadherin in porcine endothelial cells cultured as part of tissue engineered blood vessels under shear stress conditions rather than static conditions (<a href="#">Lee et al. 2012</a>).</p>
<b>References</b>	<ol style="list-style-type: none"> <li>Nasu, K. <i>et al.</i> (1999) Alpha-galactosyl-mediated activation of porcine endothelial cells: studies on CD31 and VE-cadherin in adhesion and signaling. <a href="#">Transplantation. 68 (6): 861-7.</a></li> <li>Allen, J. <i>et al.</i> (2008) Characterization of porcine circulating progenitor cells: toward a functional endothelium. <a href="#">Tissue Eng Part A. 14 (1): 183-94.</a></li> <li>Hoffmann, J. <i>et al.</i> (2008) Immobilized DNA aptamers used as potent attractors for porcine endothelial precursor cells. <a href="#">J Biomed Mater Res A. 84 (3): 614-21.</a></li> <li>Tsai, S.H. <i>et al.</i> (2007) Characterization of porcine arterial endothelial cells cultured on amniotic membrane, a potential matrix for vascular tissue engineering. <a href="#">Biochem Biophys Res Commun. 357 (4): 984-90.</a></li> <li>Zhong, A. <i>et al.</i> (2018) The Roles of Matrix Stiffness and <math>\beta</math>-Catenin Signaling in Endothelial-to-Mesenchymal Transition of Aortic Valve Endothelial Cells. <a href="#">Cardiovasc Eng Technol. 9 (2): 158-67.</a></li> </ol>
<b>Further Reading</b>	<ol style="list-style-type: none"> <li>Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. <a href="#">Vet Res. 39: 54.</a></li> </ol>
<b>Storage</b>	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.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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<b>Guarantee</b>	12 months from date of despatch
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<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10040 available at: <a href="https://www.bio-rad-antibodies.com/SDS/MCA1748GA">https://www.bio-rad-antibodies.com/SDS/MCA1748GA</a> 10040
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<b>Regulatory</b>	For research purposes only
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## Related Products

### Recommended Secondary Antibodies

Goat Anti Rat IgG (STAR69...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR73...)	<a href="#">RPE</a>
Rabbit Anti Rat IgG (STAR17...)	<a href="#">FITC</a>
Goat Anti Rat IgG (STAR131...)	<a href="#">Alk. Phos., Biotin</a>
Goat Anti Rat IgG (STAR72...)	<a href="#">HRP</a>
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	<a href="#">DyLight@550</a> , <a href="#">DyLight@650</a> , <a href="#">DyLight@800</a>
Rabbit Anti Rat IgG (STAR21...)	<a href="#">HRP</a>
Rabbit Anti Rat IgG (STAR16...)	<a href="#">DyLight@800</a>

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](https://bio-rad-antibodies.com/datasheets)  
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