

Datasheet: MCA1748GA

BATCH NUMBER 167470

Description:	RAT ANTI PIG CD144
Specificity:	CD144
Other names:	VE-CADHERIN
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	123
Isotype:	IgG2a
Quantity:	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.

	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.

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

Carrier Free	Yes
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Porcine VE-cadherin/human IgG Fc fusion protein.
External Database Links	<p>UniProt: O02840 Related reagents</p> <p>Entrez Gene: 414737 CDH5 Related reagents</p>
Specificity	<p>Rat anti Pig CD144 antibody, clone 123 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 (Tinsley <i>et al.</i> 1999). 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 (Lee <i>et al.</i> 2012).</p>
References	<ol style="list-style-type: none"> 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. Transplantation. 68 (6): 861-7. Hoffmann, J. <i>et al.</i> (2008) Immobilized DNA aptamers used as potent attractors for porcine endothelial precursor cells. J Biomed Mater Res A. 84 (3): 614-21. Allen, J. <i>et al.</i> (2008) Characterization of porcine circulating progenitor cells: toward a functional endothelium. Tissue Eng Part A. 14 (1): 183-94. Zhong, A. <i>et al.</i> (2018) The Roles of Matrix Stiffness and β-Catenin Signaling in Endothelial-to-Mesenchymal Transition of Aortic Valve Endothelial Cells. Cardiovasc Eng Technol. 9 (2): 158-67. Bernardini, C. <i>et al.</i> (2023) Isolation of Vascular Wall Mesenchymal Stem Cells from the Thoracic Aorta of Adult Göttingen Minipigs: A New Protocol for the Simultaneous Endothelial Cell Collection. Animals (Basel). 13 (16)Aug 12 [Epub ahead of print].
Further Reading	<ol style="list-style-type: none"> Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. Vet Res. 39: 54.
Storage	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.

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

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight@800
Rabbit Anti Rat IgG (STAR17...)	FITC
Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...)	DyLight@550 , DyLight@650 , DyLight@800
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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
'M411326:221102'

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