

Datasheet: MCA1748GA

BATCH NUMBER 173462

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 et al. 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 et al. 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): 2601. Ayus-Martinez, S. <i>et al.</i> (2024) From isolation to detection, advancing insights into endothelial matrix-bound vesicles Extracellular Vesicle. 4: 100060.
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
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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 (MOUSE ADSORBED) (STAR71...)	DyLight®550 , DyLight®650 , DyLight®800
Goat Anti Rat IgG (STAR69...)	FITC
Goat Anti Rat IgG (STAR73...)	RPE
Goat Anti Rat IgG (STAR72...)	HRP
Goat Anti Rat IgG (STAR131...)	Alk. Phos. , Biotin
Rabbit Anti Rat IgG (STAR21...)	HRP

Product inquiries: 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
'M411326:221102'

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