

Datasheet: MCA1748GA

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 antibody has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. It is recommended that the user titrates the antibody 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**

UniProt:

[O02840](#) [Related reagents](#)

Entrez Gene:

[414737](#) CDH5 [Related reagents](#)

Specificity

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.

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.

Western blotting and immunofluorescence studies with Rat anti Porcine CD144 antibody, clone 123 demonstrate 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](#)).

References

1. Nasu, K. *et al.* (1999) Alpha-galactosyl-mediated activation of porcine endothelial cells: studies on CD31 and VE-cadherin in adhesion and signaling. [Transplantation. 68 \(6\): 861-7.](#)
2. Allen, J. *et al.* (2008) Characterization of porcine circulating progenitor cells: toward a functional endothelium. [Tissue Eng Part A. 14 \(1\): 183-94.](#)
3. Hoffmann, J. *et al.* (2008) Immobilized DNA aptamers used as potent attractors for porcine endothelial precursor cells. [J Biomed Mater Res A. 84 \(3\): 614-21.](#)
4. Tsai, S.H. *et al.* (2007) Characterization of porcine arterial endothelial cells cultured on amniotic membrane, a potential matrix for vascular tissue engineering. [Biochem Biophys Res Commun. 357 \(4\): 984-90.](#)

Further Reading

1. Piriou-Guzylack, L. (2008) Membrane markers of the immune cells in swine: an update. [Vet Res. 39: 54.](#)

Storage

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

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.

Shelf Life

18 months from date of despatch.

**Health And Safety
Information**

Material Safety Datasheet documentation #10040 available at:
10040: <https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf>

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Rabbit Anti Rat IgG (STAR16...)	DyLight®800
Goat Anti Rat IgG (STAR73...)	RPE
Rabbit Anti Rat IgG (STAR21...)	HRP

Rabbit Anti Rat IgG (STAR17...) [FITC](#)
Goat Anti Rat IgG (MOUSE ADSORBED) (STAR71...) [DyLight®649](#), [DyLight®800](#)
Goat Anti Rat IgG (STAR131...) [Alk. Phos.](#), [Biotin](#)
Goat Anti Rat IgG (STAR69...) [FITC](#)
Goat Anti Rat IgG (STAR72...) [HRP](#)

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Printed on 01 Aug 2018

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