

## Datasheet: MCA1746B

<b>Description:</b>	MOUSE ANTI PIG CD31:Biotin
<b>Specificity:</b>	CD31
<b>Other names:</b>	PECAM-1
<b>Format:</b>	Biotin
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	LCI-4
<b>Isotype:</b>	IgG1
<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	▪			Neat - 1/200

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

#### Species Cross Reactivity

Reacts with: Human

Does not react with: Mouse

**N.B.** Antibody reactivity and working conditions may vary between species. Cross reactivity is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information.

#### Product Form

Purified IgG conjugated to Biotin - liquid

#### Preparation

Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant

#### Buffer Solution

Phosphate buffered saline

#### Preservative Stabilisers

0.09% Sodium Azide

1% Bovine Serum Albumin

<b>Approx. Protein Concentrations</b>	IgG concentration 0.5 mg/ml
<b>Immunogen</b>	Porcine CD31/human IgGFc fusion protein.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q95242</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">396941</a>    PECAM1    <a href="#">Related reagents</a></p>
<b>RRID</b>	AB_1604771
<b>Specificity</b>	<p><b>Mouse anti Pig CD31, clone LCI-4</b> recognizes porcine CD31, also known as Platelet endothelial cell adhesion molecule (PECAM-1). CD31 is constitutively expressed by platelets, monocytes and some lymphocytes, it is expressed by endothelial cells at a level, an order of magnitude greater than that of other cell types (<a href="#">Fawcett et al.1995</a>). The extracellular region contains six Ig-like domains. Mouse anti Pig CD31, clone LCI-4 is cross reactive with human CD31 and binds to the 5<sup>th</sup> extracellular Ig domain, proximal to the transmembrane region as demonstrated by human CD31 domain deletion mutant protein binding studies (<a href="#">Nasu et al.1999</a>).</p> <p>Mouse anti Pig CD31, clone LCI-4 immunoprecipitates a protein of ~130 kDa from lysates of porcine aortic endothelial cells and is strongly expressed at cell junctions (<a href="#">Nasu et al. 1999</a>).</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or 100ul whole blood.
<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: 861-7.</a></li> <li>Evans, P.C. <i>et al.</i> (2001) Signaling through CD31 protects endothelial cells from apoptosis. <a href="#">Transplantation. 71 (3): 343-4.</a></li> <li>Gesslein, B. <i>et al.</i> (2010) Mitogen-activated protein kinases in the porcine retinal arteries and neuroretina following retinal ischemia-reperfusion. <a href="#">Mol Vis. 16: 392-407.</a></li> <li>Gyöngyösi, M. <i>et al.</i> (2010) Differential effect of ischaemic preconditioning on mobilisation and recruitment of haematopoietic and mesenchymal stem cells in porcine myocardial ischaemia-reperfusion. <a href="#">Thromb Haemost. 104 (2): 376-84.</a></li> <li>Iohara, K. <i>et al.</i> (2008) A novel stem cell source for vasculogenesis in ischemia: subfractionation of side population cells from dental pulp. <a href="#">Stem Cells. 26 (9): 2408-18.</a></li> <li>Campos, E. <i>et al.</i> (2004) <i>In vitro</i> effect of classical swine fever virus on a porcine aortic endothelial cell line <a href="#">Vet Res. 35: 625-33.</a></li> <li>Takeda, S. <i>et al.</i> (2006) Differential origin for endothelial and mesangial cells after transplantation of pig fetal renal primordia into rats. <a href="#">Transpl Immunol. 15: 211-5.</a></li> <li>Katchman, H. <i>et al.</i> (2008) Embryonic porcine liver as a source for transplantation: advantage of intact liver implants over isolated hepatoblasts in overcoming homeostatic inhibition by the quiescent host liver. <a href="#">Stem Cells. 26: 1347-55.</a></li> <li>Poirier, N. <i>et al.</i> (2010) Inducing CTLA-4-dependent immune regulation by selective</li> </ol>

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

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**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. This product is photosensitive and should be protected from light.

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**Guarantee** 12 months from date of despatch

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**Health And Safety Information** Material Safety Datasheet documentation #10041 available at: 10041: <https://www.bio-rad-antibodies.com/uploads/MSDS/10041.pdf>

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**Regulatory** For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Biotin \(MCA928B\)](#)

**North & South** Tel: +1 800 265 7376

**America** Fax: +1 919 878 3751

Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

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Tel: +44 (0)1865 852 700

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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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