

## Datasheet: MCA1334G

<b>Description:</b>	MOUSE ANTI RAT CD31
<b>Specificity:</b>	CD31
<b>Other names:</b>	PECAM-1
<b>Format:</b>	Purified
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	TLD-3A12
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.25 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	▪			1/10 - 1/100
Immunohistology - Frozen	▪			1/10 - 1/100
Immunohistology - Paraffin	▪			
ELISA	▪			
Immunoprecipitation			▪	
Western Blotting	▪			
Immunofluorescence	▪			
Functional Assays (1)			▪	

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

(1) **Bio-Rad recommend the use of [MCA1334EL](#) for use in functional studies**

<b>Target Species</b>	Rat
<b>Species Cross Reactivity</b>	Reacts with: Rhesus Monkey, Pig <b>N.B.</b> Antibody reactivity and working conditions may vary between species.
<b>Product Form</b>	Purified IgG - liquid
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
<b>Buffer Solution</b>	Phosphate buffered saline
<b>Preservative Stabilisers</b>	0.09% Sodium Azide
<b>Carrier Free</b>	Yes

<b>Approx. Protein Concentrations</b>	IgG concentration 1.0 mg/ml
<b>Immunogen</b>	Activated, Lewis rat derived microglial cells.
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">Q3SWT0</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">29583</a> Pecam1    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	Pecam
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mouse were fused with cells of the mouse SP2 myeloma cell line.
<b>Specificity</b>	<p><b>Mouse anti Rat CD31 antibody, clone TLD-3A12</b> recognizes rat PECAM-1 (CD31), a 661 amino acid type 1 transmembrane protein expressed primarily on endothelial cells, platelets and leucocytes.</p> <p>Clone TLD-3A12 has been shown to partially block the proliferative response of antigen-specific CD4+ T cells to antigen-presenting cells and relevant antigen (<a href="#">Stevenson, K.S. et al.2009</a>).</p> <p>Mouse anti Rat CD31 antibody, clone TLD-3A12 is suitable for use in IHC on formalin-fixed paraffin-embedded sections pre-treated with 0.2M boric acid, pH7.0. (<a href="#">Wilson et al. 2007</a>). Mouse anti Rat CD31, clone TLD-3A12 has been shown to be cross-reactive with endothelial cells derived from rhesus macaque (<a href="#">Maclean et al. 2001</a>)</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
<b>References</b>	<ol style="list-style-type: none"> <li>Williams, K.C. <i>et al.</i> (1996) PECAM-1 (CD31) expression in the central nervous system and its role in experimental allergic encephalomyelitis in the rat. <a href="#">J Neurosci Res. 45 (6): 747-57.</a></li> <li>Nakao, A. <i>et al.</i> (2003) Carbon monoxide inhalation protects rat intestinal grafts from ischemia/reperfusion injury. <a href="#">Am J Pathol. 163: 1587-98.</a></li> <li>Stevenson, K.S. <i>et al.</i> (2009) Isolation, characterization, and differentiation of thy1.1-sorted pancreatic adult progenitor cell populations. <a href="#">Stem Cells Dev. 18 (10): 1389-98.</a></li> <li>Ott, I. <i>et al.</i> (2005) Endothelial-like cells expanded from CD34+ blood cells improve left ventricular function after experimental myocardial infarction. <a href="#">FASEB J. 19 (8): 992-4.</a></li> <li>Fujimoto, K.L. <i>et al.</i> (2007) An elastic, biodegradable cardiac patch induces contractile smooth muscle and improves cardiac remodeling and function in subacute myocardial infarction. <a href="#">J Am Coll Cardiol. 49: 2292-300.</a></li> <li>Thebault, P. <i>et al.</i> (2010) The C-type lectin-like receptor CLEC-1, expressed by myeloid cells and endothelial cells, is up-regulated by immunoregulatory mediators and moderates T cell activation. <a href="#">J Immunol. 183: 3099-108.</a></li> <li>Graham, M.J. <i>et al.</i> (1998) <i>In vivo</i> distribution and metabolism of a phosphorothioate oligonucleotide within rat liver after intravenous administration. <a href="#">J Pharmacol Exp Ther. 286: 447-58.</a></li> <li>Haywood, L. <i>et al.</i> (2003) Inflammation and angiogenesis in osteoarthritis. <a href="#">Arthritis Rheum. 48: 2173-7.</a></li> <li>Kielian, T. and Hickey, W.F. (2010) Proinflammatory cytokine, chemokine, and cellular adhesion molecule expression during the acute phase of experimental brain abscess development. <a href="#">Am J Pathol. 157: 647-58.</a></li> <li>Lochhead, J.J. <i>et al.</i> (2010) Oxidative stress increases blood-brain barrier permeability and</li> </ol>

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**Storage**

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

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

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**Shelf Life**

18 months from date of despatch.

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**Health And Safety Information**

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

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	<a href="#">RPE</a>
Goat Anti Mouse IgG IgA IgM (STAR87...)	<a href="#">Alk. Phos.</a> , <a href="#">HRP</a>
Goat Anti Mouse IgG (H/L) (STAR117...)	<a href="#">Alk. Phos.</a> , <a href="#">DyLight®488</a> , <a href="#">DyLight®549</a> , <a href="#">DyLight®649</a> , <a href="#">DyLight®680</a> , <a href="#">DyLight®800</a> , <a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR9...)	<a href="#">FITC</a>
Goat Anti Mouse IgG (STAR77...)	<a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR12...)	<a href="#">RPE</a>
Goat Anti Mouse IgG (Fc) (STAR120...)	<a href="#">FITC</a> , <a href="#">HRP</a>
Rabbit Anti Mouse IgG (STAR8...)	<a href="#">DyLight®800</a>

Goat Anti Mouse IgG (STAR70...) [FITC](#)

Rabbit Anti Mouse IgG (STAR13...) [HRP](#)

Human Anti Mouse IgG1 (HCA036...) [HRP](#)

## Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL \(MCA1209\)](#)

**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)

**Worldwide**

Tel: +44 (0)1865 852 700

Fax: +44 (0)1865 852 739

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

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