

## Datasheet: MCA2388PET

<b>Description:</b>	RAT ANTI MOUSE CD31:RPE
<b>Specificity:</b>	CD31
<b>Other names:</b>	PECAM-1
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	ER-MP12
<b>Isotype:</b>	IgG2a
<b>Quantity:</b>	25 TESTS

## 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 - 1/10

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.

<b>Target Species</b>	Mouse						
<b>Product Form</b>	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized						
<b>Reconstitution</b>	Reconstitute in 0.25 ml distilled water						
<b>Max Ex/Em</b>	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>RPE 488nm laser</td> <td>496</td> <td>578</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	RPE 488nm laser	496	578
Fluorophore	Excitation Max (nm)	Emission Max (nm)					
RPE 488nm laser	496	578					
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant						
<b>Buffer Solution</b>	Phosphate buffered saline						
<b>Preservative</b>	0.09% Sodium Azide						
<b>Stabilisers</b>	1% Bovine Serum Albumin 5% Sucrose						
<b>Immunogen</b>	BALB/c macrophage precursor cell hybrids						
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">Q08481</a> <a href="#">Related reagents</a>						

**Entrez Gene:**

[18613](#) Pecam1 [Related reagents](#)

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<b>Synonyms</b>	Pecam, Pecam-1
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<b>Fusion Partners</b>	Cells from immunised rats were fused with the cells of the rat Y3-Ag1.2.3 myeloma cell line
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<b>Specificity</b>	<p><b>Rat anti Mouse CD31 antibody, clone ER-MP12</b> recognizes mouse CD31, a 140 kDa cell surface glycoprotein that is expressed at high levels on endothelial cells, platelets and most leukocyte subpopulations.</p> <p>CD31 is also expressed on a major population of macrophage / dendritic cell precursors in the bone marrow. Studies show that clone ER-MP12 can be used in conjunction with clone ER-MP20 (<a href="#">MCA2389GA</a>) in two colour flow cytometric analysis, to identify different stages of myeloid progenitor cells in mouse bone marrow (<a href="#">de Bruijn et al. 1998</a>).</p>
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<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells in 100ul.
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<b>References</b>	<ol style="list-style-type: none"><li>1. Leenen, P.J. <i>et al.</i> (1990) Murine macrophage precursor characterization. II. Monoclonal antibodies against macrophage precursor antigens. <a href="#">Eur J Immunol. 20 (1): 27-34.</a></li><li>2. Iavarone, A. <i>et al.</i> (2004) Retinoblastoma promotes definitive erythropoiesis by repressing Id2 in fetal liver macrophages. <a href="#">Nature. 432 (7020): 1040-5.</a></li><li>3. Wynn, A.A. <i>et al.</i> (2001) Role of granulocyte/macrophage colony-stimulating factor in zymocel-induced hepatic granuloma formation. <a href="#">Am J Pathol. 158 (1): 131-45.</a></li><li>4. de Bruijn, M.F. <i>et al.</i> (1998) Bone marrow cellular composition in <i>Listeria monocytogenes</i> infected mice detected using ER-MP12 and ER-MP20 antibodies: a flow cytometric alternative to differential counting. <a href="#">J Immunol Methods. 217 (1-2): 27-39.</a></li><li>5. Revermann, M. <i>et al.</i> (2010) Soluble epoxide hydrolase deficiency attenuates neointima formation in the femoral cuff model of hyperlipidemic mice. <a href="#">Arterioscler Thromb Vasc Biol. 30: 909-14.</a></li><li>6. Thorp, E. <i>et al.</i> (2011) A reporter for tracking the UPR in vivo reveals patterns of temporal and cellular stress during atherosclerotic progression. <a href="#">J Lipid Res. 52 (5): 1033-8.</a></li><li>7. Thum, T. <i>et al.</i> (2011) Impairment of endothelial progenitor cell function and vascularization capacity by aldosterone in mice and humans. <a href="#">Eur Heart J. 32: 1275-86.</a></li><li>8. Ross, E.A. <i>et al.</i> (2011) CD31 is required on CD4+ T cells to promote T cell survival during <i>Salmonella</i> infection. <a href="#">J Immunol. 187: 1553-65.</a></li><li>9. Geutskens, S.B. <i>et al.</i> (2005) Macrophages in the murine pancreas and their involvement in fetal endocrine development <i>in vitro</i>. <a href="#">J Leukoc Biol. 78: 845-52.</a></li><li>10. Schledzewski, K. <i>et al.</i> (2011) Deficiency of liver sinusoidal scavenger receptors stabilin-1 and -2 in mice causes glomerulofibrotic nephropathy via impaired hepatic clearance of noxious blood factors. <a href="#">J Clin Invest. 121: 703-14.</a></li><li>11. Sumagin, R. and Sarelius, I.H. (2010) Intercellular adhesion molecule-1 enrichment near tricellular endothelial junctions is preferentially associated with leukocyte transmigration and signals for reorganization of these junctions to accommodate leukocyte passage. <a href="#">J Immunol. 184: 5242-52.</a></li><li>12. Loureiro, J. <i>et al.</i> (2011) Blocking TGF-<math>\beta</math>1 protects the peritoneal membrane from dialysate-induced damage. <a href="#">J Am Soc Nephrol. 22: 1682-95.</a></li><li>13. Matsakas, A. <i>et al.</i> (2012) Exercise training attenuates the hypermuscular phenotype and restores skeletal muscle function in the myostatin null mouse. <a href="#">Exp Physiol. 97 (1): 125-40.</a></li><li>14. Baumeister, T. <i>et al.</i> (2003) Interleukin-3<math>\alpha</math>+ myeloid dendritic cells and mast cells develop simultaneously from different bone marrow precursors in cultures with interleukin-3. <a href="#">J Invest Dermatol. 121: 280-8.</a></li><li>15. Moen, I. <i>et al.</i> (2012) Gene expression in tumor cells and stroma in dsRed 4T1 tumors in</li></ol>
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permeability after injury. [J Neuroinflammation. 15 \(1\): 142.](#)

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<b>Storage</b>	Store at +4°C. DO NOT FREEZE. This product should be stored undiluted. This product is photosensitive and should be protected from light. Should this product contain a precipitate we recommend microcentrifugation before use.
<b>Shelf Life</b>	12 months from date of reconstitution.
<b>Health And Safety Information</b>	Material Safety Datasheet documentation #10075 available at: 10075: <a href="https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf">https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf</a>
<b>Regulatory</b>	For research purposes only

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## Related Products

### Recommended Negative Controls

[RAT IgG2a NEGATIVE CONTROL:RPE \(MCA1212PE\)](#)

<b>North &amp; South America</b>	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: <a href="mailto:antibody_sales_us@bio-rad.com">antibody_sales_us@bio-rad.com</a>	<b>Worldwide</b>	Tel: +44 (0)1865 852 700 Fax: +44 (0)1865 852 739 Email: <a href="mailto:antibody_sales_uk@bio-rad.com">antibody_sales_uk@bio-rad.com</a>	<b>Europe</b>	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: <a href="mailto:antibody_sales_de@bio-rad.com">antibody_sales_de@bio-rad.com</a>
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