

## Datasheet: MCA1615PE

<b>Description:</b>	MOUSE ANTI HUMAN CD54:RPE
<b>Specificity:</b>	CD54
<b>Other names:</b>	ICAM-1
<b>Format:</b>	RPE
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	15.2
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 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

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>	Human		
<b>Species Cross Reactivity</b>	Reacts with: Pig <b>N.B.</b> Antibody reactivity and working conditions may vary between species.		
<b>Product Form</b>	Purified IgG conjugated to R. Phycoerythrin (RPE) - lyophilized		
<b>Reconstitution</b>	Reconstitute with 1 ml distilled water		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	RPE 488nm laser	496	578
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative</b>	1% Bovine Serum Albumin		
<b>Stabilisers</b>	0.09% Sodium Azide		
	5% Sucrose		
<b>Immunogen</b>	Human monocytes		
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P05362</a> <a href="#">Related reagents</a>		

**Entrez Gene:**

[3383](#) ICAM1 [Related reagents](#)

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<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse Sp2/O-Ag14 myeloma cell line
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<b>Specificity</b>	<p><b>Mouse anti Human CD54 antibody, clone 15.2</b> recognizes the human CD54 cell surface antigen also known as intracellular Adhesion Molecule -1 (ICAM-1) or Major group rhinovirus receptor.</p> <p>CD54 is expressed by many cells following activation by inflammatory mediators. It is a 505 amino acid with an additional 27 amino acid signal peptide ~90 kDa single pass type I transmembrane glycoprotein bearing 5 Ig-like C2-type domains domains.</p> <p>Mouse anti Human CD54 antibody, clone 15.2 blocks CD54 function (<a href="#">Berendt <i>et al.</i> 1992</a>). Mouse anti Human CD54 antibody, clone 15.2 binds to an epitope on the N-terminal Ig-like domain within a region designated the L43 loop (<a href="#">Chakravorty and Craig 2005</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. Dransfield, I. <i>et al.</i> (1992) Interaction of leukocyte integrins with ligand is necessary but not sufficient for function. <a href="#">J Cell Biol. 116:1527-35.</a></li><li>2. Berendt, A. <i>et al.</i> (1992) The binding site on ICAM-1 for plasmodium falciparum-infected erythrocytes overlaps, but is distinct from, the LFA-1- binding site. <a href="#">Cell. 68: 71-81.</a></li><li>3. Urquhart, P. <i>et al.</i> (2007) Carbon monoxide-releasing molecules modulate leukocyte-endothelial interactions under flow. <a href="#">J Pharmacol Exp Ther 321: 656-662.</a></li><li>4. Baratin, M. <i>et al.</i> (2007) Dissection of the role of PfEMP1 and ICAM-1 in the sensing of <i>Plasmodium-falciparum</i>-infected erythrocytes by natural killer cells. <a href="#">PLoS One 2: e228.</a></li><li>5. van Buul, J.D. <i>et al.</i> (2010) Inside-out regulation of ICAM-1 dynamics in TNF-alpha-activated endothelium. <a href="#">PLoS One 5: e11336.</a></li><li>6. Diaz-Romero, J. <i>et al.</i> (2008) Immunophenotypic changes of human articular chondrocytes during monolayer culture reflect bona fide dedifferentiation rather than amplification of progenitor cells. <a href="#">J Cell Physiol. 214: 75-83.</a></li><li>7. Di Lorenzo, A. <i>et al.</i> (2011) Endothelial reticulon-4B (Nogo-B) regulates ICAM-1-mediated leukocyte transmigration and acute inflammation. <a href="#">Blood. 117: 2284-95.</a></li><li>8. Porter, J.C. and Hall, A. (2009) Epithelial ICAM-1 and ICAM-2 regulate the egression of human T cells across the bronchial epithelium. <a href="#">FASEB J. 23: 492-502.</a></li><li>9. Corvaisier, M. <i>et al.</i> (2005) V gamma 9V delta 2 T cell response to colon carcinoma cells. <a href="#">J Immunol. 175: 5481-8.</a></li><li>10. Horrocks, P. <i>et al.</i> (2005) PfEMP1 expression is reduced on the surface of knobless Plasmodium falciparum infected erythrocytes. <a href="#">J Cell Sci. 118: 2507-18.</a></li><li>11. Lozanoska-Ochser, B. <i>et al.</i> (2008) Expression of CD86 on human islet endothelial cells facilitates T cell adhesion and migration. <a href="#">J Immunol. 181: 6109-16.</a></li><li>12. Norling, L.V. <i>et al.</i> (2008) Inhibitory control of endothelial galectin-1 on in vitro and in vivo lymphocyte trafficking. <a href="#">FASEB J. 22: 682-90.</a></li><li>13. Baumer, Y. <i>et al.</i> (2011) Telomerase-based immortalization modifies the angiogenic/inflammatory responses of human coronary artery endothelial cells. <a href="#">Exp Biol Med (Maywood). 236: 692-700.</a></li><li>14. Lask, A. <i>et al.</i> (2011) TCR-independent killing of B cell malignancies by anti-third-party CTLs: the critical role of MHC-CD8 engagement. <a href="#">J Immunol. 187 (4): 2006-14.</a></li><li>15. Sommaggio, R. <i>et al.</i> (2012) Multiple Receptors Trigger Human NK Cell-Mediated Cytotoxicity against Porcine Chondrocytes. <a href="#">J Immunol. 188: 2075-83.</a></li><li>16. Murphy, A.J. <i>et al.</i> (2013) Anti-inflammatory functions of apolipoprotein a-I and high-density</li></ol>
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lipoprotein are preserved in trimeric apolipoprotein a-I. [J Pharmacol Exp Ther. 344: 41-9.](#)  
17. Sumagin R *et al.* (2014) Transmigrated neutrophils in the intestinal lumen engage ICAM-1 to regulate the epithelial barrier and neutrophil recruitment. [Mucosal Immunol. 7 \(4\): 905-15.](#)  
18. Sugden SM *et al.* (2017) HIV-1 Vpu Downmodulates ICAM-1 Expression, Resulting in Decreased Killing of Infected CD4<sup>+</sup> T Cells by NK Cells. [J Virol. 91 \(8\): pii: e02442-16.](#)  
19. Lennartz, F. *et al.* (2015) Mapping the Binding Site of a Cross-Reactive Plasmodium falciparum PfEMP1 Monoclonal Antibody Inhibitory of ICAM-1 Binding. [J Immunol. 195 \(7\): 3273-83.](#)

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**Storage**

Prior to reconstitution store at +4°C. Following reconstitution 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.

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**Shelf Life**

12 months from date of reconstitution.

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**Health And Safety Information**

Material Safety Datasheet documentation #10075 available at:  
10075: <https://www.bio-rad-antibodies.com/uploads/MSDS/10075.pdf>

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:RPE \(MCA928PE\)](#)

### Recommended Useful Reagents

[HUMAN SEROBLOCK \(BUF070A\)](#)

[HUMAN SEROBLOCK \(BUF070B\)](#)

**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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