

## Datasheet: MCA1615A700

<b>Description:</b>	MOUSE ANTI HUMAN CD54:Alexa Fluor® 700
<b>Specificity:</b>	CD54
<b>Other names:</b>	ICAM-1
<b>Format:</b>	ALEXA FLUOR® 700
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	15.2
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	100 TESTS/1ml

### 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 product 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 product for use in their own system using appropriate negative/positive controls.

#### Target Species

Human

#### Species Cross Reactivity

Reacts with: Pig

**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 Alexa Fluor® 700 - liquid

#### Max Ex/Em

Fluorophore	Excitation Max (nm)	Emission Max (nm)
Alexa Fluor®700	702	723

#### Preparation

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

#### Buffer Solution

Phosphate buffered saline

<b>Preservative Stabilisers</b>	0.09% Sodium Azide 1% Bovine Serum Albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml
<b>Immunogen</b>	Human monocytes
<b>External Database Links</b>	<p><b>UniProt:</b>  <a href="#">P05362</a>    <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b>  <a href="#">3383</a> ICAM1    <a href="#">Related reagents</a></p>
<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse Sp2/0-Ag14 myeloma cell line
<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.</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>
<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>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>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>Urquhart, P. <i>et al.</i> (2007) Carbon monoxide-releasing molecules modulate leukocyte-endothelial interactions under flow. <a href="#">J Pharmacol Exp Ther. 321 (2): 656-62.</a></li> <li>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>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>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>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>Porter, J.C. and Hall, A. (2009) Epithelial ICAM-1 and ICAM-2 regulate the egression of</li> </ol>

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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.](#)
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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. This product is photosensitive and should be protected from light.

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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**Guarantee**

12 months from date of despatch

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**Acknowledgements**

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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:Alexa Fluor® 700 \(MCA928A700\)](#)

### Recommended Useful Reagents

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

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

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

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

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