

Datasheet: MCA1615EL

BATCH NUMBER 158999

Description:	MOUSE ANTI HUMAN CD54:Low Endotoxin
Specificity:	CD54
Other names:	ICAM-1
Format:	Low Endotoxin
Product Type:	Monoclonal Antibody
Clone:	15.2
Isotype:	IgG1
Quantity:	0.5 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.

	Yes	No	Not Determined	Suggested Dilution
Flow Cytometry	▪			
Immunohistology - Frozen	▪			
Immunohistology - Paraffin	▪			
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	
Functional Assays	▪			

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.

Target Species	Human
Species Cross Reactivity	<p>Reacts with: Pig</p> <p>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.</p>
Product Form	Purified IgG - liquid

Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	None present
Carrier Free	Yes
Endotoxin Level	< 0.01 EU/ug
Approx. Protein Concentrations	IgG concentration 1.0 mg/ml
Immunogen	Human monocytes
External Database Links	<p>UniProt: P05362 Related reagents</p> <p>Entrez Gene: 3383 ICAM1 Related reagents</p>
RRID	AB_2264493
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse Sp2/0-Ag14 myeloma cell line
Specificity	<p>Mouse anti Human CD54 antibody, clone 15.2 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 (Berendt <i>et al.</i> 1992). 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 (Chakravorty and Craig 2005).</p>
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	<ol style="list-style-type: none"> 1. Dransfield, I. <i>et al.</i> (1992) Interaction of leukocyte integrins with ligand is necessary but not sufficient for function. J Cell Biol. 116:1527-35. 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. Cell. 68: 71-81. 3. Urquhart, P. <i>et al.</i> (2007) Carbon monoxide-releasing molecules modulate leukocyte-endothelial interactions under flow. J Pharmacol Exp Ther. 321 (2): 656-62.

4. Baratin, M. *et al.* (2007) Dissection of the role of PfEMP1 and ICAM-1 in the sensing of *Plasmodium-falciparum*-infected erythrocytes by natural killer cells. [PLoS One 2: e228.](#)
5. van Buul, J.D. *et al.* (2010) Inside-out regulation of ICAM-1 dynamics in TNF-alpha-activated endothelium. [PLoS One 5: e11336.](#)
6. Diaz-Romero, J. *et al.* (2008) Immunophenotypic changes of human articular chondrocytes during monolayer culture reflect bona fide dedifferentiation rather than amplification of progenitor cells. [J Cell Physiol. 214: 75-83.](#)
7. Di Lorenzo, A. *et al.* (2011) Endothelial reticulon-4B (Nogo-B) regulates ICAM-1-mediated leukocyte transmigration and acute inflammation. [Blood. 117: 2284-95.](#)
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. [FASEB J. 23: 492-502.](#)
9. Corvaisier, M. *et al.* (2005) V gamma 9V delta 2 T cell response to colon carcinoma cells. [J Immunol. 175: 5481-8.](#)
10. Horrocks, P. *et al.* (2005) PfEMP1 expression is reduced on the surface of knobless *Plasmodium falciparum* infected erythrocytes. [J Cell Sci. 118: 2507-18.](#)
11. Lozanoska-Ochser, B. *et al.* (2008) Expression of CD86 on human islet endothelial cells facilitates T cell adhesion and migration. [J Immunol. 181: 6109-16.](#)
12. Norling, L.V. *et al.* (2008) Inhibitory control of endothelial galectin-1 on *in vitro* and *in vivo* lymphocyte trafficking. [FASEB J. 22: 682-90.](#)
13. Baumer, Y. *et al.* (2011) Telomerase-based immortalization modifies the angiogenic/inflammatory responses of human coronary artery endothelial cells. [Exp Biol Med \(Maywood\). 236: 692-700.](#)
14. Lask, A. *et al.* (2011) TCR-independent killing of B cell malignancies by anti-third-party CTLs: the critical role of MHC-CD8 engagement. [J Immunol. 187 \(4\): 2006-14.](#)
15. Sommaggio, R. *et al.* (2012) Multiple Receptors Trigger Human NK Cell-Mediated Cytotoxicity against Porcine Chondrocytes. [J Immunol. 188: 2075-83.](#)
16. Murphy, A.J. *et al.* (2013) Anti-inflammatory functions of apolipoprotein a-I and high-density 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⁺ 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.](#)
20. Schoppmeyer, R. *et al.* (2022) The endothelial diapedesis synapse regulates transcellular migration of human T lymphocytes in a CX3CL1- and SNAP23-dependent manner. [Cell Rep. 38 \(3\): 110243.](#)
21. Grönloh, M.L.B. *et al.* (2022) Endothelial transmigration hotspots limit vascular leakage through heterogeneous expression of ICAM1 [bioRxiv 17 Jan \[Epub ahead of print\].](#)

Storage

Store at -20°C only.

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.

Guarantee	12 months from date of despatch
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Health And Safety Information	Material Safety Datasheet documentation #10162 available at: https://www.bio-rad-antibodies.com/SDS/MCA1615EL 10162
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Regulatory	For research purposes only
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Related Products

Recommended Secondary Antibodies

Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos. , DyLight®488 , DyLight®550 , DyLight®650 , DyLight®680 , DyLight®800 , FITC , HRP
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC , HRP
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Low Endotoxin \(MCA928EL\)](#)

North & South America	Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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	Europe	Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com
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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://www.bio-rad-antibodies.com/datasheets)
'M365545:200529'

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