

Datasheet: MCA1615A647T BATCH NUMBER 153393

Description:	MOUSE ANTI HUMAN CD54:Alexa Fluor® 647
Specificity:	CD54
Other names:	ICAM-1
Format:	ALEXA FLUOR® 647
Product Type:	Monoclonal Antibody
Clone:	15.2
Isotype:	lgG1
Quantity:	25 TESTS/0.25ml

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 <u>www.bio-rad-antibodies.com/protocols</u> .			
	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.			
Target Species	Human			
Species Cross	Reacts with: Pig			
Reactivity	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® 647 - liquid			
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)	
	Alexa Fluor®647	650	665	
Preparation	Purified IgG prepared supernatant	by affinity chromatoo	graphy on Protein G fror	n tissue culture

Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide 1% Bovine Serum Albumin
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml
Immunogen	Human monocytes
External Database Links	UniProt: <u>P05362</u> <u>Related reagents</u> Entrez Gene: <u>3383</u> ICAM1 <u>Related reagents</u>
RRID	AB_2122038
Fusion Partners	Spleen cells from immunised BALB/c mice were fused with cells of the mouse Sp2/0-Ag14 myeloma cell line
Specificity	 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. 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. 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 blocks to an epitope on the N-terminal Ig-like domain within a region designated the L43 loop (Chakravorty and Craig 2005).
Flow Cytometry	Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul.
References	 Dransfield, I. <i>et al.</i> (1992) Interaction of leukocyte integrins with ligand is necessary but not sufficient for function. <u>J Cell Biol. 116:1527-35.</u> 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. <u>Cell. 68: 71-81.</u> Urquhart, P. <i>et al.</i> (2007) Carbon monoxide-releasing molecules modulate leukocyte- endothelial interactions under flow. <u>J Pharmacol Exp Ther. 321 (2): 656-62.</u> 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. <u>PLos One 2: e228.</u> van Buul, J.D. <i>et al.</i> (2010) Inside-out regulation of ICAM-1 dynamics in TNF-alpha- activated endothelium. <u>PLoS One 5: e11336.</u> 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. <u>J Cell Physiol. 214: 75-83.</u> 7. Di Lorenzo, A. <i>et al.</i> (2011) Endothelial reticulon-4B (Nogo-B) regulates ICAM-1-
	mediated leukocyte transmigration and acute inflammation. <u>Blood. 117: 2284-95.</u> 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. <u>FASEB J. 23: 492-502.</u> 9. Corvaisier, M. <i>et al.</i> (2005) V gamma 9V delta 2 T cell response to colon carcinoma cells. <u>J Immunol. 175: 5481-8.</u>
	10. Horrocks, P. <i>et al.</i> (2005) PfEMP1 expression is reduced on the surface of knobless Plasmodium falciparum infected erythrocytes. <u>J Cell Sci. 118: 2507-18.</u>
	11. Lozanoska-Ochser, B. <i>et al.</i> (2008) Expression of CD86 on human islet endothelial cells facilitates T cell adhesion and migration. <u>J Immunol. 181: 6109-16.</u>
	12. Norling, L.V. <i>et al.</i> (2008) Inhibitory control of endothelial galectin-1 on <i>in vitro</i> and <i>in vivo</i> lymphocyte trafficking. <u>FASEB J. 22: 682-90.</u>
	13. Baumer, Y. <i>et al.</i> (2011) Telomerase-based immortalization modifies the angiogenic/inflammatory responses of human coronary artery endothelial cells. <u>Exp Biol</u> Med (Maywood). 236: 692-700.
	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. <u>J Immunol. 187 (4): 2006-14.</u>
	15. Sommaggio, R. <i>et al.</i> (2012) Multiple Receptors Trigger Human NK Cell-Mediated Cytotoxicity against Porcine Chondrocytes. <u>J Immunol. 188: 2075-83.</u>
	16. Murphy, A.J. <i>et al.</i> (2013) Anti-inflammatory functions of apolipoprotein a-I and high-density lipoprotein are preserved in trimeric apolipoprotein a-I. <u>J Pharmacol Exp</u> <u>Ther. 344: 41-9.</u>
	17. Sumagin R <i>et al.</i> (2014) Transmigrated neutrophils in the intestinal lumen engage ICAM-1 to regulate the epithelial barrier and neutrophil recruitment. <u>Mucosal Immunol. 7</u> (4): 905-15.
	 18. Sugden SM <i>et al.</i> (2017) HIV-1 Vpu Downmodulates ICAM-1 Expression, Resulting in Decreased Killing of Infected CD4⁺ T Cells by NK Cells. <u>J Virol. 91 (8): pii: e02442-16.</u> 19. Lennartz, F. <i>et al.</i> (2015) Mapping the Binding Site of a Cross-Reactive <i>Plasmodium falciparum</i> PfEMP1 Monoclonal Antibody Inhibitory of ICAM-1 Binding. <u>J Immunol. 195</u> (7): 3273-83.
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.
Guarantee	12 months from date of despatch
Acknowledgements	This product is provided under an intellectual property licence from Life Technologies Corporation. The transfer of this product is contingent on the buyer using the purchase product solely in research, excluding contract research or any fee for service research, and the buyer must not sell or otherwise transfer this product or its components for (a)

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Health And Safety Information	Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA1615A647T 10041	
Regulatory	For research purposes only	
Related Produc	cts	
Recommended No	egative Controls	

MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 647 (MCA928A647)

Recommended Useful Reagents

HUMAN SEROBLOCK (BUF070A) HUMAN SEROBLOCK (BUF070B)

North & South	Tel: +1 800 265 7376	Worldwide	Tel: +44 (0)1865 852 700	Europe	Tel: +49 (0) 89 8090 95 21
America	Fax: +1 919 878 3751		Fax: +44 (0)1865 852 739		Fax: +49 (0) 89 8090 95 50
	Email: antibody_sales_us@bio-r	ad.com	Email: antibody_sales_uk@bio-r	ad.com	Email: antibody_sales_de@bio-rad.com

To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets 'M365543:200529'

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