

Datasheet: MCA1615PB

Description:	MOUSE ANTI HUMAN CD54:Pacific Blue®
Specificity:	CD54
Other names:	ICAM-1
Format:	Pacific Blue®
Product Type:	Monoclonal Antibody
Clone:	15.2
Isotype:	IgG1
Quantity:	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.

	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.								
Product Form	Purified IgG conjugated to Pacific Blue - liquid								
Max Ex/Em	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>Pacific Blue®</td> <td>410</td> <td>455</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Pacific Blue®	410	455		
Fluorophore	Excitation Max (nm)	Emission Max (nm)							
Pacific Blue®	410	455							
Preparation	Purified IgG prepared by affinity chromatography on Protein A from tissue culture supernatant								
Buffer Solution	Phosphate buffered saline								
Preservative	0.09% Sodium Azide								
Stabilisers	1% Bovine Serum Albumin								
Approx. Protein Concentrations	IgG concentration 0.05 mg/ml								
Immunogen	Human monocytes								

**External Database
Links**

UniProt:

[P05362](#) [Related reagents](#)

Entrez Gene:

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

Fusion Partners

Spleen cells from immunised BALB/c mice were fused with cells of the mouse Sp2/O-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 *et al.* 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](#)).

Flow Cytometry

Use 10ul of the suggested working dilution to label 10⁶ cells in 100ul

References

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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.](#)
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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.](#)

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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.](#)

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.

Shelf Life

18 months from date of despatch

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>

Regulatory

For research purposes only

Related Products

Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Pacific Blue® \(MCA928PB\)](#)

Recommended Useful Reagents

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

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

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