

Datasheet: MCA756PB

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| Description: | MOUSE ANTI HUMAN CD64:Pacific Blue® |
| Specificity: | CD64 |
| Other names: | FcRI |
| Format: | Pacific Blue® |
| Product Type: | Monoclonal Antibody |
| Clone: | 10.1 |
| 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: Baboon, Cynomolgus monkey, Rhesus Monkey
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 Pacific Blue - liquid

Max Ex/Em

| 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

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| Preservative Stabilisers | 0.09% Sodium Azide (NaN ₃) 1% Bovine Serum Albumin |
| Approx. Protein Concentrations | IgG concentration 0.05 mg/ml |
| Immunogen | Human monocytes |
| External Database Links | <p>UniProt: P12314 Related reagents</p> <p>Entrez Gene: 2209 FCGR1A Related reagents</p> |
| Synonyms | FCG1, FCGR1, IGFR1 |
| 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 CD64 antibody, clone 10.1 recognizes the human CD64 cell surface antigen, a ~75 kDa glycoprotein expressed by monocytes. The antigen acts as a high affinity receptor for human IgG, and is also known as FcRI.</p> <p>Mouse anti Human CD64 antibody, clone 10.1 blocks binding of immunoglobulin to FcRI.</p> |
| Flow Cytometry | Use 10ul of the suggested working dilution to label 10 ⁶ cells in 100ul |
| References | <ol style="list-style-type: none"> Scheinecker, C. <i>et al.</i> (1998) Initiation of the autologous mixed lymphocyte reaction requires the expression of costimulatory molecules B7-1 and B7-2 on human peripheral blood dendritic cells. J Immunol. 161: 3966-73. Fadlon, E. <i>et al.</i> (1998) Blood polymorphonuclear leukocytes from the majority of sickle cell patients in the crisis phase of the disease show enhanced adhesion to vascular endothelium and increased expression of CD64. Blood. 91: 266-74. Navarro-López, F. <i>et al.</i> (2003) Late T-lymphocyte and monocyte activation in coronary restenosis. Evidence for a persistent inflammatory/immune mechanism? Rev Esp Cardiol. 56: 465-72. Beekman, J.M. <i>et al.</i> (2004) Direct interaction between FcγRI (CD64) and periplakin controls receptor endocytosis and ligand binding capacity. Proc Natl Acad Sci U S A. 101: 10392-7. Kahn, F. <i>et al.</i> (2008) Antibodies against a surface protein of <i>Streptococcus pyogenes</i> promote a pathological inflammatory response. PLoS Pathog. 4 (9): e1000149. Wagner, C. <i>et al.</i> (2008) T lymphocytes in acute bacterial infection: increased prevalence of CD11b(+) cells in the peripheral blood and recruitment to the infected site. Immunology. 125: 503-9. Eisenhardt, S.U. <i>et al.</i> (2009) Dissociation of pentameric to monomeric C-reactive protein on activated platelets localizes inflammation to atherosclerotic plaques. Circ Res. |

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12. Hristodorov, D. *et al.* (2016) Fully human MAP-fusion protein selectively targets and eliminates proliferating CD64(+) M1 macrophages. [Immunol Cell Biol. 94 \(5\): 470-8.](#)
13. Loi, A.L.T. *et al.* (2017) Proteomic profiling of peripheral blood neutrophils identifies two inflammatory phenotypes in stable COPD patients. [Respir Res. 18 \(1\): 100.](#)
14. Rahabi, M. *et al.* (2020) Divergent Roles for Macrophage C-type Lectin Receptors, Dectin-1 and Mannose Receptors, in the Intestinal Inflammatory Response. [Cell Rep. 30 \(13\): 4386-98.e5.](#)
15. Tonecka, K. *et al.* (2021) The CD200 Regulates Inflammation in Mice Independently of TNF-α Production. [Int J Mol Sci. 22 \(10\): 5358.](#)

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| Storage | This product is shipped at ambient temperature. It is recommended to aliquot and store at -20°C on receipt. When thawed, aliquot the sample as needed. Keep aliquots at 2-8°C for short term use (up to 4 weeks) and store the remaining aliquots at -20°C. |
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Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

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| Guarantee | 12 months from date of despatch |
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| 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 purchased 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) diagnostic, therapeutic or prophylactic purposes; (b) testing, analysis or screening services, or information in return for compensation on a per-test basis; (c) manufacturing or quality assurance or quality control, or (d) resale, whether or not resold for use in research. For information on purchasing a license to this product for purposes other than as described above, contact Life Technologies Corporation, 5791 Van Allen Way, Carlsbad CA 92008 USA or outlicensing@thermofisher.com |
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| Health And Safety Information | Material Safety Datasheet documentation #10041 available at: https://www.bio-rad-antibodies.com/SDS/MCA756PB 10041 |
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| Regulatory | For research purposes only |
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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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To find a batch/lot specific datasheet for this product, please use our online search tool at: bio-rad-antibodies.com/datasheets

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