

## Datasheet: MCA2537PB

<b>Description:</b>	MOUSE ANTI HUMAN CD16:Pacific Blue®
<b>Specificity:</b>	CD16
<b>Other names:</b>	FcRIII
<b>Format:</b>	Pacific Blue®
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	DJ130c
<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 - 1/5

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: Macaque

**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

<b>Preservative Stabilisers</b>	0.09% Sodium Azide (NaN <sub>3</sub> ) 1% Bovine Serum Albumin
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml
<b>External Database Links</b>	<p><b>UniProt:</b></p> <p><a href="#">P08637</a>      <a href="#">Related reagents</a></p> <p><a href="#">O75015</a>      <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b></p> <p><a href="#">2214</a> FCGR3A    <a href="#">Related reagents</a></p> <p><a href="#">2215</a> FCGR3B    <a href="#">Related reagents</a></p>
<b>Synonyms</b>	CD16A, CD16B, FCG3, FCGR3, IGFR3
<b>Specificity</b>	<p><b>Mouse anti Human CD16 antibody, clone DJ130c</b> recognizes human CD16, also known as Low affinity immunoglobulin gamma Fc region receptor III-A or Fc-gamma RIIIa. CD16a is a 254 amino acid ~50-65 kDa single pass type 1 transmembrane glycoprotein bearing two <a href="#">Ig-like C2 type</a> domains. CD16 exists as a transmembranous form (Fc gammaRIIIA, or CD16A) and a glycosyl phosphatidylinositol (GPI) anchored form, Fc gammaRIIIB, or CD16B (<a href="#">Scallon et al. 1989</a>). CD16A is expressed by NK cells, some T cells, and macrophages, whereas CD16B is primarily expressed by granulocytes (<a href="#">Ravetch and Perussia 1989</a>). In addition, CD16B exists as two allelic variants NA1 and NA2 . DJ130c recognizes all polymorphonuclear cells irrespective of their NA phenotype.</p> <p>Mouse anti Human CD16 antibody, clone DJ130c recognizes an epitope in the first membrane-distal domain of CD16, recognizes both CD16a and CD16b and has been demonstrated to cross-react with CD16 from rhesus macaques, <i>Macaca mulatta</i> (<a href="#">Xu et al. 2012</a>)</p>
<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 1x10 <sup>6</sup> cells in 100ul
<b>References</b>	<ol style="list-style-type: none"> <li>Schmidt, R.E. (1993) CD16 cluster workshop report. In Leucocyte Typing V: White cell differentiation antigens, Vol.1. Edited by Schlossman, S.F. <i>et al.</i> Oxford University Press. p805 – 806.</li> <li>Kakko, T. <i>et al.</i> (2011) Inflammatory effects of blood leukocytes: association with vascular function in neuropeptide Y proline 7-genotyped type 2 diabetes patients. <a href="#">Diab Vasc Dis Res. 8: 221-8.</a></li> <li>Shantsila, E. <i>et al.</i> (2012) Fibrinolytic status in acute coronary syndromes: evidence of differences in relation to clinical features and pathophysiological pathways. <a href="#">Thromb Haemost. 108: 32-40.</a></li> <li>Shantsila, E. <i>et al.</i> (2011) Immunophenotypic characterization of human monocyte subsets: possible implications for cardiovascular disease pathophysiology. <a href="#">J Thromb Haemost. 9: 1056-66.</a></li> <li>Tapp, L.D. <i>et al.</i> (2012) The CD14<sup>++</sup>CD16<sup>+</sup> monocyte subset and monocyte-platelet interactions in patients with ST-elevation myocardial infarction. <a href="#">J Thromb Haemost. 10:</a></li> </ol>

[1231-41.](#)

6. Ambarus, C.A. *et al.* (2012) Intimal lining layer macrophages but not synovial sublining macrophages display an IL-10 polarized-like phenotype in chronic synovitis. [Arthritis Res Ther. 14: R74.](#)

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12. Jaipersad, A.S. *et al.* (2014) Expression of monocyte subsets and angiogenic markers in relation to carotid plaque neovascularization in patients with pre-existing coronary artery disease and carotid stenosis. [Ann Med. 11: 1-9.](#)

13. Shantsila, E. *et al.* (2015) Free Light Chains in patients with acute coronary syndromes: Relationships to inflammation and renal function. [Int J Cardiol. 185: 322-7.](#)

14. Wrigley, B.J. *et al.* (2013) Increased formation of monocyte-platelet aggregates in ischemic heart failure. [Circ Heart Fail. 6 \(1\): 127-35.](#)

15. Romee R *et al.* (2013) NK cell CD16 surface expression and function is regulated by a disintegrin and metalloprotease-17 (ADAM17). [Blood. 121 \(18\): 3599-608.](#)

16. Sousa, S. *et al.* (2015) Human breast cancer cells educate macrophages toward the M2 activation status. [Breast Cancer Res. 17: 101.](#)

17. Shantsila, E. *et al.* (2019) Mon2 predicts poor outcome in ST-elevation myocardial infarction. [J Intern Med. 285 \(3\): 301-16.](#)

18. Brown, R.A. *et al.* (2018) Impact of Mon2 monocyte-platelet aggregates on human coronary artery disease. [Eur J Clin Invest. 48 \(5\): e12911.](#)

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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.

Avoid repeated freezing and thawing as this may denature the antibody. Storage in frost-free freezers is not recommended.

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**Guarantee** 12 months from date of despatch

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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:Pacific Blue® \(MCA928PB\)](#)

### 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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