

## Datasheet: MCA2537A488

|                      |  |
|----------------------|--|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD16:Alexa Fluor® 488 |
| <b>Specificity:</b>  | CD16                                   |
| <b>Other names:</b>  | FcRIII                                 |
| <b>Format:</b>       | ALEXA FLUOR® 488                       |
| <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 Alexa Fluor®488 - liquid

#### Max Ex/Em

| Fluorophore     | Excitation Max (nm) | Emission Max (nm) |
|-----------------|---------------------|-------------------|
| Alexa Fluor®488 | 495                 | 519               |

#### 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> )<br>1% Bovine Serum Albumin   |
| <b>Approx. Protein Concentrations</b> | IgG concentration 0.05mg/ml   |
| <b>External Database Links</b>        | <p><b>UniProt:</b><br/> <a href="#">P08637</a>     <a href="#">Related reagents</a><br/> <a href="#">O75015</a>     <a href="#">Related reagents</a></p> <p><b>Entrez Gene:</b><br/> <a href="#">2214</a> FCGR3A     <a href="#">Related reagents</a><br/> <a href="#">2215</a> FCGR3B     <a href="#">Related reagents</a></p>   |
| <b>Synonyms</b>                       | CD16A, CD16B, FCG3, FCGR3, IGFR3  |
| <b>RRID</b>                           | AB_877455   |
| <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</a></li> </ol>  |

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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.](#)
19. Nakajima-Kato, Y. *et al.* (2023) A novel monoclonal antibody with improved FcγR blocking ability demonstrated non-inferior efficacy compared to IVIG in cynomolgus monkey ITP model at considerably lower dose. [Clin Exp Immunol. 211 \(1\): 23-30.](#)

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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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**Acknowledgements**

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**Health And Safety Information**

Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA2537A488>  
10041

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**Regulatory**

For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Alexa Fluor® 488 \(MCA928A488\)](#)

### Recommended Useful Reagents

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

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

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