

## Datasheet: MCA2537A488

<b>Description:</b>	MOUSE ANTI HUMAN CD16:Alexa Fluor® 488
<b>Specificity:</b>	CD16
<b>Other names:</b>	FcR111
<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.

<b>Target Species</b>	Human								
<b>Species Cross Reactivity</b>	Reacts with: Macaque <b>N.B.</b> Antibody reactivity and working conditions may vary between species.								
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor®488 - liquid								
<b>Max Ex/Em</b>	<table border="1"> <thead> <tr> <th>Fluorophore</th> <th>Excitation Max (nm)</th> <th>Emission Max (nm)</th> </tr> </thead> <tbody> <tr> <td>Alexa Fluor®488</td> <td>495</td> <td>519</td> </tr> </tbody> </table>	Fluorophore	Excitation Max (nm)	Emission Max (nm)	Alexa Fluor®488	495	519		
Fluorophore	Excitation Max (nm)	Emission Max (nm)							
Alexa Fluor®488	495	519							
<b>Preparation</b>	Purified IgG prepared by affinity chromatography on Protein G from tissue culture supernatant								
<b>Buffer Solution</b>	Phosphate buffered saline								
<b>Preservative</b>	0.09% Sodium Azide (NaN <sub>3</sub> )								
<b>Stabilisers</b>	1% Bovine Serum Albumin								
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05mg/ml								
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P08637</a> <a href="#">Related reagents</a>								

[O75015](#)   [Related reagents](#)

**Entrez Gene:**

[2214](#) FCGR3A   [Related reagents](#)

[2215](#) FCGR3B   [Related reagents](#)

---

**Synonyms**      CD16A, CD16B, FCG3, FCGR3, IGFR3

---

**Specificity**      **Mouse anti Human CD16 antibody, clone DJ130c** 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 [Ig-like C2 type](#) domains. CD16 exists as a transmembranous form (Fc gammaRIIIA, or CD16A) and a glycosyl phosphatidylinositol (GPI) anchored form, Fc gammaRIIIB, or CD16B ([Scallan et al. 1989](#)). CD16A is expressed by NK cells, some T cells, and macrophages, whereas CD16B is primarily expressed by granulocytes ([Ravetch and Perussia 1989](#)). In addition, CD16B exists as two allelic variants NA1 and NA2 . DJ130c recognizes all polymorphonuclear cells irrespective of their NA phenotype.

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, *Macaca mulatta* ([Xu et al. 2012](#))

---

**Flow Cytometry**      Use 10ul of the suggested working dilution to label  $1 \times 10^6$  cells in 100ul.

---

**References**

- Schmidt, R.E. (1993) CD16 cluster workshop report. In Leucocyte Typing V: White cell differentiation antigens, Vol.1. Edited by Schlossman, S.F. *et al.* Oxford University Press. p805 – 806.
- Kakko, T. *et al.* (2011) Inflammatory effects of blood leukocytes: association with vascular function in neuropeptide Y proline 7-genotyped type 2 diabetes patients. [Diab Vasc Dis Res. 8: 221-8.](#)
- Shantsila, E. *et al.* (2012) Fibrinolytic status in acute coronary syndromes: evidence of differences in relation to clinical features and pathophysiological pathways. [Thromb Haemost. 108: 32-40.](#)
- Shantsila, E. *et al.* (2011) Immunophenotypic characterization of human monocyte subsets: possible implications for cardiovascular disease pathophysiology. [J Thromb Haemost. 9: 1056-66.](#)
- Tapp, L.D. *et al.* (2012) The CD14++CD16+ monocyte subset and monocyte-platelet interactions in patients with ST-elevation myocardial infarction. [J Thromb Haemost. 10: 1231-41.](#)
- 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.](#)
- Ambarus, C.A. *et al.* (2012) Systematic validation of specific phenotypic markers for in vitro polarized human macrophages. [J Immunol Methods. 375: 196-206.](#)
- Ambarus, C.A. *et al.* (2012) Soluble immune complexes shift the TLR-induced cytokine production of distinct polarized human macrophage subsets towards IL-10. [PLoS One. 7: e35994.](#)
- Shantsila, E. *et al.* (2012) The effects of exercise and diurnal variation on monocyte subsets and monocyte-platelet aggregates. [Eur J Clin Invest. 42: 832-9.](#)
- Chehadeh, W. *et al.* (2009) Antibody-mediated opsonization of red blood cells in parvovirus B19 infection. [Virology. 390: 56-63.](#)
- Wrigley, B.J. *et al.* (2013) Increased formation of monocyte-platelet aggregates in ischemic heart failure. [Circ Heart Fail. 6: 127-35.](#)
- 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.](#)

---

**Storage**

Store at +4°C or at -20°C if preferred.

Storage in frost-free freezers is not recommended.

This product should be stored undiluted. 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**

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) 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](mailto:outlicensing@thermofisher.com)

---

**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:Alexa Fluor® 488 \(MCA928A488\)](#)

### Recommended Useful Reagents

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

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

**North & South America** Tel: +1 800 265 7376  
Fax: +1 919 878 3751  
Email: [antibody\\_sales\\_us@bio-rad.com](mailto:antibody_sales_us@bio-rad.com)

**Worldwide** Tel: +44 (0)1865 852 700  
Fax: +44 (0)1865 852 739  
Email: [antibody\\_sales\\_uk@bio-rad.com](mailto:antibody_sales_uk@bio-rad.com)

**Europe** Tel: +49 (0) 89 8090 95 21  
Fax: +49 (0) 89 8090 95 50  
Email: [antibody\\_sales\\_de@bio-rad.com](mailto:antibody_sales_de@bio-rad.com)

'M310586:171009'

**Printed on 25 May 2018**