

## Datasheet: MCA2537A647T

|                      |                                        |
|----------------------|----------------------------------------|
| <b>Description:</b>  | MOUSE ANTI HUMAN CD16:Alexa Fluor® 647 |
| <b>Specificity:</b>  | CD16                                   |
| <b>Other names:</b>  | FcRIII                                 |
| <b>Format:</b>       | ALEXA FLUOR® 647                       |
| <b>Product Type:</b> | Monoclonal Antibody                    |
| <b>Clone:</b>        | DJ130c                                 |
| <b>Isotype:</b>      | IgG1                                   |
| <b>Quantity:</b>     | 25 TESTS/0.25ml                        |

## 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 - 1/10        |

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<br><b>N.B.</b> Antibody reactivity and working conditions may vary between species.                                                                                                            |                   |                     |                   |                 |     |     |  |  |
| <b>Product Form</b>                   | Purified IgG conjugated to Alexa Fluor® 647 - 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®647</td> <td>650</td> <td>665</td> </tr> </tbody> </table> | Fluorophore       | Excitation Max (nm) | Emission Max (nm) | Alexa Fluor®647 | 650 | 665 |  |  |
| Fluorophore                           | Excitation Max (nm)                                                                                                                                                                                                 | Emission Max (nm) |                     |                   |                 |     |     |  |  |
| Alexa Fluor®647                       | 650                                                                                                                                                                                                                 | 665               |                     |                   |                 |     |     |  |  |
| <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><br><a href="#">P08637</a> <a href="#">Related reagents</a>                                                                                                                                          |                   |                     |                   |                 |     |     |  |  |

[O75015](#)   [Related reagents](#)

**Entrez Gene:**

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

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

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

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**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](#))

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**Flow Cytometry**      Use 10ul of the suggested working dilution to label 1x10<sup>6</sup> cells in 100ul.

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**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.](#)
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- Ambarus, C.A. *et al.* (2012) Systematic validation of specific phenotypic markers for in vitro polarized human macrophages. [J Immunol Methods. 375: 196-206.](#)
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- Wrigley, B.J. *et al.* (2013) Increased formation of monocyte-platelet aggregates in ischemic heart failure. [Circ Heart Fail. 6: 127-35.](#)
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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.](#)

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**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.

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**Shelf Life**

18 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:  
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:Alexa Fluor® 647 \(MCA928A647\)](#)

### Recommended Useful Reagents

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

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

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