

## Datasheet: MCA1193A647

<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>	LNK16
<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 - 1/10

Where this antibody 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 antibody for use in their own system using appropriate negative/positive controls.

<b>Target Species</b>	Human		
<b>Product Form</b>	Purified IgG conjugated to Alexa Fluor® 647 - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Alexa Fluor®647	650	665
<b>Preparation</b>	Purified IgG prepared by ion exchange chromatography		
<b>Buffer Solution</b>	Phosphate buffered saline		
<b>Preservative</b>	0.09% Sodium Azide		
<b>Stabilisers</b>	1% Bovine Serum Albumin		
<b>Approx. Protein Concentrations</b>	IgG concentration 0.05 mg/ml		
<b>Immunogen</b>	Normal human peripheral blood granulocytes.		
<b>External Database Links</b>	<b>UniProt:</b> <a href="#">P08637</a> <a href="#">Related reagents</a> <a href="#">O75015</a> <a href="#">Related reagents</a>		

**Entrez Gene:**[2214](#) FCGR3A [Related reagents](#)[2215](#) FCGR3B [Related reagents](#)

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<b>Synonyms</b>	CD16A, CD16B, FCG3, FCGR3, IGFR3
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<b>Fusion Partners</b>	Spleen cells from immunised BALB/c mice were fused with cells of the mouse X63.653 myeloma cell line.
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<b>Specificity</b>	<p><b>Mouse anti Human CD16 antibody, clone LNK16</b> recognizes CD16, a 50-65 kDa cell surface molecule which exists in two forms - a transmembranous form expressed by NK cells and some T cells, and a phosphatidylinositol linked form expressed by granulocytes.</p> <p>CD16 is a low affinity receptor for IgG (FcR III), and is an important receptor mediating ADCC by NK cells. Mouse anti Human CD16 antibody, clone LNK16 has been reported to block the binding of IgG to the CD16 molecule (<a href="#">Tamm and Schmidt 1996</a>).</p>
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<b>Flow Cytometry</b>	Use 10ul of the suggested working dilution to label 10 <sup>6</sup> cells or 100ul whole blood
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<b>References</b>	<ol style="list-style-type: none"><li>1. Tamm, A. &amp; Schmidt, R.E. (1996) The binding epitopes of human CD16 (Fc gamma RIII) monoclonal antibodies. Implications for ligand binding. <a href="#">J Immunol. 157 (4): 1576-81.</a></li><li>2. Fleit, H.B. <i>et al.</i> (1982) Human neutrophil Fc gamma receptor distribution and structure. <a href="#">Proc Natl Acad Sci U S A. 79 (10): 3275-9.</a></li><li>3. van de Winkel, J.G. &amp; Capel, P.J. (1993) Human IgG Fc receptor heterogeneity: molecular aspects and clinical implications. <a href="#">Immunol Today. 14 (5): 215-21.</a></li><li>4. Pillay, J. <i>et al.</i> (2012) A subset of neutrophils in human systemic inflammation inhibits T cell responses through Mac-1. <a href="#">J Clin Invest. 122: 327-36.</a></li><li>5. Morris, D.L. <i>et al.</i> (2010) Evidence for both copy number and allelic (NA1/NA2) risk at the FCGR3B locus in systemic lupus erythematosus. <a href="#">Eur J Hum Genet. 18 (9): 1027-31.</a></li><li>6. Kamp, V.M. <i>et al.</i> (2012) Human suppressive neutrophils CD16bright/CD62Ldim exhibit decreased adhesion. <a href="#">J Leukoc Biol. 92 (5): 1011-20.</a></li><li>7. Hanna, J. <i>et al.</i> (2003) CXCL12 expression by invasive trophoblasts induces the specific migration of CD16- human natural killer cells. <a href="#">Blood. 102:1569-77.</a></li><li>8. Moalli, F. <i>et al.</i> (2010) Role of complement and Fc{gamma} receptors in the protective activity of the long pentraxin PTX3 against Aspergillus fumigatus. <a href="#">Blood. 116: 5170-80.</a></li><li>9. Armour, K.L. <i>et al.</i> (2010) Expression of human FcgammaRIIIa as a GPI-linked molecule on CHO cells to enable measurement of human IgG binding. <a href="#">J Immunol Methods. 354: 20-33.</a></li><li>10. Welters, I.D. <i>et al.</i> (2010) Ketamine inhibits transcription factors activator protein 1 and nuclear factor-kappaB, interleukin-8 production, as well as CD11b and CD16 expression: studies in human leukocytes and leukocytic cell lines. <a href="#">Anesth Analg. 110: 934-41.</a></li><li>11. Bowles, J.A. <i>et al.</i> (2006) Anti-CD20 monoclonal antibody with enhanced affinity for CD16 activates NK cells at lower concentrations and more effectively than rituximab. <a href="#">Blood. 108: 2648-54.</a></li><li>12. Mekkache, N. <i>et al.</i> (2009) Human basophils express the glycosylphosphatidylinositol-anchored low-affinity IgG receptor FcgammaRIIIB (CD16B). <a href="#">J Immunol. 182: 2542-50.</a></li><li>13. Lee, S.F. <i>et al.</i> (1999) Cytokine receptor common beta chain as a potential activator of cytokine withdrawal-induced apoptosis. <a href="#">Mol Cell Biol. 19: 7399-409.</a></li><li>14. Sironi, M. <i>et al.</i> (2006) Differential regulation of chemokine production by Fcgamma receptor engagement in human monocytes: association of CCL1 with a distinct form of M2 monocyte activation (M2b, Type 2). <a href="#">J Leukoc Biol. 80: 342-9.</a></li><li>15. Weissmüller, S. <i>et al.</i> (2012) ICOS-LICOS interaction is critically involved in TGN1412-mediated</li></ol>
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T-cell activation. [Blood. 119: 6268-77.](#)

16. Kahn, F. *et al.* (2008) Antibodies against a surface protein of *Streptococcus pyogenes* promote a pathological inflammatory response. [PLoS Pathog. 4: e1000149.](#)

17. Onodera, R. *et al.* (2017) Anti-human neutrophil antigen-1a, -1b, and -2 antibodies in neonates and children with immune neutropenias analyzed by extracted granulocyte antigen immunofluorescence assay. [Transfusion. 57 \(11\): 2586-94.](#)

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**Further Reading** 1. Ravetch, J.V. & Kinet, J.P. (1991) Fc receptors. [Annu Rev Immunol. 9: 457-92.](#)

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

This product should be stored undiluted.

Storage in frost-free freezers is not recommended. This product is photosensitive and should be protected from light.

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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**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 \(BUF070B\)](#)

**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)

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