

## Datasheet: MCA1193AMO

<b>Description:</b>	MOUSE ANTI HUMAN CD16:Amethyst Orange
<b>Specificity:</b>	CD16
<b>Other names:</b>	FcRIII
<b>Format:</b>	Amethyst Orange
<b>Product Type:</b>	Monoclonal Antibody
<b>Clone:</b>	LNK16
<b>Isotype:</b>	IgG1
<b>Quantity:</b>	0.1 mg

### 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

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 Amethyst Orange - liquid		
<b>Max Ex/Em</b>	<b>Fluorophore</b>	<b>Excitation Max (nm)</b>	<b>Emission Max (nm)</b>
	Amethyst Orange	405	540
<b>Preparation</b>	Purified IgG prepared by ion exchange chromatography from ascites		
<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 0.1 mg/ml		

**Immunogen** Normal human peripheral blood granulocytes.

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**External Database**

**Links**

**UniProt:**

[P08637](#) [Related reagents](#)

[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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**Fusion Partners** Spleen cells from immunised BALB/c mice were fused with cells of the mouse X63.653 myeloma cell line.

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**Specificity** **Mouse anti Human CD16 antibody, clone LNK16** 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.

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 ([Tamm and Schmidt 1996](#)).

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**Flow Cytometry** Use 10µl of the suggested working dilution to label 10<sup>6</sup> cells or 100µl whole blood

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**References**

1. Tamm, A. & Schmidt, R.E. (1996) The binding epitopes of human CD16 (Fc gamma RIII) monoclonal antibodies. Implications for ligand binding. [J Immunol. 157 \(4\): 1576-81.](#)
2. Lee, S.F. *et al.* (1999) Cytokine receptor common beta chain as a potential activator of cytokine withdrawal-induced apoptosis. [Mol Cell Biol. 19: 7399-409.](#)
3. Hanna, J. *et al.* (2003) CXCL12 expression by invasive trophoblasts induces the specific migration of CD16- human natural killer cells. [Blood. 102:1569-77.](#)
4. Sironi, M. *et al.* (2006) Differential regulation of chemokine production by Fc gamma receptor engagement in human monocytes: association of CCL1 with a distinct form of M2 monocyte activation (M2b, Type 2). [J Leukoc Biol. 80: 342-9.](#)
5. Bowles, J.A. *et al.* (2006) Anti-CD20 monoclonal antibody with enhanced affinity for CD16 activates NK cells at lower concentrations and more effectively than rituximab. [Blood. 108: 2648-54.](#)
6. Kahn, F. *et al.* (2008) Antibodies against a surface protein of *Streptococcus pyogenes* promote a pathological inflammatory response. [PLoS Pathog. 4: e1000149.](#)
7. Meknache, N. *et al.* (2009) Human basophils express the glycosylphosphatidylinositol-anchored low-affinity IgG receptor Fc gamma RIIB (CD16B). [J Immunol. 182: 2542-50.](#)
8. Welters, I.D. *et al.* (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. [Anesth Analg. 110: 934-41.](#)
9. Armour, K.L. *et al.* (2010) Expression of human Fc gamma RIIIa as a GPI-linked molecule on CHO cells to enable measurement of human IgG binding. [J Immunol Methods. 354: 20-33.](#)

10. Moalli, F. *et al.* (2010) Role of complement and Fc{gamma} receptors in the protective activity of the long pentraxin PTX3 against *Aspergillus fumigatus*. [Blood. 116: 5170-80.](#)
11. Morris, D.L. *et al.* (2010) Evidence for both copy number and allelic (NA1/NA2) risk at the FCGR3B locus in systemic lupus erythematosus. [Eur J Hum Genet. 18 \(9\): 1027-31.](#)
12. Kamp, V.M. *et al.* (2012) Human suppressive neutrophils CD16bright/CD62Ldim exhibit decreased adhesion. [J Leukoc Biol. 92 \(5\): 1011-20.](#)
13. Weissmüller, S. *et al.* (2012) ICOS-LICOS interaction is critically involved in TGN1412-mediated T-cell activation. [Blood. 119: 6268-77.](#)
14. Pillay, J. *et al.* (2012) A subset of neutrophils in human systemic inflammation inhibits T cell responses through Mac-1. [J Clin Invest. 122: 327-36.](#)
15. 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.](#)
2. van de Winkel, J.G. & Capel, P.J. (1993) Human IgG Fc receptor heterogeneity: molecular aspects and clinical implications. [Immunol Today. 14 \(5\): 215-21.](#)

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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. This product is photosensitive and should be protected from light.

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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: <https://www.bio-rad-antibodies.com/SDS/MCA1193AMO>  
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#### Regulatory

For research purposes only

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## Related Products

### Recommended Negative Controls

[MOUSE IgG1 NEGATIVE CONTROL:Amethyst Orange \(MCA928AMO\)](#)

### Recommended Useful Reagents

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

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

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To find a batch/lot specific datasheet for this product, please use our online search tool at: [bio-rad-antibodies.com/datasheets](http://bio-rad-antibodies.com/datasheets)

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