

Datasheet: MCA1193AMO

BATCH NUMBER 148991

Description:	MOUSE ANTI HUMAN CD16:Amethyst Orange
Specificity:	CD16
Other names:	FcRIII
Format:	Amethyst Orange
Product Type:	Monoclonal Antibody
Clone:	LNK16
Isotype:	IgG1
Quantity:	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.

	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.

Target Species	Human		
Product Form	Purified IgG conjugated to Amethyst Orange - liquid		
Max Ex/Em	Fluorophore	Excitation Max (nm)	Emission Max (nm)
	Amethyst Orange	405	540
Preparation	Purified IgG prepared by ion exchange chromatography		
Buffer Solution	Phosphate buffered saline		
Preservative	0.09% Sodium Azide (NaN ₃)		
Stabilisers	1% Bovine Serum Albumin		
Approx. Protein Concentrations	IgG concentration 0.1 mg/ml		

Immunogen Normal human peripheral blood granulocytes.

External Database

Links

UniProt:

[P08637](#)

[Related reagents](#)

[O75015](#)

[Related reagents](#)

Entrez Gene:

[2214](#)

FCGR3A

[Related reagents](#)

[2215](#)

FCGR3B

[Related reagents](#)

Synonyms

CD16A, CD16B, FCG3, FCGR3, IGFR3

Fusion Partners

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

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](#)).

Flow Cytometry

Use 10ul of the suggested working dilution to label 10^6 cells or 100ul whole blood

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. Fleit, H.B. *et al.* (1982) Human neutrophil Fc gamma receptor distribution and structure. [Proc Natl Acad Sci U S A. 79 \(10\): 3275-9.](#)
3. 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.](#)
4. 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.](#)
5. 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.](#)
6. Kamp, V.M. *et al.* (2012) Human suppressive neutrophils CD16bright/CD62Ldim exhibit decreased adhesion. [J Leukoc Biol. 92 \(5\): 1011-20.](#)
7. Hanna, J. *et al.* (2003) CXCL12 expression by invasive trophoblasts induces the specific migration of CD16- human natural killer cells. [Blood. 102:1569-77.](#)
8. 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.](#)
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. 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.](#)

11. 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.](#)
12. Meknache, N. *et al.* (2009) Human basophils express the glycosylphosphatidylinositol-anchored low-affinity IgG receptor FcγRIIB (CD16B). [J Immunol. 182: 2542-50.](#)
13. 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.](#)
14. Sironi, M. *et al.* (2006) Differential regulation of chemokine production by Fcγ 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.](#)
15. Weissmüller, S. *et al.* (2012) ICOS-LICOS interaction is critically involved in TGN1412-mediated 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.](#)

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

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.

Guarantee 12 months from date of despatch

Health And Safety Information Material Safety Datasheet documentation #10041 available at: <https://www.bio-rad-antibodies.com/SDS/MCA1193AMO>
10041

Regulatory For research purposes only

Related Products

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

