Datasheet: MCA1193

Description:	MOUSE ANTI HUMAN CD16
Specificity:	CD16
Other names:	FcRIII
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	LNK16
Isotype:	IgG1
Quantity:	0.2 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	▪			1/10 - 1/20
Immunohistology - Frozen		▪		
Immunohistology - Paraffin		▪		
ELISA			▪	
Immunoprecipitation	▪			
Western Blotting			▪	

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 - liquid
Preparation	Purified IgG prepared by ion exchange chromatography
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% Sodium Azide
Approx. Protein Concentrations	IgG concentration 1.0 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 human 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 FcgammaRIIIa 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 FcgammaRIIIB (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 Fcgamma 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 +4ºC or at -20ºC if preferred. This product should be stored undiluted. Storage in frost-free freezers is not recommended. 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.
Health And Safety Information	Material Safety Datasheet documentation #10040 available at: 10040: https://www.bio-rad-antibodies.com/uploads/MSDS/10040.pdf
Regulatory	For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG (STAR76...)	RPE
Goat Anti Mouse IgG IgA IgM (STAR87...)	Alk. Phos., HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Rabbit Anti Mouse IgG (STAR12...)	RPE
Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Rabbit Anti Mouse IgG (STAR8...)	DyLight®800
Goat Anti Mouse IgG (STAR70...)	FITC
Rabbit Anti Mouse IgG (STAR13...)	HRP
Human Anti Mouse IgG1 (HCA036...)	HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®549, DyLight®649, DyLight®680, DyLight®800, FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

North & South America Tel: +1 800 265 7376 Fax: +1 919 878 3751 Email: 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
Europe Tel: +49 (0) 89 8090 95 21 Fax: +49 (0) 89 8090 95 50 Email: antibody_sales_de@bio-rad.com

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