Datasheet: MCA1193T

BATCH NUMBER 170580

Description:	MOUSE ANTI HUMAN CD16
Specificity:	CD16
Other names:	FcRIII
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	LNK16
Isotype:	IgG1
Quantity:	25 µg

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 from ascites
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.09% sodium azide (NaN_3)

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
RRID	AB_1100857
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 10µl of the suggested working dilution to label 10^6 cells or 100µl 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. 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 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. 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 FcgammaRIIIB (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 FcgammaRIIIa 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.

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.

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.

Guarantee

12 months from date of despatch

Health And Safety Information

Material Safety Datasheet documentation #10040 available at:
https://www.bio-rad-antibodies.com/SDS/MCA1193T

Regulatory

For research purposes only

Related Products

Recommended Secondary Antibodies

Goat Anti Mouse IgG IgA IgM (STAR87...)	HRP
Goat Anti Mouse IgG (STAR70...)	FITC
Goat Anti Mouse IgG (STAR77...)	HRP
Goat Anti Mouse IgG (STAR76...)	RPE
Rabbit Anti Mouse IgG (STAR12...)	RPE
Rabbit Anti Mouse IgG (STAR13...)	HRP
Rabbit Anti Mouse IgG (STAR9...)	FITC

Goat Anti Mouse IgG (Fc) (STAR120...)	FITC, HRP
Goat Anti Mouse IgG (H/L) (STAR117...)	Alk. Phos., DyLight®488, DyLight®550, DyLight®650, DyLight®680, DyLight®800, FITC, HRP

Recommended Negative Controls

MOUSE IgG1 NEGATIVE CONTROL (MCA928)

Product inquiries: www.bio-rad-antibodies.com/technical-support

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

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