Anti-Human CD16 (3G8)

	REF	Σ	
PURE	16PU2-01MG	100 µg	
FITC	16F2-100T	100 test	
PE	16PE2-100T	100 test	RUO
APC	16A2-100T	100 test	
CFBlue	16CFB2-100T	100 test	

1. PRODUCT DESCRIPTION

- **Clone:** 3G8;
- **Isotype**: IgG1;
- **Tested application**: flow cytometry;
- **Immunogen**: The Mouse anti-human CD16 monoclonal antibody derives from human polymorphonuclear leukocytes;
- **Workshop No.:** N409;
- **Species reactivity**: Human, Cynomolgus, Baboon, Rhesus;
- **Storage instruction:** store in the dark at 2-8 °C;
- **Storage buffer:** aqueous buffered solution containing protein stabilizer and 0.09% sodium azide (NaN_3);
- **Recommended usage**: Immunostep's CD16, clone 3G8 is a monoclonal antibody intended for the identification and enumeration of FcgammaRIII antigen (FcγRIII) present on NK cells, neutrophils and macrophages in peripheral blood and bone marrow. This reagent is effective for direct immunofluorescence staining of human tissue for flow cytometric analysis using 1 test for 10^6 cells;
- **Presentation**: liquid;
- **Source**: Supernatant proceeding from an in vitro cell culture of a cell hybridoma;
- **Purification**: Protein-A affinity chromatography;
- **Other names**: FCRIII, Fc-gamma receptor III, CD16, FCG3, FCGR3, IGFR4;
- **Gene ID:** 2214;
- **Molecular weight:** Ig superfamily, transmembrane form (50-65 kDa) or GPI-linked form (48 kDa).

2. ANTIGEN DETAILS

Large description: The CD16 molecule has been described as the low affinity Fc receptor (FcRIII) for complexed IgG and may exists as two distinct isoforms, FcγRIIIA and FcγRIIIB. In humans, FcγRIIIA is expressed as a transmembranous polypeptide-anchored form on monocytes, macrophages, and lymphocytes such as NK cells. FcγRIIIB is also detected on neutrophils as a GPI-anchored form. T and B cells do not express this Fc receptor. Expression of CD16 on lymphocytes and monocytes is similar in non-human primates.

The 3G8 antibody blocks the binding of soluble immune complexes to granulocytes.[1-6]

The epitopes of 3G8 has been localized on the putative FG loop of the membrane-proximal Ig-like domain, which we have previously identified as the major binding site for IgG, so almost completely block the receptor's interaction with IgG[4].

Clone 3G8 is used as anti–pan-FcγRIII (CD16) monoclonal antibodies whereas clone GRM1 recognizes NA2-FcγRIIIb and FcγRIIIa[5].

3. WARRANTY

Warranted only to conform to the quantity and contents stated on the label or in the product labelling at the time of delivery to the customer. Immunostep disclaims hereby other warranties.

Immunostep's sole liability is limited to either the replacement of the products or refund of the purchase price.

4. ADDITIONAL INFORMATION

For research use only. Not for diagnostic use.

Not for resale. Immunostep will not be responsible of violations that may occur with the use of this product. Any use of this product other than the specified in this document is strictly prohibited.

Unless otherwise indicated by Immunostep by written authorization, this product is intended for research only and is not to be used for any other purpose, including without limitation, for human or animal diagnostic, therapeutic or commercial purposes.

Please, refer to www.immunostep.com technical support for more information.

5. REFERENCES

1. Komano Y, Nanki T, Hayashida K, Taniguchi K, Miyasaka N. Identification of a human peripheral blood monocyte subset that differentiates into osteoclasts. Arthritis Res Ther2006;8(5):R152.
2. Wijngaarden S, van Roon JA, van de Winkel JG, Bijlsma JW, Lafeber FP. Down-regulation of activating Fcgamma receptors on monocytes of patients with rheumatoid arthritis upon methotrexate treatment. Rheumatology (Oxford)2005 Jun;44(6):729-34.
3. Zhu X, Hamann KJ, Munoz NM, Rubio N, Mayer D, Hernrreiter A, et al. Intracellular expression of Fc gamma RIII (CD16) and its mobilization by chemoattractants in human eosinophils. J Immunol1998 Sep 1;161(5):2574-9.
4. Tamm A, Schmidt RE. The binding epitopes of human CD16 (Fc gamma RIII) monoclonal antibodies. Implications for ligand binding. J Immunol 1996 Aug 15;157(4):1576-81.
5. Knapp W. Leucocyte typing IV: white cell differentiation antigens. Oxford: Oxford University Press; 1989.

6. EXPLANATION OF SYMBOLS

	Fluorochrome
REF	Product reference
Σ	Content for <n> analysis
	Regulatory Status
RUO	Research Use Only
	Manufacturer

7. MANUFACTURED BY:

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