

11-646-C025

## Monoclonal Antibody to CD16 Purified Antibody (0.025 mg)

Clone: 3G8

**Isotype:** Mouse IgG1

**Specificity:** The mouse monoclonal antibody 3G8 recognizes CD16, a low affinity receptor for

aggregated IgG (FcgammaRIII antigen). CD16 exists in two different isoforms: CD16a (FcgammaRIIIA; 50-65 kDa; expressed on NK-cells, monocytes and macrophages) and CD16b (FcgammaRIIIB; 48 kDa; mainly expressed on

neutrophils).

HLDA V; WS Code NK80

Regulatory Status: RUO

Immunogen: Human neutrophils

Species Reactivity: Human, Non-Human Primates

**Application:** Flow Cytometry

Recommended dilution:6 µg/ml

Immunoprecipitation

Immunohistochemistry (frozen sections)

Application note:acetone fixation

**Functional Application** 

In vitro Stimulation of NK cell proliferation, blocking of IgG binding and

phagocytosis, inhibition of cytotoxic activity, in vivo NK cell depletion

**Purity:** > 95% (by SDS-PAGE)

**Purification:** Purified by protein-A affinity chromatography

Concentration: 1 mg/ml

Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

Storage / Stability: Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial

label.

Expiration: See vial label

Lot Number: See vial label

Background: CD16 (FcgammaRIII) is a 50-65 kDa glycoprotein serving as a low affinity IgG

receptor. Human FcgammaRIII is expressed in two forms – FcgammaRIII-A and -B. FcgammaRIII-A is a transmembrane protein of monocytes, macrophages, NK cells and a subset of T cells. It is associated with FcepsilonRI-gamma subunit and is responsible for antibody-dependent NK cell cytotoxicity. Mast cell FcgammaRIII-A is associated, moreover, with FcepsilonRI-beta subunit. Besides IgG, FcgammaRIII-A can be triggered also by oligomeric IgE. FcgammaRIII-B is a GPI-linked monomeric receptor expressed on neutrophils and is involved in their

activation and induction of a proadhesive phenotype.



## PRODUCT DATA SHEET

## References:

\*Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).
\*Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).
\*Zhu X, Hamann KJ, Muñoz NM, Rubio N, Mayer D, Herrnreiter A, Leff AR: Intracellular expression of Fc gamma RIII (CD16) and its mobilization by chemoattractants in human eosinophils. J Immunol. 1998 Sep 1;161(5):2574-9.
\*Metes D, Ernst LK, Chambers WH, Sulica A, Herberman RB, Morel PA: Expression of functional CD32 molecules on human NK cells is determined by an allelic polymorphism of the FcgammaRIIC gene. Blood. 1998 Apr 1;91(7):2369-80.
\*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.

\*Komano Y, Nanki T, Hayashida K, Taniguchi K, Miyasaka N: Identification of a human peripheral blood monocyte subset that differentiates into osteoclasts. Arthritis Res Ther. 2006;8(5):R152.

\*Choi EI, Wang R, Peterson L, Letvin NL, Reimann KA: Use of an anti-CD16 antibody for in vivo depletion of natural killer cells in rhesus macaques. Immunology. 2008 Jun;124(2):215-22. Epub 2008 Jan 12.

\*Congy-Jolivet N, Bolzec A, Ternant D, Ohresser M, Watier H, Thibault G: Fc gamma RIIIa expression is not increased on natural killer cells expressing the Fc gamma RIIIa-158V allotype. Cancer Res. 2008 Feb 15;68(4):976-80.

\*Burt BM, Plitas G, Zhao Z, Bamboat ZM, Nguyen HM, Dupont B, DeMatteo RP: The lytic potential of human liver NK cells is restricted by their limited expression of inhibitory killer Ig-like receptors. J Immunol. 2009 Aug 1;183(3):1789-96.

\*Jeraiby M, Sidi Yahya K, Depince-Berger AE, Lambert C: Microbicidal activity measured by flow cytometry: Optimization and standardization for detection of primary and functional deficiencies. J Immunol Methods. 2016 Sep 29. pii: S0022-1759(16)30220-4.

\*And many other.

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