



PC-646-T100

Monoclonal Antibody to CD16 PerCP (100 tests)

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

Preparation: The purified antibody is conjugated with Peridinin-chlorophyll-protein complex

(PerCP) under optimum conditions. The conjugate is purified by size-exclusion

chromatography and adjusted for direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in stabilizing phosphate buffered saline (PBS) solution

containing 15mM sodium azide.

Storage / Stability: Store in the dark at 2-8°C. Do not freeze. Avoid prolonged exposure to light. Do not

use after expiration date stamped on vial label.

Usage: The reagent is designed for Flow Cytometry analysis of human blood cells using

10 μ l reagent / 100 μ l of whole blood or 10 $^{\circ}$ cells in a suspension.

The content of a vial (1 ml) is sufficient for 100 tests.

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.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at www.exbio.cz.

For laboratory research only, not for drug, diagnostic or other use.