



T9-646-T100

Monoclonal Antibody to CD16 PerCP-Cy[™]5.5 conjugated (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 tandem dye PerCP-Cy[™]5.5 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 4

μl reagent / 100 μl of whole blood or 10° cells in a suspension.

The content of a vial (0.4 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.

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