

PB-646-T025

## Monoclonal Antibody to CD16 Pacific Blue™ conjugated (25 tests)

<b>Clone:</b>	3G8
<b>Isotype:</b>	Mouse IgG1
<b>Specificity:</b>	The mouse monoclonal antibody 3G8 recognizes CD16, a low affinity receptor for aggregated IgG (FcγRIII antigen). CD16 exists in two different isoforms: CD16a (FcγRIIIA; 50-65 kDa; expressed on NK-cells, monocytes and macrophages) and CD16b (FcγRIIIB; 48 kDa; mainly expressed on neutrophils). HLDA V; WS Code NK80
<b>Regulatory Status:</b>	RUO
<b>Immunogen:</b>	Human neutrophils
<b>Species Reactivity:</b>	Human, Non-Human Primates
<b>Preparation:</b>	The purified antibody is conjugated with Pacific Blue™ under optimum conditions. The conjugate is purified by size-exclusion chromatography and adjusted for direct use. No reconstitution is necessary.
<b>Storage Buffer:</b>	The reagent is provided in stabilizing phosphate buffered saline (PBS) solution containing 15mM sodium azide.
<b>Storage / Stability:</b>	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.
<b>Usage:</b>	The reagent is designed for Flow Cytometry analysis of human blood cells using 4 µl reagent / 100 µl of whole blood or 10 <sup>6</sup> cells in a suspension. The content of a vial (0.1 ml) is sufficient for 25 tests.
<b>Expiration:</b>	See vial label
<b>Lot Number:</b>	See vial label
<b>Background:</b>	CD16 (FcγRIII) is a 50-65 kDa glycoprotein serving as a low affinity IgG receptor. Human FcγRIII is expressed in two forms &#8211; FcγRIII-A and -B. FcγRIII-A is a transmembrane protein of monocytes, macrophages, NK cells and a subset of T cells. It is associated with FcεRI-gamma subunit and is responsible for antibody-dependent NK cell cytotoxicity. Mast cell FcγRIII-A is associated, moreover, with FcεRI-beta subunit. Besides IgG, FcγRIII-A can be triggered also by oligomeric IgE. FcγRIII-B is a GPI-linked monomeric receptor expressed on neutrophils and is involved in their activation and induction of a proadhesive phenotype.

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

**Antibodies****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, Muzio N, 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 Fc gamma RIIC 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 Fc gamma 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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