

1P-399-T025

## Monoclonal Antibody to CD16 Phycoerythrin (PE) conjugated (25 tests)

Clone: LNK16

**Isotype:** Mouse IgG1

Specificity: The antibody LNK16 reacts with 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 M MA069 HLDA V; WS Code NK NK50

Regulatory Status: RUO

**Immunogen:** Normal human peripheral blood granulocytes

Species Reactivity: Human, Non-Human Primates

**Preparation:** The purified antibody is conjugated with R-Phycoerythrin (PE) 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

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

The content of a vial (0.5 ml) is sufficient for 25 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:

\*Gessner JE, Grussenmeyer T, Kolanus W, Schmidt RE: The human low affinity immunoglobulin G Fc receptor III-A and III-B genes. Molecular characterization of the promoter regions. J Biol Chem. 1995 Jan 20;270(3):1350-61.

\*Kocher M, Siegel ME, Edberg JC, Kimberly RP: Cross-linking of Fc gamma receptor IIa and Fc gamma receptor IIIb induces different proadhesive phenotypes on human neutrophils. J Immunol. 1997 Oct 15;159(8):3940-8.

\*Arase N, Arase H, Hirano S, Yokosuka T, Sakurai D, Saito T: IgE-mediated activation of NK cells through Fc gamma RIII. J Immunol. 2003 Mar 15:170(6):3054-8.

\*Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995). \*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.

\*Boyle JJ: Human macrophages kill human mesangial cells by Fas-L-induced apoptosis when triggered by antibody via CD16. Clin Exp Immunol. 2004 Sep;137(3):529-37.

\*Lin CW, Liu TY, Chen SU, Wang KT, Medeiros LJ, Hsu SM: CD94 1A transcripts characterize lymphoblastic lymphoma/leukemia of immature natural killer cell origin with distinct clinical features. Blood. 2005 Nov 15;106(10):3567-74.

\*Mathison RD, Befus AD, Davison JS, Woodman RC: Modulation of neutrophil function by the tripeptide feG. BMC Immunol. 2003 Mar 4;4:3. Epub 2003 Mar 4. \*Hovden AO, Karlsen M, Jonsson R, Aarstad HJ, Appel S: Maturation of monocyte derived dendritic cells with OK432 boosts IL-12p70 secretion and conveys strong T-cell responses. BMC Immunol. 2011 Jan 5;12:2.

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