EXBIO Antibodies

PRODUCT DATA SHEET

1F-399-T100

Monoclonal Antibody to CD16 Fluorescein (FITC) conjugated (100 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

Immunogen: Normal human peripheral blood granulocytes

Species Reactivity: Human, Non-Human Primates

Preparation: The purified antibody is conjugated with Fluorescein isothiocyanate (FITC) under optimum conditions. The reagent is free of unconjugated FITC and adjusted for direct use. No reconstitution is necessary.

Storage Buffer: The reagent is provided in phosphate buffered saline (PBS) containing 15 mM sodium azide and 0.2% (w/v) high-grade protease free Bovine Serum Albumin (BSA) as a stabilizing agent.

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.
Short-term exposure to room temperature should not affect the quality of the reagent. However, if reagent is stored under any conditions other than those specified, the conditions must be verified by the user.

Usage: The reagent is designed for Flow Cytometry analysis of human blood cells using 20 µl reagent / 100 µl of whole blood or 10^6 cells in a suspension.
The content of a vial (2 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.

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

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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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