



Antibodies

1B-214-C025

## Monoclonal Antibody to CD16b Biotin conjugated (0.025 mg)

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| <b>Clone:</b>               | MEM-154  |
| <b>Isotype:</b>             | Mouse IgG1   |
| <b>Specificity:</b>         | The antibody MEM-154 reacts with the epitope on CD16 antigen that residing in proximity to FG loop (probably BC or C'E loop). CD16 is a low affinity receptor for aggregated IgG (FcγRIII antigen). The antibody MEM-154 reacts with CD16+ granulocytes.<br><b>HLDA V; WS Code M MA068</b><br>HLDA V; WS Code NK NK51  |
| <b>Immunogen:</b>           | Human granulocytes   |
| <b>Species Reactivity:</b>  | Human  |
| <b>Preparation:</b>         | The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.   |
| <b>Concentration:</b>       | 1 mg/ml  |
| <b>Storage Buffer:</b>      | Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4  |
| <b>Storage / Stability:</b> | Store at 2-8°C. Do not use after expiration date stamped on vial label. For long-term storage aliquot and store at -20°C. Avoid freeze/thaw cycles.  |
| <b>Usage:</b>               | Biotinylated antibody is designed for indirect immunofluorescence analysis by Flow Cytometry.<br>Suggested working dilution is 1:500. Indicated dilution is recommended starting point for use of this product. Working concentrations should be determined by the investigator.   |
| <b>Expiration:</b>          | See vial label   |
| <b>Lot Number:</b>          | See vial label   |
| <b>Background:</b>          | <b>CD16</b> (FcγRIII) is a 50-65 kDa glycoprotein serving as a low affinity IgG receptor. Human FcγRIII is expressed in two forms 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.  |
| <b>References:</b>          | *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.<br>*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.<br>*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.<br>*Leukocyte Typing V., Schlossman S. et al. (Eds.), Oxford University Press (1995).<br>*de Haas M, Koene HR, Kleijer M, de Vries E, Simsek S, van Tol MJ, Roos D, von dem Borne AE: A triallelic Fc gamma receptor type IIIA polymorphism influences the binding of human IgG by NK cell Fc gamma RIIIa. J Immunol. 1996 Apr 15;156(8):3948-55.<br>*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. |

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