

11-214-C025

Monoclonal Antibody to CD16 Purified Antibody (0.025 mg)

Clone: MEM-154
Isotype: Mouse IgG1

Specificity: The antibody MEM-154 reacts with an epitope on CD16 antigen that is residing in

proximity to FG loop (probably BC or C'E loop). CD16 is a low affinity receptor for aggregated IgG (FcgammaRIII antigen). The antibody MEM-154 reacts with

CD16+ granulocytes.

HLDA V; WS Code M MA068 HLDA V; WS Code NK NK51

Regulatory Status: RUO

Immunogen: Human granulocytes

Species Reactivity: Human

Application: Flow Cytometry

Recommended dilution: 5-10 µg/ml

Positive control: PBL (peripheral blood lymphocytes)

Application note: The antibody MEM-154 does not react with CD16a present on

NK cells in many subjects. Immunoprecipitation

Western Blotting

Application note: Non-reducing conditions.

Functional Application

The antibody MEM-154 blocks binding of human IgG to FcgammaRIII.

Purity: > 95% (by SDS-PAGE)

Purification: Purified by protein-A affinity chromatography

Concentration: 1 mg/ml

Storage Buffer: Phosphate buffered saline (PBS) with 15 mM sodium azide, approx. pH 7.4

Storage / Stability: Store at 2-8°C. Do not freeze. Do not use after expiration date stamped on vial

label.

See vial label

Expiration: See vial label

Lot Number:

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.



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). *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.

*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.

*Koene HR, Kleijer M, Algra J, Roos D, von dem Borne AE, de Haas M: Fc gammaRIIIa-158V/F polymorphism influences the binding of IgG by natural killer cell Fc gammaRIIIa, independently of the Fc gammaRIIIa-48L/R/H phenotype. Blood. 1997 Aug 1;90(3):1109-14.

*Gasdaska JR, Sherwood S, Regan JT, Dickey LF: An afucosylated anti-CD20 monoclonal antibody with greater antibody-dependent cellular cytotoxicity and B-cell depletion and lower complement-dependent cytotoxicity than rituximab. Mol Immunol. 2012 Mar;50(3):134-41

*Ohradanova-Repic A, Machacek C, Charvet C, Lager F, Le Roux D, Platzer R, Leksa V, Mitulovic G, Burkard TR, Zlabinger GJ, Fischer MB, Feuillet V, Renault G, Blüml S, Benko M, Suchanek M, Huppa JB, Matsuyama T, Cavaco-Paulo A, Bismuth G, Stockinger H: Extracellular Purine Metabolism Is the Switchboard of Immunosuppressive Macrophages and a Novel Target to Treat Diseases With Macrophage Imbalances. Front Immunol. 2018 Apr 27;9:852.

Unless indicated otherwise, all products are For Research Use Only and not for diagnostic or therapeutic use. Not for resale or transfer either as a stand-alone product or as a component of another product without written consent of EXBIO. EXBIO will not be held responsible for patent infringement or other violations that may occur with the use of our products. All orders are accepted subject to EXBIO's term and conditions which are available at www.exbio.cz.