

Datasheet for ABIN780366
anti-CD16 antibody (Biotin)



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Overview

Quantity:	0.1 mg
Target:	CD16
Reactivity:	Human, Non-Human Primate
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This CD16 antibody is conjugated to Biotin
Application:	Flow Cytometry (FACS), Immunoprecipitation (IP), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	Human neutrophils
Clone:	3G8
Isotype:	IgG1 kappa
Specificity:	The mouse monoclonal antibody 3G8 recognizes an extracellular epitope of 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). Regarding CD16-158V/F polymorphism, the antibody 3G8 detects both 158V and 158F allotype on natural NK cells.
Cross-Reactivity (Details):	Human, Non-Human Primates
Purification:	Purified antibody is conjugated with biotin LC-NHS ester under optimum conditions and unconjugated antibody and free biotin are removed by size-exclusion chromatography.

Target Details

Target:	CD16
Alternative Name:	CD16 (CD16 Products)
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.,FcgammaRIII, IGFR3, FCRIII
Pathways:	Regulation of Leukocyte Mediated Immunity , Positive Regulation of Immune Effector Process

Application Details

Application Notes:	Flow cytometry: Recommended dilution: 5 µg/mL.
Comment:	The purified antibody is conjugated with Biotin-LC-NHS under optimum conditions. The reagent is free of unconjugated biotin.
Restrictions:	For Research Use only

Handling

Concentration:	1 mg/mL
Buffer:	Phosphate buffered saline (PBS), pH 7.4, 15 mM sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Handling Advice:	Do not freeze. Avoid prolonged exposure to light.
Storage:	4 °C
Storage Comment:	Store at 2-8°C. Do not freeze.

Publications

Product cited in:	Burt, Plitas, Zhao, Bamboat, Nguyen, Dupont, DeMatteo: "The lytic potential of human liver NK
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cells is restricted by their limited expression of inhibitory killer Ig-like receptors." in: **Journal of immunology (Baltimore, Md. : 1950)**, Vol. 183, Issue 3, pp. 1789-96, (2009) ([PubMed](#)).

Choi, Wang, Peterson, Letvin, Reimann: "Use of an anti-CD16 antibody for in vivo depletion of natural killer cells in rhesus macaques." in: **Immunology**, Vol. 124, Issue 2, pp. 215-22, (2008) ([PubMed](#)).

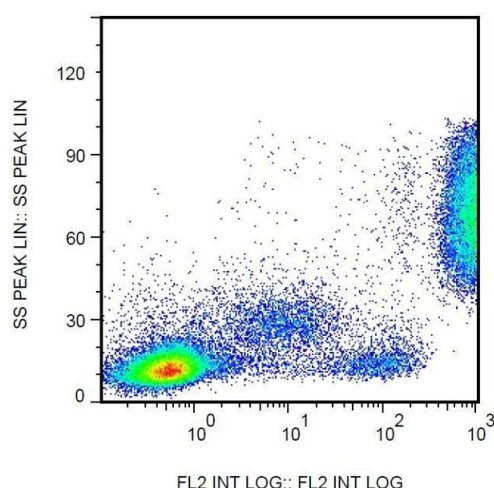
Congy-Jolivet, Bolzec, Ternant, Ohresser, Watier, Thibault: "Fc gamma RIIIa expression is not increased on natural killer cells expressing the Fc gamma RIIIa-158V allotype." in: **Cancer research**, Vol. 68, Issue 4, pp. 976-80, (2008) ([PubMed](#)).

Komano, Nanki, Hayashida, Taniguchi, Miyasaka: "Identification of a human peripheral blood monocyte subset that differentiates into osteoclasts." in: **Arthritis research & therapy**, Vol. 8, Issue 5, pp. R152, (2007) ([PubMed](#)).

Wijngaarden, van Roon, van de Winkel, Bijlsma, Lafeber: "Down-regulation of activating Fcgamma receptors on monocytes of patients with rheumatoid arthritis upon methotrexate treatment." in: **Rheumatology (Oxford, England)**, Vol. 44, Issue 6, pp. 729-34, (2005) ([PubMed](#)).

There are more publications referencing this product on: [Product page](#)

Images



Flow Cytometry

Image 1. Surface staining of CD16 in human peripheral blood with anti-CD16 (3G8) biotin.