

CD16 Monoclonal Antibody (3G8), Functional Grade, eBioscience™

Product Details

Size	500 µg
Species Reactivity	Baboon, Chimpanzee, Cynomolgus monkey, Human, Non-human primate, Rhesus monkey
Published Species	Human, Mouse
Host/Isotype	Mouse / IgG1
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	3G8
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	no preservative
Storage conditions	4° C
RRID	AB_2573073

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	1 µg/test	4 Publications
Functional Assay (FN)	Assay-Dependent	1 Publication

Product Specific Information

Description: This 3G8 monoclonal antibody reacts with human and non-human primate CD16, which is also known as the low-affinity Fc gamma RIII. CD16 exists as two distinct isoforms, Fc gamma RIIIA and Fc gamma RIIB. In humans, Fc gamma RIIIA is expressed as a polypeptide-anchored form on monocytes, macrophages, and lymphocytes such as NK cells. T and B cells do not express this Fc receptor. Fc gamma RIIB is also detected on neutrophils as a GPI-anchored form. Expression of CD16 on lymphocytes and monocytes is similar in non-human primates. However, while CD16 is not found on neutrophils in macaques and baboons, this receptor is detected on these cells in sooty mangabeys. Binding of IgG leads to activation of signal transduction pathways, resulting in antibody-dependent cell-mediated cytotoxicity (ADCC), phagocytosis, cytokine release, and antigen presentation.

This monoclonal antibody has been reported to have several functional activities, including inhibition of cytotoxic ability, activation of cell signaling, and NK cell depletion in vivo. Moreover, the 3G8 antibody clone has been demonstrated to work on capuchin monkey, chimpanzee, common marmoset, cynomologous monkey, hamadryas baboon, olive baboon, pigtailed macaque, rhesus, and squirrel monkey.

Based on cross-blocking studies 3G8 recognizes the same epitope as CB16. However, 3G8 and B73.1 antibody clones bind distinct epitopes.

Applications Reported: This 3G8 antibody has been reported for use in flow cytometric analysis and functional assays.

Applications Tested: This 3G8 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells.

This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

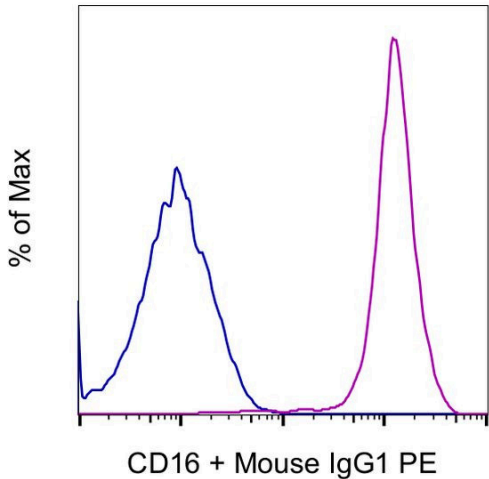
Filtration: 0.2 µm post-manufacturing filtered.

Purity: Greater than 90%, as determined by SDS-PAGE.

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

Aggregation: Less than 10%, as determined by HPLC.

Product Images For CD16 Monoclonal Antibody (3G8), Functional Grade, eBioscience™



CD16 Antibody (16-0166-85) in Flow

Normal human peripheral blood cells were stained with 0.125 µg of Mouse IgG1 kappa Isotype Control (Product # 14-4714-82) (blue histogram) or 0.125 µg of CD16 Monoclonal Antibody, Functional Grade (purple histogram) followed by IgG1 Monoclonal Antibody, PE (Product # 12-4015-82). Cells in the granulocyte gate were used for analysis.

5 References

Flow Cytometry (4)

Heliyon

SARS-CoV-2 infection paralyzes cytotoxic and metabolic functions of the immune cells.

"Published figure using CD16 monoclonal antibody (Product # 16-0166-82) in Flow Cytometry"

Authors: Singh Y,Trautwein C,Fendel R,Krickeberg N,Berezhnoy G,Bissinger R,Ossowski S,Salker MS,Casadei N, Riess O

Year
2021

PLoS biology

Selective use of primate CD4 receptors by HIV-1.

"16-0166-82 was used in Flow Cytometry to examine early HIV-1 isolates for their ability to infect cells via the CD4 receptor of 15 different primate species."

Authors: Warren CJ,Meyerson NR,Dirasantha O,Feldman ER,Wilkerson GK,Sawyer SL

Year
2019

Species
Human

[View more Flow references on thermofisher.com](#)

Functional Assay (1)

Journal of immunology (Baltimore, Md. : 1950)

Factor H-IgG Chimeric Proteins as a Therapeutic Approach against the Gram-Positive Bacterial Pathogen *Streptococcus pyogenes*.

"16-0166 was used in Functional assays to analyse the efficiency of factor H6-7/Fc, a novel antibacterial immunotherapeutic protein, against the Gram-positive bacterium *Streptococcus pyogenes*."

Authors: Blom AM,Magda M,Kohl L,Shaughnessy J,Lambris JD,Ram S,Ermer D

Year
2017

Species
Human

Dilution
1:10

More applications with references on thermofisher.com

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON-INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (i) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (ii) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (iii) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (iv) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.