

CD16 Monoclonal Antibody (3G8), NovaFluor™ Yellow 700, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Baboon, Chimpanzee, Cynomolgus monkey, Human, Non-human primate, Rhesus monkey
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	3G8
Conjugate	NovaFluor™ Yellow 700
Excitation/Emission Max	551/701 nm
Form	Liquid
Concentration	4 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	4 µL (0.6 µg)/test	-

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 RIIIB. 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 RIIIB 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.

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

Each product contains 1 vial of NovaFluor conjugate and 1 vial of CellBlox Plus Blocking Buffer .

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

Applications Tested: This 3G8 antibody has been pre-diluted and tested by flow cytometric analysis of normal human peripheral blood cells. This may be used at 4 µL (0.6 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.

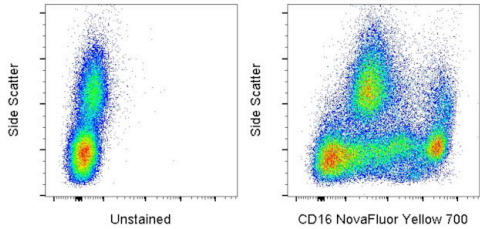
NovaFluor dyes are not compatible with DNA intercalating viability dyes. Do not use viability dyes such as propidium iodide, 7-actinomycin D (7-AAD) and DAPI. Invitrogen LIVE/DEAD Fixable Dead Cell stains are recommended for use with NovaFluor dyes.

This NovaFluor conjugate has been updated to ship with CellBlox Plus Blocking Buffer (Cat. No. (C001T06F01)). This buffer contains formulation improvements over CellBlox. CellBlox Plus Blocking Buffer is required for optimal staining with NovaFluor conjugates and should be used in all experiments where NovaFluor conjugates are used. Whenever possible, we recommend adding CellBlox Plus Blocking Buffer to antibody cocktails/master mixes prior to combining with cells. Add 5 µL per sample (regardless of the number of NovaFluors in your panel) to use the antibody cocktail as intended. For single-color controls, use 5 µL of CellBlox Blocking Buffer per 100 µL of cell sample containing 10³ to 10⁸ cells.

NovaFluor conjugates are based on Phiton™ technology utilizing novel nucleic acid dye structures that allow for engineered fluorescent signatures with consideration for spillover and spread impacts. Learn more

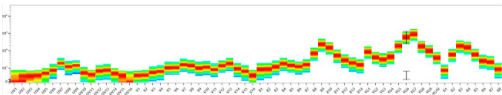
Excitation: 552 nm; Emission: 700 nm; Laser: 561 nm (Yellow) Laser

Product Images For CD16 Monoclonal Antibody (3G8), NovaFluor™ Yellow 700, eBioscience™



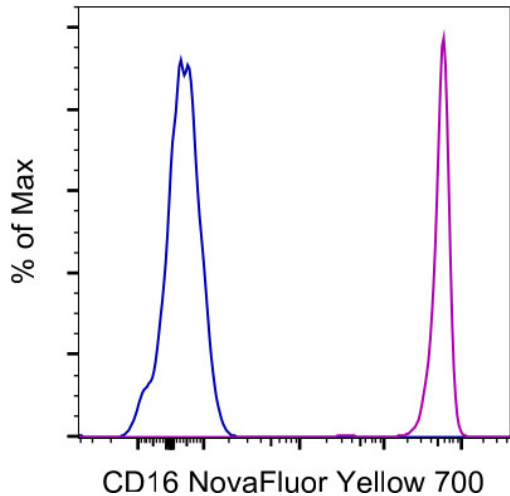
CD16 Antibody (H006T03Y06-A) in Flow

Staining of normal human peripheral blood cells with side scatter and unstained (left) or CD16 Monoclonal Antibody, NovaFluor Yellow 700 (right). Data was acquired in the YG7 channel on a 5-laser Cytex Aurora and singlet cells were used for analysis.



CD16 Antibody (H006T03Y06-A) in Flow

Spectral signature for NovaFluor Yellow 700 collected on a 5-laser Cytex Aurora Full Spectrum flow cytometer using Cytex assay settings. Human peripheral blood mononuclear cells were stained with anti-human CD4 (SK3) and signatures displayed following gating on the lymphocyte population.



CD16 Antibody (H006T03Y06-A) in Flow

Normal human peripheral blood cells were either left unstained (blue histogram) or stained with CD16 Monoclonal Antibody, Novafluor Yellow 700 (purple histogram). Total viable cells in the granulocyte gate were used for analysis, as determined by LIVE/DEAD Blue (Product # L34962). Data was acquired on a 5-laser Cytex Aurora and unmixed with autofluorescence extraction.

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