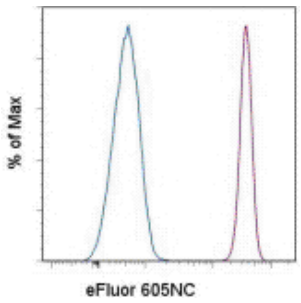
Anti-Human CD16 eFluor® 605NC

Catalog Number: 93-0168
Also Known As: Low Affinity IgG Receptor 3, FCGR3a, FCGR3, IGFR11
RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of pre-lysed normal human peripheral blood cells with Mouse IgG1 K Isotype Control eFluor® 605NC (cat. 93-4714) (blue histogram) or Anti-Human CD16 eFluor® 605NC (purple histogram). Cells in the granulocyte gate were used for analysis.

Product Information

Contents: Anti-Human CD16 eFluor® 605NC
REF **Catalog Number:** 93-0168
Clone: eBioCB16 (CB16)
Concentration: 5 uL
Host/Isotype: Mouse IgG1

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C. Light sensitive material. This product is guaranteed for 6 months upon receipt when stored properly.
LOT **Batch Code:** Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

Description
The eBioCB16 monoclonal antibody recognizes CD16 (FcγRIII), the low-affinity receptor for IgG with an apparent molecular weight of 50-80 kDa. CD16 is represented by two similar genes, CD16A (FcγRIIIA), which exists as a hetero-oligomeric polypeptide-anchored form in macrophages and NK cells and CD16B (FcγRIIIB), which exist as a monomeric GPI-anchored form in neutrophils. Furthermore, there are two known polymorphisms of CD16B, NA-1 and NA-2. Individuals homozygous for NA-2 show a lower phagocytic capacity compared with NA-1. CD16 binds IgG in the form of immune complexes and shows preferential binding of IgG1 and IgG3 isotypes and minimal binding of IgG2 and IgG4. Upon IgG binding, both CD16 isoforms initiate signal transduction cascades that lead to a variety of responses including antibody-dependent cell-mediated cytotoxicity (ADCC), phagocytosis, degranulation and proliferation.

Applications Reported
This eBioCB16 (CB16) antibody has been reported for use in flow cytometric analysis.

Applications Tested
This eBioCB16 (CB16) antibody has been pre-titrated and tested by flow cytometric analysis of RBC-lysed human peripheral blood cells. This can be used at 5 µL per test. A test is defined as the amount 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 10^5 to 10^8 cells/test.

The isotype control eFluor 605NC mouse IgG1 (cat. 93-4714) should be used at 5 µL/test.

Laser/Filter Recommendation: When using eFluor 605NC, we recommend excitation with the 405nm violet laser with an appropriate filter set, such as the 595LP dichroic mirror with the 605/40 bandpass filter. An acceptable alternative is the 610/20 bandpass filter. For instruments not equipped with a violet laser, the eFluor 605NC is also excited by the 488 nm blue laser and can be used as a PE-Texas Red alternative.

Fixation Recommendation: When fixing samples that have been stained with nanocrystal reagents, we recommend keeping the total volume at approximately 200 µL of IC Fixation Buffer (cat. 00-8222) and the exposure time 30-60 minutes to preserve the optimal fluorescent signal from the nanocrystal reagent.

For answers about fixation and other questions, please refer to Nanocrystal Frequently Asked Questions or contact eBioscience Technical Support.

References
Deaglio S, Zubiaur M, Gregorini A, Bottarel F, Ausiello CM, Dianzani U, Sancho J, Malavasi F. Human CD38 and CD16 are functionally dependent and physically associated in natural killer cells. Blood. 2002 Apr 1;99(7):2490-8. (**CB16**, FC, PubMed)

Zilber MT, Gregory S, Mallone R, Deaglio S, Malavasi F, Charron D, Gelin C. CD38 expressed on human monocytes: a coaccessory molecule in the superantigen-induced proliferation. Proc Natl Acad Sci U S A. 2000 Mar 14;97(6):2840-5. (**CB16**, Cell Separation, PubMed)

Wirthmueller U, Kurosaki T, Murakami MS, Ravetch JV. Signal transduction by Fc gamma RIII (CD16) is mediated through the gamma chain. J Exp Med. 1992 May 1;175(5):1381-90.

Related Products
00-4222 Flow Cytometry Staining Buffer
00-4300 10X RBC Lysis Buffer (Multi-species)
93-4714 Mouse IgG1 K Isotype Control eFluor® 605NC (P3.6.2.8.1)

Legal
Under patent number: US 7,939,170 and additional pending patent application(s)

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