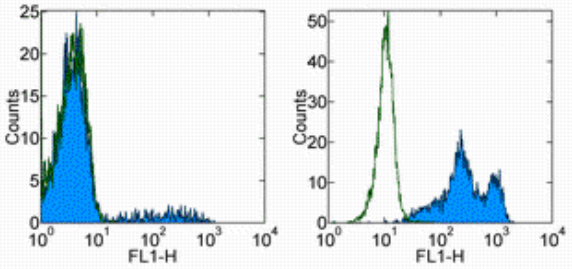
Anti-Human CD16 Purified

Catalog Number: 14-0168
Also Known As: Low Affinity IgG Receptor 3, FCGR3a, FCGR3, IGFR7
RUO: For Research Use Only. Not for use in diagnostic procedures.



Staining of normal human peripheral blood cells with 0.25 ug of Mouse IgG1 K Isotype Control Purified (cat. 14-4714) (open histogram) or 0.25 ug of Anti-Human CD16 Purified (filled histogram) followed by Anti-Mouse IgG FITC (cat. 11-4011). Cells in the lymphocyte (left) and granulocyte (right) gates were used for analysis.

Product Information

Contents: Anti-Human CD16 Purified
REF **Catalog Number:** 14-0168
Clone: eBioCB16 (CB16)
Concentration: 0.5 mg/mL
Host/Isotype: Mouse IgG1, kappa

Formulation: aqueous buffer, 0.09% sodium azide, may contain carrier protein/stabilizer
Temperature Limitation: Store at 2-8°C.
LOT **Batch Code:** Refer to Vial
Use By: Refer to Vial
Caution, contains Azide

Description

The eBioCB16 monoclonal antibody recognizes CD16 (Fc gammaRIII), the low-affinity receptor for IgG with an apparent molecular weight of 50-80 kDa. CD16 is represented by two similar genes, CD16A (Fc gammaRIIIA), which exists as a hetero-oligomeric polypeptide-anchored form in macrophages and NK cells and CD16B (Fc gammaRIIIB), 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. Binding of the eBioCD16 antibody is not blocked by binding of the MEM-154 human CD16 monoclonal antibody.

Applications Tested

This eBioCB16 (CB16) antibody has been tested by flow cytometric analysis of normal human peripheral blood leukocytes. This can be used at less than or equal to 0.5 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 10^5 to 10^8 cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

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

11-4011 Anti-Mouse IgG FITC
11-4317 Streptavidin FITC
13-4013 Anti-Mouse IgG Biotin (Polyclonal)
14-0649 Anti-Human CD64 (Fc gamma Receptor 1) Purified (10.1)
14-4714 Mouse IgG1 K Isotype Control Purified (P3.6.2.8.1)

Tel: 888.999.1371 or 858.642.2058 • Fax: 858.642.2046 • www.eBioscience.com • info@eBioscience.com