

# CD16 Monoclonal Antibody (eBioCB16 (CB16)), PE-Cyanine5, eBioscience™

Product Details	
Size	100 Tests
Species Reactivity	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), PE-Cyanine5, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioCB16 (CB16)
Conjugate	PE-Cyanine5
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with 0.1% gelatin, 0.2% BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2573060

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.25 µg)/test	8 Publications

## Product Specific Information

**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.

**Applications Tested:** This eBioCB16 (CB16) antibody has been pre-titrated and tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at 5 µL (0.25 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<sup>5</sup> to 10<sup>8</sup> cells/test.

**Light sensitivity:** This tandem dye is sensitive photo-induced oxidation. Please protect this vial and stained samples from light.

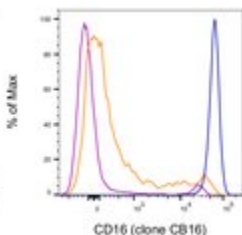
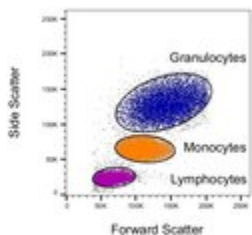
**Fixation:** Samples can be stored in IC Fixation Buffer (cat. 00-8222) (100 µL cell sample + 100 µL IC Fixation Buffer) or 1-step Fix /Lyse Solution (cat. 00-5333) for up to 3 days in the dark at 4°C with minimal impact on brightness and FRET efficiency

/compensation. Some generalizations regarding fluorophore performance after fixation can be made, but clone specific performance should be determined empirically.

Excitation: 488-561 nm; Emission: 667 nm; Laser: Blue Laser, Green Laser, Yellow-Green Laser.

Filtration: 0.2 µm post-manufacturing filtered.

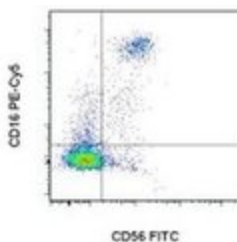
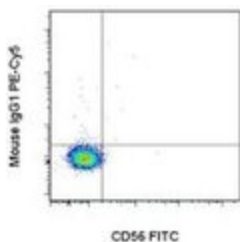
## Advanced Verification Data



### CD16 Antibody (15-0168-42)

Staining of human peripheral blood cells. As expected based on known relative expression patterns, CD16 clone CB16 stains all granulocytes, a subset of monocytes and a subset of lymphocytes (NK cells). Details: Normal human whole blood was surface stained with CD16 (clone CB16). After staining, red blood cells were lysed using 1-step Fix/Lyse Buffer. Cells in the lymphocyte (purple histogram), monocyte (orange histogram), or granulocyte (blue histogram) gates were used for analysis. Relative expression validation info.

## Product Images For CD16 Monoclonal Antibody (eBioCB16 (CB16)), PE-Cyanine5, eBioscience™



### CD16 Antibody (15-0168-42) in Flow

Staining of normal human peripheral blood cells with Anti-Human CD56 (NCAM) FITC (Product # 11-0569) and Mouse IgG1 K Isotype Control PE-Cyanine5 (Product # 15-4714-81) (left) or Anti-Human CD16 PE-Cyanine5 (right). Cells in the lymphocyte gate were used for analysis.

View more figures on [thermofisher.com](http://thermofisher.com)

## 8 References

### Flow Cytometry (8)

Journal of immunology research

#### Circulating Neutrophils of Nonalcoholic Steatohepatitis Patients Show an Activated Phenotype and Suppress T Lymphocytes Activity.

"Published figure using CD16 monoclonal antibody (Product # 15-0168-42) in Flow Cytometry"

Authors: Antonucci L, Porcu C, Timperi E, Santini SJ, Iannucci G, Balsano C

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2021

Arthritis research & therapy

#### CD14<sup>+</sup>CD16<sup>-</sup> monocytes are the main precursors of osteoclasts in rheumatoid arthritis via expressing Tyro3TK.

"Published figure using CD16 monoclonal antibody (Product # 15-0168-42) in Flow Cytometry"

Authors: Xue J, Xu L, Zhu H, Bai M, Li X, Zhao Z, Zhong H, Cheng G, Li X, Hu F, Su Y

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2020

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

### More applications with references on thermofisher.com

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