

CD16 Monoclonal Antibody (eBioCB16 (CB16)), Super Bright™ 645, 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), Super Bright™ 645, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	eBioCB16 (CB16)
Conjugate	Super Bright™ 645
Excitation/Emission Max	414/645 nm
Form	Liquid
Concentration	5 µL/Test
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2, with BSA
Contains	0.09% sodium azide
Storage conditions	4° C, store in dark, DO NOT FREEZE!
RRID	AB_2688210

Applications	Tested Dilution	Publications
Flow Cytometry (Flow)	5 µL (0.125 µg)/test	15 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 (0.125 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.

Super Bright 645 is a tandem dye that can be excited with the violet laser line (405 nm) and emits at 645 nm. We recommend using a 660/20 bandpass filter. Please make sure that your instrument is capable of detecting this fluorochrome.

When using two or more Super Bright dye-conjugated antibodies in a staining panel, it is recommended to use Super Bright Complete Staining Buffer (Product # SB-4401) to minimize any non-specific polymer interactions. Please refer to the datasheet

for Super Bright Staining Buffer for more information.

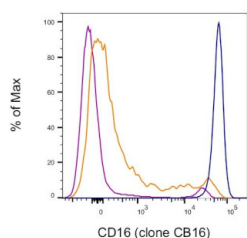
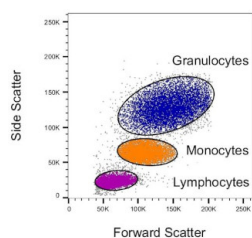
Light sensitivity: This tandem dye is sensitive to photo-induced oxidation. Please protect this vial and stained samples from light.

Fixation: Samples can be stored in IC Fixation Buffer (Product # 00-8222) (100 μ L of cell sample + 100 μ L of IC Fixation Buffer) or 1-step Fix/Lyse Solution (Product # 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: 405 nm; **Emission:** 645 nm; **Laser:** Violet Laser

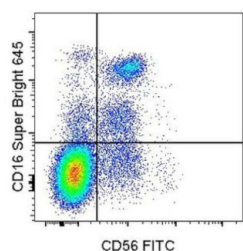
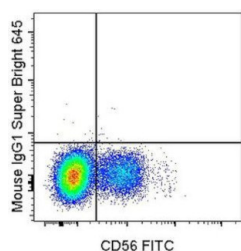
Super Bright Polymer Dyes are sold under license from Becton, Dickinson and Company.

Product Images For CD16 Monoclonal Antibody (eBioCB16 (CB16)), Super Bright™ 645, eBioscience™



CD16 Antibody (64-0168-42)

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. {RE}



CD16 Antibody (64-0168-42) in Flow

Staining of normal human peripheral blood cells with Anti-Human CD56 (NCAM) FITC (Product # 11-0567) and Mouse IgG1 K Isotype Control Super Bright 645 (Product # 64-4714-82) (left) or Anti-Human CD16 Super Bright 645 (right). Cells in the lymphocyte gate were used for analysis.

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Flow Cytometry (15)

PeerJ

SARS-CoV-2 Delta (B.1.617.2) variant replicates and induces syncytia formation in human induced pluripotent stem cell-derived macrophages.

"Published figure using CD16 monoclonal antibody (Product # 64-0168-42) in Flow Cytometry"

Authors: Thaweerattanasin P, Wanitchang A, Saenboonrueng J, Srisutthisamphan K, Wanasen N, Sungsuwan S, Jongkaewwattana A, Chailangkarn T

Year
2023

Wellcome open research

-----A type I IFN, prothrombotic hyperinflammatory neutrophil signature is distinct for COVID-19 ARDS--.

"Published figure using CD16 monoclonal antibody (Product # 64-0168-42) in Flow Cytometry"

Authors: Reyes L, Sanchez-Garcia M, Morrison T, Howden AJM, Watts ER, Arienti S, Sadiku P, Coelho P, Mirchandani AS, Zhang A, Hope D, Clark SK, Singleton J, Johnston S, Grecian R, Poon A, McNamara S, Harper I, Fourman MH, Brenes AJ, Pathak S, Lloyd A, Blanco GR, von Kriegsheim A, Chesquiere B, Vermaelen W, Cologna CT, Dhaliwal K, Hirani N, Dockrell DH, Whyte MKB, Griffith D, Cantrell DA, Walmsley SR

Year
2023

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More applications with references on thermofisher.com

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