CD16 Mouse Monoclonal Antibody (3G8) - Biotium Choice

CD16 (clone 3G8) is a validated mouse monoclonal antibody that recognizes CD16 (also known as FC gamma receptor III), the low-affinity receptor for IgG. The antibody belongs to the Biotium Choice list of select antibodies that have been validated and optimized in-house for optimal performance.

Product Description

CD16 (clone 3G8) is a mouse monoclonal antibody that recognizes IgG receptor CD16, also known as FC gamma receptor III. This antibody belongs to the Biotium Choice list of select antibodies that have been validated and optimized in-house for optimal performance. The antibody is available conjugated to CF® Dyes and Astral™ tandem dyes. They are supplied in PBS, 0.1% BSA, 0.05% azide. This antibody recognizes CD16 (Fc gamma receptor III), the low-affinity receptor for IgG with an apparent molecular weight of 50-80 kDa. CD16 is represented by two similar genes, CD16A (Fc gamma receptor IIIA), which exists as a hetero-oligomeric polypeptide-anchored form in macrophages and NK cells and CD16B (Fc gamma receptor IIIB), 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. As an isotype control, we recommend Isotype Control, Monoclonal Mouse IgG1 Kappa (IGG1/1331) for this antibody. View our full catalog of Biotium Choice antibodies, optimized and validated for the best results in flow cytometry.

Product attributes

Antibody number	P011
Antibody reactivity (target)	CD16
Biotium Choice Antibody	Primary
Antibody type	Biotium Choice Flow Antibodies, Primary
Host species	Mouse
Clonality	Monoclonal
Clone	3G8
Isotype	IgG1, kappa
Molecular weight	29 kDa (predicted); 50-65 kDa (observed)
Synonyms	FCG3A, Fc gamma receptor 3
Human gene symbol	CD16
Entrez gene ID	2214
SwissProt	P08637
Unigene	372679
Immunogen	Human
Antibody target cellular localization	Plasma membrane
Verified antibody applications	Flow (surface) (verified)
Species reactivity	Human
Antibody application notes	Recommended concentration for flow cytometry: 5 uL per million cells/0.1 mL
Positive control	Human peripheral blood mononuclear cells (PBMCs)
Shipping condition	Room temperature
Storage Conditions	Protect fluorescent conjugates from light
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Volume per assay	5 uL/test
Antibody/conjugate formulation	Conjugates: PBS/0.1% BSA/0.05% azide
Antibody research areas	Immunology
Cell/tissue expression	Lymphocytes

Conjugation	Ex/Em	Conc.	Size	Catalog No.	Dye Features
CF®405M	416/452 nm	100 ug/mL	25 tests (125 uL)	P011-405M-125	CF®405M Features
			100 tests (500 uL)	P011-405M-500	
CF®488A	490/516 nm	50 ug/mL	25 tests (125 uL)	P011-488A-125	CF®488A Features
			100 tests (500 uL)	P011-488A-500	
CF®568	562/584 nm	50 ug/mL	25 tests (125 uL)	P011-568-125	CF®568 Features
			100 tests (500 uL)	P011-568-500	
RPE-Astral™616	496, 546, 566/617 nm	200 ug/mL	25 tests (125 uL)	P011-R616-125	
			100 tests (500 uL)	P011-R616-500	
CF®647Plus	652/668 nm	25 ug/mL	25 tests (125 uL)	P011-647P-125	
			100 tests (500 uL)	P011-647P-500	
CF®700	696/721 nm	100 ug/mL	25 tests (125 uL)	P011-700-125	CF®700 Features
			100 tests (500 uL)	P011-700-500	
APC-Astral™813	633, 638/813 nm	100 ug/mL	25 tests (125 uL)	P011-A813-125	
			100 tests (500 uL)	P011-A813-500	
R-PE	496, 546, 565/576 nm	100 ug/mL	25 tests (125 uL)	P011-RPE-125	
			100 tests (500 uL)	P011-RPE-500	