Antibodies

Anti-Human CD16 Antibody, Clone 3G8

Mouse monoclonal IgG1 antibody against human, rhesus, cynomolgus CD16, unconjugated

Catalog #60041	1 mL	0.5 mg/mL
#60041.1	0.1 mL	0.5 mg/mL

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Product Description

The 3G8 antibody reacts with CD16 (FcγRIII or low affinity IgG receptor III), a type 1 transmembrane glycoprotein belonging to the Ig superfamily. CD16 exists in two distinct isoforms: CD16a, a 50 - 65 kDa form expressed on NK cells, activated monocytes, macrophages, and placental trophoblasts, and CD16b, an ~48 kDa glycosylphosphatidylinositol (GPI)-anchored form expressed on neutrophils, basophils and eosinophils and found as at least two polymorphic variants, termed NA1 and NA2. CD16 binds weakly to the Fc region of monomeric, aggregated or complexed IgG, particularly the IgG1 and IgG3 isotypes. Binding of IgG to either CD16 isoform induces signaling pathways that modulate several types of responses, including antibody-dependent cell-mediated cytotoxicity (ADCC), phagocytosis, cytokine release and proliferation. CD16/IgG interactions can result in non-specific labeling in antibody-based detection and cell separation experiments and the 3G8 antibody may be employed as a blocking antibody to reduce non-specific binding.

Target Antigen Name:	CD16
Alternative Names:	CD16A, CD16B, Fc-gamma RIII; FCG3; FCGR3; FCGRIII; FcγRIII; FCR-10, FcRIII, IGFR3, IMD20
Gene ID:	2214
Species Reactivity:	Human, Rhesus, Cynomolgus, Baboon, Capuchin Monkey, Chimpanzee, Common Marmoset, Cotton-topped Tamarin, Pigtailed Macaque, Sooty Mangabey, Squirrel Monkey
Host Species:	Mouse
Clonality:	Monoclonal
Clone:	3G8
Isotype:	IgG1, kappa
Immunogen:	Human polymorphonuclear leukocytes
Conjugate:	Unconjugated

Applications

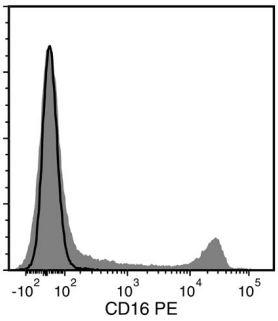
Verified:	Blocking (FC), CellSep, FC
Reported:	Blocking, CellSep, CyTOF®, Depletion, ELISA, FA, FC, ICC, IF, IHC, IP
Special Applications:	This antibody clone has been verified for use as a CD16 (FcγRIII receptor) blocking and/or labeling antibody with EasySep™ and RosetteSep™ Human kits.

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence activated cell sorting; FC: Flow cytometry; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IP: Immunoprecipitation; RIA: Radioimmunoassay; WB: Western blotting

Properties

Formulation:	Phosphate-buffered solution, pH 7.4
Purification:	The antibody was purified by affinity chromatography.
Stability and Storage:	Product stable at 2 - 8°C when stored undiluted. Do not freeze. For product expiry date, please contact techsupport@stemcell.com.
Directions for Use:	The suggested use of this antibody is: FC, ≤ 2 µg per 1 x 10^6 cells in 100 µL volume; Blocking (CellSep), ≤ 3 µg/mL; Blocking (FC), ≤ 1 µg/mL. It is recommended that the antibody be titrated for optimal performance for each application.

Data



Flow cytometry analysis of human peripheral blood mononuclear cells (PBMCs) labeled with Anti-Human CD16 Antibody, Clone 3G8, followed by a rat anti-mouse IgG1 antibody, PE (filled histogram), or Mouse IgG1, kappa Isotype Control Antibody, Clone MOPC-21 (Catalog #60070), followed by a rat anti-mouse IgG1 antibody, PE (solid line histogram).

Related Products

For a complete list of antibodies, including other conjugates, sizes and clones, as well as related products available from STEMCELL Technologies, please visit our website at www.stemcell.com/antibodies or contact us at techsupport@stemcell.com.

References

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