

PerCP/Cy5.5 anti-human CD16

Catalog # / Size: 302027 / 25 tests
302028 / 100 tests

Clone: 3G8

Isotype: Mouse IgG1, κ

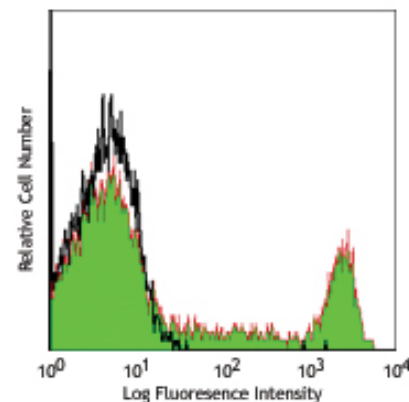
Workshop Number: V NK80

Reactivity: Human, **Cross-Reactivity:** Chimpanzee, Baboon, Cynomolgus, Rhesus, Pigtailed Macaque, Capuchin Monkey, Squirrel Monkey, Sooty Mangabey, Cotton-topped Tamarin, Marmoset

Preparation: The antibody was purified by affinity chromatography, and conjugated with PerCP/Cy5.5 under optimal conditions. The solution is free of unconjugated PerCP/Cy5.5 and unconjugated antibody.

Formulation: Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA).

Storage: The antibody solution should be stored undiluted at 4°C and protected from prolonged exposure to light. **Do not freeze.**



Human peripheral blood lymphocytes stained with 3G8 PerCP/Cy5.5

Applications:

Applications: FC - Quality tested

Recommended Usage: Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For immunofluorescent staining, the suggested use of this reagent is 5 μ l per million cells or 5 μ l per 100 μ l of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.

* PerCP/Cy5.5 has a maximum absorption of 482 nm and 564 nm and a maximum emission of 690 nm.

Application Notes: The 3G8 antibody blocks neutrophil phagocytosis and stimulates NK cell proliferation. Additional reported applications (for the relevant formats) include: immunohistochemical staining of acetone-fixed frozen tissue sections⁶, immunoprecipitation³, stimulation of NK cell proliferation⁴, blocking of phagocytosis⁵, and blocking of immunoglobulin binding to Fc γ R1II^{7,8}. The LEAF™ purified antibody (Endotoxin <0.1 EU/ μ g, Azide-Free, 0.2 μ m filtered) is recommended for functional assays (Cat. No. 302014). For highly sensitive assays, we recommend Ultra-LEAF™ purified antibody (Cat. No. 302050) with a lower endotoxin limit than standard LEAF™ purified antibodies (Endotoxin <0.01 EU/ μ g).

Cy3, Cy5, Cy5.5 and Cy7 are subject to proprietary rights of GE Healthcare Bio-Sciences Corp. and Carnegie Mellon University and made and sold under license from GE Healthcare Bio-Sciences Corp. Sale of this product is licensed for research use only.

- Application References:**
- Knapp W, *et al.* Eds. 1989. Leucocyte Typing IV. Oxford University Press. New York.
 - Schlossman S, *et al.* Eds. 1995. Leucocyte Typing V. Oxford University Press. New York.
 - Edberg J, *et al.* 1997. *J. Immunol.* 159:3849. (IP)
 - Hoshino S, *et al.* 1991. *Blood* 78:3232. (Stim)
 - Tamm A, *et al.* 1996. *Immunol.* 157:1576. (Block)
 - Da Silva DM, *et al.* 2001. *Int. Immunol.* 13:633. (IHC)
 - Höll V, *et al.* 2004. *J. Immunol.* 173:6274. (Block)
 - Hober D, *et al.* 2002. *J. Gen. Virol.* 83:2169. (Block)
 - Brainard DM, *et al.* 2009. *J. Virol.* 83:7305. PubMed
 - Smed-Sørensen A, *et al.* 2008. *Blood* 111:5037. (Block) PubMed
 - Timmerman KL, *et al.* 2008. *J. Leukoc. Biol.* 84:1271. (FC) PubMed
 - Yoshino N, *et al.* 2000. *Exp. Anim. (Tokyo)* 49:97. (FC)
 - Rout N, *et al.* 2010. *PLoS One* 5:e9787. (FC)
 - Kim WK, *et al.* 2006. *Am. J. Pathol.* 168:822. (FC)
 - Boltz A, *et al.* 2011. *J. Biol Chem.* 286:21896. PubMed

Description: CD16 is known as low affinity IgG receptor III (Fc γ R1II). It is expressed as two distinct forms (CD16a and CD16b). CD16a (Fc γ R1IIIA) is a 50-65 kD polypeptide-anchored transmembrane protein. It is expressed on the surface of NK cells, activated monocytes, macrophages, and placental trophoblasts in humans. CD16b (Fc γ R1IIIB) is a 48 kD glycosylphosphatidylinositol (GPI)-anchored protein. Its extracellular domain is over 95% homologous to that of CD16a, and it is expressed specifically on neutrophils. CD16 binds aggregated IgG or IgG-antigen complex which functions in NK cell activation, phagocytosis, and antibody-dependent cell-mediated cytotoxicity (ADCC).

- Antigen References:**
- Fleit H, *et al.* 1982. *P. Natl. Acad. Sci. USA* 79:3275.
 - Stroncek D, *et al.* 1991. *Blood* 77:1572.



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3. Wirthmueller U, *et al.* 1992. *J. Exp. Med.* 175:1381.

Related Products:	Product	Clone	Application
	Cell Staining Buffer		FC, ICC, ICFC
	RBC Lysis Buffer (10X)		FC, ICFC
	PerCP/Cy5.5 Mouse IgG1, κ Isotype Ctrl	MOPC-21	FC, ICFC
	Human TruStain FcX™ (Fc Receptor Blocking Solution)		FC, ICC, ICFC



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