

Anti-Human CD16 Antibody [PSH04-95]

HA601340



Product Type:	Recombinant Mouse monoclonal IgG1, primary antibodies
Species reactivity:	Human
Applications:	FC
Molecular Wt:	Predicted band size: 29 kDa
Clone number:	PSH04-95

Description: CD16, also known as FcγRIII, is a cluster of differentiation molecule found on the surface of natural killer cells, neutrophils, monocytes, macrophages, and certain T cells. CD16 has been identified as Fc receptors FcγRIIIa (CD16a) and FcγRIIIb (CD16b), which participate in signal transduction. The most well-researched membrane receptor implicated in triggering lysis by NK cells, CD16 is a molecule of the immunoglobulin superfamily (IgSF) involved in antibody-dependent cellular cytotoxicity (ADCC). It can be used to isolate populations of specific immune cells through fluorescent-activated cell sorting (FACS) or magnetic-activated cell sorting, using antibodies directed towards CD16. CD16 is the type III Fcγ receptor. In humans, it exists in two different forms: FcγRIIIa (CD16a) and FcγRIIIb (CD16b), which have 96% sequence similarity in the extracellular immunoglobulin binding regions. While FcγRIIIa is expressed on mast cells, macrophages, and natural killer cells as a transmembrane receptor, FcγRIIIb is only expressed on neutrophils. In addition, FcγRIIIb is the only Fc receptor anchored to the cell membrane by a glycosyl-phosphatidylinositol (GPI) linker, and also plays a significant role in triggering calcium mobilization and neutrophil degranulation. FcγRIIIa and FcγRIIIb together are able to activate degranulation, phagocytosis, and oxidative burst, which allows neutrophils to clear opsonized pathogens.

Immunogen: Recombinant protein within

Positive control: Human peripheral blood granulocytes.

Subcellular location: Cell membrane, Secreted.

Database links: SwissProt: P08637 Human

Recommended Dilutions:

FC 1:1,000

Storage Buffer: PBS (pH7.4), 0.1% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4°C after thawing. Aliquot store at -20°C. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

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Technical:0086-571-89986345

Service mail:support@huabio.cn

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Images

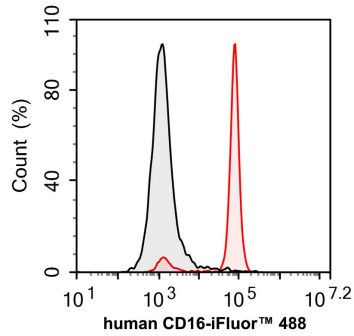


Fig1: Flow cytometric analysis of human peripheral blood granulocytes labeling Human CD16.

Cells were washed twice with cold PBS and resuspend. Then stained with the primary antibody (HA601340, 1 μ g/mL) (red) compared with Rabbit IgG Isotype Control (black). After incubation of the primary antibody at +4 $^{\circ}$ C for an hour, the cells were stained with a iFluor[™] 488 conjugate-Goat anti-Mouse IgG Secondary antibody (HA1125) at 1/1,000 dilution for 30 minutes at +4 $^{\circ}$ C.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Liu X et al. CD16(+) fibroblasts foster a trastuzumab-refractory microenvironment that is reversed by VAV2 inhibition. *Cancer Cell*. 2022 Nov
2. Cocker ATH et al. The CD56-CD16+ NK cell subset in chronic infections. *Biochem Soc Trans*. 2023 Jun

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