**CD16 (YFC 120.5): sc-58962**

## BACKGROUND

CD16, the low affinity Fcγ receptor III (FcγRIII) for IgG, exists both as a polypeptide-anchored form known as FcγRIIIA or CD16-A in human natural killer cells and macrophages and as a glycosylphosphatidylinositol-anchored form (FcγRIIIB or CD16-B) in neutrophils. CD16-A requires association of the γ subunit of FeεRI or the ζ subunit of the TCR-CD3 complex for cell surface expression. CD16-B is polymorphic; the two alleles are designated NA1 and NA2. CD16 is one of only four eukaryotic receptors known to exist natively in both the transmembrane (TM) isoform (CD16-A) and glycosylphosphatidylinositol (GPI) isoform (CD16-B). Patients with paroxysmal nocturnal haemoglobinuria (PNH) have only about 10% of the normal levels of CD16 on their neutrophils, whereas the expression of FcγRII is unaffected. Analysis of FcγRII expression in cells of PNH patients, known to be deficient in PI-linked proteins, suggests FcγRII is not PI-linked in monocytes.

## REFERENCES


## CHROMOSOMAL LOCATION

Genetic locus: FCGR3A/FCGR3B (human) mapping to 1q23.3; Klrb1c (mouse) mapping to 6 F3.

## SOURCE

CD16 (YFC 120.5) is a rat monoclonal antibody raised against neutrophils of human origin.

## PRODUCT

Each vial contains 200 µg IgG₂B in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD16 (YFC 120.5) is available conjugated to either phycoerythrin (sc-58962 PE), fluorescein (sc-58962 FITC), Alexa Fluor® 488 (sc-58962 AF488), Alexa Fluor® 546 (sc-58962 AF546), Alexa Fluor® 594 (sc-58962 AF594) or Alexa Fluor® 647 (sc-58962 AF647), 200 µg/ml, for WB (RGB), IF, IHC, FCM; and to either Alexa Fluor® 680 (sc-58962 AF680) or Alexa Fluor® 790 (sc-58962 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

CD16 (YFC 120.5) is recommended for detection of CD16-A and CD16-B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation (1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for CD16 siRNA (h): sc-42758, CD16 shRNA Plasmid (h): sc-42758-SH or CD16 shRNA (h) Lentiviral Particles: sc-42758-V.

Molecular Weight of CD16: 50-100 kDa.

Positive Controls: CCRF-HSB-2 cell lysate: sc-2265, JAR cell lysate: sc-2276 or human platelet extract: sc-383773.

## DATA

CD16 (YFC 120.5): sc-58962. Western blot analysis of CD16 expression in human PBL (A, B) whole cell lysates under reducing (A) and non-reducing (B) conditions.

CD16 (YFC 120.5): sc-58962. Western blot analysis of CD16 expression in CCRF-HSB-2 (A) and JAR (B) whole cell lysates.

## SELECT PRODUCT CITATIONS


## STORAGE

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.