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

**CHROMOSOMAL LOCATION**

Genetic locus: FCGR3A (human) mapping to 1q23.3.

**SOURCE**

CD16 (DJ130c) is a mouse monoclonal antibody raised against CD16 of human origin.

**PRODUCT**

Each vial contains 200 µg IgGκ, kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

CD16 (DJ130c) is available conjugated to agarose (sc-20052 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-20052 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-20052 PE), fluorescein (sc-20052 FITC), Alexa Fluor® 488 (sc-20052 AF488) or Alexa Fluor® 647 (sc-20052 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

In addition, CD16 (DJ130c) is available conjugated to either PerCP (sc-20052 PerCP) or PerCP-Cy5.5 (sc-20052 PCP5), 100 tests in 2 ml, for IF, IHC(P) and FCM.

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**APPLICATIONS**

CD16 (DJ130c) is recommended for detection of CD16 of 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], immunohistochemistry (including paraffin-embedded sections) [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 and CD16 shRNA (h) Lentiviral Particles: sc-42758-V.

Molecular Weight of CD16: 50-100 kDa.

Positive Controls: CD16 (h): 293T Lysate: sc-114183, human platelet extract: sc-363773 or NK-92 whole cell lysate: sc-364788.

**RESEARCH USE**

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

**STORAGE**

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

**DATA**

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

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