Anti-CD16 Antibody [JE49-79]

ET7109-97

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB
Molecular Wt:	Predicted band size: 29 kDa.
Clone number:	JE49-79

Description: CD16, also known as FcγRIII, is a cluster of differentiation molecule found on the surface of natural killer cells, neutrophils, monocytes, and macrophages. 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 Human CD16 aa 151-254 / 254.
Positive control:	THP-1 cell lysate, Jurkat cell lysate, RAW264.7 cell lysate, rat spleen tissue lysate, rat thymus tissue lysate.
Subcellular location:	Cell membrane, Membrane, Secreted.
Database links:	SwissProt: P08637 Human | P08508 Mouse | P27645 Rat
Recommended Dilutions:	
WB	1:1,000
Storage Buffer:	1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.
Storage Instruction:	Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.
Purity:	Protein A affinity purified.

Images

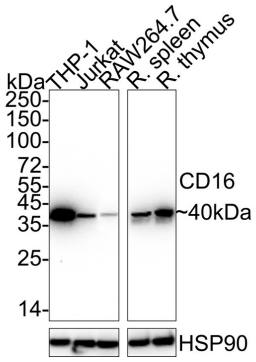

Fig1: Western blot analysis of CD16 on different lysates with Rabbit anti-CD16 antibody (ET7109-97) at 1/1,000 dilution.

Lane 1: THP-1 cell lysate (20 µg/Lane)
Lane 2: Jurkat cell lysate (20 µg/Lane)
Lane 3: RAW264.7 cell lysate (20 µg/Lane)
Lane 4: Rat spleen tissue lysate (40 µg/Lane)
Lane 5: Rat thymus tissue lysate (40 µg/Lane)

Predicted band size: 29 kDa
Observed band size: 40 kDa

Exposure time: 10 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (ET7109-97) at 1/1,000 dilution was used in 5% NFDM/TBST at 4℃ overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

Background References

1. Mizushima T.et.al.Structural basis for improved efficacy of therapeutic antibodies on defucosylation of their Fc glycans.Genes Cells 16:1071-1080(2011).