

Anti-CD16 Antibody

IRS017



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	mIHC
Molecular Wt:	Predicted band size: 29 kDa

Description: This gene encodes a receptor for the Fc portion of immunoglobulin G, and it is involved in the removal of antigen-antibody complexes from the circulation, as well as other responses, including antibody dependent cellular mediated cytotoxicity and antibody dependent enhancement of virus infections. This gene (FCGR3A) is highly similar to another nearby gene (FCGR3B) located on chromosome 1. The receptor encoded by this gene is expressed on natural killer (NK) cells as an integral membrane glycoprotein anchored through a transmembrane peptide, whereas FCGR3B is expressed on polymorphonuclear neutrophils (PMN) where the receptor is anchored through a phosphatidylinositol (PI) linkage. Mutations in this gene are associated with immunodeficiency 20, and have been linked to susceptibility to recurrent viral infections, susceptibility to systemic lupus erythematosus, and alloimmune neonatal neutropenia. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. CD16 (FcγRIII) is a low affinity Fc receptor that binds to IgG antibodies. Two forms of the receptor, CD16A (FcγRIIIa) and CD16B (FcγRIIIb) are present in natural killer cells, neutrophils, monocytes and activated macrophages. Antibody-dependent cell-mediated cytotoxicity (ADCC), cytokine release and microbe killing can be induced upon binding with CD16. Sconocchia, et al. demonstrated in a recent study that colorectal carcinoma patients with high CD16+ cell infiltration was associated with improved overall survival after adjusting for known prognostic factors and this association was independent from CD8+ lymphocyte infiltration and presence of metastases.

Immunogen: Recombinant protein within human CD16 aa 17-208 (Extracellular).

Positive control: Human tonsils tissue.

Subcellular location: Cell membrane, Secreted.

Database links: SwissProt: P08637 Human

Recommended Dilutions:
mIHC 1:100

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

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

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Images

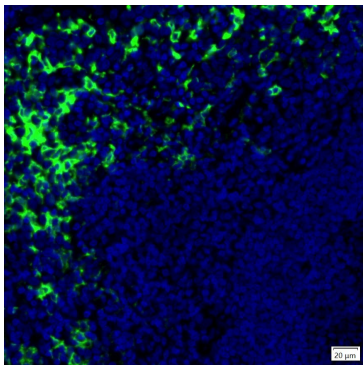


Fig1: mlHC analysis of human tonsils tissue (Formalin/PFA-fixed paraffin-embedded sections) with Rabbit anti-CD16 antibody (IRS017) at 1/100 dilution. The immunostaining was performed with the IRISKitCmTSA Kit (900808). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins at 95°C. DAPI (blue) was used as a nuclear counter stain. Image acquisition was performed with Olympus VS200 Slide Scanner.

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

Background References

1. Cheng ZF. et. al. A novel endogenous CD16-Expressing Natural Killer Cell for cancer immunotherapy. *Biochem Biophys Rep.* 2021 Feb
2. Zhang J. et. al. The immune potential of decidua-resident CD16(+)CD56(+) NK cells in human pregnancy. *Hum Immunol.* 2021 May

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