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Anti-FCGR3A / CD16A Antibody
Rabbit Anti Human Polyclonal Antibody
Catalog # ALS18334

Specification

Anti-FCGR3A / CD16A Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	P08637
Predicted	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**29089**

Anti-FCGR3A / CD16A Antibody - Additional Information

Gene ID 2214

Alias Symbol	**FCGR3A**

Other Names
FCGR3A, CD16A, CD16a antigen, CD16, FcgammaRIIIA, FCR-10, FCRIII, Fc gamma receptor III-A, Fc-gamma RIII, Fc-gamma RIII-alpha, FCG3, IGFR3, Fc- gamma riii, Fc-gamma receptor IIIb (CD16), Fc-gamma RIIIa, FCGR3, FCRIIIA, Neutrophil-specific antigen NA, ...

Target/Specificity
Human FCGR3A / CD16A

Reconstitution & Storage
Affinity purified

Precautions
Anti-FCGR3A / CD16A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-FCGR3A / CD16A Antibody - Protein Information

Name FCGR3A {ECO:0000303|PubMed:23006327}

Function
Receptor for the invariable Fc fragment of immunoglobulin gamma (IgG). Optimally activated upon binding of clustered antigen-IgG complexes displayed on cell surfaces, triggers lysis of antibody-coated cells, a process known as antibody-dependent cellular cytotoxicity (ADCC). Does not bind free monomeric IgG, thus avoiding inappropriate effector cell activation in the absence of antigenic trigger (PubMed:24412922, PubMed:25786175, PubMed:21768335, PubMed:22023369, PubMed:<a href="http://www.uniprot.org/citations/8609432"

target="_blank">8609432, PubMed:9242542, PubMed:25816339, PubMed:11711607, PubMed:28652325). Mediates IgG effector functions on natural killer (NK) cells. Binds antigen-IgG complexes generated upon infection and triggers NK cell-dependent cytokine production and degranulation to limit viral load and propagation. Involved in the generation of memory- like adaptive NK cells capable to produce high amounts of IFNG and to efficiently eliminate virus-infected cells via ADCC (PubMed:25786175, PubMed:24412922). Regulates NK cell survival and proliferation, in particular by preventing NK cell progenitor apoptosis (PubMed:9916693, PubMed:29967280). Fc-binding subunit that associates with CD247 and/or FCER1G adapters to form functional signaling complexes. Following the engagement of antigen-IgG complexes, triggers phosphorylation of immunoreceptor tyrosine-based activation motif (ITAM)-containing adapters with subsequent activation of phosphatidylinositol 3-kinase signaling and sustained elevation of intracellular calcium that ultimately drive NK cell activation. The ITAM-dependent signaling coupled to receptor phosphorylation by PKC mediates robust intracellular calcium flux that leads to production of pro-inflammatory cytokines, whereas in the absence of receptor phosphorylation it mainly activates phosphatidylinositol 3-kinase signaling leading to cell degranulation (PubMed:2532305, PubMed:1825220, PubMed:23024279). Costimulates NK cells and trigger lysis of target cells independently of IgG binding (PubMed:23006327, PubMed:10318937). Mediates the antitumor activities of therapeutic antibodies. Upon ligation on monocytes triggers TNFA-dependent ADCC of IgG-coated tumor cells (PubMed:27670158). Mediates enhanced ADCC in response to afucosylated IgGs (PubMed:34485821).

Cellular Location
Cell membrane; Single-pass type I membrane protein. Secreted. Note=Exists also as a soluble receptor

Tissue Location
Expressed in natural killer cells (at protein level) (PubMed:2526846). Expressed in a subset of circulating monocytes (at protein level) (PubMed:27670158).

Anti-FCGR3A / CD16A Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-FCGR3A / CD16A Antibody - Images