

**Anti-FcγR3a / CD16a Reference Antibody (AFM13)
Recombinant Antibody
Catalog # APR10729****Specification**

Anti-FcγR3a / CD16a Reference Antibody (AFM13) - Product Information

Application	FC, E, FTA
Primary Accession	P08637
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG2SA
Calculated MW	124.56 KDa

Anti-FcγR3a / CD16a Reference Antibody (AFM13) - Additional Information**Target/Specificity**
FcγR3a / CD16a**Endotoxin**
< 0.001EU/ μg, determined by LAL method.**Conjugation**
Unconjugated**Expression system**
CHO Cell**Format**
Purified monoclonal antibody supplied in PBS, pH6.0, without preservative. This antibody is purified through a protein A column.**Anti-FcγR3a / CD16a Reference Antibody (AFM13) - 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: [11711607](http://www.uniprot.org/citations/11711607), PubMed: [21768335](http://www.uniprot.org/citations/21768335), PubMed: [22023369](http://www.uniprot.org/citations/22023369), PubMed: [24412922](http://www.uniprot.org/citations/24412922), PubMed: [25786175](http://www.uniprot.org/citations/25786175), PubMed: [25816339](http://www.uniprot.org/citations/25816339), PubMed: [28652325](http://www.uniprot.org/citations/28652325), PubMed: [8609432](http://www.uniprot.org/citations/8609432))

target="_blank">8609432, PubMed:9242542). 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:24412922, PubMed:25786175). Regulates NK cell survival and proliferation, in particular by preventing NK cell progenitor apoptosis (PubMed:29967280, PubMed:9916693). 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:1825220, PubMed:23024279, PubMed:2532305). Costimulates NK cells and trigger lysis of target cells independently of IgG binding (PubMed:10318937, PubMed:23006327). 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).

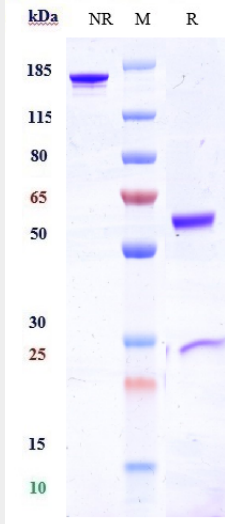
Anti-FcγR3a / CD16a Reference Antibody (AFM13) - Protocols

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

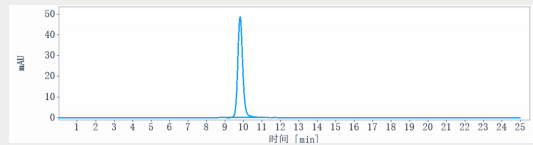
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-FcγR3a / CD16a Reference Antibody (AFM13) - Images





Anti-FcγR3a / CD16a Reference Antibody (AFM13) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%



The purity of Anti-FcγR3a / CD16a Reference Antibody (AFM13) is more than 99.55% ,determined by SEC-HPLC.