Recombinant FCG3A protein (His tag)

Catalog Number	537457
Synonyms	IgG Fc receptor III-A; CD16-II; CD16a antigen; Fc-gamma RIII-alpha; Fc-gamma RIII; Fc-gamma RIIIa; FcRIII; FcRIIIa; FcgammaRIIIA; FcR-10; IgG Fc receptor III-2; CD antigen CD16a
Species	Human
Expression System	E. coli
Accession	P08637
Molecular Weight	Predictes a molecular mass of 23.49 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	17-208
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 17-208 aa (P08637) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human FCGR3A (CD16a) Fragment (aa 17-208) – a high-purity protein encompassing the two extracellular Ig-like C2-type domains essential for IgG Fc binding. This fragment is an invaluable tool for studying antibody-dependent cellular cytotoxicity (ADCC), immune cell activation, and Fc receptor biology in therapeutic antibody research and immunology studies. FCGR3A (CD16a) is a low-affinity immunoglobulin gamma Fc region receptor primarily expressed on natural killer (NK) cells and monocytes. It functions as a key mediator of antibody-dependent cellular cytotoxicity (ADCC) by binding clustered antigen-IgG complexes on target cells, triggering NK cell activation, cytokine production, and degranulation. The receptor associates with signaling adapters (CD247/FCER1G) to initiate ITAM-dependent phosphorylation, calcium flux, and phosphatidylinositol 3-kinase signaling. It also regulates NK cell survival, supports memory-like NK cell development, and enhances antitumor responses to therapeutic antibodies. FCGR3A exists as a single-pass type I membrane protein but also has a soluble secreted form. Notably, it contributes to Dengue virus pathogenesis through antibody-dependent enhancement. The recombinant fragment (aa 17-208) contains the functional Ig-like domains critical for Fc binding and ligand interactions.