

# Recombinant Human Fc-gamma RIII alpha/CD16a Protein

Catalog No.: RP00066 **Recombinant**

## Sequence Information

| Species | Gene ID | Swiss Prot |
|---------|---------|------------|
| Human   | 2214    | P08637     |

### Tags

C-His

### Synonyms

CD16; CD16A; FCG3; FCGR3; FCGR3B; FCGR3C; FCGR3D; FCGR3E; FCGR3F; FCGR3G; FCGR3H; FCGR3I; FCGR3J; FCGR3K; FCGR3L; FCGR3M; FCGR3N; FCGR3O; FCGR3P; FCGR3Q; FCGR3R; FCGR3S; FCGR3T; FCGR3U; FCGR3V; FCGR3W; FCGR3X; FCGR3Y; FCGR3Z; FCGR3AA; FCGR3AB; FCGR3AC; FCGR3AD; FCGR3AE; FCGR3AF; FCGR3AG; FCGR3AH; FCGR3AI; FCGR3AJ; FCGR3AK; FCGR3AL; FCGR3AM; FCGR3AN; FCGR3AO; FCGR3AP; FCGR3AQ; FCGR3AR; FCGR3AS; FCGR3AT; FCGR3AU; FCGR3AV; FCGR3AW; FCGR3AX; FCGR3AY; FCGR3AZ; FCGR3BA; FCGR3BB; FCGR3BC; FCGR3BD; FCGR3BE; FCGR3BF; FCGR3BG; FCGR3BH; FCGR3BI; FCGR3BJ; FCGR3BK; FCGR3BL; FCGR3BM; FCGR3BN; FCGR3BO; FCGR3BP; FCGR3BQ; FCGR3BR; FCGR3BS; FCGR3BT; FCGR3BU; FCGR3BV; FCGR3BW; FCGR3BX; FCGR3BY; FCGR3BZ; FCGR3CA; FCGR3CB; FCGR3CC; FCGR3CD; FCGR3CE; FCGR3CF; FCGR3CG; FCGR3CH; FCGR3CI; FCGR3CJ; FCGR3CK; FCGR3CL; FCGR3CM; FCGR3CN; FCGR3CO; FCGR3CP; FCGR3CQ; FCGR3CR; FCGR3CS; FCGR3CT; FCGR3CU; FCGR3CV; FCGR3CW; FCGR3CX; FCGR3CY; FCGR3CZ; FCGR3DA; FCGR3DB; FCGR3DC; FCGR3DD; FCGR3DE; FCGR3DF; FCGR3DG; FCGR3DH; 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## Product Information

| Source       | Purification       |
|--------------|--------------------|
| HEK293 cells | > 95% by SDS-PAGE. |

### Endotoxin

< 0.1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Background

This protein is 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 antibody-dependent responses. The protein 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 have been linked to susceptibility to recurrent viral infections, susceptibility to systemic lupus erythematosus, and alloimmune neonatal neutropenia.

## Basic Information

### Description

Recombinant Human Fc-gamma RIII alpha/CD16a Protein is produced by HEK293 expression system. The target protein is expressed with sequence (Gly17-Gln208) of human Fc gamma RIIIA/CD16a (Accession #NP\_001121065.1) fused with a 6xHis tag at the C-terminus.

### Bio-Activity

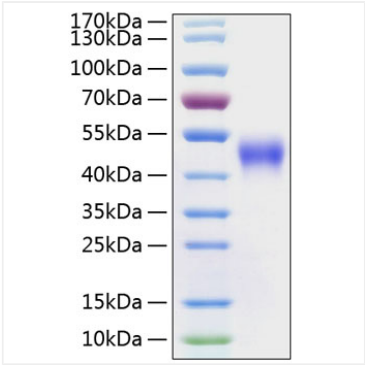
1. Measured by its binding ability in a functional ELISA. Immobilized Human FCGR3A at 1 μg/mL (100 μL/well) can bind FCGR3A Mouse mAb with a linear range of 0.13-6.1 ng/mL. 2. Measured by its binding ability in a functional ELISA. Immobilized Human FCGR3A at 1 μg/mL (100 μL/well) can bind FCGR3A Mouse mAb with a linear range of 0.06-7.1 ng/mL.

### Storage

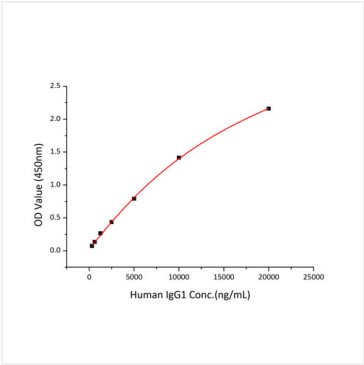
Store the lyophilized protein at -20°C to -80 °C for long term. After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

## Contact

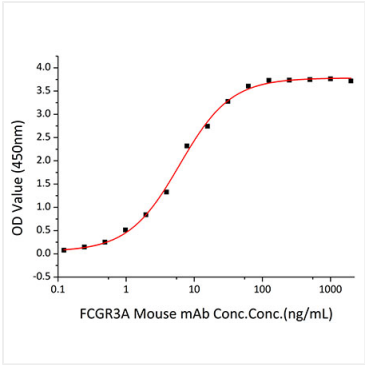
Validation Data



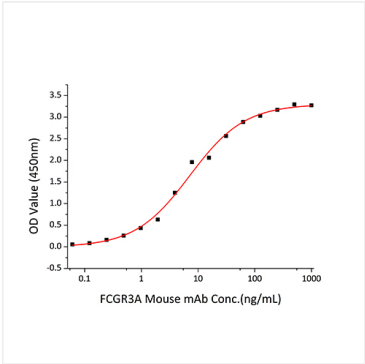
Recombinant Human Fc-gamma RIII alpha/CD16a Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 45-52 kDa.



Immobilized Recombinant Human CD16A at 5 µg/mL (100 µL/well) can bind Recombinant IgG1 with a linear range of 10-40 µg/mL.



Immobilized recombinant Human FCGR3A at 1µg/mL (100 µL/well) can bind FCGR3A Mouse mAb with a linear range of 0.13-6.1ng/mL.



Immobilized Human FCGR3A at 1 µg/mL (100 µL/well) can bind FCGR3A Mouse mAb with a linear range of 0.06-7.1 ng/mL.