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## Recombinant Human CD16a/FCGR3A Protein (His Tag)

Catalog No. PKSH032420

Note: Centrifuge before opening to ensure complete recovery of vial contents.

## **Description**

Synonyms Low Affinity Immunoglobulin Gamma Fc Region Receptor III-A;CD16a

Antigen;Fc-Gamma RIII-Alpha;Fc-Gamma RIII;Fc-gamma

RIIIa;FcRIII;FcRIIIa;FcR-10;IgG Fc Receptor

III-2;CD16a;FCGR3A;CD16A;FCG3;FCGR3;IGFR3;CD16;CD16A

**Species** Human

Expression Host HEK293 Cells Sequence Gly17-Gln208

AccessionP08637Calculated Molecular Weight22.7 kDaObserved molecular weight35-50 kDaTagC-His

**Bioactivity** Not validated for activity

### **Properties**

**Purity** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage** Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to

-80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots

of reconstituted samples are stable at  $< -20^{\circ}$ C for 3 months.

**Shipping** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation** Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

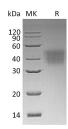
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

protectants before lyophilization.

Please refer to the specific buffer information in the printed manual.

**Reconstitution** Please refer to the printed manual for detailed information.

#### Data



> 95 % as determined by reducing SDS-PAGE.

#### For Research Use Only

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#### **Elabscience Bionovation Inc.**



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# **Background**

Receptors for the Fc region of immunoglobin G (Fc $\gamma$ R) are divided into three classes and Fc $\gamma$ RIII is a multifunctional; low/intermediate affinity receptor. In humans; Fc $\gamma$ RIII is expressed as two distinct forms (Fc $\gamma$ RIIIA and Fc $\gamma$ RIIIB) that are encoded by two different but highly homologous genes in a cell type-specific manner. Fc $\gamma$ RIIIB is a low-affinity; GPI-linked receptor expressed by neutrophils and eosinophils; whereas Fc $\gamma$ RIIIA is an intermediate affinity polypeptide-anchored transmembrane glycoprotein expressed by a subset of T lymphocytes; natural killer (NK) cells; monocytes; and macrophages. The Fc $\gamma$ RIIIA receptor is involved in phagocytosis; secretion of enzymes; inflammatory mediators; antibody-dependent cellular cytotoxicity (ADCC); mast cell degranulation; and clearance of immune complexes. Fc $\gamma$ RIIIA has an immunoreceptor tyrosine-based activation motif (ITAM) in its cytoplasmic domain and delivers an activation signal in the immune responses. Aberrant expression or mutations in this gene is implicated in susceptibility to recurrent viral infections; systemic lupus erythematosus; and alloimmune neonatal neutropenia. In humans; it is a 50 -70 kD type I transmembrane activating receptor.

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