# Recombinant Human CD32a/FCGR2A Protein (167 His, His Tag)



Catalog Number: PKSH030294

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

### **Description**

Synonyms Low affinity immunoglobulin gamma Fc region receptor II-a;IgG Fc receptor II-

a;CDw32;Fc-gamma RII-a;Fc-gamma-RIIa;FcRII-

a;CD32;FCGR2A;FCG2;FCGR2A1;IGFR2;CD32A;CDw32;Fc gamma

RIIA;FCG2;FcGR;FCGR2

Species Human

Expression Host

Sequence

Met 1-Ile 218

Accession

P12318-1

Calculated Molecular Weight

Observed molecular weight

Tag

HEK293 Cells

Met 1-Ile 218

P12318-1

22 kDa

30 kDa

C-His

**Bioactivity** Measured by its ability to bind Human IgG2-Fc (Native) in a functional ELISA.

### **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°C for 3 months.

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

**Formulation** Lyophilized from sterile PBS, pH 7.5

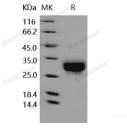
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as

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.

### **Background**

Receptors for the Fc region of IgG (Fc $\gamma$ R) are members of the Ig superfamily that function in the activation or inhibition of immune responses. Human Fc $\gamma$ Rs are divided into three classes designated Fc $\gamma$ RI (CD64), Fc $\gamma$ RII (CD32), and Fc $\gamma$ RIII (CD16), which generate multiple isoforms, are recognized. The activating- type receptor either has or associates non-covalently with an accessory subunit that has an immunoreceptor tyrosine-based activation motif (ITAM) in its

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cytoplasmic domain. Fc $\gamma$ RI binds IgG with high affinity and functions during early immune responses, whereas Fc $\gamma$ RII and RIII are low affinity receptors that recognize IgG as aggregates surrounding multivalent antigens during late immune responses. Three genes for human Fc $\gamma$ RII (A, B, and C) and one for mouse (Fc $\gamma$ RIIB), encoding type I transmembrane proteins with ITAM motifs (Fc $\gamma$ RII A and C) or ITIM motifs (Fc $\gamma$ RIIB) in their cytoplasmic domains, have been identified. Human CD32, also known as Low affinity immunoglobulin  $\gamma$  Fc region receptor II-a, Fc $\gamma$ RII A or FCGR2A Protein, is expressed on cells of both myeloid and lymphoid lineages as well as on cells of non-hematopoietic origin. Associated with an ITAM-bearing adapter subunit, FcR $\gamma$ , CD32a delivers an activating signal upon ligand binding, and results in the initiation of inflammatory responses including cytolysis, phagocytosis, degranulation, and cytokine production.

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