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

Catalog Number: PKSH030290

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

#### Description

Species Human

Source HEK293 Cells-derived Human CD32a/FCGR2A protein Met 1-Met 210, with an C-

terminal His & Avi

 Calculated MW
 23.6 kDa

 Observed MW
 33 kDa

 Accession
 P12318-1

Bio-activity 1. Immobilized human IgG2 at 10 μg/ml (100 μl/well) can bind biotinylated human

CD32 with a linear ranger of 0.16-0.8 µg/ml. 2. Using the Octet RED System, the affinity constant (Kd) of CD32a-AVI-His + BirA bound to human IgG was 12nM. 3.

Labeling ratio of biotin to protein: 0.1-0.6.

### **Properties**

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

**Endotoxin**  $< 1.0 \text{ EU per } \mu\text{g}$  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 7.4

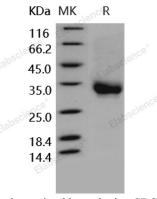
Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants

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

## For Research Use Only

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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 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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