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



Catalog Number: PKSH030293

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;FCGR3

Species Human

Expression Host HEK293 Cells
Sequence Met 1-Met 210
Accession AAA35827.1
Calculated Molecular Weight 23.6 kDa
Observed molecular weight 32 kDa
Tag C-His & AVI

Bioactivity Immobilized human CD32a-AVI-His (R131) at 10 μg/ml (100 μl/well) can bind

biotinylated Human IgG1, The EC50 of biotinylated Human IgG1 is 0.15-0.35

μg/ml.

## **Properties**

Purity > 95 % as determined by reducing SDS-PAGE.
 Endotoxin < 1.0 EU per μg as determined by the LAL method.</li>

Storage 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

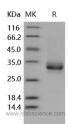
reconstituted samples are stable at < -20°C for 3 months.

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

**Formulation** Lyophilized from sterile PBS, pH 7.4

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

#### Data



## **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 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

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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 (IgG Fc 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 (Fc $\gamma$ RII A) delivers an activating signal upon ligand binding, and results in the initiation of inflammatory responses including cytolysis, phagocytosis, degranulation, and cytokine production. The responses can be modulated by signals from the co-expressed inhibitory receptors such as Fc $\gamma$  RII B, and the strength of the signal is dependent on the ratio of expression of the activating and inhibitory receptors.

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