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

Catalog No. PKSH030291

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

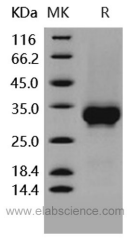
Description

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	HEK293 Cells
Sequence	Met 1-Met 210
Accession	P12318-1
Calculated Molecular Weight	23.6 kDa
Observed molecular weight	32 kDa
Tag	C-His & AVI
Bioactivity	Measured by its binding ability in a functional ELISA. Immobilized human CD32a-AVI (167 Arg/His)at 10 μg/ml (100 μl/well) can bind biotinylated human IgG1, The EC50 of biotinylated human IgG1 is 0.13-0.29 μg/ml.

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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 (FcγR) are members of the Ig superfamily that function in the activation or inhibition of immune responses. Human FcγRs are divided into three classes designated FcγRI (CD64), FcγRII (CD32), and

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FcγRIII (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. FcγRI binds IgG with high affinity and functions during early immune responses, whereas FcγRII and RIII are low affinity receptors that recognize IgG as aggregates surrounding multivalent antigens during late immune responses. Three genes for human FcγRII (A, B, and C) and one for mouse (FcγRIIB), encoding type I transmembrane proteins with ITAM motifs (FcγRII A and C) or ITIM motifs (FcγRIIB) in their cytoplasmic domains, have been identified. Human CD32, also known as Low affinity immunoglobulin γ Fc region receptor II-a (IgG Fc receptor II-a), FcγRII 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, FcRγ, CD32a (FcγRII 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 Fcγ 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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