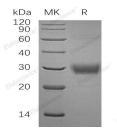
Recombinant Human CD32a/FCGR2A Protein (His Tag)

Catalog Number: PKSH032417



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-<br>a;CDw32;Fc-gamma RII-a;Fc-gamma-RIIa;FcRII-<br>a;CD32;FCGR2A;FCG2;FCGR2A1;IGFR2;CD32A;CDw32;Fc gamma<br>RIIA;FCG2;FcGR;FCGR2  |
| Species                     | Human  |
| Expression Host             | HEK293 Cells   |
| Sequence                    | Ala36-Ile218   |
| Accession                   | AAA35827   |
| Calculated Molecular Weight | 21.6 kDa   |
| Observed molecular weight   | 25-32 kDa  |
| Tag                         | C-His  |
| 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 a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.4.<br>Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as<br>protectants before lyophilization.<br>Please refer to the specific buffer information in the printed man |
| 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 $\gamma$ RII (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

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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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