

Recombinant Human Fcγ RIIA/CD32a Protein(Fc Tag)

Catalog Number: PDMH100334

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

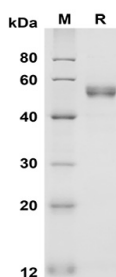
Description

| | |
|---------------|---|
| Species | Human |
| Source | Mammalian-derived Human Fcγ RIIA/CD32a proteins Gln34-Gly217, with an C-terminal Fc |
| Calculated MW | 45.1 kDa |
| Observed MW | 50 kDa |
| Accession | P12318 |
| Bio-activity | Not validated for activity |

Properties

| | |
|----------------|--|
| Purity | > 90% as determined by reducing SDS-PAGE. |
| Endotoxin | < 1.0 EU/mg 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 in PBS with 5% Trehalose and 5% Mannitol. |
| Reconstitution | It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis. |

Data



SDS-PAGE analysis of Human Fcγ RIIA/CD32a proteins, 2 μg/lane of Recombinant Human Fcγ RIIA/CD32a proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 50 KD

Background

Human FcγRs are divided into three classes designated FcγRI (CD64), FcγRII (CD32), and 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. 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 FcγRII B; and the strength of the signal is dependent on the ratio of expression of the activating and inhibitory receptors.