

## Technical Data Sheet

### Human IgG1-Fc Protein

**Catalog Number:** 600201, 600202  
**Size:** 25 ug, 100 ug  
**Target Name:** Human IgG1-Fc protein  
**Regulatory Status:** RUO

#### Product Details

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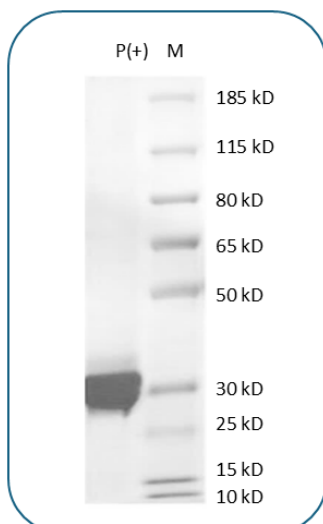
**Application:** ELISA  
**Format:** Liquid, Purified  
**Expression Host:** HEK293  
**Species:** Human  
**Accession Number:** P01857  
**Sources:** Human IgG1-Fc (Thr106-Lys330) protein is expressed in HEK293 cells.  
**Molecular Weight:** This protein has a predicted molecular weight of 27.4 kDa. Under DTT-reducing conditions, the protein migrates at approximately 25-35 kDa on SDS-PAGE.  
**Affinity Tag:** None  
**Purity:** >95% based on SDS-PAGE under reducing condition  
**Formulation:** 1xPBS buffer, pH7.4, 0.22 µm filtered  
**Endotoxin level:** Not tested  
**Protein Concentration:** 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.  
**Storage and Handling:** Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at ≤ -70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

#### Background Information

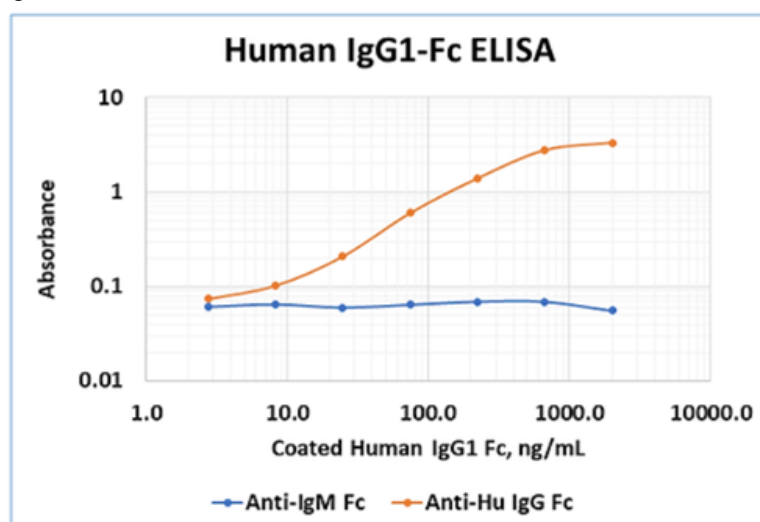
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Fc fragments consist of the carboxy-terminal halves of both immunoglobulin heavy chains connected by disulfide bonds, forming the constant region responsible for antibody effector functions. These functions include complement fixation, binding to Fc receptors on immune cells (such as CD16, CD32, and CD64), and mediating placental transport of antibodies. The Fc region plays a critical role in immune defense by triggering processes like opsonization, antibody-dependent cellular cytotoxicity (ADCC), and inflammation. Additionally, proteins like Protein A and Protein G, found on certain bacteria, specifically bind to the Fc region and are widely used in biotechnology for antibody purification. Recombinant Fc fragments also have potential therapeutic applications as anti-inflammatory agents in autoimmune diseases.

## Product Data



Human IgG1-Fc protein on SDS-PAGE under reducing conditions. The gel was stained for 1 hour with BlinkBlue Protein Staining Buffer (Catalog 700102). The purity of this protein appears to be greater than 95%.



Recombinant Human IgG1-Fc protein is coated at various concentration as shown on X-axis. Anti-Human IgG Fc antibody can bind this protein the dose dependent manner (Quality tested), while anti-human IgM antibody is not able to bind this protein.