

Recombinant Human IGHG1 Protein, Tag Free

Cat. No. IGHG1-202H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human IgG1-Fc (Thr106-Lys330) protein is expressed in HEK293 cells.
Species	Human
Source	HEK293
Conjugation/Label	106-330 aa
Description	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.
Form	Liquid, 1×PBS buffer, pH7.4, 0.22 µm filtered
Molecular Mass	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.

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Purity	>95% based on SDS-PAGE under reducing condition
Applications	ELISA
Storage	Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4 centigrade for up to 2 weeks, or at -20 centigrade 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 centigrade to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.
Concentration	25 µg size is bottled at 0.2 mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.

GENE INFORMATION

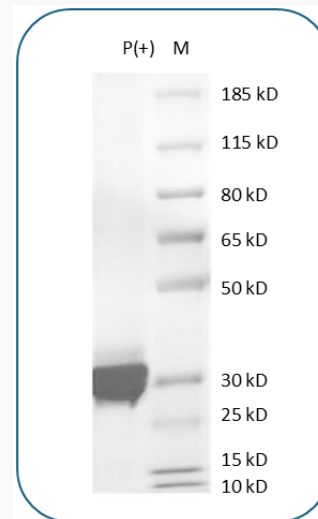
Gene Name	IGHG1 immunoglobulin heavy constant gamma 1 (G1m marker) [Homo sapiens (human)]
Official Symbol	IGHG1
Synonyms	IGHG1; immunoglobulin heavy constant gamma 1 (G1m marker);
Gene ID	3500
MIM	147100
UniProt ID	P01857

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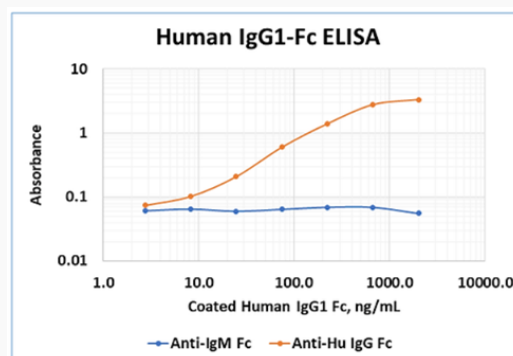
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SDS-PAGE



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

ELISA



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.

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