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Recombinant Human IgG4 Protein

Catalog No.: RPT0007 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	3503	P01861

Tags

C-His

Synonyms

IGHG4;IgG4

Product Information

Source

HEK293 cells

Purification

>95% by SDS-PAGE.

Endotoxin

< 0.1 EU/μg

Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.Contact us for customized product form or formulation.

Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid votex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

As a monomeric immunoglobulin that is predominately involved in the secondary antibody response and the only isotype that can pass through the human placenta, Immunoglobulin G (IgG) is synthesized and secreted by plasma B cells, and constitutes 75% of serum immunoglobulins in humans. IgG antibodies protect the body against the pathogens by agglutination and immobilization, complement activation, toxin neutralization, as well as antibody-dependent cell-mediated cytotoxicity (ADCC). IgG tetramer contains two heavy chains (5 kDa) and two light chains (25 kDa) linked by disulfide bonds, that is the two identical halves form the Y-like shape. IgG is digested by pepsin proteolysis into Fab fragment (antigen-binding fragment) and Fc fragment ("crystallizable" fragment). IgG1 is most abundant in serum among the four IgG subclasses (IgG1, 2, 3 and 4) and binds to Fc receptors (FcγR) on phagocytic cells with high affinity. Fc fragment is demonstrated to mediate phagocytosis, trigger inflammation, and target Ig to particular tissues. Protein G or Protein A on the surface of certain Staphylococcal and Streptococcal strains specifically binds with the Fc region of IgGs, and has numerous applications in biotechnology as a reagent for affinity purification. Recombinant IgG Fc Region is suggested to represent a potential anti-inflammatory drug for treatment of human autoimmune diseases.

Basic Information

Description

Recombinant Human IgG4 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Glu99-Lys327) of human IGHG4 fused with a 6×His tag at the C-terminus.

Bio-Activity

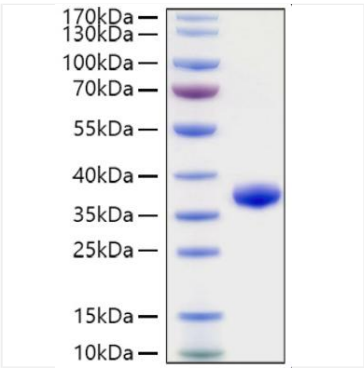
Storage

Store the lyophilized protein at -20℃ to -80 ℃ for long term.

After reconstitution, the protein solution is stable at -20 ℃ for 3 months, at 2-8 ℃ for up to 1 week.

Avoid repeated freeze/thaw cycles.

Validation Data



Recombinant Human IgG4 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 37kDa.