
Recombinant mouse IgG1 Fc protein (HEK293)

Catalog Number: bs-47151P

Concentration: >0.5 mg/ml

AA Seq: 98-324/324

Predicted MW: 25.7

Detected MW: Due to glycosylation, the protein migrates to 34-36 kDa based on Tris-Bis PAGE result.

Tags: Tag free

Activity: Not tested

Endotoxin: <1.0 EU/μg as determined by LAL

Purity: >95% as determined by Tris-Bis PAGE; >95% as determined by SEC-HPLC

Purification: AC

Form: Lyophilized

Storage: Lyophilized from 0.22um filtered solution in PBS (pH7.4) with 5mM DTT. Normally 5% trehalose is added as protectant before Lyophilization.

Stored at -70°C or -20°C. Avoid repeated freeze/thaw cycles.

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.