

## Product datasheet for **TP728125**

### Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Human IgG2 Fc (Glu99-Lys326, Val161Met)
Species:	Human
Expression cDNA Clone or AA Sequence:	Glu99-Lys326(Val161Met)
Buffer:	Lyophilized from a 0.2 um filtered solution of PBS, pH 7.4.
Note:	Recombinant Human Ig gamma-2 chain C region is produced by our Mammalian expression system and the target gene encoding Glu99-Lys326(Val161Met,Ser257Ala) is expressed.
Storage:	Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Stability:	12 months from date of despatch
Synonyms:	Ig gamma-2 chain C region,IgG2 Fc
Summary:	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 the antibody-dependent cell-mediated cytotoxicity (ADCC). IgG tetramer contains two heavy chains (50 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 (Fc $\gamma$ R ) 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.



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