

## Recombinant Mouse IgG2a Fc

Catalog#:P00376    Derived from Human Cells

<b>DESCRIPTION</b>	<p>Recombinant Mouse Ig gamma-2A chain C region, A allele is produced by our Mammalian expression system and the target gene encoding Pro99- Lys330 is expressed.</p> <p><b>Accession#:</b> P01863</p> <p><b>Known as:</b> Ig gamma-2 chain C region,IgG2A Fc</p>
<b>FORMULATION</b>	Lyophilized from a 0.2 $\mu$ m filtered solution of PBS, pH 7.4.
<b>SHIPPING</b>	<p>The product is shipped at ambient temperature.</p> <p>Upon receipt, store it immediately at the temperature listed below.</p>
<b>STORAGE</b>	<p>Lyophilized protein should be stored at <math>&lt;-20^{\circ}\text{C}</math>, though stable at room temperature for 3 weeks.</p> <p>Reconstituted protein solution can be stored at <math>4-7^{\circ}\text{C}</math> for 2-7 days.</p> <p>Aliquots of reconstituted samples are stable at <math>&lt;-20^{\circ}\text{C}</math> for 3 months.</p>
<b>RECONSTITUTION</b>	<p><i>Always centrifuge tubes before opening. Do not mix by vortex or pipetting.</i></p> <p><i>It is not recommended to reconstitute to a concentration less than 100<math>\mu</math>g/ml.</i></p> <p>Dissolve the lyophilized protein in distilled water.</p> <p>Please aliquot the reconstituted solution to minimize freeze-thaw cycles.</p>
<b>QUALITY CONTROL</b>	<p><b>Mol Mass:</b>26.6kDa    <b>AP Mol Mass:</b>30-35kDa, reducing conditions.</p> <p><b>Purity:</b> Greater than 95% as determined by reducing SDS-PAGE.</p> <p><b>Endotoxin:</b> Less than 0.1 ng/<math>\mu</math>g (1 EU/<math>\mu</math>g) as determined by LAL test.</p>
<b>BACKGROUND</b>	<p>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 <math>\gamma</math> 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.</p>

