Recombinant Cynomolgus Monkey IgG\textsubscript{1} Fc

**DESCRIPTION**

**Source**
Human embryonic kidney cell, HEK293-derived
Pro110-Lys333
Accession # AAF14057

**N-terminal Sequence Analysis**
Pro110, and Ala-Leu-Ala-Pro110

**Predicted Molecular Mass**
25 kDa

**SPECIFICATIONS**

**SDS-PAGE**
30-40 kDa, reducing conditions

**Activity**
Measured by its binding ability in a functional ELISA.
When Recombinant Cynomolgus Monkey IgG\textsubscript{1} Fc is immobilized at 0.15 µg/mL (100 µL/well), the concentration of Recombinant Human Fcy RI/CD64 (Catalog # 1257-FC) that produces 50% of the optimal binding response is 0.2-1.2 ng/mL.

**Endotoxin Level**
<0.10 EU per 1 µg of the protein by the LAL method.

**Purity**
>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

**Formulation**
Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

**Reconstitution**
Reconstitute at 1 mg/mL in PBS.

**Shipping**
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage**
Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

**DATA**

**Bioactivity**

When Recombinant Cynomolgus Monkey IgG\textsubscript{1} Fc (Catalog # 9315-HG) is coated at 0.15 µg/mL, 100 µL/well, Recombinant Human Fcy RI/CD64 (Catalog # 1257-FC) binds with an ED\textsubscript{50} of 0.2-1.2 ng/mL.

**BACKGROUND**

Immunoglobulin G (IgG), is one of the most abundant proteins in serum with normal levels between 8-17 mg/mL in human adult blood. It is composed of two heavy chains and two light chains. The variability of the IgG pool is generated by somatic recombination in B cells that have been exposed to foreign material. IgA, IgG, IgM, IgD, and IgD classes of human immunoglobulin (as well as the isotypes IgG1, IgG2a, IgG2b, and IgG3) are generated by class switch recombination within the heavy chain locus (1). Recombination within the light chain locus selects either kappa or lambda chains. Antibodies are secreted by plasma cells of the B lymphocyte lineage and constitute the humoral component of adaptive immunity (2, 3). Their variable regions bind to foreign antigens, while their Fc regions are recognized by Fc receptors expressed on macrophages, monocytes, neutrophils, NK cells, and CD8\textsuperscript{+} cytotoxic T cells (4). Phagocyte uptake of antibody-antigen complexes and antibody-opsonized pathogens is critical for clearance of the foreign material and immune homeostasis.

**References:**