

**Synonym**

IgG1

Source

Human IgG1 Fc Protein, His Tag-Cy5(IG1-HC2H3) is expressed from human 293 cells (HEK293). It contains AA Glu 99 - Lys 330 (Accession # [P01857-1](#) (C103S, M135Y, S137T, T139E, H316K, N317F)).

Predicted N-terminus: Glu 99

Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 28.1 kDa. The protein migrates as 33-38 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

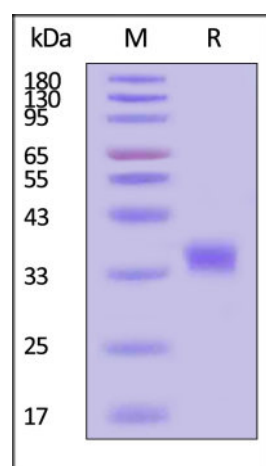
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

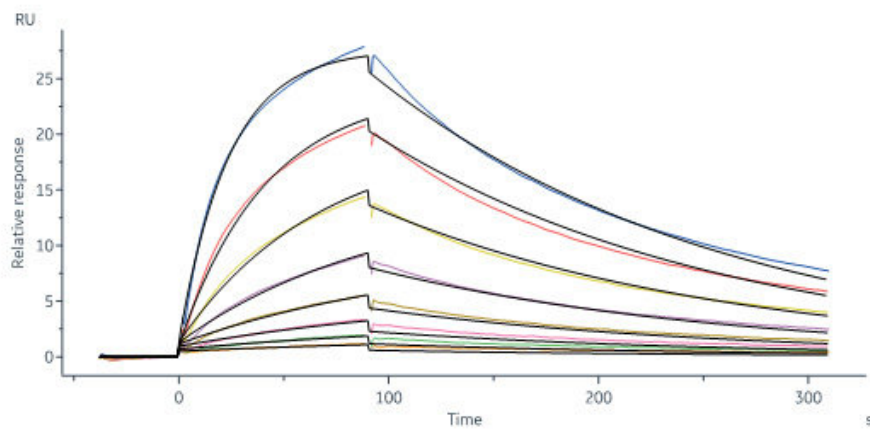
SDS-PAGE

Human IgG1 Fc Protein, His Tag-Cy5 on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-SPR

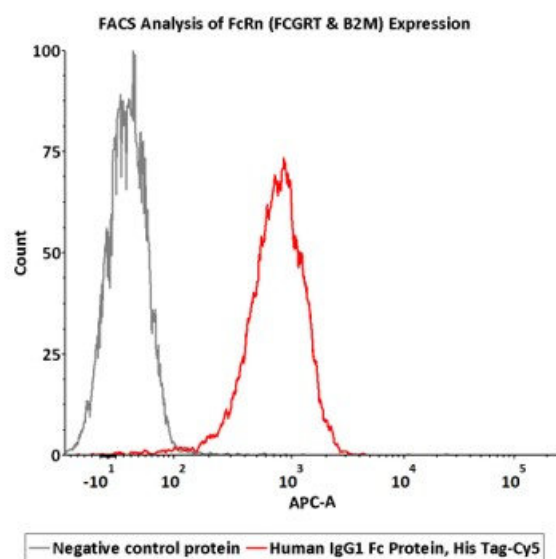
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Human IgG1 Fc Protein, His Tag-Cy5 (IG1-HC2H3) immobilized on CM4 Chip can bind Human FcγR2B Heterodimer Protein, His Tag (Cat. No. FCN-H52W7) with an affinity constant of 8.27 nM as determined in a SPR assay (Biacore 8K) (QC tested).

Bioactivity-FACS



Flow cytometric analysis of HEK293/Human FcRn (FCGRT & B2M) Stable Cell staining with Human IgG1 Fc (C103S, M135Y, S137T, T139E, H316K, N317F) Protein, His Tag-Cy5 (Cat. No. IG1-HC2H3) at 1:50 dilution (2 μL of the stock solution corresponds to labeling of 2e5 cells in a final volume of 100 μL), compared with negative control protein. Cy5 signal was used to evaluate the binding activity (QC tested).

Background

Crystallizable fragments composed of the carboxy-terminal halves of both IMMUNOGLOBULIN HEAVY CHAINS linked to each other by disulfide bonds. Fc fragments contain the carboxy-terminal parts of the heavy chain constant regions that are responsible for the effector functions of an immunoglobulin (COMPLEMENT fixation, binding to the cell membrane via FC RECEPTORS, and placental transport). IgG1 Fc was reported has a novel role as a potential anti-inflammatory drug for treatment of human autoimmune diseases.

Clinical and Translational Updates

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