Human IgG1 Fc (C103S, M135Y, S137T, T139E, H316K, N317F) Protein, His Tag

Catalog # IG1-H52H8



Synonym

IgG1

Source

Human IgG1 Fc (C103S, M135Y, S137T, T139E, H316K, N317F), His Tag(IG1-H52H8) is expressed from human 293 cells (HEK293). It contains AA Glu 99 - Lys 330 (Accession # <u>P01857-1</u> (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 33-35 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method / rFC method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from $0.22 \ \mu m$ filtered solution in 50 mM Tris, 100 mM Glycine, 25 mM Arginine, 150 mM NaCl, pH7.5 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 (C103S, M135Y, S137T, T139E, H316K, N317F), His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Prestained Protein Marker</u>).

Bioactivity-ELISA



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Immobilized Human IgG1 Fc (C103S, M135Y, S137T, T139E, H316K, N317F), His Tag (Cat. No. IG1-H52H8) at 5 μ g/mL (100 μ L/well) can bind Biotinylated Human CD64, His,Avitag (Cat. No. FCA-H82E8) with a linear range of 0.4-13 ng/mL (QC tested).

Bioactivity-SPR



Human IgG1 Fc (C103S, M135Y, S137T, T139E, H316K, N317F), His Tag (Cat. No. IG1-H52H8) immobilized on CM4 Chip can bind Human FCGRT&B2M Heterodimer Protein, His Tag (Cat. No. FCN-H52W7) with an affinity constant of 8.45 nM as determined in a SPR assay (Biacore 8K) (Routinely 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.



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