

Synonym

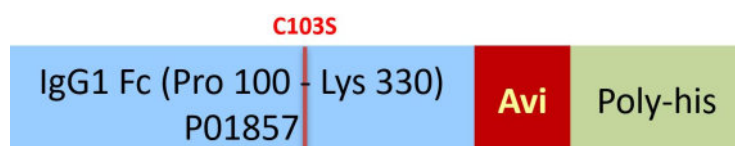
IgG1

Source

MABSol® Biotinylated Human IgG1 Fc, Avitag,His Tag (IG1-H82E2) is expressed from human HEK293 cells. It contains AA Pro 100 - Lys 330 (Accession # P01857 (C103S)).

Predicted N-terminus: Ala

Molecular Characterization



This protein carries an Avi tag (Avitag™) at the C-terminus, followed by a polyhistidine tag.

The protein has a calculated MW of 28.8 kDa. As a result of glycosylation, the protein migrates as 36 kDa under reducing (R) condition, and 60-66 kDa under non-reducing (NR) condition (SDS-PAGE).

Biotinylation

Biotinylation of this product is performed using Avitag™ technology. Briefly, the single lysine residue in the Avitag is enzymatically labeled with biotin.

Biotin:Protein Ratio

The biotin to protein ratio is 0.5-1 as determined by the HABA assay.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in Tris with Glycine, Arginine and NaCl, pH7.5. Normally trehalose is added as protectant before lyophilization.

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

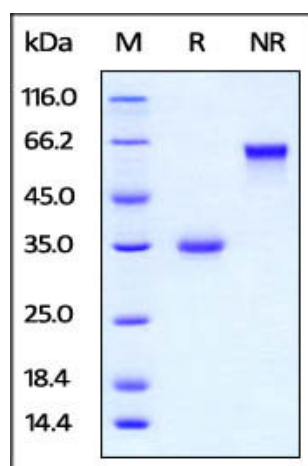
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

No activity loss was observed after storage at:

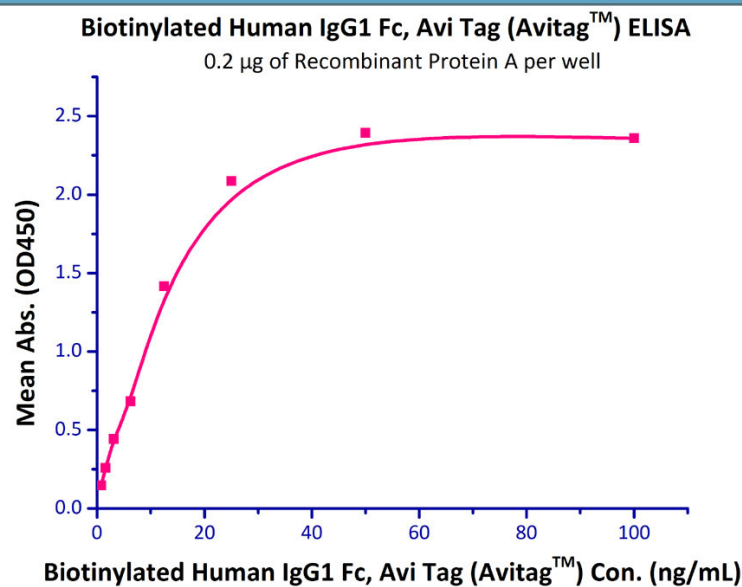
- 4-8°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE

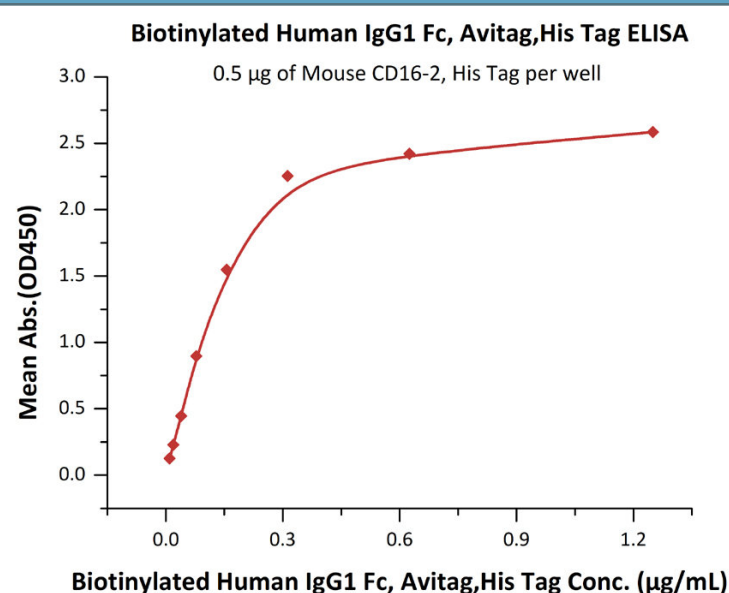


Biotinylated Human IgG1 Fc, Avitag,His Tag on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-ELISA



Immobilized Recombinant Protein A at 2 µg/mL (100 µl/well) can bind Biotinylated Human IgG1 Fc, Avitag,His Tag (Cat. No. [IG1-H82E2](#)) with a linear range of 0.8-12.5 ng/mL (QC tested).



Immobilized Mouse CD16-2, His Tag (Cat. No. [FC4-M52H3](#)) at 5 µg/mL (100 µL/well) can bind Biotinylated Human IgG1 Fc, Avitag,His Tag (Cat. No. [IG1-H82E2](#)) with a linear range of 0.01-0.313 µg/mL (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.

References

- (1) [Anthony RM, et al., 2010, J Clin Immunol, 30 Suppl 1:S9-14.](#)