Biotinylated Human IGF-II Protein, Avitag™,Fc Tag

Catalog # IG2-H82F9

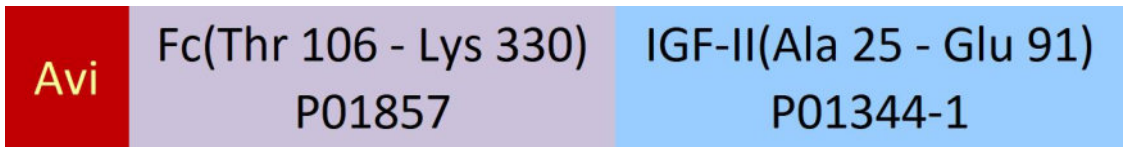
Synonym

IGF2, C11orf43, FLJ22066, FLJ44734, IGF-II, PP9974

Source

Biotinylated Human IGF-II, Avitag,Fc Tag (IG2-H82F9) is expressed from human 293 cells (HEK293). It contains AA Ala 25 - Glu 91 (Accession # P01344-1).
Predicted N-terminus: Gly

Molecular Characterization



Other Tags and Version Biotin & Other Labeled Version

This protein carries an Avi tag (Avitag™) at the N-terminus, followed by a human IgG1 Fc tag.
The protein has a calculated MW of 35.3 kDa. The protein migrates as 38-42kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

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

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Purity

>95% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in Tris with Glycine, Arginine and 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

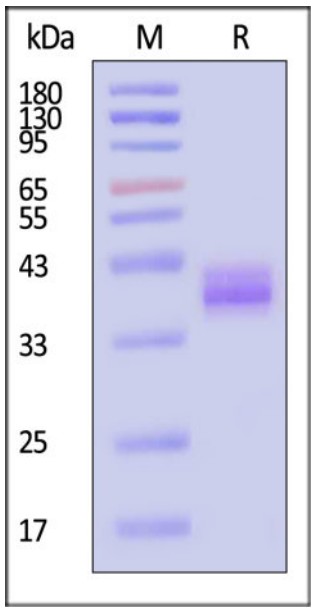
For long term storage, the product should be stored at lyophilized state at -20°C or lower.
Please avoid repeated freeze-thaw cycles.
This product is stable after storage at:

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

ACRO Quality Management System

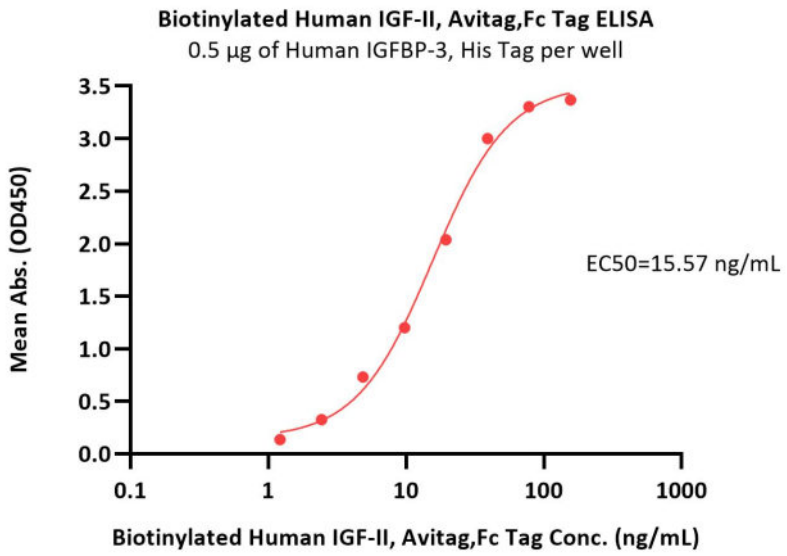
- QMS(ISO, GMP)
- Quality Advantages
- Quality Control Process

SDS-PAGE



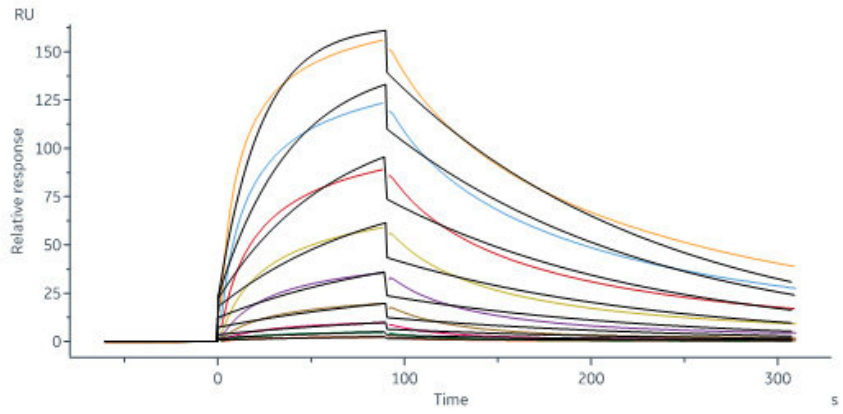
Biotinylated Human IGF-II, Avitag,Fc Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

Bioactivity-ELISA



Immobilized Human IGFBP-3, His Tag (Cat. No. IG3-H52H9) at 5 μg/mL (100 μL/well) can bind Biotinylated Human IGF-II, Avitag,Fc Tag (Cat. No. IG2-H82F9) with a linear range of 1.2-39 ng/mL (QC tested).

Bioactivity-SPR



Biotinylated Human IGF-II, Avitag,Fc Tag (Cat. No. IG2-H82F9) captured on Protein A Chip can bind Human IGF-II R Protein, His Tag (Cat. No. IGR-H53H3) with an affinity constant of 189 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Insulin-like growth factor 2 (IGF-2) is also known as Somatomedin-A, IGF-II, PP9974, and is one of three protein hormones that share structural similarity to insulin. IGF-2 exerts its effects by binding to the IGF-1 receptor. IGF2 may also bind to the IGF-2 receptor (also called the cation-independent mannose 6-phosphate receptor), which acts as a signalling antagonist; that is, to prevent IGF2 responses. The major role of IGF2 is as a growth promoting hormone during gestation. In the process of Folliculogenesis, IGF2 is created by Theca cells to act in an autocrine manner on the theca cells themselves, and in a paracrine manner on Granulosa cells

in the ovary. IGF2 promotes granulosa cell proliferation during the follicular phase of the menstrual cycle, acting alongside Follicle Stimulating Hormone (FSH). After ovulation has occurred, IGF-2 promotes progesterone secretion during the luteal phase of the menstrual cycle together with Luteinizing Hormone (LH). Thus, IGF2 acts as a Co-hormone together with both FSH and LH. IGF-2 may play a key role in memory and could potentially be used to treat Alzheimer's Disease. It is sometimes produced in excess in islet cell tumours, causing hypoglycemia. Doege-Potter syndrome is a paraneoplastic syndrome in which hypoglycemia is associated with the presence of one or more non-islet fibrous tumors in the pleural cavity. has been shown to interact with IGFBP3 and Transferrin.