

Synonym

IBP7,IGFBP7

Source

Biotinylated Human IGFBP-7, Fc,Avitag(IG7-H82F9) is expressed from human 293 cells (HEK293). It contains AA Asp 30 - Leu 282 (Accession # [Q16270-1](#)).
Predicted N-terminus: Asp 30

Molecular Characterization

IGFBP-7(Asp 30 - Leu 282) Q16270-1	Fc(Pro 100 - Lys 330) P01857	Avi
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This protein carries a human IgG1 Fc tag at the C-terminus, followed by an Avi tag (Avitag™).

The protein has a calculated MW of 54.3 kDa. The protein migrates as 65-70 kDa 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.

>90% as determined by SEC-MALS.

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

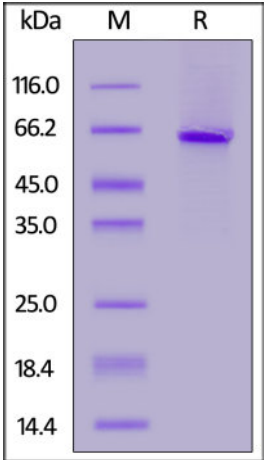
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

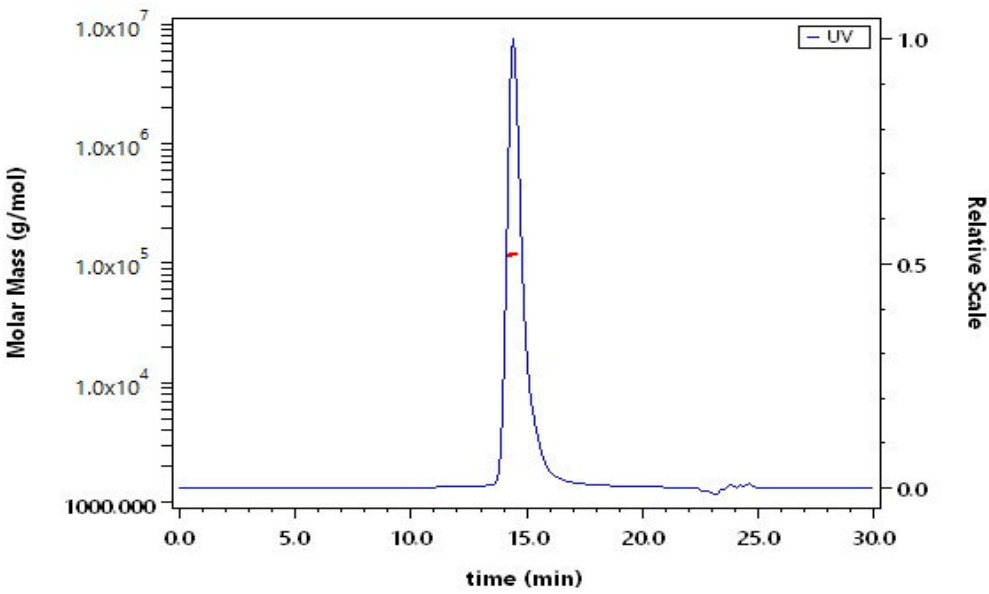
- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human IGFBP-7, Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS

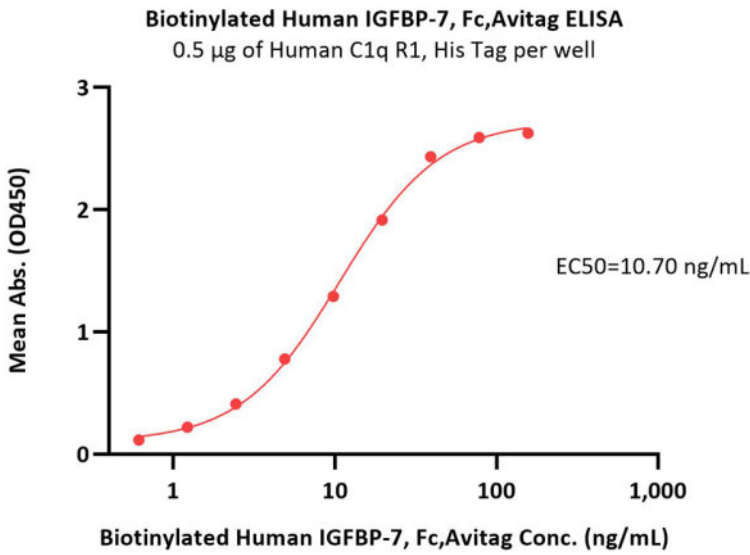


The purity of Biotinylated Human IGFBP-7, Fc,Avitag (Cat. No. IG7-H82F9) is more than 90% and the molecular weight of this protein is around 105-128 kDa verified by SEC-MALS.

[Report](#)

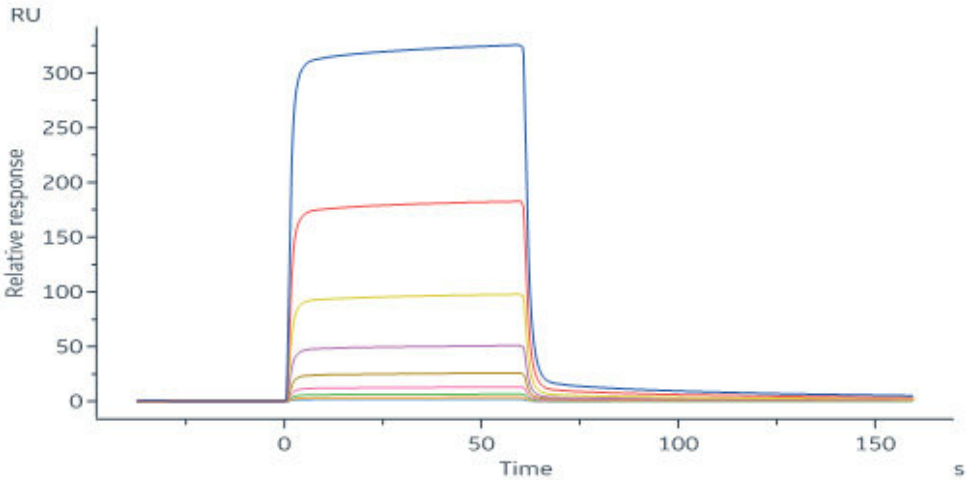
Bioactivity-ELISA





Immobilized Human C1q R1, His Tag (Cat. No. C11-H5228) at 5 µg/mL (100 µL/well) can bind Biotinylated Human IGFBP-7, Fc,Avitag (Cat. No. IG7-H82F9) with a linear range of 0.6-20 ng/mL (QC tested).

Bioactivity-SPR



Biotinylated Human IGFBP-7, Fc,Avitag (Cat. No. IG7-H82F9) immobilized on CM5 Chip can bind Human C1q R1, His Tag (Cat. No. C11-H5228) with an affinity constant of 14.3 µM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

Insulin-like growth factor-binding protein 7 (IGFBP7) is also known as IGFBP-rP1, MAC25 protein, PGI2-stimulating factor, prostacyclin-stimulating factor and tumor-derived adhesion factor, which contains one Ig-like C2-type (immunoglobulin-like) domain, one IGFBP N-terminal domain and one Kazal-like domain. The major function of IGFBP7 is the regulation of availability of insulin-like growth factors (IGFs) in tissue as well as in modulating IGF binding to its receptors. IGFBP7 binds to IGF with high affinity except for IGF-I and IGF-II.IGFBP7 also stimulates cell adhesion. Furthermore, IGFBP7 is implicated in some cancers.

