

### Synonym

IBP7,IGFBP7

### Source

Biotinylated Human IGFBP-7, His,Avitag (IG7-H82Q9) is expressed from human 293 cells (HEK293). It contains AA Asp 30 - Leu 282 (Accession # [Q16270-1](#)).

Predicted N-terminus: His

### Molecular Characterization



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

The protein has a calculated MW of 29.8 kDa. The protein migrates as 34-40 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

### 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

Passed as determined by the HABA assay / binding ELISA.

### Endotoxin

Less than 1.0 EU per µg by the LAL method.

### Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-MALS.

### Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. 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

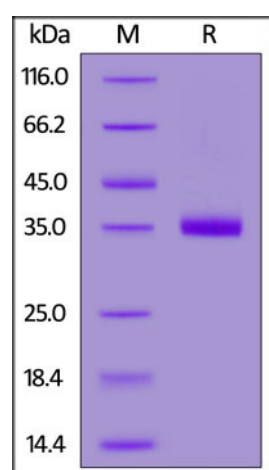
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

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.

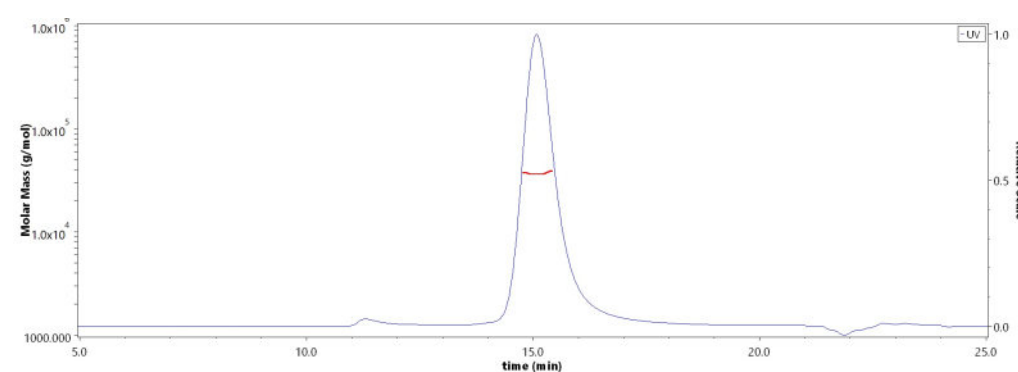
### SDS-PAGE



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

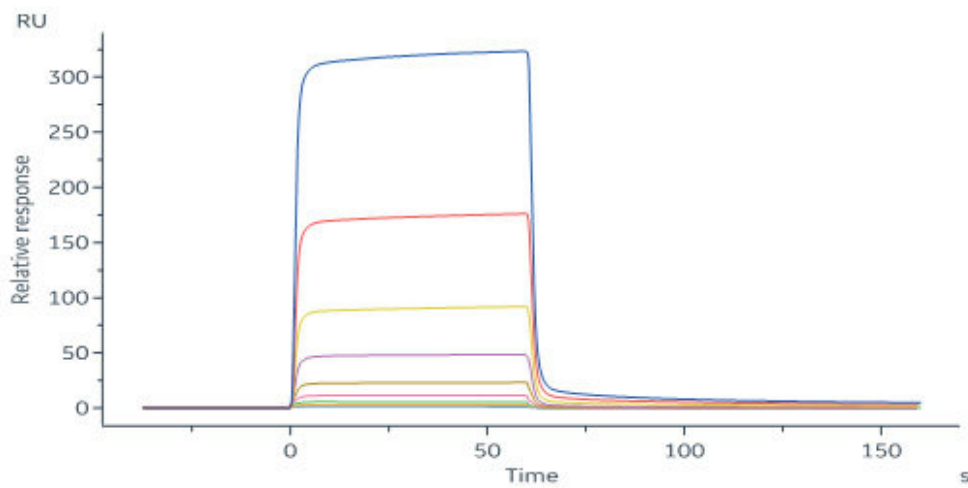
### Bioactivity-SPR

### SEC-MALS



The purity of Biotinylated Human IGFBP-7, His,Avitag (Cat. No. IG7-H82Q9) is more than 95% and the molecular weight of this protein is around 30-45 kDa verified by SEC-MALS.

[Report](#)



Biotinylated Human IGFBP-7, His,Avitag (Cat. No. IG7-H82Q9) immobilized on CM5 Chip can bind Human C1q R1, His Tag (Cat. No. C11-H5228) with an affinity constant of 20  $\mu$ M 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.

### Clinical and Translational Updates

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.