

Synonym

PTK7,CCK4,CCK-4,Tyrosine-protein kinase-like 7,Protein-tyrosine kinase 7,Protein-tyrosine kinase 7

Source

Biotinylated Human PTK7 protein, Fc,Avitag(PT7-H82F5) is expressed from human 293 cells (HEK293). It contains AA Ala 31 - Thr 704 (Accession # [Q13308-1](#)).
Predicted N-terminus: Ala 31

Molecular Characterization

PTK7(Ala 31 - Thr 704) Q13308-1	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 102.8 kDa. The protein migrates as 125-145 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

>90% as determined by SDS-PAGE.
>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 µm 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

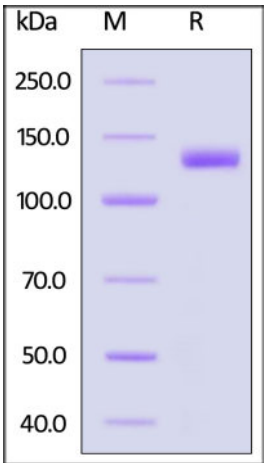
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

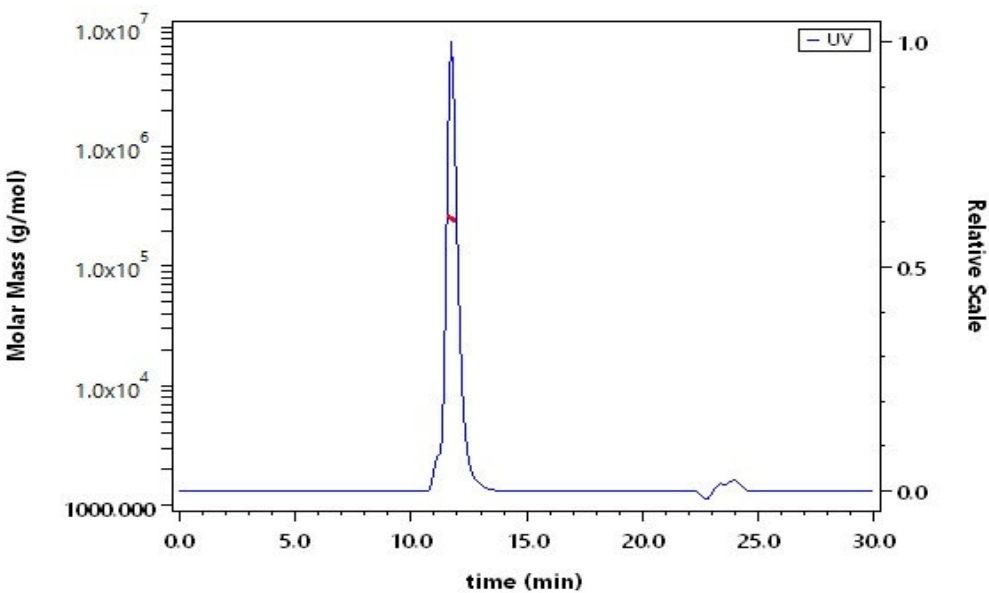
- 20°C to -70°C for 12 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human PTK7 protein, Fc,Avitag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

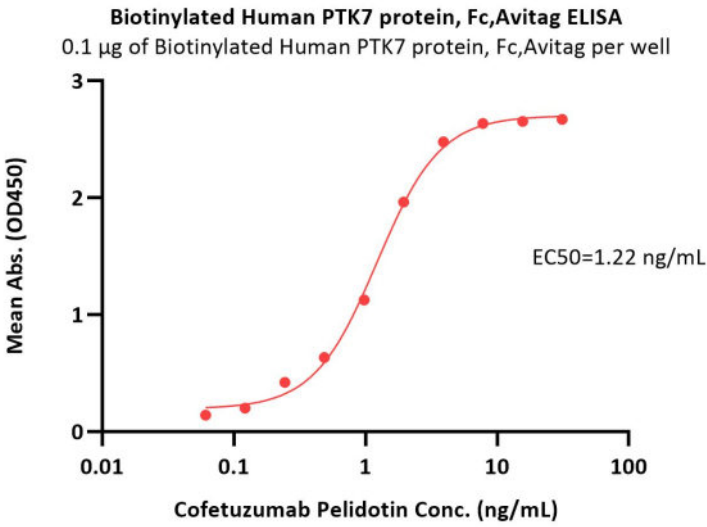
SEC-MALS



The purity of Biotinylated Human PTK7 protein, Fc,Avitag (Cat. No. PT7-H82F5) is more than 90% and the molecular weight of this protein is around 235-265 kDa verified by SEC-MALS.
[Report](#)

Bioactivity-ELISA





Immobilized Biotinylated Human PTK7 protein, Fc,Avitag (Cat. No. PT7-H82F5) at 1 µg/mL (100 µL/well) on streptavidin (Cat. No. STN-N5116) precoated (0.5 µg/well) plate can bind Cofetuzumab Pelidotin with a linear range of 0.06-4 ng/mL (QC tested).

Bioactivity-SPR



Biotinylated Human PTK7 protein, Fc,Avitag (Cat. No. PT7-H82F5) captured on Biotin CAP-Series S Sensor Chip can bind Cofetuzumab with an affinity constant of 58.2 pM as determined in a SPR assay (Biacore 8K) (Routinely tested).

Background

PTK7, highly expressed in lung, liver, pancreas, kidney, placenta and melanocytes. Weakly expressed in thyroid gland, ovary, brain, heart and skeletal muscle. Also expressed in erythroleukemia cells. Inactive tyrosine kinase involved in Wnt signaling pathway. Component of both the non-canonical (also known as the Wnt/planar cell polarity signaling) and the canonical Wnt signaling pathway. Functions in cell adhesion, cell migration, cell polarity, proliferation, actin cytoskeleton reorganization and apoptosis. Has a role in embryogenesis, epithelial tissue organization and angiogenesis.

