



**Synonym**

FGF-7, Fibroblast growth factor 7, HBGF-7, Keratinocyte growth factor, KGF

**Source**

Human FGF-7 Protein, premium grade (FG7-H5213) is expressed from human 293 cells (HEK293). It contains AA Cys 32 - Thr 194 (Accession # [P21781-1](#)). *It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.*

**Molecular Characterization**

**FGF-7(Cys 32 - Thr 194)**  
**P21781-1**

This protein carries no "tag".

The protein has a calculated MW of 19.0 kDa. The protein migrates as 27 kDa±3 kDa and >180 kDa under reducing (R) condition, and 26 kDa±3 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

**Endotoxin**

Less than 0.01 EU per µg by the LAL method.

**Host Cell Protein**

<0.5 ng/µg of protein tested by ELISA.

**Sterility**

Negative

**Mycoplasma**

Negative.

**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**

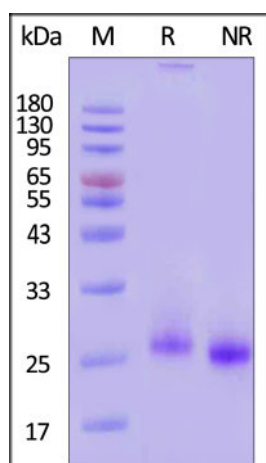
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

*Please avoid repeated freeze-thaw cycles.*

This product is stable after storage at:

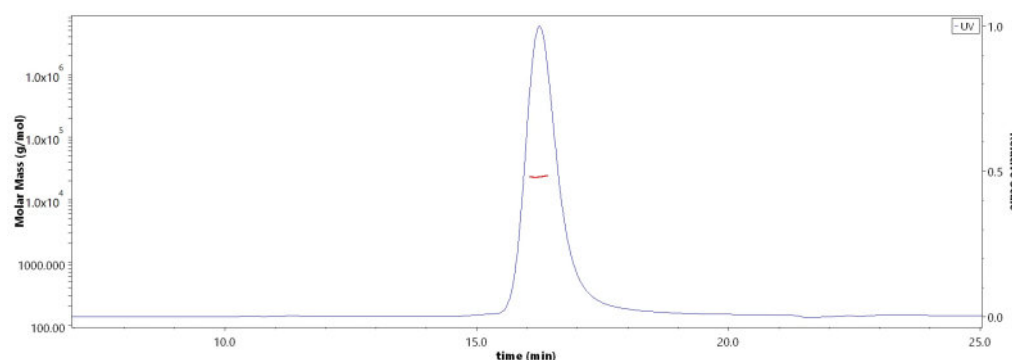
- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

**SDS-PAGE**



Human FGF-7 Protein, premium grade on SDS-PAGE under reducing (R) and non-reducing (NR) conditions. The gel was stained with Coomassie Blue. The

**SEC-MALS**



The purity of Human FGF-7 Protein, premium grade (Cat. No. FG7-H5213) is more than 90% and the molecular weight of this protein is around 20-35 kDa

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and more!

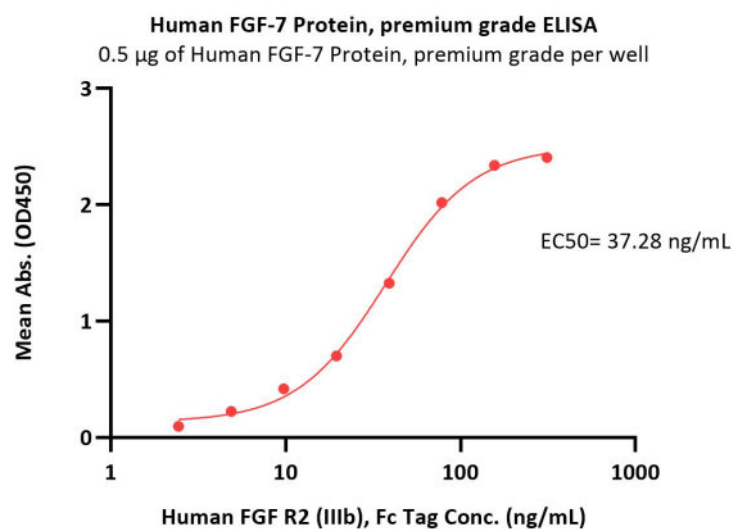




purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

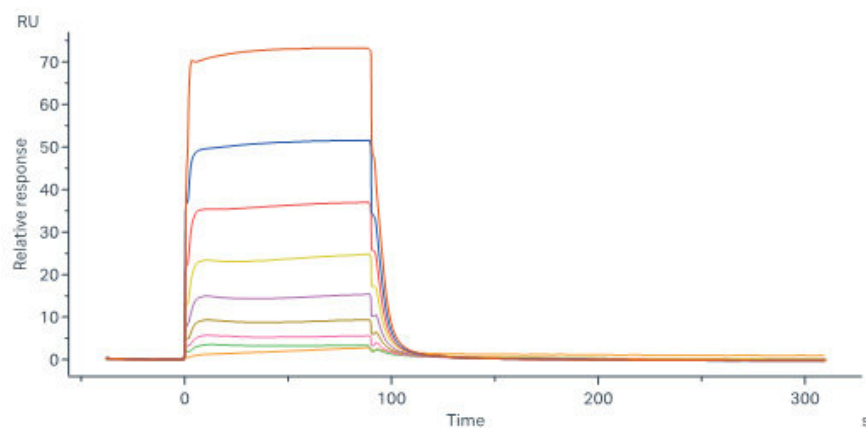
verified by SEC-MALS.  
[Report](#)

## Bioactivity-ELISA



Immobilized Human FGF-7 Protein, premium grade (Cat. No. FG7-H5213) at 5 µg/mL (100 µL/well) can bind Human FGF R2 (IIIb), Fc Tag (Cat. No. FGB-H5256) with a linear range of 2-78 ng/mL (QC tested).

## Bioactivity-SPR

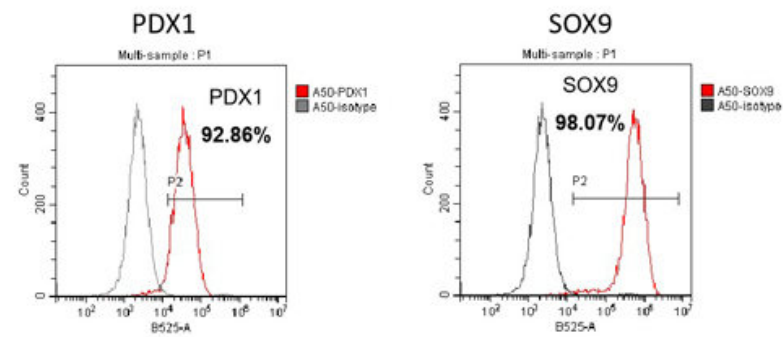
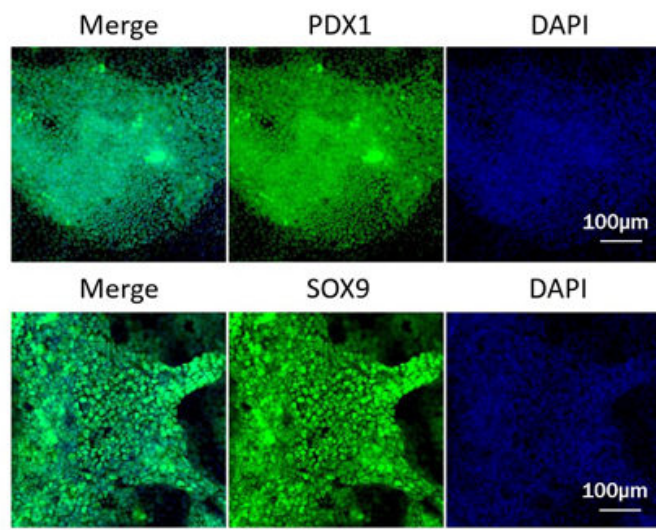


Human FGF R2 (IIIb), Fc Tag (Cat. No. FGB-H5256) immobilized on CM5 Chip can bind Human FGF-7 Protein, premium grade (Cat. No. FG7-H5213) with an affinity constant of 521 nM as determined in a SPR assay (Biacore 8K) (Routinely tested).

## Application Data

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Human FGF-7 Protein, premium grade (Cat. No. FG7-H5213) could promote iPSC differentiation into pancreatic progenitor cells, with high expression of PDX1 and SOX9 in immunofluorescence and FACS.

### Background

Fibroblast growth factor (FGF) 7 (is also known as Keratinocyte growth factor (KGF)), a member of FGF family, is initially found to be secreted from mesenchymal cells to repair epithelial tissues. As a well-characterized paracrine growth factor for tissue growth and regeneration, fibroblast growth factor 7 (FGF7) is involved in a number of physiological and pathological processes, including lung disease and cancer. The stromal-derived FGFs, such as FGF7 and FGF10, control epithelial cell resident FGFR2IIIb activities, promote net tissue homeostasis, and restraint tumor cells from progression to malignancy.

### Clinical and Translational Updates

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