

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 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 / rFC method.

Host Cell Protein

<0.5 ng/µg of protein tested by ELISA.

Host Cell DNA

<0.02 ng/µg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative

Purity

>95% as determined by SDS-PAGE.

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.*

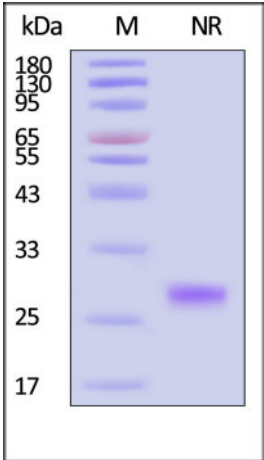
Storage

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



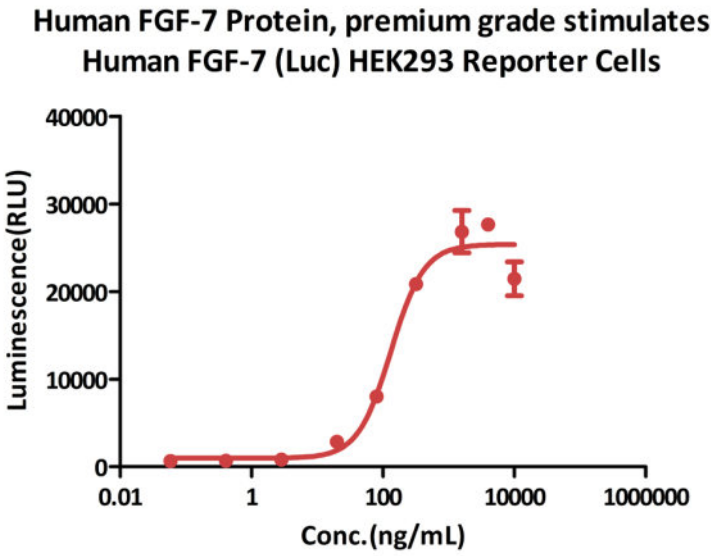
Human FGF-7 / HBGF-7 / KGF Protein, premium grade

Catalog # FG7-H5213



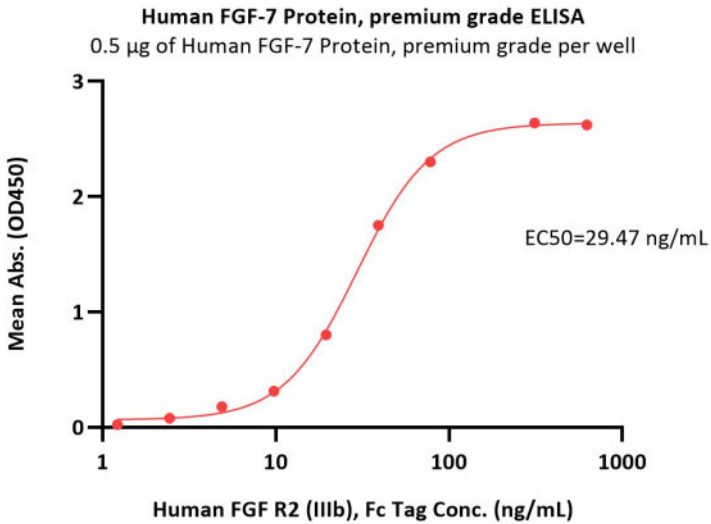
Human FGF-7 Protein, premium grade on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).

Bioactivity-CELL BASE



Human FGF-7 Protein, premium grade (Cat. No. FG7-H5213) stimulates Human FGF-7 (Luc) HEK293 Reporter cells. The specific activity of Human FGF-7 Protein, premium grade is > 5.00 x 10<sup>5</sup> IU/mg, which is calibrated against human FGF-7 WHO International Standard (NIBSC code: 03/150) (QC tested).

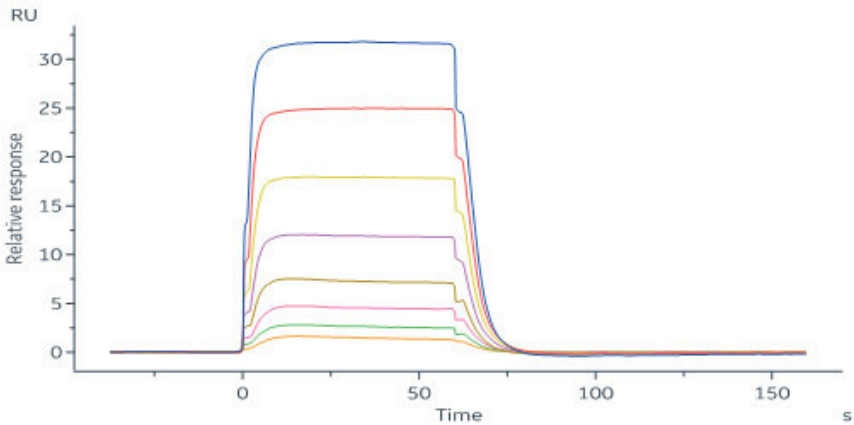
Bioactivity-ELISA



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 1-78 ng/mL (Routinely tested).

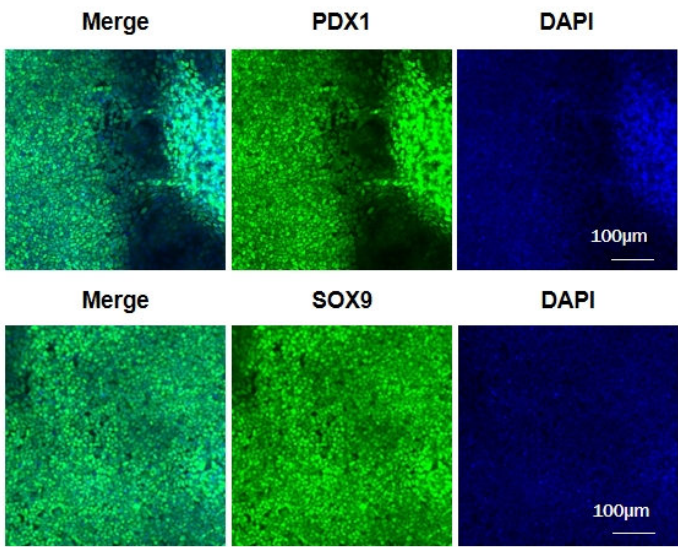
Bioactivity-SPR



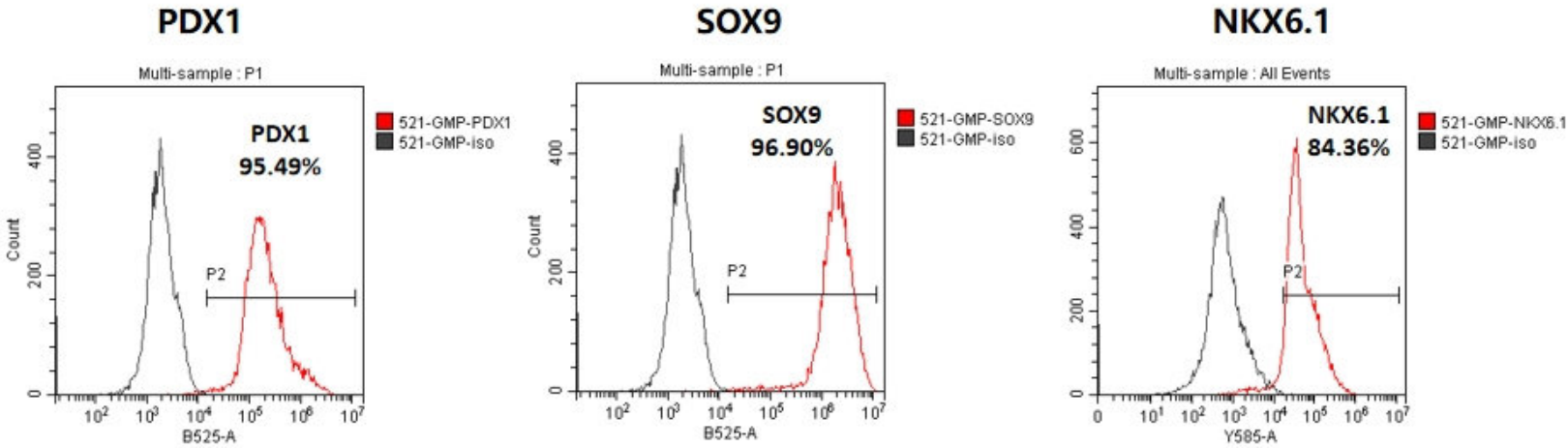


Human FGF R2 (IIIb), Fc Tag (Cat. No. FGB-H5256) immobilized on CM5  
Chip can bind Human FGF-7 Protein, premium grade (Cat. No. FG7-H5213)  
with an affinity constant of 176 nM as determined in a SPR assay (Biacore 8K)  
(Routinely tested).

Application Data



GMP Human Activin A Protein (Cat. No. GMP-ACAH37) and Human FGF-7 Protein, premium grade (Cat. No. FG7-H5213) can induce the differentiation of PP2 (Pancreatic progenitor cells), characterized by high expression of marker genes (PDX1 and SOX9) in immunofluorescence.



GMP Human Activin A Protein (Cat. No. GMP-ACAH37) and Human FGF-7 Protein, premium grade (Cat. No. FG7-H5213) can induce the differentiation of PP2 (Pancreatic progenitor cells), characterized by high expression of marker genes (PDX1, SOX9 and NKX6.1) in FACS.

Background



Human FGF-7 / HBGF-7 / KGF Protein, premium grade

Catalog # FG7-H5213



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.

