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

Catalog # FG7-H52H5

Synonym

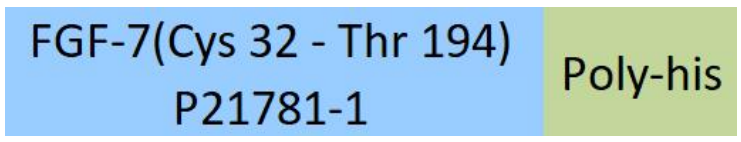
FGF-7,Fibroblast growth factor 7,HBGF-7,Keratinocyte growth factor,KGF

Source

Human FGF-7, His Tag, premium grade(FG7-H52H5) 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



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 20.9 kDa. The protein migrates as 25-27 kDa under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per μg by the LAL method.

Sterility

The sterility testing was performed by membrane filtration method.

Mycoplasma

Negative.

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-HPLC.

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

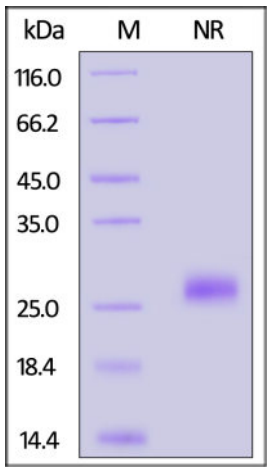
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

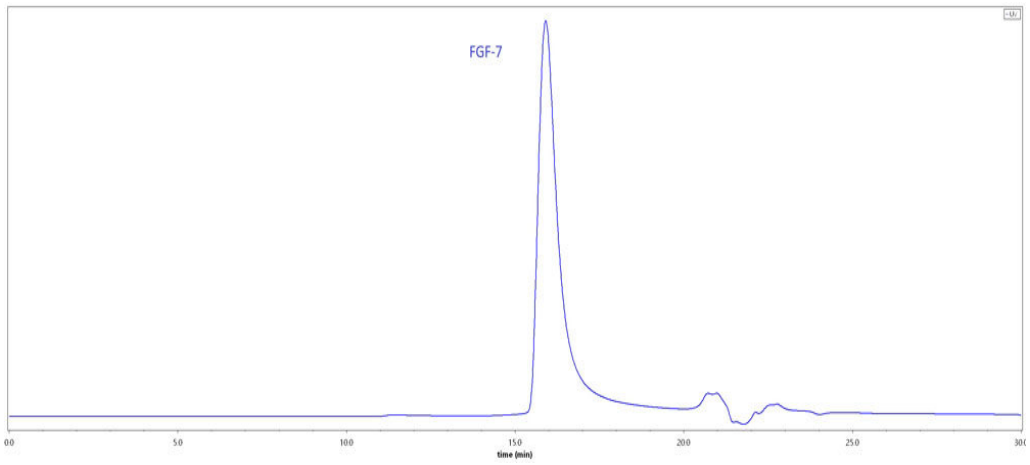
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human FGF-7, His Tag, 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%.

SEC-HPLC



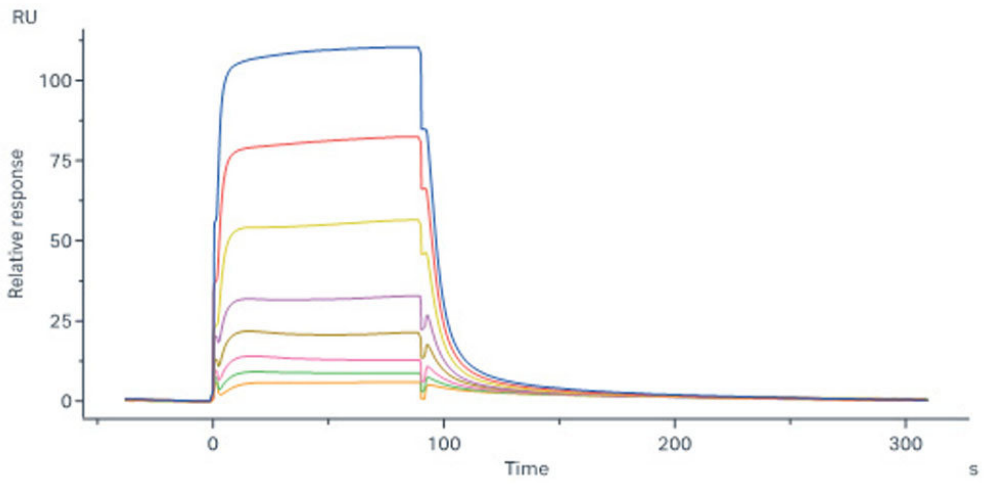
The purity of Human FGF-7, His Tag, premium grade (Cat. No. FG7-H52H5) was greater than 95% as determined by SEC-HPLC.

Bioactivity-Organoid Culture

FGF-7 ORGANOID CULTURE

Human EGF (Cat. No. EGF-H52H3), Noggin (Cat. No. NON-H5257), R-spondin1 (Cat. No. RS6-H4220), FGF7 (Cat. No. FG7-H52H5), FGF10 (Cat. No. FG0-H5145), HGF (Cat. No. HGF-H52H3) actively support liver ductal organoid growth.

Bioactivity-SPR



Human FGF R2 (IIIb), Fc Tag (Cat. No. FGB-H5256) immobilized on CM5 Chip can bind Human FGF-7, His Tag, premium grade (Cat. No. FG7-H52H5) with an affinity constant of 0.275 μM as determined in a SPR assay (Biacore 8K) (QC tested).

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

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.