Synonym

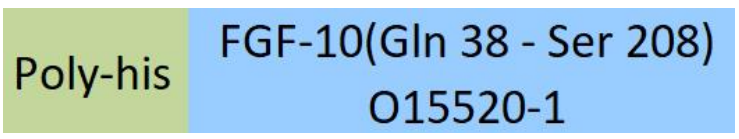
FGF-10,Fibroblast growth factor 10,Keratinocyte growth factor 2

Source

Human FGF-10 Protein, His Tag, premium grade(FG0-H5145) is expressed from E. coli cells. It contains AA Gln 38 - Ser 208 (Accession # O15520-1).
Predicted N-terminus: His

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 N-terminus.

The protein has a calculated MW of 21.2 kDa. The protein migrates as 27 kDa under reducing (R) condition (SDS-PAGE).

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.

Formulation

Lyophilized from 0.22 μm filtered solution in 20 mM MOPS, 200 mM NaCl, 100 mM Na2SO4, 1mM EDTA, 1mM DTT, pH7.0 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

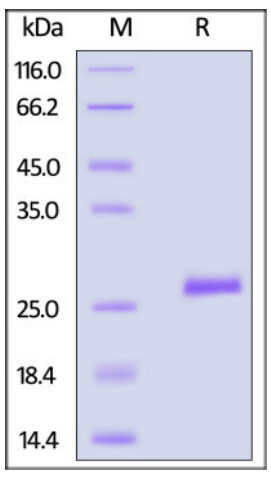
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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



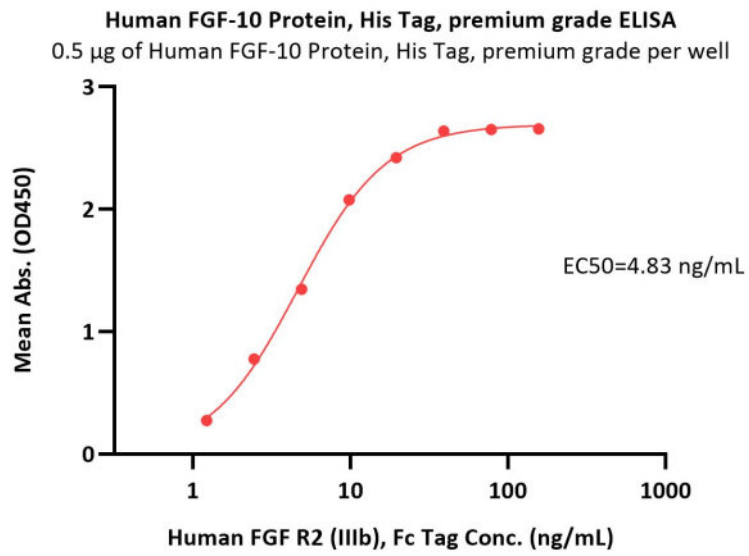
Human FGF-10 Protein, His Tag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

Bioactivity-Organoid Culture

FGF-10 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-ELISA



Immobilized Human FGF-10 Protein, His Tag, premium grade (Cat. No. FG0-H5145) at 5 μg/mL (100 μL/well) can bind Human FGF R2 (IIIb), Fc Tag (Cat. No. FGB-H5256) with a linear range of 0.6-10 ng/mL (QC tested).

Background

Fibroblast Growth Factor 10 (FGF 10) is an evolutionary conserved secreted growth factor mediating mostly mesenchymal to epithelial signaling. FGF 10 belongs to the FGF 7 subfamily and shares similar biochemical and amino acid sequences with its constituent members (FGF3, FGF 7 and FGF 22). As a paracrine FGF, FGF 10 elicits its biological responses by activating the fibroblast growth factor receptor 2b (FGF R 2b), is crucial for governing proximal distal outgrowth as well as patterning and acts upstream of the known apical ectodermal ridge (AER) marker FGF 8. FGF10 is also implicated in pancreatic cancer, and that overexpression of FGFR2b is associated with metastatic invasion.

Clinical and Translational Updates

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