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Recombinant Human FGF-10 Protein

Catalog No.: RP01140 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	2255	O15520

Tags
No tag

Synonyms
Fibroblast growth factor 10; FGF-10; Keratinocyte growth factor 2;FGF10;KGF2

Product Information

Source	Purification
E. coli	≥ 95 % as determined by SDS-PAGE;≥ 95 % as determined by HPLC.

Calculated MW	Observed MW
19.32 kDa	20-25 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS pH7.4.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Contact

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Background

This protein is a member of the fibroblast growth factor (FGF) family. FGF family members possess broad mitogenic and cell survival activities, and are involved in a variety of biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. This protein exhibits mitogenic activity for keratinizing epidermal cells, but essentially no activity for fibroblasts, which is similar to the biological activity of FGF7. Studies of the mouse homolog of suggested that this gene is required for embryonic epidermal morphogenesis including brain development, lung morphogenesis, and initiation of lim bud formation. This gene is also implicated to be a primary factor in the process of wound healing.

Basic Information

Description
Recombinant Human FGF-10 Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Gln38-Ser208) of human FGF10 (Accession #NP_004456.1).

Bio-Activity
1.Measured in a cell proliferation assay using 4MBr-5 rhesus monkey epithelial cells. The ED_{50} for this effect is 2.08-8.32 ng/mL, corresponding to a specific activity of 1.20×10^5~4.81×10^5 units/mg.|2.Human stomach organoids were cultured with EGF(Cat. RP03287), FGF10(Cat. RP01140), NOG(Cat. RP01237), RSPO1(Cat. RP00071), WNT-3a(Cat. RP01618SLQ).|3.Human liver organoids were cultured with EGF(Cat. RP03287), HGF(Cat. RP01602), FGF2(Cat. RP01042), FGF10(Cat. RP01140), NOG(Cat. RP01237), RSPO1(Cat. RP00071), WNT-3a(Cat. RP01618SLQ).|4.Human kidney organoids were cultured with EGF(Cat. RP03287), FGF2(Cat. RP01042), FGF7(Cat. RP01717), FGF9(Cat. RP01710), FGF10(Cat. RP01140), IGF-(Cat. RP00996), NOG(Cat. RP01237), RSPO1(Cat. RP00071), WNT-3a(Cat. RP01618SLQ). And further, DKK-1(RP01343) was used to induce the establishment of cell polarity.

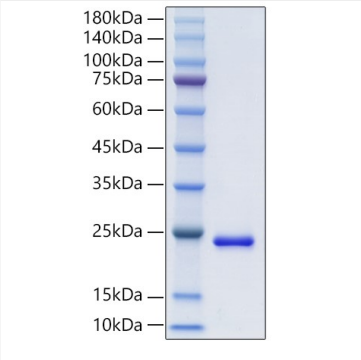
Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

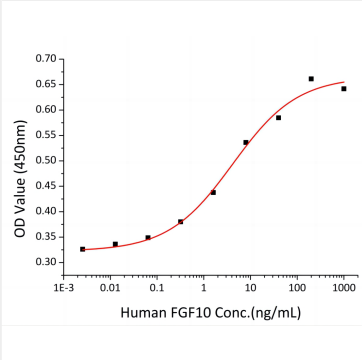
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

* 为了您的安全和健康，请穿实验服并戴一次性手套操作。

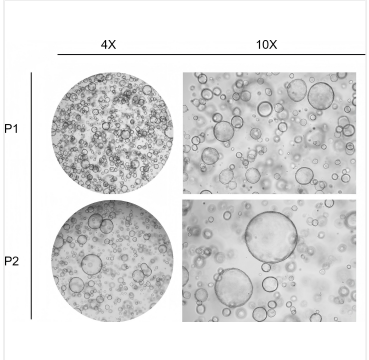
Validation Data



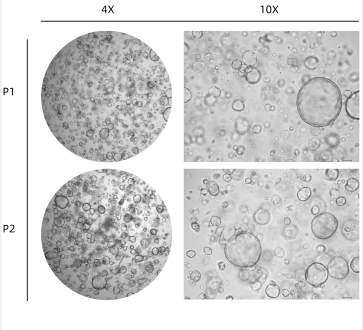
Recombinant Human FGF-10 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



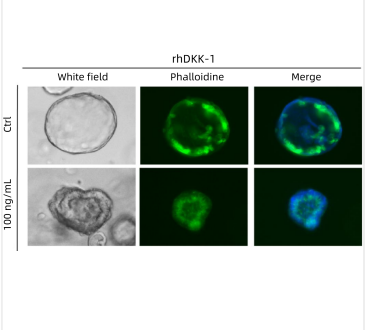
Recombinant Human FGF-10 Protein promotes proliferation assay using 4MBr-5 rhesus monkey epithelial cells. The ED_{50} for this effect is 2.08-8.32 ng/mL, corresponding to a specific activity of 1.20×10^5~4.81×10^5 units/mg.



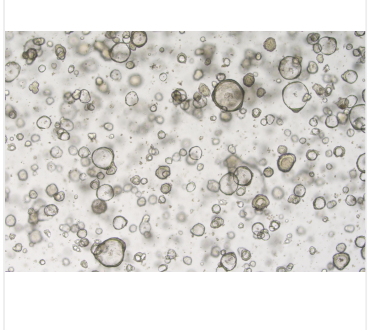
Human stomach organoids were cultured with EGF(Cat. RP03287), FGF10(Cat. RP01140), NOG(Cat. RP01237), RSPO1(Cat. RP00071), WNT-3a(Cat. RP01618SLQ).



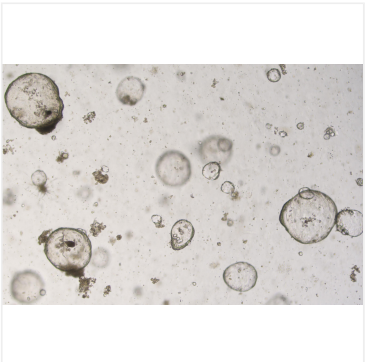
Human liver organoids were cultured with EGF(Cat. RP03287), HGF(Cat. RP01602), FGF2(Cat. RP01042), FGF10(Cat. RP01140), NOG(Cat. RP01237), RSPO1(Cat. RP00071), WNT-3a(Cat. RP01618SLQ).



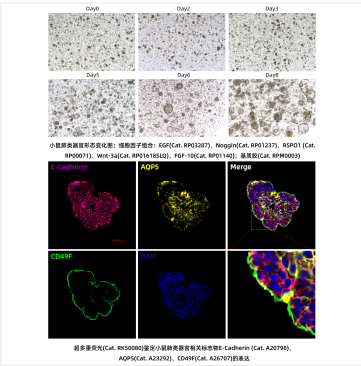
Human kidney organoids were cultured with EGF(Cat. RP03287), FGF2(Cat. RP01042), FGF7(Cat. RP01717), FGF9(Cat. RP01710), FGF10(Cat. RP01140), IGF-(Cat. RP00996), NOG(Cat. RP01237), RSPO1(Cat. RP00071), WNT-3a(Cat. RP01618SLQ). And further, DKK-1(RP01343) was used to induce the establishment of cell polarity.



Human colorectal cancer organoid were cultured with EGF(Cat. RP03287), NOG(Cat. RP01237)， FGF10(Cat. RP01140), RSPO1(Cat. RP00071), HGF(Cat. RP01602).



Human gastric cancer organoid were cultured with EGF(Cat. RP03287), NOG(Cat. RP01237), FGF10(Cat. RP01140), RSPO1(Cat. RP00071), Wnt-3a Surrogate(Cat. RP01618SLQ).



Mouse lung organoids were cultured in Matrigel (Cat. RPM0003) with medium supplemented with EGF (Cat. RP03287), Noggin (Cat. RP01237), RSPO1 (Cat. RP00071), Wnt-3a (Cat. RP01618SLQ), and FGF-10 (Cat. RP01140).