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Recombinant Human FGF-7/HBGF-7/KGF Protein

Catalog No.: RP01717 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Human	2252	P21781-1

Tags
C-6His

Synonyms
KGF; HBGF-7;FGF7

Product Information

Source	Purification
HEK293 cells	≥ 90 % as determined by SDS-PAGE.

Calculated MW	Observed MW
19.72 kDa	15-25 kDa,26-30 kDa

Endotoxin
< 0.01 EU/μg of the protein by LAL method

Formulation
Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

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.

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Background

Fibroblast growth factor 7 (FGF7) is a member of the fibroblast growth factor (FGF) family of proteins. FGF7 plays an important role in regulating the proliferation, migration, and differentiation of cells. FGF7 is of stromal origin and produces a paracrine effect on epithelial cells. FGF7 is a mesenchyme-specific heparin-binding growth factor that binds FGF receptor 2 (FGFR2) to regulate numerous cellular and physiological processes. FGF7/FGFR2 promotes invasion and migration in human gastric cancer. FGF7 is specifically utilized as a paracrine factor during the process of differentiation of the epidermal layers in the regenerating scales and in particular for beta-cells differentiation. FGF7 over expression is associated with advanced clinical features in patients with upper tract and bladder urothelial carcinoma, justifying its potential prognostic value for urothelial carcinoma.

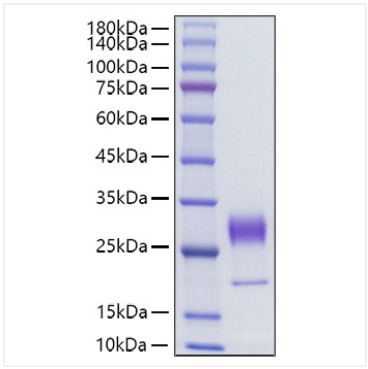
Basic Information

Description
Recombinant Human FGF-7/HBGF-7/KGF Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Cys32-Thr194) of human FGF-7/HBGF-7 (Accession #NP_002000.1) fused with His tag at the C-terminus.

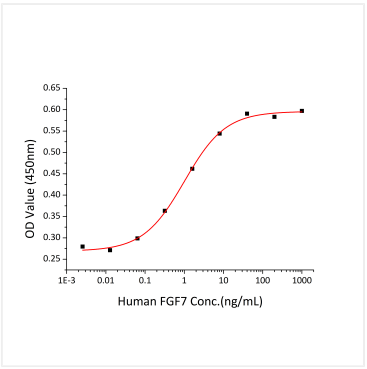
Bio-Activity
Measured in a cell proliferation assay using 4MBr-5 rhesus monkey epithelial cells. The ED50 for this effect is 2.19-8.76 ng/mL, corresponding to a specific activity of 1.14×105~4.57×105 units/mg.

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.

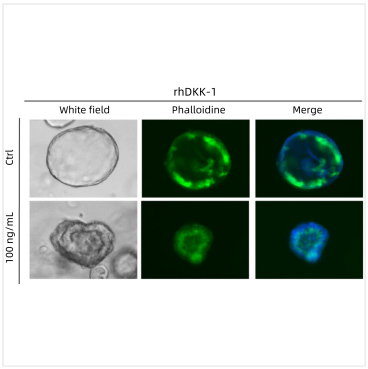
Validation Data



Recombinant Human FGF-7/HBGF-7/KGF Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.



Measured in a cell proliferation assay using 4MBr-5 rhesus monkey epithelial cells. The ED_{50} for this effect is 2.19-8.76 ng/mL, corresponding to a specific activity of 1.14×10^{5}~4.57×10^{5} units/mg.



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.