Recombinant Human KGF/FGF-7

Catalog Number: BT-KGF

DESCRIPTION

Source	*E. coli*-derived human KGF/FGF-7 protein Cys32-Thr194, with an N-terminal Met Accession # P21781.1
N-terminal Sequence Analysis	Cys32 & Asn33
Predicted Molecular Mass	19 kDa

SPECIFICATIONS

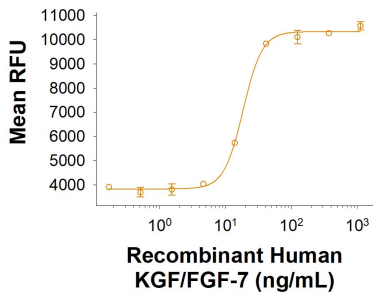
SDS-PAGE	20 kDa, reducing conditions.
Activity	Measured in a cell proliferation assay using Ba/F3 mouse pro B cells transfected with human FGF RIIb. The ED_{50} for this effect is 6.00-60.0 ng/mL.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>97%, by SDS-PAGE with quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in MOPS, Na_2SO_4 and EDTA with Trehalose. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute the 20 µg size at 200 µg/mL in water. Reconstitute all other sizes at 500 µg/mL in water.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

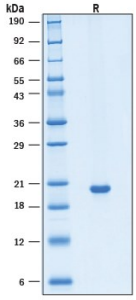
DATA

Bioactivity



Recombinant Human KGF/FGF-7 Protein Bioactivity. Recombinant Human KGF/FGF-7 Protein (Catalog # BT-KGF) induced cell proliferation in Ba/F3 mouse pro-B cells transfected with human FGF RIIb. The ED_{50} for this effect is 6.00-60.0 ng/mL.

SDS-PAGE



Recombinant Human KGF/FGF-7 Protein SDS-PAGE. 2 µg/lane of Recombinant Human KGF/FGF-7 Protein (Catalog # BT-KGF) was resolved with SDS-PAGE under reducing (R) condition and visualized by Coomassie® Blue staining, showing bands at 20 kDa.

BACKGROUND

Keratinocyte Growth Factor (KGF), or Fibroblast Growth Factor-7 (FGF-7), is an important component in many cell culture protocols. It is widely used to promote the growth and differentiation of epithelial cells, including skin keratinocytes, and lung, corneal, and intestinal epithelia. It is a part of tissue engineering and organoid culture protocols, where it can enhance the generation of complex tissues such as liver, gastrointestinal tract, lung, and mammary gland. Furthermore, KGF/FGF-7 has been shown to stimulate the proliferation of pancreatic endocrine progenitor cells and promote their differentiation into mature insulin-secreting beta cells. In these capacities KGF/FGF-7 has significant clinical relevance in studies to better understand gastrointestinal disorders, wound healing, respiratory disease, and diabetes.

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