Recombinant Human Keratinocyte Growth Factor-1/FGF-7 GMP (rHuKGF-1/FGF-7 GMP)

PrimeGene Technical DataSheet

Catalog Number:	GMP-104-07
Source:	*Escherichia coli*
Molecular Weight:	Approximately 18.9 kDa, a single, non-glycosylated polypeptide chain containing 163 amino acids.
Size:	5 μg/100 μg/1 mg
Sequence:	CNDMTPEQMA TNVNCSSPER HTRSYDYMEG GDIRVRRLFC RTQWYLRIDK RGKVKGTQEM KNNYNIMEIR TVAVGIVAIK GVESEFYLAM NKEGKLYAKK ECNEDCNFKE LILENHYNTY ASAKWTHNGG EMFVALNQKG IPVRGKKTKK EQKTAHFLPM AIT
Purity:	> 98% by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED_{50} as determined by thymidine uptake assay using FGF-receptors transfected BaF3 cells is less than 10 ng/mL, corresponding to a specific activity of > 1.0×10^5 U/mg.
Physical Appearance:	Sterile filtered white lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μm filtered solution in 20 mM PB, 500 mM NaCl, 5% Trehalose, 0.02% Tween-20, pH 7.4.
Endotoxin:	Less than 0.01 EU/μg of rHuKGF-1/FGF-7 GMP as determined by LAL method.
Host Cell Protein:	Less than 0.10% when tested by ELISA.
Reconstitution:	Prior to opening, it is recommended to centrifuge the vial briefly to bring the contents down the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. If animal-origin-free condition is expected in your product, then sterile distilled water is recommended. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 ℃. Further dilutions should be made in appropriate buffered solutions.
Shipping:	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● A minimum of 12 months from date of receipt, when stored at ≤ -20 ℃ as supplied. ● 1 month, 2 to 8 ℃ under sterile conditions after reconstitution. ● 3 months, -20 to -70 ℃ under sterile conditions after reconstitution. ● Refer to lot-specific CoA for the Expiry Date.
Usage:	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory, or further evaluation purposes. **NOT FOR HUMAN USE.**
Quality Statement:	**The manufacturing and testing of these products comply with ICH Q7 guidelines.**

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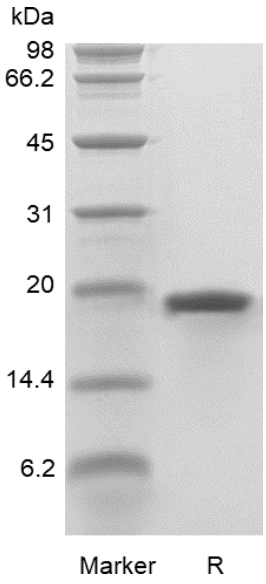
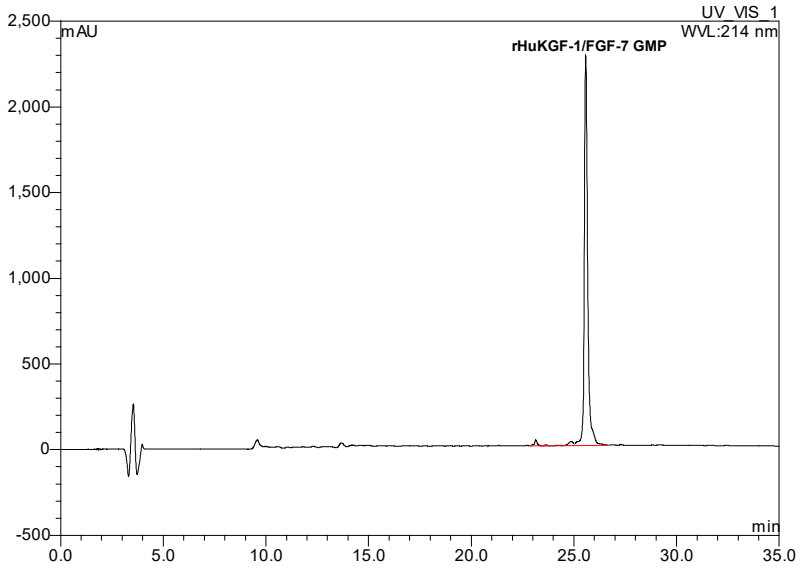
SDS-PAGE



HPLC



Background:

Human KGF-1 also known as Fibroblast growth factor 7 (FGF-7), is encoded by the *FGF7* gene. KGF-1 only binds to the b splice form of the tyrosine kinase receptor, FGFR2b/KGFR. Affinity between KGF-1 and its receptor can be increased by heparin or heparan sulfate proteoglycan. FGF-10, also called keratinocyte growth factor 2 (KGF-2), shares 51% amino acid sequence identity and similar function to KGF-1, but uses an additional receptor, FGFR2c. KGF-1 plays an important role in the regulation of embryonic development, cell proliferation and cell differentiation. KGF-1 actives on keratinocytes, and exhibits mitogenic activity for epidermal cells, but essentially no activity for fibroblasts. KGF-1 has species cross active, human KGF-1 shares 96 % amino acid sequence identity with murine, and 92% with rat.

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