

Recombinant Human Keratinocyte Growth Factor 1/FGF-7

#R00108

Size: 10 µg/100 µg/500 µg

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.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

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 crossactive, human KGF-1 shares 96 % amino acid sequence identity with murine, and 92 % with rat.

AA Sequence

CNDMTPEQMATNVNCSSPERHTRS DYMEGGDIRV
RRLFCRTQWYLRIDKRGKVKG TQEMKNNYNIMEIRT
VAVGIVA IKGVESEFYLAMNKEGKLYAKKECNEDCNF
KELILENH YNTYASAKWTHNGGEMFVALNQKGIPVR
GKKTKEQKTAHFLPMAIT

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

Product Specification

Synonyms	HBGF-7
Accession	P21781
GeneID	2252
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 18.9 kDa, a single, non-glycosylated polypeptide chain containing 163 amino acids.
Purity	> 96 % 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 $> 1.0 \times 10^5$ IU/mg.
Physical	Sterile Filtered White lyophilized
Appearance	(freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μ m filtered solution in 20 mM PB, 0.5 M NaCl, pH 8.0.
Endotoxin	Less than 1 EU/ μ g of rHuKGF-1/FGF-7 as determined by LAL method.