

Recombinant Human Keratinocyte Growth Factor 1/FGF-7

Product Information

Cat

CGF-029

Product Name

Recombinant Human Keratinocyte Growth Factor 1/FGF-7

Synonyms

HBGF-7

GenID

2252

Source

Escherichia coli.

Molecular Weight

Approximately 18.9 kDa, a single, non-glycosylated polypeptide chain containing 163 amino acids.

AA Sequence

CNDMTPEQMA TNVNCSSPER HTRSYDMEG GDIRVRLFC RTQWYLRIK RGKVKGTQEM
KNNYNIMEIR TVAVGIVAIAK GVESEFYLAM NKEGKLYAKK ECNEDCNFKE LILENHYNLY ASAKWTHNGG
EMFVALNQKG IPVRGKKTKK EQKTAHFLPM AIT

Purity

> 96 % by SDS-PAGE and HPLC analyses.

Biological Activity

Fully biologically active when compared to standard. The ED50 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 Appearance

Recombinant Human Keratinocyte Growth Factor 1/FGF-7

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered solution in 20 mM PB, 0.5 M NaCl, pH 8.0.

Endotoxin

Less than 1 EU/µg of rHuKGF-1/FGF-7 as determined by LAL method.

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.

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.

Usage

This material is offered by Creative Biomart for research, For research and further manufacturing use only.

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 activates on keratinocytes, and exhibits mitogenic activity for epidermal cells, but essentially no activity for fibroblasts. KGF-1 has species crossactive, human

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