

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

Catalog Number: 500-20

Description:

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

AA Sequence:

CNDMTPEQMA TNVNCSSPER HTRSVDYMEG GDIRVRLFC RTQWYLRIK RGKVKGTQEM
KNNYNIMEIR TVAVGIVAIAK GVESEFYLAM NKEGKLYAKK ECNEDCNFKE LILENHNTY
ASAKWTHNGG EMFVALNQKG IPVRGKKTKK EQKTAHFLPM AIT

Quantity: 2µg/10µg/1000µg

Source: E. coli.

Molecular Weight:

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

Purity: Greater than 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:

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.

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.

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