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# SCIENTIFIC

# KGF Human

**Description:**Keratinocyte Growth Factor-1 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 164 amino acids and having a molecular mass of 18995 Dalton.The FGF-7 is purified by proprietary chromatographic techniques.

Synonyms: HBGF-7, FGF7, FGF-7, KGF.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Amino Acid Sequence: MCNDMTPEQM ATNVNCSSPE RHTRSYDYME GGDIRVRRLF CRTQWYLRID KRGKVKGTQE MKNNYNIMEI RTVAVGIVAI KGVESEFYLA MNKEGKLYAK KECNEDCNFK ELILENHYNT YASAKWTHNG GEMFVALNQK GIPVRGKKTK KEQKTAHFLP MAIT.

**Purity:**Greater than 96.0% as determined by:(a) Analysis by RP-HPLC.(b) Analysis by SDS-PAGE.

### Formulation:

Lyophilized from a 0.2m filtered solution in 20mM PB, pH 8.0, 1M NaCl.

### Stability:

Lyophilized Keratinocyte Growth Factor1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution FGF7 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

### Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

### Solubility:

It is recommended to reconstitute the lyophilized Keratinocyte Growth Factor in sterile 18M-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### Introduction:

KGF is a member of the fibroblast growth factor (FGF) family. FGF family members possess broad mitogenic and cell survival activities, and are involved in a variety of biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. FGF7 is a potent epithelial cell-specific growth factor, whose mitogenic activity is predominantly exhibited in keratinocytes but not in fibroblasts and endothelial cells. Studies of mouse and rat homologs of this gene implicated roles in morphogenesis of epithelium, reepithelialization of wounds, hair development and early lung organogenesis.

## **Biological Activity:**

The biological activity was determined by the dose-dependent stimulation of thymidine uptake by BaF3 cells expressing KGF receptors yielding an ED50 <10ng/ml, corresponding to a Specific Activity of 1.0







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### References:

1.Title:Human Cord Blood-Derived Endothelial Progenitor Cells and Their Conditioned Media

Exhibit Therapeutic Equivalence for Diabetic Wound Healing .Publication: Cell Transplantation ISSN: 0963-6897 DOI: 10.3727/096368910X516637 Volume 19, Issue 12, pages 1635-1644 Copyright © 2010 Cognizant Comm.

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