



Keratinocyte Growth Factor, human recombinant (rHuKGF)

Catalog No: 51566
Lot No: XXXXX
Source: *E. coli*
Synonyms: HBGF-7, FGF7, FGF-7, KGF

Background

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.

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. FGF-7 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated (1 mg/ml) solution containing no additives.

Solubility

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

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.

Purity

Greater than 98.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

MCNDMTPEQM ATNVNCSSPE RHTRSVDYME GDIRVRLRF CRTQWYLRID KRGKVKGTQE MKNNYNIMEI RTVAVGIVAI
KGVSEFYLA MNKEGKLYAK KECNEDCNFK ELILENHNT YASAKWTHNG GEMFVALNQQ GIPVRGKKTG KEQKTAHFLP
MAIT

Activity

The biological activity was determined by the dose-dependent stimulation of thymidine uptake by BaF3 cells expressing KGF receptors yielding an ED50 <10 ng/ml, corresponding to a specific activity of 1.0 × 10⁵ IU/mg.

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