



RayBiotech, Inc.

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Certificate of Analysis and Data Sheet Recombinant Human Keratinocyte Growth Factor

Catalog No.
228-10988

Source:
Escherichia Coli.

Synonyms

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

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.

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.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

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

Solubility

It is recommended to reconstitute the lyophilized Keratinocyte Growth Factor in sterile 18MΩ-cm H₂O not less than 100μg/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.

**The products are furnished for LABORATORY RESEARCH USE ONLY.
Not for diagnostic or therapeutic use.**



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Purity

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

Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Cys-Asn-Asp-Met.

Biological Activity

The ED₅₀, calculated by the dose-dependant stimulation of KGF-responsive BaF3 indicator cells (measured by ³H-thymidine uptake) is < 10ng/ml corresponding to a specific activity of 105 Units/mg. ProSpec's Keratinocyte Growth Factor biological activity was measured by the KGF's mitogenic activity on BaF3 cells expressing the KGF receptor.

Protein content

Protein quantitation was carried out by two independent methods

1. UV spectroscopy at 280 nm using the absorbency value of 0.9 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of KGF as a Reference Standard.

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