



Product Datasheet

Product Name	Recombinant Human Keratinocyte Growth Factor-2
Cata No	CB500205
Source	Escherichia Coli.
Synonyms	FGFA, FGF10, FGF-10, KGF-2, Fibroblast growth factor 10.

Introduction

KGF-2 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. FGF-10 exhibits mitogenic activity for keratinizing epidermal cells, but essentially no activity for fibroblasts, which is similar to the biological activity of FGF7. Studies of the mouse homolog of suggested that this gene is required for embryonic epidermal morphogenesis including brain development, lung morphogenesis, and initiation of limb bud formation. This gene is also implicated to be a primary factor in the process of wound healing.

Description

Keratinocyte Growth Factor-2 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 170 amino acids and having a molecular mass of 19300 Dalton. Keratinocyte Growth Factor 2 is highly related to KGF-1(FGF-7), it binds to the same receptor as KGF-1 and shares 57% sequence homology. The FGF10 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a concentrated (1mg/ml) solution in

water containing 5mM Sodium Phosphate buffer, pH 7.4 + 80 mM NaCl.

Solubility

It is recommended to reconstitute the lyophilized FGF-10 in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Keratinocyte Growth Factor-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution FGF10 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 95.0% 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-Leu-Glu-Gln-Asp.

Biological Activity

The ED₅₀, calculated by the dose-dependant stimulation of FGF receptors by BaF3 indicator cells (measured by ³H-thymidine uptake) is < 0.5 ng/ml

corresponding to a specific activity of 2×10^6 Units/mg.

Protein content

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm using the absorbency

value of 1.79 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 standard solution of FGF-10 as a Reference Standard.

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