



Keratinocyte Growth Factor-2, human recombinant (rHuKGF-2)

Catalog No: 94926
Lot No: XXXXX
Source: *E. coli*
Synonyms: FGFA, FGF10, FGF-10, KGF-2, Fibroblast growth factor 10

Background

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 (40-208) 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. FGF10 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

Lyophilized from a 0.2 µm filtered concentrated (1 mg/ml) solution in PBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized FGF-10 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 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 96.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

MLGQDMVSPE ATNSSSSSFS SPSSAGRHRV SYNHLQGDVR WRKLFSTFKY FLKIEKNGKV SGTKKENCYPY SILEITSVEI
GVVAVKAINS NYLAMNKKG KLYGSKEFNN DCKLKERIEE NGYNTYASFN WQHNGRQMYV ALNGKGAPRR GQKTRRKNTS
AHFLPMVVHS



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.

Usage

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