

Recombinant Human Fibroblast Growth Factor-10 (KGF-2/FGF-10)

Certificate of Analysis and Data Sheet

➤ Source: E.Coli	➤ Catalog No. CTK-303
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➤ **Background:**

KGF is a potent specific mitogen for many epithelial cells but not for fibroblasts and endothelial cells. KGF is thought to play an important role in the paracrine growth control of normal epithelial cells.

➤ **Description :**

Recombinant Human KGF-2 (FGF-10) produced in E.Coli is a single, non-glycosylated polypeptide chain containing 170 amino acids and having a molecular mass of 19300 Dalton. rHuKGF-2 is highly related to KGF-1(FGF-7), it binds to the same receptor as KGF-1 and shares 57% sequence homology.

Recombinant KGF-2 is purified by proprietary chromatographic techniques.

➤ **Physical Appearance:**

Sterile Filtered White Lyophilized (freeze-dried) powder.

➤ **Formulation:**

KGF-2 is 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 KGF-2 in sterile 18MΩ-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

➤ **Stability:**

Lyophilized KGF-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution KGF-2 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 avoid freeze-thaw cycles.

➤ **Purity:**

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained.

➤ **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.

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This Recombinant Keratinocyte Growth Factor-2 is fully biologically active when compared to standards. The ED50, calculated by the dose-dependant stimulation of FGF receptors by BaF3 indicator cells (measured by 3H-thymidine uptake) is less than 0.5 ng/ml corresponding to a specific activity of 2×10^6 Units/mg.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of KGF-2.

➤ **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 calibrated solution of KGF-2 as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further evaluation purposes.