

Keratinocyte Growth Factor-2

Human, Recombinant (rHuKGF-2)

Expressed in *E. coli*

Cat. No. CRP0881

Lot. No. (See product label)

PRODUCT INFORMATION

Description: KGF-2(also known as FGF-10) was originally identified from rat embryos by homology-based polymerase chain reaction. Human and mouse KGF-2 were subsequently cloned. The human KGF-2 cDNA encodes a 208 amino acid residue protein with a hydrophobic amino-terminal signal peptide. Human KGF-2 shares approximately 92% and 95% amino acid sequence identity with mouse and rat KGF-2, respectively. Among the FGF family members, KGF-2 is most closely related to FGF-7. The expression of KGF-2 transcripts has been shown to be most abundant in the embryo and adult lung. Recombinant KGF-2 preparations have been shown to be mitogenic for epithelial and epidermal cells but not fibroblasts. Based on its in vitro biological activities and in vivo expression pattern, KGF-2 has been proposed to play unique roles in the brain, in lung development, wound healing and limb bud formation.

Amino-Acid Sequence: 170 amino acid residues consisting of Methionine and the mature human KGF-2 (amino acid residues 40 – 208).

M. W. : Approximately 19.3 kDa

Recombinant: Expressed in *E. coli*

Purity: >96% by SDS-PAGE and HPLC analyses.

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

Biological Activity: The biological activity was determined by the dose-dependent stimulation of thymidine uptake by BaF3 cells expressing FGF receptors yielding an ED50 <0.5ng/ml.

Endotoxin: Less than 1EU/µg of rHuKGF-2 as determined by LAL method.

Reconstitution: We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage: This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.



[PDB](#) rendering based on 1nun.

GENE INFORMATION

Gene Name: [FGF10](#)

Synonyms: Fibroblast growth factor 10 precursor; Keratinocyte growth factor 2; produced by fibroblasts of urinary bladder lamina propria; fibroblast growth factor 10

mRNA Refseq: [NM_004465](#)

Protein Refseq: [NP_004456](#)

MIM: [602115](#)

GeneID: [2255](#)

Uniprot ID: [O15520](#)

Chromosome Location: 5p13-p12

Pathway: MAPK signaling pathway. Melanoma. Regulation of actin cytoskeleton. Signaling by FGFR

Function: chemoattractant activity. Fibroblast growth factor receptor binding. Growth factor activity. Heparin binding. Protein binding

REFERENCES

1. Strausberg RL, Feingold EA, Grouse LH, et al. Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences. Proc. Natl. Acad. Sci. U.S.A. 2003;99 (26): 16899–16903.
2. Yeh BK, Igarashi M, Eliseenkova AV, et al. Structural basis by which alternative splicing confers specificity in fibroblast growth factor receptors. Proc. Natl. Acad. Sci. U.S.A. 2003;100 (5): 2266–2271.

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