

KGF/FGF-7, His, Human

Cat. No.: Z03048-1

Size: 1.0 mg

Synonyms: Keratinocyte Growth Factor, Fibroblast Growth Factor-7, HBGF-7

Description:

Keratinocyte Growth Factor (KGF) is a highly specific epithelial mitogen produced by fibroblasts and mesenchymal stem cells. KGF belongs to the heparin binding Fibroblast Growth Factor (FGF) family, and is known as FGF-7. However, in contrast to the FGF-1, which binds to all known FGF receptors with high affinity, KGF only binds to a splice variant of an FGF receptor, FGFR2-IIIb. FGFR2-IIIb is produced by most of the epithelial cells, indicating that KGF plays roles as a paracrine mediator. KGF induces the differentiation and proliferation of various epithelial cells, including keratinocytes in the epidermis, hair follicles and sebaceous glands, and is responsible for the wound repairs of various tissues, including lung, bladder, and kidney.

Recombinant human Keratinocyte Growth Factor (rhKGF) with N-terminal His-tag produced in *E. coli* is a single non-glycosylated polypeptide chain containing 181 amino acids. A fully biologically active molecule, rhKGF has a molecular mass of 21.2 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MNHKVHHHHH HMDDDDKMCN DMTPEQMATN VNCSSPERHT
00041 RSYDYMEGGD IRVRLFCRT QWYLRIKRG KVKGTQEMKN
00081 NYNIMEIRTV AVGIVAIGV ESEFYLAMNK EGKLYAKKEC
00121 NEDCNFKELI LENHYNTYAS AKWTHNGGEM FVALNQGKIP
00161 VRGKTKKEQ KTAHFLPMAI LKERIEENGY T
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Source: *E. coli*

Species: Human

Biological Activity: ED₅₀ < 10 ng/mL, measured by a cell proliferation assay using 4MBr-5 cells, corresponding to a specific activity of > 1.0 × 10⁵ units/mg.

Molecular Weight: 21.2 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O at 100 µg/mL.

Purity: > 95% by SDS-PAGE and HPLC analyses.

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant human Keratinocyte Growth Factor (rhKGF) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhKGF should be stable up to 2 weeks at 4°C or up to 3 months at -20°C.