

DATASHEET
Version 20181206**KGF/FGF-7, Human****Cat. No.:** Z03047-1**Size:** 1.0 mg**Synonyms:** Keratinocyte Growth Factor, Fibroblast Growth Factor-7, HBGF-7, FGF-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) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 164 amino acids. A fully biologically active molecule, rhKGF has a molecular mass of 19.0 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MCNDMTPEQM ATNVNCSSPE RHTRSYDME GDIRVRLRF
00041 CRTQWYLRID KRGKVKGTQE MKNNYNIMEI RTVAVGIVAI
00081 KGVSEFYLA MNKEGKLYAK KECNEDCNFK ELILENHNT
00121 YSAKWTHNG GEMFVALNQQ GIPVRGKTK KEQKTAHFLP
00161 MAIT
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Source: *E. coli***Species:** Human**Biological Activity:** ED₅₀ < 2 ng/ml, measured by a cell proliferation assay using 4MBr-5 cells, corresponding to a specific activity of > 5.0 × 10⁵ units/mg.**Molecular Weight:** 19.0 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.