

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant KGF/FGF-7, His, Human

Catalog Number: BK0115-1mg

Source: Escherichia coli.

Quantity: 1mg

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.

Molecular Weight:

21.2 kDa, observed by reducing SDS-PAGE.

Purity:

> 95% by SDS-PAGE and HPLC analyses.

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.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

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Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

MNHKVVHHHHHMDDDDKMCNDMTPEQMATN
VNCSSPERHTRSVDYMEGGDIRVRRLLFCRTQW-
YLRIDKRGKVKGTQEMKNNYNIMEIRTVAVGI-
VAIKGVESEFYLAM-
AM-
NKEGKLYAKKECNEDCNFKELILENHNTYASA
KWTNNGGEMFVAL-
NQKGIPVRGKKTKEQKTAHFLPMAILKERI-
EENGYT

Endotoxin:

< 0.2 EU/μg, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O at 100 μg/mL.

Storage:

Lyophilized recombinant human Keratinocyte Growth Factor (rhKGF) remains stable up to 6 months at -80 °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.

Usage:

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