

DATASHEET

Version 20181206

FGF-10, His, Human

Cat. No.: Z03046-1

Size: 1.0 mg

Synonyms: Fibroblast Growth Factor-10, FGFA, Keratinocyte growth factor-2

Description:

Fibroblast Growth Factor-10 (FGF-10) is a mitogen mainly produced by mesenchymal stem cells in lung. FGF-10 belongs to the heparin binding FGF family, and is also known as Keratinocyte Growth Factor-2 (KGF-2). It shares the homolog and receptor FGFR2-IIIb with KGF. However, unlike KGF which induces the proliferation and differentiation of various epithelial cells, FGF-10 is an essential factor for the budding and branching morphogenesis during the multi-organ development via the instructive mesenchymal-epithelial interactions. FGF-10 is crucial for lung and limb development, and is regulated by Shh during early development.

Recombinant human Fibroblast Growth Factor-10 (rhFGF-10) with N-terminal His-tag produced in *E. coli* is a single non-glycosylated polypeptide chain containing 187 amino acids. A fully biologically active molecule, rhFGF-10 has a molecular mass of 21.4 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MNHKVHHHHH HMDDDDKMLG QDMVSPEATN SSSSSFSPPS
00041 SAGRHVRSYN HLQGDVVRWK LFSFTKYFLK IEKNGKVSQT
00081 KKENCYPYSL EITSVEIGVV AVKAINSYY LAMNKGKLY
00121 GSKEFNNDCK LKERIEENGY NTYASFNQH NGRQMYVALN
00161 GKGAPRRGQK TRRKNTSAHF LPMVVHS
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Source: *E. coli*

Species: Human

Biological Activity: ED₅₀ < 20 ng/mL, measured by a cell proliferation assay using 4MBr-5 cells, corresponding to a specific activity of > 5.0 × 10⁴ units/mg.

Molecular Weight: 21.4 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 analysis.

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

Storage: Lyophilized recombinant human Fibroblast Growth Factor-10 (rhFGF-10) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhFGF-10 should be stable up to 2 weeks at 4°C or up to 3 months at -20°C.