

FGF-basic (154aa), Human

Cat. No.: Z03116-1

Size: 1.0 mg

Synonyms: Fibroblast Growth Factor-basic, FGF-2, HBGF-2, Prostatropin

Description:

Fibroblast Growth Factor-basic (FGF-basic), also known as FGF-2, is a pleiotropic cytokine and one of the prototypic members of the heparin-binding FGF family. Like other FGF family members, bFGF has the β trefoil structure. *In vivo*, bFGF is produced by a variety of cells, including cardiomyocytes, fibroblasts, and vascular cells. bFGF regulates a variety of processes including cell proliferation, differentiation, survival, adhesion, motility, apoptosis, limb formation and wound healing. bFGF can be tumorigenic due to its role in angiogenesis and blood vessel remodeling. The angiogenic effects of bFGF can produce beneficial cardioprotection during acute heart injury. Recombinant human Fibroblast Growth Factor-basic (rhFGF-basic) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 154 amino acids. A fully biologically active molecule, rhFGF-basic has a molecular mass of 17.1 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 AAGSITTLPA LPEDGGSGAF PPGHFKDPKR LYCKNGGFFL
00041 RIHPDGRVDG VREKSDPHIK LQLQAEERGV VSIKGVCANR
00081 YLAMKEDGRL LASKCVTDEC FFFERLESNN YNTYRSRKYT
00121 SWYVALKRTG QYKLGSKTGP GQKAILFLPM SAKS
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Source: *E. coli*

Species: Human

Biological Activity: $ED_{50} < 0.25$ ng/mL, measured by the cell proliferation assay using 3T3 cells, corresponding to a specific activity of $> 4 \times 10^6$ units/mg.

Molecular Weight: 17.1 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O at 100 μ g/mL.

Purity: $> 95\%$ by SDS-PAGE analysis.

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

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