

FGF-basic, Rat

Cat. No.: Z03193-1

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, FGF-basic has the β trefoil structure. *In vivo*, FGF-basic is produced by a variety of cells, including cardiomyocytes, fibroblasts, and vascular cells. FGF-basic regulates a variety of processes including cell proliferation, differentiation, survival, adhesion, motility, apoptosis, limb formation and wound healing. FGF-basic can be tumorigenic due to its role in angiogenesis and blood vessel remodeling. The angiogenic effects of FGF-basic can produce beneficial cardioprotection during acute heart injury.

Recombinant rat Fibroblast Growth Factor-basic (rrFGF-basic) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 146 amino acids. A fully biologically active molecule, rrFGF-basic has a molecular mass of 16.4 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 GPALPEDGGG AFPPGHFKDP KRLYCKNGGF FLRIHPDGRV
00041 DGVREKSDPH VKLQLQAEER GVVSIGVCA NRYLAMKEDG
00081 RLLASKCVTE ECVFFERLES NNYNTYRSRK YSSWYVALKR
00121 TGQYKLGSKT GPGQKAILFL PMSAKS
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Source: *E. coli*

Species: Rat

Biological Activity: ED₅₀ < 0.25 ng/mL, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of > 4 × 10⁶ units/mg.

Molecular Weight: 16.4 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 rat Fibroblast Growth Factor-basic (rrFGF-basic) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rrFGF-basic remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.