

DATASHEET
Version 20181206**FGF-18, Rat****Cat. No.:** Z03100-1**Size:** 1.0 mg**Synonyms:** Fibroblast growth factor 18, FGF-18, zFGF5, Fgf18, D130055P09Rik**Description:**

Fibroblast Growth Factor 18 (FGF-18) is a pleiotropic cytokine belonging to the heparin-binding FGF family, which has 23 different members. Structurally, FGF-18 is closely related to FGF-8 and FGF-17. Like other FGFs, FGF-18 can bind to different FGF receptors *in vivo*. FGF-18 is expressed in various tissues and has multiple functions: during long bone growth, FGF-18 is expressed in perichondrium and developing joints, and regulates bone formation by inhibiting chondrocyte proliferation and differentiation; FGF-18 knock-out mice survive embryonic development, but exhibit skeletal abnormalities and die in the early neonatal period. FGF-18 also induces ectopic cartilage formation in the lung, and alters the morphology of the pulmonary mesenchyma.

Recombinant rat Fibroblast Growth Factor 18 (rrFGF-18) produced in *E. coli* is a single non-glycosylated polypeptide chain containing of 172 amino acids. A fully biologically active molecule, rrFGF-18 has a molecular mass of 20.1 kDa analyzed by non-reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 EENVDFRIHV ENQTRARDDV SRKQLRLYLQ YSRTSGKHIQ
00041 VLGRRIISARG EDGDKYAQLL VETDTFGSQV RIKGKETEFY
00081 LCMNRKGKLV GKPDGTSKEC VFIEKVLENN YTALMSAKYS
00121 GWYVGFTKKG RPRKGPKTRE NQQDVHFMKR YPKGQTELQK
00161 PFKYTTVTKR SR
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Source: *E. coli***Species:** Rat**Biological Activity:** ED₅₀ < 0.5 µg/mL, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of > 2 × 10³ units/mg.**Molecular Weight:** 20.1 kDa, observed by non-reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH₂O at 100 µg/mL.**Purity:** > 95% as analyzed by SDS-PAGE and HPLC.**Endotoxin Level:** < 0.2 EU/µg, determined by LAL method.**Storage:** Lyophilized recombinant rat Fibroblast Growth Factor 18 (rrFGF-18) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rrFGF-18 remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.