

Active Recombinant Rat Fgf18 Protein (172 aa)

Cat. No. Fgf18-416F **Lot. No.** (See product label)

SPECIFICATION

Product Overview	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.
Species	Rat
Source	E.coli
ProteinLength	172
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.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	ED50 < 0.5

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	µg/mL, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of $> 2 \times 10^3$ units/mg.
Molecular Mass	20.1 kDa, observed by non-reducing SDS-PAGE.
AA Sequence	EENVDFRIHVENQTRARDDVSRKQLRLYQLYSRTSGKHIQVLGRRISARGEDGDKY AQLLVETDTFGSQVRIKGETEFYLCMNRKGKLVGKPDGTSKECVFIEKVLNNYTA LMSAKYSGWYVGFTKKGRPRKGPKTRENQQDVHFMKRYPKGQTELQKPFKYTTVT KRSR
Endotoxin	< 0.2 EU/µg, determined by LAL method.
Purity	> 95% as analyzed by SDS-PAGE and HPLC.
Storage	Lyophilized recombinant rat Fibroblast Growth Factor 18 (rrFGF-18) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rrFGF-18 remains stable up to 2 weeks at 4 centigrade or up to 3 months at -20 centigrade.
Storage Buffer	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O at 100 µg/mL.

GENE INFORMATION

Gene Name	Fgf18 fibroblast growth factor 18 [<i>Rattus norvegicus</i>]
Official Symbol	Fgf18
Synonyms	FGF18; fibroblast growth factor 18; FGF-18;
Gene ID	29369

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mRNA Refseq	NM_019199
Protein Refseq	NP_062072
UniProt ID	O88182

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