

Overview

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 <i>in vivo</i> . 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 mouse Fibroblast Growth Factor 18 (rmFGF-18) produced in <i>E. coli</i> is a single non-glycosylated polypeptide chain containing of 172 amino acids. A fully biologically active molecule, rmFGF-18 has a molecular mass of 20.1 kDa analyzed by non-reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.
Accession No	O89101
Species	Mouse
Source	<i>E. coli</i>
Biological Activity	ED ₅₀ < 0.5 µg/mL, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of > 2× 10 ³ units/mg.
Sequence	<pre> EENVDFRIHV ENQTRARDDV SRKQLRLYQL YSRTSGKHIQ VLGRRISARG EDGDKYAQLL VETDTFGSQV RIKGKETEFY LCMNRK GKLV GKPDGTSKEC VFIEKVLENN YTALMSAKYS GWYVGF TTKG RPRKGPKTRE NQQDVHFMKR YPKGQAE LQK PFKYTTVTKR SR </pre>

Properties

Measured Molecular Weight	20.1 kDa, observed by non-reducing SDS-PAGE.
Purity	> 95% by SDS-PAGE and HPLC analyses.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O at 100 µg/mL.
Endotoxin Level	< 0.2 EU/µg, determined by LAL method.
Storage	Lyophilized recombinant mouse Fibroblast Growth Factor 18 (rmFGF-18) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rmFGF-18 remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.
Note	For research use only

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