

## Overview

<b>Synonyms</b>	Fibroblast growth factor 18, FGF-18, zFGF5, Fgf18, D130055P09Rik
<b>Description</b>	<b>Fibroblast Growth Factor 18 (FGF-18)</b> 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 <b>rat Fibroblast Growth Factor 18 (rrFGF-18)</b> produced in <i>E. coli</i> 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.
<b>Accession No</b>	O88182
<b>Species</b>	Rat
<b>Source</b>	<i>E. coli</i>
<b>Biological Activity</b>	ED <sub>50</sub> < 0.5 µg/mL, measured by a cell proliferation assay using 3T3 cells, corresponding to a specific activity of > 2× 10 <sup>3</sup> units/mg.
<b>Sequence</b>	<pre> EENVDFRIHV  ENQTRARDDV  SRKQLRLYQL  YSRTSGKHIQ VLGRRISARG  EDGDKYAQLL  VETDTFGSQV  RIKGKETEFY LCMNRKGKLV  GKPDGTSKEC  VFIEKVLENN  YTALMSAKYS GWYVGFTKKG  RPRKGPKTRE  NQQDVHFMKR  YPKGQTELQK PFKYTTVTKR  SR </pre>

## Properties

<b>Measured Molecular Weight</b>	20.1 kDa, observed by non-reducing SDS-PAGE.
<b>Purity</b>	> 95% as analyzed by SDS-PAGE and HPLC.
<b>Formulation</b>	Lyophilized after extensive dialysis against PBS.
<b>Reconstitution</b>	Reconstituted in ddH <sub>2</sub> O at 100 µg/mL.
<b>Endotoxin Level</b>	< 0.2 EU/µg, determined by LAL method.
<b>Storage</b>	Lyophilized recombinant <b>rat Fibroblast Growth Factor 18 (rrFGF-18)</b> 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.
<b>Note</b>	For research use only

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