

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant FGF-18, Rat

Catalog Number: BK0039-10µg

Source: Escherichia coli.

Quantity: 10µg

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.

Molecular Weight:

20.1 kDa, observed by non-reducing SDS-PAGE.

Purity:

> 95% as analyzed by SDS-PAGE and HPLC.

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.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

EENVDFRIHVE-
NQTRARDDVSRKQLRLYLQYSRTSGKHIQVLGR
RISARGEDGDKYAQLL-
VETDTFGSQVRIKQKETFYLCMNRKGLVGP
DGTSKECVFIEKVLNNYALMSAKYSGWY-
VGFTKKGRPRKGP-
TRENQQDVHFMKRYPKGQTELQKPFKYT-
TVTKRSR

Endotoxin:

< 0.2 EU/µg, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O at 100 µg/mL.

Storage:

Lyophilized recombinant rat Fibroblast Growth Factor 18 (rrFGF-18) remains stable up to 6 months at -80 °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.

Usage:

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