

Fibroblast Growth Factor-18, mouse recombinant (rmFGF18)

Catalog No: 97442 Lot No: XXXXX Source: E. coli

Synonyms: Fibroblast growth factor 18, FGF-18, zFGF5, Fgf18, D130055P09Rik

Background

Fibroblast growth factor 18 (FGF18) is a member of the large FGF family which has at least 23 members. FGF18 is a heparin binding growth factor with a core 120 amino acid FGF domain which allows for a common tertiary structure. FGFs are expressed in the course of the embryonic development and in restricted adult tissues. FGF-18 is an indispensable regulator of long bone and calvarial development. FGF-18 signals via FGFR 1c, 2c, 3c, and 4.

Description

FGF-18 mouse recombinant produced in *E. coli* is a single, non-glycosylated polypeptide chain containing 180 amino acids and having a molecular mass of 21 kDa. FGF-18 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

FGF-18 protein was lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized FGF-18 in sterile 18 M Ω -cm H $_2$ O not less than 100 μ g/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized FGF-18, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution FGF-18 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

EENVDFRIHV ENQTRARDDV SRKQLRLYQL YSRTSGKHIQ VLGRRISARG EDGDKYAQLL VETDTFGSQV RIKGKETEFY LCMNRKGKLV GKPDGTSKEC VFIEKVLENN YTALMSAKYS GWYVGFTKKG RPRKGPKTRE NQQDVHFMKR YPKGQAELQK PFKYTTVTKR SRRIRPTHPG

Activity

The ED50 as determined by the dose-dependent stimulation of thymidine uptake by BaF3 cells expressing FGF-receptors is <0.5 ng/ml, corresponding to a specific activity of $>2.0 \times 10^6$ units/mg.





Usage

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