

Recombinant Rat Fibroblast Growth Factor 18 (Rat FGF-18)

Product Information

Product Name	Cat#	Size
	91327ES08	5 µg
Recombinant Rat Fibroblast Growth Factor 18 (Rat FGF-18)	91327ES60	100 µg
	91327ES76	500 µg

Product Description

Fibroblast Growth Factor 18 (FGF-18) is a 21 kDa protein that plays an important role in skeletal development and bone homeostasis. Rat FGF-18 is encoded by the FGF18 gene in rats. By phylogenetic analysis and gene location analysis, FGF-18 is divided into FGF-8 subfamily which has three members FGF-8, FGF-17 and FGF-18. It is expressed in embryonic somites and the neural fold, adult lung, cerebellar and hippocampal neurons, hair follicle root sheath cells, and osteogenic mesenchymal cells. FGF-18 binds to FGF R2c, FGF R3c as well as the Golgi protein GLG1 and induces the proliferation of astrocytes and microglia, vascular endothelial cells, dermal fibroblasts, papilla cells, and keratinocytes. FGF-18 is required for normal skeletal development. It recruits osteoclasts and osteoblasts to the growth plate, promotes osteoclast formation and function, inhibits osteoblast differentiation, promotes skeletal vascularization, and induces chondrocyte hypertrophy and cartilage matrix formation.

Product Properties

Accession	O88182
GeneID	29369
Source	E.coli-derived Rat FGF-18, Glu28-Gly207.
Molecular Weight	Approximately 21.0 kDa.
AA Sequence	EENVDFRIHV ENQTRARDDV SRKQLRLYQL YSRTSGKHIQ VLGRRISARG EDGDKYAQLL VETDTFGSQV RIKGKETEFY LCMNRKGKLV GKPDGTSKEC VFIEKVLNEN YTALMSAKYS GWYVGFTKKG RPRKGPKTRE NQQDVHFMKR YPKGQTELQK PFKYTTVTKR SRRIRPHTPG
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 95% by SDS-PAGE and HPLC analyses.
Biological Activity	The ED ₅₀ as determined by thymidine uptake assay using FGF-receptors transfected BaF3 cells is less than 0.5 ng/mL, corresponding to a specific activity of > 2.0 × 10 ⁶ IU/mg. Fully biologically active when compared to standard.
Endotoxin	< 1.0 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4, 500 mM NaCl. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
Reconstitution	Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20°C. Further dilutions should be made in appropriate buffered solutions.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!