

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

Product Information

Product Name	Cat#	Size
Recombinant Mouse Fibroblast Growth Factor 18 (Mouse FGF-18)	91322ES08	5 µg
	91322ES60	100 µg
	91322ES76	500 µg

Product Description

Fibroblast Growth Factor 18 (FGF-18) is a 20 kDa protein that plays an important role in skeletal development and bone homeostasis. Mature mouse FGF-18 shares 99% amino acid sequence identity with human and rat 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

Synonyms	zFGF5
Accession	O89101
GeneID	14172
Source	E.coli-derived Mouse FGF-18, Glu28-Gly207.
Molecular Weight	Approximately 21.0 kDa.
AA Sequence	EENVDFRIHV ENQTRARDDV SRKQLRLYQL YSRTSGKHIQ VLGRRISARG EDGDKYAQLL VETDTFGSQV RIKGKETEFY LCMNRKGKLV GKPDGTSKEC VFIEKVLENN YTALMSAKYS GWYVGFTHKG RPRKGPKTRE NQQDVHFMKR YPKGQAEKQ PFKYTTVTKR SRRIRPHPG
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.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. 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.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

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!