

Recombinant Rat Fgf18 protein

Cat. No. Fgf18-588R **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Rat Fgf18 protein was expressed in Escherichia coli.
Species	Rat
Source	E.coli
ProteinLength	180
Description	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. Using FGF knockout mice model, the numbers of this subfamily were testified that have crucial roles of in embryo development. FGF-18^{-/-} mice have decreased expression of osteogenic markers and delayed long-bone ossification. FGF-18 also has significant roles in lung development and has an anabolic effect on cartilage formation. Additionally, it has been shown in vitro that this protein is able to induce neurite outgrowth in PC12 cells. Rat FGF-18 shares 98 % amino acid sequence identity with human.
Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4, 500 mM NaCl.
Bio-activity	Fully biologically active when compared to standard. The ED50 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 $> 2.0 \times 10^6$ IU/mg.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Molecular Mass	Approximately 21.0 kDa, a single non-glycosylated polypeptide chain containing 180 amino acids.
AA Sequence	EENVDFRIHVENQTRARDDVSRKQLRLYQLYSRTSGKHIQVLGRRISARGEDGDKY AQLLVETDTFGSQVRIKGETEFYLCMNRKGKLVGKPDGTSKECVFIEKVLENNYTA LMSAKYSGWYVGFTKKGRPRKGPKTRENQQDVHFMKRYPKGQTELQKPFKYTTVT KRSRRIRPTHPG
Endotoxin	Less than 1 EU/g of rRtFGF-18 as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
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 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	Fgf18
Official Symbol	Fgf18
Synonyms	FGF18; fibroblast growth factor 18; FGF-18;

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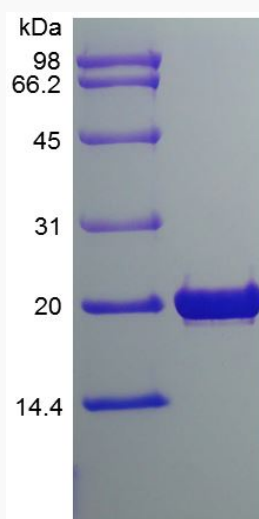
Gene ID 29369

mRNA Refseq NM_019199

Protein Refseq NP_062072

UniProt ID O88182

SDS-PAGE of Fgf18-
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