

Recombinant Human FGF21 protein

Cat. No. FGF21-562H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human FGF21 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	181
Description	Fibroblast growth factor-21 (FGF-21) belongs to the large FGF family which is encoded by the FGF-21 gene and it is specifically induced by HMGCS2 activity. All FGF family members are heparin binding growth factors with a core 120 amino acid (a.a.) FGF domain that allows for a common tertiary structure and they are involved in a variety of biological processes including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. FGF-21 stimulates glucose uptake in differentiated adipocytes via the induction of glucose transporter SLC2A1/GLUT1 expression (but not SLC2A4/GLUT4 expression) and the activity depends on the presence of KLB. FGF-21 contains a 28 a.a. signal sequence and a 181 a.a. mature region but show limited binding to heparin. In addition, Mature human FGF-21 respectively shows 81 % a.a. identity to murine and rat FGF-21, and is known to be active on murine cells.
Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4.
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

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	μg/ml, corresponding to a specific activity of $> 2.0 \times 10^3$ IU/mg in the presence of 5 μg/ml of rMuKlotho-β and 10 μg/ml of heparin.
Molecular Mass	Approximately 19.4 kDa, a single non-glycosylated polypeptide chain containing 181 amino acids.
AA Sequence	HPIPDSSPLLQFGGQVRQRYLYTDDAQQTEAHLEIREDGTVGGAADQSPESLLQLK ALKPGVIQILGVKTSRFLCQRPDGALYGSLHFDPEACSFRELLLEDGYNVYQSEAHG LPLHLPGNKSPHRDPAPRGPAPRFLPLPGLPPALPEPPGILAPQPPDVGSSDPLSMVG PSQGRSPSYAS
Endotoxin	Less than 1 EU/g of rHuFGF-21 as determined by LAL method.
Purity	>96% 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	FGF21
Official Symbol	FGF21

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Synonyms	FGF21; fibroblast growth factor 21; FGF-21;
Gene ID	26291
mRNA Refseq	NM_019113
Protein Refseq	NP_061986
MIM	609436
UniProt ID	Q9NSA1
SDS-PAGE of FGF21-562H 	