

Active Recombinant Human FGF21 Protein (182 aa)

Cat. No. FGF21-415F **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Fibroblast Growth Factor-21 (rhFGF-21) produced in E. coli is a single non-glycosylated polypeptide chain containing 182 amino acids. A fully biologically active molecule, rhFGF-21 has a molecular mass of 19.5 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.
Species	Human
Source	E.coli
ProteinLength	182
Description	Fibroblast Growth Factor-21 (FGF-21) is a metabolic cytokine belonging to the heparin-binding FGF family. Along with FGF-19/15 and FGF-23, FGF-21 is categorized as a member of the atypical FGF subfamily, as it must be complexed to the Klotho co-receptor in order to bind to the FGF receptors and activate the downstream signaling pathway. In vivo FGF-21 is expressed in liver, pancreas, adipose tissue, and skeletal muscle, and it plays a central role in the energy metabolism. The expression of FGF-21 is stimulated by free fatty acids and insulin resistant states and is correlated with whole-body insulin resistance. FGF-21 activates glucose uptake in adipocytes and increases insulin sensitivity, implicating it as a novel target with potential anti-diabetic properties.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	ED50 < 0.5

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

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

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	μg/mL, measured by a cell proliferation assay using NIH-3T3 cells in the presence of 1.25 μg/mL mouse Klotho and 10 μg/mL heparin, corresponding to a specific activity of $> 2 \times 10^3$ units/mg.
Molecular Mass	19.5 kDa, observed by reducing SDS-PAGE.
AA Sequence	GHPIPDSSPLLQFGGQVRQRYLYTDDAQQTEAHLEIREDGTVGGAADQSPESLLQL KALKPGVIQILGVKTSRFLCQRPDGALYGSLHFDPEACSFRELLLEDGYNVYQSEAH GLPLHLPGNKSPHRDPAPRGPAPRFLPLPGLPPALPEPPGILAPQPPDVGSSDPLSMV GPSQGRSPSYAS
Endotoxin	< 0.2 EU/μg, determined by LAL method.
Purity	> 95% as analyzed by SDS-PAGE and HPLC.
Storage	Lyophilized recombinant human Fibroblast Growth Factor-21 (rhFGF-21) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rhFGF-21 remains stable up to 2 weeks at 4 centigrade or up to 3 months at -20 centigrade.
Storage Buffer	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O at 100 μg/mL.

GENE INFORMATION

Gene Name	FGF21 fibroblast growth factor 21 [Homo sapiens]
Official Symbol	FGF21
Synonyms	FGF21; fibroblast growth factor 21; FGF-21;

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Gene ID	26291
mRNA Refseq	NM_019113
Protein Refseq	NP_061986
MIM	609436
UniProt ID	Q9NSA1

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