DATASHEET
Version 20181206

FGF-21, Human

Cat. No.: Z03157-50

Size: 50.0 ug

Synonyms: Fibroblast Growth Factor-21, FGFL

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.
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 at GenScript.

Amino Acid Sequence:

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00001 GHPIPDSSPL LQFGGQVRQR YLYTDDAQQT EAHLEIREDG
00041 TVGGAADQSP ESLLQLKALK PGVIQILGVK TSRFLCQRPD
00081 GALYGSLHFD PEACSFRELL LEDGYNVYQS EAHGLPLHLP
00121 GNKSPHRDPA PRGPARFLPL PGLPPALPEP PGILAPQPPD
00161 VGSSDPLSMV GPSQGRSPSY AS
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Source: *E. coli*

Species: Human

Biological Activity: ED_{50} < 0.5 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× 10^3 units/mg.

Molecular Weight: 19.5 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH_2O at 100 μg/mL.

Purity: > 95% as analyzed by SDS-PAGE and HPLC.

Endotoxin Level: < 0.2 EU/μg, determined by LAL method.

Storage: Lyophilized recombinant human Fibroblast Growth Factor-21 (rhFGF-21) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhFGF-21 remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.

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