

## DATASHEET

Version 20181206

# FGF-21, Human

**Cat. No.:** Z02739-1

**Size:** 1.0 mg

**Synonyms:** Fibroblast Growth Factor-21(FGF-21), Human;

**Description:**

Fibroblast growth factor 21 (FGF21) belongs to the large FGF family which has at least 23 members. All FGF family members are heparin binding growth factors with a core 120 amino acid (aa) FGF domain that allows for a common tertiary structure. FGFs are expressed during embryonic development and in restricted adult tissues. Four distinct but related classes of FGF receptors, FGF R1, 2, 3, and 4, exist. FGF-21, in the presence of betaKlotho as a protein cofactor, signals through the FGFR 1c and 4 receptors and stimulates insulin independent glucose uptake by adipocytes.

**Amino Acid Sequence:**

```
00001 HPIPDSSPLL QFGGQVRQRY LYTDDAQTE AHLEIREDT
00041 VGGAADQSPE SLLQLKALKP GVIQILGVKT SRFLCQRPDG
00081 ALYGSLHFD P EACSFRELL EDGYNVYQSE AHGLPLHLP
00121 NKSPHRDPAP RGPAPFLPL GLPPALPEPP GILAPQPPDV
00161 GSSDPLSMVG PSQGRSPSYA S
```

**Source:** *E. coli*

**Species:** Human

**Biological Activity:** Fully biologically active when compared to standard. The ED<sub>50</sub> as determined by thymidine uptake assay using FGF-receptors transfected BaF3 cells is less than 0.5 µg/ml, corresponding to a specific activity of > 2.0 × 10<sup>3</sup> IU/mg in the presence of 5 µg/ml of rMuKlotho-β and 10 µg/ml of heparin.

**Molecular Weight:** Approximately 19.4 kDa, a single non-glycosylated polypeptide chain containing 181 amino acids.

**Formulation:** Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

**Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

**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.

**Purity:** > 96 % by SDS-PAGE and HPLC analyses.

**Endotoxin Level:** Less than 1 EU/µg of rHuFGF-21 as determined by LAL method.

**Storage:** This lyophilized preparation is stable at 2-8 °C, but should be kept at -20 °C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 °C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 °C to -70 °C. Avoid repeated freeze/thaw cycles.