Overview

Synonyms	Fibroblast growth factor 21, FGF-21
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 (a.a.) 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.
Species	Mouse
Source	*E. coli*
Biological Activity	Fully biologically active when compared to standard. The ED_{50} 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 > 2.0×10^3 IU/mg in the presence of 5 µg/ml of rMuKlotho-[2] and 10 µg/ml of heparin.
Sequence	AYPIPDSSPL LQFGGQVRQR YLYTDDDQDT EAHLEIREDG TVVGAAHRSP ESLLELKALK PGVIQILGVK ASRFLCQQPD GALYGSPHFD PEACSFRELL LEDGYNVYQS EAHGLPLRLP QKDSPNQDAT SWGPVRFLPM PGLLHEPQDQ AGFLPPEPPD VGSSDPLSMV EPLQGRSPSY AS

Properties

Measured Molecular Weight	Approximately 19.9 kDa, a single non-glycosylated polypeptide chain containing 182 amino acids.
Purity	> 97 % by SDS-PAGE and HPLC analyses.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 3 × PBS, pH 7.4.
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 d -20 °C. Further dilutions should be made in appropriate buffered solutions.
Endotoxin Level	Less than 1 EU/µg of rMuFGF-21 as determined by LAL method.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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.**

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