

Recombinant Rat Fibroblast Growth Factor 21

#R00324

Size: 5 µg/100 µg/500 µg

Stability & Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

Fibroblast growth factor 21 (FGF-21) encoded by the FGF-21 gene belongs to the large FGF family and it is specifically induced by HMGCS2 activity. In mice, brown adipose tissue becomes a source of systemic FGF-21 after cold exposure. 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. Recombinant rat FGF-21 contains 180 amino acids residues and show limited binding to heparin. In addition, rat FGF-21 respectively shows 81 % and 92 % a.a. identity to human and murine FGF-21, and it show activity on murine and human cells.

AA Sequence

AYPISDSSPLLQFGGQVRQRYLYTDDDQDTEAHLEIR
EDGTVVGTAHRSPESLLELKALKPGVIQILGVKASRFL

CQQPDGTLYGSPHFDPEACSFRELLLKDGYNVYQSE
AHGLPLRLPQKDSQDPATRGVPVRFLPMPGLPHEPQE
QPGVLPPEPPDVGSSDPLSMVEPLQGRSPSYAS

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.

Product Specification

Accession	Q8VI80
GeneID	170580
Species	Rat
Source	Escherichia coli.
Molecular Weight	Approximately 19.7 kDa, a single non-glycosylated polypeptide chain containing 180 amino acids.
Purity	> 95 % by SDS-PAGE and HPLC analyses.
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-β and 10 µg/ml of
heparin.

Physical White lyophilized powder.

Appearance

Formulation Lyophilized from a 0.2 µm
filtered concentrated solution in
PBS, 500 mM NaCl, pH 7.4.

Endotoxin Less than 1 EU/µg of rRtFGF-21
as determined by LAL method.
