

Recombinant Murine Fibroblast Growth Factor 21

#R00261

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) belongs to the large FGF family and it is specifically induced by HMGS2 activity. In mice, brown adipose tissue becomes a source of systemic FGF21 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. FGF-21, in the presence of betaKlotho as a protein cofactor, signals through the FGFR 1c and 4 receptors. Recombinant murine FGF-21 contains 182 amino acids residues and show limited binding to heparin. In addition, Murine FGF-21 respectively shows 81 % and 92 % a.a. identity to human and rat FGF-21, and it show activity on human and rat cells.

AA Sequence

AYPIPDSSPLLQFGGQVRQRYLYTDDDQDTEAHLEIR
EDGTVVGAHRSPESLLELKALKPGVIQILGVKASRFL
CQQPDGALYGSPHFDPEACSFRELLLEDGYNVYQSE
AHGLPLRLPQKDSPNQDATSWGVPVRLPMPGLLHEP
QDQAGFLPPEPPDVGSSDPLSMVEPLQGRSPSYAS

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

Synonyms	
Accession	Q9JJN1
GeneID	56636
Species	Murine
Source	Escherichia coli.
Molecular Weight	Approximately 19.9 kDa, a single non-glycosylated polypeptide chain containing 182 amino acids.
Purity	> 97 % 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 $> 2.0 \times 10^3$ IU/mg in the presence of 5 $\mu\text{g/ml}$ of rMuKlotho- β and 10 $\mu\text{g/ml}$ of heparin.

Physical Sterile Filtered White lyophilized

Appearance (freeze-dried) powder.

Formulation Lyophilized from a 0.2 μm filtered concentrated solution in $3 \times \text{PBS}$, pH 7.4.

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