# Technical Data Sheet

## Recombinant Murine Fibrobalst Growth Factor-21 (rMuFGF-21)

*Murine Fibroblast Growth Factor-21*

Fibroblast growth factor-21 (FGF-21) belongs to the large FGF family and it is specifically induced by HMGCS2 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.

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| Catalog Number: | RC235-32 |
| Source: | *Escherichia coli.* |
| Molecular Weight: | Approximately 19.9 kDa, a single non-glycosylated polypeptide chain containing 182 amino acids. |
| Quantity: | 5μg/25μg/1000μg |
| AA Sequence: | AYPIPDSSPL LQFGGQVRQR YLYTDDDQDT EAHLEIREDG TVVGAAHRSP ESLLELKALK PGVIQILGVK ASRFLCQQPD GALYGSPHFD PEACSFRELL LEDGYNVYQS EAHGLPLRLP QKDSPNQDAT SWGPVRFLPM PGLLHEPQDQ AGFLPPEPPD VGSSDPLSMV EPLQGRSPSY AS |
| 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 μg/ml of rMuKlotho-β and 10 μg/ml of heparin. |
| Physical Appearance: | Sterile Filtered White lyophilized (freeze-dried) powder. |
| Formulation: | Lyophilized from a 0.2 μm filtered concentrated solution in 3 × PBS, pH 7.4. |
| Endotoxin: | Less than 1 EU/μg of rMuFGF-21 as determined by LAL method. |
| 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 |

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| | be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions. |
| 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. |
| Usage: | This material is offered by Bio Basic Inc for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. |