
Product Data Sheet

Product Name: FGF 21 Mouse, Sf9
 Cat. No.: GP20249
 Batch No.: 1

Product Data

Purity	>98%	Source	Sf9, Baculovirus cells.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Fibroblast growth factor 21; FGF-21.		
Amino Acid Sequence	AYPIPDSSPL LQFGGQVRQR YLYTDDDQDT EAHLEIREDG TVVGAAHRSPESLLELKALK PGVIQILGVK ASRFLCQQPD GALYGSPHFD PEACSFRELL LEDGYNVYQS EAHGLPLRLPQKDSPNQDAT SWGPVRFLLPM PGLLHEPQDQ AGFLPPEPPD VGSSDPLSMV EPLQGRSPSYASLEHHHHHHH.		
Formulation	FGF-21 protein solution (0.5mg/ml) contains Phosphate Buffered Saline (pH 7.4) and 10% glycerol.		

Introduction

The FGFs are a family of more than 20 small (~17 kDa) secreted peptides. The initial characterization of these proteins focused on their ability to stimulate fibroblast proliferation. This mitogenic activity was mediated through FGF receptors (FGFRs) 1, 2, or 3. A fourth closely related tyrosine kinase receptor (FGFR4) was able to bind the FGFs but did not lead to a mitogenic response. FGFs modulate cellular activity via at least 5 distinct subfamilies of high-affinity FGF receptors (FGFRs): FGFR-1, -2, -3, and -4, all with intrinsic tyrosine kinase activity and, except for FGFR-4, multiple splice isoforms, and FGFR-5, which lacks an intracellular kinase domain. There is growing evidence that FGFRs can be important for regulation of glucose and lipid homeostasis. The overexpression of a dominant negative form of FGFR-1 in β cells leads to diabetes in mice, which thus implies that proper FGF signaling is required for normal β cell function and glycemia maintenance. FGFR-2 appears to be a key molecule during pancreatic development. Moreover, FGFR-4 has been implicated in cholesterol metabolism and bile acid synthesis. FGF-21 is preferentially expressed in liver, but an exact knowledge of FGF-21 bioactivity and its mode of action have been lacking to date. FGF-21 is a potent activator of glucose uptake on adipocytes, protects animals from diet-induced obesity

Caution: Product has not been fully validated for medical applications. For research use only.

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when overexpressed in transgenic mice, and lowers blood glucose and triglyceride levels when therapeutically administered to diabetic rodents.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

FGF-21 produced in Sf9 Baculovirus cells is a single, glycosylated polypeptide chain containing 190 amino acids (29-210a.a.) and having a molecular mass of 21.0kDa (Molecular size on SDS-PAGE will appear at approximately 18-28kDa). FGF21 is expressed with an 8 amino acid His tag at C-Terminus and purified by proprietary chromatographic techniques.

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