

32-6356: FGF 21 Mouse, Sf9

Alternative Name : Fibroblast growth factor 21, FGF-21.

Description

Source: Sf9, Baculovirus cells.

Sterile Filtered colorless clear solution.

The FGFs are a family of more than 20 small (~17Å-26 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 cells leads to diabetes in mice, which thus implies that proper FGF signaling is required for normal 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 when overexpressed in transgenic mice, and lowers blood glucose and triglyceride levels when therapeutically administered to diabetic rodents.

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.

Product Info

Amount :	2 µg / 10 µg
Purification :	Greater than 90.0% as determined by SDS-PAGE.
Content :	FGF-21 protein solution (0.5mg/ml) contains Phosphate Buffered Saline (pH 7.4) and 10% glycerol.
Storage condition :	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.
Amino Acid :	AYPIPDSSPL LQFGGQVRQR YLYTDDQDT EAHLEIREDG TVVGAHRSP ESLLLELKALK PGVIQILGVK ASRFLCQQPD GALYGSPHFD PEACSFRELL LEDGYNVYQS EAHGLPLRLP QKDSNPQDAT SWGPVRFLLPM PGLLHEPQDQ AGFLPPEPPD VGSSDPLSMV EPLQGRSPSY ASLEHHHHHH.