

Recombinant FGF-21 with His-tag (Human)

Type:	Recombinant	Cat. No.:	41184
Tag:	His	Size:	0.1 mg
Source:	<i>E.Coli</i>	Purity:	>95%
Other names:	FGF21	Species:	Human

Introduction to the Molecule

FGF21, a polypeptide with 210 amino acid residues produced mostly from the liver tissue.[1] Mouse FGF21 shares 75% identity as human FGF21. Recent animal studies indicate it possesses potent beneficial effects on glucose and lipid metabolism and insulin sensitivity.[2] Increasing data shows FGF21 can significantly stimulate glucose uptake in mature adipocytes. And The lowered LDL-cholesterol and increased HDL-cholesterol can also be observed.[2,3] FGF21 exerts its bioactivity through interaction with membrane bound FGF receptors (FGFRs) which requires β -Klotho as a co-factor to bind and activate FGFR signaling.[4,5]The activation of FGF21 can induce the stimulation of diverse downstream pathways mediated by MAPK,FRS-2, SHP-2, PI3K, raf, stat and other signaling molecules.[6-9] In sum, FGF21 induces a variety of significant beneficial metabolic changes without apparent adverse effects which makes this factor a hot candidate to treat some metabolic diseases.[10]

Description

Total 206AA Mw: 22.5kDa (calculated). N-terminal His-tag and TEV cleavage site, 25extra AA (highlighted).

Amino Acid Sequence

MSYYHHHHHH	DYDIPTTENL	YFQGA	HP	IPDSSPLLQF	GGQVRQRYLY
TDDAQQTEAH	LEIREDGTVG	GAADQSPESL		LQLKALKPGV	IQILGVKTSR
FLCQRPDGAL	YGSLHFDPEA	CSFRELLLED		GYNVYQSEAH	GLPLHLPGNK
SPHRDPAPRG	PARFLPLPGL	PPALPEPPGI		LAPQPPDVGS	SDPLSMVGPS
QGRSPSYAS					

Formulation

Lyophilized in 1 mg/mL in PBS.

Reconstitution

Add deionized water to prepare a working stock solution of approximately 1 mg/mL and let the lyophilized pellet dissolve completely.

Storage

Store lyophilized protein at -20°C . Aliquot reconstituted protein and store at -80°C . Avoid repeated freezing /thawing cycles.

Applications

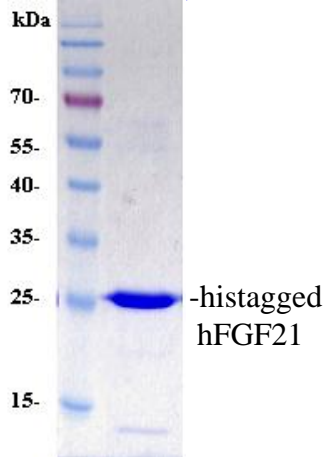
ELISA and Western blotting.

Quality Control Test

BCA to determine quantity of the protein.

SDS PAGE to determine purity of the protein.

SDS-PAGE gel



Reference:

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- [7] Rosa Carballada et al. Phosphatidylinositol-3 kinase acts in parallel to the ERK MAP kinase in the FGF pathway during Xenopus mesoderm induction. *Development* 128, 35-44 (2001)
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