

Human FGF21 Protein (His Tag)

Catalog Number: 10911-H07E



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

UNQ3115 / PRO10196

Protein Construction:

A DNA sequence encoding the mature form of human FGF21 (NP_061986.1) (His 29-Ser 209) was expressed, with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Met

Molecular Mass:

The recombinant human FGF21 consisting of 188 amino acids and has a calculated molecular mass of 20.2 kDa. It migrates as an 23 kDa band in SDS-PAGE under reducing conditions as predicted.

Formulation:

Lyophilized from 50 mM Tris, 10 % glycerol, 0.05 % Brig 35, pH 8.0

Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

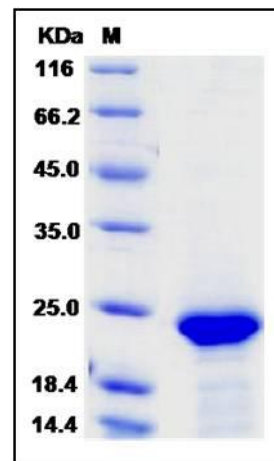
Usage Guide

Storage:

Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

SDS-PAGE:



Reconstitution:

Detailed reconstitution instructions are sent along with the products.

Protein Description

The fibroblast growth factors (FGFs) are a growing family of heparin-binding growth factors that regulate a variety of physiological processes in both developing and adult organism. FGFs function as key secreted signalling molecules in many developmental events. Fibroblast growth factor 21 (FGF21) is a member of endocrine FGFs subfamily, along with FGF19 and FGF23. It is emerging as a novel regulator with beneficial effects on a variety of metabolic parameters, including glucose and lipid control. FGF21 functions as a metabolic regulator. The FGF21 transcript is abundantly expressed in liver. FGF21 activity depends on membrane protein betaKlotho that physically complexes with various FGF receptors, thus conferring them the ability to bind FGF21 and activate downstream signaling pathways. FGF21, like other FGFs, folds to a beta-trefoil-like core region, with disordered N- and C-termini. FGF21 recently has been proposed as a missing link in the biology of fasting, it shows significant, non-saturable, unidirectional influx across the blood-brain barrier (BBB). FGF21 is a critical metabolic regulator, pivotal for fasting adaptation and directly regulated by PPARalpha in rodents. FGF21 circulates in human plasma and increases by extreme fasting and PPARalpha activation. The wide interindividual variation and the induction of ketogenesis independent of FGF21 levels indicate that the physiological role of FGF21 in humans may differ from that in mice.

References

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2. Yamauchi, H. et al., 2006, EMBO Rep. 7 (6): 649-54.
3. Izumiya, Y. et al., 2008, FEBS. Lett. 582 (27): 3805-10.
4. Arner, P. et al., FEBS Lett. 2008, 582 (12): 1725-30.
5. Micanovic, R. et al., 2009, J Cell Physiol. 219 (2): 227-34.

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