

Recombinant Human FGF21 Protein (His Tag)

Catalog Number: PKSH032440

Note: Centrifuge before opening to ensure complete recovery of vial contents.

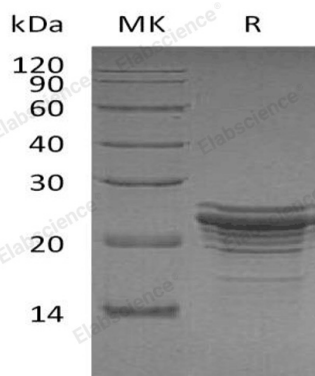
Description

Species	Human
Source	E.coli-derived Human FGF21 protein His29-Ser209, with an C-terminal His
Calculated MW	20.4 kDa
Observed MW	25 kDa
Accession	Q9NSA1
Bio-activity	Measure by its ability to induce proliferation in BaF3 cells transfected with human FGFR3c. The ED ₅₀ for this effect is <0.4 µg/mL.

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 EU per µg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 °C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 8.0. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



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Background

Fibroblast Growth Factor 21 (FGF21) is a growth factor that belongs to the FGF family. FGF family proteins play a central role during prenatal development and postnatal growth and regeneration of many tissues, by promoting cellular proliferation and differentiation. FGF21 is a potent activator of glucose uptake on adipocytes, protects animal from diet-induced obesity when overexpression in transgenic mice, and lower blood glucose and triglyceride levels when therapeutically administered to diabetic rodents. FGF21 is produced by hepatocytes in response to free fatty acid stimulation of a PPAR α /RXR dimeric complex. This situation occurs clinically during starvation, or following the ingestion of a highly-fat/low-carbohydrate diet. Upon FGF21 secretion, white adipose tissue is induced to release free fatty acids from triglyceride stores. Once free fatty acids reach hepatocytes, they are oxidized and reduced to acetyl-CoA. The acetyl-CoA is recombined into 4-carbon ketone bodies, released, and transported to peripheral tissue for TCA processing and energy generation.