Recombinant Human FGF18 Protein (His Tag)

Catalog Number: PDEH101057

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

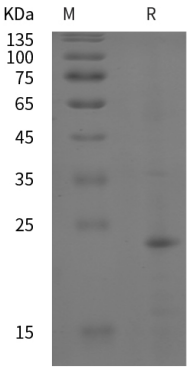
Description

Species	Human
Source	E.coli-derived Human FGF18 protein Val31-Ala207, with an C-terminal His
Calculated MW	19.4 kDa
Observed MW	23 kDa
Accession	O76093
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg 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 a 0.2 μm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human FGF18 proteins, 2 μg/lane of Recombinant Human FGF18 proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 23 kDa.

Background

Fibroblast Growth Factor 18 (FGF-18) is a 20 kDa protein that plays an important role in skeletal development and bone homeostasis . Mature human FGF-18 shares 99% amino acid sequence identity with mouse and rat FGF-18 . It is expressed in embryonic somites and the neural fold, adult lung, cerebellar and hippocampal neurons, hair follicle root sheath cells, and osteogenic mesenchymal cells . FGF-18 binds to FGF R2c, FGF R3c as well as the Golgi protein GLG1 and induces the proliferation of astrocytes and microglia, vascular endothelial cells, dermal fibroblasts, papilla cells, and keratinocytes . FGF-18 is required for normal skeletal development . It recruits osteoclasts and osteoblasts to the growth plate, promotes osteoclast formation and function, inhibits osteoblast differentiation, promotes skeletal vascularization, and induces chondrocyte hypertrophy and cartilage matrix formation.

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