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FGF-23

Catalog # PVGS1150

Product Information

Primary Accession	Q9GZV9
Species	Human
Sequence	Tyr25-Ile251
Purity	> 95% as analyzed by SDS-PAGE > 95% as analyzed by HPLC
Endotoxin Level	
Biological Activity	Fully biologically active when compared to standard. The ED_{50} as determined by thymidine uptake assay using FGF-receptors transfected BaF3 cells is less than 0.5 μg/ml, corresponding to a specific activity of > 2.0×10^3 IU/mg in the presence of 0.3 μg/ml of rMuKlotho and 10 μg/ml of heparin.
Expression System	E. coli
Theoretical Molecular Weight	25.3 kDa
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS, pH 7.4.
Reconstitution	It is recommended that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute the lyophilized powder in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/ml.
Storage & Stability	Upon receiving, this product remains stable for up to 6 months at -70°C or -20°C. Upon reconstitution, the product should be stable for up to 1 week at 4°C or up to 3 months at -20°C. Avoid repeated freeze-thaw cycles.

Additional Information

Gene ID	8074
Other Names	Fibroblast growth factor 23, FGF-23, Phosphatonin, Tumor-derived hypophosphatemia-inducing factor, Fibroblast growth factor 23 N-terminal peptide, Fibroblast growth factor 23 C-terminal peptide, FGF23, HYPF
Target Background	Fibroblast growth factor-23 (FGF-23) belongs to the large FGF family which has at least 23 members. All FGF family members are heparin binding growth factors with a core 120 amino acid (a.a.) FGF domain that allows for a common tertiary structure. FGFs are expressed during embryonic development and in restricted adult tissues. Four distinct but related classes of FGF receptors, FGF R1, 2, 3, and 4, exist. FGF-23 is produced by osteocytes and osteoblasts in response to high circulating phosphate levels, elevated parathyroid hormone, and circulatory volume loading. It functions as an

endocrine phosphatonin by suppressing circulating phosphate levels. FGF-23 interaction with renal proximal tubular epithelium decreases the renal resorption of phosphate by down regulating phosphate transporters and by suppressing vitamin D production. It also decreases the intestinal absorption of phosphate.

Protein Information

Name	FGF23
Synonyms	HYPF
Function	Regulator of phosphate homeostasis (PubMed: 11062477). Inhibits renal tubular phosphate transport by reducing SLC34A1 levels (PubMed:11409890). Up-regulates EGR1 expression in the presence of KL (By similarity). Acts directly on the parathyroid to decrease PTH secretion (By similarity). Regulator of vitamin-D metabolism (PubMed:15040831). Negatively regulates osteoblast differentiation and matrix mineralization (PubMed:18282132).
Cellular Location	Secreted. Note=Secretion is dependent on O-glycosylation
Tissue Location	Expressed in osteogenic cells particularly during phases of active bone remodeling. In adult trabecular bone, expressed in osteocytes and flattened bone-lining cells (inactive osteoblasts)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.