Active Recombinant Human FGF23 Protein (228 aa)

Cat. No. FGF23-118F **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human FGF23 Protein without tag was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	228
Description	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 (aa) 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. FGF23 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. FGF23 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.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	Measured in a cell proliferation assay using NIH/3T3 mouse embryonic fibroblasts. The ED50 for this effect is typically 0.05-0.3 μg/mL in the presence of 5 μg/mL of Recombinant Mouse Klotho and 10

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	μg/mL of heparin.
Molecular Mass	Approximately 22.5 kDa, a single non-glycosylated polypeptide chain containing 228 amino acids.
AA Sequence	MYPNASPLLGSSWGGLIHLYTATARNSYHLQIHKNGHVDGAPHQTIYSALMIRSEDA GFVVITGVMSRRYLCMDFRGNIFGSHYFDPENCRFQHQTLENGYDVYHSPQYHFLV SLGRAKRAFLPGMNPPPYSQFLSRRNEIPLIHFNTPIPRRHTRSAEDDSERDPLNVLK PRARMTPAPASCSQELPSAEDNSPMASDPLGVVRGGRVNTHAGGTGPEGCRPFA KFI
Endotoxin	Less than 1 EU/mg of rHuFGF-23 as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analyses.
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 to -70 centigrade. Avoid repeated freeze/thaw cycles.
Storage Buffer	Lyophilized from a 0.2mm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at < -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

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Gene Name	FGF23 fibroblast growth factor 23 [Homo sapiens]
Official Symbol	FGF23
Synonyms	FGF23; fibroblast growth factor 23; fibroblast growth factor 23; phosphatonin; tumor-derived hypophosphatemia inducing factor
Gene ID	53406
mRNA Refseq	NM_020638
Protein Refseq	NP_065689
MIM	605380
UniProt ID	Q9GZV9

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