

Recombinant Human FGF23 protein

Cat. No. FGF23-523H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human FGF23 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	227
Description	Human FGF-23 belongs to the FGF-19 subfamily which has three members FGF-19, 21, 23. 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. They are classically considered to be paracrine factors and are known for their roles in tissue patterning and organogenesis during embryogenesis. By contrast, the FGF-19 subfamily has recently been shown to function in an endocrine manner. Members of this subfamily have poor ability of binding to heparin binding site which is a crucial factor in ligand-receptor complex formation. β -Klotho has been identified as co-factor required for FGF-19, 21, 23 signaling. It can obviously increase ligand-receptor affinity. FGF-23 is most highly expressed in bone, from which it circulates through the blood to regulate vitamin D and phosphate metabolism in kidney.
Form	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by thymidine uptake assay using FGF-receptors transfected BaF3 cells is less than 0.5

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	µg/ml, corresponding to a specific activity of $> 2.0 \times 10^3$ IU/mg in the presence of 0.3 µg/ml of rMuKlotho and 10 µg/ml of heparin.
Molecular Mass	Approximately 25.3 kDa, a single non-glycosylated polypeptide chain containing 227 amino acids.
AA Sequence	YPNASPLLGSSWGGLIHLTYTARNSTYHLQIHKNHVDGAPHQTIYSALMIRSEDAG FVVITGVMSRRYLCMDFRGNIFGSHYFDPENCRFQHQTLENGYDVYHSPQYHFLVS LGRAKRAFLPGMNPPPYSQLSRRNEIPLIHFNTPIPRRHTRSAEDDSERDPLNVLPK RARMTPAPASCSQELPSAEDNSPMASDPLGVVRGGRVNTTHAGGTGPEGCRPFAK FI
Endotoxin	Less than 1 EU/g of rHuFGF-23 as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
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

Gene Name **FGF23**

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Official Symbol	FGF23
Synonyms	FGF23; fibroblast growth factor 23;
Gene ID	53406
mRNA Refseq	NM_020638.3
Protein Refseq	NP_065689.1
MIM	605380
UniProt ID	Q9GZV9

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