

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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	<p>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.</p>
Molecular Mass	<p>Approximately 25.3 kDa, a single non-glycosylated polypeptide chain containing 227 amino acids.</p>
AA Sequence	<p>YPNASPLLGSSWGGLIHLTYTARN SYHLQIHKNGHV D G A P H Q T I Y S A L M I R S E D A G F V V I T G V M S R R Y L C M D F R G N I F G S H Y F D P E N C R F Q H Q T L E N G Y D V Y H S P Q Y H F L V S L G R A K R A F L P G M N P P P Y S Q F L S R R N E I P L I H F N T P I P R R H T R S A E D D S E R D P L N V L K P R A R M T P A P A S C S Q E L P S A E D N S P M A S D P L G V V R G G R V N T H A G G T G P E G C R P F A K F I</p>
Endotoxin	<p>Less than 1 EU/g of rHuFGF-23 as determined by LAL method.</p>
Purity	<p>>95% by SDS-PAGE and HPLC analysis.</p>
Storage	<p>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.</p>
Reconstitution	<p>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.</p>

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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