

FGF-23 Protein, Human (R179Q, HEK293, His)

Cat. No.:	HY-P78675
Synonyms:	FGF23; HYPF; FGF-23; ADHR; HPDR2
Species:	Human
Source:	HEK293
Accession:	Q9GZV9-1 (Y25-I251, R179Q)
Gene ID:	8074
Molecular Weight:	Approximately 29-32 kDa due to the glycosylation.

PROPERTIES

AA Sequence	<p>Y P N A S P L L G S S W G G L I H L Y T A T A R N S Y H L Q I H K N G H V D G A</p> <p>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</p> <p>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</p> <p>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 Q S A E D D</p> <p>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</p> <p>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>
Biological Activity	Determined by its ability to stimulate the proliferation of NIH-3T3 cells. The ED ₅₀ for this effect is 14.84 ng/mL in the presence of 1µg/mL murine Klotho and 100µg/mL heparin, corresponding to a specific activity is 6.739×10 ⁴ units/mg.
Appearance	Lyophilized powder.
Formulation	Lyophilized a 0.22 µm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	FGF-23 protein functions as a crucial regulator of phosphate homeostasis, as evidenced by its ability to inhibit renal tubular phosphate transport through the reduction of SLC34A1 levels. Additionally, it plays a role in up-regulating EGR1 expression in the presence of KL and acts directly on the parathyroid to decrease PTH secretion. This protein is involved in the
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regulation of vitamin-D metabolism and acts as a negative regulator of osteoblast differentiation and matrix mineralization. The interaction of FGF-23 with FGFR1, FGFR2, FGFR3, and FGFR4 further underscores its significance in cellular processes. Furthermore, the affinity between fibroblast growth factors (FGFs) and their receptors is enhanced by KL and heparan sulfate glycosaminoglycans, serving as crucial coreceptors in this regulatory network.

Caution: Product has not been fully validated for medical applications. For research use only.

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