

GMP Recombinant Human FGF23

Cat. No. FGF23-78H Lot. No. (See product label)

SPECIFICATION

Product Overview

Species	Human
Source	E.coli
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 (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.
Form	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Bio-activity	The ED50 determined by a cell proliferation assay using murine NIH/3T3 cells is less than 300 ng/mL, corresponding to a specific activity of $>3.3 \times 10^3$ IU/mg in the presence of 5 µg/mL of Klotho and 10 µg/mL of heparin.
Molecular Mass	Approximately 25.4 kDa, a single non-glycosylated polypeptide chain containing 227

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	amino acids.
AA Sequence	YPNASPLLG SSWGGLIHL Y TATARN SYHL QIHKNGHVDG APHQTIYSAL MIRSEDAGFV VITGVMSRRY LCMDFRGNIF GSHYFDPENC RFQHQTLENG YDVYHSPQYH FLVSLGRAKR AFLPGMNPPP YSQFLSRRNE IPLIHFNTPI PRRHTRSAED DSERDPLNVL KPRARMT PAP ASCSQELPSA EDNSPMASDP LGVVRGGRVN THAGGTGPEG CRPFAKFI
Endotoxin	Less than 1 EU/μg of FGF-23 as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analyses.
Usage	This material is offered by Creative Biomart for research, laboratory or further evaluation purposes. FOR RESEARCH USE ONLY. NOT INTENDED FOR ANY ANIMAL OR HUMAN THERAP EUTIC OR DIAGNOSTIC USE.
Storage Buffer	This lyophilized preparation is stable at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.
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°C.="" further="" dilutions="" should="" be="" made="" in="" appropriate="" buffered="">

GENE INFORMATION

Gene Name FGF23 fibroblast growth factor 23 [Homo sapiens]

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Official Symbol	FGF23
Synonyms	ADHR; FGFN; HYPF; HPDR2; PHPTC; fibroblast growth factor 23; phosphatonin; tumor-derived hypophosphatemia inducing factor
Gene ID	8074
mRNA Refseq	NM_020638
Protein Refseq	NP_065689
MIM	605380
UniProt ID	Q9GZV9
Chromosome Location	12p13.3
Pathway	Activated point mutants of FGFR2, organism-specific biosystem; DAP12 interactions, organism-specific biosystem; Downstream signaling of activated FGFR, organism-specific biosystem
Function	growth factor activity; type 1 fibroblast growth factor receptor binding

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