

## GMP Recombinant Human FGF23

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

### SPECIFICATION

**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 amino acids.

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**AA Sequence**

YPNASPLLG SSWGGLIHL Y TATARN SYHL QIHKNGHV D G 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 ]

**Official Symbol** FGF23

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

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