

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant Human Fibroblast Growth Factor-23 (rHuFGF-23)

Catalog Number: PR1029

Source: Escherichia coli.

Quantity: 5µg/20µg/1.0mg

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 (aa) 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. FGF23 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. FGF23 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.

Molecular Weight:

Approximately 22.5 kDa, a single non-glycosylated polypeptide chain containing 228 amino acids.

Purity:

>95% by SDS-PAGE and HPLC analyses.

Biological Activity:

Measured in a cell proliferation assay using NIH/3T3 mouse embryonic fibroblasts.

The ED50 for this effect is typically 0.05-0.3µg/ml in the presence of 5 µg/ml of Recombinant Mouse Klotho and 10 µg/ml of heparin.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized from a 0.2mm filtered concentrated solution in PBS, pH 7.4.

AA Sequence:

M 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 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

Endotoxin:

Less than 1EU/mg of rHuFGF-23 as determined by LAL method.

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 solutions.

Storage:

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

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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.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. NOT FOR HUMAN USE. Made in China

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