



Fibroblast Growth Factor 23 (FGF-23) Human, E. coli Recombinant Protein

Product Data Sheet

Cat. No.:	A30200005	A30200020	A30201000
Size:	5 µg	20 µg	1 mg

Description

Our bioactive *Fibroblast Growth Factor 23 (FGF-23) Human, E. coli Recombinant Protein* is a single, non-glycosylated polypeptide chain that contains a total of 228 amino acids and has a 22.5 kDa molecular mass. The FGF-23 is purified by proprietary chromatographic techniques.

Summary

FGF-23 is a member of the fibroblast growth factor (FGF) family. FGF family members possess broad mitogenic and cell survival activities and are involved in a variety of biological processes including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion.

FGF-23 inhibits renal tubular phosphate transport. The FGF-23 gene was identified by its mutations associated with autosomal dominant hypophosphatemic rickets (ADHR), an inherited phosphate wasting disorder. Abnormally high level expression of FGF-23 was found in oncogenic hypophosphatemic osteomalacia (OHO), a phenotypically similar disease caused by abnormal phosphate metabolism. FGF-23 mutations have also been shown to cause familial tumoral calcinosis with hyperphosphatemia. FGF-23 is a regulator of vitamin-D metabolism and negatively regulates osteoblast differentiation and matrix mineralization.

Other Names

Fibroblast Growth Factor-23, FGF23, FGF 23, Phosphatonin, Tumor-derived hypophosphatemia-inducing factor, HYPF, UniProtKB# Q9GZV9.

Amino Acid Sequence

MYPNASPLLGSWGGGLIHLYTATARNSYHLQIHKNGHVDGAPHQTIYSALMIRSEDAGFVVITGVMSRRYL
LCMDFRGNIFGSHYFDPENC RFQHQTLENGYDVYHSPQYHFLVSLGRAKR AFLPGMNP PPYSQFLSRRNE
IPLIHFNTPIPRRHTRSAEDDSERDPLNVLKPRARMTPAPASCSQELPSAEDNSPMASDP LGVVRGGRVN
THAGGTGPEGCRPFAKFI.

Source

E. coli

update.: 06.2023

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Formulation

Sterile filtered white lyophilized (freeze-dried) powder. The FGF-23 protein (0.5 mg/ml) was lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.

Purity

Purity greater than 95.0% as determined by SDS-PAGE.

Biological Activity

The biological activity of FGF-23 was measured in a cell proliferation assay using NIH/3T3 mouse embryonic fibroblasts. The ED50 for this effect is typically 0.05-0.5 µg/ml in the presence of 5 µg/ml of Recombinant Mouse Klotho and 10 µg/ml of HPR.

Reconstitution

It is recommended to reconstitute the lyophilized FGF-23 in sterile 18M-cm H₂O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Shipping

Ships at ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage/Expiration

Lyophilized FGF-23, although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution, FGF-23 should be stored at 4° C between 2-7 days and for future use below -18° C. **Please prevent freeze-thaw cycles.**

Usage

This product is intended for **Laboratory Research Use Only**. Not for use in diagnostic or therapeutic procedures. This product may not be used as a pharmaceutical or veterinary drug, agricultural product, or food additive.

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