

## Recombinant Human Fibroblast Growth Factor 23 (Human FGF-23)

### Product Information

Product Name	Cat#	Size
	91313ES08	5 µg
Recombinant Human Fibroblast Growth Factor 23 (Human FGF-23)	91313ES60	100 µg
	91313ES76	500 µg

### Product Description

Fibroblast growth factor 23 (FGF-23) is a member of the FGF family, within a subfamily that also includes FGF-19 and FGF-21. FGF proteins contain a 120 amino acid (aa) core FGF domain that exhibits a beta-trefoil structure. β-Klotho has been identified as co-factor required for FGF-19, 21, 23 signaling. It can obviously increase ligand-receptor affinity. Klotho has a restricted distribution that limits FGF-23 activity. 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.

### Product Properties

<b>Synonyms</b>	ADHR,HPDR2, HYPF
<b>Accession</b>	Q9GZV9
<b>GeneID</b>	8074
<b>Source</b>	E.coli-derived Human FGF-23, Thr25-Ile227.
<b>Molecular Weight</b>	Approximately 25.3 kDa.
<b>AA Sequence</b>	YPNASPLLGS SWGGLIHLTY ATARNSYHLQ IHKNGHVDGA PHQTIYSALM IRSEDAGFVV ITGVMSRRYL CMDFRGNIFG SHYFDPENCR FQHQTLENGY DVYHSPQYHF LVSLGRAKRA FLPGMNPPPY SQFLSRRNEI PLIHFNTPIP RRHTRSAEDD SERDPLNVLK PRARMTTPAPA SCSQELPSAE DNSPMASDPL GVVVRGGRVNT HAGGTGPEGC RPFAKFI
<b>Tag</b>	None
<b>Physical Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Purity</b>	> 95% by SDS-PAGE and HPLC analyses.
<b>Biological Activity</b>	The ED <sub>50</sub> as determined by thymidine uptake assay using FGF-receptors transfected BaF3 cells is less than 0.5 µg/mL, corresponding to a specific activity of > 2.0 × 10 <sup>3</sup> IU/mg in the presence of 0.3 µg/mL of rMuKlotho and 10 µg/mL of heparin. Fully biologically active when compared to standard.
<b>Endotoxin</b>	< 1.0 EU per 1µg of the protein by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
<b>Reconstitution</b>	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.

### Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

### **Cautions**

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!