

ChemWhat Recombinant Human Fibroblast Growth Factor-23
A brand under Watson
(rHuFGF-23)

ChemWhat Technical Data Sheet (TDS)

Catalog Number:	104-23
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 25.3 kDa, a single non-glycosylated polypeptide chain containing 227 amino acids.
Quantity:	5µg/20µg/1000µg
AA Sequence:	YPNASPLLGS SWGGLIHLTY ATARNSYHLQ IHKNGHVDGA PHQTIYSALM IRSEDAGFVV ITGVMSRRYL CMDFRGNIFG SHYFDPENCR FQHQTLENGY DVYHSPQYHF LVSLGRAKRA FLPGMNPPPY SQFLSRRNEI PLIHFNTPIP RRHTRSAEDD SERDPLNVLK PRARMT PAPA SCSQELPSAE DNSPMASDPL GVVRGGRVNT HAGGTGPEGC RPF AKFI
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Fully biologically active when compared to standard. The ED ₅₀ 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 ³ IU/mg in the presence of 0.3 µg/ml of rMuKlotho and 10 µg/ml of heparin.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Endotoxin:	Less than 1 EU/µg 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.
Shipping:	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage:	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none">● 12 months from date of receipt, -20 to -70 °C as supplied.● 1 month, 2 to 8 °C under sterile conditions after reconstitution.● 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Usage:	ChemWhat Limited in UK offers this branded product for research, development or further evaluation purposes. NOT FOR HUMAN USE.

Human Fibroblast Growth Factor-23

Human FGF-23 belongs to the FGF-19 subfamily which has three members FGF-19, 21, 23. 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. They are classically considered to be paracrine factors and are known for their roles in tissue patterning and organogenesis during embryogenesis. By contrast, the FGF-19 subfamily has recently been shown to function in an endocrine manner. Members of this subfamily have poor ability of binding to heparin binding site which is a crucial factor in ligand-receptor complex formation. β-Klotho has been identified as co-factor required for FGF-19, 21, 23 signaling. It can obviously increase ligand-receptor affinity. FGF-23 is most highly expressed in bone, from which it circulates through the blood to regulate vitamin D and phosphate metabolism in kidney.

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