

ChemWhat Recombinant Human Fibroblast Growth Factor-19
A brand under Watson (rHuFGF-19)

ChemWhat Technical Data Sheet (TDS)

Catalog Number:	104-19
Source:	<i>Escherichia coli</i> .
Molecular Weight:	Approximately 21.8 kDa, a single non-glycosylated polypeptide chain containing 195 amino acids.
Quantity:	5µg/25µg/1000µg
AA Sequence:	MRPLAFSDAG PHVHYGWGDP IRLRHLYTSG PHGLSSCFLR IRADGVVDCA RGQSAHSLLE IKAVALRTVA IKGVHVSRYL CMGADGKMVG LLQYSEEDCA FEEEIRPDGY NVYRSEKHRL PVSLSAKQR QLYKNRGFLP LSHFLPMLPM VPEEPEDLRG HLESDFMSSP LETDSMDPFG LVTGLEAVRS PSFEK
Purity:	> 95 % by SDS-PAGE and HPLC analyses.
Biological Activity:	Assay #1: Fully biologically active when compared to standard. The biological activity is measured by its binding ability in a functional ELISA. Immobilized rHuFGF R4 at 5 µg/ml can bind rHuFGF-19 with a linear range of 3-200 ng/ml. Assay #2: Fully biologically active when compared to standard. The ED ₅₀ as determined by a cell proliferation assay using murine Balb/c 3T3 cells is less than 150 ng/ml, corresponding to a specific activity of > 6.7 × 10 ³ IU/mg.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4, with 5 % Trehalose, 0.02 % Tween-20.
Endotoxin:	Less than 1 EU/µg of rHuFGF-19 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 1 × PBS 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-19

Human FGF-19 is encoded by the FGF19 gene. FGF-19 belongs to the FGF-19 subfamily which has three members FGF-19, 21, 23. FGFs 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. Unlike most FGFs which bind to and activate more than one FGF receptor, FGF19 is a specific ligand for FGF R4. In FGF-19 transgenic mice, reducing liver triglycerides, increasing fatty acid oxidation, reducing glucose levels and improving insulin sensitivity can be observed.

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