

Recombinant Human FGF19 protein

Cat. No. FGF19-238H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human FGF19 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	195
Description	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.
Form	Lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4.
Bio-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

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g/ml can bind rHuFGF-19 with a linear range of 3-200 ng/ml. Assay #2: Fully biologically active when compared to standard. The ED50 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 $> 6.7 \times 10^3$ IU/mg.

Molecular Mass

Approximately 21.8 kDa, a single non-glycosylated polypeptide chain containing 195 amino acids.

AA Sequence

MRPLAFSDAGPHVHYGWGDPRLRLHLYTSGPHGLSSCFLRIRADGVVDCARGQSA
HSLLEIKAVALRTVAIKGVHVSRYLCMGADGKMQGILLQYSEEDCAFEIEIRPDGYNV
YRSEKHRLPVSLSAKQRQLYKNRGFLPLSHFLPMLPMVPEEPEDLRGHLESDFMS
SPLETDSMDPFGGLVTGLEAVRSPSFEK

Endotoxin

Less than 1 EU/g of rHuFGF-19 as determined by LAL method.

Purity

>95% by SDS-PAGE and HPLC analysis.

Storage

Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.

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 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name

FGF19

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Official Symbol	FGF19
Synonyms	FGF19; fibroblast growth factor 19; FGF-19;
Gene ID	9965
mRNA Refseq	NM_005117
Protein Refseq	NP_005108
MIM	603891
UniProt ID	O95750

SDS-PAGE of FGF19-238H

