

Recombinant Human Fibroblast Growth Factor 19

#R00115

Size: 5 µg/100 µg/500 µg

Stability & Storage

- Use a manual defrost freezer and avoid repeated freeze-thaw cycles.
- 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.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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.

AA Sequence

MRPLAFSDAGPHVHYGWGDPIRLRHLYTSGPHGLSS
CFLRIRADGVVDCARGQSAHSLLEIKAVALTVAIKGV
HSVRYLCMGADGKMQGLLQYSEEDCAFEIEIRPDG
YNVYRSEKHRLPVSLSSAKQRQLYKNRGFLPLSHFLP
MLPMVPEEPEDLRGHLESDMFSSPLETDSMDPFGLV
TGLEAVRSPSFEK

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.

Product Specification

Accession	O95750
GeneID	9965
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 21.8 kDa, a single non-glycosylated polypeptide chain containing 195 amino acids.
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 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 × 10³ 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.

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