

## GFH146 Recombinant Human FGF-2 (154)

### Description

Fibroblast Growth Factor 2 (FGF-2) is expressed by endothelial cells and is a mediator of angiogenesis. FGF-2 also has cardioprotective functions during heart injury. The application of FGF-2 is a critical component for embryonic stem cell culture systems and is necessary for maintaining cells in an undifferentiated state. Degradation of the full length FGF-2 N-terminus results in a truncated FGF-2 147 amino acids protein, when the protein is isolated from biological sources. The N-terminus extensions influence the localization of FGF-2 within the cell, but do not affect the biological activity of FGF-2. Therefore, there are no detectable differences in biological activity between the full length FGF-2 154 amino acids and the truncated FGF-2 147 amino acids recombinant proteins.

<b>Length</b>	155 aa
<b>Molecular Weight</b>	17.2 kDa
<b>Source</b>	E. coli
<b>Accession Number</b>	P09038
<b>Purity</b>	≥95% determined by reducing and non-reducing SDS-PAGE

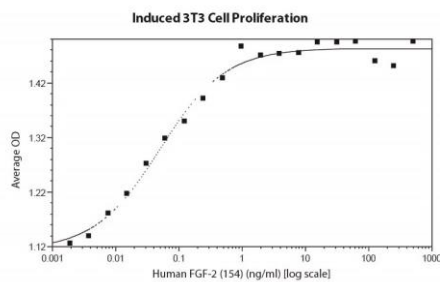
### Specifications

<b>Alternative Names</b>	Fibroblast Growth Factor 2, FGF2, FGF 2, HBGF-2, basic fibroblast growth factor, heparin-binding growth factor 2, FGFB, BFGF, bFGF, prostatropin
<b>Biological Activity</b>	Human FGF-2 (154) is fully biologically active when compared to standard. The activity is determined by the dose-dependent induced proliferation of 3T3 cells and it is typically less than 5 ng/ml. This corresponds to an expected specific activity of $2.0 \times 10^5$ units/mg.
<b>Endotoxin Level</b>	≤1.00 EU/μg as measured by kinetic LAL
<b>Formulation</b>	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 10 mM sodium phosphate, 75 mM sodium chloride, pH 7.5
<b>AA Sequence</b>	MAAGSITTLP ALPEDGGSGA FPPGHFKDPK RLYCKNGGFF LRIHPDGRVD GVREKSDPHI KLQLQAEERG VVSIKGVCAN RYLAMKEDGR LLASKCVTDE CFFFERLESN NYNTYRSRKY TSWYVALKRT GQYKLGSKTG PGQKAILFLP MSAKS

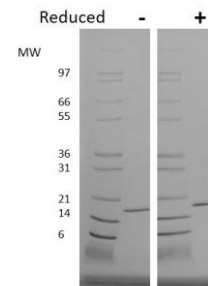
### Preparation and Storage

<b>Reconstitution</b>	Centrifuge vial before opening. When reconstituting the product, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution. It is recommended to reconstitute the lyophilized product with sterile water at 0.1 mg/ml, which can be further diluted into other aqueous solutions. Upon reconstitution, a small amount of visible precipitate can be expected. A 10% overfill has been added to the total material vial to compensate for this loss.
<b>Stability and Storage</b>	12 months from date of receipt when stored at -20°C to -80°C as supplied. 1 month when stored at 4°C after reconstituting as directed. 3 months when stored at -20°C to -80°C after reconstituting as directed.

### Data



Induced proliferation of 3T3 cells assay for Human FGF-2 (154). Cell proliferation was measured to calculate the ED50, which is as expected less than 5 ng/ml.



Non-reducing (-) and reducing (+) conditions in a 4 - 20% Tris-Glycine gel stained with Coomassie Blue. 1 μg of protein was loaded in each lane. Human FGF-2 (154) has a predicted Mw of 17.2 kDa.