

GFH146AF Recombinant Human FGF-2 (154) (Animal-Free)

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. Degredation 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.

This product is produced with no animal derived raw products. All processing and handling employs animal free equipment and animal free protocols.

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

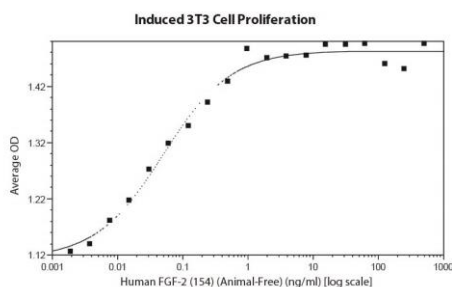
Specifications

Alternative Names	Fibroblast Growth Factor 2, FGF2, FGF 2, HBGF-2, basic fibroblast growth factor, heparin-binding growth factor 2, FGFB, BFGF, bFGF, prostatropin
Biological Activity	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 2.0×10^5 units/mg.
Endotoxin Level	≤1.00 EU/μg as measured by kinetic LAL
Formulation	Lyophilized from a sterile (0.2 micron) filtered aqueous solution containing 10 mM sodium phosphate, 75 mM sodium chloride, pH 7.5
AA Sequence	MAAGSITTLP ALPEDGGSGA FPPGHFKDPK RLYCKNGGFF LRIHPDGRVD GVREKSDPHI KLQLQAEERG VVSIKVCAN RYLAMKEDGR LLASKCVTDE CFFFERLESN NYNTYRSRKY TSWYVALKRT GQYKLGSKTG PGQKAILFLP MSAKS

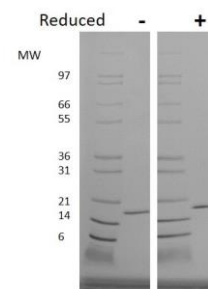
Preparation and Storage

Reconstitution	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.
Stability and Storage	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.