

Synonym

FGF2,BFGF,FGFB,FGF basic,HBGF-2

Source

Human FGF basic, premium grade(BFF-H4117) is expressed from E. coli cells. It contains AA Pro 143 - Ser 288 (Accession # [P09038-4](#)).

Predicted N-terminus: Pro 143

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage.

GMP-FGCH17 is the GMP version of this BFF-H4117. These two proteins display indistinguishable performance profiles, thereby ensuring a seamless transition for end users from early preclinical stag to later clinical phases.

Molecular Characterization

FGF basic(Pro 143 - Ser 288)
P09038-4

This protein carries no "tag".

The protein has a calculated MW of 16.5 kDa. The protein migrates as 17 kDa±3 kDa when calibrated against [Star Ribbon Pre-stained Protein Marker](#) under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 0.01 EU per µg by the LAL method / rFC method.

Host Cell Protein

<0.5 ng/µg of protein tested by ELISA.

Host Cell DNA

<0.02 ng/µg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative

Purity

>95% as determined by SDS-PAGE.

>95% as determined by SEC-HPLC.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

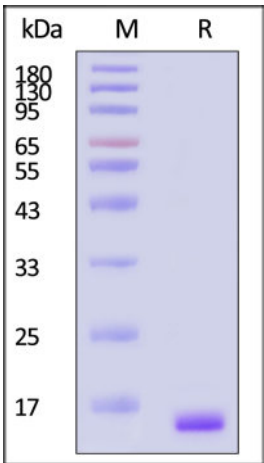
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- 20°C to -70°C for 24 months in lyophilized state;
- 70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human FGF basic, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein

SEC-HPLC

Discounts, Gifts,
and more!

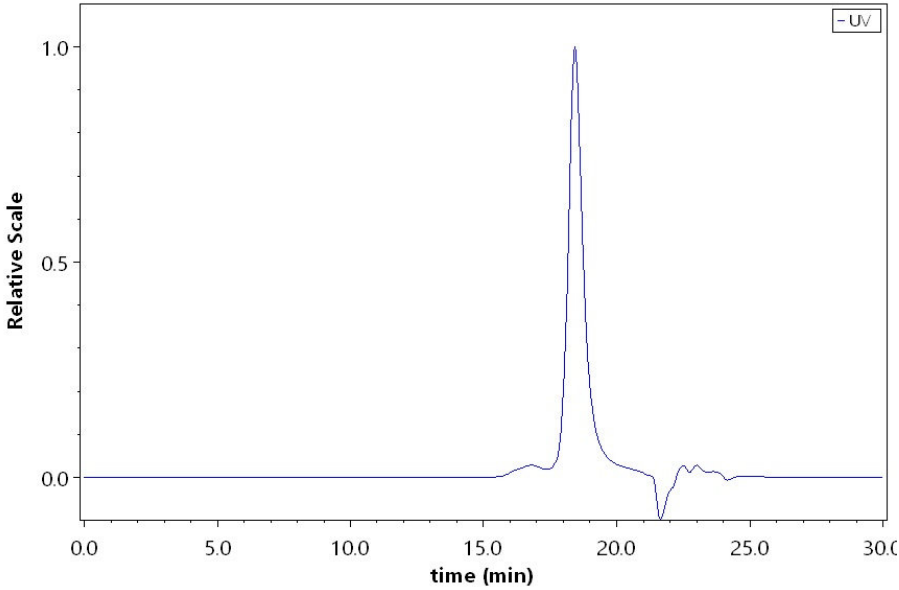


Human FGF basic Protein, premium grade

Catalog # BFF-H4117

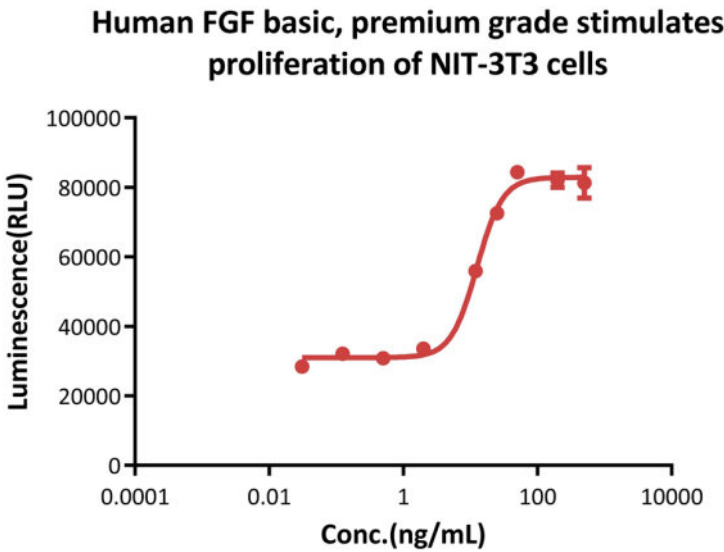


is greater than 95% (With [Star Ribbon Pre-stained Protein Marker](#)).



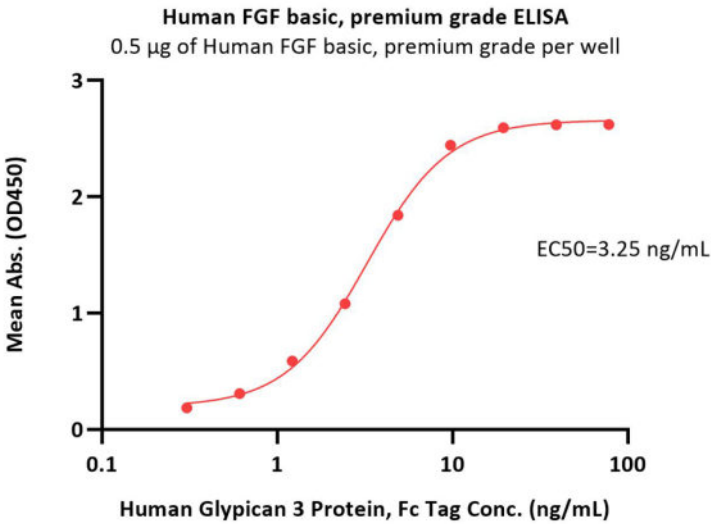
The purity of Human FGF basic, premium grade (Cat. No. BFF-H4117) was greater than 95% as determined by SEC-HPLC.

Bioactivity-CELL BASE

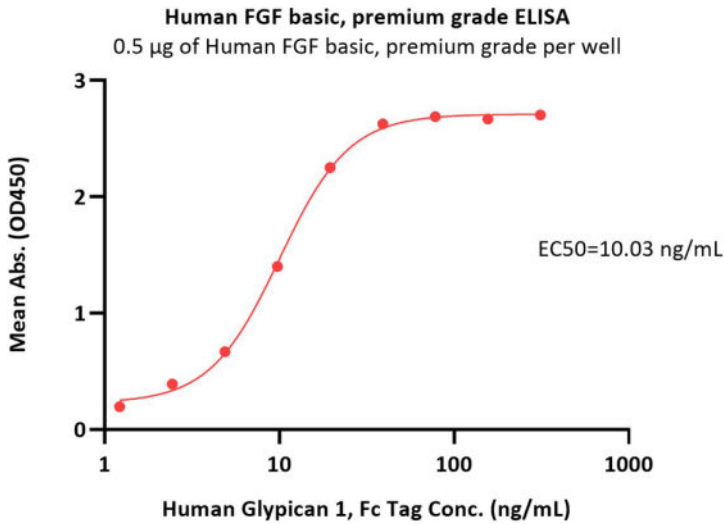


Human FGF basic, premium grade (Cat. No. BFF-H4117) stimulates proliferation of NIH/3T3 cells. The specific activity of Human FGF basic, premium grade is > 2.50×10⁶ IU/mg, which is calibrated against human FGF basic WHO International Standard (NIBSC code: 90/712) (QC tested).

Bioactivity-ELISA



Immobilized Human FGF basic, premium grade (Cat. No. BFF-H4117) at 5 µg/mL (100 µL/well) can bind Human Glypican 3 Protein, Fc Tag (Cat. No.



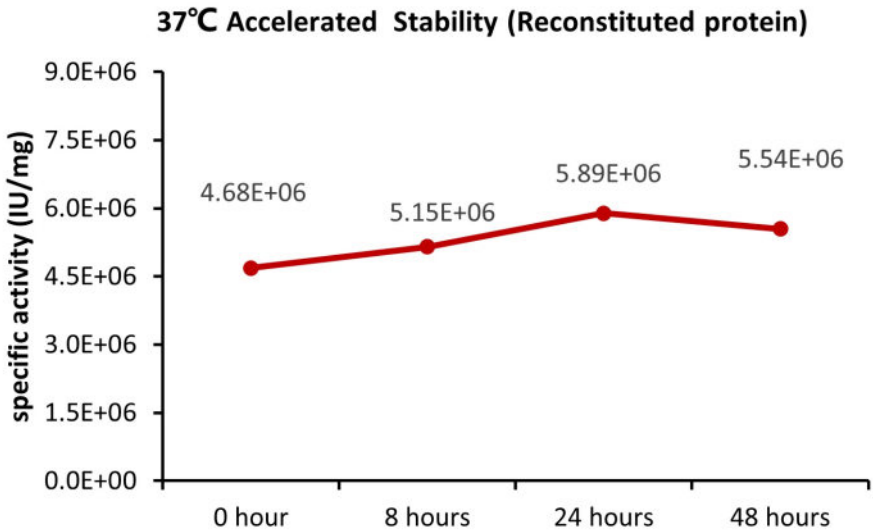
Immobilized Human FGF basic, premium grade (Cat. No. BFF-H4117) at 5 µg/mL (100 µL/well) can bind Human Glypican 1, Fc Tag (Cat. No. GP1-



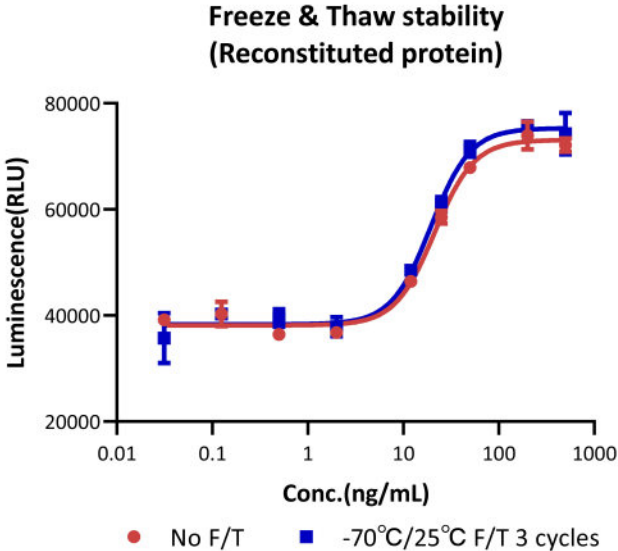
GP3-H5258) with a linear range of 0.3-5 ng/mL (QC tested).

H5254) with a linear range of 1-20 ng/mL (Routinely tested).

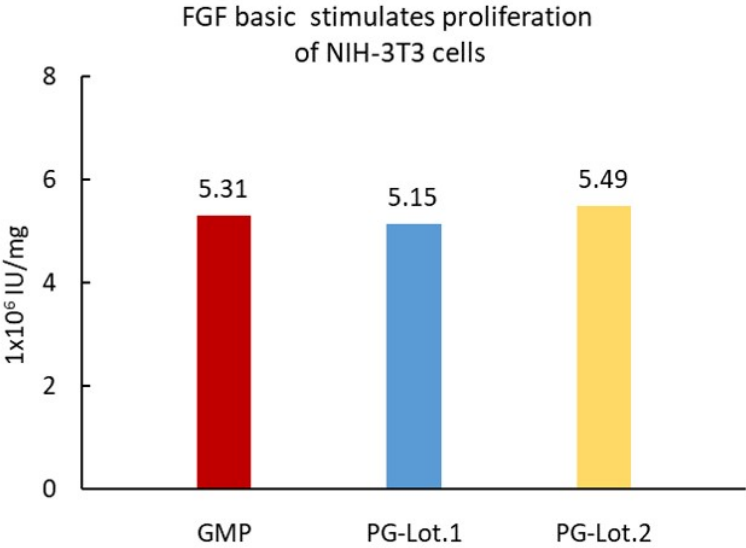
Bioactivity-Stability



The Cell based assay shows that Human FGF basic, premium grade (Cat. No. BFF-H4117) is stable at 37°C for 48 hours.



The Cell based assay shows that Human FGF basic, premium grade (Cat. No. BFF-H4117) is stable after freezing and thawing 3 times.



The Cell based assay shows batch-to-batch consistency between Acro's GMP and PG FGF basic.

Background

FGF basic is a member of the FGF family of at least 23 related mitogenic proteins which show 35-60% amino acid conservation. FGF acidic and basic, unlike the other members of the family, lack signal peptides and are apparently secreted by mechanisms other than the classical protein secretion pathway. FGF basic has been isolated from a number of sources, including neural tissue, pituitary, adrenal cortex, corpus luteum, and placenta. This factor contains four cysteine residues, but reduced FGF basic retains full biological activity, indicating that disulfide bonds are not required for this activity. bFGF is a critical component of human embryonic stem cell culture medium; the growth factor is necessary for the cells to remain in an undifferentiated state, although the mechanisms by which it does this are poorly defined. It has been demonstrated to induce gremlin expression which in turn is known to inhibit the induction of differentiation by bone morphogenetic proteins. It is necessary in mouse-feeder cell dependent culture systems, as well as in feeder and serum-free culture systems.

