



## Product Datasheet

<b>Product Name</b>	Fibroblast Growth Factor-basic Rat Recombinant
<b>Cata No</b>	CB501342
<b>Source</b>	<i>Escherichia Coli.</i>
<b>Synonyms</b>	HBGH-2, HBGF-2, Prostatropin, FGF-2, FGB-b, Fibroblast Growth Factor-basic, Basic fibroblast growth factor, bFGF, Heparin-binding growth factor 2.

### Description

FGF-basic is a member of the fibroblast growth factor (FGF) family. FGF family members bind heparin and possess broad mitogenic and angiogenic activities. This protein has been implicated in diverse biological processes, such as limb and nervous system development, wound healing, and tumor growth. The mRNA for this gene contains multiple polyadenylation sites, and is alternatively translated from AUG and non-AUG (CUG) initiation codons resulting in five different isoforms with distinct properties. The CUG-initiated isoforms are localized in the nucleus and are responsible for the intracrine effect, whereas, the AUG-initiated form is mostly cytosolic and is responsible for the paracrine and autocrine effects of this FGF.

The heparin-binding growth factors are angiogenic agents in vivo and are potent mitogens for a variety of cell types in vitro. there are differences in the tissue distribution and concentration of these 2 growth factors.

bFGF Rat Recombinant (FGF-2) produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 145 amino acids and having a molecular mass of 16.3 kDa.

The bFGF2 is purified by proprietary chromatographic techniques.

### Physical Appearance

Sterile Filtered White Lyophilized (freeze-dried)

powder.

### Biological Activity

The ED<sub>50</sub> range as determined by the dose-dependant proliferation of BALB/3T3 cells was found to be less than 0.2 ng/ml, corresponding to a specific activity of 5 x 10<sup>6</sup> IU/mg.

### Purity

Greater than 97.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

### Formulation

FGF-b was lyophilized from 1 mg/ml solution after extensive dialysis against 20mM phosphate buffer, pH 7.4 and 130mM NaCl.

### Reconstitution

It is recommended to reconstitute the lyophilized Rat bFGF in sterile 18MΩ-cm H<sub>2</sub>O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

### Stability

Lyophilized Rat bFGF although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Rat FGF-2 should be stored at 4°C between 2-7 days and for future use below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please prevent freeze-thaw cycles.**

**\* For Non-Clinical Research Use Only \***



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## Sequence

PALPEDGGGA FPPGHFKDPK RLYCKNGGFF  
LRIHPDGRVD GVREKSDPHV KLQLQAEERG  
VVSIGVCAN RYLAMKEDGR LLASKCVTEE

CFFFERLESN NYNTYFSPKYSWDAKSR  
GQYKLGSKTG PGQKAILFLP MSAKS.

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