

## Recombinant Rat Fibroblast Growth Factor-basic (rr FGF-b/FGF-2)

**Synonyms:** HBGH-2, Prostatopin, Basic fibroblast growth factor, Heparin-binding growth factor 2 (HBGF-2).

**Introduction:** 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 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.

**Description:** Recombinant rat FGF-b 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 FGF-b is purified by proprietary chromatographic techniques.

**Source:** *Escherichia Coli*

**Physical Appearance:** Sterile Filtered White lyophilized (freeze-dried) powder.

**Formulation:** Lyophilized from 1 mg/ml solution after extensive dialysis against 20mM phosphate buffer, pH 7.4 and 130mM NaCl. The sample size of 1µg contains Trehalose 5% (w/vol) for better recovery

**Stability:** Lyophilized rat FGF-b although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rat FGF-b 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.**

**Purity:** Greater than 97.0% as determined by RP-HPLC and by SDS-PAGE.

**Amino Acid:** PALPEDGGGA FPPGHFKDPK RLYCKNGGFF LRIHPDGRVD GVREKSDPHV KLQLQAEERG VVSIKGVCAN RYLAMKEDGR LLASKCVTEE CFFFERLESN NYNTYRSRKY SSWYVALKRT GQYKLGSKTG PGQKAILFLP MSAKS.

**Endotoxicity:** The endotoxin level is less than 1 EU / µg determined by LAL method.

**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.

This material is offered for **research only**. Not for use in human. For *in vitro* use only. ImmunoTools will not be held responsible for patent infringement or other violations that may occur with the use of our products.

<i>small</i>	10 µg	Cat.N°	13343623
<i>medium</i>	50 µg	Cat.N°	13343625
<i>large</i>	250 µg	Cat.N°	13343627
<i>x-large</i>	50 µg	Cat.N°	13343628

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