

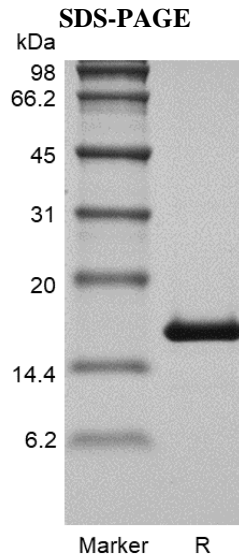
# Recombinant Human Basic Fibroblast Growth Factor GMP (rHubFGF GMP)

## PrimeGene Technical DataSheet

<b>Catalog Number:</b>	GMP-104-02
<b>Source:</b>	<i>Escherichia coli</i>
<b>Molecular Weight:</b>	Approximately 16.5 kDa, a single non-glycosylated polypeptide chain containing 147 amino acids.
<b>Size:</b>	5 µg/100 µg/1 mg
<b>Sequence:</b>	MPALPEDGGS GAFPPGHFKD PKRLYCKNGG FFLRIHPDGR VDGVREKSDP HIKLQLQAE RGVVSIGKVC ANRYLAMKED GRLLASKCVT DECFERLE SNNYNTYRSR KYTSWYVALK RTGQYKLGSK TGPGQKAILF LPMSAKS
<b>Purity:</b>	> 98% by SDS-PAGE analyses.
<b>Biological Activity:</b>	Measured in a cell proliferation assay using murine Balb/c 3T3 cells. The specific activity of recombinant human bFGF is >5.0 x 10 <sup>6</sup> IU/mg, which is calibrated against the basic fibroblast growth factor WHO International Standard (NIBSC code: 90/712).
<b>Physical Appearance:</b>	Sterile filtered white lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris-HCl, 150 mM NaCl, 5% Trehalose, 0.02% Tween-20, pH 7.6.
<b>Endotoxin:</b>	Less than 0.01 EU/µg of rHubFGF GMP as determined by LAL method.
<b>Sterility:</b>	Negative.
<b>Mycoplasma:</b>	Negative.
<b>Host Cell Protein:</b>	Less than 0.05% when tested by ELISA.
<b>Host Cell DNA:</b>	Less than 20 ng/mg when tested by qPCR.
<b>In Vitro Virus Assay:</b>	Negative.
<b>Reconstitution:</b>	Prior to opening, it is recommended to centrifuge the vial briefly to bring the contents down the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-0.3 mg/mL. If animal-origin-free condition is expected in your product, then sterile distilled water is recommended. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Shipping:</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage:</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● A minimum of 12 months from date of receipt, when stored at ≤ -20 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 3 months, -20 to -70 °C under sterile conditions after reconstitution.</li><li>● Refer to lot-specific CoA for the Expiry Date.</li></ul>
<b>Usage:</b>	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory, or further evaluation purposes. <b>NOT FOR HUMAN USE.</b>
<b>Quality Statement:</b>	<b>The manufacturing and testing of these products comply with ICH Q7 guidelines.</b>

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**Background:**

Human bFGF, encoded by the *FGF2* gene, is a member of the fibroblast growth factor (FGF) family. Fibroblast growth factor was found in pituitary extracts in 1973 and then tested in a bioassay that caused fibroblasts to proliferate. After further fractionating the extract using acidic and basic pH, two different forms have isolated that named "acidic fibroblast growth factor" (FGF-1) and "basic fibroblast growth factor" (FGF-2). Human bFGF shares 54% amino acid sequence identity with aFGF. Affinity between bFGF and its receptors can be increased by heparin or heparan sulfate proteoglycan. bFGF plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. bFGF are also involved in a variety of biological processes, including embryonic development, morphogenesis, tissue repair, tumor growth and invasion. Additionally, bFGF is frequently used for a critical component of cell culture medium, e.g., human embryonic stem cell culture medium, serum-free culture systems.

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