

# Recombinant Human Acidic Fibroblast Growth Factor (rHuaFGF)

## PrimeGene Technical Data Sheet

---

<b>Catalog Number:</b>	104-01
<b>Source:</b>	<i>Escherichia coli</i> .
<b>Molecular Weight:</b>	Approximately 16.0 kDa, a single non-glycosylated polypeptide chain containing 141 amino acids.
<b>Quantity:</b>	10µg/50µg/1000µg
<b>AA Sequence:</b>	MFNLPPGNYK KPKLLYCSNG GHFLRILPDG TVDGTDRSD QHIQLQLSAE SVGEVYIKST ETGQYLAMDTDGLLYGSQTPNEECLFLERL EENHYNTYIS KKHAEKNWFV GLKKNNGSCKR GPRTHYGQKA ILFLPLPVSS D
<b>Purity:</b>	> 95 % by SDS-PAGE and HPLC analyses.
<b>Biological Activity:</b>	Fully biologically active when compared to standard. The ED <sub>50</sub> as determined by a cell proliferation assay using murine balb/c 3T3 cells is less than 0.5 ng/ml, corresponding to a specific activity of > 2.0 × 10 <sup>6</sup> IU/mg in the presence of 10 µg/ml of heparin.
<b>Physical Appearance:</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Formulation:</b>	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
<b>Endotoxin:</b>	Less than 1 EU/µg of rHuaFGF as determined by LAL method.
<b>Reconstitution:</b>	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. 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 at ambient temperature. 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>● 12 months from date of receipt, -20 to -70 °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></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>

---

### ***Human Acidic Fibroblast Growth Factor***

Human aFGF, encoded by the FGF1 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 aFGF shares 54 % amino acid sequence identity with bFGF. In mammalian FGF receptor family has 4 members, FGFR1, FGFR2, FGFR3, and FGFR4, and 1, 2, 3 have 2 sub-types "b", "c". aFGF can bind and activate all 7 different FGFRs. Affinity between aFGF and its receptors can be increased by heparin or heparan sulfate proteoglycan. aFGF plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. aFGF are also involved in a variety of biological processes, including embryonic development, morphogenesis, tissue repair, tumor growth and invasion.