

## Human FGF basic / FGF2 (cell culture grade) - Purified

<b>Alternate names:</b>	BFGF, FGFB, Fibroblast growth factor 2 (basic), HBGF-2, HBGF2, Heparin-binding growth factor 2
<b>Catalog No.:</b>	AR10039PU-N
<b>Quantity:</b>	50 µg
<b>Background:</b>	Basic fibroblast growth factor is a member of the fibroblast growth factor (FGF) family. FGF family members possess broad mitogenic and cell survival activities, and are involved in a variety of biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. This protein functions as a modifier of endothelial cell migration and proliferation, as well as an angiogenic factor. It acts as a mitogen for a variety of mesoderm- and neuroectoderm-derived cells in vitro, thus is thought to be involved in organogenesis. Three alternatively spliced variants encoding different isoforms have been described. 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.
<b>Uniprot ID:</b>	<a href="#">P09038</a>
<b>NCBI:</b>	<a href="#">NP_001997.5</a>
<b>GeneID:</b>	<a href="#">2247</a>
<b>Species:</b>	Human
<b>Source:</b>	E. coli
<b>Format:</b>	<b>State:</b> Sterile Filtered White lyophilized (freeze-dried) powder <b>Purity:</b> > 98.0% as determined by both RP-HPLC and SDS-PAGE analysis. <b>Purification Method:</b> Proprietary chromatographic techniques. <b>Buffer System:</b> Lyophilized from a concentrated (1.0 mg/ml) sterile solution containing 5mM NaPO <sub>4</sub> and 100mM NaCl <b>Reconstitution:</b> Restore in sterile 18MΩ·cm <sup>-1</sup> H <sub>2</sub> O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions
<b>Description:</b>	Fibroblast Growth Factor-2 Human Recombinant (FGF-2) produced in <i>E.coli</i> is a single, non-glycosylated, polypeptide chain containing 155 amino acids. <b>Protein Content:</b> Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.8511 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein. 2. Analysis by RP-HPLC, using a standard solution of FGF-2 as a Reference Standard. <b>AA Sequence:</b> The sequence of the first five N-terminal amino acids was determined and was found to be <i>Ala-Glu-Gly-Glu-Ile</i> <b>Biological Activity:</b> The ED50, calculated by the dose-dependant proliferation of BAF3 cells

expressing FGF receptors (measured by <sup>3</sup>H-thymidine uptake) is < 0.5 ng/ml, corresponding to a specific activity of 2 x10<sup>6</sup> Units/mg.

**Molecular weight:** 17353 Da

**Storage:**

Prior to reconstitution store at 2-8°C for one month or desiccated below -18°C for longer.

Following reconstitution store undiluted at 2-8°C for one month

or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.