

**Recombinant Human Basic Fibroblast Growth Factor
(rhbFGF)
Catalog Number: 104-02**

Description	Basic Fibroblast Growth Factor (bFGF) is a member of the FGF family of mitogenic peptides which is comprised of at least 23 proteins showing 35-55% amino acid sequence conservation. Unlike other FGF family members, bFGF and acidic FGF (aFGF) lack signal peptides and are secreted via a different mechanism other than the classical protein secretion pathway. bFGF is a single-chain polypeptide growth factor that plays a significant role in the processes of wound healing, inducing angiogenesis and maintaining human pluripotent stem cell renewal. Several different forms of the bFGF exist ranging from 18-24 kDa in size due to the use of alternative start sites within the <i>FGF-2</i> gene. It has a 55 percent amino acid residue identity to aFGF and has potent heparin-binding activity. bFGF is extremely efficient in inducing DNA synthesis in a variety of cell types from mesoderm and neuroectoderm lineages. It was originally named bFGF based upon its chemical properties and to distinguish it from aFGF.
Synonyms	FGF-2, HBGF-2, Prostatropin, Fibroblast Growth Factor-basic (FGFb)
AA Sequence	AAGSITTLPA LPEDGGSGAF PPGHFKDPKR LYCKNGGFFL RIHPDGRVDG VREKSDPHIK LQLQAEERGVSISIKGVCANR YLAMKEDGRL LASKCVTDEC FFFERLESNN YNTYRSRKYT SWYVALKRTG QYKLGSKTGP GQKAILFLPM SAKS
Source	<i>Escherichia coli</i>
Molecular Weight	Approximately 17.3 kDa, a single non-glycosylated polypeptide chain containing 155 amino acids.
Purity	>96% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active. The ED ₅₀ is < 0.5ng/ml, corresponding to a specific activity of 2 x 10 ⁶ units/mg, as determined by proliferation of BAF3 cells expressing FGF receptors
Physical Appearance	White lyophilized powder.
Formulation	Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in PBS, pH 7.4.
Endotoxin	< 1EU/µg of growth factor as determined by LAL method.
Reconstitution	Reconstitute in sterile distilled water containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL.
Storage	Store at -20°C after receiving. Upon reconstitution, store at 2-8°C for up to one week. For maximal stability, aliquot and store at -20°C. Avoid repeated freeze/ thaw cycles.
Usage	This product is for research use only. It is not approved for use in humans, animals, or <i>in vitro</i> diagnostic procedures.