Recombinant Human Fibroblast Growth Factor-basic

Cat. No. FGF2-11H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Fibroblast Growth Factor-basic produced in*E.coli*is a single non-glycosylated polypeptide chain containing 155 amino acids and having a molecular mass of approximately 17.3KDa
Species	Human
Source	E.coli
Description	bFGF is a single-chain polypeptide growth factor that plays a significant role in the process of wound healing and is a potent inducer of angiogenesis. Several different forms of the human protein exist ranging from 18-24 kDa in size due to the use of alternative start sites within the fgf-2 gene. It has a 55 percent amino acid residue identity to FGF-1 and has potent heparin-binding activity. The growth factor is an extremely potent inducer of DNA synthesis in a variety of cell types from mesoderm and neuroectoderm lineages. It was originally named basic fibroblast growth factor based upon its chemical properties and to distinguish it from acidic fibroblast growth factor. Other homologous FGF belonging to the same family are int-2 (FGF-3), FGF-5 , FGF-6 , K-FGF and KGF (keratinocyte growth factor =FGF-7). All factors are products of different genes, some of which are Oncogene products (FGF-3, FGF-4, FGF-5).
Purity	>98% by SDS-PAGE and HPLC analyses.
Formulation	Lyophilized from a 0.2mm filtered solution in PBS, pH 7.4.

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Biological Activity	Fully biologically active when compared to standard. The ED50, calculated by the dose-dependant proliferation of BAF3 cells expressing FGF receptors (measured by 3H-thymidine uptake) is <0.5 ng/ml, corresponding to a specific activity of (2.0×10^6) Units/mg.
Endotoxin	Less than 1EU/mg of rHubFGF as determined by LAL method.
Reconstitutionon	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.
Storagee	This lyophilized preparation is stable for several weeks at 2-8°C, but should be kept at -20°C for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8°C. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

GENE INFORMATION

Gene Name	FGF2
Synonyms	DN-452A22.6; Fgf-2; Fgfb; bFGF; Prostatropin; fibroblast growth factor 2 (basic); Basic fibroblast growth factor; Heparin-binding growth factor 2 precursor; heparin-binding growth factor 2; Heparin-binding growth factor 2 precursor; basic fibroblast growth factor bFGF; fibroblast growth factor 2; FGF2
Gene ID	2247
mRNA Refseq	NM_002006.4

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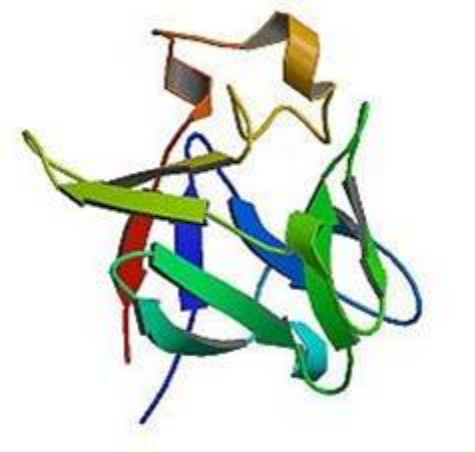
Protein Refseq	NP_001997.5
MIM	134920
UniProt ID	P09038
Chromosome Location	4q26-q27
Pathway	MAPK signaling pathway; Prostate cancer; Regulation of actin cytoskeleton
Function	growth factor activity; hepatin binding; protein binding
PDBrendering based on 1bas.	

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