

# Recombinant Human Fibroblast Growth Factor 1 (acidic, Sf9 Insect Cells Derived)

**Cat. No.** FGF1-173H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant Human FGF-a (FGF-1) produced in <i>Sf9 insect cells</i> is a single, glycosylated, polypeptide chain containing 140 amino acids and having a molecular mass of 15803 Dalton. Recombinant Human FGF-a is purified by proprietary chromatographic techniques.
<b>Species</b>	Human
<b>Source</b>	Insect Cells
<b>Description</b>	Single-chain polypeptide growth factor that plays a significant role in the process of wound healing and is a potent inducer of angiogenesis. It binds to heparin, which potentiates its biological activity and protects it from proteolysis. The growth factor is an extremely potent inducer of DNA synthesis in a variety of cell types from mesoderm and neuroectoderm lineages, and also has chemotactic and mitogenic activities. It was originally named acidic fibroblast growth factor based upon its chemical properties and to distinguish it from basic fibroblast growth factor.
<b>Physical Appearance</b>	Sterile Filtered liquid formulation.
<b>Formulation</b>	The sterile protein solution (1.8mg/ml) contains 20mM Tris HCl pH=7.9, 100mM KCl, 0.2mM DTT and 20% glycerol.
<b>Purity</b>	Greater than 95.0% as determined by:(a) Analysis by RP-HPLC. (b) Anion-exchange FPLC.(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Amino Acid Sequence</b>	The sequence of the first five N-terminal amino acids was determined and was found to be Met-Phe-Asn-Leu-Pro.
<b>Dimers And Aggregates</b>	Less than 1% as determined by silver-stained SDS-PAGE gel analysis.
<b>Biological Activity</b>	Feldan Bio's Recombinant Human FGF-a is fully biologically active when compared to standards. The ED50, calculated by the dose-dependant proliferation of BAF3 cells expressing FGF receptors (measured by 3H-thymidine uptake) is <10 ng/ml, corresponding to a specific activity of 105 Units/mg.
<b>Endotoxin</b>	Less than 0.1 ng/g (IEU/g) of FGF-acidic-Sf9.
<b>Protein Content</b>	Protein quantitation was carried out by two independent methods:1. UV spectroscopy at 280 nm. 2. Analysis by RP-HPLC, using a calibrated solution of FGF-a as a Reference Standard.
<b>Stability</b>	Recombinant Human FGF-a although stable at 40°C for 3 weeks, should be stored desiccated below -180°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

## GENE INFORMATION

<b>Gene Name</b>	FGF1 fibroblast growth factor 1 (acidic) [ Homo sapiens ]
<b>Synonyms</b>	FGF1; fibroblast growth factor 1 (acidic); AFGF; ECGF; FGFA; ECGFA; ECGFB; HBGF1; GLIO703; FGF-alpha; ECGF-beta; Acidic fibroblast growth factor; OTTHUMP00000066031; heparin-binding growth factor 1; endothelial cell growth factor, beta; endothelial cell growth factor, alpha; Beta-endothelial cell growth factor; OTTHUMP00000066028; OTTHUMP00000174675; OTTHUMP00000066030

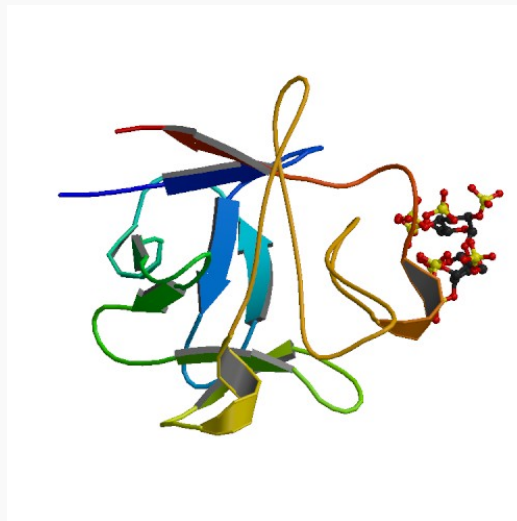
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<b>Gene ID</b>	2246
<b>mRNA Refseq</b>	NM_000800
<b>Protein Refseq</b>	NP_000791
<b>MIM</b>	131220
<b>UniProt ID</b>	P05230
<b>Chromosome Location</b>	5q31.3-q33.2
<b>Pathway</b>	MAPK signaling pathway; Melanoma; Pathways in cancer; Regulation of actin cytoskeleton
<b>Function</b>	growth factor activity; heparin binding; protein binding

PDB rendering based on 1afc.



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