

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

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

SPECIFICATION

Product Overview	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.
Species	Human
Source	Insect Cells
Description	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.
Physical Appearance	Sterile Filtered liquid formulation.
Formulation	The sterile protein solution (1.8mg/ml) contains 20mM Tris HCl pH=7.9, 100mM KCl, 0.2mM DTT and 20% glycerol.
Purity	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.

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Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Met-Phe-Asn-Leu-Pro.
Dimers And Aggregates	Less than 1% as determined by silver-stained SDS-PAGE gel analysis.
Biological Activity	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.
Endotoxin	Less than 0.1 ng/g (IEU/g) of FGF-acidic-Sf9.
Protein Content	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.
Stability	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

Gene Name	FGF1 fibroblast growth factor 1 (acidic) [Homo sapiens]
Synonyms	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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Gene ID	2246
mRNA Refseq	NM_000800
Protein Refseq	NP_000791
MIM	131220
UniProt ID	P05230
Chromosome Location	5q31.3-q33.2
Pathway	MAPK signaling pathway; Melanoma; Pathways in cancer; Regulation of actin cytoskeleton
Function	growth factor activity; heparin binding; protein binding
PDB rendering based on 1afc.	