

Active Recombinant Human FGF-1, Acidic

Cat. No. FGF1-2H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human FGF-1 protein, expressed in Baculovirus, with N Terminal Met-Phe-Asn-Leu-Pro.
Species	Human
Source	Insect Cells
Description	Acidic 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.
Predicted N Terminal	Met-Phe-Asn-Leu-Pro
Form	The sterile protein solution (1.8mg/ml) contains 20mM Tris HCl pH=7.9, 100mM KCl, 0.2mM DTT and 20% glycerol.
Bio-activity	The ED50 calculated by the dose-dependant proliferation of BAF3 cells expressing

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	FGF receptors (measured by 3H-thymidine uptake) is less than 10 ng/ml, corresponding to a specific activity of 105 Units/mg.
Molecular Mass	Fibroblast Growth Factor-1 Human Recombinant (FGF-1) produced in Sf9 insect cells is a single, glycosylated, polypeptide chain containing 140 amino acids and having a molecular mass of 15803 Dalton. The FGF-a is purified by proprietary chromatographic techniques.
Purity	Greater than 95.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.
Usage	FOR RESEARCH USE ONLY
Quality Control Test	Fibroblast Growth Factor-acidic although stable at 4 centigrade for 3 weeks, should be stored desiccated below -18 centigrade. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Concentration	1.8mg/ml
Warning	Avoid repeated freeze-thaw cycles.
GENE INFORMATION	
Gene Name	FGF1 fibroblast growth factor 1 (acidic) [Homo sapiens]
Official Symbol	FGF1
Synonyms	FGF1; fibroblast growth factor 1 (acidic); FGFA; fibroblast growth factor 1; AFGF; ECGF; ECGF beta; ECGFA; ECGFB; endothelial cell growth factor; alpha; beta; FGF alpha; GLIO703; HBGF1; heparin binding growth factor 1; heparin-binding growth factor 1; beta-endothelial cell growth factor; endothelial cell growth factor, beta;

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	endothelial cell growth factor, alpha; FGF-1; HBGF-1; ECGF-beta; FGF-alpha;
Gene ID	2246
mRNA Refseq	NM_000800
Protein Refseq	NP_000791
MIM	131220
UniProt ID	P05230
Chromosome Location	5q31.3-q33.2
Pathway	Downstream signaling of activated FGFR, organism-specific biosystem; FGF signaling pathway, organism-specific biosystem; FGFR ligand binding and activation, organism-specific biosystem; FGFR1 ligand binding and activation, organism-specific biosystem; FGFR1b ligand binding and activation, organism-specific biosystem; FGFR1c ligand binding and activation, organism-specific biosystem; FGFR2 ligand binding and activation, organism-specific biosystem;
Function	S100 alpha binding; fibroblast growth factor receptor binding; growth factor activity; heparin binding; protein binding; protein tyrosine kinase activity;