

Active Recombinant Human FGF1 Protein

Cat. No. FGF1-161H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human FGF1 Protein without tag was expressed in E. coli.
Species	Human
Source	E.coli
Description	Human aFGF, encoded by the FGF1 gene, is a member of the fibroblast growth factor (FGF) family. Fibroblast growth factor was found in pituitary extracts in 1973 and then tested in a bioassay that caused fibroblasts to proliferate. After further fractionating the extract using acidic and basic pH, two different forms have isolated that named "acidic fibroblast growth factor" (FGF-1) and "basic fibroblast growth factor" (FGF-2). Human aFGF shares 54 % amino acid sequence identity with bFGF. In mammalian FGF receptor family has 4 members, FGFR1, FGFR2, FGFR3, and FGFR4, and 1, 2, 3 have 2 sub-types α and β. aFGF can bind and activate all 7 different FGFRs. Affinity between aFGF and its receptors can be increased by heparin or heparan sulfate proteoglycan. aFGF plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. aFGF are also involved in a variety of biological processes, including embryonic development , morphogenesis, tissue repair, tumor growth and invasion.
Form	Sterile Filtered White lyophil
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a

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

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

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

	cell proliferation assay using murine balb c 3T3 cells is less than 0.5 ng/mL, corresponding to a specific activity of $> 2.0 \times 10^6$ IU mg in the presence of 10 µg ml
Molecular Mass	Approximately 16.0 kDa
AA Sequence	MFNLPPGNYKKPKLLYCSNGGHFLRILPDGTVDGTRDRSDQHIQLQLSAESVGEVYI KSTETGQYLAMDTDGLLYGSQTPNEECLFLERLEENHYNTYISKKHAEKNWVGLK KNGSCKRGPRTHYGQKAILFLPLPVSSD
Endotoxin	Less than 1 EU/µg of rHuaFGF as determined by LAL method.
Purity	> 95% by SDS-PAGE and HPLC analyses.
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 to -70 centigrade. Avoid repeated freeze thaw cycles.
Storage Buffer	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4.
Reconstitution	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.

GENE INFORMATION

Gene Name	FGF1 fibroblast growth factor 1 (acidic) [Homo sapiens (human)]
Official Symbol	FGF1

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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; endothelial cell growth factor, alpha; FGF-1; HBGF-1; ECGF-beta; FGF-alpha;

Gene ID 2246

mRNA Refseq NM_00800

Protein Refseq NP_00791

MIM 131220

UniProt ID P05230

SDS-PAGE

