

Recombinant Human Fibroblast Growth Factor-acidic

Human, Recombinant (FGF1)

Expressed in *E. coli*

Cat. No. CRP0879

Lot. No. (See product label)

PRODUCT INFORMATION

Description: FGF acidic, also known as FGF-1 and endothelial cell growth factor, is a member of the FGF family of mitogenic peptides which currently is comprised of at least seven proteins which show 35-55% amino acid sequence conservation. FGF acidic and basic, unlike the other members of the family, lack signal peptides and are apparently secreted by mechanisms other than the classical protein secretion pathway. FGF acidic has been detected in large amounts in the brain. Other cells known to express FGF acidic include hepatocytes, vascular smooth muscle cells, CNS neurons, skeletal muscle cells, fibroblasts, keratinocytes, endothelial cells, intestinal columnar epithelium cells and pituitary basophils and acidophils. As with other FGF's, FGF acidic exhibits considerable species crossreactivity. FGF acidic and FGF basic stimulate the proliferation of all cells of mesodermal origin, and many cells of neuroectodermal, ectodermal and endodermal origin.

Amino-Acid Sequence: 155 aa, non-glycosylated

M. W. : Approximately 17.4 kDa

Recombinant: Expressed in *E. coli*

Purity: >95% by SDS-PAGE and HPLC analyses.

Formulation: Lyophilized from a 0.2µm filtered concentrated (1mg/ml) solution in PBS, pH 7.4.

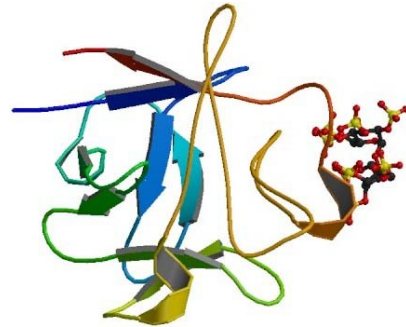
Biological Activity: Fully biologically active when compared to standard. The ED50, calculated by the dose-dependant proliferation of BAF3 cells expressing FGF receptors (measured by 3H-thymidine uptake) is less than 10 ng/ml.

Endotoxin: Less than 1EU/µg of rHu aFGF as determined by LAL method.

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. Stock solutions should be apportioned into working aliquots and stored at <-20°C. Further dilutions should be made in appropriate buffered solutions.

Storage: 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.

FOR RESEARCH USE ONLY



[PDB](#) rendering based on 1afc.

GENE INFORMATION

Gene Name: [FGF1](#)

Synonyms: AFGF; ECGF; ECGF-beta; ECGFA; ECGFB; FGF-alpha; FGFA; GLIO703; HBGF1; aFGF; Beta-endothelial cell growth factor; Heparin-binding growth factor 1 precursor; endothelial cell growth factor, alpha; FGF-α; HBGF-1; Acidic fibroblast growth factor; endothelial cell growth factor, beta; fibroblast growth factor 1 (acidic); heparin-binding growth factor 1; FGF1; fibroblast growth factor 1 (acidic)

mRNA Refseq: [NM 000800](#)

Protein Refseq: [NP 000791](#)

MIM: [131220](#)

GenelD: [2246](#)

Uniprot ID: [P05230](#)

Chromosome Location: 5q31

Process: anatomical structure morphogenesis. Fibroblast growth factor receptor signaling pathway. Multicellular organismal development. Signal transduction

Function: growth factor activity. Heparin binding. Protein binding

REFERENCES

1. Yu YL, Kha H, Golden JA, et al. An acidic fibroblast growth factor protein generated by alternate splicing acts like an antagonist. *J. Exp. Med.* 1992;175 (4): 1073-80.
2. Harper JW, Strydom DJ, Lobb RR. Human class 1 heparin-binding growth factor: structure and homology to bovine acidic brain fibroblast growth factor. *Biochemistry.* 1986; 25 (14): 4097-103.

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