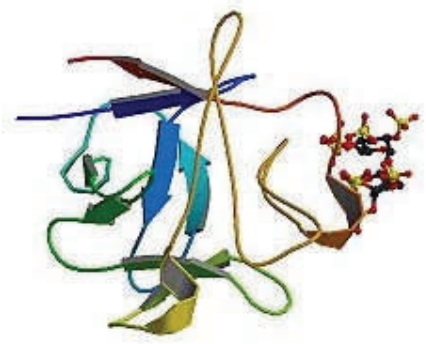
SPECIFICATION SHEET
Rev 082627A

Fibroblast Growth Factor-acidic

Mouse, Recombinant (rmFGF-acidic)
Expressed in *E. coli*
Cat. No. CRP0828
Lot. No. (See product label)



PDB rendering based on 1afc.

PRODUCT INFORMATION

Description: FGF acidic, also known as FGF-1, ECGF, and HBGF-1, is a 17 kDa nonglycosylated member of the FGF family of mitogenic peptides. FGF acidic, which is produced by multiple cell types, stimulates the proliferation of all cells of mesodermal origin and many cells of neuroectodermal, ectodermal, and endodermal origin. It plays a number of roles in development, regeneration, and angiogenesis. FGF-acidic is a non-glycosylated heparin binding growth factor that is expressed in the brain, kidney, retina, smooth muscle cells, bone matrix, osteoblasts, astrocytes and endothelial cells. FGF-acidic has the ability to signal through all the FGF receptors.

Amino-Acid Sequence: 140aa (The sequence of the first five N-terminal amino acids was determined and was found to be Phe-Asn-Leu-Pro-Leu.), non-glycosylated.

M. W. : 15,796 Da

Recombinant: Expressed in *E. coli*

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

Formulation: Mouse FGF-acidic was lyophilized after extensive dialysis against PBS.

Specific Activity: The ED50 as determined by the dose-dependant stimulation of thymidine uptake by 3T3 cells in the presence of heparin was found to be less than 0.5 ng/ml, corresponding to a Specific Activity of 2.0 x 10^6 IU/mg.

Endotoxin: Less than 0.1ng/μg (1 IEU/μg) of FGF-acidic.

Reconstitution: It is recommended to reconstitute the lyophilized rmFGF-acidic in sterile 18MΩ-cm H2O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.

Storage: Lyophilized rmFGF-acidic although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution rmFGF-acidic should be stored at 4°C between 2-7 days and for future use below -18°C. For long-term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Aliquot to avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name: FGF1
Gene Alias:Dffrx, Fam, Fgf-1, Fgfa
Gene Type: protein coding
mRNA Refseq: NM_010197
Protein Refseq: NP_034327
MIM: 131220
GeneID:14164

Chromosome Location: 18 19.0 cM

Pathway: MAPK signaling pathway； Melanoma; Regulation of actin cytoskeleton

Function: growth factor activity; heparin 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): 1073–1080

2.Chiu IM, Wang WP, Lehtoma K. Alternative splicing generates two forms of mRNA coding for human heparin-binding growth factor 1. Oncogene.1990; 5 (5): 755–762

3.Zhu X, Komiya H, Chirino A, et al. Three-dimensional structures of acidic and basic fibroblast growth factors. Science. 1991; 251 (4989): 90–93

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