



## FGF-1 (FGF-acidic) Mouse, E. coli Recombinant Protein

### Product Data Sheet

Cat. No.:	A35280010	A35280050	A35281000
Size:	10 µg	50 µg	1 mg

### Description

Our bioactive *FGF-1 (FGF-acidic) Mouse, E. coli Recombinant Protein*, also known as Fibroblast Growth Factor 1, is a single, non-glycosylated, polypeptide chain that contains 141 amino acids and has a 15.9 kDa molecular mass. The FGF-1 is purified by proprietary chromatographic techniques.

### Summary

FGF-acidic, a member of the fibroblast growth factor (FGF) family, is a non-glycosylated heparin binding growth factor encoded by the FGF1 gene. FGF-acidic plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. Functions as potent mitogen in vitro. Acts as a ligand for FGFR1 and integrins. Binds to FGFR1 in the presence of heparin leading to FGFR1 dimerization and activation via sequential autophosphorylation on tyrosine residues which act as docking sites for interacting proteins, leading to the activation of several signaling cascades. Binds to integrins. Its binding to integrins and subsequent ternary complex formation with integrins and FGFR1 are essential for FGF1 signaling.

### Other Names

Murine Fibroblast Growth Factor-1, FGF1, FGF-1, FGF acidic, FGF-a, Acidic fibroblast growth factor, aFGF, Heparin-binding growth factor 1, HBGF-1, UniProtKB# O54837.

### Amino Acid Sequence

MFNLPLGNYK KPKLLYCSNG GHFLRILPDG TVDGTRDRSD QHIQLQLSAE SAGEVYIKGT  
ETGQYLAMDT EGLLYGSQTP NEECLFLERL EENHYNTYTS KKHAEKNWFV GLKKNNGSCKR  
GPRTHYGQKA ILFLPLPVSS D.

update.: 06.2023

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### **Source**

E. coli

### **Formulation**

Sterile filtered white lyophilized (freeze-dried) powder. The protein was lyophilized from a 0.2  $\mu$ m filtered concentrated solution in PBS, pH 7.5.

### **Purity**

Purity greater than 95.0% as determined by SDS-PAGE.

### **Biological Activity**

The ED<sub>50</sub> as determined by the dose-dependent proliferation of mouse BALB/c 3T3 cells, is less than 0.2 ng/ml corresponding to a Specific Activity of 5x10<sup>6</sup> IU/mg.

### **Reconstitution**

It is recommended to reconstitute the lyophilized FGF-1 in sterile 18M $\Omega$ -cm H<sub>2</sub>O not less than 100  $\mu$ g/ml, which can then be further diluted to other aqueous solutions.

### **Shipping**

Ships at ambient temperature. Upon receipt, store the product at the temperature recommended below.

### **Storage/Expiration**

Lyophilized FGF-acidic, although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution, FGF-acidic should be stored at 4° C between 2-7 days and for future use below -18° C. **Please prevent freeze-thaw cycles.**

### **Usage**

This product is intended for **Laboratory Research Use Only**. Not for use in diagnostic or therapeutic procedures. This product may not be used as a pharmaceutical or veterinary drug, agricultural product, or food additive.

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