



## **FGF-2 (FGF-basic) Mouse, E. coli Recombinant Protein (146 aa)**

### Product Data Sheet

Cat. No.:	A33860010	A33860050	A33861000
Size:	10 µg	50 µg	1 mg

#### **Description**

Our bioactive *FGF-2 (FGF-basic) Mouse, E. coli Recombinant Protein (146 aa)*, also known as truncated Fibroblast Growth Factor 2, is a single, non-glycosylated, polypeptide chain that contains 146 amino acids and has a 16.3 kDa molecular mass. The FGF-2 is purified by proprietary chromatographic techniques.

#### **Summary**

FGF-basic, a member of the fibroblast growth factor (FGF) family, is a non-glycosylated, heparin-binding growth factor and signaling protein encoded by the FGF2 gene. It binds to and exerts effects via specific fibroblast growth factor receptor (FGFR) proteins. Like other FGF family members, FGF-basic possesses broad mitogenic and cell survival activities, and is involved in a variety of biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion.

Additionally, FGF-basic is a critical component of human embryonic stem cell (hESCs) culture medium; the growth factor is necessary for the cells to remain in an undifferentiated state. As a result, FGF-basic has been used to develop chemically-defined, serum-free and feeder-free hESCs culture mediums.

#### **Other Names**

Truncated Fibroblast Growth Factor-2, Murine FGF2, FGF-2, FGF basic, FGF-b, Basic fibroblast growth factor, bFGF, Heparin-binding growth factor 2, HBGF-2.

#### **Amino Acid Sequence**

MPALPEDGGA AFPPGHFKDP KRLYCKNGGF FLRIHPDGRV DGVREKSDPH VKLQLQAEER  
GVVSIKGVCA NRYLAMKEDG RLLASKCVTE ECFFFERLES NNYNTYRSRK YSSWYVALKR  
TGQYKLGSKT GPGQKAILFL PMSAKS.

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### **Source**

*E. coli*

### **Formulation**

Sterile filtered white lyophilized (freeze-dried) powder. The protein was lyophilized from 5mM Na<sub>2</sub>PO<sub>4</sub>, pH7.5 and 50mM NaCl.

### **Purity**

Greater than 95.0% as determined by SDS-PAGE analysis.

### **Biological Activity**

The activity as calculated by the dose-dependant proliferation of BALB/3T3 cells was found to be less than 1 ng/ml corresponding to a specific activity of 1,000,000 units/mg.

### **Reconstitution**

It is recommended to reconstitute the lyophilized FGF-basic in sterile 18MΩ-cm H<sub>2</sub>O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

### **Shipping**

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

### **Storage/Expiration**

Lyophilized FGF-basic, although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution, FGF-basic 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](#)). **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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