



FGF-2 (FGF-basic) Bovine, *E. coli* Recombinant Protein (147 aa)

Product Data Sheet

Cat. No.:	A311300010	A311300050	A311301000
Size:	10 µg	50 µg	1 mg

Description

Our bioactive *FGF-2 (FGF-basic) Bovine, E. coli Recombinant Protein (147 aa)*, also known as truncated Fibroblast Growth Factor 2, is a single, non-glycosylated, polypeptide chain that contains 147 amino acids and has a molecular mass of approximately 16.5 kDa. 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 bovine Fibroblast Growth Factor-2, Cow FGF2, FGF-2, FGF basic, FGF-b, Basic fibroblast growth factor, bFGF, Heparin-binding growth factor 2, HBGF-2.

Amino Acid Sequence

MPALPEDGGS GAFPPGHFKD PKRLYCKNGG FFLRIHPDGR VDGVREKSDP HIKLQLQAE
RGVVSIGVC ANRYLAMKED GRLLASKCVT DECFERLE SNNYNTYRSR KYSSWYVALK
RTGQYKLGPK TGPGQKAILF LPMSAKS.

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Source

E. coli

Formulation

Sterile filtered white lyophilized (freeze-dried) powder. The protein was lyophilized from a 0.2 μ m filtered concentrated solution in PBS, pH 7.4.

Purity

Purity greater than 97.0% as determined by:

1. Analysis by RP-HPLC.
2. Analysis by SDS-PAGE.

Biological Activity

The ED50 as determined by a cell proliferation assay using murine balb/c 3T3 cells is < 0.1 ng/ml, corresponding to a specific activity of > 1.0 $\times 10^7$ IU/mg.

Reconstitution

It is recommended to reconstitute the lyophilized FGF-basic in sterile PBS not less than 100 μ g/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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