Fibroblast Growth Factor, basic (147 amino acids), human recombinant (rHuFGF-basic)

Catalog No: 97054
Lot No: XXXXX
Source: *E. coli*
Synonyms: Prostatropin, HBGH-2, HBGF-2, FGF-2, FGF-b

Background

FGF-basic is a member of the fibroblast growth factor (FGF) family. FGF family members possess broad mitogenic and cell survival activities, and are involved in a variety of biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. This protein functions as a modifier of endothelial cell migration and proliferation, as well as an angiogenic factor. It acts as a mitogen for a variety of mesoderm- and neuroectoderm-derived cells in vitro, thus is thought to be involved in organogenesis. Three alternatively spliced variants encoding different isoforms have been described. The heparin-binding growth factors are angiogenic agents in vivo and are potent mitogens for a variety of cell types in vitro. There are differences in the tissue distribution and concentration of these 2 growth factors.

Description

Fibroblast Growth Factor-basic (FGF-2) human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 147 amino acids and having a molecular mass of 16539 Dalton. FGF2 is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The bFGF was lyophilized from a concentrated (1 mg/ml) sterile solution containing 10 mM Na_2PO_4, pH 8.

Solubility

It is recommended to reconstitute the lyophilized FGF-B in sterile 18 MΩ-cm H_2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

Stability

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

Purity

Greater than 97.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

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MPALPEDGGS GAFPPGHFKD PKRLYCKNGG FFLRIHPDGR VDGVREKSDP HIKLQLQAEE RGVVSIKGVC ANRYLAMKED
GRLLASKCVT DECFFFERLE SNNYNTYRSR KYTSWYVALK RTGQYKLGSK TGPGQKAILF LPMSAKS
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Activity

The ED50, calculated by the dose- dependent proliferation of mouse BALB/c 3T3 cells is 0.04 - 0.06 ng/ml.

Usage

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