



Fibroblast Growth Factor acidic, human recombinant (rHuFGF-acidic)

Catalog No: 50440
Lot No: XXXXX
Source: *E. coli*
Synonyms: HBGF-1, ECGF-beta, FIBP, FGFIBP, FIBP-1, ECGF, ECGFA, GLIO703, FGF1, FGF-a

Background

Acidic fibroblast growth factor 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-acidic (FGF-1) human recombinant produced in *E. coli* is a single, non-glycosylated, polypeptide chain containing 140 amino acids and having a molecular mass of approximately 15.8 kDa. FGF acidic is purified by proprietary chromatographic techniques.

Physical Appearance

Sterile filtered white lyophilized (freeze-dried) powder.

Formulation

The protein was lyophilized from a concentrated (1 mg/ml) sterile solution containing PBS, pH 7.4.

Solubility

It is recommended to reconstitute the lyophilized FGF-acidic in sterile 18 M Ω -cm H₂O at 4°C at a concentration of 0.1 mg - 0.25 mg per 1 ml. Allow sample to sit for 5 min. at 4°C, spin to remove precipitant.

Stability

Lyophilized Fibroblast Growth Factor-1, although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution FGF-a should be stored at 4°C between 2-7 days and for future use below -18°C. Please prevent freeze-thaw cycles.

Purity

Greater than 95.0% as determined by (a) Analysis by RP-HPLC, (b) Analysis by SDS-PAGE.

Amino Acid Sequence

MFNLPPGNYK KPKLLYCSNG GHFLRILPDG TVDGTDRSD QHIQLQLSAE SVGEVYIKST ETGQYLAMDT DGLLYGSQTP
NEECLFLERL EENHYNTYIS KKHAEKNWFV GLKKNNGSCKR GPRTHYGQKA ILFLPLPVSS D

Activity

The ED50, calculated by the dose-dependant proliferation of mouse BALB/c 3T3 cells is <0.5 ng/ml, corresponding to a specific activity of >2.0 x 1,000,000 IU/mg.

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