Fibroblast Growth Factor acidic (FGF-1), mouse recombinant (rmFGF-1)

Catalog No: **97056**
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) mouse recombinant produced in E. coli is a single, non-glycosylated, polypeptide chain containing 141 amino acids and having a molecular mass of 15.9 kDa. FGF acidic is purified by proprietary chromatographic techniques.

Physical Appearance
Sterile filtered white lyophilized (freeze-dried) powder.

Formulation
Lyophilized at a concentration of 1mg/ml in 5mM Na_2PO_4, pH 7.5 and 50mM NaCl.

Solubility
It is recommended to reconstitute the lyophilized FGF-acidic in sterile 18 MΩ-cm H2O not less than 100 µg/ml, which can then be further diluted to other aqueous solutions.

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 98.0% as determined by SDS-PAGE.

Amino Acid Sequence
MFNLPLGNYK KPKLLYCSNG GHFLRILPDG TVDGTRDRSD QHIQLQLSAE SAGEVYIKGT ETGQYLAMDT EGLLYGSQTP NEECLFLERL EENHYNTYTS KKHAEKNWFV GLKKNGSCKR GPRTHYGQKA ILFLPLPVSS D

Activity
The ED50 as determined by the dose-dependent proliferation of mouse BALB/c 3T3 cells, is less than 0.2ng/ml corresponding to a specific activity of $5x10^6$ IU/mg.

Usage
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