

FGF 1 Rat

Description: Fibroblast Growth Factor-acidic Rat Recombinant (FGF-1) produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 141 amino acids and having a molecular mass of 15.9 kDa. The FGF acidic is purified by proprietary chromatographic techniques.

Synonyms: Fibroblast growth factor 1, FGF-1, Acidic fibroblast growth factor, aFGF, Heparin-binding growth factor 1, HBGF-1, Fgf1, Fgfa, HBGF1.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Amino Acid Sequence: MFNLPLGNYK KPKLLYCSNG GHFLRLPDG TVDGTRDRSD
QHIQLQLSAE SAGEVYIKGT ETGQYLAMDT EGLLYGSQTP NEECLFLERL EENHYNTYTS
KKHAEKNWFV GLKKNKGCKR GPRTHYGQKA ILFLPLPVSS D.

Purity: Greater than 98.0% as determined by SDS-PAGE.

Formulation:

Lyophilized at a concentration of 1 mg/ml in 5mM Na₂PO₄, pH-7.5 and 50mM NaCl.

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.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Solubility:

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

Introduction:

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.

Biological 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 5x10⁶ IU/mg.

Catalog #:CYP5-082

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