Fibroblast Growth Factor 1 (FGF-acidic) Human, E. coli Recombinant Protein

Product Data Sheet

Cat. No.:	A32640010	A32640050	A32641000
Size:	10 μg	50 μg	1 mg

Description:

Our bioactive *Fibroblast Growth Factor 1 (FGF-acidic) Human, E. coli Recombinant Protein* is a single, non-glycosylated, polypeptide chain containing 140 amino acids and has a molecular mass of approximately 15.8 kDa. The FGF-acidic is purified by proprietary chromatographic techniques.

Summary:

FGF-acidic, a member of the fibroblast growth factor (FGF) family, is a non-glycosylated heparin binding growth factor encoded by the FGF1 gene. FGF-acidic plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. Functions as potent mitogen in vitro. Acts as a ligand for FGFR1 and integrins. Binds to FGFR1 in the presence of heparin leading to FGFR1 dimerization and activation via sequential autophosphorylation on tyrosine residues which act as docking sites for interacting proteins, leading to the activation of several signaling cascades. Binds to integrins. Its binding to integrins and subsequent ternary complex formation with integrins and FGFR1 are essential for FGF1 signaling.

Amino Acid Sequence:

MFNLPPGNYK KPKLLYCSNG GHFLRILPDG TVDGTRDRSD QHIQLQLSAE SVGEVYIKST ETGQYLAMDT DGLLYGSQTP NEECLFLERL EENHYNTYIS KKHAEKNWFV GLKKNGSCKR GPRTHYGQKA ILFLPLPVSS D.

Other Names:

Fibroblast Growth Factor-1, FGF1, FGF-1, FGF acidic, FGF-a, Acidic fibroblast growth factor, aFGF, Heparin-binding growth factor 1, HBGF-1.

Source:

E. coli

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Purity:

Greater than 95.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Analysis by SDS-PAGE.

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.

Reconstitution:

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

Biological Activity:

The ED_{50}, calculated by the dose-dependent proliferation of mouse BALB/c 3T3 cells is <0.5 ng/ml, corresponding to a specific activity of > 2,000,000 IU/mg.

Shipping:

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Stability:

Lyophilized FGF-acidic, although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution FGF-acidic should be stored at 4° C between 2-7 days and for future use below -18° C.

Please prevent freeze-thaw cycles.

Usage:

This product is intended for **Laboratory Research Use Only**. This product may not be used as a pharmaceutical or veterinary drug, agricultural product, or food additive.

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