

Datasheet

Fibroblast Growth Factor 1

Human recombinant

Product	Description	Catalogue-No.	Size
FGF-1	Acidic fibroblast growth factor (FGF-1), human recombinant	CB-1102010 CB-1102011	10 µg 50 µg

Product description

Synonyms: HBGF-1, ECGF-beta, FGFIBP, FIBP-1, ECGF, ECGFA, FGF1, FGF-a

Acidic fibroblast growth factor (FGF-1) 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. Three alternatively spliced variants encoding different isoforms have been described. These 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 growth factors. 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. The FGF-1 is purified by proprietary chromatographic techniques.

Solubility and storage conditions

It is recommended to reconstitute the lyophilized FGF-1 in sterile distilled water at a concentration of 0.1mg-0.25mg per 1ml at 2-8° C. Allow sample to sit for 5 min at 2-8° C, spin to remove precipitate. Lyophilized FGF-1 although stable at room temperature for 3 weeks should be stored desiccated below -20° C. Upon reconstitution FGF-1 should be stored at 2-8° C up to 7 days and for future use below -20° C. For long term storage it is recommended to add a carrier protein (e.g. 0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Composition

Sterile filtered white lyophilized (freeze-dried) powder. The protein was lyophilized from a concentrated (1 mg/ml) solution in PBS, pH 7.4.

Purity: > 95.0% as determined by RP-HPLC analysis and by SDS-PAGE.

Protein quantitation was carried by UV spectroscopy at 280 nm using the absorbency value of 0.8511 as the extinction coefficient for a 0.1% (1 mg/ml) solution and analysis by RP-HPLC, using a calibrated solution of FGF-1 as a reference.

Biological activity: The ED₅₀, 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 U/mg

Amino acid sequence: MFNLPPGNYK KPKLLYCSNG GHFLRILPDG TVDGTDRDSD QHIQLQLSAE SVGEVYIKST ETGQYLAMDT DGLLYGSQTP NEECLFLERL EENHYNTYIS KKHAEKNWV GLKKNQSGCKR GPRTHYGQKA ILFLPLPVSS D

Suitability

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Not approved for human or animal diagnostic or therapeutic procedures.

Technical Support

Additional information will be available on our website: www.pan-biotech.com

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