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rbFGF-b

recombinant bovine Fibroblast Growth Factor-basic from *E.coli*

Product	Cat#	Package size
rbFGF-b	C6140.0010	10µg
rbFGF-b	C6140.0050	50µg

Synonyms: Prostatropin, HBGH-2, HBGF-2, FGF-2, FGF-b

Product description

FGF-basic is a member of the fibroblast growth factor (FGF) family. FGF family members bind heparin and possess broad mitogenic and angiogenic activities. This protein has been implicated in diverse biological processes, such as limb and nervous system development, wound healing, and tumor growth. The mRNA for this gene contains multiple polyadenylation sites and is alternatively translated from AUG and non-AUG (CUG) initiation codons resulting in five different isoforms with distinct properties. The CUG-initiated isoforms are localized in the nucleus and are responsible for the intracrine effect, whereas the AUG-initiated form is mostly cytosolic and is responsible for the paracrine and autocrine effects of this FGF.
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.

Recombinant Bovine FGF-b produced in *E.coli* is a single, non-glycosylated, polypeptide chain of 155 amino acids and a molecular weight of 17250 Dalton.

Purity : Greater than 97%, determined by
RP-HPLC chromatography
SDS-PAGE (silver stained)

Source: *E.coli*

Formulation

The protein was lyophilised from a concentrated (1mg/mL) sterile solution containing 1% HSA.

Solubility

It is recommended to reconstitute the lyophilized rec. bovine Fibroblast Growth Factor-2 in sterile 18MΩ-cm H2O not less than 100µg/mL, which can then be further diluted to other aqueous solutions.

Stability

Lyophilised rbFGF-b although stable at room temperature for 3 weeks, should be stored desiccated at -20°C. Reconstituted rbFGF-b is best stored refrigerated at +2°C to +8°C between 2-7 days and at -20°C for long term storage. For long term storage it is recommended to add a carrier protein (e.g., 0.1% HSA or BSA).
Prevent for repeated freeze-thaw cycles!

Biological Activity

The ED_{50}, measured in a mitogenic assay using quiescent NR6R-3T3 fibroblasts was found to be <0.1ng/mL, corresponding to a specific activity of 3 x 10^6 Units/mg.

Amino acid sequence

The sequence of the first five N-terminal amino acids was determined and was found to be Met-Ala-Ala-Gly-Ser.

Protein Content

Protein quantification was carried out by two independent methods:
1. UV spectroscopy at 280nm, using the absorbance value of 0.85 as the extinction coefficient for a 0.1% (1mg/mL) solution.
2. Analysis by RP-HPLC, using a calibrated solution of Fibroblast Growth Factor-b as a reference standard.

Usage

The Genaxxon rbFGF-b is offered for research, laboratory or further manufacturing purposes only. The product may not be used as drug, agricultural or pesticidal product, food additive or household chemical.

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