RayBiotech, Inc.
3607 Parkway Lane suite 200
Norcross,GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Certificate of Analysis and Data Sheet

Recombinant Human Fibroblast Growth Factor-basic

Catalog No.
228-10452

Source:
Escherichia Coli

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

Introduction:
Basic 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-2 Human Recombinant (FGF-2) produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 155 amino acids and having a molecular mass of 17353 Dalton.
The FGF-b is purified by proprietary chromatographic techniques.

Source:
Escherichia Coli.

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

Stability:
Lyophilized Fibroblast Growth Factor-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution FGF-b should be stored at 4°C between 2-7 days and for future use below -18°C.
For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).
Please prevent freeze-thaw cycles.

RayBiotech, Inc.
3607 Parkway Lane suite 200
Norcross,GA 30092
Tel: 770-729-2992, 1-888-494-8555
Fax: 770-206-2393
Website: www.raybiotech.com
Email: info@raybiotech.com

Formulation:
The protein was lyophilized from a concentrated (1mg/ml) solution in PBS, pH 7.4.

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

Purity:
Greater than 96.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Amino acid sequence:
The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Glu-Gly-Glu-Ile

Biological Activity:
The ED50, calculated by the dose-dependant proliferation of BAF3 cells expressing FGF receptors (measured by ^{3}H-thymidine uptake) is <0.5 ng/ml, corresponding to a specific activity of 2 x 10^{6} Units/mg.

Protein content:
Protein quantitation was carried out by two independent methods:
1. UV spectroscopy at 280 nm using the absorbency value of 0.8511 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics).
2. Analysis by RP-HPLC, using a calibrated solution of Fibroblast Growth Factor-b as a Reference Standard.