

Recombinant Human Glycosylated Fibroblast Growth Factor-basic

Certificate of Analysis and Data Sheet

➤ Source: Baculovirus	➤ Catalog No. CTK-365
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➤ **Background :**

Single-chain polypeptide growth factor that plays a significant role in the process of wound healing and is a potent inducer of angiogenesis. It binds to heparin, which potentiates its biological activity and protects it from proteolysis. The growth factor is an extremely potent inducer of DNA synthesis in a variety of cell types from mesoderm and neuroectoderm lineages, and also has chemotactic and mitogenic activities. It was originally named acidic fibroblast growth factor based upon its chemical properties and to distinguish it from basic fibroblast growth factor. Other homologous FGF belonging to the same family are int-2 (FGF-3), FGF-5 , FGF-6 , K-FGF and KGF (keratinocyte growth factor =FGF-7). All factors are products of different genes, some of which are Oncogene products (FGF-3 , FGF-4 , FGF-5).

➤ **Description :**

Recombinant Human FGF-b (FGF-2) produced in Sf9 insect cells is a single, glycosylated, polypeptide chain containing 155 amino acids and having a molecular mass of 17353 Dalton.

Recombinant Human FGF-b is purified by proprietary chromatographic techniques.

➤ **Physical Appearance:**

Sterile Filtered liquid formulation.

➤ **Formulation:**

The sterile protein solution (0.5mg/ml) contains 20mM Tris pH=7.9, 100mM KCl, 1mM DTT and 20% glycerol.

➤ **Stability:**

Recombinant Human FGF-b although stable at 4⁰C for 3 weeks, should be stored desiccated below -18⁰C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Please avoid freeze-thaw cycles.

➤ **Purity:**

Greater than 98.0% as determined by:

(a) Analysis by RP-HPLC.

(b) Anion-exchange FPLC.

(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

➤ **Amino acid sequence:**

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

➤ **Dimers and aggregates:**

Less than 1% as determined by silver-stained SDS-PAGE gel analysis.

➤ **Biological Activity:**

This Recombinant Human FGF-b is fully biologically active when compared to standards. The ED₅₀, calculated by the dose-dependant proliferation of BAF3 cells expressing FGF receptors (measured by ³H-thymidine uptake) is <10 ng/ml, corresponding to a specific activity of 2x10⁶ Units/mg.

➤ **Endotoxin:**

Less than 0.1 ng/μg (IEU/μg) of FGF-basic-Sf9.

➤ **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 FGF-b as a Reference Standard.

➤ **Usage:**

This material is offered for research, laboratory or further manufacturing purposes.