

Recombinant bovine Basic Fibroblast Growth Factor (FGF-2)

Certificate of Analysis and Data Sheet

➤ Source: E.Coli	➤ Catalog No. CTK-288
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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. The growth factor is an extremely potent inducer of DNA synthesis in a variety of cell types from mesoderm and neuroectoderm lineages. It was originally named basic fibroblast growth factor based upon its chemical properties and to distinguish it from acidic fibroblast growth factor .

➤ **Description :**

Recombinant Bovine FGF-b (FGF-2) produced in E.Coli is a single, non-glycosylated, polypeptide chain having a molecular mass of 17478 Dalton. The rbFGF-b is purified by proprietary chromatographic techniques.

➤ **Physical Appearance:**

Sterile Filtered White Lyophilized (freeze-dried) powder.

➤ **Formulation:**

The protein was lyophilized from a concentrated (1mg/ml) sterile solution containing 1%HSA

➤ **Solubility:**

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

➤ **Stability:**

Lyophilized rbFGF-b although stable at room temperature for 3 weeks, should be stored desiccated below -18 C. Upon reconstitution rbFGF-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 avoid freeze-thaw cycles.

➤ **Purity:**

Greater than 99.0% 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 Met-Ala-Ser-Met-Thr.

➤ **Dimers and aggregates:**

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

➤ **Biological Activity:**

This rbFGF-b is fully biologically active when compared to standards. The ED50, measured in a mitogenic assay using quiescent NR6R-3T3 fibroblasts was found to be less than 0.1 ng/ml, corresponding to a specific activity of 2.4×10^6 Units/mg

➤ **Endotoxin:**

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

➤ **Protein content:**

Protein quantitation was carried out by two independent methods:

1. UV spectroscopy at 280 nm.
2. Analysis by RP-HPLC, using a standard solution of FGF-acidic as a Reference Standard.

➤ **Usage:**

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