

Recombinant Human Basic Fibroblast Growth Factor (rHubFGF)

Catalog Number: 500-30

Description:

Human bFGF, encoded by the FGF2 gene, is a member of the fibroblast growth factor (FGF) family. Fibroblast growth factor was found in pituitary extracts in 1973 and then tested in a bioassay that caused fibroblasts to proliferate. After further fractionating the extract using acidic and basic pH, two different forms have isolated that named "acidic fibroblast growth factor" (FGF-1) and "basic fibroblast growth factor" (FGF-2). Human bFGF shares 54 % amino acid sequence identity with aFGF. Affinity between bFGF and its receptors can be increased by heparin or heparan sulfate proteoglycan. bFGF plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. bFGF are also involved in a variety of biological processes, including embryonic development, morphogenesis, tissue repair, tumor growth and invasion. Additionally, bFGF is frequently used for a critical component of cell culture medium, e.g., human embryonic stem cell culture medium, serum-free culture systems.

AA Sequence:

MPALPEDGGS GAFFPGHFKD PKRLYCKNGG FFLRIHPDGR VDGVREKSDP HIKLQLQAE
RGVVSIGVC ANRYLAMKED GRLLASKCVT DECFFFERLE SNNYNTYRSR KYTSWYVALK
RTGQYKLGSK TGPGQKAILF LPMSAKS

Quantity: 10µg/50µg/1000µg

Source: E. coli.

Molecular Weight:

Approximately 16.5 kDa, a single non-glycosylated polypeptide chain containing 147 amino acids

Purity: Greater than 96% by SDS-PAGE and HPLC analyses.

Biological Activity:

Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine balb/c 3T3 cells is less than 0.05 ng/ml, corresponding to a specific activity of $> 2.0 \times 10^7$ IU/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation: Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM Tris-HCl, pH 7.6, with 150mM NaCl.

Endotoxin: Less than 1 EU/µg of rHubFGF as determined by LAL method.

Stability & Storage:

Use a manual defrost freezer and avoid repeated freeze-thaw cycles.

- 12 months from date of receipt, -20 to -70°C as supplied.
- 1 month, 2 to 8°C under sterile conditions after reconstitution.
- 3 months, -20 to -70°C under sterile conditions after reconstitution.

Rev. June 04 2017