CREATIVE BIOMART®
Cosmetic Ingredients

Recombinant Human Basic Fibroblast Growth Factor

Product Information

Cat
CGF-052
Product Name
Recombinant Human Basic Fibroblast Growth Factor
Synonyms
FGF-2, HBGF-2
GeneID
2247
Source
Escherichia coli.
Molecular Weight
Approximately 16.5 kDa, a single non-glycosylated polypeptide chain containing 147 amino acids.
AA Sequence
MPALPEDGGS GAFPPGHFKD PKRLYCKNGG FFLRIHPDGR VDGVREKSDP HIKLQLQAEE RGVVSIKGVC ANRYLAMKED GRLLASKCVT DECFFFERLE SNNYNTYRSR KYTSWYVALK RTGQYKLGSK TGPGQKAILF LPMSAKS
Purity
> 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 × 107 IU/mg.
Physical Appearance

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45-1 Ramsey Road, Shirley, NY 11967, USA

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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.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of less than 0.3 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.

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.

Usage

This material is offered by Creative Biomart for research, For research and further manufacturing use only.

background

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

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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.

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