



LD Biopharma, Inc.
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<http://www.ldbiopharma.com>

- PRODUCT DATA SHEET -

Name of Product: Recombinant Human bFGF Protein
Catalog Number: hRP-1503
Manufacturer: LD Biopharma, Inc.

Introduction

Fibroblast Growth Factor-basic (bFGF), also known as FGF-2, is a heparin-binding member of the FGF superfamily of molecules. Proteins of this family play a central role during prenatal development and postnatal growth and regeneration of a variety of tissues by promoting cellular proliferation and differentiation. Additionally, bFGF is a critical component of embryonic stem cell culture medium, allowing cells to remain in an undifferentiated state in serum-free medium. Human mature bFGF is an approximate 17.2 kDa protein consisting of 155 amino acid residues.

Full-length mature human bFGF cDNA (134 - 288aa) was constructed with codon optimization as non-fusion protein and expressed in E.coli as soluble protein. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

Gene Symbol: bFGF (FGF2; HBGF-2)
Accession Number: NP_001997
Species: Human
Size: 50 µg / Vial
Composition: Lyophilized from 5mM Tris-HCl, pH7.5 with 150mM NaCl.
Storage: This product is stable for at least 6 months if stored at -20°C or -80°C. Reconstituted bFGF at a concentration equals to 0.1mg/ml or higher is stable for up to 3 months at -20°C.

Key References

Amit,M, et al., *Clonally derived human embryonic stem cell lines maintain pluripotency and proliferative potential for prolonged periods of culture.* Dev Biol 227: 271-278 (2000).



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Xu, C, et al., *Basic fibroblast growth factor support undifferentiated human embryonic stem cell growth without conditioned medium*. Stem Cells 23: 315-323 (2005)

Applications

1. May be used as a critical component of human embryonic stem cell in serum free culture medium, allowing hES or iPS cells to remain in an undifferentiated state in chemically defined medium (4 - 10 ng bFGF / ml).
2. Highly purified native protein, can be used as antigen for specific antibody production.

Quality Control

1. Purity: > 95% by SDS-PAGE.
2. Endotoxin level is ≤ 1 EU/ug determined by the LAL method.
3. The ED₅₀ is 0.1 to 1.0 ng / ml as determined by the dose dependent proliferation of NIH3T3 cells

Recombinant Protein Sequence

MAAGSITTLPALPEDGGSGAFPPGHFKDPKRLYCKNGGFFLR IHPDGRVDGVREKSDPHIKLQL
QAEERGVVSIKGVCANRYLAMKEDGRLLASKCVTDECFFFERLESNNYNTYRSRKYTSWYVALK
RTGQYKLGSKTGPGQKAILFLPMSAKS