



FGF-2 (FGF-basic) Rat, E. coli Recombinant Protein (146 aa)

Product Data Sheet

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|-----------|-----------|-----------|-----------|
| Cat. No.: | A36080010 | A36080050 | A36081000 |
| Size: | 10 µg | 50 µg | 1 mg |

Description

Our bioactive *FGF-2 (FGF-basic) Rat, E. coli Recombinant Protein (146 aa)*, also known as truncated Fibroblast Growth Factor 2, is a single, non-glycosylated, polypeptide chain that contains 146 amino acids and has a 16.4 kDa molecular mass. The FGF-2 is purified by proprietary chromatographic techniques.

Summary

FGF-basic, a member of the fibroblast growth factor (FGF) family, is a non-glycosylated, heparin-binding growth factor and signaling protein encoded by the FGF2 gene. It binds to and exerts effects via specific fibroblast growth factor receptor (FGFR) proteins. Like other FGF family members, FGF-basic possesses broad mitogenic and cell survival activities, and is involved in a variety of biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion.

Additionally, FGF-basic is a critical component of human embryonic stem cell (hESCs) culture medium; the growth factor is necessary for the cells to remain in an undifferentiated state. As a result, FGF-basic has been used to develop chemically-defined, serum-free and feeder-free hESCs culture mediums.

Other Names

Truncated Fibroblast Growth Factor-2, FGF2, FGF-2, FGF basic, FGF-b, Basic fibroblast growth factor, bFGF, Heparin-binding growth factor 2, HBGF-2.

Amino Acid Sequence

MPALPEDGGGA FPPGHFKDPK RLYCKNGGFF LRIHPDGRVD GVREKSDPHV KLQLQAEERG
VVSIGVCAN RYLAMKEDGR LLASKCVTEE CFFFERLESN NYNTYRSRKY SSWYVALKRT
GQYKLGSKTG PGQKAILFLP MSAKS.

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Ilex Life Sciences LLC

1465 Sand Hill Rd, Suite 2018, Candler, NC 28715

Tel.: (828) 531-9949; Email: info@ilexlife.com

Web: <https://ilexlife.com/>



Source

E. coli

Formulation

Sterile filtered white lyophilized (freeze-dried) powder. The protein was lyophilized from 1 mg/ml solution after extensive dialysis against 10mM Na₂PO₄, pH 7.5 and 50mM NaCl.

Purity

Greater than 95.0% as determined by SDS-PAGE analysis.

Biological Activity

The ED₅₀ range as determined by the dose-dependent proliferation of NR6R-3T3 cells was found to be 0.903 ng/ml, corresponding to a specific activity of 1.1x10⁷ units/mg.

Reconstitution

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

Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

Storage/Expiration

Lyophilized FGF-basic, although stable at room temperature for 3 weeks, should be stored desiccated below -18° C. Upon reconstitution, FGF-basic 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 prevent freeze-thaw cycles.**

Usage

This product is intended for **Laboratory Research Use Only**. Not for use in diagnostic or therapeutic procedures. This product may not be used as a pharmaceutical or veterinary drug, agricultural product, or food additive.

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