

FGF 2 Human

Description: Fibroblast Growth Factor-2 Human Recombinant (FGF-2) produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 155 amino acids and having a molecular mass of 17353 Dalton. The FGF-b is purified by proprietary chromatographic techniques.

Synonyms: Prostatropin, HBGH-2, HBGF-2, FGF-2, FGF-b.

Source: Escherichia Coli.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Amino Acid Sequence: MAAGSITLTP ALPEDGGSGA FPPGHFKDPK RLYCKNGGFF
LRIHPDGRVD GVREKSDPHI KLQLQAEERG VVSIKGVCAN RYLAMKEDGR LLASKCVTDE
CFFFERLESN NYNTYRSRKY TSWYVALKRT GQYKLGSKTG PGQKAILFLPMSAKS.

Purity: Greater than 96.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

Formulation:

The protein was lyophilized from a concentrated (1mg/ml) solution in PBS, pH 7.4.

Stability:

Lyophilized Fibroblast Growth Factor-2 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution FGF-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 prevent freeze-thaw cycles.

Usage:

NeoBiolab's products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

Solubility:

It is recommended to reconstitute the lyophilized Fibroblast Growth Factor Basic in sterile 18M-cm H₂O not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Introduction:

Basic fibroblast growth factor is a member of the fibroblast growth factor (FGF) family. FGF family members possess broad mitogenic and cell survival activities, and are involved in a variety of biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. This protein functions as a modifier of endothelial cell migration and proliferation, as well as an angiogenic factor. It acts as a mitogen for a variety of mesoderm- and neuroectoderm-derived cells in vitro, thus is thought to be involved in organogenesis. Three alternatively spliced variants encoding different isoforms have been described. The heparin-binding growth factors are angiogenic agents in vivo and are potent mitogens for a variety of cell types in vitro. There are differences in the tissue distribution and concentration of these 2 growth factors.

Biological Activity:

The ED₅₀, calculated by the dose-dependant proliferation of BAF3 cells expressing FGF receptors

References:

1. Title: Activation of the Hedgehog pathway in pilocytic astrocytomas Publication: Neuro Oncol (2010) 12 (8): 790-798. doi: 10.1093/neuonc/noq026 First published online: March 11, 2010
Link: <http://neurooncology.oxfordjournals.org/content/12/8/790.full> 2. Title: Phenotype reversion in fetal human liver epithelial cells identifies the role of an intermediate meso-endodermal stage before hepatic maturation Publication: Advance Online Publication March 4, 2008 doi: 10.1242/jcs.019315 April 1, 2008 J Cell Sci 121, 1002-1013.
Link: <http://jcs.biologists.org/content/121/7/1002.full> 3. Title: Embryonic Stem Cell-Derived Glial Precursors as a Vehicle for Sulfamidase Production in the MPS-IIIa Mouse Brain . Publication: Cell Transplantation ISSN: 0963-6897 DOI: 10.3727/096368910X498944 Volume 19, Issue 8, pages 985-998 Copyright

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