

Recombinant Human FGF2

Cat. No. FGF2-0140 Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human FGF2 was expressed in Oryza Sativa (Rice Grain).

Species Human

Source Oryza Sativa

Introduction Basic fibroblast growth factor (bFGF) 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.

Form Lyophilized Powder

Applications 1. Medicine and clinical research: It is considered to function in several important physiological and pathological processes, such as embryonic development, morphogenesis, angiogenesis, wound healing and atheromatosis, carcinogenesis, development, and invasion of cancer. 2. Cell culture research: bFGF is required for the maintenance of human embryonic stem cells in culture, and various other stem cell lines such as mesenchymal stem (stroma) cells (MSC). bFGF is necessary for the cells to remain in an undifferentiated state, although the mechanisms by which it does this are poorly defined. It has been demonstrated to induce gremlin expression which

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in turn is known to inhibit the induction of differentiation by bone morphogenetic proteins. It is also necessary in mouse-feeder cell dependent culture systems, as well as in feeder and serum-free culture systems. 3. Cosmetic raw material: a) Cosmetics for wrinkle repair and improvement of skin functions. It acts as the factor to keep the acid balance in and out of the skin, restore the aged tissues and cares the wound. Thus, it is essential element for keeping the body to the optimal conditions. b) Restoration to the normal skin after peeling for the cosmetic purpose. c) Acceleration of hair growth. It accelerates the hair growth by improving the synthesis of Collagen and Elastin. It also inhibits the discoloration of hair. In addition, it improves the skin resilience and repairs wrinkle.

Usage

For Research, Laboratory and Manufacture Use. The product should not be used as drugs and food additives.

Unitprot ID

P09038

GENE INFORMATION

Gene Name

FGF2 fibroblast growth factor 2 (basic) [Homo sapiens]

Official Symbol

FGF2

Synonyms

FGF2; BFGF; FGFB; HBGF-2; heparin-binding growth factor 2; prostatropin; OTTHUMP00000037513; basic fibroblast growth factor bFGF

Gene ID

2247

mRNA Refseq

NM_002006

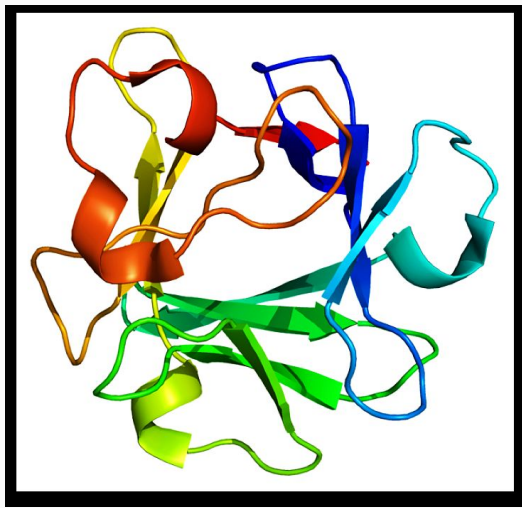
Protein Refseq

NP_001997

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MIM	134920
Chromosome Location	4q26
Pathway	Angiopoietin receptor Tie2-mediated signaling; Downstream signaling of activated FGFR; Endochondral Ossification; FGFR ligand binding and activation; FGFR2 ligand binding and activation; FGFR3 ligand binding and activation; FGFR4 ligand binding and activation; Glypican 1 network; IRS-mediated signaling; MAPK signaling pathway
Function	fibroblast growth factor binding; fibroblast growth factor receptor binding; growth factor activity; heparin binding; ligand-dependent nuclear receptor transcription coactivator activity; protein binding; protein tyrosine kinase activity; voltage-gated calcium channel activity
PDB rendering based on 1bas.	

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