Recombinant Human Fibroblast Growth Factor

Cat. No. FGFR2-102H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Fibroblast Growth Factor-2 (FGF-2) produced in*Sf9*insect cells is a single, glycosylated, polypeptide chain containing 155 amino acids and having a molecular mass of 17353 Dalton. The FGF-basic is purified by proprietary chromatographic techniques.
Species	Human
Source	Insect Cells
Description	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.
Amino Acid Sequence	The sequence of the first five N-terminal amino acids was determined and was found to be Ala-Ala-Gly-Ser-Ile.
Physical Appearance	Sterile Filtered liquid formulation.
Purity	Greater than 98.0% as determined by: (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE.

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Formulation	The sterile protein solution (0.5 mg/ml) contains 20 mM Tris pH=7.9, 100 mM KCl, 1 mM DTT and 20% glycerol.
Specific Activity	The ED50, calculated by the dose-dependant proliferation of BAF3 cells expressing FGF receptors (measured by 3H-thymidine uptake) is <0.5 ng/ml, corresponding to a specific activity of 2 x 106 Units/mg.
Protein Content	Protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm using the absorbency value of 0.8511 as the extinction coefficient for a 0.1% (1mg/ml) solution. This value is calculated by the PC GENE computer analysis program of protein sequences (IntelliGenetics). 2. Analysis by RP-HPLC, using a calibrated solution of Fibroblast Growth Factor-b as a Reference Standard.
Stability	Fibroblast Growth Factor-basic although stable at 4℃for 3 weeks, should be stored desiccated below -18℃. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	FGFR2 fibroblast growth factor receptor 2 [Homo sapiens]
Synonyms	FGFR2; fibroblast growth factor receptor 2; BEK; JWS; CEK3; CFD1; ECT1; KGFR; TK14; TK25; BFR-1; CD332; K-SAM; FLJ98662; FGFR2; KSAR; FGFR-2; KSAM; OTTHUMP00000020621; OTTHUMP00000020629; BEK fibroblast growth factor receptor; CD332 antigen; FGF receptor; Jackson-Weiss syndrome; Keratinocyte growth factor receptor 2; bacteria-expressed kinase; craniofacial dysostosis 1; fibroblast growth factor receptor 2; hydroxyaryl-protein kinase; keratinocyte growth factor receptor; protein tyrosine kinase, receptor like 14; soluble FGFR4 variant 4
Gene ID	2263

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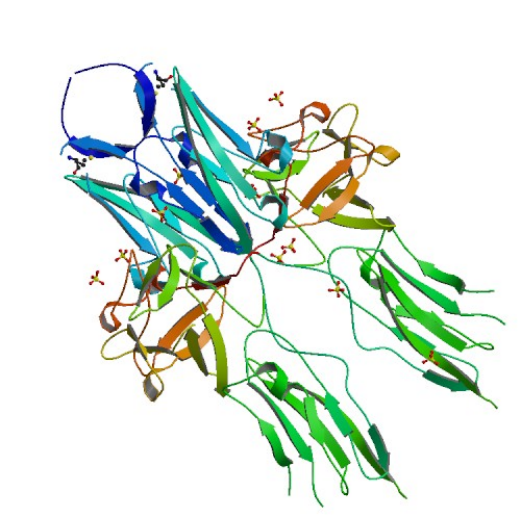
mRNA Refseq	NM_000141
Protein Refseq	NP_000132
UniProt ID	P21802
Chromosome Location	10q26
MIM	176943
Pathway	Endocytosis; MAPK signaling pathway; Pathways in cancer; Prostate cancer; Regulation of actin cytoskeleton; Signaling by FGFR
Function	ATP binding; fibroblast growth factor receptor activity; heparin binding; nucleotide binding; protein binding; receptor activity; transferase activity
PDB rendering based on 1djs.	

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