

Active Recombinant Human FGF2 Protein

Cat. No. FGF2-543H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human FGF2 Protein without tag was expressed in E. coli.
Species	Human
Source	E.coli
Description	Human bFGF, encoded by the FGF2 gene, is a member of the fibroblast growth factor (FGF) family. Fibroblast growth factor was found in pituitary extracts in 1973 and then tested in a bioassay that caused fibroblasts to proliferate. After further fractionating the extract using acidic and basic pH, two different forms have isolated that named "acidic fibroblast growth factor" (FGF-1) and "basic fibroblast growth factor" (FGF-2). Human bFGF shares 54 % amino acid sequence identity with aFGF. Affinity between bFGF and its receptors can be increased by heparin or heparan sulfate proteoglycan. bFGF plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. bFGF are also involved in a variety of biological processes, including embryonic development , morphogenesis, tissue repair, tumor growth and invasion. Additionally, bFGF is frequently used for a critical component of cell culture medium, e.g., human embryonic stem cell culture medium, serum-free culture systems.
Form	Sterile Filtered White lyophil
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a cell proliferation assay using murine balb c 3T3 cells is less than 0.05 ng/mL,

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corresponding to a specific activity of $> 2.0 \times 10^7$ IU/mg.

Molecular Mass	Approximately 16.5 kDa
AA Sequence	MPALPEDGGSGAFPPGHFKDPKRLYCKNGGFFLRIHPDGRVDGVREKSDPHIKLQL QAEERGVSISIKGVCANRYLAMKEDGRLLASKCVTDECFFFERLESNNYNTYRSRKY TSWYVALKRTGQYKLGSKTGPQGKAILFLPMSAKS
Endotoxin	Less than 1 EU/ μ g of rHubFGF as determined by LAL method.
Purity	$> 96\%$ by SDS-PAGE and HPLC analyses.
Storage	This lyophilized preparation is stable at 2-8 centigrade, but should be kept at -20 centigrade for long term storage, preferably desiccated. Upon reconstitution, the preparation is stable for up to one week at 2-8 centigrade. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20 to -70 centigrade. Avoid repeated freeze thaw cycles.
Storage Buffer	Lyophilized from a 0.2 μ m filtered concentrated solution in 20 mM Tris-HCl, pH 7.6, with 150 mM NaCl.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of less than 0.3 mg/mL.

GENE INFORMATION

Gene Name	FGF2 fibroblast growth factor 2 [Homo sapiens (human)]
Official Symbol	FGF2

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Synonyms	FGF2; fibroblast growth factor 2; HBGF-2; basic fibroblast growth factor; heparin-binding growth factor 2; Fgfb; bFGF; Fgf-2;
Gene ID	2247
mRNA Refseq	NM_002006
Protein Refseq	NP_001997
MIM	134920
UniProt ID	P09038
SDS-PAGE	