

GMP Recombinant Human FGF2 protein

Cat. No. FGF2-4345HG **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human FGF2 protein was expressed in Escherichia coli. This product is produced under cGMP guidelines.
Species	Human
Source	E.coli
ProteinLength	147
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	Lyophilized from a 0.2µm filtered concentrated solution in 20 mM Tris-HCl, pH 7.6,

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	with 150mM NaCl.
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, corresponding to a specific activity of $> 2.0 \times 10^7$ IU/mg.
Molecular Mass	Approximately 16.5 kDa, a single non-glycosylated polypeptide chain containing 147 amino acids.
AA Sequence	MPALPEDGGSGAFPPGHFKDPKRLYCKNGGFFLRHPDGRVDGVREKSDPHIKLQL QAEERGVSISIKGVCANRYLAMKEDGRLLASKCVTDECFFFERLESNNYNTYRSRKY TSWYVALKRTGQYKLGSKTGPGQKAILFLPMSAKS
Endotoxin	Less than 0.01 EU/g of rHubFGF GMP as determined by LAL method.
Purity	>98% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
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. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name FGF2

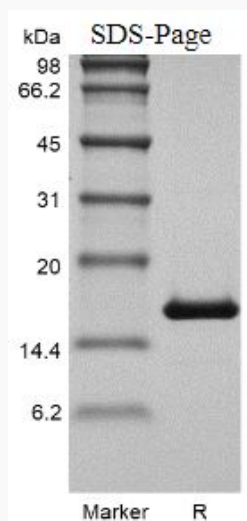
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Official Symbol	FGF2
Synonyms	FGF2; fibroblast growth factor 2 (basic); FGFB; fibroblast growth factor 2; prostatropin; heparin-binding growth factor 2; basic fibroblast growth factor bFGF; BFGF; FGF-2; HBGF-2;
Gene ID	2247
mRNA Refseq	NM_002006
Protein Refseq	NP_001997
MIM	134920
UniProt ID	P09038

SDS-PAGE of FGF2-4345HG

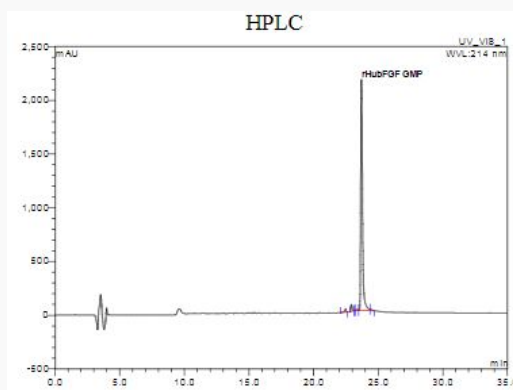


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**HPLC of FGF2-
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