

Active Recombinant Human Fibroblast Growth Factor 2 (basic)

Cat. No. FGF2-8856H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human Fibroblast Growth Factor 2 (basic) was produced in the endosperm tissue of barley grain (<i>Hordeum vulgare</i>).
Species	Human
Source	<i>Hordeum Vulgare</i>
Description	FGF-basic (bFGF or FGF2) is a member of the fibroblast growth factor (FGF) family. FGF family members are heparin-binding multifunctional proteins and are involved in a variety of biological processes including angiogenesis, wound healing, and embryonic development. FGF-basic is known to play a key role during prenatal development and postnatal growth and regeneration of tissues by promoting cellular proliferation and differentiation. FGF-basic has been recognized as a critical component of human embryonic stem cell culture medium due to its vital role for cells to remain in an undifferentiated state. FGF-basic signals through FGFR 1b, 1c, 2c, 3c and 4.
Form	PBS pH 7.2, sterile filtered
Bio-activity	Bioactivity of recombinant human FGF-basic 146 is assayed by measuring its dose dependent effect on proliferation of 3T3 cells. The ED50 for this effect using FGFb 146 is typically < 0.2 ng/ml, corresponding to a specific activity > 5 x10 ⁶ U/mg.
Molecular Mass	This recombinant human FGF-basic consists of 146 amino acid residues. In addition

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it contains a 10 aa tag at the N-terminus resulting in a 17.8 kDa protein.

Endotoxin Endotoxin level is less than 0.05EU/μg as measured by turbidimetric kinetic assay

Purity Greater than 95% by SDS-PAGE gel analysis.

Storage The lyophilized protein is stable at room temperature for few weeks. Reconstituted protein should be used immediately or stored in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.

Reconstitution It is recommended to reconstitute the lyophilized protein in sterile phosphate-buffered saline to a concentration of no less than 100 μg/ml. For long term storage of the reconstituted solution it is recommended to add a carrier protein (0.1% HSA or BSA).

GENE INFORMATION

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

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

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UniProt ID	P09038
Chromosome Location	4q26
Pathway	Angiopoietin receptor Tie2-mediated signaling, organism-specific biosystem; Downstream signaling of activated FGFR, organism-specific biosystem; Endochondral Ossification, organism-specific biosystem; FGFR ligand binding and activation, organism-specific biosystem; FGFR1 ligand binding and activation, organism-specific biosystem; FGFR1b ligand binding and activation, organism-specific biosystem; FGFR1c ligand binding and activation, organism-specific biosystem;
Function	chemoattractant activity; cytokine activity; 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;