

## Active Recombinant Rat Fgf2 Protein

Cat. No. Fgf2-595R    Lot. No. (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Rat Fgf2 Protein without tag was expressed in E. coli.
<b>Species</b>	Rat
<b>Source</b>	E.coli
<b>Description</b>	<p>Rat 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). Rat bFGF shares 96 % amino acid sequence identity with human bFGF, and 98 % amino acid sequence identity with mouse. 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.</p>
<b>Form</b>	Sterile Filtered White lyophil
<b>Bio-activity</b>	Fully biologically active when compared to standard. The ED50 as determined by a

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cell proliferation assay using murine balb c 3T3 cells is less than 0.2 ng/mL, corresponding to a specific activity of  $> 5.0 \times 10^6$  IU/mg.

**Molecular Mass**

Approximately 16.4 kDa

**AA Sequence**

MPALPEDGGGAFPPGHFKDPKRLYCKNGGFFLRIHPDGRVDGVREKSDPHVKLQL  
QAEERGVSIVKGVCANRYLAMKEDGRLLASKCVTEECFFFERLESNNYNTYRSRKY  
SSWYVALKRTGQYKLGSKTGPQGKAILFLPMSAKS

**Endotoxin**

Less than 1 EU/ $\mu$ g of rRtbFGF as determined by LAL method.

**Purity**

$> 98\%$  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  $\mu$ m filtered solution in PBS, pH 7.4.

**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 0.1-1.0 mg/mL.

## GENE INFORMATION

**Gene Name**

[Fgf2 fibroblast growth factor 2 \[ Rattus norvegicus \(Norway rat\) \]](#)

**Official Symbol**

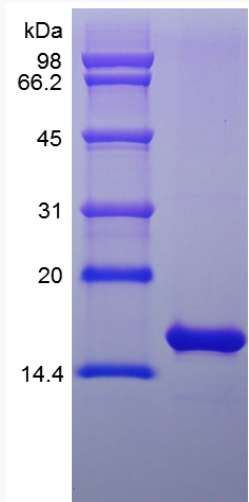
[Fgf2](#)

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<b>Synonyms</b>	FGF2; fibroblast growth factor 2; HBGF-2; basic fibroblast growth factor; heparin-binding growth factor 2; Fgfb; bFGF; Fgf-2;
<b>Gene ID</b>	54250
<b>mRNA Refseq</b>	NM_019305
<b>Protein Refseq</b>	NP_062178
<b>UniProt ID</b>	P13109

**SDS-PAGE**

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