

## Recombinant Human FGF2 protein

Cat. No. FGF2-590H Lot. No. (See product label)

### SPECIFICATION

**Product Overview** Recombinant Human FGF2 protein (Pro143-Ser288) carries no tag and was expressed in E.coli.

**Species** Human

**Source** E.coli

**ProteinLength** 146

#### Description

FGF basic is a member of the FGF family of at least 23 related mitogenic proteins which show 35-60% amino acid conservation. FGF acidic and basic, unlike the other members of the family, lack signal peptides and are apparently secreted by mechanisms other than the classical protein secretion pathway. FGF basic has been isolated from a number of sources, including neural tissue, pituitary, adrenal cortex, corpus luteum, and placenta. This factor contains four cysteine residues, but reduced FGF basic retains full biological activity, indicating that disulfide bonds are not required for this activity. bFGF is a critical component of human embryonic stem cell culture medium; the growth factor is necessary for the cells to remain in an undifferentiated state, although the mechanisms by which it does this are poorly defined. It has been demonstrated to induce gremlin expression which in turn is known to inhibit the induction of differentiation by bone morphogenetic proteins. It is necessary in mouse-feeder cell dependent culture systems, as well as in feeder and serum-free culture systems.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

<b>Form</b>	Lyophilized from 0.22 um filtered solution in PBS, pH7.4, 10% trehalose.
<b>Molecular Mass</b>	The protein has a calculated MW of 16.5 kDa. The protein migrates as 17 kDa under reducing (R) condition (SDS-PAGE).
<b>Endotoxin</b>	Less than 1.0 EU per ug by the LAL method.
<b>Purity</b>	>98% as determined by SDS-PAGE.
<b>Storage</b>	<p>For long term storage, the product should be stored at lyophilized state at -20 centigrade or lower.</p> <p>Please avoid repeated freeze-thaw cycles.</p> <p>This product is stable after storage at:</p> <ul style="list-style-type: none"> <li>-20 centigrade to -70 centigrade for 12 months in lyophilized state;</li> <li>-70 centigrade for 3 months under sterile conditions after reconstitution.</li> </ul>
<b>Reconstitution</b>	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.2 ug/ul. Centrifuge the vial at 4°C before opening to recover the entire contents.

## GENE INFORMATION

<b>Gene Name</b>	<b>FGF2</b>
<b>Official Symbol</b>	<b>FGF2</b>
<b>Synonyms</b>	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
<b>Gene ID</b>	<b>2247</b>

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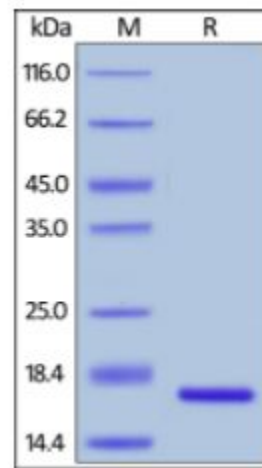
mRNA Refseq [NM\\_002006](#)

Protein Refseq [NP\\_001997](#)

MIM [134920](#)

UniProt ID [P09038](#)

**SDS-PAGE of FGF2-590H**



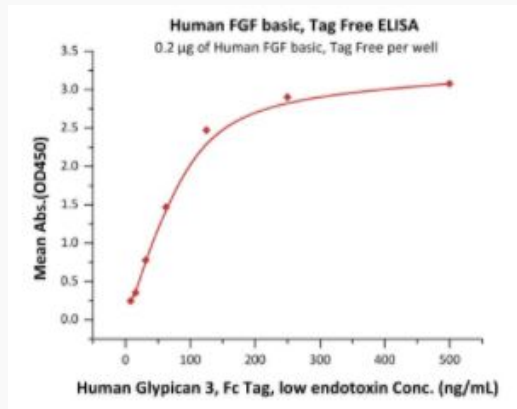
Human FGF basic, Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 98%.

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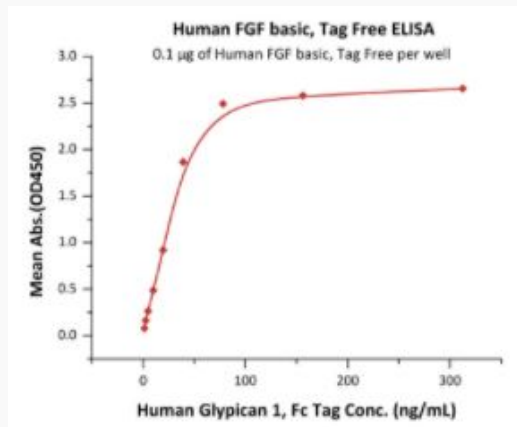
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**Bioactivity-ELISA of  
FGF2-590H**




Immobilized Human FGF basic, Tag Free at 2 µg/mL (100 µL/well) can bind Human Glypican 3, Fc Tag, low endotoxin with a linear range of 4-125 ng/mL (QC tested).


**Bioactivity-ELISA of  
FGF2-590H**

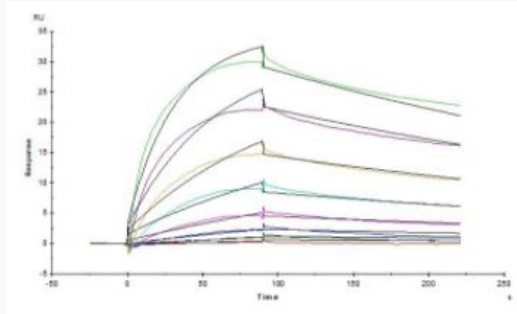


Immobilized Human FGF basic, Tag Free at 1 µg/mL (100 µL/well) can bind Human Glypican 1, Fc Tag with a linear range of 1-39 ng/mL (Routinely tested).

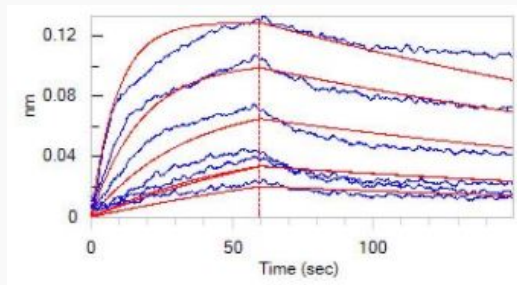
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**Bioactivity-SPR of  
FGF2-590H**


Immobilized Human FGF basic, Tag Free on CM5 Chip can bind Heparin with an affinity constant of 8.37 nM as determined in a SPR assay (Routinely tested).

**Bioactivity-BLI of  
FGF2-590H**

Loaded Biotinylated Heparin on SA Biosensor, can bind Human FGF basic, Tag Free with an affinity constant of 1.88 nM as determined in BLI assay (Routinely tested).

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