

RP01042

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# Active Recombinant Human FGF-2/bFGF Protein

Catalog No.: RP01042

Recombinant

1 Publications

## Sequence Information

Species	Gene ID	Swiss Prot
Human	2247	P09038-4

### Tags

No tag

### Synonyms

BFGF; FGF-2; FGFB;  
HBGF-2;FGF2;FGF-2;FGFB;HBGF-2;Basic  
FGF; BFGF; fibroblast growth factor 2

## Product Information

Source	Purification
<i>E. coli</i>	> 95% by SDS-PAGE.

### Endotoxin

< 1.0 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of 20mM Tris□150 mM NaCl,pH7.5.Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact



[www.abclonal.com](http://www.abclonal.com)

## Background

### Basic Information

#### Description

Active Recombinant Human FGF-2/bFGF Protein is produced by <i>E. coli</i> expression system. The target protein is expressed with sequence (Pro143-Ser288) of human FGF2 (Accession #NP\_001997.5).

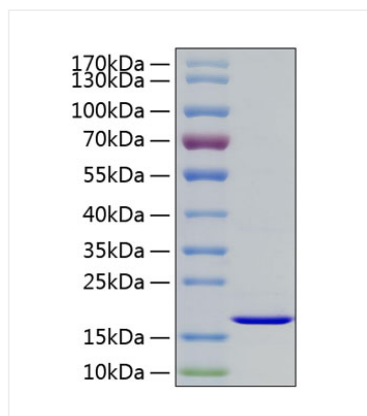
#### Bio-Activity

1.Measured by its binding ability in a functional ELISA. Immobilized Human FGF2 at 0.5 μg/mL (100 μL/well) can bind Human GPC3 with a linear range of 7-20 ng/mL.|2.Measured in a cell proliferation assay using BALB/c 3T3 mouse embryonic fibroblasts. The ED<sub>50</sub> for this effect is typically 0.635-2.54 ng/mL, corresponding to a specific activity of  $3.94 \times 10^{5-6}$  units/mg.|3.Recombinant Human VEGFA(40 ng/mL, Cat. RP01162) and bFGF(50 ng/mL) induce mesoderm cells to differentiate into hematopoietic stem and progenitor cells. After 4 days induction, pebbly-like CD43+ hematopoietic stem and progenitor cells appeared in the hematogenic endothelium.|4.The primary neural stem cells were cultured with 20 ng/mL bFGF and observed every 24 h. Results showed that the particle size of the suspended neural stem cells gradually increased.

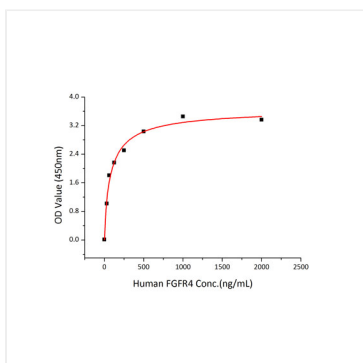
#### Storage

Store the lyophilized protein at -20°C to -80 °C for long term.<br>After reconstitution, the protein solution is stable at -20 °C for 3 months, at 2-8 °C for up to 1 week. Avoid repeated freeze/thaw cycles.

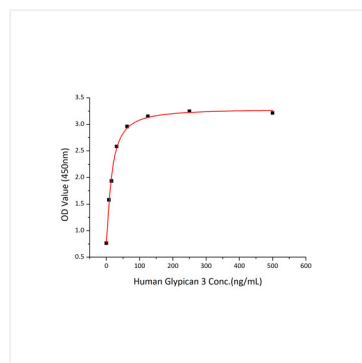
## Validation Data



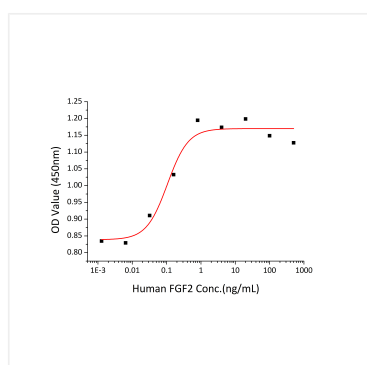
Recombinant Human FGF-2/bFGF Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 17 kDa.



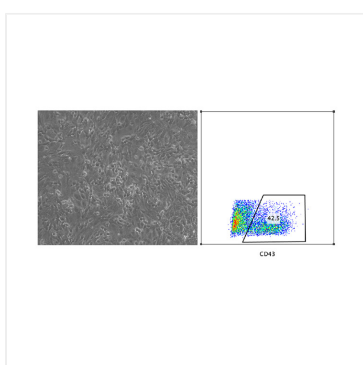
Immobilized recombinant human FGF2 at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind recombinant human FGFR4 with a linear range of 30-125 ng/mL.



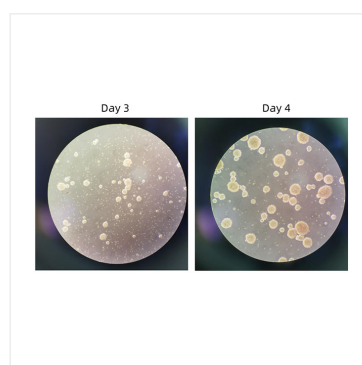
Immobilized Human FGF2 at 0.5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human GPC3 with a linear range of 7-20ng/mL.



Recombinant Human FGF-2 promotes the proliferation of Balb3T3 mouse embryonic fibroblasts cells. The  $ED_{50}$  for this effect is 0.05-0.21 ng/mL, corresponding to a specific activity of  $4.76 \times 10^6 \sim 2.00 \times 10^7$  units/mg.



Recombinant Human VEGFA(40 ng/mL, Cat. RP01162) and bFGF(50 ng/mL) induce mesoderm cells to differentiate into hematopoietic stem and progenitor cells. After 4 days induction, pebbly-like CD43+ hematopoietic stem and progenitor cells appeared in the hematogenic endothelium.(Customer feedback data)



Primary neural stem cells were cultured with a final concentration of 20 ng/mL FGF2, and as shown in the figure, the size of the suspended neural stem cells gradually increased.(Customer feedback data)