

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.

Calculated MW	Observed MW
16.41 kDa	17 kDa

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

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Background

Basic Information

Description

Recombinant Human FGF-2/bFGF Protein is produced by *E. coli* expression system. The target protein is expressed with sequence (Pro143-Ser288) of human FGF2 (Accession #NP_001997.5).

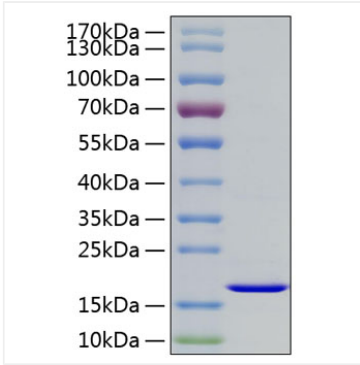
Bio-Activity

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 ED₅₀ for this effect is typically 0.635-2.54 ng/mL, corresponding to a specific activity of 3.94 × 10⁵~1.57 × 10⁶ 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.

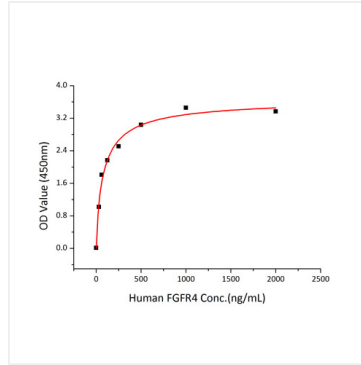
Storage

Store at -20°C.Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. 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.

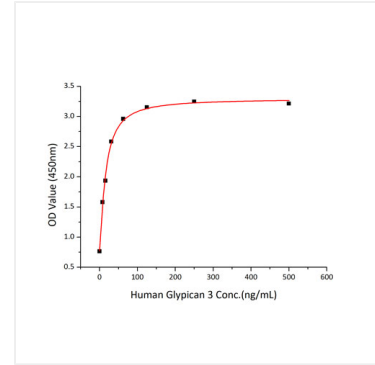
Validation Data



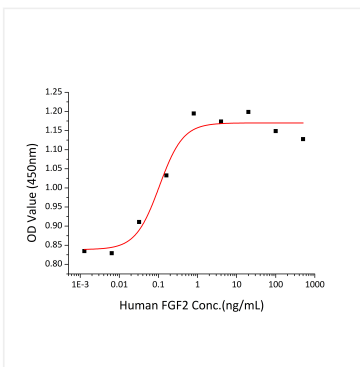
Recombinant Human FGF-2/bFGF Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 17 kDa.



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



Immobilized Human FGF2 at 0.5 $\mu\text{g/mL}$ (100 $\mu\text{L/well}$) 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.