

# Human bFGF / FGF2 Protein

Catalog Number: 10014-HNAE



Sino Biological  
Biological Solution Specialist

## General Information

### Gene Name Synonym:

BFGF, FGF-2, FGFB, HBGF-2

### Protein Construction:

A DNA sequence encoding the mature form of human bFGF (NP\_001997.5) (Pro143-Ser288) was expressed with an additional Met at the N-terminus.

**Source:** Human

**Expression Host:** E. coli

## QC Testing

**Purity:** ≥ 95 % as determined by SDS-PAGE

### Bio Activity:

1. iPSC-derived human vascular organoids (Day 7) were cultured with FGF2 (Cat#10014-HNAE), VEGFA (Cat# 11066-HNAH), EGF (Cat#10605-HNAE). Red arrows represent vascular organoids. Image taken at 10x magnification. (Routinely tested)

2. Measured in a cell proliferation assay using Balb/c 3T3 mouse embryonic fibroblasts. The ED50 for this effect is typically 0.01-0.1 ng/mL.

3. Human lung cancer organoids were cultured with FGF2 (Cat#10014-HNAE), FGF4 (Cat#16043-HNAE), FGF7 (Cat#10210-H07E), EGF (Cat#50482-MNCH), FGF10 (Cat#10573-HNAE), NOG (Cat#50688-M02H), RSP01 (Cat#11083-HNAS). (Routinely tested). Data provided by D1 Medical Technology.

4. Human lung organoids were cultured with FGF2 (Cat#10014-HNAE), FGF4 (Cat#16043-HNAE), FGF7 (Cat#10210-H07E), EGF (Cat#50482-MNCH), FGF10 (Cat#10573-HNAE), NOG (Cat#50688-M02H), RSP01 (Cat#11083-HNAS). (Routinely tested). Data provided by D1 Medical Technology.

5. Human cholangiocarcinomas organoids were cultured with FGF2 (Cat#10014-HNAE), HGF (Cat#10463-HNAS), FGF7 (Cat#10210-H07E), EGF (Cat#50482-MNCH), FGF10 (Cat#10573-HNAE), NOG (Cat#50688-M02H), RSP01 (Cat#11083-HNAS). (Routinely tested). Data provided by D1 Medical Technology.

6. Human liver cancer organoids were cultured with FGF2 (Cat#10014-HNAE), HGF (Cat#10463-HNAS), FGF7 (Cat#10210-H07E), EGF (Cat#50482-MNCH), FGF10 (Cat#10573-HNAE), TGFB1 (Cat#10804-HNAC), NOG (Cat#50688-M02H), RSP01 (Cat#11083-HNAS). (Routinely tested). Data provided by D1 Medical Technology.

7. Human kidney cancer organoids were cultured with FGF2 (Cat#10014-HNAE), FGF7 (Cat#10210-H07E), EGF (Cat#50482-MNCH), FGF10 (Cat#10573-HNAE), NOG (Cat#50688-M02H), RSP01 (Cat#11083-HNAS). (Routinely tested). Data provided by D1 Medical Technology.

### Endotoxin:

< 10 EU per mg protein.

**Predicted N terminal:** Met

### Molecular Mass:

The recombinant human bFGF consists of 147 amino acids and predicts a molecular mass of 16.5 kDa.

### Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

## Usage Guide

### Stability & Storage:

Samples are stable for twelve months from date of receipt at -20°C to -80°C.

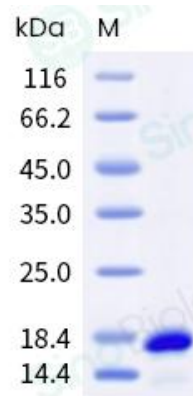
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

### Reconstitution:

Detailed reconstitution instructions are sent along with the products.

### SDS-PAGE:



## Protein Description

Basic fibroblast growth factor (bFGF), also known as FGF2, is a member of the fibroblast growth factor (FGF) family. It is a highly specific chemotactic and mitogenic factor for many cell types, appears to be involved in remodeling damaged tissue, such as ulcer healing, vascular repair, traumatic brain injury (TBI). bFGF is a critical component of human embryonic stem cell culture medium. In addition, bFGF protein is a heparin-binding cationic protein involved in a variety of pathological conditions including angiogenesis and solid tumour growth. Thus, bFGF is regarded as a target for cancers chemopreventive and therapeutic strategies. bFGF/FGF2 Protein & Antibody Products

### References

1. Takayama S, et al. (2001) Periodontal regeneration by FGF-2 (bFGF) in primate models. J Dent Res. 80(12): 2075-9.
2. Niu YJ, et al. (2004) Therapeutic effect of bFGF on retina ischemia-reperfusion injury. Chin Med J (Engl). 117(2): 252-7.
3. Zhang Y, et al. (2004) Expression of aFGF, bFGF, and FGFR1 in ovarian epithelial neoplasm. Chin Med J (Engl). 117(4): 601-3.