

# Recombinant Human FGF2

Catalog Number: 913-FG2



**OrganRegen, INC.**

*Creating Solutions for Organoid Cultures*

## DESCRIPTION

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### Background:

Basic fibroblast growth factor (bFGF), also known as FGF2, is a member of the FGF superfamily of mitogenic proteins which show 35-60% amino acid conservation [1]. FGF acidic and basic are unique from other members of the family in that they lack classical secretory signal peptides. 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 [2]. FGF basic may play a role in vivo in the modulation of such normal processes as angiogenesis, wound healing and tissue repair, embryonic development and differentiation, and neuronal function and neural degeneration. Additionally, FGF basic may also participate in the development of several pathological conditions resulting from excessive cell proliferation and/or angiogenesis [3]. BFGF is a critical component of human embryonic stem cell culture medium [4].

### Source:

*E.coli*

### Protein Construction:

A DNA sequence encoding the amino acids (Pro143-Ser288) of human FGF-2 (Accession Number: P48798) was expressed.

### Synonyms:

Basic fibroblast growth factor; bFGF; FGF basic; FGF-2.

## SPECIFICATIONS

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### Purity:

≥ 97%, by SDS-PAGE visualized with quantitative densitometry by Coomassie® Blue Staining.

### Biological Activity:

Measured in CellTiter-Glo 3D Cell Viability Assay using human bronchoalveolar organoids. The ED50 for this effect is 10-50 ng/ml.

### Endotoxin Level:

<0.10 EU per 1 µg of the protein by the LAL method

### Calculated Molecular Weight:

16.5 kDa

### SDS-PAGE:

18 kDa, reducing conditions

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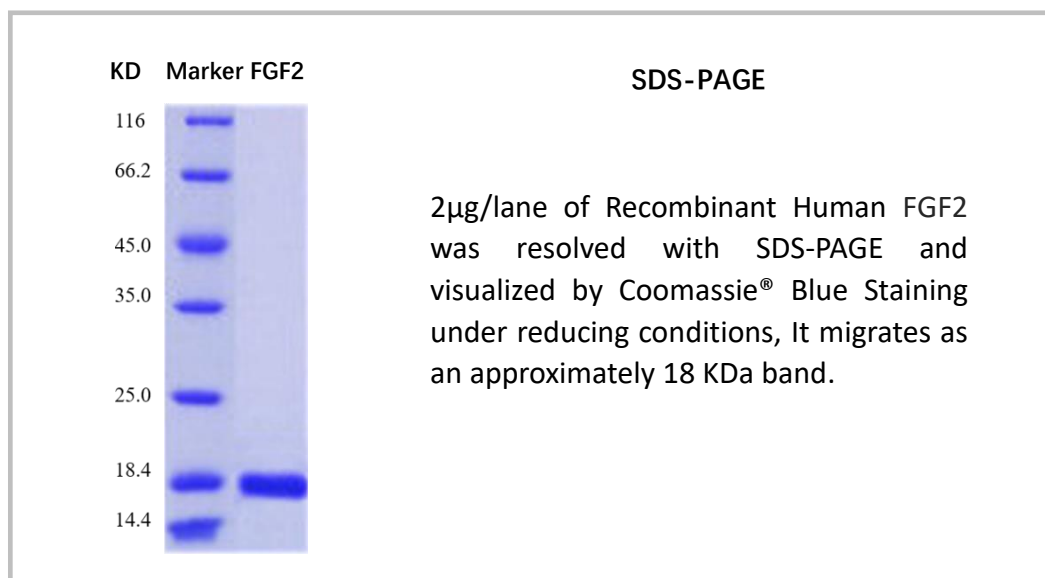


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## DATA

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## FORMULATION AND STORAGE

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### Formulation:

The product is Lyophilized from a 0.22  $\mu$ m filtered solution in PBS.

### Shipping:

The product is shipped on ice. Upon receipt, store it immediately as methods recommended below.

### Reconstitution:

Reconstitute in sterile PBS buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL.

### Stability & Storage:

24 months, -20 to -70 °C, under powder state;

12 months, -20 to -70 °C, under sterile conditions after reconstitution;

2 month, 2 to 8 °C under sterile conditions after reconstitution;

avoid repeated freeze-thaw cycles.

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### References:

1. Takayama, S., et al., Periodontal regeneration by FGF-2 (bFGF) in primate models. Journal of dental research, 2001. 80(12): p. 2075-9.
2. Penaultllorca, F., et al., Expression of variant forms of fibroblast growth factor receptor 2 mRNA in human breast carcinomas. International journal of oncology, 1997. 10(6): p. 1191-6.
3. Niu, Y., et al., Therapeutic effect of bFGF on retina ischemia-reperfusion injury. Chinese medical journal, 2004. 117(2): p. 252-7.
4. Zhang, Y., et al., Expression of aFGF, bFGF, and FGFR1 in ovarian epithelial neoplasm. Chinese medical journal, 2004. 117(4): p. 601-3.