

# Recombinant Human FGF10

Catalog Number: 816-FGF



**OrganRegen, INC.**

*Creating Solutions for Organoid Cultures*

## DESCRIPTION

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### Background:

FGF-10 belongs to the subgroup of FGFs that also includes FGF-3, -7, and -22. FGF-10 is secreted by mesenchymal cells and associates with extracellular FGF-BP. It preferentially binds and activates epithelial cell FGF R2 (IIIb) and interacts more weakly with FGF R1 (IIIb) [1]. The expression and function of FGF-10 are negatively regulated by Shh and BMP-4 in the developing lung [2, 3]. Overlapping expression patterns and activities with FGF-3, -7, and -8 suggest at least a partial redundancy in FGF-10 biology. FGF-10 induced signaling through FGF R2 (IIIb) also contributes to the progression of pancreatic cancer [4].

### Source:

*E.coli*

### Protein Construction:

A DNA sequence encoding the amino acids (Gln38-Ser208) of human FGF10 (Accession Number: O15520) was expressed.

### Synonyms:

Fibroblast growth factor 10; Keratinocyte growth factor 2; KGF2; KGF-2.

## SPECIFICATIONS

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### Purity:

≥ 95%, by SDS-PAGE visualized with quantitative densitometry by Coomassie® Blue Staining.

### Biological Activity:

Measured in a cell proliferation assay using human liver ductal organoids. The ED50 for this effect is 20-100 ng/ml.

### Endotoxin Level:

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

### Calculated Molecular Weight:

19.5 kDa

### SDS-PAGE:

25 kDa, reducing conditions

# Recombinant Human FGF10

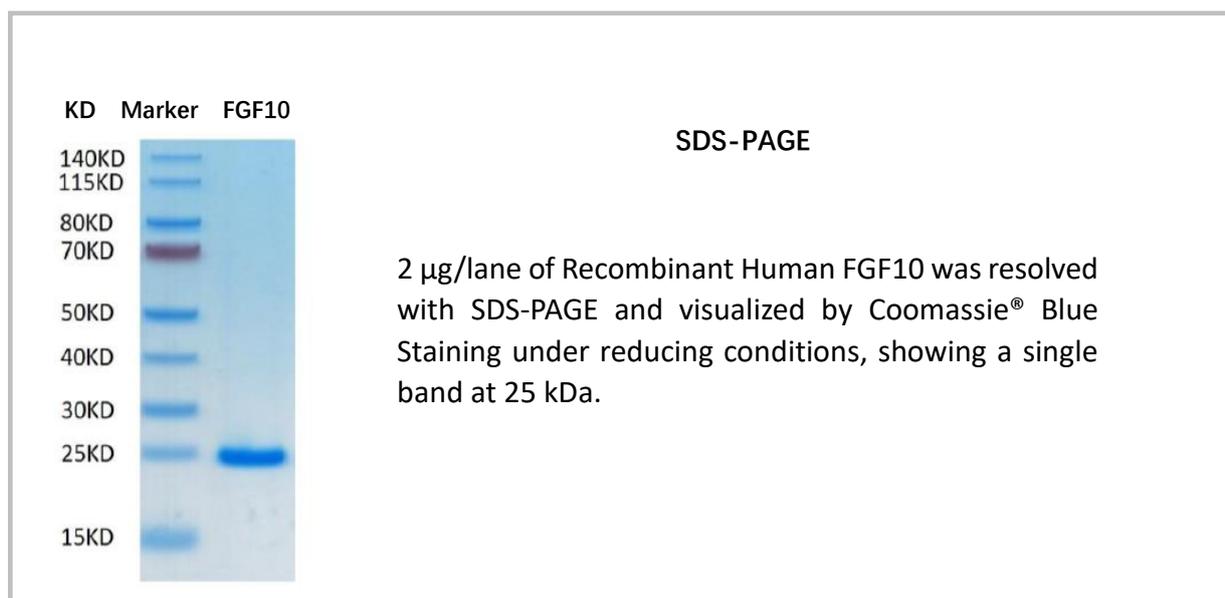
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## DATA



## FORMULATION AND STORAGE

### 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.

### References:

1. Zhang, X., et al., Receptor specificity of the fibroblast growth factor family. The complete mammalian FGF family. *J Biol Chem*, 2006. **281**(23): p. 15694-700.
2. Bellusci, S., et al., Fibroblast growth factor 10 (FGF10) and branching morphogenesis in the embryonic mouse lung. *Development*, 1997. **124**(23): p. 4867-78.
3. Weaver, M., N.R. Dunn, and B.L. Hogan, Bmp4 and Fgf10 play opposing roles during lung bud morphogenesis. *Development*, 2000. **127**(12): p. 2695-704.
4. Nomura, S., et al., FGF10/FGFR2 signal induces cell migration and invasion in pancreatic cancer. *Br J Cancer*, 2008. **99**(2): p. 305-13.