

# Recombinant human FGF-8b protein

Catalog Number: ATGP4097

## PRODUCT INFORMATION

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### Expression system

HEK293

### Domain

23-215aa

### UniProt No.

P55075

### NCBI Accession No.

NP\_006110.1

### Alternative Names

FGF8, AIGF, Androgen-induced growth factor, FGF-8, HBGF-8, Heparin-binding growth factor 8, HH6, KAL6, fibroblast growth factor 8, fibroblast growth factor 8 isoform B

## PRODUCT SPECIFICATION

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### Molecular Weight

23.7kDa (204aa)

### Concentration

0.25 mg/ml (determined by Absorbance at 280nm)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol.

### Purity

> 90% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Biological Activity

Measured in a cell proliferation assay using Balb/3T3 mouse embryonic fibroblast cells in the presence of 10 ug/ml of heparin. The ED50 range  $\leq$  5 ug/ml.

### Tag

His-Tag

### Application

SDS-PAGE, Bioactivity

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### Description

FGF-8b, also known as Fibroblast growth factor 8 isoform B, is a member of the fibroblast growth factor (FGF) family that plays a central role during prenatal development, postnatal growth and regeneration of a variety of tissues, by promoting cellular proliferation and differentiation. There are 4 known alternate spliced forms of FGF-8; FGF-8a, FGF-8b, FGF-8e and FGF-8f. FGF-8 is widely expressed during embryogenesis, and mediates epithelial-mesenchymal transitions. It encodes a key signaling factor, and its precise regulation is essential for embryo patterning. FGF-8b shows the strongest receptor affinity and oncogenic transforming capacity. FGF-8 signaling from the apical ectodermal ridge (AER), which borders the distal end of the limb bud, is necessary for forming normal limbs. FGF-8 is responsible for cell proliferation and survival, as well. The ability for FGF-8 to regulate cell proliferation has caused interest in its effects on tumors or squamous cell carcinoma. Recombinant human FGF-8b, fused to His-tag at C-terminus, was expressed in HEK293 cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

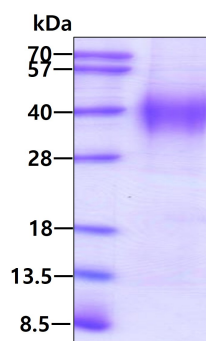
<DGSHM>QVTVQ SSPNFTQHVR EQSLVTDQLS RRLIRTYQLY SRTSGKHVQV LANKRINAMA EDGDPFAKLI  
VETDTFGSRV RVRGAETGLY ICMNKKGKLI AKSNGKGDVC VFTEIVLENN YTALQNAKYE GWYMAFTRKG RPRKGSKTRQ  
HQREVFHMKR LPRGHHTTEQ SLRFEFLNYP PFTRSLRGSQ RTWAPEPR<HH HHHH>

### General References

- Tanaka, A. et al. (1992) Proc. Natl. Acad. Sci. USA 89:8928-8932.
- Ornitz DM, et al. (1996). The Journal of Biological Chemistry. 271: 15292-15297.
- Crossley, P.H. et al. (1996) Cell, 84:127-136.
- Estienne A, et al.(2018) Reproduction. 155:53-62.

## DATA

### SDS-PAGE

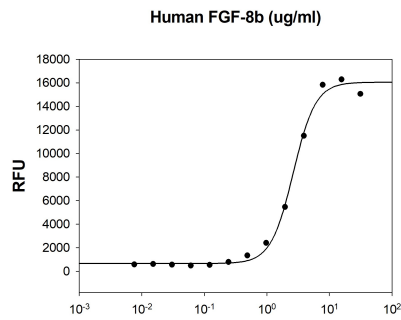


3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

### Biological Activity

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Human FGF-8b stimulates cell proliferation of the Balb/3T3 mouse embryonic fibroblast cells in the presence of 10 ug/ml of heparin. The ED50 range  $\leq$  to 5 ug/ml.