



**LD Biopharma, Inc.**  
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<http://www.ldbiopharma.com>

## - PRODUCT DATA SHEET -

**Name of Product:** Recombinant Human FGF18 Protein  
**Catalog Number:** hRP-1236  
**Manufacturer:** LD Biopharma, Inc.

### Introduction

The protein encoded by this gene is a member of the fibroblast growth factor (FGF) family. FGF family members possess broad mitogenic and cell survival activities, and are involved in a variety of biological processes, including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth, and invasion. It has been shown in vitro that this protein is able to induce neurite outgrowth in PC12 cells. Studies of the similar proteins in mouse and chick suggested that this protein is a pleiotropic growth factor that stimulates proliferation in a number of tissues, most notably the liver and small intestine. Knockout studies of the similar gene in mice implied the role of this protein in regulating proliferation and differentiation of midline cerebellar structures.

Full-length mature form of human FGF18 cDNA (28 – 207 aa) was constructed with codon optimization and expressed with a small T7-His-TEV cleavage site Tag (29aa) fusion at its N-terminal. This protein is expressed in E.coli as inclusion bodies. The final product was refolded using our unique “temperature shift inclusion body refolding” technology and chromatographically purified.

**Gene Symbol:** FGF18 (ZFGF5)  
**Accession Number:** NP\_003853  
**Species:** Human  
**Size:** 25 µg / Vial  
**Composition:** 0.4 mg/ml, sterile-filtered, in 20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, arginine, DTT and Sucrose.  
**Storage:** In Liquid. Keep at -80°C for long term storage. Product is stable at 4 °C for at least 30 days.



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## Key References

Chuang,C.Y., et al., *Heparan sulfate-dependent signaling of fibroblast growth factor 18 by chondrocyte-derived perlecan*. *Biochemistry* 49 (26), 5524-5532 (2010)

Yamaoka,H., et al., *Involvement of fibroblast growth factor 18 in dedifferentiation of cultured human chondrocytes*. *Cell Prolif.* 43 (1), 67-76 (2010)

Gaughofer,C., et al., *Up-regulation of the fibroblast growth factor 8 subfamily in human hepatocellular carcinoma for cell survival and neoangiogenesis*. *Hepatology* 53 (3), 854-864 (2011)

## Applications

1. May be used for in vitro FGF18 protein mediated chondrocytes differentiation regulation study with this protein as either coating matrix protein or as soluble factor.
2. May be used for FGF18 protein – protein interaction assay.
3. May be used for specific antibody production.

## Quality Control

Purity: > 90% by SDS-PAGE.

## Recombinant Protein Sequence

MASMTGGQQMGRGHHHHHENLYFQGEENVDFRIHVENQTRARDDVSRKQLRLYQLYSRTSGKH  
IQVLGRRISARGEDGDKYAQLLVETDTFGSQVRIKGGKETEFLCMNRKGLVGPDPGTSKECVF  
IEKVLNNYTALMSAKYSGWYVGF'TKKGRPRKGPKTRENQQDVHFMKRYPKGQPELQKPFKYTT  
VTKRSRRIRPHTPA