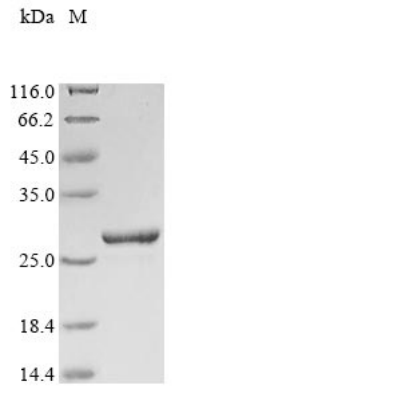
Recombinant Human Fibroblast growth factor 18 (FGF18)

Product Code	CSB-EP008623HU
Abbreviation	Recombinant Human FGF18 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	O76093
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	EENVDFRIHVENQTRARDDVSRKQLRLYQLYSRTSGKHIQVLGRRISARGEDG DKYAQLLVETDTFGSQVRIKGKETEFYLCMNRKGKLVGKPDGTSKECVFIEKV LENNYTALMSAKYSGWYVGFTKKGRPRKGPKTRENQQDVHFMKRYPKGQPE LQKPFKYTTVTKRSRRIRPTHPA
Research Area	Signal Transduction
Source	E.coli
Target Names	FGF18
Expression Region	28-207aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	25.1 kDa
Protein Length	Full Length of Mature Protein
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

CUSABIO transfected the expression vector which inserted the recombinant DNA into the E.coli, cultured the cells, and then induced the transcription and translation of the cloned vector. The N-terminal 6xHis tag sequence was appended to the gene coding for the E.coli of the human FGF18 protein to form the recombinant DNA. The recombinant human FGF18 was expressed as N-terminal 6xHis-tagged fusion. The purity of the protein is greater than 90% assayed by SDS-PAGE. It has an apparent molecular weight of approximately 28 kDa.

Fibroblast growth factor-18 (Fgf18) was the extracellular and secreted factor that decreased glycosaminoglycan release and depletion from the cartilage, and enhanced proliferation of articular chondrocytes. In fact, endogenous Fgf18 is known to play an important role in skeletal growth and development because mice lacking Fgf18 exhibit several malformations such as delayed closure of the calvarial sutures, enlargement of the growth plate, and impairment of osteogenic differentiation. Fgf18 has been reported to have anabolic effects on chondrocytes in other cartilaginous tissues like auricular cartilage, bronchial cartilage, and costal cartilage in animal models. These effects seem to be because of the direct action on mature chondrocytes rather than on the progenitor cells. Fgf18 is generally known to activate the IIIc splice variants of FgfR2 and FgfR3, and both of these receptors are known to be expressed in chondrocytes of human and murine articular cartilage.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

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