



# Recombinant Human Fibroblast Growth Factor-10

20140819BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no:</b>	<b>100-022</b>
<b>Size:</b>	25 µg
<b>Lot. No.:</b>	According to product label
<b>Country of origin:</b>	Germany

## Scientific Background

<b>Gene:</b>	fgf10
<b>Synonyms:</b>	Keratinocyte growth factor 2, FGFA

FGF-10 is a heparin binding growth factor that belongs to the FGF family. Proteins of this family play a central role during prenatal development and postnatal growth and regeneration of a variety of tissues, by promoting cellular proliferation and differentiation. FGF-10 is most related to KGF/FGF-7 and is expressed during the development and preferentially in adult lungs. It signals through the FGFR 2b. Recombinant human FGF-10 is a 19.3 kDa protein consisting of 170 amino acid residues.

## Sequence

```
MLGQDMVSPE ATNSSSSSFS SPSSAGRHVR SYNHLQGDVR  
WRKLFSTKY FLKIEKNGKV SGTKKENCPY SILEITSVEI  
GVVAVKAINS NYYLAMNKKG KLYGSKEFNN DCKLKERIEE  
NGYNTYASFN WQHNGRQMYV ALNGKGAPRR GQKTRRKNTS  
AHFLPMVVHS
```

## Database References

<b>Protein RefSeq:</b>	NP_004456.1
<b>Uniprot ID:</b>	O15520
<b>mRNA RefSeq:</b>	NM_004465

## Product Specifications

<b>Expressed in</b>	E.coli
<b>Purity</b>	> 95% by SDS-PAGE & silver stain
<b>Buffer</b>	0.5X PBS
<b>Stabilizer</b>	None
<b>Formulation</b>	lyophilized
<b>Length (aa):</b>	170
<b>MW:</b>	19.3 kDa
<b>Result by N-terminal sequencing</b>	MLGQDM

**Stability:** Lyophilized samples are stable for greater than six months at -20°C to -70°C.

**Reconstitution:** The lyophilized FGF-10 should be reconstituted in water to a concentration not lower than 50 µg/ml. For long term storage we would recommend to add at least 0.1% human or bovine serum albumin.



**AVOID REPEATED FREEZE AND THAW CYCLES!**

## References

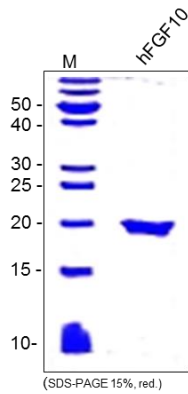
1. Ohta H et al, *Endocr Metab Immune Disord Drug Targets* 2011;11(4):302-9
2. Krejci P et al, *Hum Mutation* 2009; 30(9):1245-55
3. Chung SS and Koh CJ; *In Vitro Cell Dev Biol Anim* 2013; 49(10):746-51
4. Volckaert T et al, *Development* 2013; 140(18):3731-42
5. Wells KL et al, *Biol Open* 2013; 2(10):981-9
6. Liu F et al, *Development* 2013; 140(5):1111-22
7. Volckaert T et al, *PLoS One*. 2013; 8(8):e71426
7. Gasperin BG et al, *Reproduction* 2012; 143(6):815-23
8. El Agha E et al, *PLoS One*. 2012; 7(6):e38452

**Biological Activity:** The biological activity was determined by the FGF-10-induced proliferation of 4MBr-5 cells.

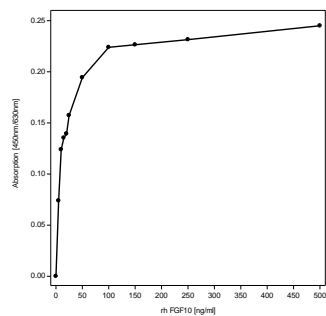


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## Handling/Application



**Fig. 1:** SDS-PAGE analysis of recombinant human FGF-10. Samples was loaded in 15% SDS-polyacrylamide gel under reducing condition and stained with Coomassie blue.



**Figure 2.** FGF10-induced proliferation of 4MBr-5 rhesus monkey epithelial cell. (Rubin, J.S. et al., Proc. Natl. Acad. Sci. USA 86:802, 1989). The ED<sub>50</sub> for this effect is typically 10-100 ng/mL.