

# PRODUCT INFORMATION



## FGF10 (human, recombinant)

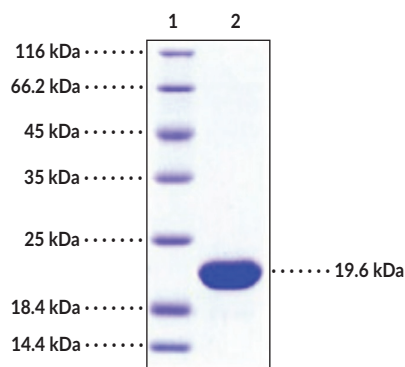
Item No. 32056

### Overview and Properties

**Synonyms:** Fibroblast Growth Factor 10, Keratinocyte Growth Factor 2, KGF2  
**Source:** Recombinant human FGF10 expressed in *E. coli*  
**Amino Acids:** 38-208  
**Uniprot No.:** O15520  
**Molecular Weight:** 19.6 kDa  
**Storage:** -80°C (as supplied)  
**Stability:** ≥1 year  
**Purity:** ≥98% estimated by SDS-PAGE  
**Supplied in:** Lyophilized from sterile PBS, pH 7.4, with 5% trehalose, 5% mannitol, and 0.01% Tween 80  
**Endotoxin Testing:** <5.0 EU/mg

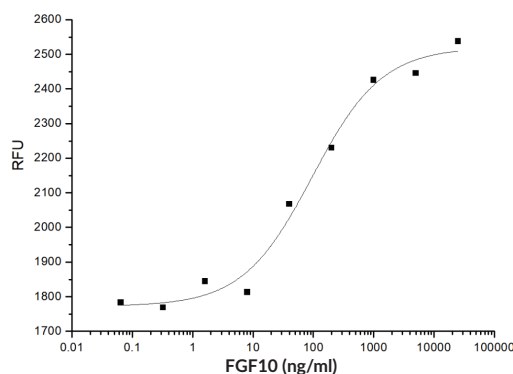
Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Images



Lane 1: MW Markers  
Lane 2: FGF10

SDS-PAGE Analysis of FGF10. This protein has a calculated molecular weight of 19.6 kDa.



Measured in a cell proliferation assay using 4MBr-5 rhesus monkey epithelial cells. The ED<sub>50</sub> for this effect is 20-120 ng/ml.

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

**WARRANTY AND LIMITATION OF REMEDY**  
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/08/2023

### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
PHONE: [800] 364-9897  
[734] 971-3335  
FAX: [734] 971-3640  
CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM

# PRODUCT INFORMATION



## Description

Fibroblast growth factor 10 (FGF10) is a member of the paracrine subfamily of FGFs that mediates mesenchymal to epithelial signaling.<sup>1</sup> It is a secreted protein that contains a typical N-terminal signal sequence and is expressed exclusively in the mesenchyme. FGF10 binds to FGF receptor 2b (FGFR2B) in the epithelium, either alone or in a ternary complex with heparan sulfate, to induce intracellular signaling. FGF10 is essential to organ development and *Fgf10* knockout mice exhibit limb, lung, thyroid, anterior pituitary, and salivary gland agenesis, as well as tooth, hair follicle, inner ear, thymic, pancreatic, and glandular stomach dysgenesis. Inherited heterozygous loss-of-function mutations in *FGF10* cause aplasia of lacrimal and salivary glands (ALSG), Lacrimo-auriculo-dento-digital (LADD) syndrome, and chronic obstructive pulmonary disease (COPD) in humans. SNPs in *FGF10* are highly associated with cleft lip and/or palate and extreme myopia, or near-sightedness, in humans.<sup>2</sup> *FGF10* is overexpressed in some human breast carcinomas and FGF10 induces migration and metastasis of prostate cancer cells *in vitro*.<sup>1,3</sup> Cayman's FGF10 (human, recombinant) protein consists of 172 amino acids and has a calculated molecular weight of 19.6 kDa.

## References

1. Ito, N. FGF10: A multifunctional mesenchymal-epithelial signaling growth factor in development, health, and disease. *Cytokine Growth Factor Rev.* **28**, 63-69 (2016).
2. Prochazkova, M., Prochazka, J., Marangoni, P., et al. Bones, glands, ears and more: The multiple roles of FGF10 in craniofacial development. *Front. Genet.* **9**, 542 (2018).
3. Watson, J. and Francavilla, C. Regulation of FGF10 signaling in development and disease. *Front. Genet.* **9**, 500 (2018).

CAYMAN CHEMICAL  
1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA  
PHONE: [800] 364-9897  
[734] 971-3335  
FAX: [734] 971-3640  
CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM