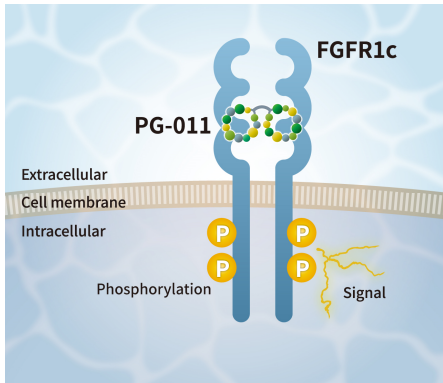


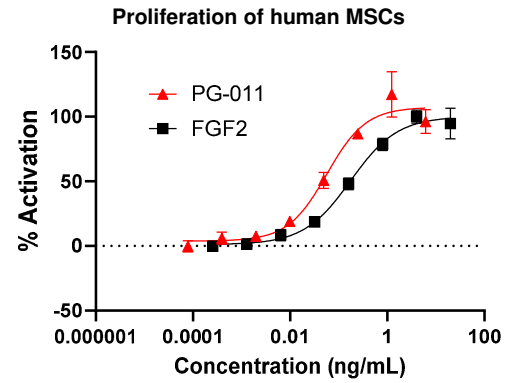
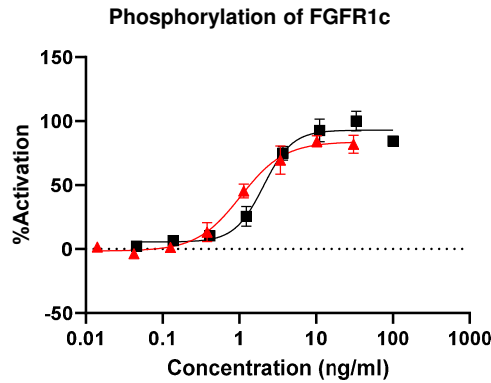
## PG-011:FGF2 Alternative Peptide (FGFR1c agonist)

### Product Information

#### Mode of Action



#### Activity Evaluation Data

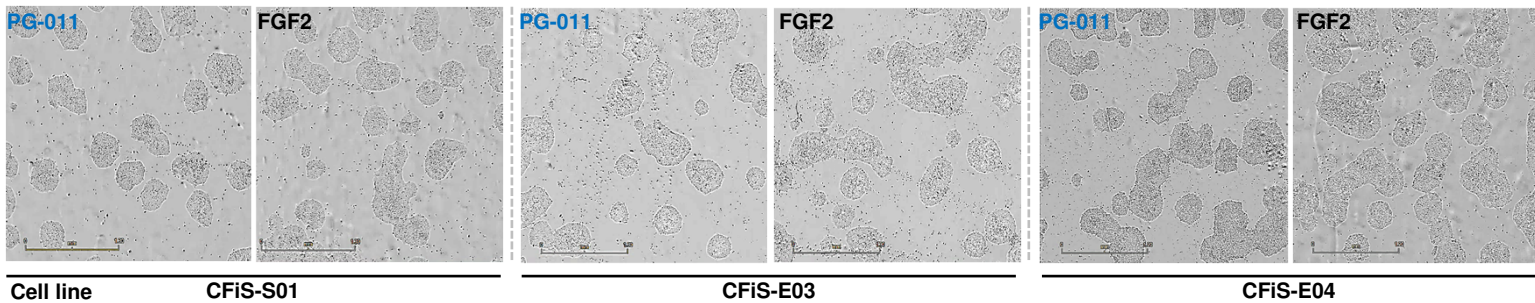


- FGF2 alternative peptide (PG-011) is a dimeric peptide composed of cyclic peptides that bind to human FGFR1c. PG-011 exhibits agonist activity toward FGFR1c by binding to it, thereby activating signaling pathways in various types of cells.
- PG-011 demonstrated comparable FGFR1c phosphorylation activity.
- PG-011 induced proliferation of human MSCs to FGF2 at approximately **1/3 of the conc.**

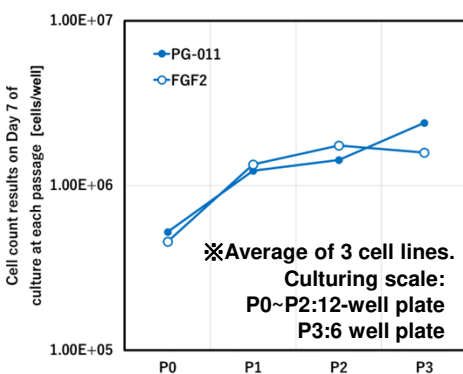
#### Undifferentiated Maintenance Ability of Human iPSCs

The undifferentiated maintenance ability of PG-011 and FGF2 in human iPSCs was evaluated. FGF2 (100 ng/mL, ~5.9 nM) or PG-011 (5.9 nM, 30 ng/mL) was added to the culture medium. After 7 days of culturing, passaging was performed. Three passages were conducted, and the positive rate of undifferentiated markers in iPSCs on Day 7 of Passage 3 (P3) was assessed.

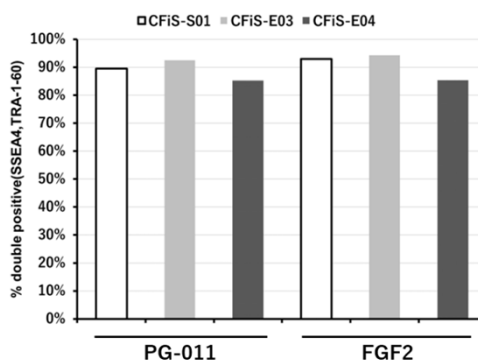
##### Morphologies of iPSCs at P3



##### Cell numbers at each passage



##### Undifferentiated marker measurements



- iPSCs cultured with PG-011 and FGF2 exhibited similar colony morphology.
- Cell numbers at each passage were similar, confirming that **PG-011 has comparable proliferation capability to FGF2.**
- iPSCs cultured with **PG-011 showed comparable levels of undifferentiated marker positivity** on Day 7 of Passage 3 to those cultured with FGF2.

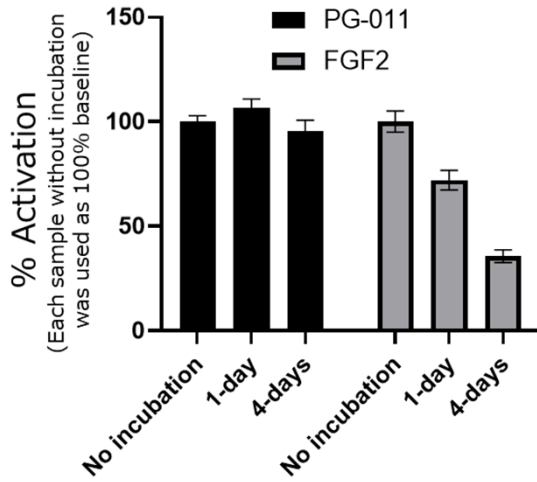
These data were obtained by Dr. Tsukahara and Dr. Ueda at CiRA Foundation, Kyoto University.

## Stability at 37°C and During Cell Culturing Conditions

### 1) Stability at 37°C

#### Procedure

1. Incubate FGF2 or PG-011 in medium at 37°C for 1 or 4 days
2. After incubation, measure the activity on MSC proliferation.

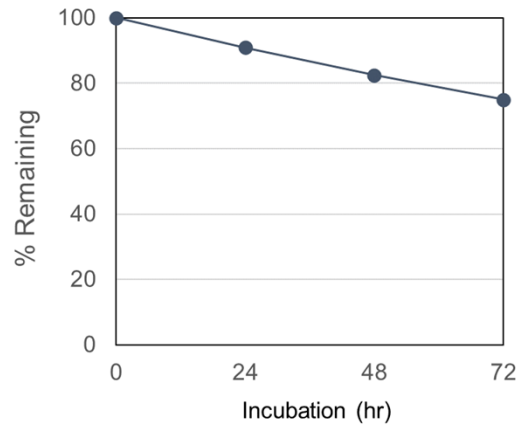


- While FGF2 showed a decrease in activity with increased incubation time at 37°C, **PG-011 maintained its activity**.  
→ Confirming that **PG-011 has superior stability compared to recombinant FGF2**.
- PG-011 **retained nearly 80% of its activity after 3 days of incubation at 37°C in the presence of HULEC cells**  
→ Demonstrating its high stability under actual culturing conditions.

### 2) Stability during cell culturing.

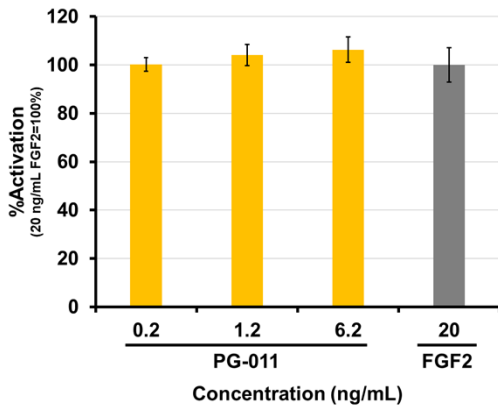
#### Procedure

1. The PG-011 was incubated with HULEC cells at 37°C.
2. The concentration of PG-011 in the media was measured at 24, 48 and 72 hours.



## Cross-Reactivity with Bovine Cells

FGF2 is a growth factor with high demand in the cultivated meat industry. To evaluate the cross-reactivity of PG-011 beyond human cells, we assessed its proliferation activity in bovine muscle satellite cells.



- PG-011 exhibited **proliferation activity in bovine muscle satellite cells**.  
→ Suggesting **its potential utility in cultivated meat applications**.

## Product Overview

Formulation	: Lyophilized
Storage Condition	: -20°C
Purity	: ≥95% (HPLC)
Molecular Weight	: 5127.81 (acetate)
Product Size	: 10 µg/vial (sample only), 50 µg/vial

## Free Sample Request Form

**Free Samples Available!**

We offer free samples of all our products for testing. Please access the sample request form by scanning the QR code on the right.



## Contact Information

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