

## **Rejuvenating Effect**

## from Stem Cell

## **Effects**

- By showing strong antioxidant activity, it protects the skin against oxidative damage and helps to repair the damage.
- Promotes cellular regeneration by stimulating fibroblast proliferation.
- Stimulates new collagen synthesis and reduces wrinkles.
- Balances the skin moisture level.

## Origin

Developed from Persea americana (Avocado) stem cells using ProliCell® Technology.





## What is ProliCell® Technology?

ProliCell® Technology enables to benefit the effects of plant stem cells and small RNAs in their vesicles.



ProliCell® AvocStem contains enriched stem cell components and stem cell specific exogenous small RNAs thanks to the elicitor application.

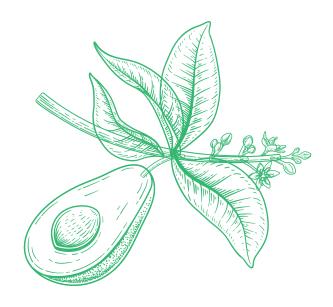
### What is the effect of small RNA?

Small RNAs, including miRNA are non-coding RNA fragments, which regulate the post-transcriptional silencing of target genes. Plant small RNAs may exert similar functions in both human and plant. This provides exogenous plant small RNAs to play a key role on the physiological function of the human body, including the skin.

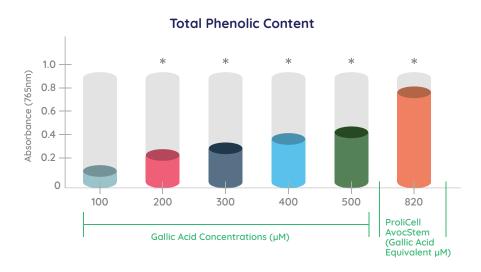
# **Activity Tests**

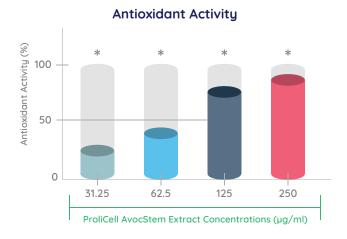
## **Chemical Activity Tests**

Total phenolic content of ProliCell AvocStem was determined by Folin Ciocalteu Method and antioxidant activity was determined by DPPH Radical Scavenging Activity Method.



## Folin Ciocalteu Method and DPPH Radical Scavenging Activity Method





ProliCell AvocStem has a high phenolic content and high antioxidant activity.

## **Activity Tests**

#### In vitro Tests

**Cell line:** Human normal fibroblast cell **Test Ingredient:** 100 ve 200 µg/ml ProliCell

AvocStem extract

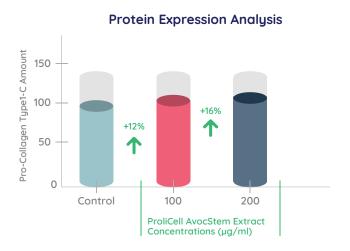
Parameter: Analysis of expression of HMOX1,

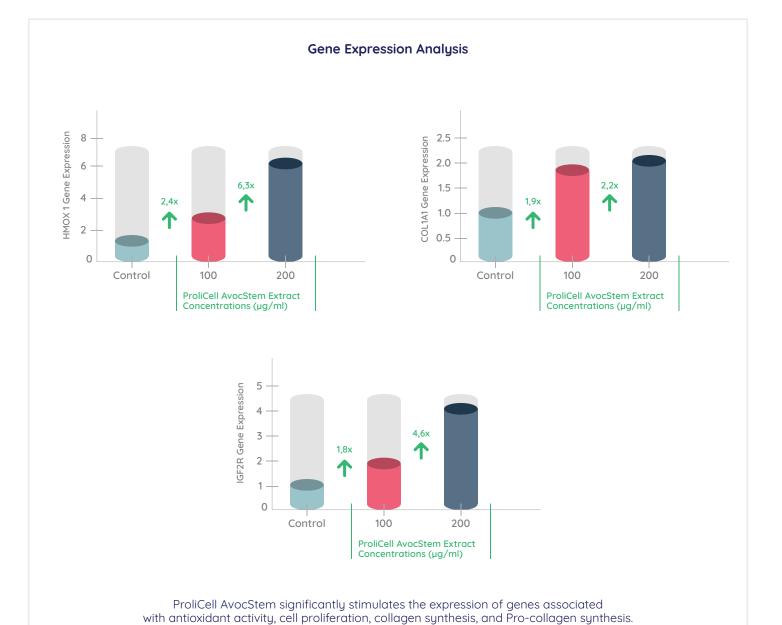
COL1A1 and IGF2R genes by RT-qPCR,

Determination of Pro-Collagen expression by

ELISA method

For gene and protein expression analysis, fibroblast cells were incubated with ProliCell AvocStem extract concentrations for 24 hours.







## **Effect Mechanism**

- Anti-aging.
- High antioxidant activity.
- Protective against oxidative stress.
- Stimulates collagen synthesis.



#### **Cosmetic Uses**

• Anti-aging Products (Face and Skin Care Products)

• Antioxidant Products (Face and Skin Care Products)



INCI name: Glycerin, Persea Gratissima

Callus Powder, Xanthan Gum.

Usage rate: 2-5%

Solubility: Water-soluble

**Preservative:** Without preservatives DODOO

**pH:** 4.0-7.0

#### **Features**

Origin: Herbal

Appearance: Viscous cell lysate suspension

Color: Dark Brown

Fragrance: Characteristic

Usage: Add below 40°C in cold-hot

processes.



















