



AVOCSTEM

Rejuvenating Effect
from Stem Cell



Antioxidant
Anti-Aging
Rejuvenating

ACTV
BIOTECH

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 ProlCell® Technology.



Patent Pending



What is ProlCell® Technology?

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

Effect Mechanism

ProlCell® 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.



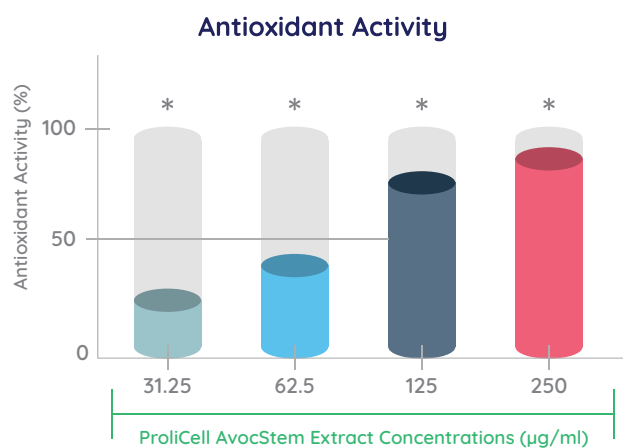
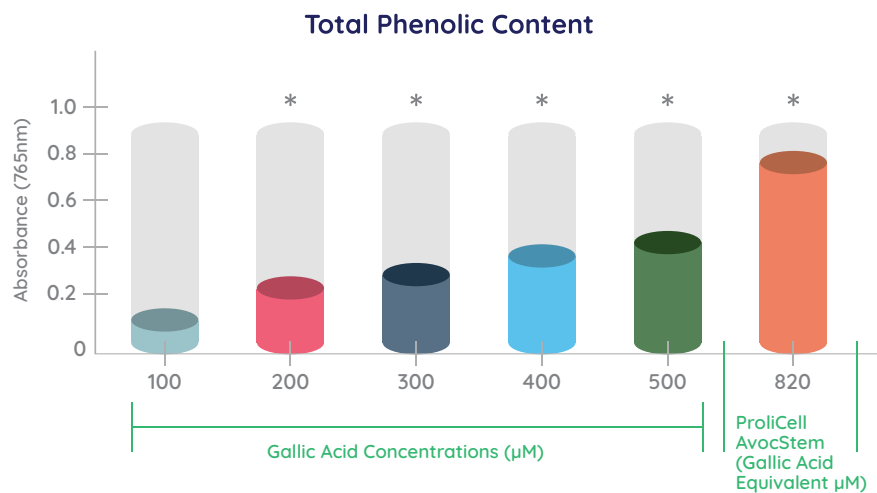
Activity Tests

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

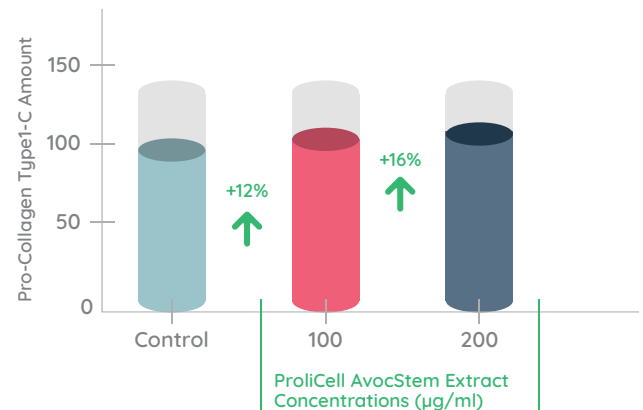
Cell line: Human normal fibroblast cell

Test Ingredient: 100 ve 200 µg/ml ProliCell AvocStem extract

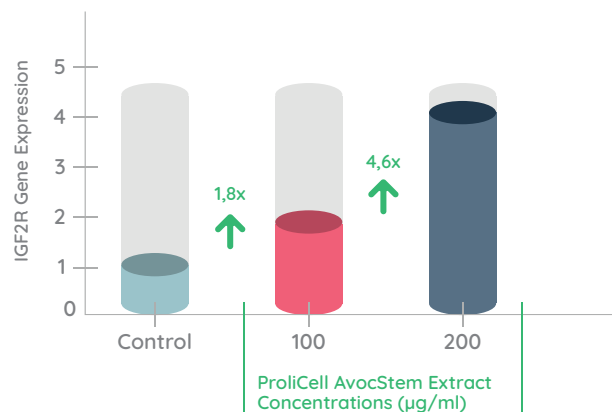
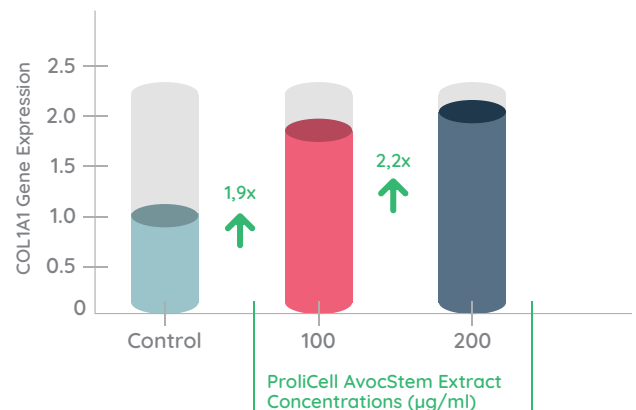
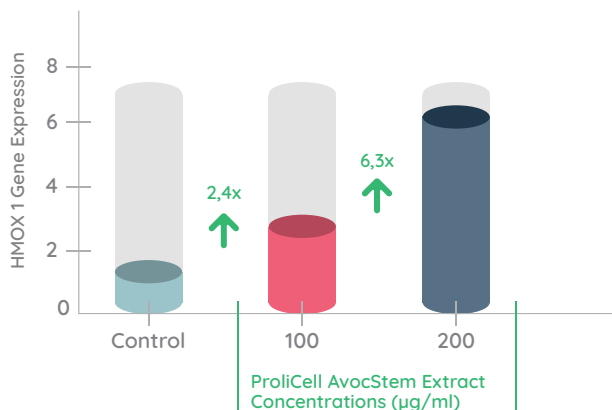
Parameter: Analysis of expression of HMOX1, COL1A1 and IGF2R genes by RT-qPCR, Determination of Pro-Collagen expression by ELISA method

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

Protein Expression Analysis



Gene Expression Analysis



ProliCell AvocStem significantly stimulates the expression of genes associated with antioxidant activity, cell proliferation, collagen synthesis, and Pro-collagen synthesis.

Rejuvenating Effect from Stem Cell



Antioxidant



Cellular
Regeneration



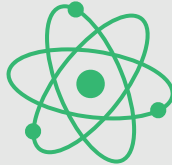
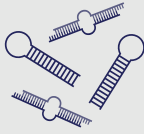
Anti Wrinkle



Moistening

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)



ProlCell AvocStem DW (Dispersible in water)

INCI name: Glycerin, Persea Gratissima
(Avocado) Leaf Extract, Xanthan Gum

ProlCell AvocStem WS (Water-soluble)

INCI name: Glycerin, Persea Gratissima
(Avocado) Leaf Extract, Sodium benzoate,
Potassium sorbate

Usage rate: 2-5%

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.

