



QUINCE

Anti-Aging miRNA
Formula



Anti Wrinkle
Anti Aging

ACTV
BIOTECH

Anti-aging miRNA Formula

Effects

- Provides dermal regeneration by stimulating fibroblast proliferation.
- Stimulates collagen synthesis.
- Moisturizes the skin and increases skin elasticity
- Significantly reduce wrinkles

Origin

Developed from *Cydonia oblonga* (Quince) stem cells using ProlCell® Technology.



What is ProlCell® Technology?

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

Effect Mechanism

ProlCell® Quince contains enriched stem cell components and stem cell specific exogenous small RNAs thanks to the elicitor application. In addition to that, treatment of artificial miRNAs (mir172) stimulates the expression of mucilage (MUM4 gene), which provides moisturizing and elasticity-enhancing activity from quince stem cells.

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

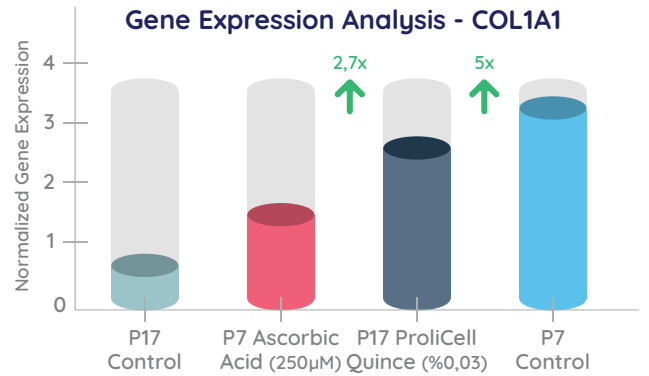
In vitro Tests

Cell Line: Human Normal Fibroblast cell

Test Components: ProliCell Quince extract

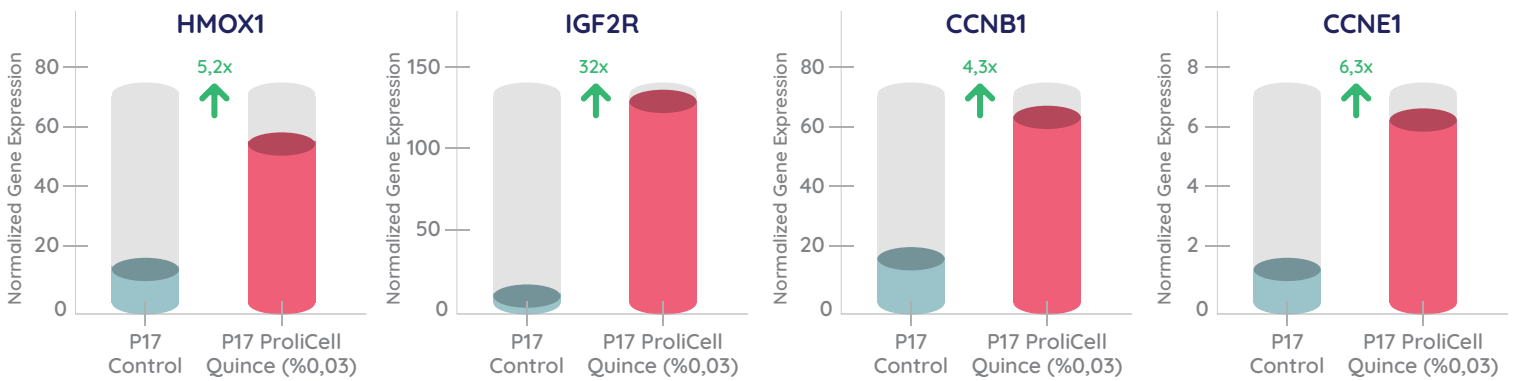
Parameter: Determination of Pro-Collagen expression by ELISA method, Analysis of the expressions of COL1A1, HMOX1, IGF2R, CCNE1 and CCNB1 genes by RT-qPCR

For gene expression and protein expression analysis and cell proliferation assays, human normal fibroblast cells were incubated with ProliCell Quince concentrations for 24 hours.



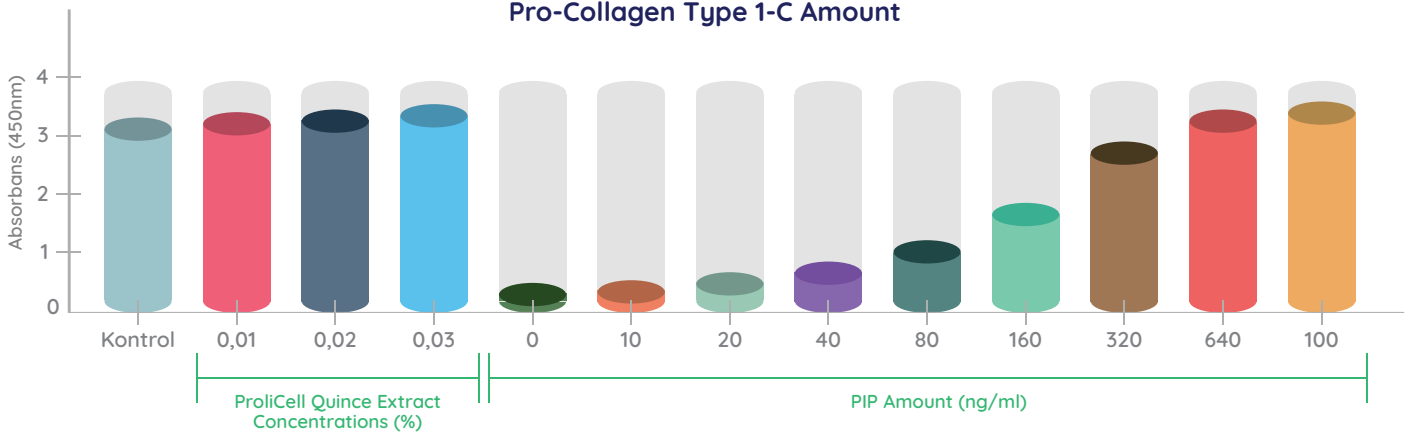
P7: cells with passage number 7, P17: cells with passage number 17

Gene Expression Analysis



Protein Expression

Pro-Collagen Type 1-C Amount



ProliCell Quince, significantly stimulates the expression of genes associated with antioxidant activity, cell proliferation and collagen synthesis. ProliCell Quince by stimulating senescence cells, it accelerates their proliferation and enables them to synthesize the necessary collagen for a firm skin.

Activity Tests

In vivo Tests

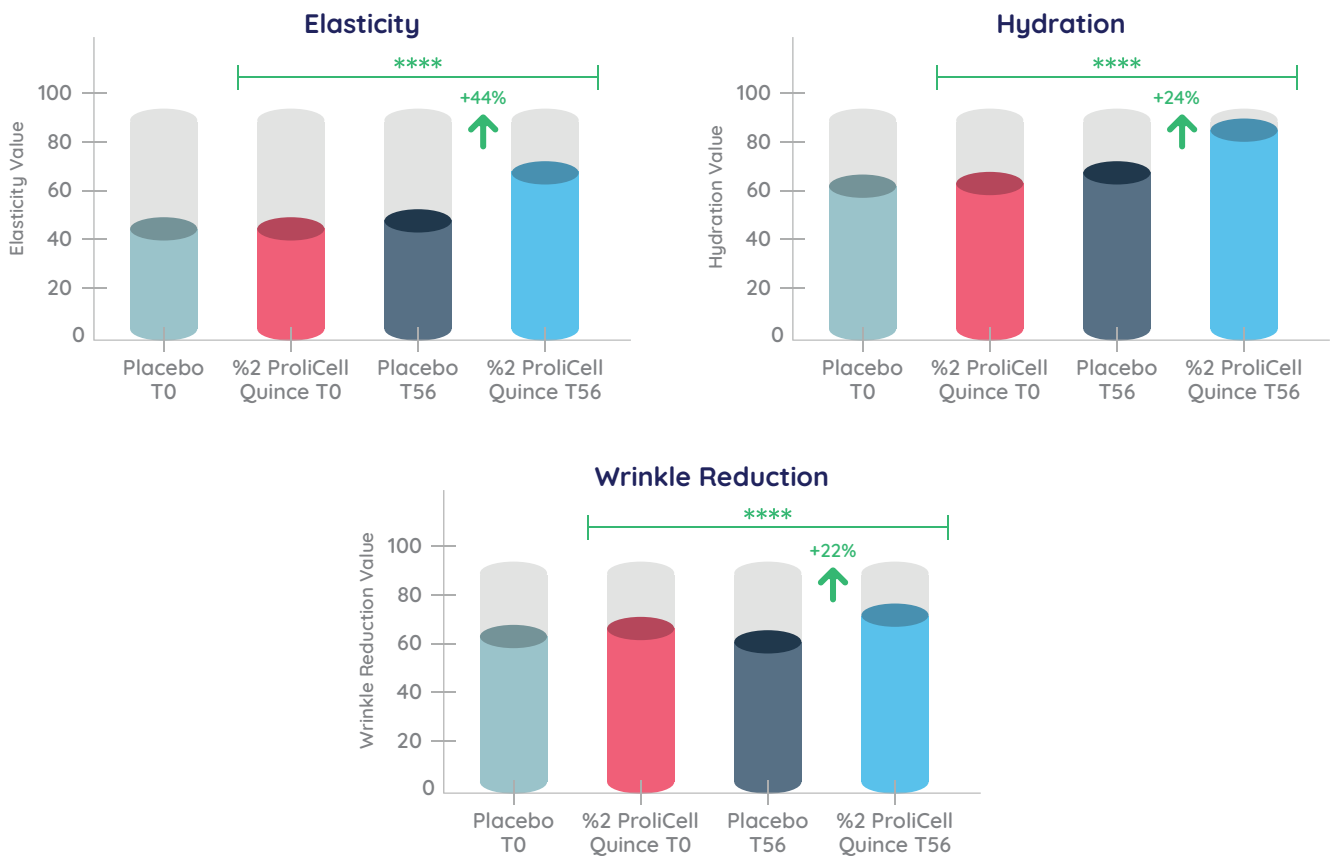
Volunteers: 40 healthy women aged 30-65 with facial signs of aging

Test Components: Applying ProliCell Quince, cream or Placebo cream to the face twice a day, morning and evening.

Parameter: Measurement of Elasticity, Hydration and Wrinkle level at the start of the test (T0) and after 56 days of use (T56).



In vivo Activity Tests



When the content of ProliCell Quince-containing and placebo cream was compared, it was determined that elasticity and hydration were increased and wrinkles were reduced significantly in measurements made on volunteers in the formulation containing ProliCell Quince.

Anti-aging miRNA Formula



Cellular
Regeneration



Elasticity
Enhancer



Anti-Aging



Moistening



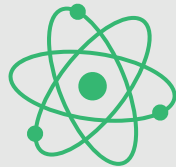
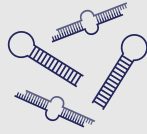
Anti Wrinkle



Skin Barrier
Booster

Effect Mechanisms

- Anti-aging
- Cell Regenerative
- Increases skin moisture and elasticity



Cosmetic Uses

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



INCI name: Glycerin, Cydonia Oblonga Leaf Extract, Xanthan Gum.

Usage rate: 2-5%

Solubility: Water-soluble

Preservative: No preservative

pH: 4.0-7.0



Features

Origin: Herbal

Appearance: Viscous cell lysate suspension

Color: Yellow

Fragrance: Characteristic

Usage: Add below 40°C in cold-hot processes.



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