



PRUNELLA

Regeneration with the
Elasticity Architect



Effective Formula
Against Skin
Sagging



ACTV
BIOTECH

Regeneration with the Elasticity Architect

Effects

- Reduces the synthesis of elastase, increases the synthesis of elastin and elastin-related proteins, thus reducing the appearance of wrinkles and significantly preventing sagging.
- It has effective wound healing activity.
- It has high antioxidant activity, moisturizes the skin and makes the skin look smooth.

Origin

Developed from *Prunella vulgaris* (Self-heal) 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® Prunella 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.

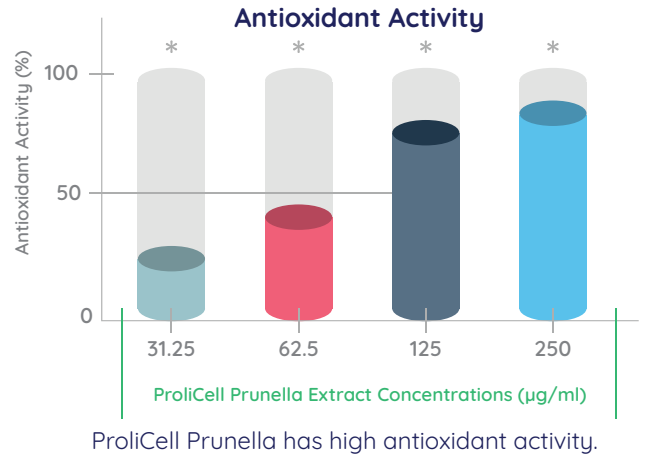


Activity Tests

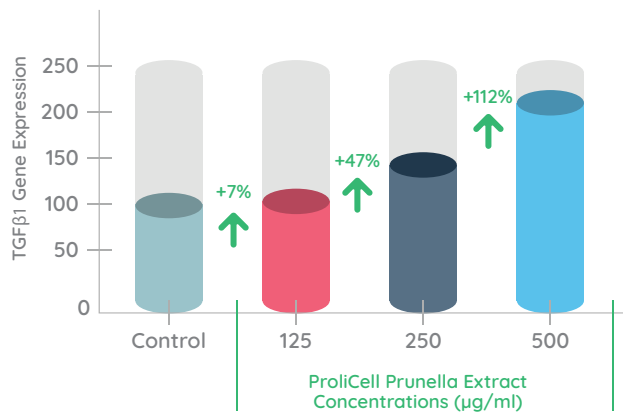
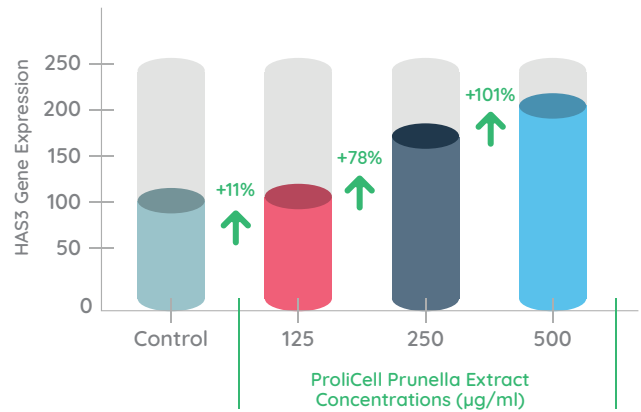
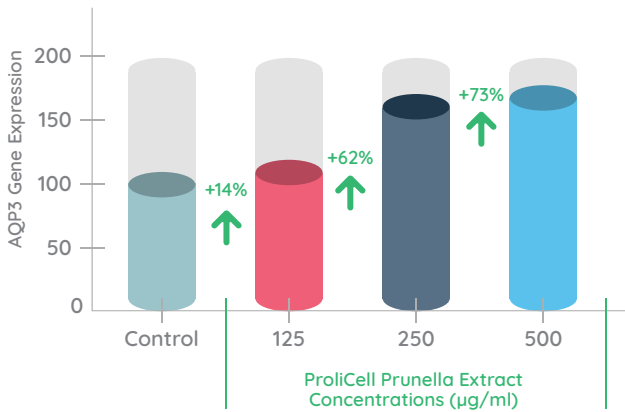
In vitro Tests

Cell line: Human normal fibroblast cell
Test ingredient: 250 ve 500 µg/mL ProliCell Prunella extract
Parameter: Analysis of expressions of hydration and proliferation-related genes by RT-qPCR, Analysis of expression of elastin-related genes by RT-qPCR, Determination of wound healing activity
 For gene and protein expression analysis, fibroblast cells were incubated with ProliCell Prunella extract concentrations for 24 hours.

Chemical Activity Test: DPPH Radical Scavenging Activity Method

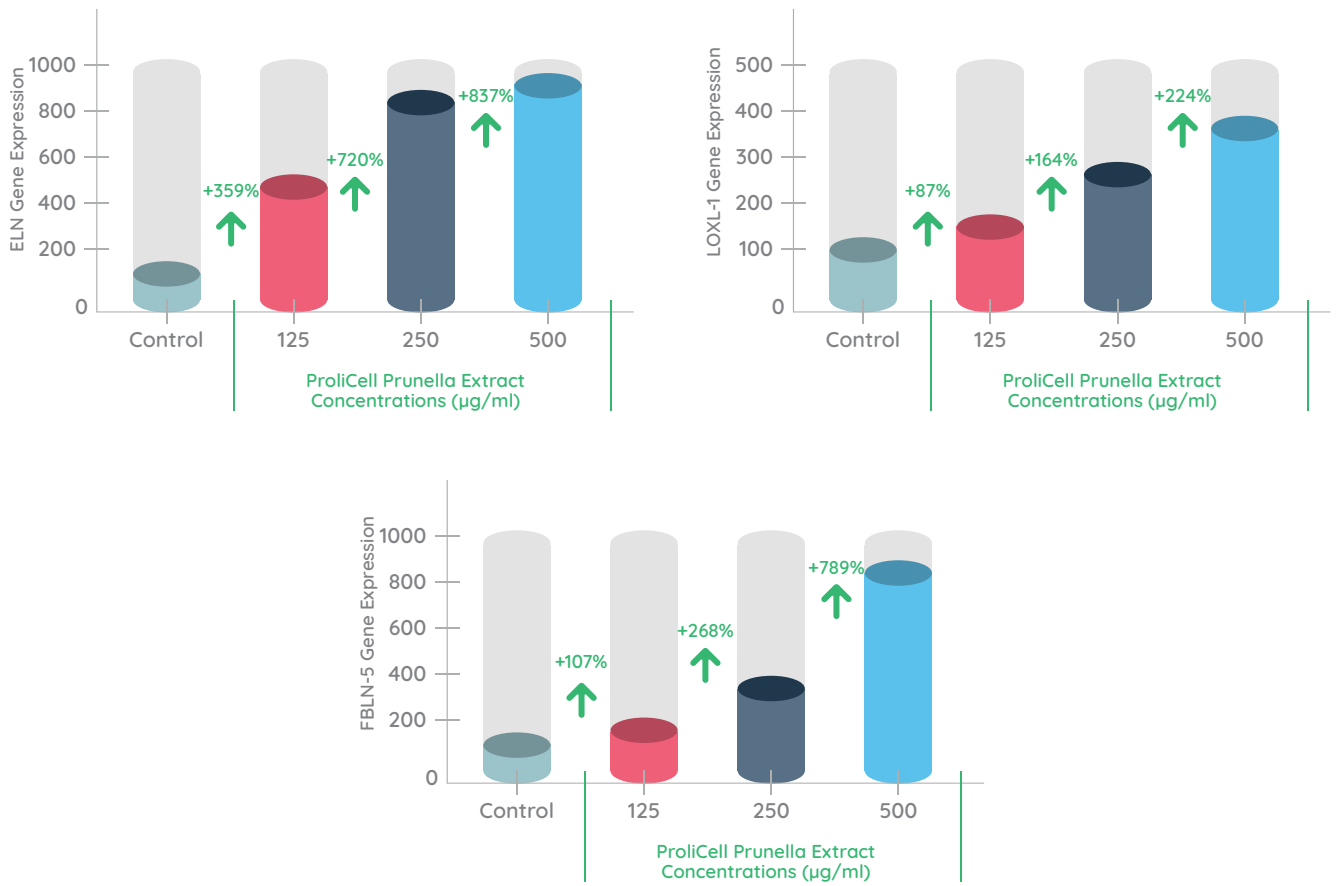


Expression Analysis of Hydration and Proliferation Associated Genes



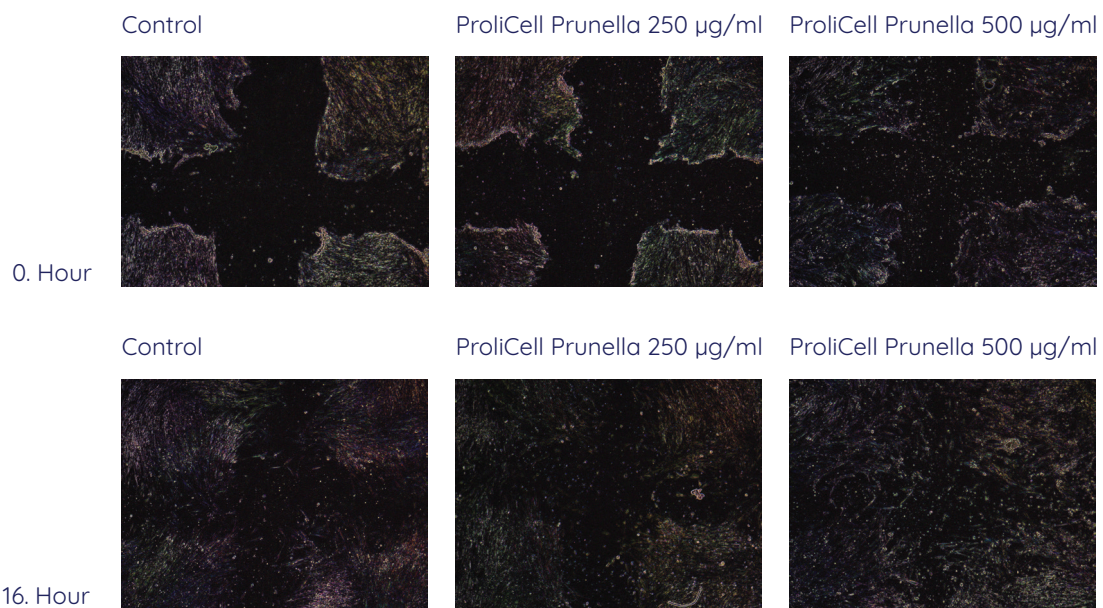
ProliCell Prunella provides cell proliferation and increases moisture holding capacity of the skin by significantly increasing the expression of AQP3, HAS3, TGFB1 genes.

Expression Analysis of Elastin-Related Genes



ProliCell Prunella increases skin elasticity and prevents sagging by significantly increasing the expression of ELN, LOXL-1 and FBLN-5 genes.

Determination of Wound Healing with the Scratch Assay Method



ProliCell Prunella accelerates wound healing by increasing fibroblast migration.

Regeneration with the Elasticity Architect



Elasticity
Enhancer



Wound
Healing



Moistening



Antioxidant



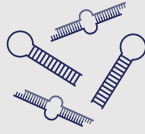
Anti Wrinkle



Skin
Smoothness

Effect Mechanism

- Shows high antioxidant activity.
- Shows anti-sagging activity by activating elastin synthesis and elastin-related genes.
- Increases the moisture holding capacity of the skin.
- Shows wound healing activity.



Cosmetic Uses

- Anti-sagging Products (Face and Skin Care Products)
- Wound Healing Products (Face and Skin Care Products)



INCI Name: Glycerin, Prunella vulgaris 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: Dark Brown

Fragrance: Characteristic

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



+09 212 912 13 36 info@actvlab.com

www.actvbiotech.com @actvbiyoteknoloji

Karaağaç Mah. Mavi Zümrüt Sokak No.48 Büyükcçekmece/İSTANBUL/TÜRKİYE

ACTV
BIOTECH