



An Anti-Cellulite Active Ingredient



ProlCell SlimStem developed by ACTV Biotechnology via combined with ProlCell AvocStem, ProlCell Almond, ProlCell IsoStem and ProlCell Centella.

Product Claims;

- Increases collagen and elastin synthesis
- Suppresses adipogenesis ve triglyceride formation
- Increases microcirculation
- Decreases cellulite appearance



What is ProlCell® Technology?

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

Effect Mechanism

ProlCell® SlimStem 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.



Proven Efficacy

ProliCell SlimStem strengthen connective tissue by stimulates collagen and elastin synthesis.

ProliCell SlimStem stimulates the synthesis of collagen and elastin, restores the lost elasticity and durability of the skin, accelerates the repair of the skin and strengthens the connective tissue.

ProliCell SlimStem suppresses adipogenesis ve triglyceride formation

ProliCell SlimStem promotes lipolysis and inhibits adipogenesis, thereby aiding in the reduction of cellulite by decreasing the number and size of adipocytes.

ProliCell SlimStem increases microcirculation

ProliCell SlimStem promotes lipolysis and inhibits adipogenesis, thereby aiding in the reduction of cellulite by decreasing the number and size of adipocytes.



Activity Tests

In vitro Tests

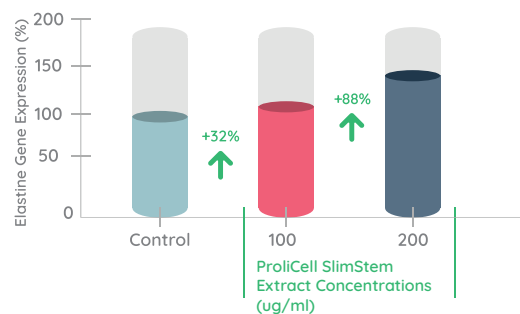
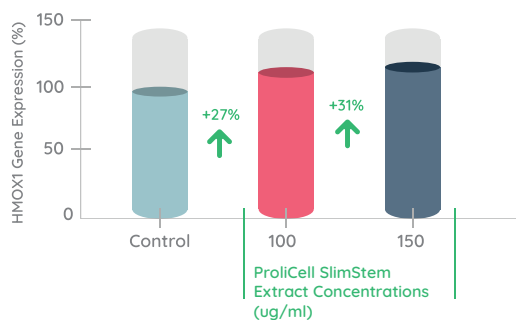
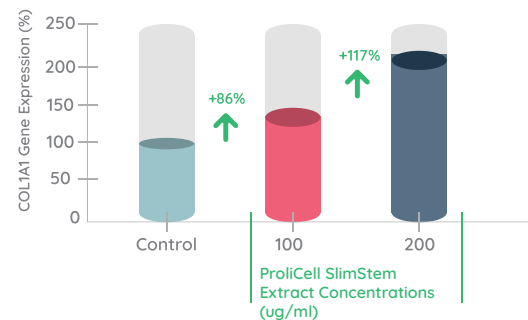
Cell line: Human normal fibroblast cell,

Test ingredient: 100, 200 µg/mL ProliCell SlimStem extract

Parameter:

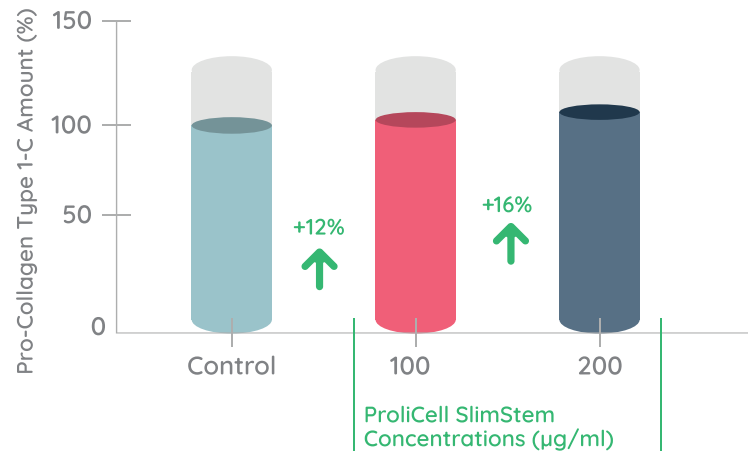
Analysis of Col1A1, ELN and HMOX1 genes expression by RT-qPCR Pro-Collagen Type 1-C Synthesis

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



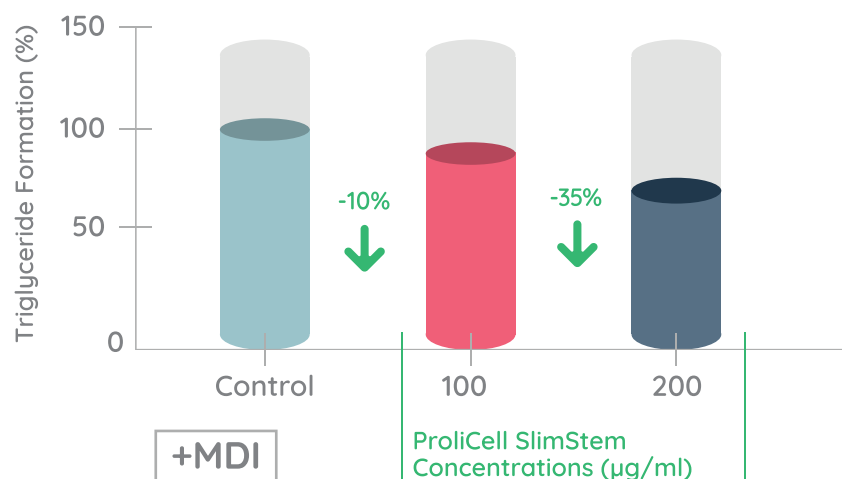
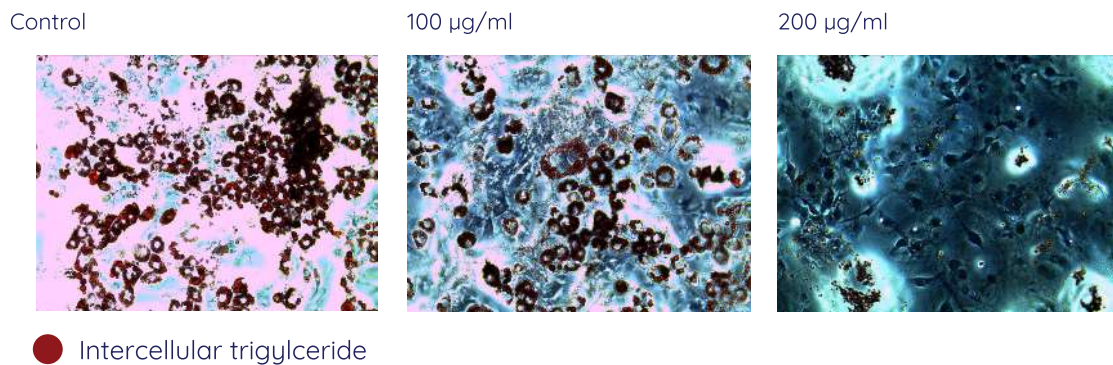
ProliCell SlimStem significantly stimulates the expression of genes associated with antioxidant activity, collagen and elastin synthesis.

Effect on Pro-Collagen Type 1-C Synthesis



ProliCell SlimStem strengthens connective tissue by increasing Pro-collagen type 1 C-peptide synthesis.

Effect of Adiposide and Triglyceride Formation

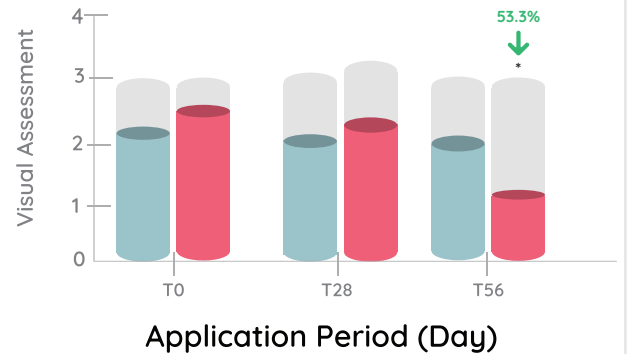
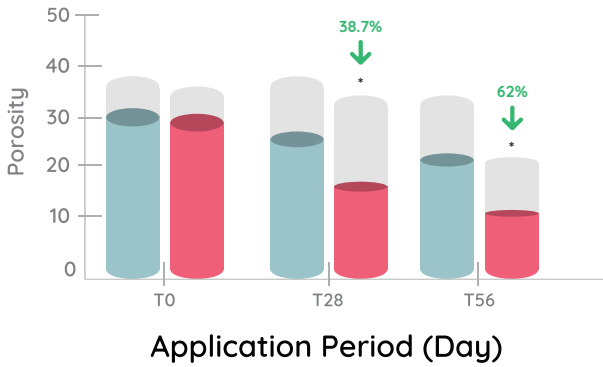
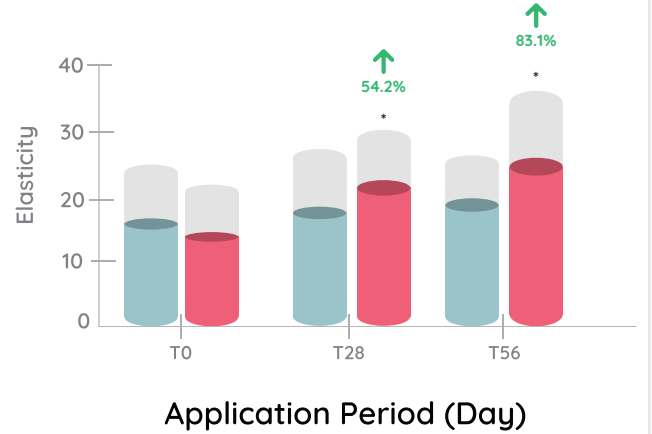
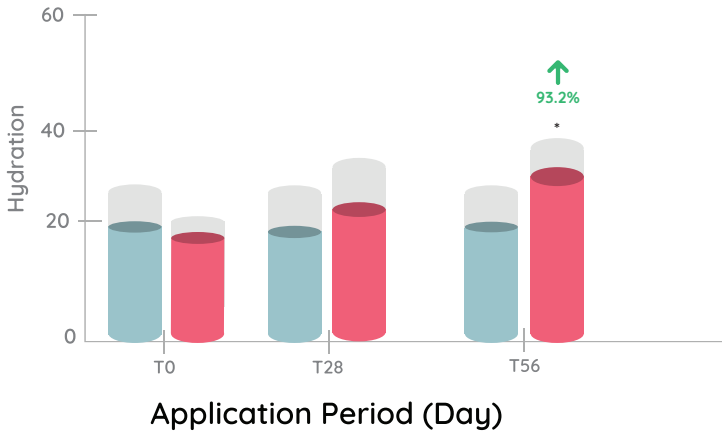


It was determined that 100 µg/ml concentration of ProliCell SlimStem decreased triglyceride formation by 10% and 200 µg/ml concentration by 35% compared to the control group (no ProliCell SlimStem applied).

In Vivo Efficiency Test

The clinical studies were carried out by Istinye University, Faculty of Pharmacy, Department of Pharmaceutical Technology research team on 24 healthy female volunteers aged 20-56 years with cellulite problems in the hip/thigh areas. 12 volunteers placebo and 12 volunteers test formulation were applied twice a day, morning and evening and measured before the start of product use (T0), 28 days after product use (T28) and 56 days after product use (T56), with a study duration of 56 days.

The formulation containing 2% ProlCell SlimStem was found to increase skin hydration by 93,2%, increase elasticity by 83,1%, decreased porosity by 62% and decrease cellulite appearance by 53,3% after 56 days in volunteers compared placebo.



*Represents significant difference according to T0 (p<0,05).

Placebo ProlCell SlimStem