

BEAUTY PLUS ONE-F

*Fermented fruit extract
for enhanced anti-aging activity*



PLANT STORY



Punica granatum, also known as pomegranate, is native to Persia and is widely cultivated in Middle Eastern and Asian countries, including Iran, Iraq, India, China, Japan and Korea. The sweet and sour seeds surrounded by a fleshy aril are consumed fresh or as a juice. Pomegranate is a good source of vitamins and polyphenolic compounds such as ellagitannins and flavonoids, which are very powerful antioxidants.

RED ALLUREMENT, POMEGRANATE

The secret beauty of the most beautiful woman in ancient Egypt, the queen Cleopatra, was a pomegranate.

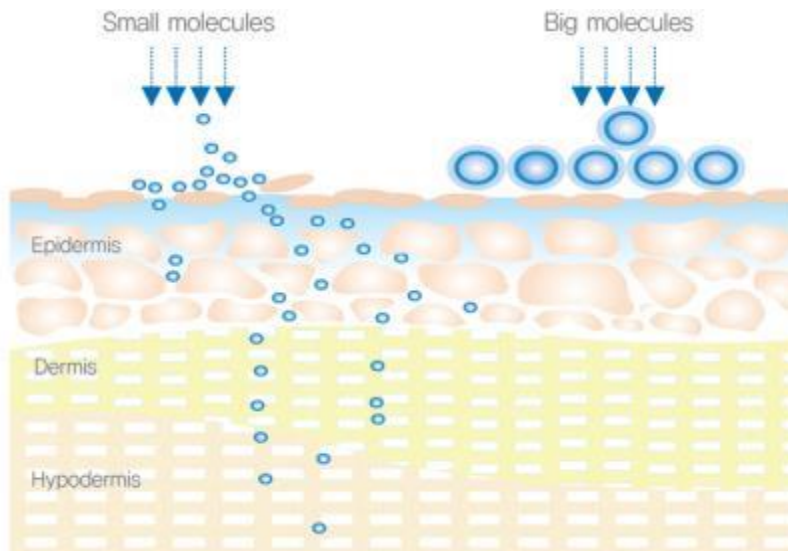
In Greek mythology, Persephone who was kidnapped by Hades, the god of the underground, could have escaped from the underground if she didn't eat anything from the underworld.

However, she couldn't escape underground because she ate 4 grains of the pomegranate given by Hades.

Some of Bible researchers have researched about the prohibited fruit for Adam and Eve and they found other clue that the prohibited fruit was a pomegranate.



FERMENTATION PROCESS



It is well-known that the penetration of the active compounds is depended on the size of molecules. In case of most polymers, it is difficult to penetrate the epidermis due to their big molecular size. The active compounds of Beauty Plus One-F are processed into smaller molecules by applying Korean Traditional Solid Fermentation in order to help the penetration into the skin and eventually to have enhanced efficacy.

***IN VITRO* EFFICACY EVALUATION**

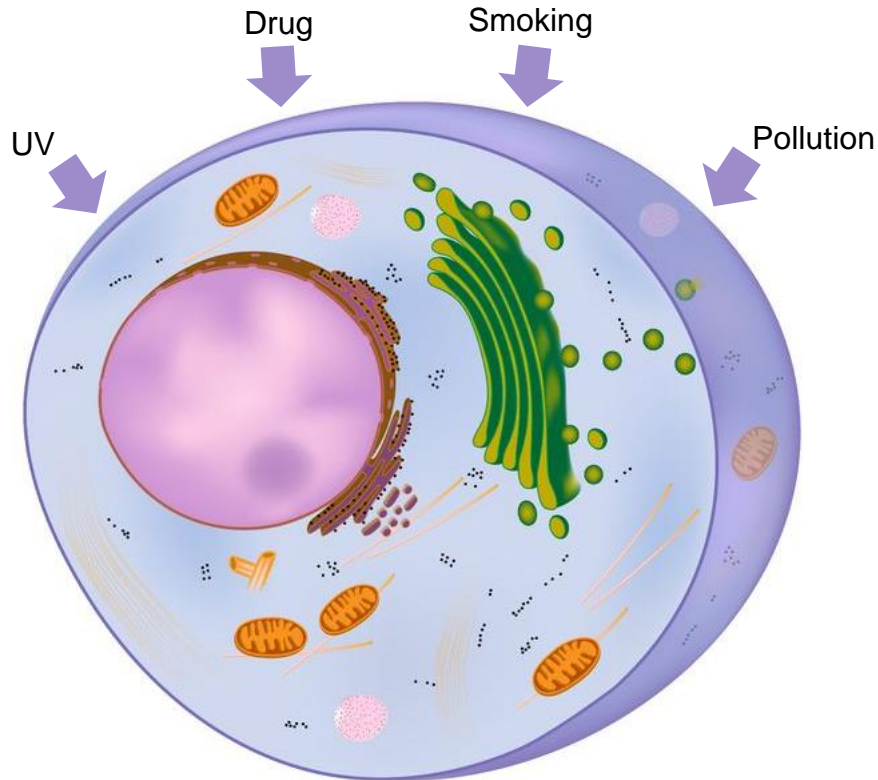
- ✦ Anti-oxidant Efficacy
 - ✦ DPPH Scavenging Activity

- ✦ Anti-wrinkle Efficacy
 - ✦ Collagen Synthesis Activity
 - ✦ Collagenase Inhibition Activity



OXIDATIVE STRESS

Reactive Oxygen Species (ROS) can be increased by

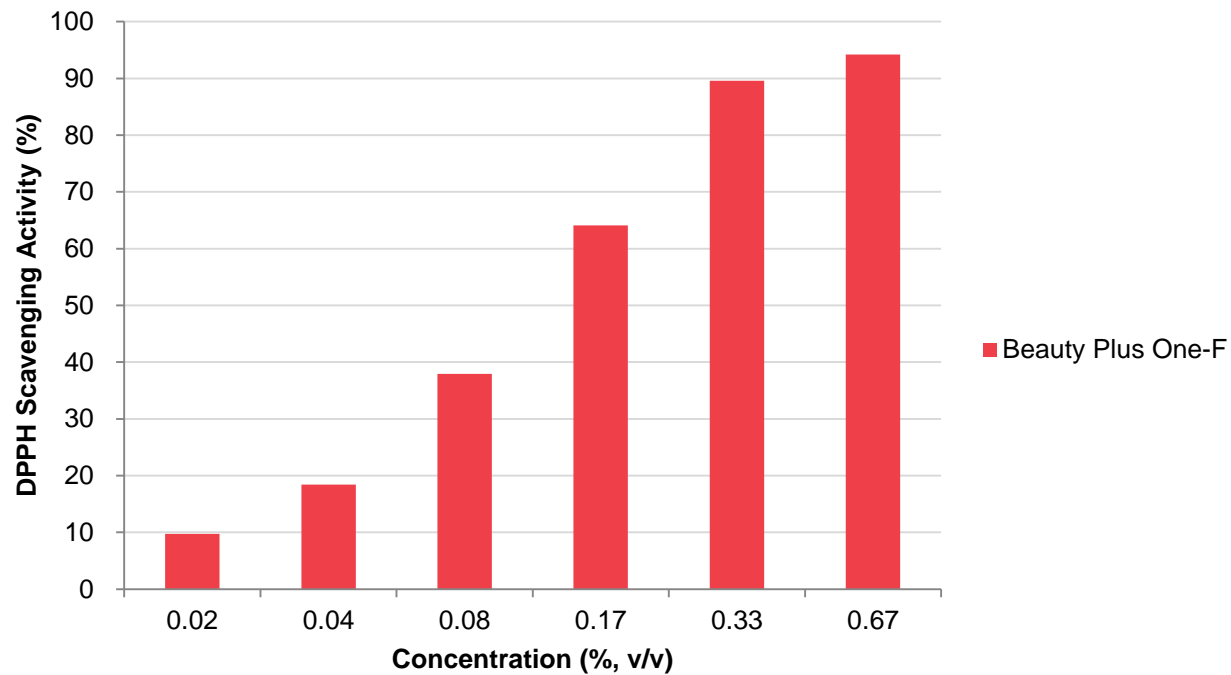


Intracellular ROS may induce

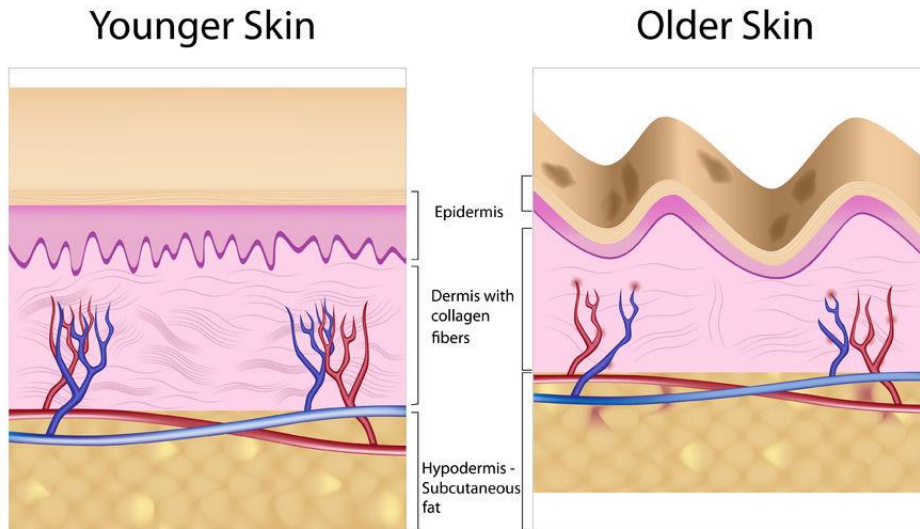
- ✦ DNA damage
- ✦ Lipid peroxidation
- ✦ Amino acid oxidation: protein damage
- ✦ Oxidation of co-factors: enzyme inactivation
- ✦ Chronic inflammation



IN VITRO EVALUATION: ANTI-OXIDATION - DPPH SCAVENGING ACTIVITY



SKIN AGING AND WRINKLE FORMATION



Skin Aging is noted by

- a decrease of elasticity
- formation of wrinkles and fine lines
- degradation of collagen
- thinner and weaker skin
- damaged connective tissues

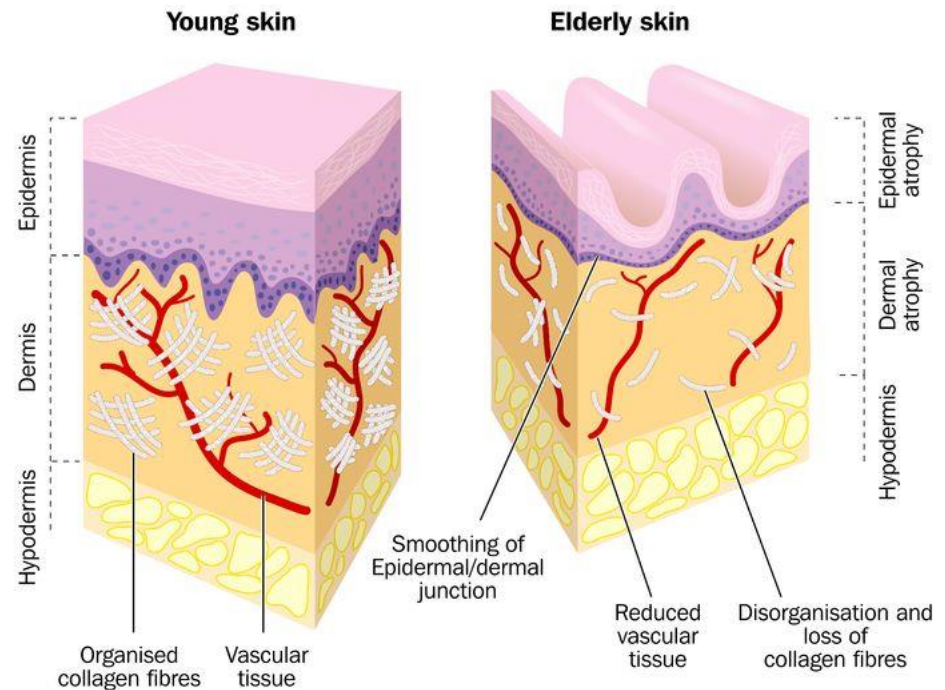
Skin changes with increasing age due to both intrinsic and extrinsic factors. Intrinsic skin aging is determined by genetic factors, hormonal status and metabolic reactions such as oxidative stress. One of the most important extrinsic skin aging is induced by UV radiation by sun exposure, referred to as *photoaging*. Smoking cigarettes and environmental pollution are also important factors in premature skin aging and wrinkle formation

ANTI-WRINKLE MECHANISM

- 🌿 Boosting collagen synthesis
- 🌿 Inhibiting collagen degradation
- 🌿 Inhibiting elastin degradation
- 🌿 Increasing fibroblast proliferation

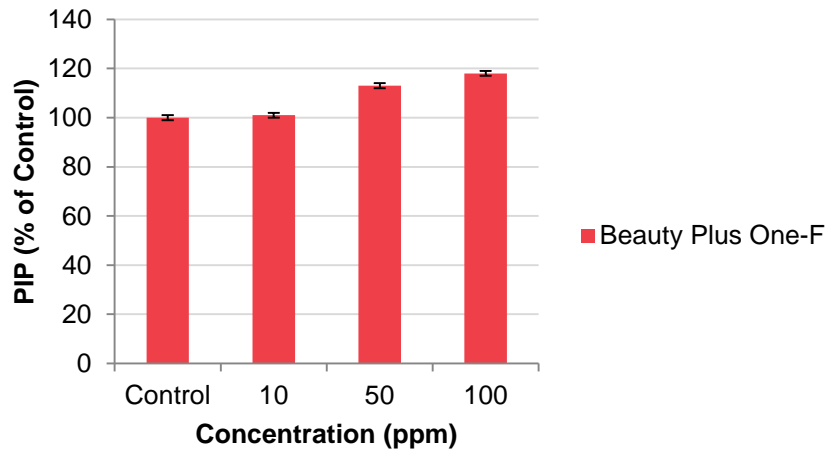


- 🌿 Preventing wrinkle formation
- 🌿 Increasing skin elasticity
- 🌿 Wrinkle improvement

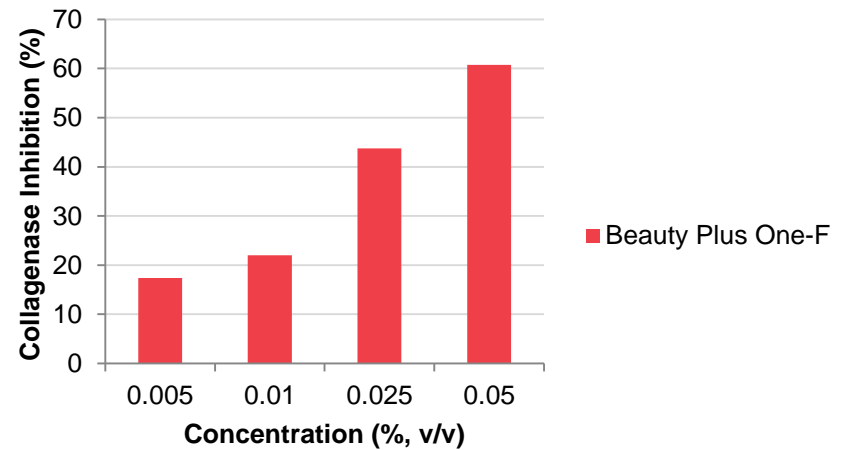


IN VITRO EVALUATION: ANTI-WRINKLE

Collagen Synthesis Activity



Collagenase Inhibition Activity

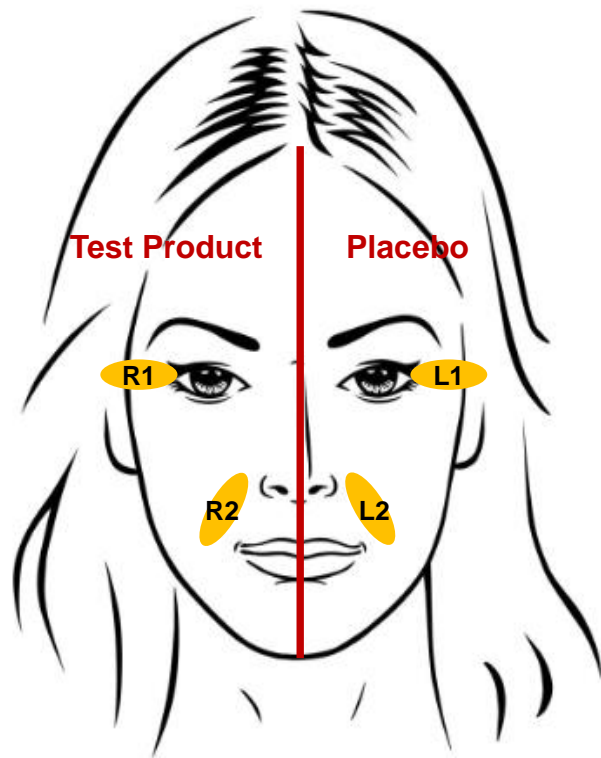


IN VIVO EFFICACY EVALUATION

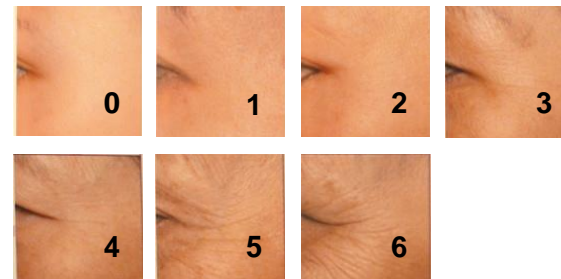
🌿 Anti-wrinkle Efficacy



IN VIVO EFFICACY : ANTI-WRINKLE

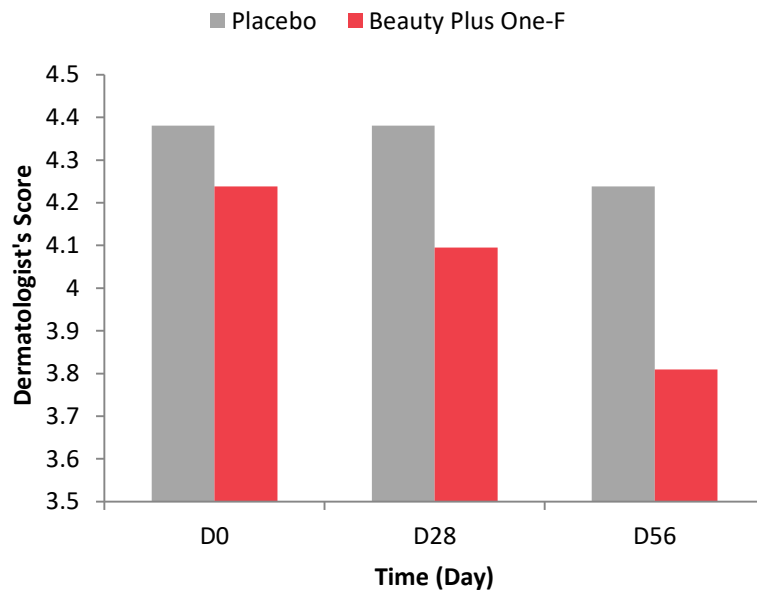


- Target site: R1, L1 - Canthus
R2, L2 - Nasolabial folds
- Subjects: 21 females aged between 45 to 65 years old
- Test item: Cream with 2% Beauty Plus One-F
- Application: Twice a day for 8 weeks
- Test instrument:
 - Elasticity: MPA 580 (CK Electronic GmbH, Germany)
 - Wrinkle: SILFLO (CuDerm, USA),
Visioline VL650 (CK Electronic GmbH, Germany)
- Dermatologist's evaluation (Scoring reference):

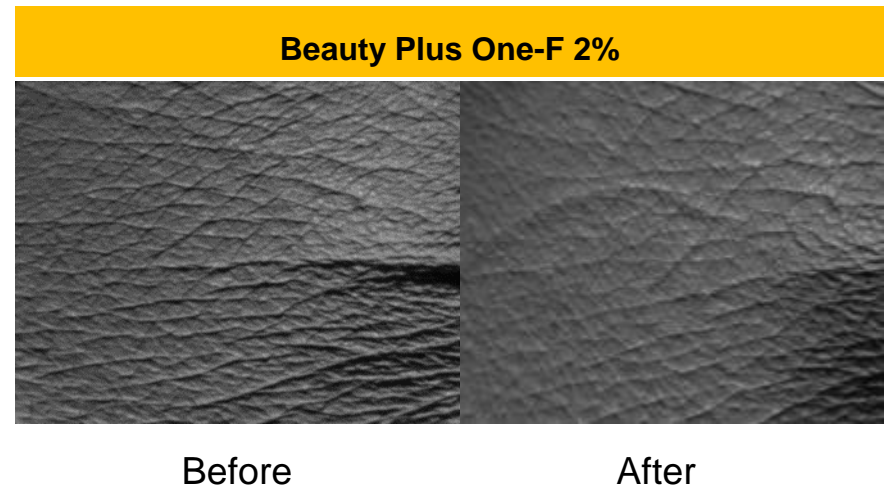


IN VIVO EFFICACY : ANTI-WRINKLE

Dermatologist's Score



Photograph Visualization








MARKETING POINTS

- 🌿 Fermented fruit extract for enhanced anti-aging activity
- 🌿 Dual effects of anti-oxidant and anti-wrinkle
- 🌿 Enhanced dermal penetration



PRODUCT INFORMATION

-  **Product Name:** Beauty Plus One-F, Beauty Plus One-F(PD)-RSPO
-  **INCI Name:** Lactobacillus/Punica Granatum Fruit Ferment Extract
-  **Dosage:** 1 – 3%
-  **Formulation:** Add to the formulation when the temperature is lower than 55°C. Recommended to add after the cooling process.
-  **Storage:** Avoid direct light or UV. Keep it in a cool and dry area.



the garden of
naturalsolution

website. www.naturalsolution.co.kr
email. info@naturalsolution.co.kr

The Garden of Naturalsolution, the one who knows natural products