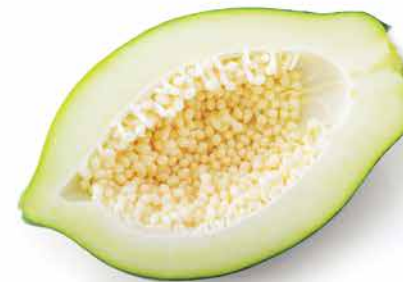
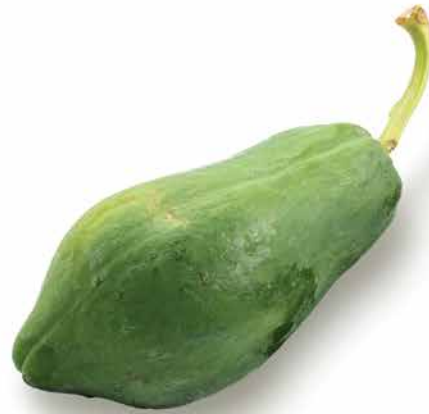


# Greenth

*Glowing Skin by Greenth*

the garden of  
**naturalsolution**  
[www.naturalsolution.co.kr](http://www.naturalsolution.co.kr)

*# Glow skin # Healthy-looking Skin # Skin barrier  
# Skin hydration # Skin exfoliation*



12-24, Gajangsaneopseo-ro, Osan-si, Gyeonggi-do, 18103, Republic of Korea

TEL: +82-31-374-5240 FAX: +82-31-374-5246

# Basic skincare for healthy skin

The Covid-19 pandemic has changed lifestyles throughout the globe. The focus on self-care has been surging with an increased consumer appeal towards products with multi-functional health and wellness benefits.

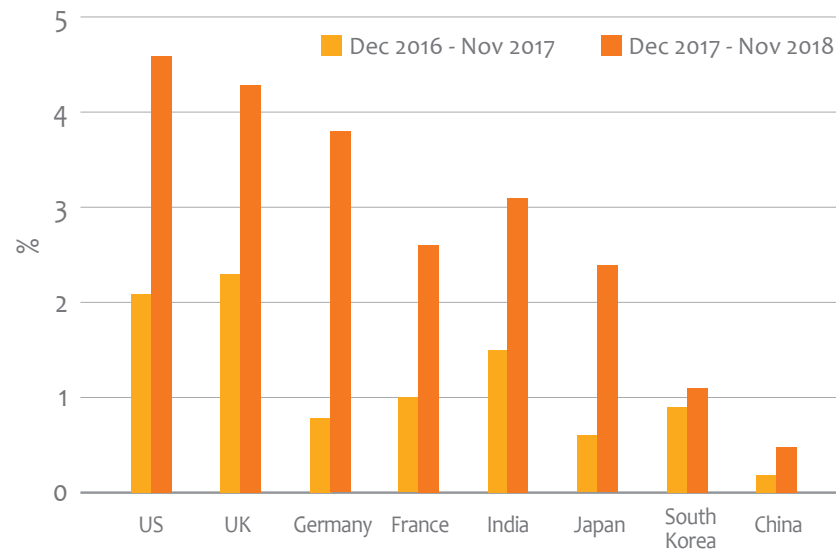
This trend is evidenced by the patterns of consumer consumption and internet search indexes. In the first half of 2020, the keywords ‘Core Consumption’ came up in Korean market with a focus on basic skincare and skin maintenance. In particular, skin toner pads have been the best sellers in H&B shops.

*Healthy skin is becoming synonymous with the term “naturally glow skin”, which is from a balance of pH, hydration and skin turnover.*

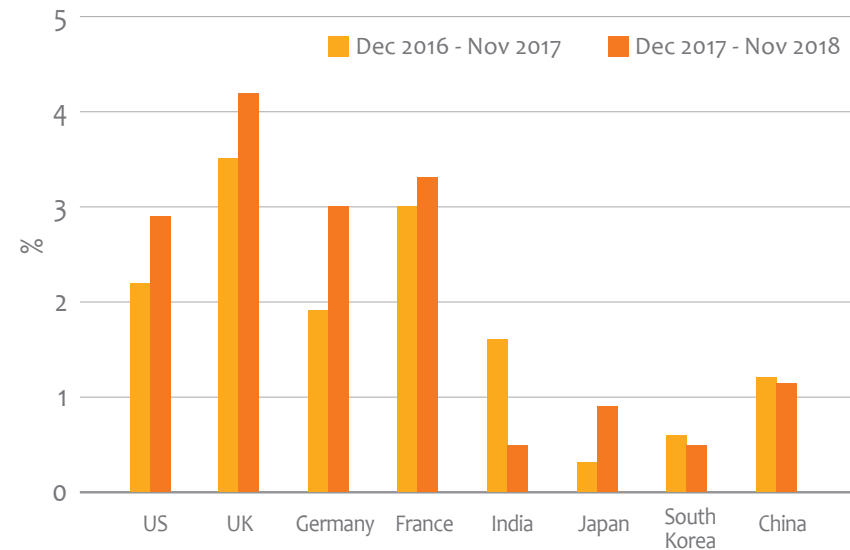


# Trend: products describing with glow

## % face / neck care launches with 'glow' in product name, 2017 vs 2018



## Use of 'healthy glow' when describing product in facial care launches, 2017 vs 2018

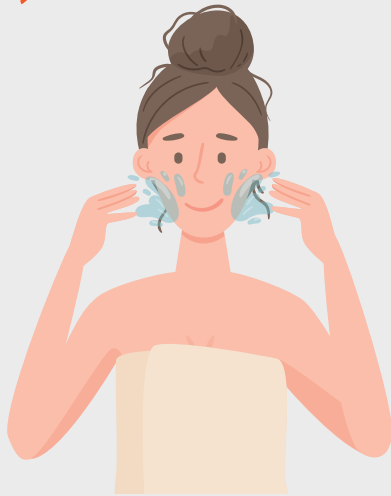


The term 'glow' in the product for face and neck care was increased in Western markets up to 2 times between 2017 and 2018. At the same time, 'Healthy glow' became a more popular marketing term for Western facial care launches in the same period, and that is expected to increase.

Reference: Mintel Report

# How to get glowing skin?

1)



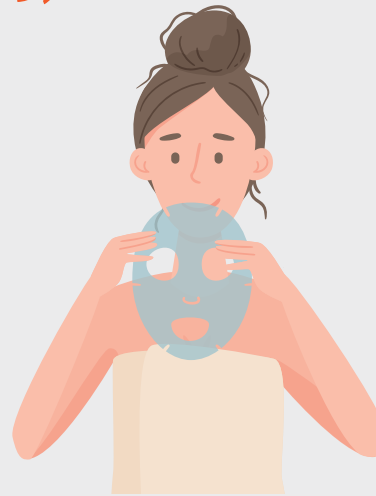
Facial cleansing

2)



Exfoliating skin regularly

3)



Brightening Skin

4)



Hydrating and Healthy glowing skin

# Best solution to get glowing skin : Greenth

## ‘Hydrating’

Stimulating Filaggrin and Caspase 14  
Increasing HAS2  
(Hyaluronic Acid Synthase 2)

## ‘Reduce Oxidative Stress’

DPPH Scavenging Activity  
Intracellular ROS Inhibition Activity



## ‘Exfoliating’

Improving Skin Desquamation in  
Human Study

## ‘Skin Brightening’

Inhibiting L-DOPA Oxidation Activity

# How we can produce 'Greenth' ?

## Green shine muscat (*Vitis vinifera* "shine muscat")

- Shine muscat is a type of green grapes
- It contains 20 times higher potassium level than red grapes, which help body detoxification.
- The pulp of shine muscat contains resveratrol, known as a kind of polyphenol.

## Green plum

- One of traditional medicinal fruits in Korea for fever, internal disorders, and cough.
- It contains high organic acids such as citric acid, tartaric acid and this kinds of acids help fatigue recovery.

## Green apple

- It contains 10 times higher polyphenols compared to fully ripen apple
- High anti-oxidant effect and abundant phytochemical such as flavonoids and phenolic acids.

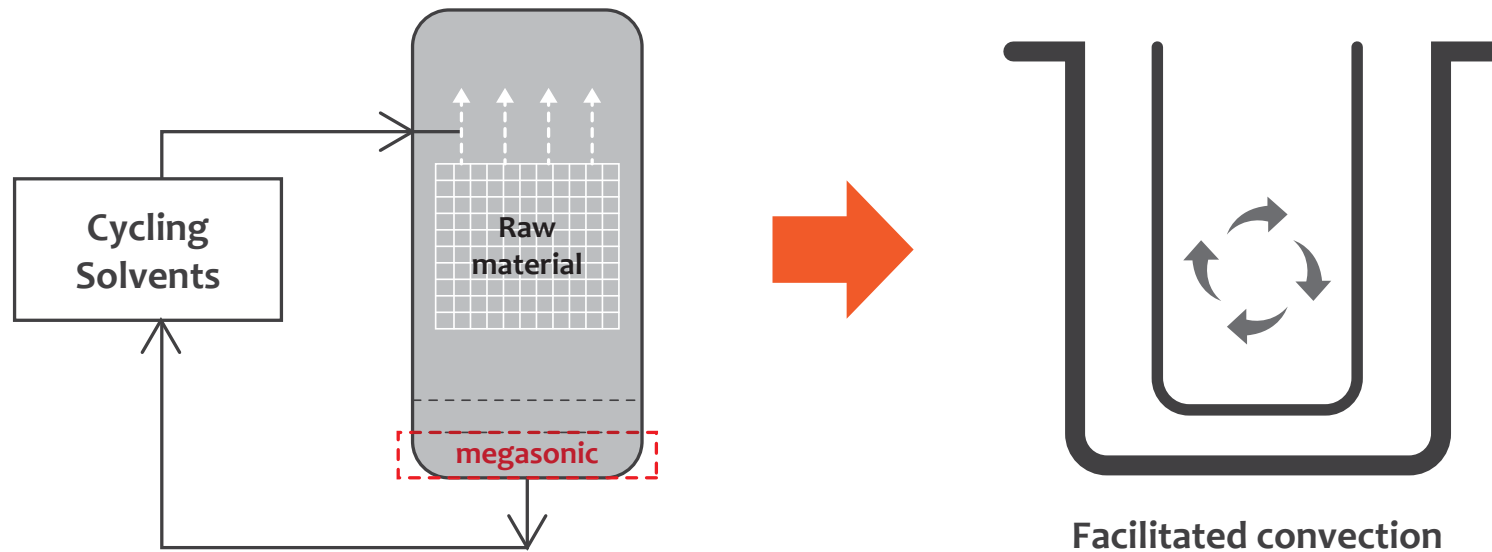
## Green papaya

- Papaya is called as a fruit of angel
- Green papaya contains high vitamin, papain, and polyphenols than ripen fruit.
- Papain is known as papaya protease which is well known ingredient for cleanser in cosmetic industry.



# How we can produce 'Greenth' ?

- Megasonic extraction is one of extraction methods using high frequency (700KHz ~ 1.2MHz)
- Constant temperature control by facilitated convection
- Lower energy use during extraction



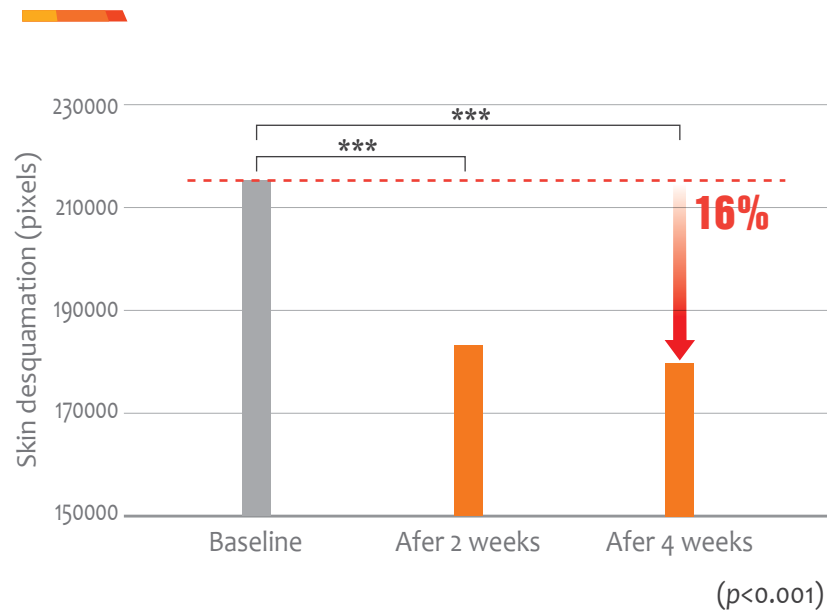


# Best solution to get glowing skin : Greenth

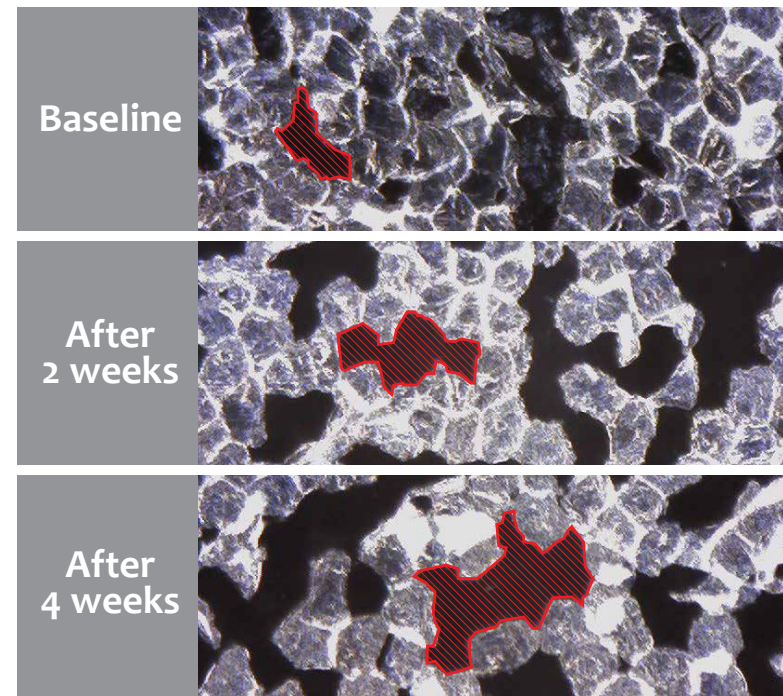




# Skin exfoliation effect-*In vivo*



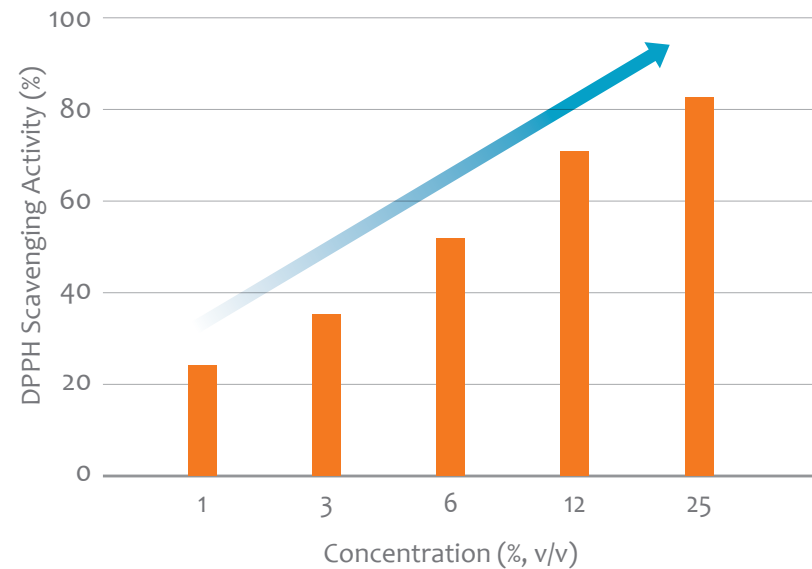
- **Target site:** Face (Cheek)
- **Subjects:** 22 females, averagely  $47.55 \pm 5.06$  years old
- **Test item:** Cream with 5% Greenth
- **Application:** Twice in a week for 4 weeks
- **Equipments:** Keratin sticker, iScope



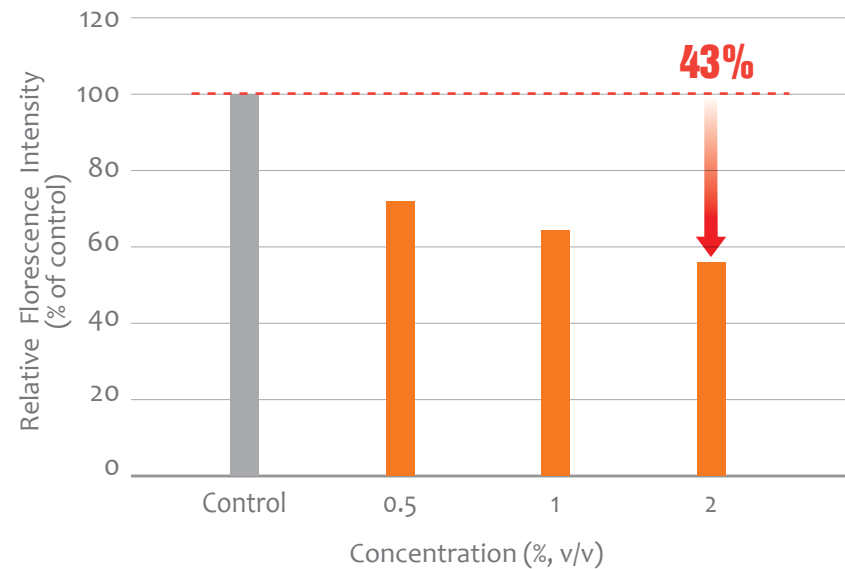
- After 4 weeks treatment with 5% Greenth, Skin exfoliation effect was increased significantly.
- No symptoms of adverse skin reaction was observed during the test period.

# Anti-oxidative effect- *In tubo* & *in vitro*

## DPPH Scavenging Activity-*in tubo*



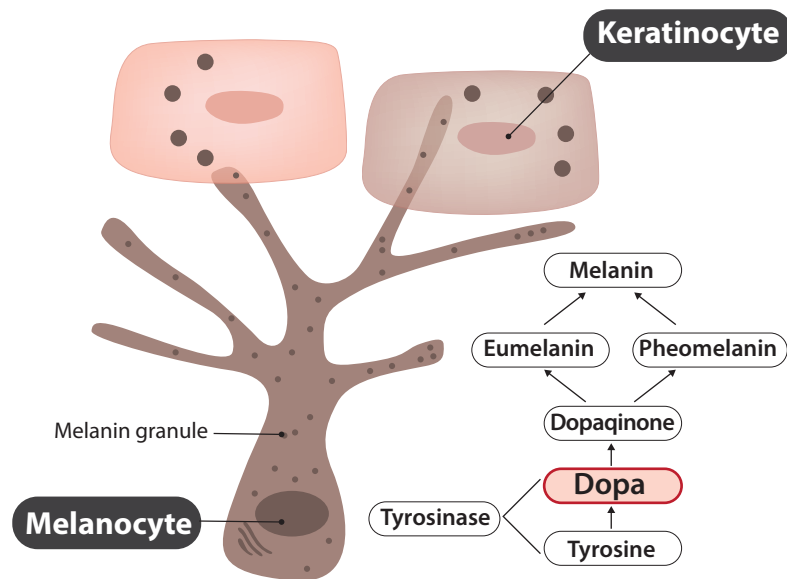
## Inhibition of Intracellular ROS Activity in Fibroblast-*in vitro*



DPPH scavenging activity ( $SC_{50}$ : 5.4%) and intracellular ROS inhibition were shown strongly by Greenth in a dose dependent manner.

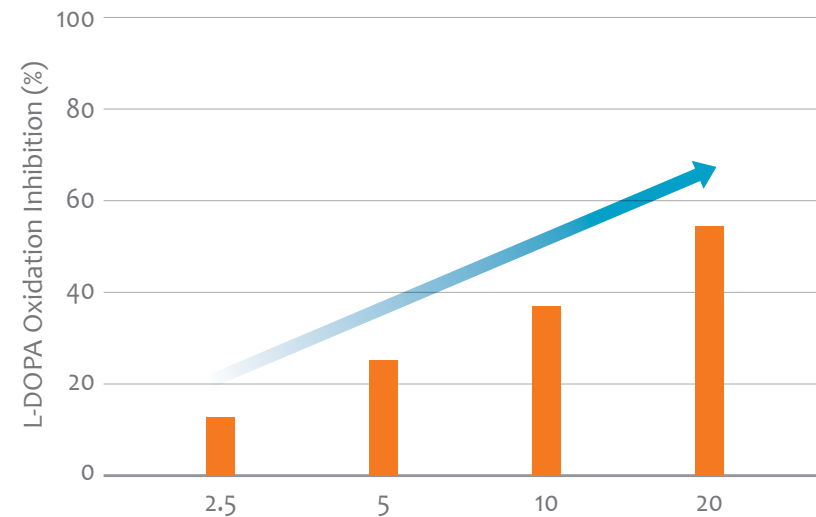
# Skin brightening effect-*In tubo*

## Melanin Pigmentation



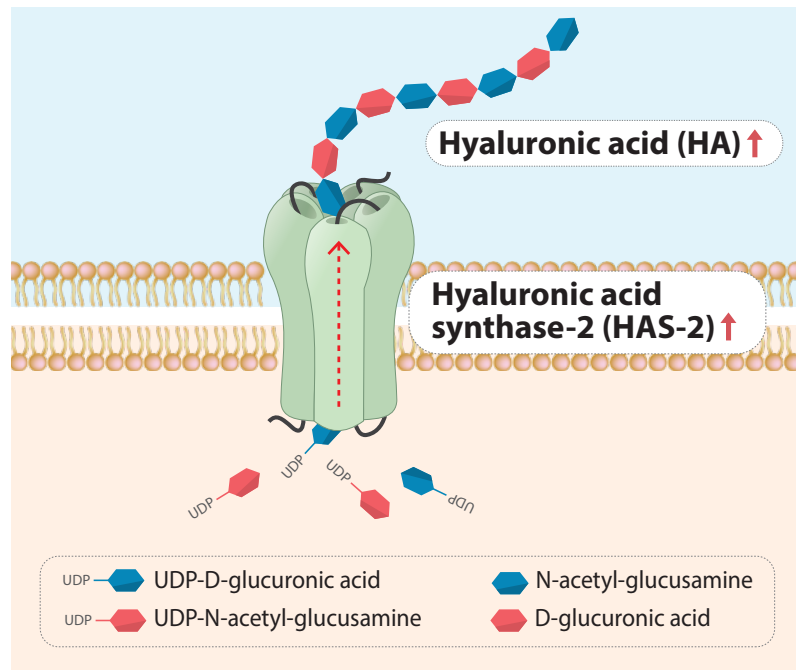
In the melanin biosynthesis pathway, tyrosinase reacts with DOPA to promote skin melanin synthesis through the production of dopaquinone.

## Inhibition of L-DOPA Oxidation

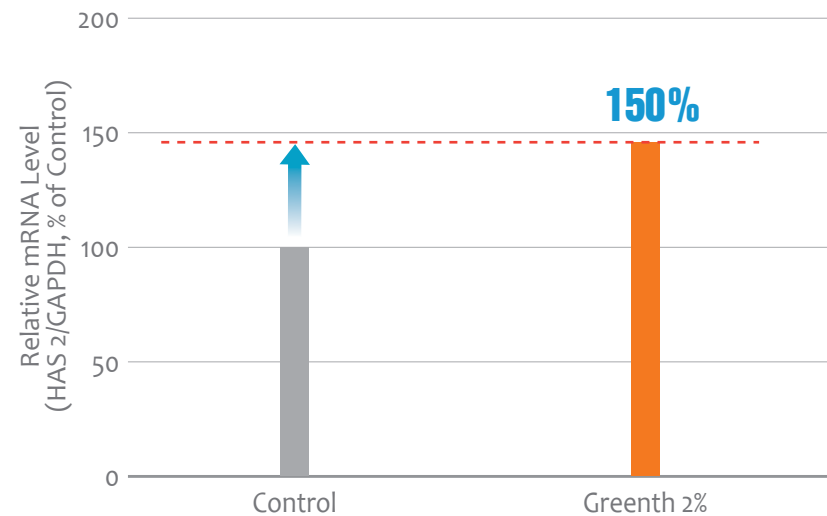


Inhibition of L-DOPA oxidation was increased by Greenth in a dose dependent manner.

# Skin hydration effect-*In vitro*



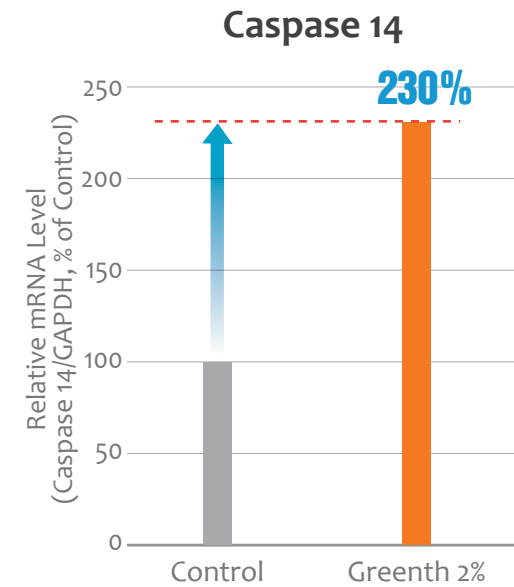
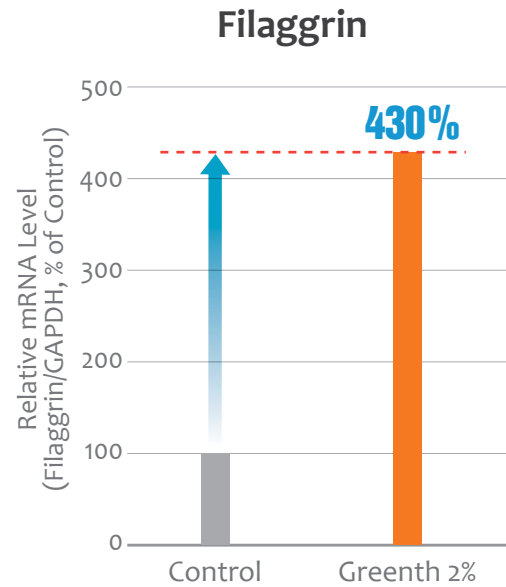
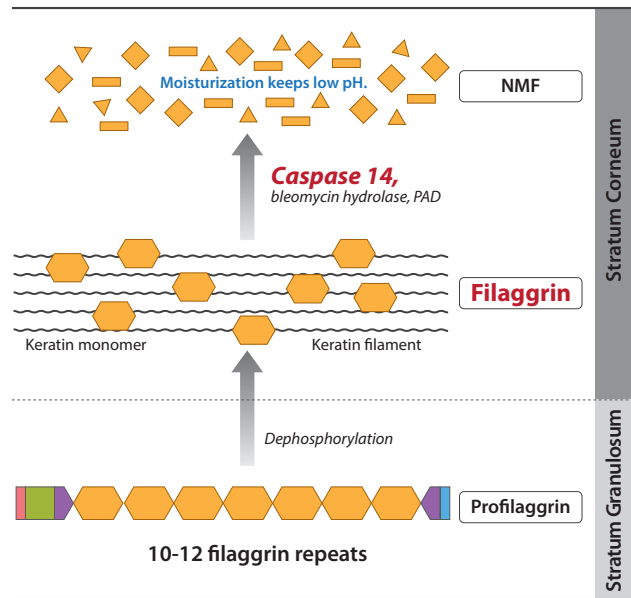
## HAS 2 (Hyaluronic Acid Synthase 2) Gene Expression in Keratinocyte



HAS 2 gene expression was increased about 150% by 2% of Greenth. High hyaluronic acid synthase in cell level is expected by this result.

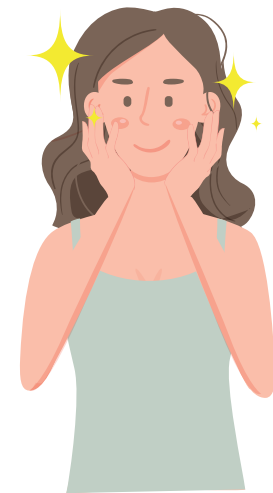
# Improvement of skin barrier function-*In vitro*

## Stimulation of Filaggrin and Caspase 14 Gene Expression in Keratinocyte



Filaggrin and Caspase 14 are the important factors for skin barrier function, both were increased significantly by 2% of Greenth.

# Summary



# Product Information

- ❖ **Product Name:** Greenth(GPD)-RSPO
- ❖ **INCI Name:** Vitis Vinifera (Grape) Fruit Extract  
Pyrus Malus (Apple) Fruit Extract  
Prunus Mume Fruit Extract  
Carica Papaya (Papaya) Fruit Extract
- ❖ **Dosage:** 1 – 5%
- ❖ **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 dry area at room temperature.





Go for  
***Nature,***      Go with  
***NaturalSolution!***

*" We are always upgrading to serve you better"*

