

Rosa

Product Name: Rosa

Plant Name: Rose

Scientific name: *Rosa centifolia*



Rose

Rosa

Rosa centifolia is a hybrid, first developed by rose breeders in the Netherlands in the 16th Century. It is also commonly known as the cabbage rose due to its appearance of several overlapping petals. Rose has a very long history of being used in traditional medicine.



Medicinal benefits and uses of Rose

Rosa

In Western herbal medicine, it has been used as a mild sedative, anti-inflammatory agent, and in an extract to treat skin problems. Scientific research has demonstrated **anti-oxidant activities** by radical scavenging activities and extracts of the rose petals having a **beneficial effect on scalp seborrheic dermatitis**.



Reference:

- Kumar, R., Nair, V., Gupta, Y. K., & Singh, S. (2017). Anti-inflammatory and anti-arthritis activity of aqueous extract of *Rosa centifolia* in experimental rat models. *International journal of rheumatic diseases*, 20(9), 1072-1078.
- MANCAS, V., & AMARIEI, S. (2017). Total phenolic content and antioxidant activity of syrups from peony (*paonia peregrina mill. var. romanica*) and rose (*rosa centifolia*) petals. *Food and Environment Safety Journal*, 15(1).

Multi Efficacy Product

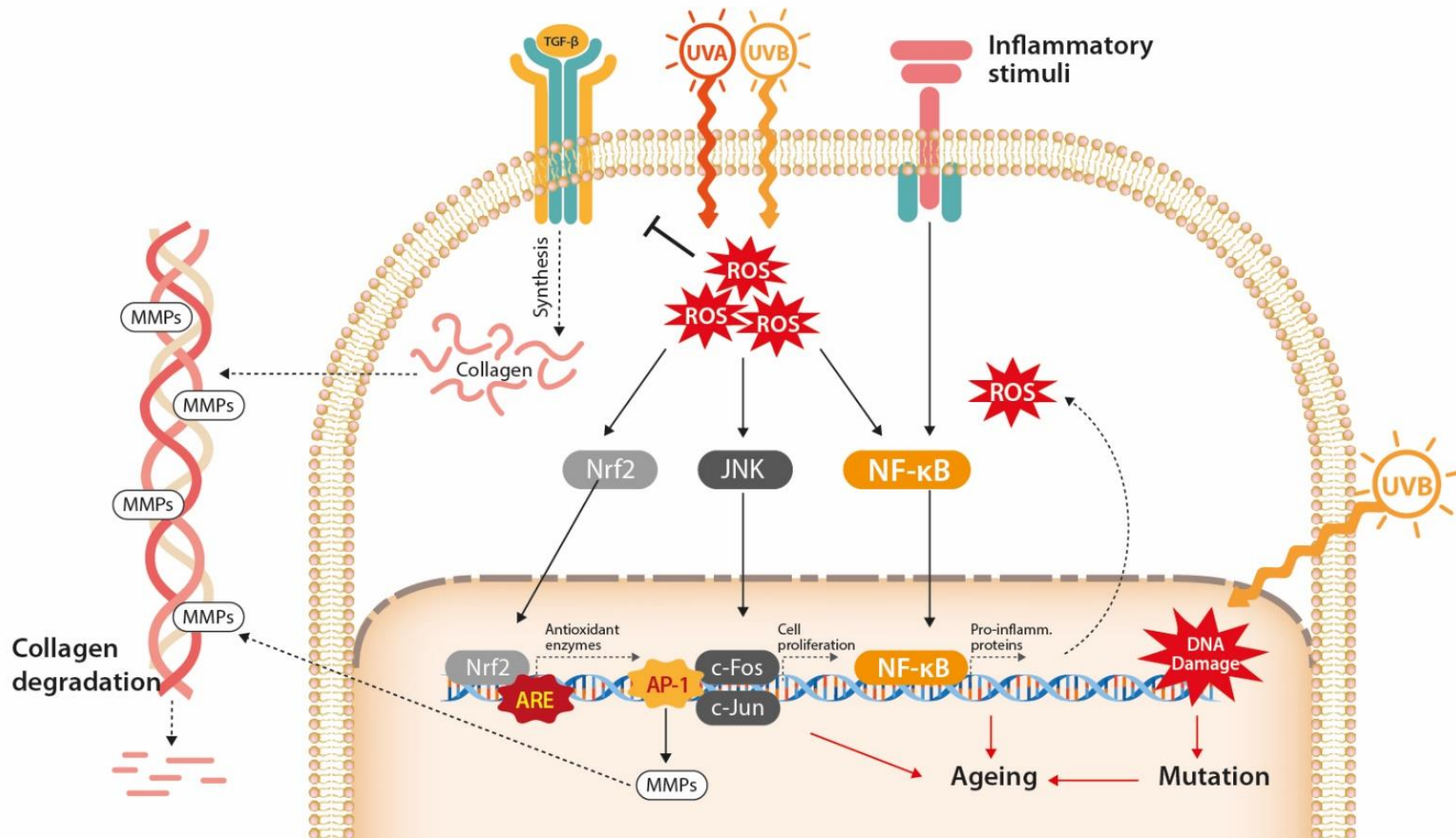
Antioxidant /Anti-inflammatory/ Skin Brightening /Anti-wrinkle/ Hair Growth



Oxidative stress mechanism

Rosa

Our skin is under attack from many factors in daily life, such as UV, pollution and smoking. These factors increase the Reactive Oxygen Species (ROS). It causes cellular damage, resulting in skin aging.

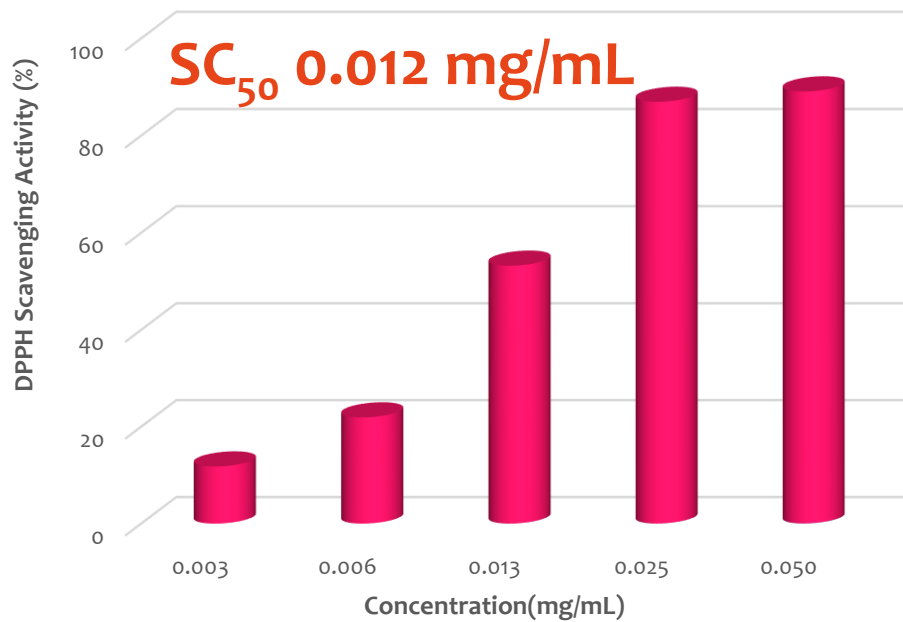


Anti-oxidant effects of Rosa

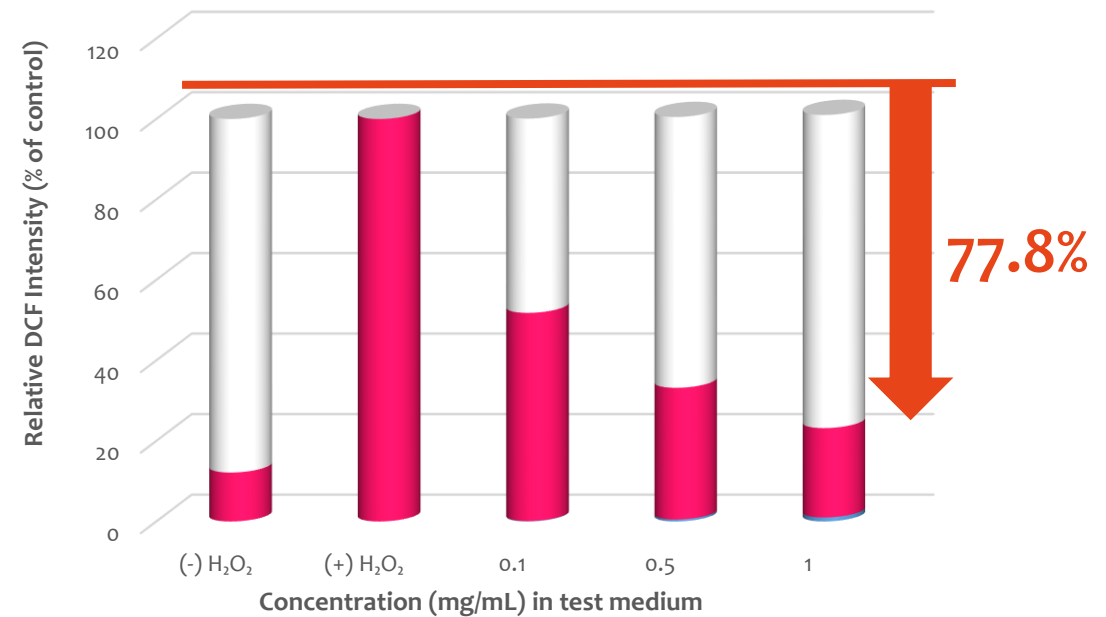
Rosa

When testing for free radical scavenging activity, it was confirmed that as the concentration of the Rosa increases, the inhibition activity also increases along with it. Rosa was also found to reduce oxidative stress by 77.8%.

Free Radical Scavenging Activity (*in tubo*)



ROS Inhibition Activity (*in vitro*)

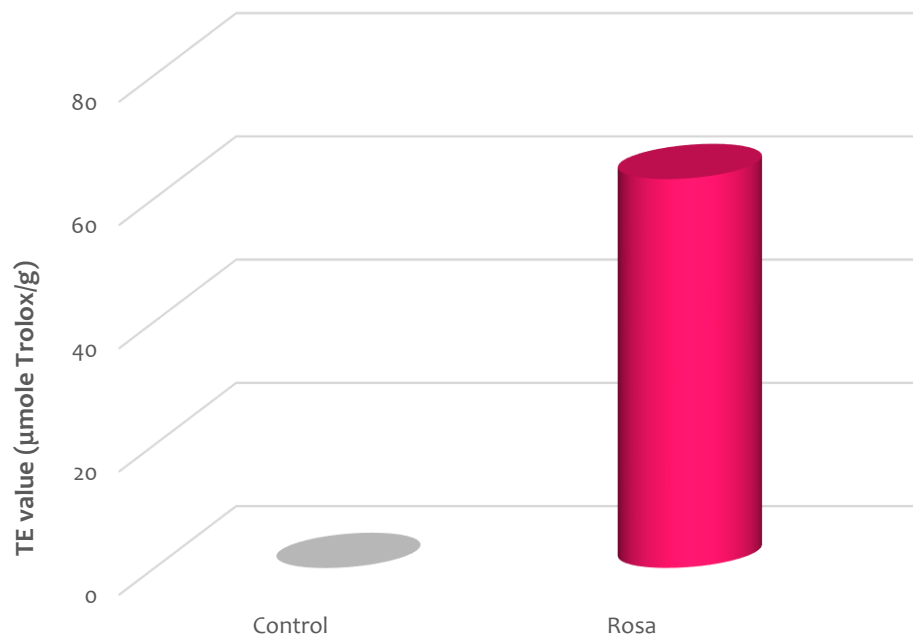


Anti-oxidant effects of Rosa

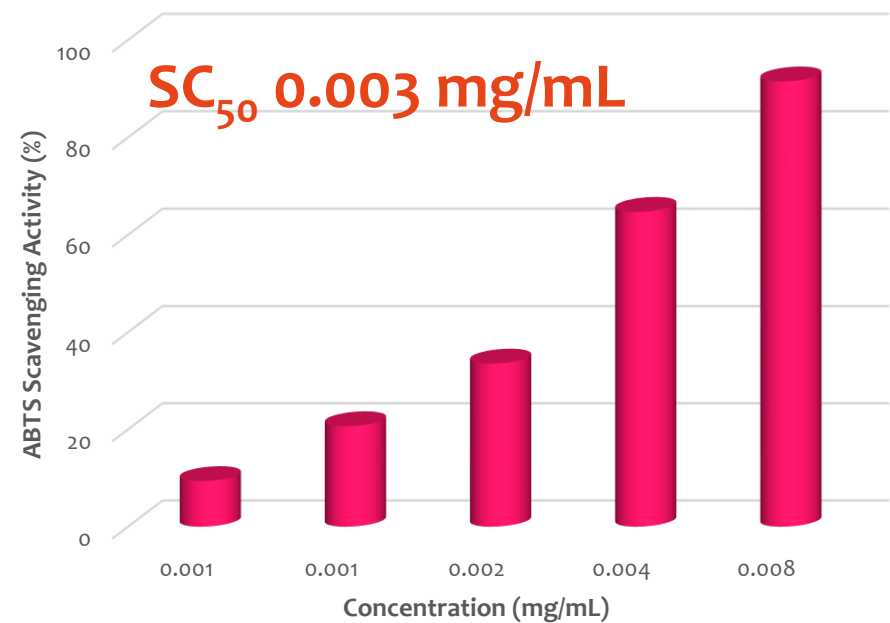
Rosa

When testing for oxygen radical absorbance capacity and ABTS radical cation scavenging activity, it was confirmed that as the concentration of the Rosa increases, the inhibition activity also increases along with it.

Oxygen Radical Absorbance Capacity (*in tubo*)



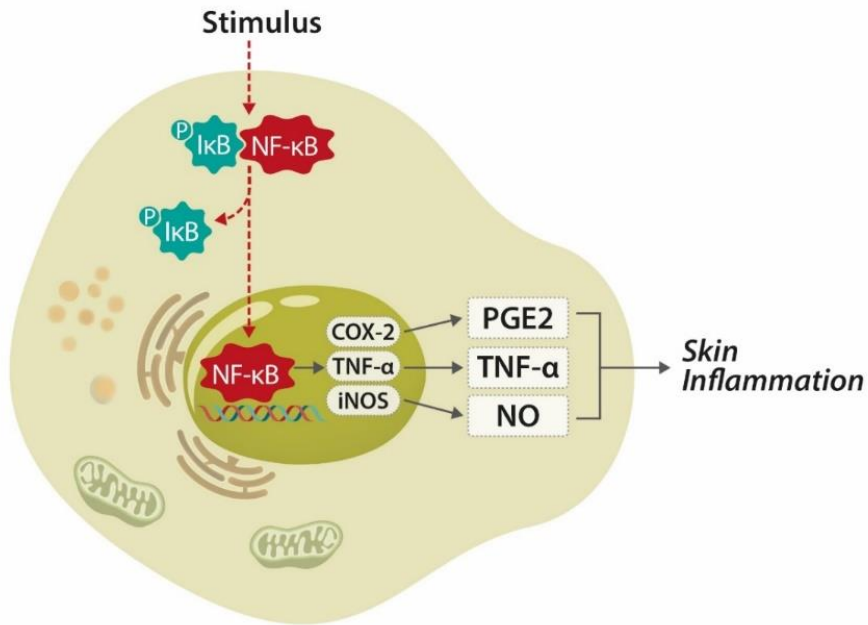
ABTS Radical Cation Scavenging Activity (*in tubo*)



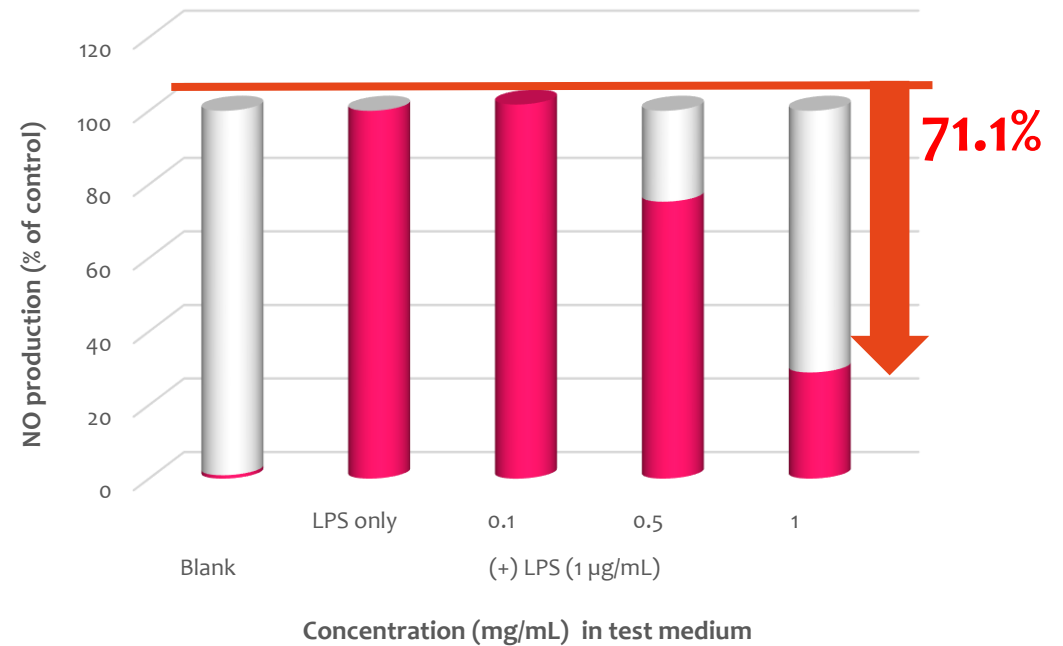
Anti-inflammatory effects of Rosa

Rosa

The immune system is responsible for protecting our skin from harmful stimuli and maintaining homeostasis. Inflammation impacts the homogeneity of the skin tones. Rosa showed anti-inflammatory efficacy by inhibiting Nitric Oxide (NO) synthesis.



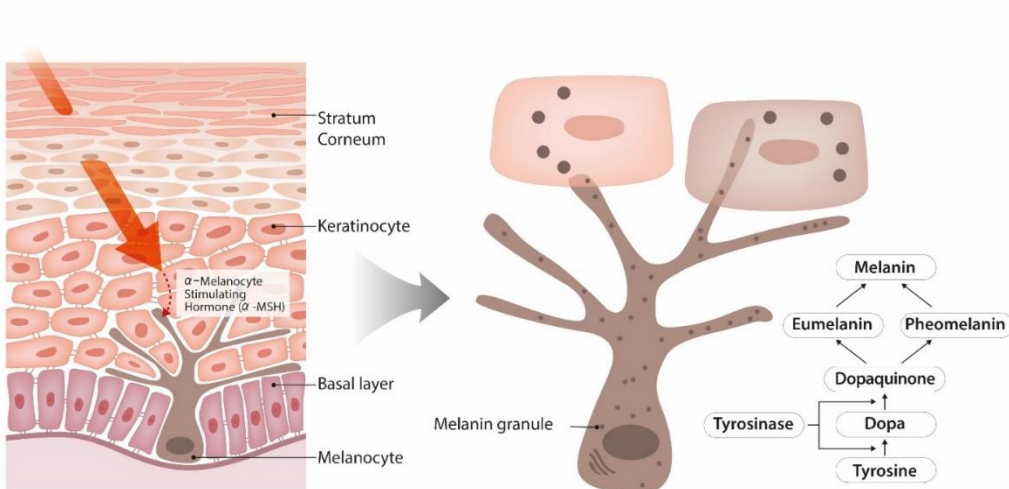
NO Synthesis Inhibition Activity (*in vitro*)



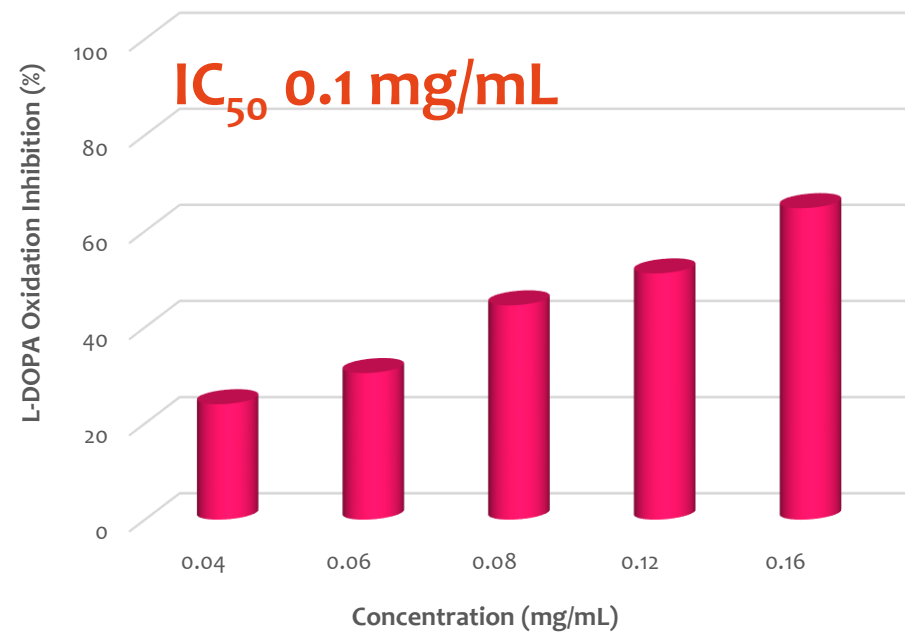
Skin Brightening effects of Rosa

Rosa

In the melanin biosynthesis pathway in the human skin, Tyrosinase reacts with DOPA to promote skin melanin synthesis through the production of DOPA-quinone. Rosa has a skin brightening efficacy by inhibiting L-DOPA oxidation.



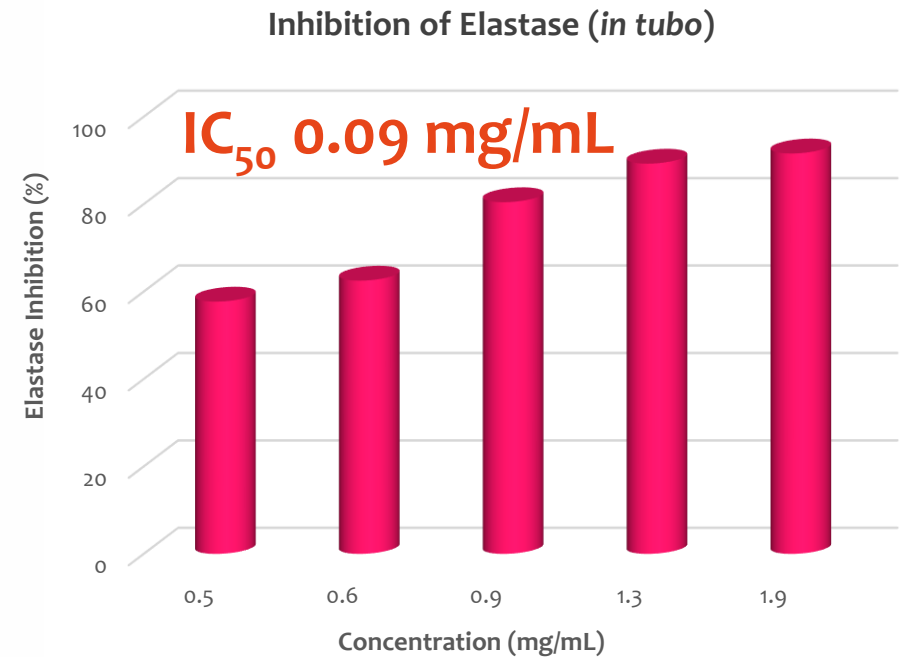
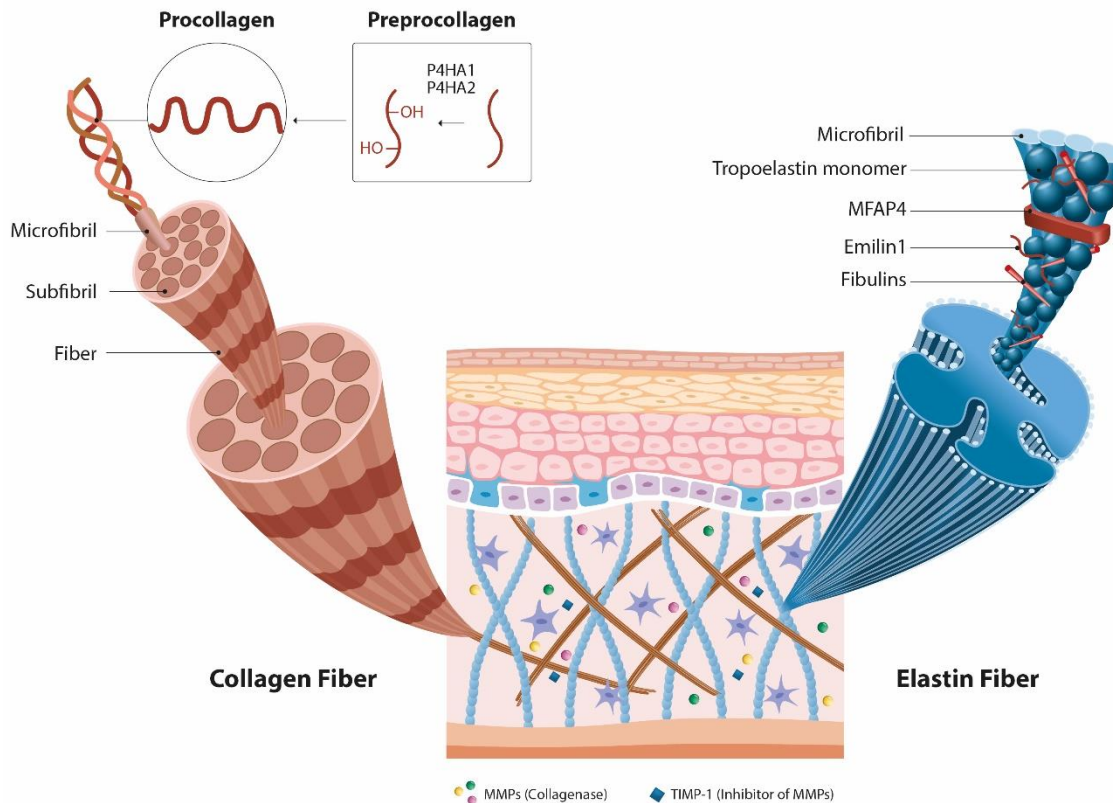
Inhibition of L-DOPA Oxidation (*in tubo*)



Anti-wrinkle effects of Rosa

Rosa

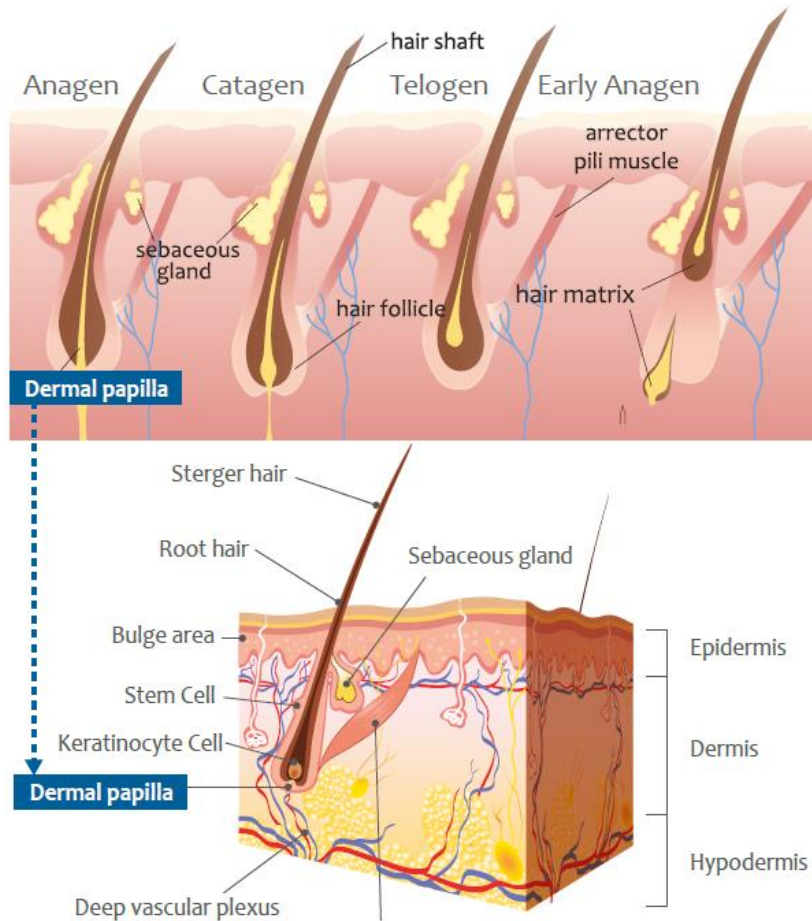
The elastin tissue imparts elasticity to the skin and degradation of elastin is one of the causes to wrinkle formation. Rosa showed the anti-wrinkle efficacy by inhibiting elastase activity.



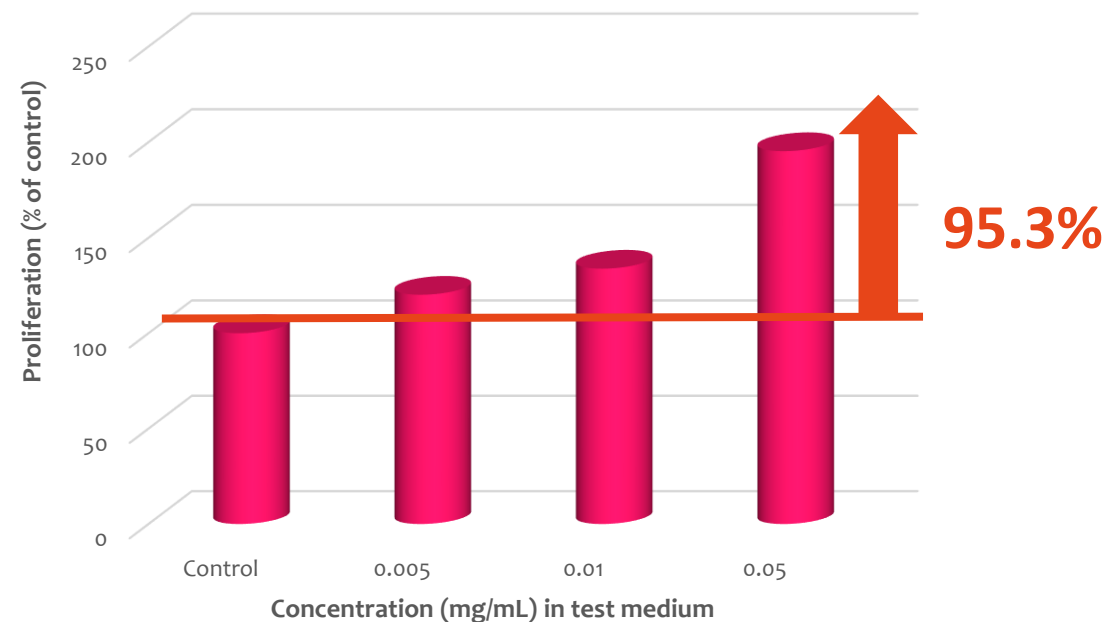
Hair growth effect of Rosa

Rosa

Human hair growth has a unique repetitive cycle composed of the anagen, catagen, telogen phases, and early anagen. Furthermore in this hair growth, Human Dermal Papilla (HDP) cells play a critical role in regulating hair follicle development and period regeneration. Therefore, this cycle clearly shows the importance of hair cell regeneration, which is the fundamental method to restore lost hair cells. Rosa was shown to have excellent hair-growth efficacy by increasing hair cells to 95.3%.



Procollagen type peptide Synthesis Activity (*In vitro*)

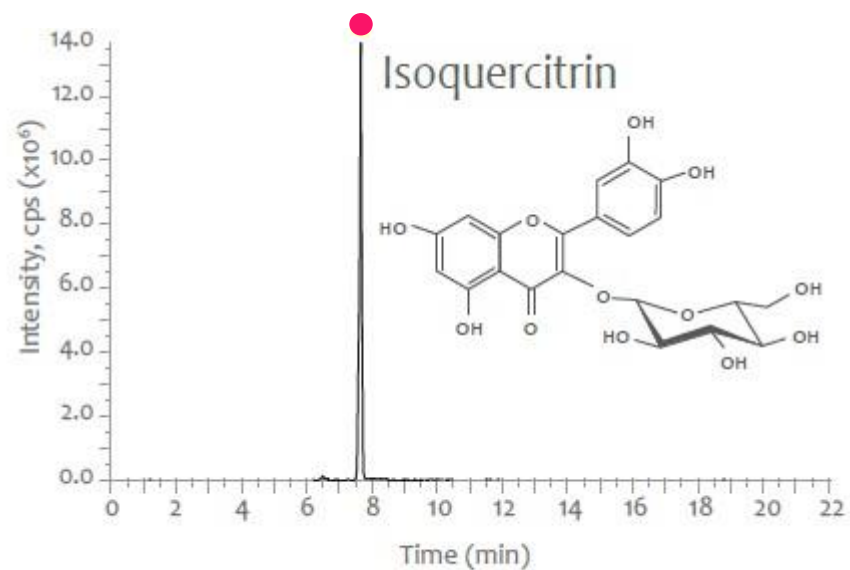


Active compound of Rosa

Rosa

Through LC-MS/MS Analysis, we found out that Rosa contains Isoquercetin, which is a phenolic compound in Rose that contributes to its anti-oxidation properties.

LC-MS.MS Analysis



Summary

1

ANTI-OXIDATION

2

ANTI-INFLAMMATION

3

SKIN BRIGHTENING

4

ANTI-WRINKLE & HAIR CARE



Product information



Product Name: Rosa

INCI name: *Rosa centifolia*

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 Secrets of Caledonia

The Secrets of Caledonia (TSOC) is a supplier of natural cosmetic ingredients inspired by Scottish traditional herbal medicine. Taking advantage of Scotland's biodiversity and working in collaboration with established Scottish herbalists, we aim to provide the most effective and innovative natural ingredients at the highest quality.



Tel
+44 (0)131 629 9584



E-mail
marketing@tsocalledonia.co.uk



Address
Unit 8F Edgefield Road Industrial Estate,
Loanhead, EH20 9TB