Selfheal

Plant part: Aerial parts
Scientific name: *Prunella vulgaris*
INCI name: Prunella Vulgaris Extract
IECIC 2015 name: PRUNELLA VULGARIS EXTRACT

the secrets of caledonia

Selfheal

Product Name: Selfheal

Plant Name: Self-heal

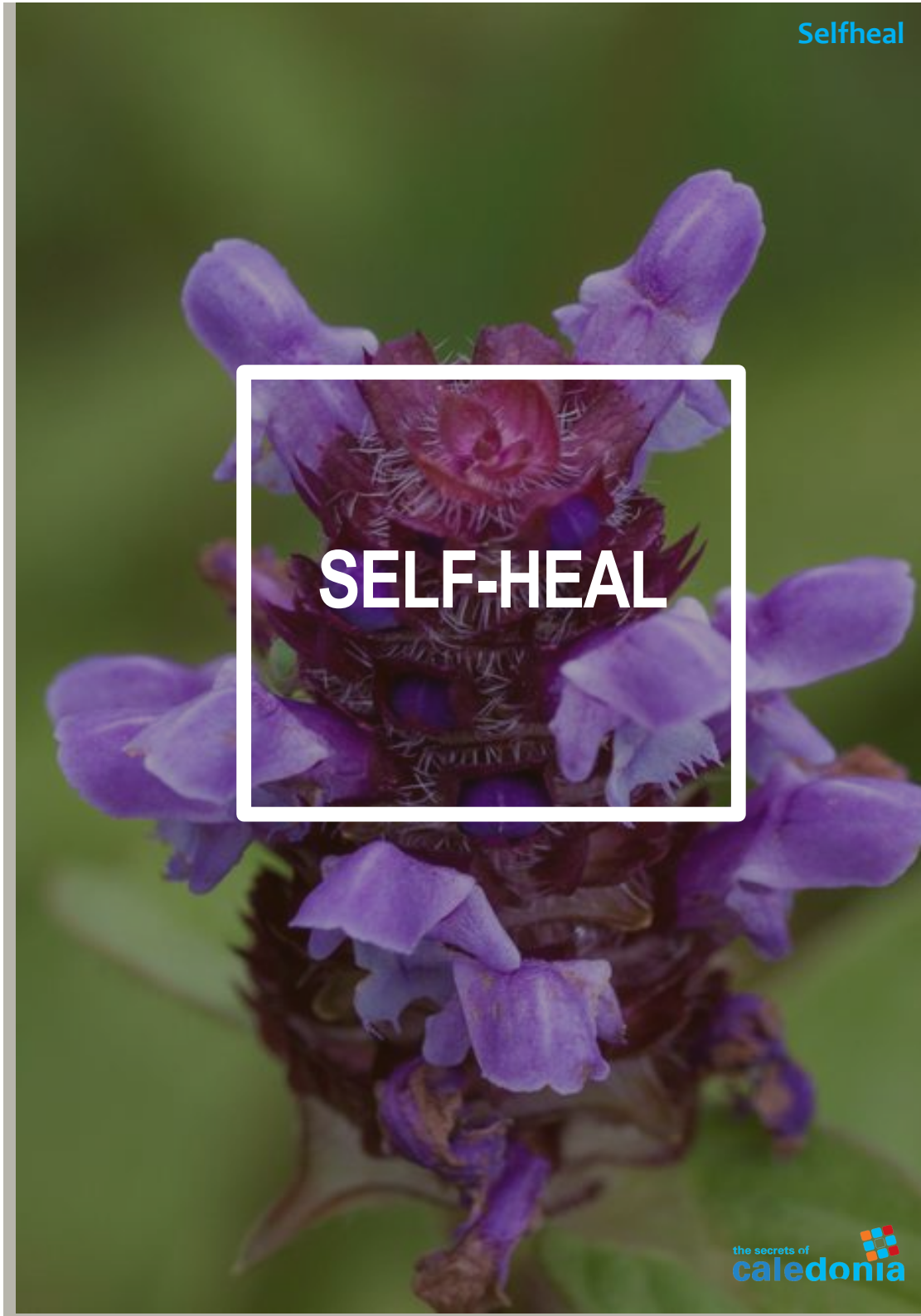
Prunella vulgaris, also known as self-heal and woundwort. Self-heal is a perennial herb found throughout Europe, Asia and North America, as well as most temperate climates.

It has a long traditional use as a medical herb and has been used more recently in cosmetic formulations due to its skin protecting properties.

Harvesting
Self-heal

Our self-heal is grown and harvested from an established organic Scottish farm.

The farmers are always looking for ways to achieve sustainability and produce as little waste as possible, in line with our company values.



Traditional Use

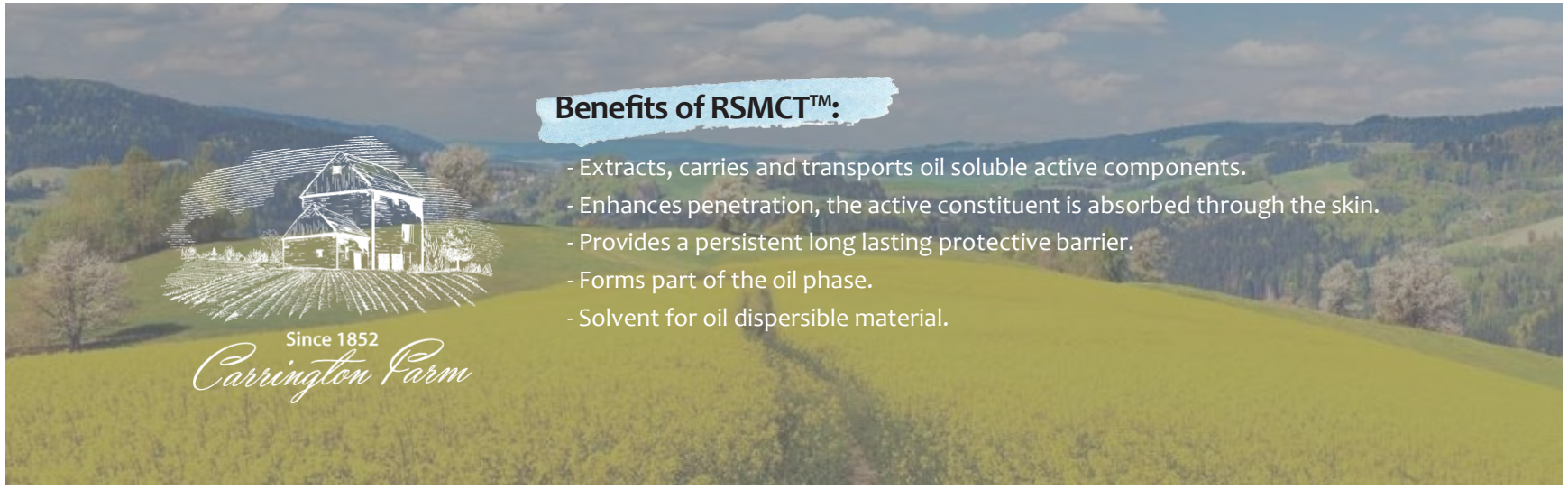
Prunella vulgaris has been traditionally used for wounds on the skin and burns. It is also used for drawing out infections, such as abscesses and boils. In Western herbalism, self-heal has been commonly used as an astringent and demulcent, stabilizing tissue and protecting the skin's moisture at the same time. Self-heal contains a number of phytochemicals such as rutin, betulinic acid and delphinidin. It is especially high in rosmarinic acid, known to exhibit antioxidant and anti-inflammatory activities.

Caffeic acid is known to show significant protective effects, whilst phenolic acids are reported to accelerate wound healing. Many research studies have been conducted identifying self-heal extract to have antioxidant, antimicrobial and anti-inflammatory activities.

[1] Effects of *Prunella vulgaris* on mast cell-mediated allergic reaction and anti-inflammatory cytokine production, Kim *et al.*, Exp Biol Med (Maywood), 2007, 232(7), p.921-926
[2] Photoprotective properties of *Prunella vulgaris* rosmarinic acid on human keratinocytes, Psotova *et al.*, J Photochem Photobiol B, 2006, 84(3), p.167-174

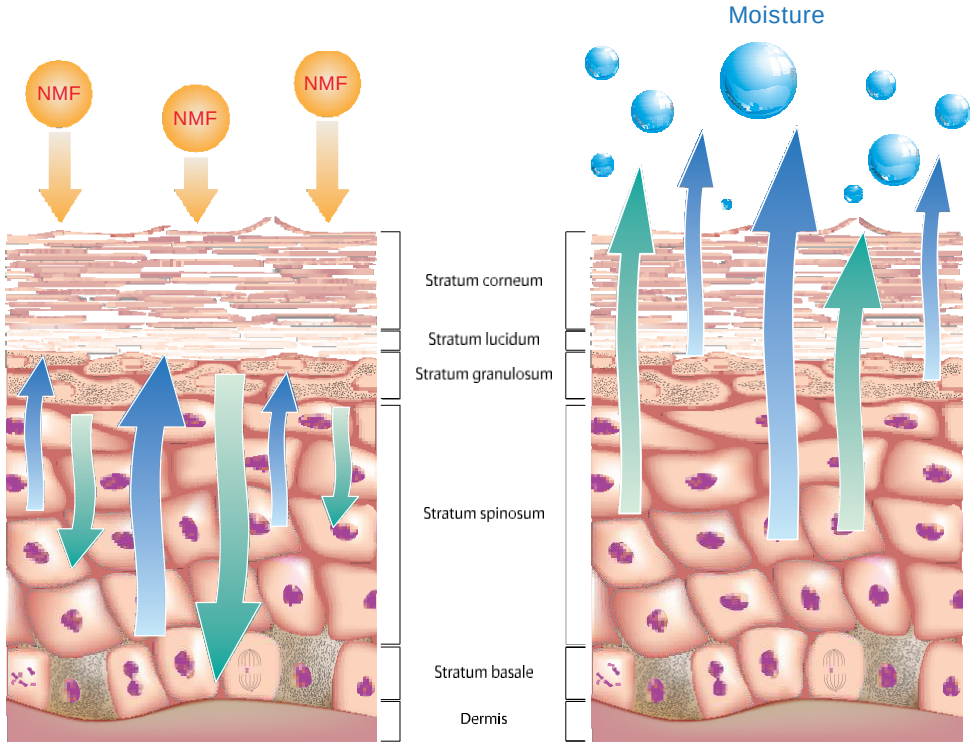
The Secrets of Caledonia
RSMCT™

Our unique **RSMCT™** contains the properties of an effective solvent and skin-conditioning agent which makes it an excellent carrier oil for our herbal infusions.
The rapeseed oil that we use is produced at Carrington Barns, a local family-run farm just 8 miles south of Edinburgh. The rapeseed is grown at the farm, then cold-pressed to maintain its nutrition and the stability of actives, such as anti-oxidant molecules.

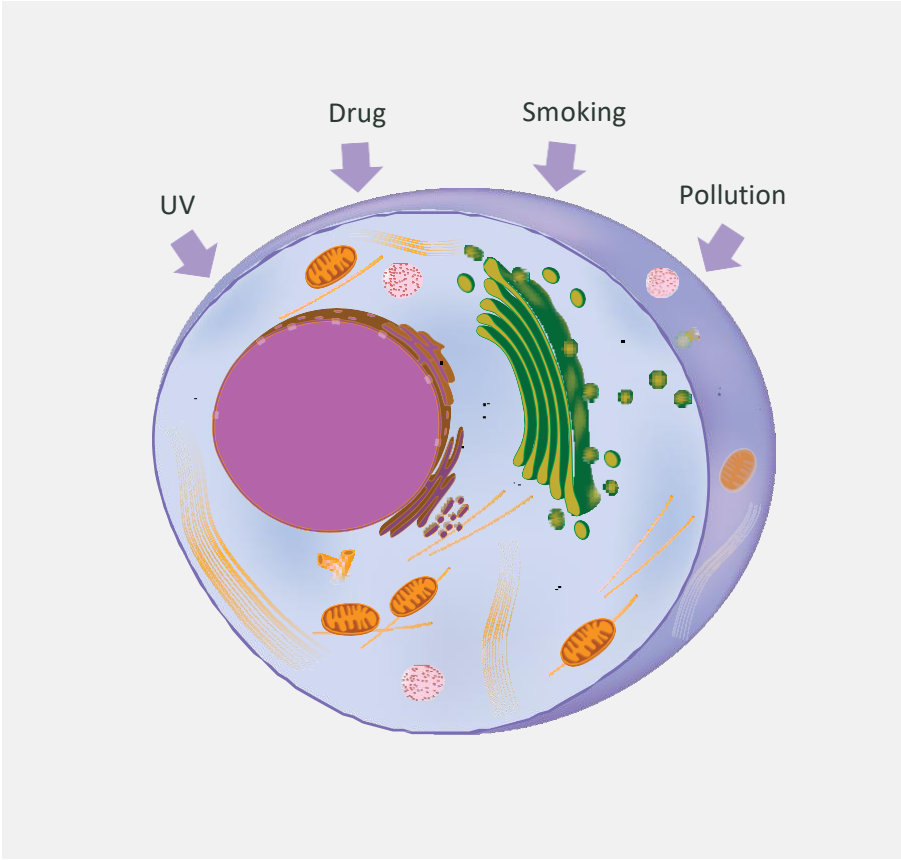


Skin Structure

The retention of water in the Stratum corneum (SC) is dependent on two major components: (1) the presence of natural hygroscopic agents within the corneocytes (collectively referred to as natural moisturizing factor) and (2) the SC intercellular lipids orderly arranged to form a barrier to transepidermal water loss (TEWL). The water content of the SC is necessary for proper SC maturation and skin desquamation. Increased TEWL impairs enzymatic functions required for normal desquamation resulting in the visible appearance of dry, flaky skin.



Anti oxidation

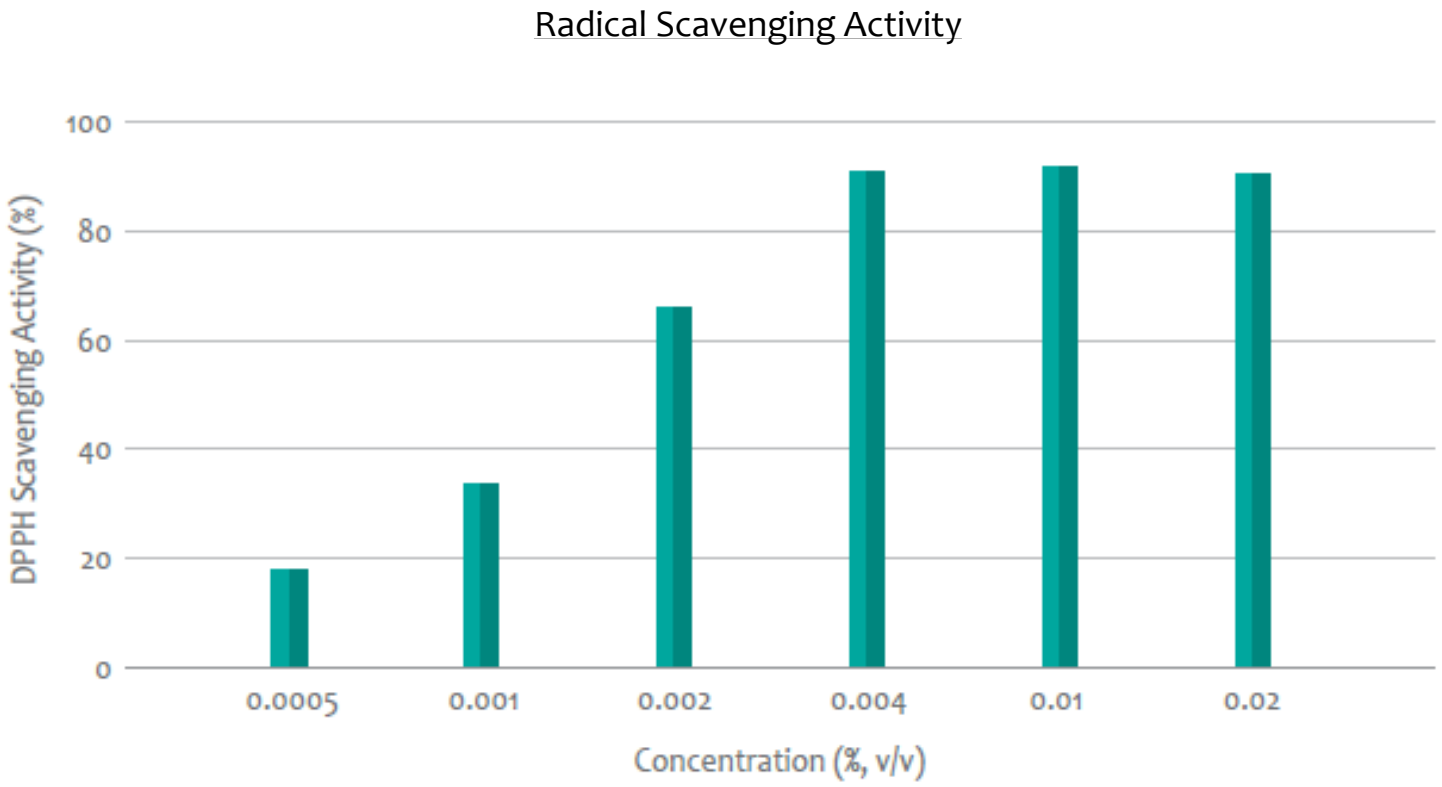


Why are they important?

Our skin isunder attack from many factors in daily life, such as UV, pollution and smoking. These factors increase the Reactive Oxygen Species (ROS).

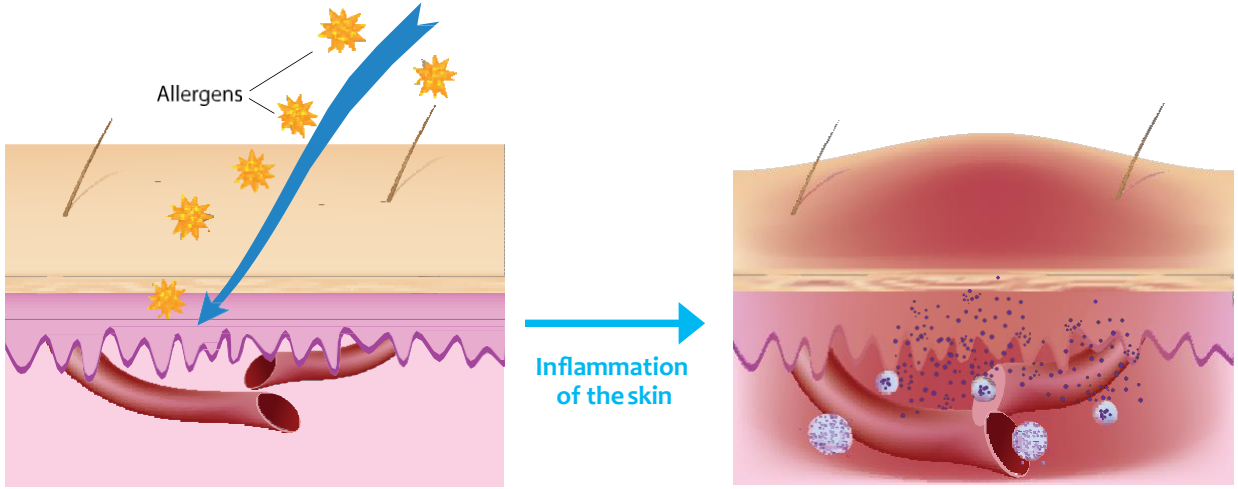
Antioxidants from Selfheal can inhibit the generation of ROS and in turn inhibit cellular damage.

Anti oxidation Effects of Selfheal (*in vitro*)



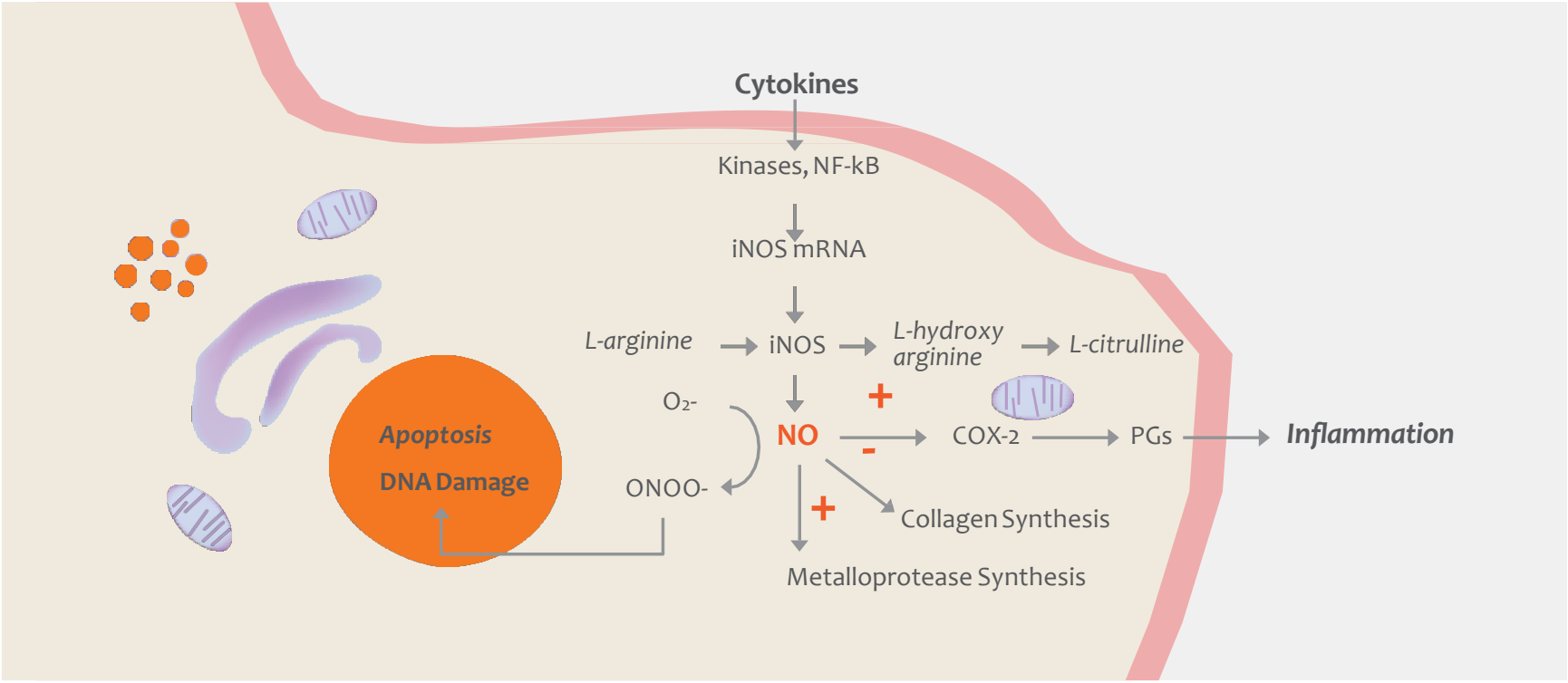
Our skin is under attack from many factors in daily life, such as UV, pollution and stress. These factors increase Reactive Oxygen Species (ROS). Antioxidants from Selfheal can inhibit the generation of ROS and in turn inhibit cellular damage, as demonstrated by the results shown in this graph.

What is Inflammation?

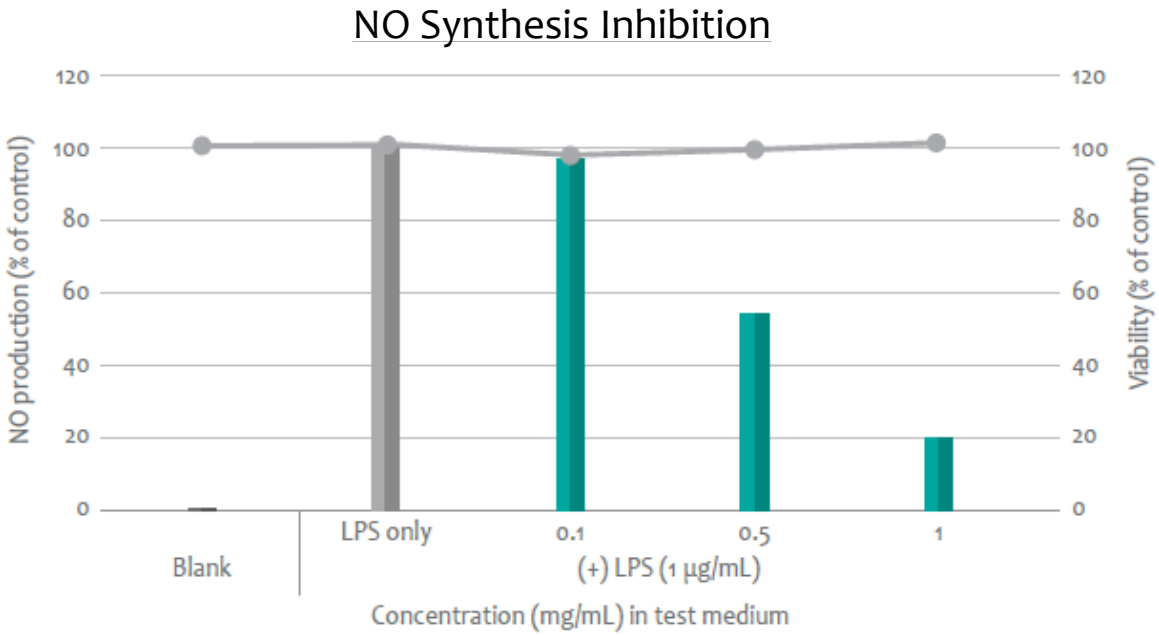


Inflammation is part of the complex biological responses to wide range of harmful stimuli including injury, tissue necrosis, infection, and irritants. The purpose of inflammation is to destroy (or contain) the damaging agent, initiate repair processes and return the damaged tissue to useful function. The symptoms of inflammation are redness, swelling, heat, and pain, which are caused by increased blood flow into tissue. The immune system is responsible of protecting our body from the harmful stimuli and of maintaining homeostasis. Disorders of the immune system can result in autoimmune diseases, inflammatory diseases, and cancer. In an attempt to protect the body, the immune system might overreact to the stimuli, and this might cause allergy or inflammatory reactions.

Inflammation Mechanism

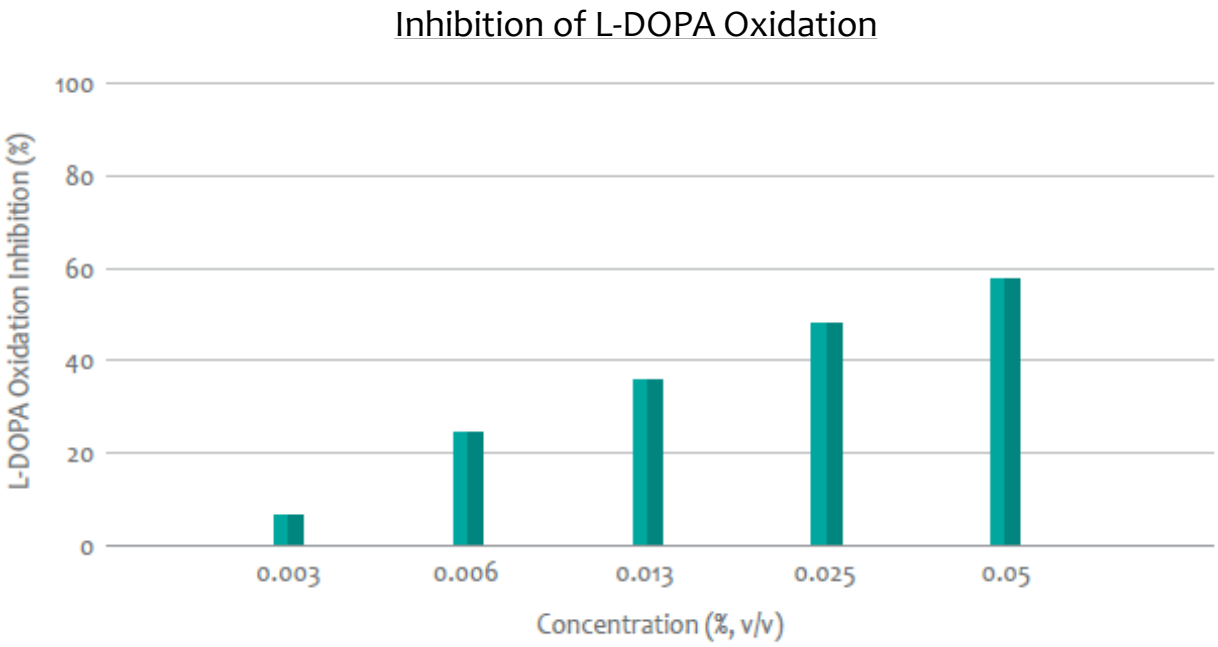


Anti-inflammation Effects of Selfheal (*in vitro*)



Our cell tests found that when Selfheal was added to LPS-stimulated macrophages, there was a decrease in nitric oxide (NO) synthesis.

Skin Brightening Effect of Selfheal (*in vitro*)



Results show that there was a significant increase in the inhibition of L-DOPA oxidation, in a concentration-dependent manner.

Product Information

Product Name : Selfheal

INCI name : Prunella Vulgaris Extract
(China Compliant)

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.

Reported functions

Ingredient : PRUNELLA VULGARIS FLOWER/LEAF/STEM EXTRACT

INCI Name	PRUNELLA VULGARIS FLOWER/LEAF/STEM EXTRACT
Description	Prunella Vulgaris Flower/Leaf/Stem Extract is the extract of the flowers, leaves and stems of Prunella vulgaris L., Lamiaceae
INN Name	
Ph. Eur. Name	
CAS #	90105-92-3
EC #	290-211-6
Chemical/IUPAC Name	
Cosmetic Restriction	
Other Restriction(s)	
Functions	• SKIN PROTECTING
SCCS opinions	
Identified INGREDIENTS or substances e.g.	

Source: European Commission [http://ec.europa.eu/growth/tools-databases/cosing/index.cfm?fuseaction=search.details_v2&id=82415]

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.

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