

# Plush Pea

**Plant part:** Seed

**Scientific name:** *Pisum sativum*

**INCI name:** Pisum sativum (Pea) Seed Extract

**IECIC 2015 name:** PISUM SATIVUM (PEA) SEED EXTRACT



## Plush Pea

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**Product Name: Plush Pea**

**Plant Name: Pea**

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*Pisum Sativum* are a type of vegetable that is grown for its seeds, that are consumed worldwide in a variety of dishes. It is cool season, herbaceous annual plant originally from the Mediterranean, that is now grown in many parts of the world.

The pea is very nutritious for its size and includes Vitamins A, C, K and B1 as well as Iron, Phosphorous, folate, protein, carbohydrates and fibre.

## Harvesting Peas

The marrowfat or kabuki pea is a popular variation of *Pisum sativum* found in the UK. Marrowfat peas are usually left to dry in the field to create its distinctive dried skin. The plant can reach heights of up to 2 meters and generally flowers for several months before forming seeds or peas.

The peas we use in our extracts at The Secrets of Caledonia are organically grown on an English farm, where sustainability and waste reduction are in line with our own company values.

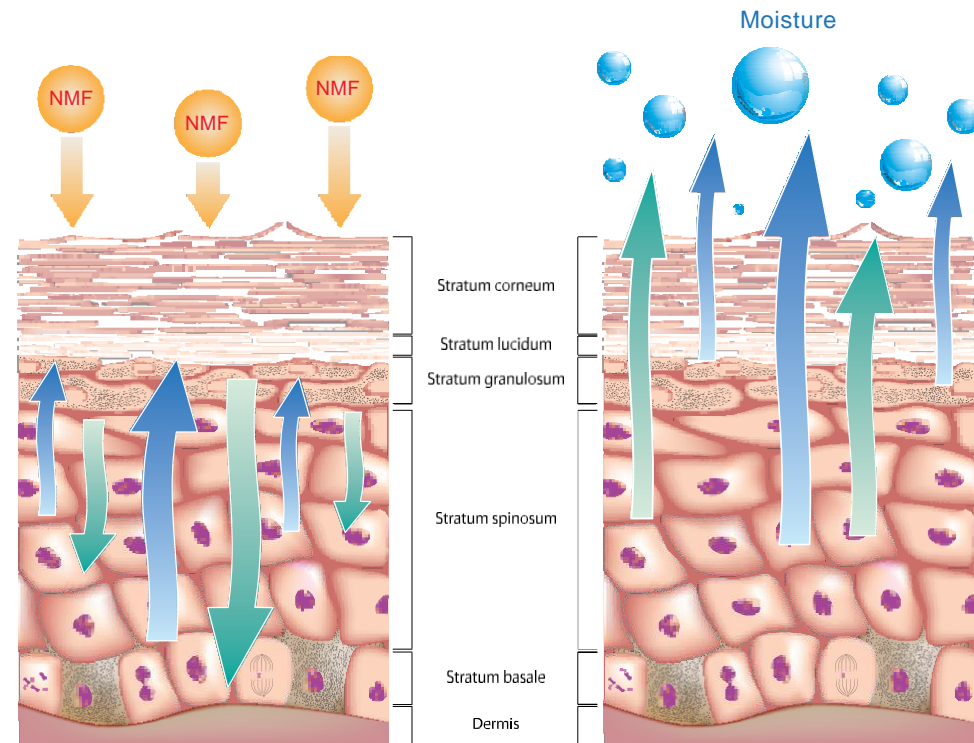


Peas

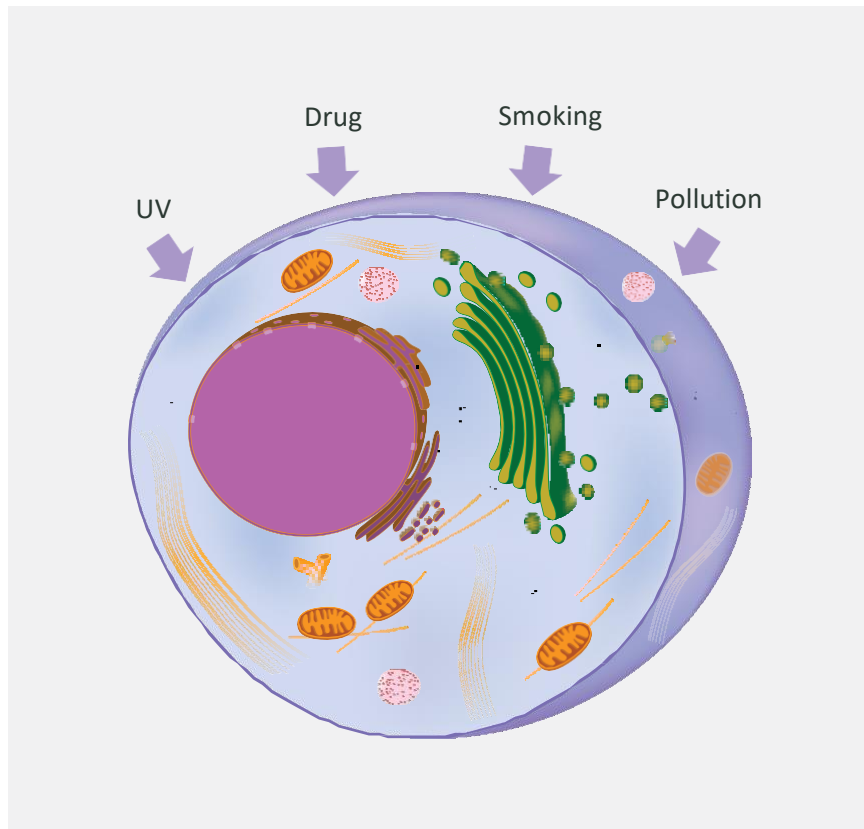
*Pisum Sativum* are a type of vegetable that are grown for their seeds, which are consumed worldwide in a variety of dishes peas have been consumed as part of the human diet for thousands of years as were used as a traditional medicine to reduce cholesterol and promote health. The anti-microbial and anti-fungal properties of *P. sativum* have been studied and it is reported that the pea contains several anti-fungal proteins. Phytoalexins of the pea, which are antioxidative and anti-microbial are known aid in the treatment of acne.

# 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.



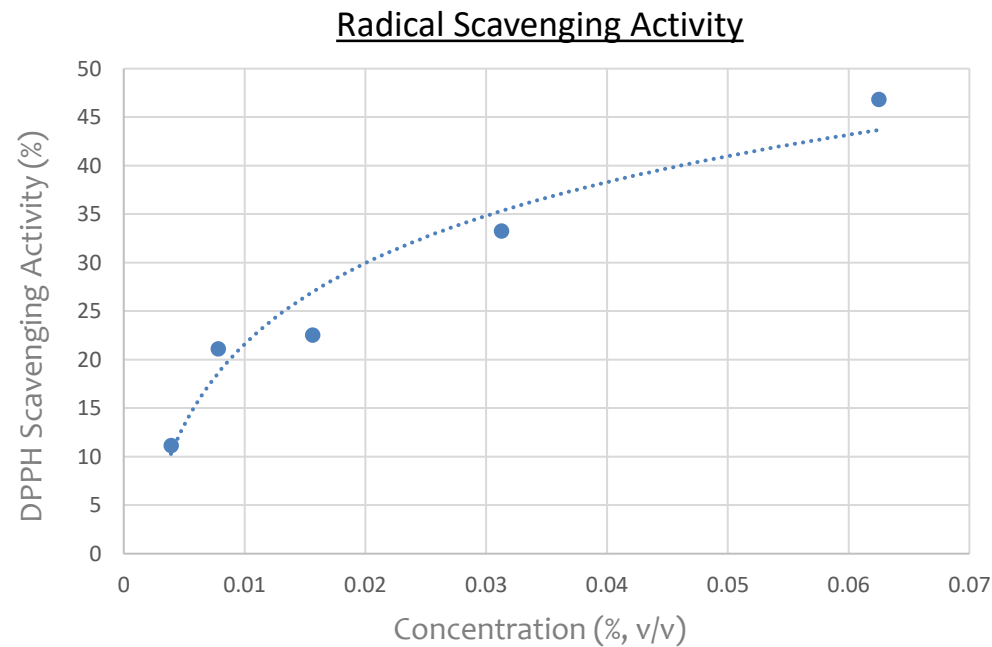
# Antioxidants



## ***Why are they important?***

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).

# Antioxidant Effects of Pea Extract

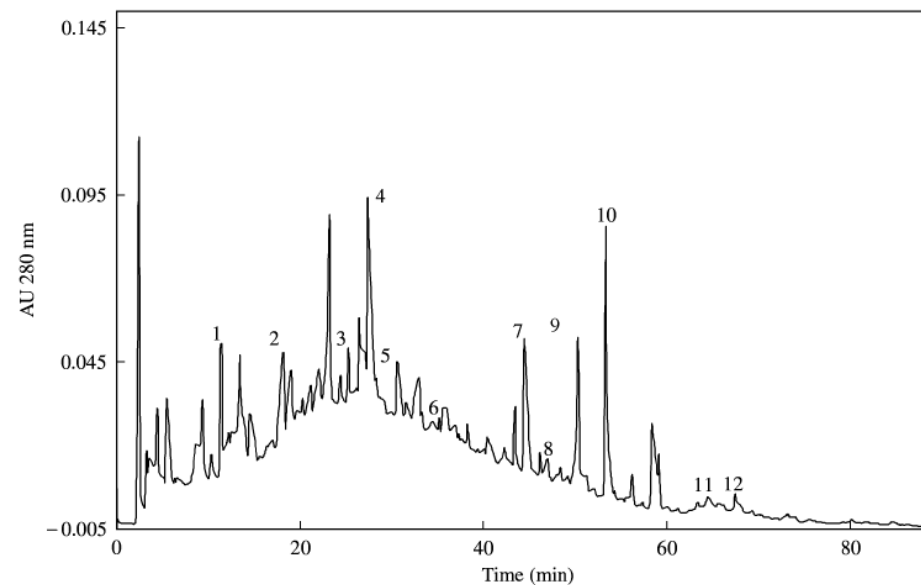


**SC<sub>50</sub>: 0.07%**

An SC<sub>50</sub> of 0.07% means that a concentration of this percent is required to successfully scavenge 50% of free radicals. Antioxidants from Plush Pea can inhibit the generation of ROS and in turn inhibit cellular damage.

# Active Compounds

Chemical analysis of *Pisum sativum* extracts have shown the following compounds: polyphenols, tannins and flavonoids. The figure below shows the HPLC results for pea seed coat phenolic compounds:



**Fig. 4** HPLC-chromatogram of phenolic compounds of pea seed coat extract. 1: Protocatechuic acid; 2: p-Hydroxybenzoic acid; 3: Vanillic acid; 4: p-Coumaric acid derivative; 5: trans p-Coumaric acid; 6: Ferulic acid derivative; 7: Luteolin-7-glucoside; 8: Quercetin-3-rutinoside; 9: Apigenin-8C-glucoside; 10: Apigenin-7-glucoside; 11: Kaempferol-7-glucoside; 12: Quercetin-3-ramnoside



# Reported functions

Ingredient : PISUM SATIVUM SEED EXTRACT 

INCI Name	PISUM SATIVUM SEED EXTRACT
<b>Description</b>	Pisum Sativum Seed Extract is the extract of the seeds of the Pea, Pisum sativum L., Fabaceae
INN Name	
Ph. Eur. Name	
CAS #	90082-41-0
EC #	290-130-6
Chemical/IUPAC Name	
Cosmetic Restriction	
Other Restriction(s)	
Functions	<ul style="list-style-type: none"> <li>• <a href="#">SKIN CONDITIONING</a></li> </ul>
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=82764](http://ec.europa.eu/growth/tools-databases/cosing/index.cfm?fuseaction=search.details_v2&id=82764)]

# Product Information

**Product Name :** Plush Pea

**INCI name :** Pisum sativum (Pea) Seed 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.





## 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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