

Principelle Celan

Product information

Celan® is a honey based skin care ointment, which contains next to buckwheat honey active herbal ingredients with proven biological activity.

Buckwheat honey

Honey is a natural product with a long history of medical application, mostly applied for wound healing.

The process of wound healing resembles the inflammation process in its complexity, with contributions of many inflammatory cells, like polymorphonuclear neutrophilic granulocytes (PMNs), monocytes and or macrophages (MΦ), as well as involvement of the complement system.

Wound healing

Many biological aspects of honey samples from all over the world were studied and judged by PhytoGeniX. In these assays, Buckwheat honey performed best. Next to that, Buckwheat honey also distinguished itself from the other honey samples by its high anti-oxidant capacity (see figures below).

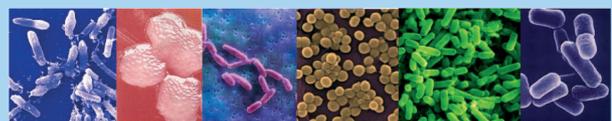
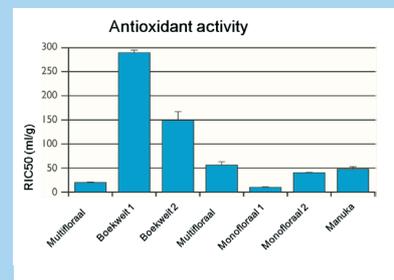
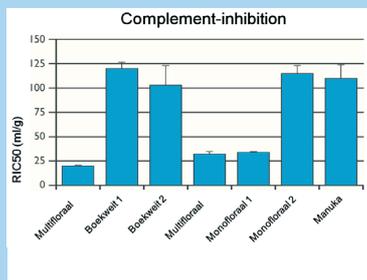
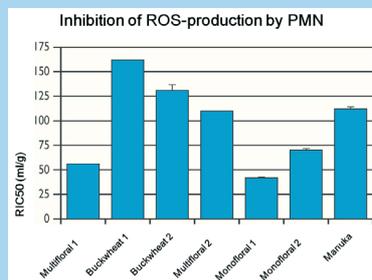
We are fully convinced that controlled inhibition of the inflammatory process results in better wound healing.

Antibacterial activity

The anti-bacterial activity of honey is based on a number of constituents and properties. The high sugar concentration causes osmotic stress. Glucose oxidase converts glucose into H_2O_2 and gluconic acid. Gluconic acid, in turn, contributes to the acidity, the low pH, of honey (in general between 3.2 and 4.5). Methylglyoxal was identified as an antibacterial component in Manuka honey. Recently an anti-microbial peptide was isolated and identified, named Bee-Defensin I.

At the UMCU the antibacterial capacity of Buckwheat honey-based ointment was demonstrated for the following micro-organisms:

(Vancomycin resistant) Enterococcus faecalis –
(Ciprofloxacin resistant) Escherichia coli –
Candida albicans – *Klebsiella pneumonia* –
Pseudomonas aeruginosa – *(Methicillin resistant) Staphylococcus aureus (MRSA)* –
extended spectrum beta lactamase enterobacter (ESBL) –
Enterobacter cloacea – *S. epidermidis* – *B. cereus*



Active herbal ingredients



Propionylacetovanillonum is a non-steroid, anti-inflammatory compound, originally isolated from *Picrorhiza kurroa* a medicinal plant growing in the Himalaya's. Due to a simple but effective modification it penetrates the skin easily. Our strategy in skin care is based on the inhibition of inflammatory processes. A calm wound bed is a prerequisite for repair with less scar formation.



Caryophylli floris aetheroleum, Clove oil is known for its pain killing effect (often used by the dentist). It is used as a local anaesthetic.



Paeonolum is an active herbal constituent isolated from the bark of *Paeonia suffruticosa*. Peony bark extract is traditionally used in Chinese medicine for skin disorders. Paeonolum also reduces pain, counteracts platelet aggregation, inhibits lipid peroxidation, prevents reperfusion injury following ischemia, and is anti-inflammatory.



Cardiospermum halicacabum (Balloon vine extract) is known for its anti-inflammatory, anti-itching and pain killing activity and often used for skin conditions such as eczema, redness, and scaling.

Principelle B.V.
The Netherlands

info@principelle.nl
www.principelle.com

