

Full Detox Eucalyptus

Getting back to balance

A STORY

The eucalyptus | *Eucalyptus punctata*, *Myrtaceae*
The tree from the Blue mountains

As a mythical plant from Australia, eucalyptus is an aromatic and ancestral tree of the Australian earth. It is used as food by koalas which live in its branches. It is a medicinal plant: it is used not only by Aborigines but also all over the world as an antiseptic (leaves are applied on wounds), antipyretic and expectorant. It is also a mythical creature of the DreamTime, that shaped the Earth and its landscapes, the Blue Mountains (its blue colour comes from the eucalyptus that exhale essential oil).

Key points

An active plant cell

Developed to deliver the highest amount of original active molecules.

A high tech natural ingredient

Created to preserve and improve the identity and the benefits of a natural product.

A deep balancing action

Helps to get the original state of skin

Because sometimes we have a muddy complexion, due to internal events (tiredness, emotions) or an aggressive environment, it is necessary to help skin to control its regulation processes. For a skin that gets its original balance, for a radiant and matt skin longer.



PRODUCT BENEFITS

Purifying & oxygenating

Radiance

Helps skin to get a tone more radiant, by detoxifying and oxygenating skin cells.

Mattifying

Contributes to decrease the shining of complexion.

Regenerating

Increases epidermis cell regeneration and reinforces the protective skin barrier.

Anti-oxidant, anti-pollution

Reduces the creation of free radicals due to pollution.

To be used in skincare or make-up products such as cream, fluid, serum, balm, lotion, milk, foundation, concealer, etc. In any cosmetic or skincare product dedicated to maintain or restore skin balance.

NÆOLYS

Related products | PURIFY WHITE WATER LILY | PURE LIGHT
CHINESE PEONY | FULL DETOX YLANG YLANG

HOW IT WORKS

Full Detox Eucalyptus: restoring the original level of unbalanced mechanisms

Full Detox Eucalyptus acts for skin to get back to its purifying balances. Indeed it helps epidermis to get them back by providing a better cell regeneration, and the elimination of toxins through a controlled respiration - cells respire from the beginning to the end, meaning to the release of CO₂. But also by limiting the stocking of lipids at the surface of the epidermis - because it degrades them, and by reducing the creation of free radicals caused by urban atmospheric pollution agents.

Thanks to those actions, epidermis cells free from disturbing elements can get back their activity at its original level.

in vitro testing results

Study of cell renewal - epidermis level

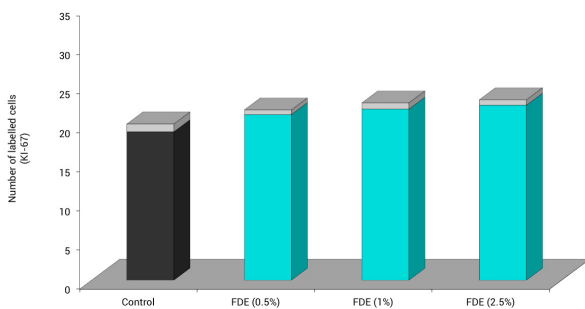
The epidermis, the superficial layer of skin is first made of cells called keratinocytes which renew non stop according to a 21 days cycle. That renewal of the epidermis is made thanks to the cell proliferation and the differentiation that keep the balance of adult tissues, therefore keratinocytes, divide at the level of the basal layer of the epidermis, which is mainly made of non differentiated cells and migrate to the surface changing their form: they lose their nuclei and load hard filaments of keratine. When they reach the cornified layer, they become corneocytes, dead cells that create a solid membran (thanks to keratine) impermeable and protective: the protective natural barrier of the epidermis. Those built up corneocytes will naturally break away and be shed. The alteration of that balance, essential to the good of tissues called homeostasis is responsible for physical changings linked to ageing: skin wilting because of the decrease of cell proliferation, lack of healing in case of wounds, loss of hair...

Study of the proliferation of epidermis cells

Naolys studied proliferation of epidermis cell using KI67, wich is a anti-gene to mark cell proliferation.

Studies have been run on reconstructed epidermis.

Study of epidermis cell proliferation



Increase of KI 67

→ At concentrations of 0.5%, 1% and 2.5%, stimulation of the proliferation of keratinocytes in the basal layer for treated epidermis respectively by 12%, 15% and 18%

Technical information Formulating Full Detox Eucalyptus

INCI name of cells

eucalyptus punctata leaf cell extract

form

cells (20%) in glycerin or sunflower oil (80%)

aspect

liquid

concentration

starting at 0.5%

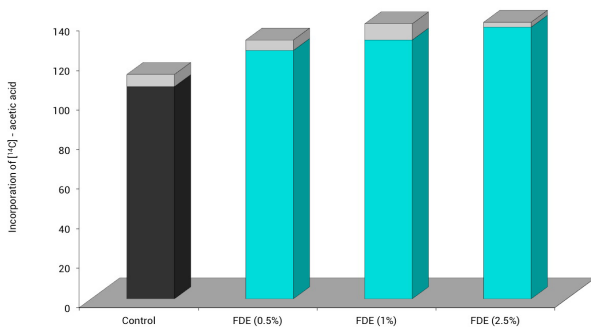
dispersible

in any formulation

Study of the lipids in the epidermis

The corneum stratum contains a lot of different types of extra cellular lipids: fatty acids and ceramides, sterols and triglycerids. They are arranged in multiple broad sheets and their function is to create a barrier to protect our body from outside. An increase of fatty acids and glycerol rates translates a degradation of lipids (triglycerids) responsible for a shiny complexion. It helps to build the cement between corneocytes.

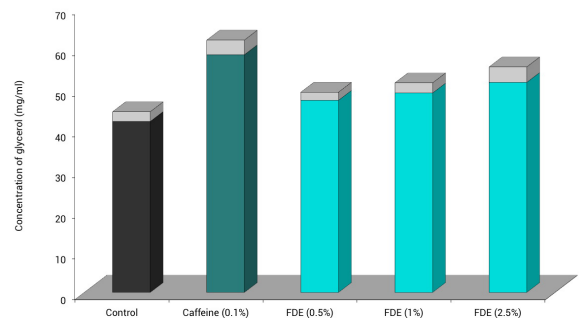
Study of the free fatty acids



Increase of free fatty acids

→ At concentrations of 0.5%, 1% and 2.5%, increase of the total free fatty acids rate respectively by 17%, 22% and 28%

Study of glycerol



Increase of glycerol rate

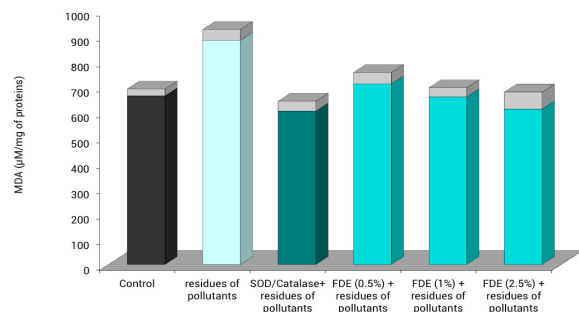
→ At concentrations of 0.5%, 1% and 2.5%, after 24 hours, increase of glycerol rate respectively by 12%, 17% and 23% compared to caffeine at 1% (+39%)

Study of lipid peroxidation

Many situations can lead to an excess of free radicals (induced lipid peroxidation) such as exposure to heavy metals and pollutant residues, contamination by toxins (during respiration), and intense inflammatory reactions, etc. which affect the epidermis.

Naolys studied the release of MDA (malondialdehyde) that occurs during lipid peroxidation induced by residues of pollutants.

Study of lipid peroxidation induced by residues of pollutants



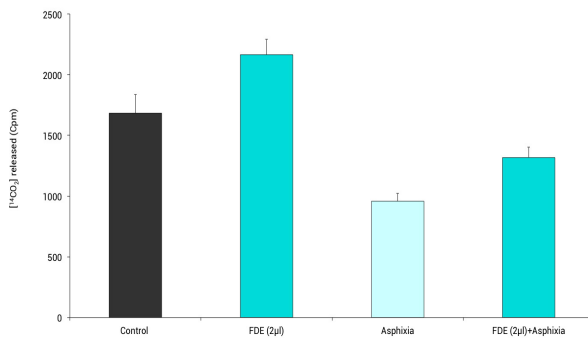
Decrease of MDA

→ At concentrations of 0.5%, 1% and 2.5%, decrease of lipid peroxidation induced by residues of pollutants translated by a decrease of MDA respectively by 19%, 25% and 31% compared to protective enzymes SOD/catalase (-32%)

Study of cellular respiration

Cellular respiration is a redox chemical reaction which supplies energy to cells to grow and to function. Cells produce energy with glucides, as ATP through cell respiration. The activity of Full Detox Eucalyptus on the cell and respiratory metabolism has been evaluated by the metabolization of glucose by the cells of the epidermis in physiological conditions and in hypoxia conditions. *In vitro* hypoxia conditions induce deep alterations of cell electromechanical functions, with an increase in the production of lactate, a fall in the quantity of ATP, ADP, and a loss of LDH. The reoxygenation of hypoxiated cells (a reversible state) normalizes the loss of lactate, induces a resynthesis of ATP and a reduction in the release of LDH. The decrease in superoxyde dismutase and glutathion peroxydase activity is reduced.

Study of cellular respiration in physiological and asphixia conditions



Increase of release of CO₂

→ At a concentration of 0.5%, in physiological conditions, increase of the release of CO₂ by 29%, ; in conditions of asphixia (during 24 hours), increase of the release of CO₂ by 38%