

Essential Being Indian jasmine

To keep original balances

A STORY

The Indian jasmine | *Jasminum sambac*, *Oleaceae*
A flower full of symbols

Plant of Eastern civilizations, Indian jasmine comes from tropical Asia, and its flowers with plain and perfumed petals open up at sunset. It is a flower known for meaning purity, softness, femininity and nobility: its symbolism is very rich. It can be an offering to gods from Indonesia to India. In Middle East, it is considered as a flower of love. In spite of its high price, it is used all over the world to create perfumes, and for some of them, it can be the heart note. In Far East Asia, it is also well known for its healing properties.

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 general balancing action

Regulates cell basic processes.

Because skin needs to keep basic permanent features at their original level, it is necessary to keep the main functions of cells. To get a skin with a more homogeneous tone, more radiant, that perfectly «works».



PRODUCT BENEFITS

Balancing

Cell stimulation

Contributes to improve cell communication decreased by UV, ageing

Regenerating

Increases epidermis cell regeneration and reinforces the protective skin barrier.

Radiance

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

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 keep or reinforce skin balance.

NÆOLYS

Related products | PURIFY WHITE WATER LILY | ESSENTIAL BEING EGYPTIAN BLUE LILY | FULL DETOX YLANG YLANG

HOW IT WORKS

Essential Being Indian jasmine: maintaining elemental cell mechanisms in skin

Essential Being Indian jasmine acts on maintaining or reinforcement of cell basic functions at the level of epidermis and dermis. Then it acts on the cell renewal both in terms of proliferation and differentiation to get a good balance between different kinds of cells, but it acts also on cell respiration, that allows to keep general metabolism of epidermis, and a good cell oxygenation. At last, it keeps skin homeostasis.

Thanks to that global action on its essential functions, skin can play its first part of general protection of body.

in vitro testing results

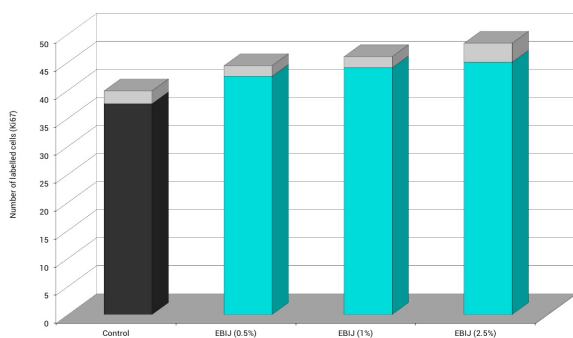
Study of cell renewal - epidermis level

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 and the differentiation of epidermis cells

In order to show that the balance of tissues has been maintained, Naolys studied both proliferation and differentiation of epidermis cell. KI67 is a anti-gene to mark cell proliferation and filaggrin is a protein to mark cell differentiation. Studies have been made on reconstructed epidermis.

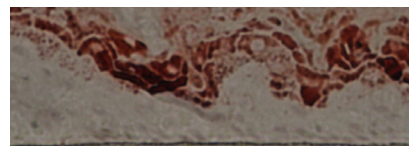
Study of epidermis cell proliferation



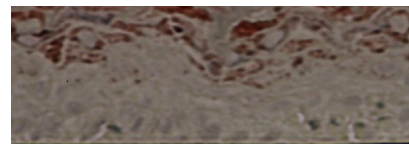
Increase of KI 67

→ At concentrations of 0.5%, 1% and 2.5%, stimulation of the proliferation of keratinocytes in the basal layer of treated epidermis respectively by 13%, 17% and 20%

Study of filaggrin



Labelling of filaggrin: control epidermis



Labelling of filaggrin: epidermis treated with Essential Being Indian jasmine at 2.5%

Decrease of the cell differentiation translating by a labelling of filaggrin less intense but uniform at the level of the granular layer

Technical information Formulating Essential Being Indian jasmine

INCI name of cells

jasminum sambac (Jasmine)
leaf cell extract

form

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

aspect

liquid

concentration

starting at 0.5%

dispersible

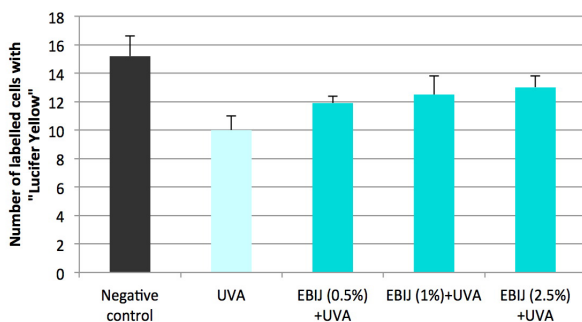
in any formulation

Study of the cell communication

To adapt themselves to internal and external events, cells should communicate to maintain the homeostasis of our organism, especially skin if they are skin cells. Usually the transfer of information from one cell to another works indirectly through the diffusion of ions or signal molecules in intercellular space. Nevertheless many tissues work in such conditions that might disturb or delete the extracellular signal flux, proving that there are other intercellular communication mechanisms. One of them is the direct contact between the cytoplasm of two close cells, called gap junctions. They are regions of cell plasmic membrane or an intercellular space from 2 to 3 nm. They take place at the level of lateral faces of epithelial or non epithelial cells, like fibroblasts. They are made of hundreds of bidirectional junctions by meeting of two cells nearby. Each gap junction is made of two connexons that gather on high contact zones between cells and every connexon corresponds to a gathering of six transmembrane proteins called connexins.

To test the quality of cell communication that decreases with ageing, therefore the activity of Essential Being Indian jasmine on the metabolic coupling of those gap junctions, Naolys used a fluorescent tracer called Lucifer yellow, that allows to demonstrate the intercellular transfer of cytoplasmic molecules on cultured fibroblasts. It is good to know that the transfer is made in a few fractions of seconds to a few minutes maximum. It is used by many molecules like amino acids, sugars, vitaminic cofactors, metabolites or AMPc.

Study of gap junctions



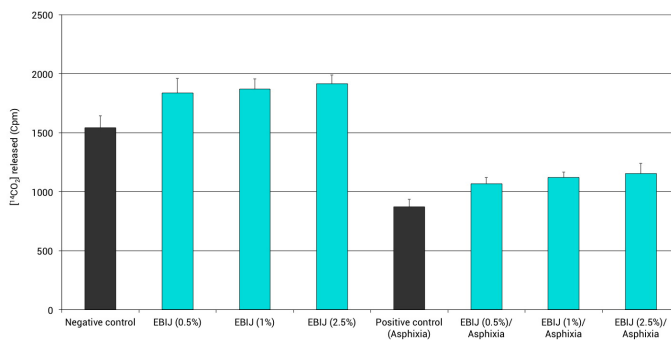
Increase of Lucifer yellow

→ At concentrations of 0.5%, 1% and 2.5%, after a treatment during 24h, stimulation of cell communication in fibroblasts compared to positive control cells exposed to UVA respectively by 19%, 25% and 30%

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 Essential Being Indian jasmine on the cell and respiratory metabolism has been evaluated by the metabolization of glucose by the cells of the epidermis 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 conditions and in conditions of asphixia



Increase of the release of CO₂

→ At concentrations of 0.5%; 1% and 2.5%, increase of the release of CO₂ in physiological conditions respectively by 19%, 21% and 24%, and, in conditions of asphixia, respectively by 22%, 28% and 32%