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 soothe and lighten skin.
HOW IT WORKS

Soothing Light Apricot: decreasing major factors of skin inflammation

Soothing Light Apricot acts on two levels of the inflammatory system, the one of inflammation mediators, responsible for irritations, and the other of vasodilatators, responsible for redness. Its part consists in reducing the release of those components that are scattered in skin. Most of them can be found at the level of the epidermis or dermis for blood vessels. Thanks to those different actions, skin gets back a sensibility more consonant with its environment and keeps on fighting external aggressions.

in vitro testing results

Study in the cutaneous microcirculation

The cutaneous microcirculation is not well known but thanks to skin numerous arterioles and big volume (1.8 dm³), it plays an essential part in maintaining blood flow even if there is a heart failure. Its arterioles hold back blood through a vasoconstrictor tonus, in fact a continuous vasoconstriction. Nevertheless, as there are more venules, in general, blood circulates in them slower; that helps parietal exchanges but also leads to blood stagnancy and vasodilation. At the skin level, many vasodilations can be seen, emotional, facial reflex - due to mouth or gastric irritations, but also because of the secretion of EDRF released as a reaction to some substances including when inflammation phenomena (with erythema) appear.

The study of nitric oxide, the primary EDRF

Blood vessels are made of several layers of fibrous cells, and one is directly in touch with blood: endothelium. Made of flattened cells, it plays many parts, from hemostasis to vascular tonus, for which it releases vasodilator and vasoconstrictor factors. Among vasodilators is the nitric oxide (NO), that has been identified as the essential EDRF (Endothelium Derived Relaxing Factor). It is a liposoluble gas that activates a chemical reaction, leading to the relaxing of blood vessels or vasodilation.

Study of Endothelium Derived Relaxing Factor (EDRF) / the nitric oxide (NO)

Decrease of EDRF (nitric oxide)

- At concentrations of 0.5%, 1% and 2.5%, decrease of nitric oxide respectively by 19%, 23% and 27% (increase of 28% of nitric oxide in the non-treated endothelial cells)

Technical information Formulating Soothing Light Apricot

<table>
<thead>
<tr>
<th>INCI name of cells</th>
<th>form</th>
<th>aspect</th>
<th>concentration</th>
<th>dispersible</th>
</tr>
</thead>
<tbody>
<tr>
<td>prunus armeniaca leaf cell</td>
<td>cells (20%) in glycerin (80%)</td>
<td>liquid</td>
<td>starting at 0.5%</td>
<td>in any formulation</td>
</tr>
</tbody>
</table>
Study of the inflammation mediators

The inflammation is the answer of tissues to aggressions: all defense mechanisms through which they recognize, destroy and eliminate any foreign substances. Different types of cells take part in those mechanisms but in the epidermis, it is the keratinocytes we will study. The beginning of inflammation, its diffusion starting from the initial location involve chemical factors that are locally synthetized or at the state of inactive precursors. Naolys decided to study 3 inflammation mediators synthetized at the level of the keratinocytes of hair bulb, 2 famous cytokines and a prostaglandine.

IL1-alpha is an intracellular messenger cytokine synthetized then stocked inside cell as an inactive precursor. It has many biological local and systemic functions (on expression of genes, cell proliferation, nervous system, etc.)

IL-6 is a pro-inflammatory cytokine, that regulates activation, growth and differentiation of lymphocytes. It belongs to the group of proteins that direct to the secretion of anti-bodies to fight against extra-cellular pathogens.

PGE2 is an eicosanoïde, derived from phospholipids of cell membrans. PGE2 acts on smooth muscular fibers of vessels: vasodilatation, increase of permeability, œdema.

**Study of the IL-1 alpha**

→ At concentrations of 0.5%, 1% and 2.5%, decrease of IL-1alpha respectively by 16%, 20% and 25%

**Study of the IL-6**

→ At concentrations of 0.5%, 1% and 2.5%, decrease of IL-6 respectively by 17%, 23% and 29%

**Study of the PGE2**

→ At concentrations of 0.5%, 1% and 2.5%, decrease of PGE2 respectively by 19%, 23% et 25%