

aurealis™

Deep hydration, lasting beauty

MOIS

TURE

NATbeauty™

Market Opportunities

Epidermis acts as a barrier for the skin against daily exposure to dry air, cleaning products, extreme temperatures, and other environmental factors. Providing adequate moisturizing for the epidermis is an essential factor in keeping this barrier efficient. Skin without adequate moisture can appear dull and unhealthy. **Moisturizing is therefore essential for both the health and the radiance of the skin.**



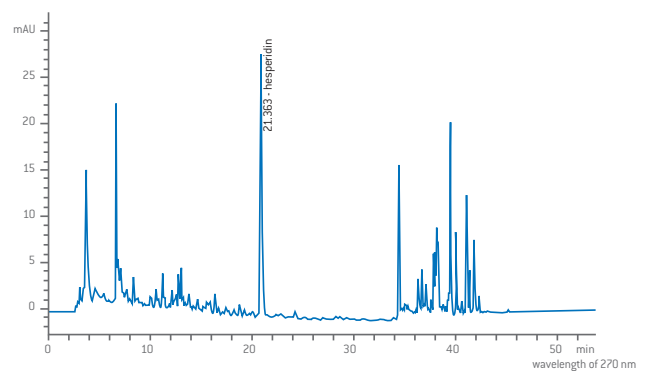
Premium Characteristics

Naturex has screened many botanical extracts to assess their moisturizing properties. Among them, **the extract of the flower of bitter orange (*Citrus aurantium L.*) showed spectacular results.**

Bitter orange is a fruit tree, native to the Southeast Asia and now cultivated throughout the Mediterranean sea. Its rind is used to make a fragrant essential oil used in perfumery. It also has medicinal effect. The tree's flowers are made into orange flower water which is widely used in Mediterranean cuisine.

Naturex has developed Aurealis™, an extract of *Citrus aurantium* flowers with a specific profile. This unique profile ensures the extract quality and thus its efficacy.

HPLC



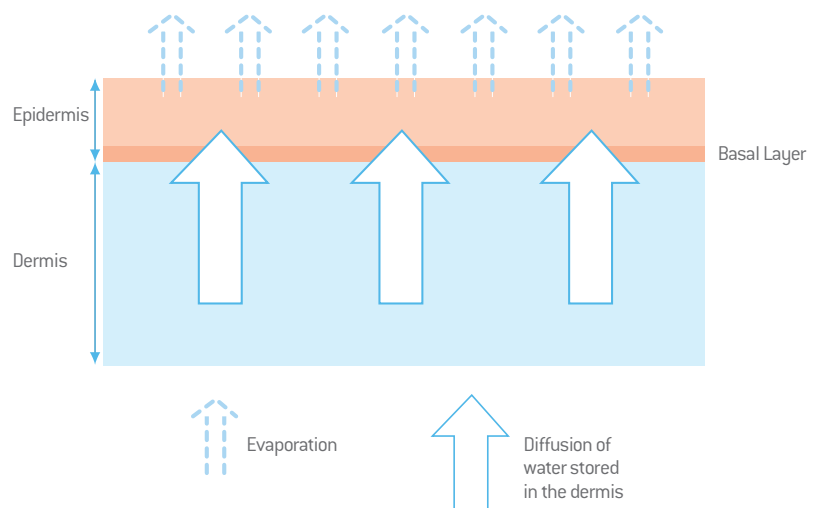
Hyaluronic Acid, the moisturizing regulator

Skin water reserves are stored mainly in the dermis. Water gradually moves through the different layers of the epidermis and evaporates from the surface of the skin. The state of moisturizing is therefore conditioned by the balance between diffusion and evaporation, but also by the binding capacity of water by the epidermis.

In the Extra Cellular Matrix, glycoaminoglycans are the main carriers of hydration process. **Hyaluronic Acid (HA)**, the most important of the compounds known as glycoaminoglycans, **regulates skin moisturizing thanks to its excellent water-retention properties.** HA content decreases during the aging process driving to moisturizing difficulties.

Keratinocytes of the basal layer produce HA in the epidermis and then regulate the moisture levels in the tissues.

Moisturizing Process

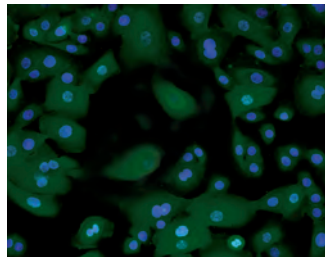


Aurealis™ action

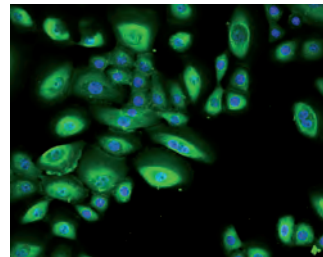
Keratinocytes
stimulation



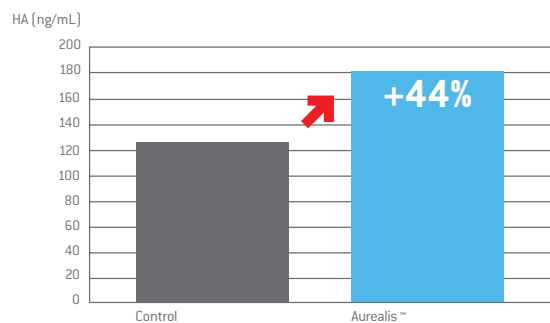
Increase of Hyaluronic Acid Synthesis



Control



Aurealis™



Aurealis™ :

- Increases the secretion of Hyaluronic Acid by the cells by 44%;
- Promotes the secretion of newly synthesized molecules as the HA quantity contained in the keratinocytes remains stable.



Balance of diffusion-
evaporation

Water retention
(limited losses)



Moisturized
Skin

Aurealis™ can be used:

- Daily to keep skin moisturized;
- To promote the natural skin barrier in particularly difficult conditions (e.g., very low temperature, use of irritating products, etc.)
- To prevent lack of moisture due to aging process.



Aurealis™ is a moisturizing active from bitter orange. It improves moisturizing process by maintaining a balance of water diffusion-evaporation.

Commercial name	Aurealis™
Complete name	Citrus aurantium extract - <i>Citrus aurantium</i> L.
Active markers	Flavonoids
Scientific Results	<i>In vitro</i> study Aurealis™: - Increases hyaluronic acid synthesis by 44% - Promotes secretion of newly synthesized molecules These results contribute to: - Maintain the balance of water diffusion/evaporation - Enhance water retention via limited losses
Claims	Improves skin moisturizing
Applications	In skin care preparation
Safety	This product has been evaluated by Eurotox toxicologist.

Specific data

Version INCI name Solubility Recommended dosage Labels	In powder form Citrus aurantium amara (bitter orange) flower extract (and) maltodextrin (and) silica Water, ethanol 0.2 - 0.5% ECOCERT validated
Version INCI name Solubility Recommended dosage Labels	In glycerol form Glycerin (and) water (and) citrus aurantium amara (bitter orange) flower extract Water, ethanol 1 - 2% ECOCERT validated
Version INCI name Solubility Recommended dosage	In propylene glycol form Propylene glycol (and) water (and) citrus aurantium amara (bitter orange) flower extract Water, ethanol 1 - 2%