

Contact: Tatiane Paixão

Communications

Chemyunion Ltda.

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AcquaBio

Activator of biological moisturization

Your skin barrier fortified up to 72hs even without reapplication of AcquaBio!

AcquaBio is a botanical extract rich in arabinogalactans, a polyssacharide that promotes the biological skin moisturization as well as its homeostasis. AcquaBio acts strengthening the skin barrier through the stimulation of fillagrin and involucrin, which guarantees a structured and healthier skin barrier.

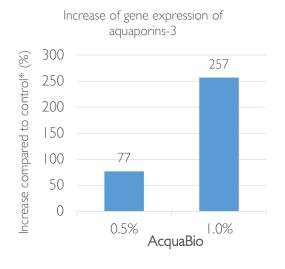
Moreover, AcquaBio stimulates the increase of water channels at the epidermis, the aquaporins-3, ensuring the appropriate water flux within and out of the epidermal cells, leveraging the cellular hydro-electrolytic balance. AcquaBio acts on the dermis redensification through the stimulus of extracellular matrix such as collagen and elastin.

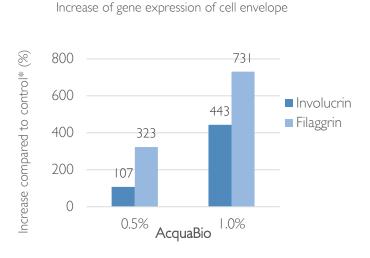
AcquaBio can be employed in different categories of skin care products and offers the skin an immediate and long-lasting moisturization, a healthy skin barrier, reducing transepidermal water loss, and increasing firmness, the youthfulness that the entire skin deserves.

Efficacy Testing

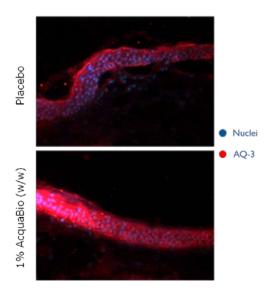
Epidermis

1. In vitro – Human keratinocytes treated with AcquaBio for 24h

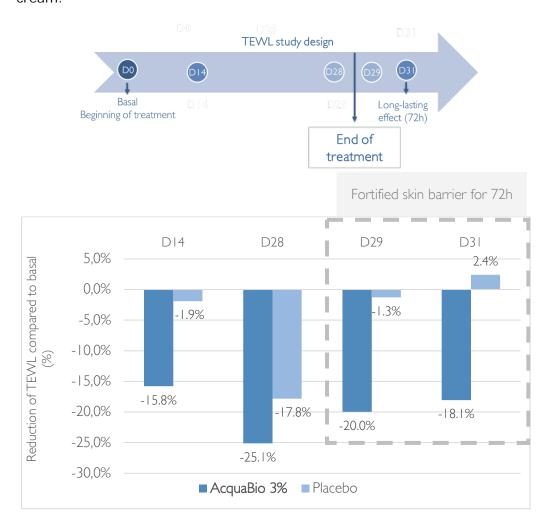




2. Ex vivo – Increase of aquaporin-3 production after 48h of treatment with 1% AcquaBio



In vivo – TEWL Panel: 20 volunteers, forearm application, 2x/day during 28 days, 3% AcquaBio cream.



About Chemyunion

Chemyunion is a Brazilian company founded in 1992 that became an important supplier for the development and production of innovative ingredients for the cosmetic, dermocosmetic and health care sectors.

Our range of ingredients comprise actives for skin and hair care, vegetable origin preservatives, functional and sensorial excipients among others.

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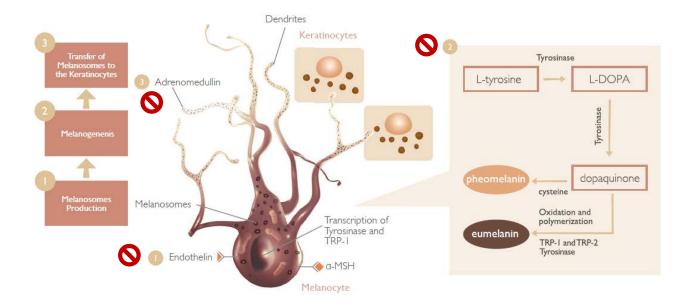
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Biolumitá®

Triple-action for more luminous-looking skin

Biolumitá is a powerful skin lightening agent that can also be used to balance uneven skin tones. Extracted from the rhizome of the Chinese Ginger plant (*Alpina officinarium*), it is rich in galangin, a compound from the flavonoid group. Biolumitá acts throughout the skin's natural three-step pigmentation process:

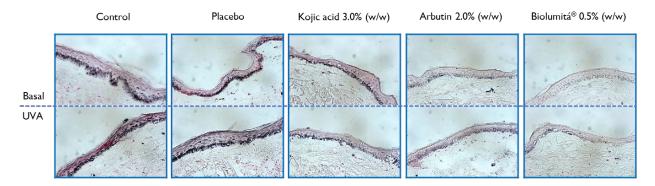
- 1. Production of melanosomes: Biolumitá works to reduce the production of endothelin-l, a peptide involved in the formation of melanosomes and essential to melanogenesis the synthesis of melanin in its interior.
- 2. Melanogenesis: Biolumitá reduces the transcription of tyrosinase and TRP-1, essential enzymes in the production of melanin.
- 3. Melanosomes transport: Biolumitá reduces the production of adrenomedullin, a mediator that stimulates the melanocyte dendricity, compromising the transport of melanosomes to the keratinocytes, essential to the completion of the skin pigmentation process.



Efficacy Testing

Melanin stain - Fontana Masson stain

Comparison of Caucasian skin after exposure to UVA (3 J/cm2) radiation and treated with the active ingredients for 48 hours. Shown at 400X magnification.



Photographic Evaluation – Visia®-CR

Images of hyperpigmented areas (dark spots) before and after a 60-day treatment with Biolumitá \$ 0.5%.



Images of skin tone balance before and after a 60-day treatment with Biolumitá $\ensuremath{\mathbb{B}}$ 0.5%



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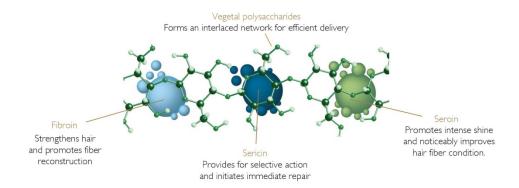
GoBlond

Perfect Platinum and Safe Bleaching

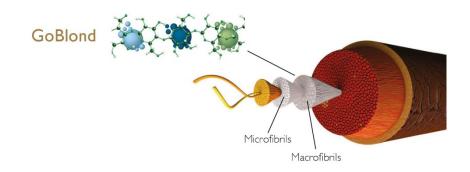
Influenced by fashion and trends, women throughout history have sought to change the look and style of their hair. The stress and damage brought on by physical and chemical methods like brushing, straightening, dyes and bleaches, are proven hazards. Of these methods, bleaching has always brought the highest risk of damage and structural change to the hair fiber – resulting in dull, dry, and brittle hair.

In order to successfully treat and minimize the damage to hair caused by the bleaching process, Chemyunion created **GoBlond**.

GoBlond is composed of silk proteins (fibroin, sericin and seroin), interlaced by a network of polysaccharides derived from linseed (Linum usitatissimum L.), that due to its unique technology provides an efficient delivery system, allowing the bleaching process takes place in its entirety, without compromising the integrity of the hair fiber. GoBlond protects the cortical regions (macro and microfibrils) and consequently the keratin chains and cuticles, through selective film formation.



Delivery System: selectively covers the macro and microfibrils, allowing the melanin oxidation and protecting the keratin chains.

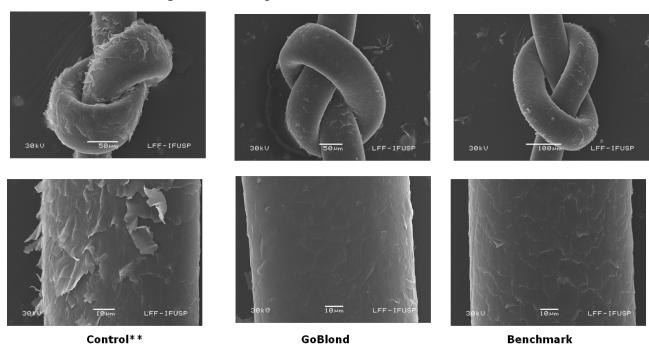


Benefits

- Protects hair during bleaching process
- Maintains and restores hair health
- Improves, strengthen and protects hair after treatment
- Improves manageability
- Strengthens hair fibers
- Increased lightening vs. benchmark

Efficacy Testing

SEM* - After bleaching (02 bleachings - 40v)



 $^{^{*}\}mathrm{Images}$ obtained by SEM – Scanning Electronic Microscopy $^{**}\mathrm{Bleaching}$ Powder + Developer Lotion

Half-Head Test



Before bleaching

Bleaching with **GoBlond**

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Hebeatol Range

Natural protection to your formula

Hebeatol range emerges as an exclusive solution to a global dilemma: the continuous investigation for safe and effective antimicrobials or preservatives.

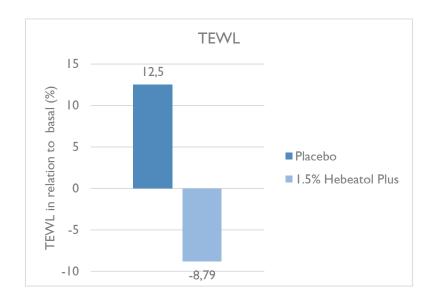
More than a natural antimicrobial, Hebeatol is an unique synthesized molecule, composed by a functional ester based on Xylitol, sugar found in several natural sources, and caprylic acid, derived from vegetable oil.

Hebeatol helps to reduce or eliminate the need of controversial preservatives, such as parabens, donors of formaldehyde and methylisothiazolinone (MIT). It is both safe and effective, and can be used in either leave-on or rinse-off products for skin and hair care without changing the color or odor of the formula.

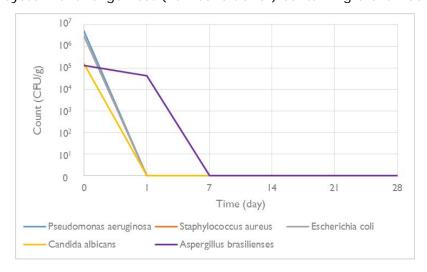
It is also available in China approved versions.

The Hebeatol range are composed of:

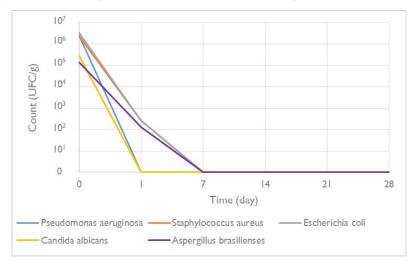
- **1- Hebeatol Plus,** which can be used as a single ingredient, depending on the formulation. It has antimicrobial activity and offers a moisturized skin by reducing the transepidermal water loss.
- 1.1. TEWL change in value (%) in relation to basal values (D0), after 7 days (D7) using the formulation containing Hebeatol Plus.



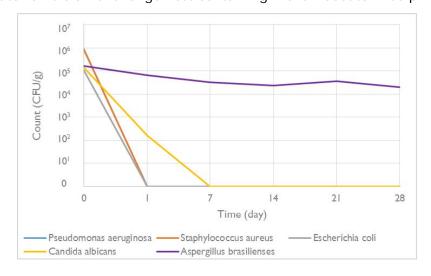
1.2. Cationic system Challenge Test (hair conditioner) containing 0.5% Hebeatol Plus.



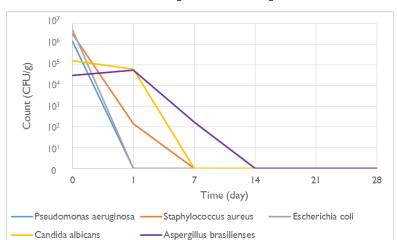
1.3. Anionic system Challenge Test (Shampoo) containing 0.5% Hebeatol Plus.



1.4. Oil in water emulsion Challenge Test containing 1.5% Hebeatol Plus pH 6.0-7.0.

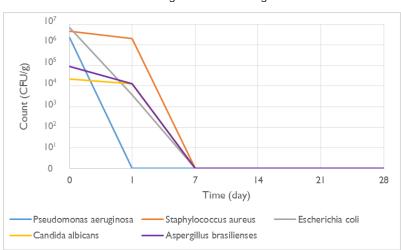


2- Hebeatol BA is an antimicrobial system with a wide spectrum of action. It might be compatible with polymeric systems depending on the formula.



Oil in water emulsion Challenge Test containing 1.0% Hebeatol BA.

3- Hebeatol PSVG offers a synergistic combination for wide antimicrobial spectrum.



Oil in water emulsion Challenge Test containing 1.5% Hebeatol PS VG.

Hebeatol range offers a wide spectrum of action as a natural antimicrobial in different formulations such as creams, lotions, serums, gel-creams, shampoos and conditioners.

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