

APOBIO Film

Biofilm-forming post-biotic with multifunctional moisturizing action for skin and hair

- Immediate moisturizing
- Prevents water loss from the skin
- Dermal soothing
- Oil control
- Combats hair dryness
- Retains water

INCI: AQUA, BACILLUSFERMENT, FRUCTOOLIGOSACCHARIDE, BENZYLALCOHOL, ETHYLHEXYLGLYCERIN.

Recommended usage levels: 4%

Produced sustainably through the fermentation of probiotic bacteria, this product is abundant in polysaccharides and fructooligosaccharides, helping prevent transepidermal water loss, which, in turn, enhances skin and hair hydration, among other benefits.



Ideal for formulations

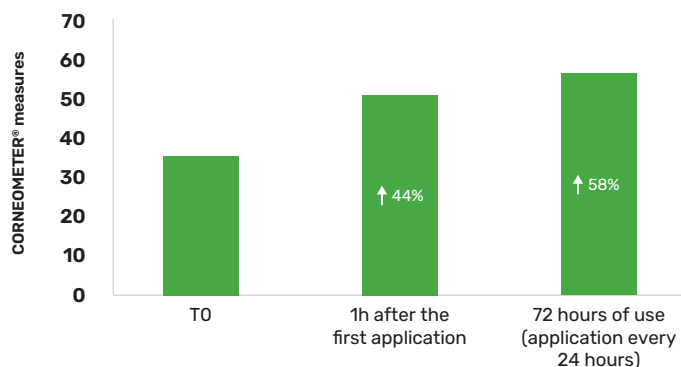
- **Skin: Hydrating and soothing cream for facial and body skin;**
- **Hair: Styling cream, hydrating mask, leave-in product.**



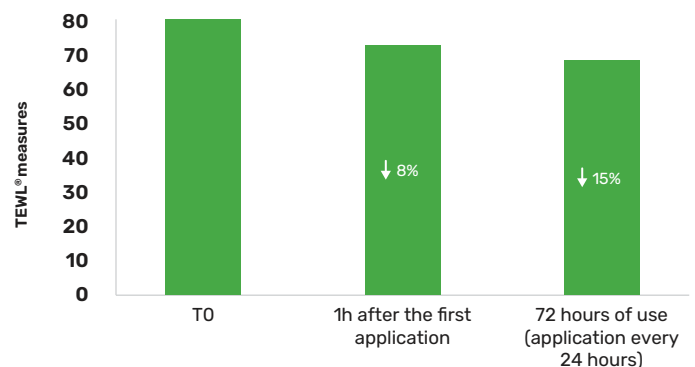
APOBIO FILM: Clinical test (Corneometry® and TWL®)

The instrumental evaluation obtained in the clinical test through the Corneometry®, TWL®, and sensory analysis measurements demonstrated the product's efficacy with a 58% increase in skin hydration and a 15% reduction in skin water loss, providing immediate and continuous hydration.

Moisturizing the skin after application

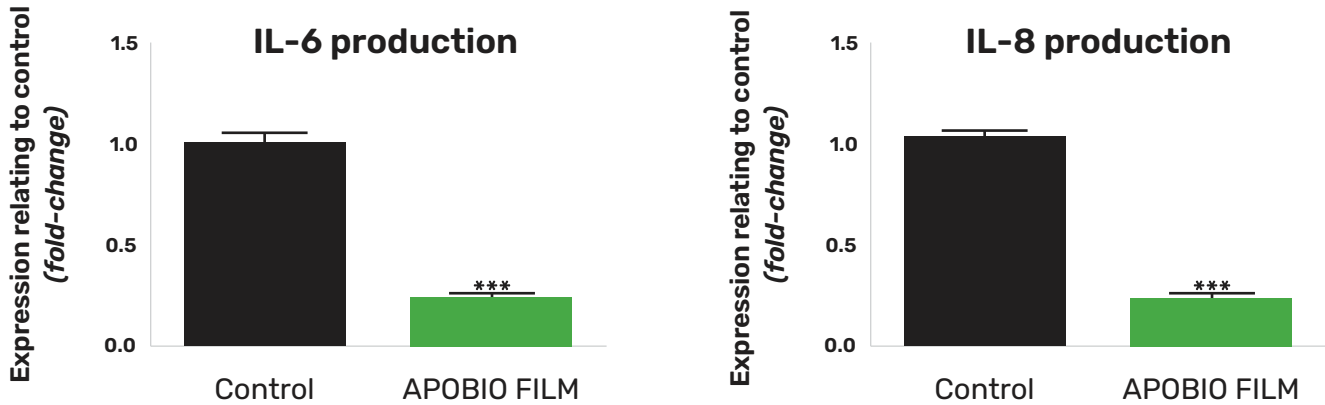


Transdermal water loss



APOBIO FILM: Dermocalming Potential (*in vitro*)

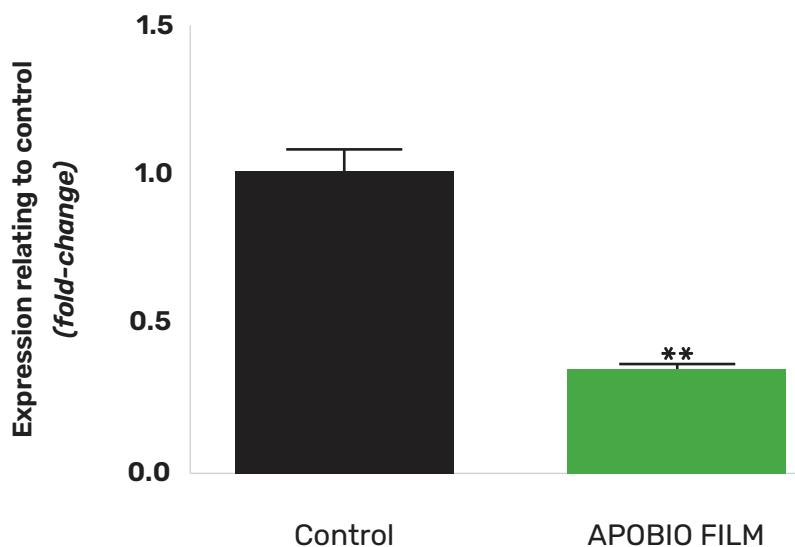
Evaluation of the sample's effect on the expression of markers related to inflammation (interleukin-1, interleukin-6, and interleukin-8) using a culture of human keratinocyte cells.



APOBIO FILM reduced IL-6 expression by 76.7% and IL-8 expression by 77.5%.

APOBIO FILM: Oil Control (*in vitro*)

Evaluation of the effect of the sample on the expression of oil-related markers (5-a-reductase) using human keratinocyte cell culture.



APOBIO FILM led to a 66.7% (± 4.6) reduction compared to the control group.



APOBIO FILM: Electron microscopy analysis

The active adheres to the capillary fibers, forming a film and gluing them together, as seen in the SEM-FEG images.

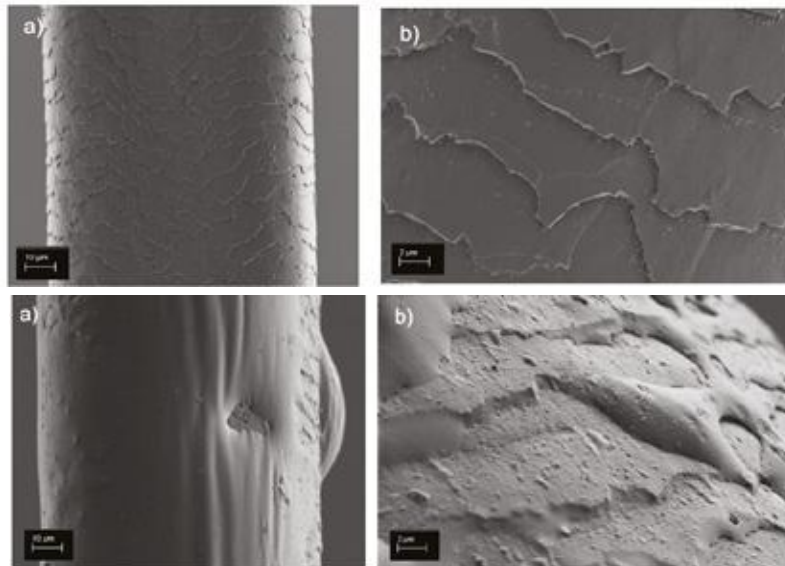


Image: SEM-FEG of the CTRL and TRAT strands at magnifications of: a) 2,000x and b) 10,000x.

APOBIO FILM: Differential Scanning Calorimetry (DSC)

DSC techniques are effective for evaluating the water content and water retention of treated strands.

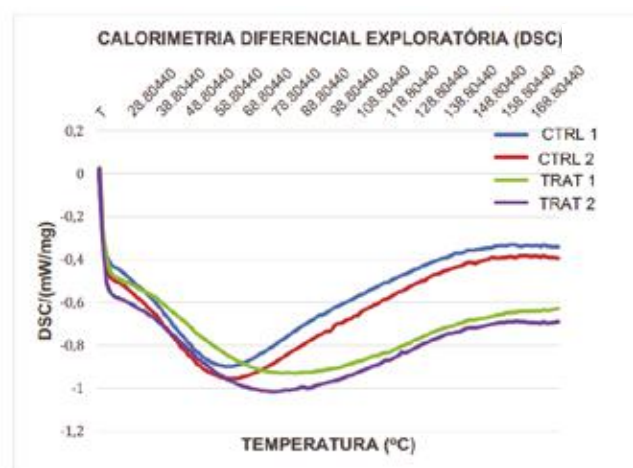


Figura 3. Curvas de DSC das amostras CTRL1 (azul), CTRL2 (vermelho), TRAT1 (verde) e TRAT2 (roxo).

The active ingredient adheres to the hair fiber forming a film. For this reason, the water contained within the hair fiber has difficulty escaping, preventing dryness, as evidenced by DSC measurements, which, in turn, revealed a change in the maximum water vaporization peak from 64.80 to 84.30°C.

