

# ALGAVITE

HEALTH AND BALANCE FOR THE SCALP

# ASSESSA

INNOVATION FOR A GREENER WORLD



A **HEALTHY SCALP** IS AT THE ROOT OF A **HEALTHY HAIR.**

## ALGAVITE IMPROVES SCALP VITAL FUNCTIONS

ALGAVITE is a bioactive with a powerful immunomodulatory activity that stimulates the structural balance of the scalp and improves its vital functions, confirmed by in vitro and clinical trials. ALGAVITE is made from selected red and brown seaweeds, rich in biopolymers, polyphenols, and oligoelements.

Depending on the area of the body, the skin can have different characteristics, such as layer thickness, relief, vascularization or number of nerve endings. These differences play a decisive role in the care strategies specific to each area.

While the skin of the face, for example, is oily, the skin on the legs is comparatively dry. The scalp is equally unique – it's pretty thick, dense, oily, warm, and moist, with lots of hair follicles.

The scalp area is also one of the areas most exposed to aggressions such as heat, radiation, mechanical and chemical stress. For example, chemicals used in hair products such as dyes, bleaching agents, relaxers and straighteners, as well as fragrances, preservatives, or emul-

sifiers come into contact with the scalp, affecting its health and functions. Scalp damage can directly affect the health of the hair, resulting in structural changes to the hair shaft.



# GENE EXPRESSION, IN VITRO ANALYSIS & TESTS

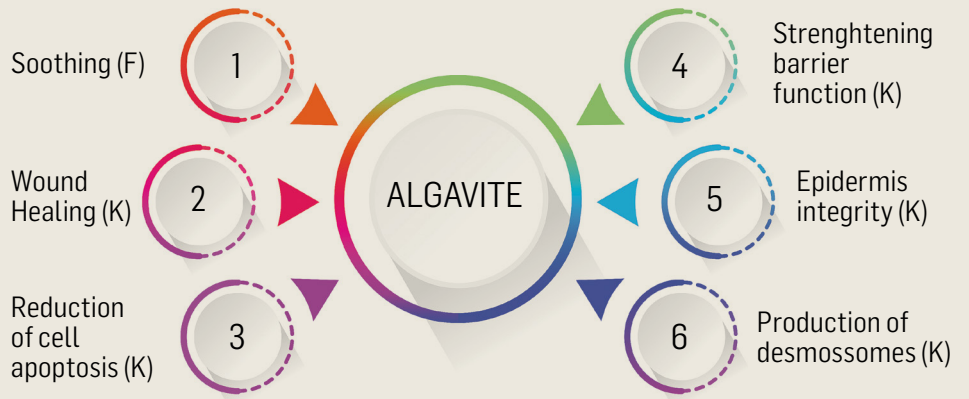
THE INCREDIBLE ACTIVITY OF ALGAVITE

## GENE EXPRESSION ANALYSIS

Full transcriptome analysis using **AFFYMETRICS MICROARRAY**

The result of the analysis is a gene map showing that ALGAVITE stimulates the expression of an impressive

### GENE EXPRESSION MAP



number of genes linked to the integrity and health of the skin. The potential benefits revealed by the transcriptome

analysis can be summarized in the diagram above. Keratinocytes are identified as (K) and Fibroblasts as (F).

## IN VITRO ANALYSIS

Anti-inflammatory storm immunomodulating and dermal papilla stimulation

The in vitro analysis of the scalp confirms the indications obtained from the gene expression analysis and extends the potential benefits of ALGAVITE as summarized in the diagram. The results suggest that ALGAVITE has anti-inflammatory, sebum-regulating and anti-acne properties.

### IN VITRO ACTIVITY



**Calms the inflammatory storm by reducing the production of IL-1 $\alpha$  and IL-6.**

These pro-inflammatory markers fuel scalp irritation and redness. ALGAVITE helps keep them in check, creating a calmer, more balanced scalp environment.

**Tames the oil overload by downregulating 5- $\alpha$ -reductase**

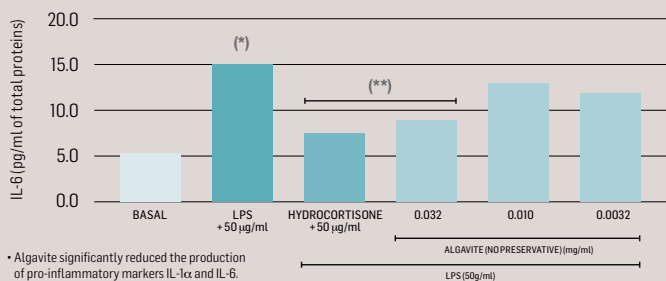
This enzyme plays a key role in sebum production. ALGAVITE dials down its activity, leading to less oiliness and a fresher, mattified scalp.

**Balances sebum production through the reduction of sebaceous production.**

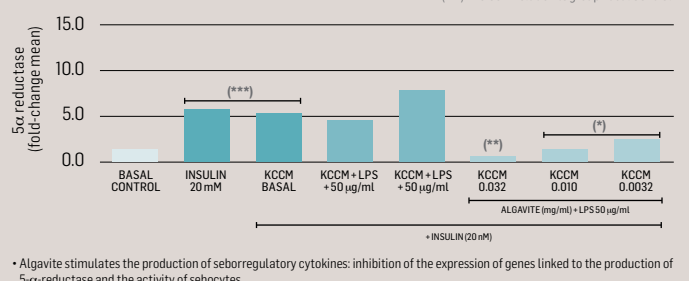
No more greasy roots or oily patches! ALGAVITE helps your scalp produce just the right amount of sebum for healthy hair and a comfortable feel.

## IN VITRO TESTS

### ANTI-INFLAMMATORY ACTIVITY



### SEBOREGULATORY ACTIVITY



Algavite significantly reduced the production of pro-inflammatory markers IL-1 $\alpha$  and IL-6.

Algavite stimulates the production of seboregulatory cytokines: inhibition of the expression of genes linked to the production of 5- $\alpha$ -reductase and the activity of sebocytes.

# 2

## CLINICAL TESTS

### CLINICAL TESTS IN SCALP HEALTH

**19.8%** reduction of scalp oiliness

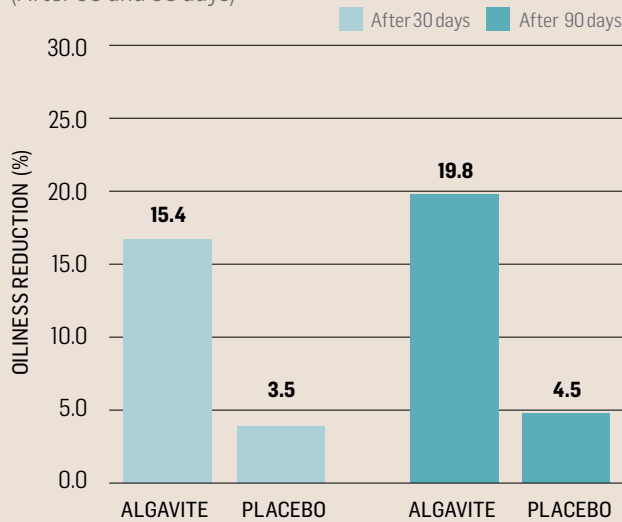
**7.1%** increase of scalp hydration

**6.2%** reduction of scalp erythema

A clinical study with 41 volunteers was conducted to evaluate the effectiveness of ALGAVITE in reducing oiliness, improving hydration and preventing scalp irritation. The volunteers aged  $39 \pm 13$  years with skin phototypes (Fitzpatrick) II to VI and oily or mixed hair. The group was divided into two groups that received a shampoo, a conditioner and a lotion with precise instructions for its use. One group received placebo formulas and the other formulas containing ALGAVITE (1% in shampoo and conditioner and 3% in lotion).

#### REDUCTION OF SCALP OILINESS

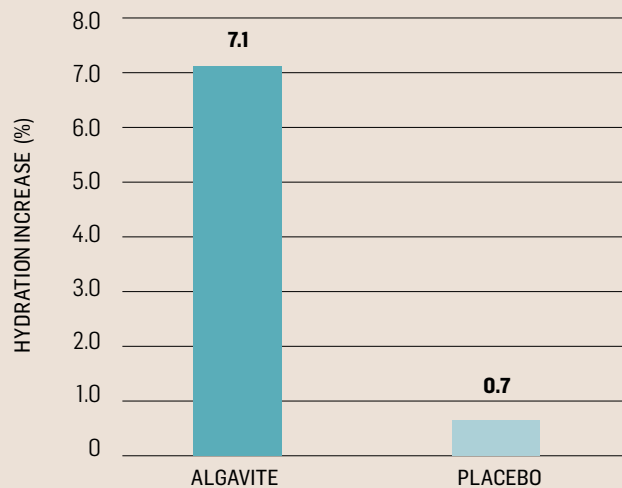
(After 30 and 90 days)



ALGAVITE provided a mean reduction of **19.8%** in scalp oiliness after 90 days of use, compared to the placebo. **90%** of the volunteers showed a reduction in scalp oiliness after 90 days of ALGAVITE use.

#### SCALP HYDRATION

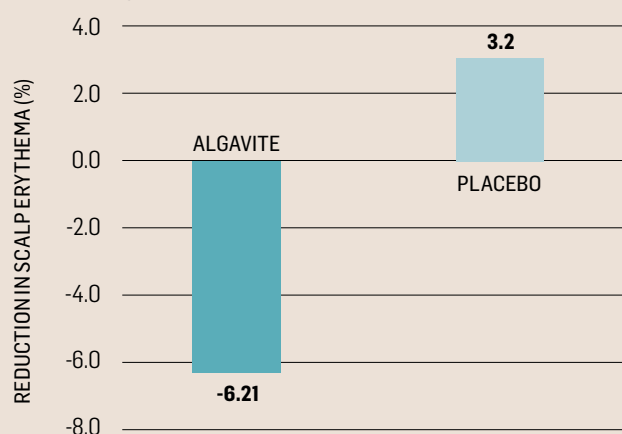
(After 30 days)



ALGAVITE improved scalp hydration by **7.1%** after 30 days of use. Hydration achieved was **10 times** greater than that achieved with placebo. **71%** of research participants showed improvement in scalp hydration after 30 days.

#### SCALP ERYTHEMA

(After 30 days)



There was a **6.2%** reduction in scalp erythema after 30 days. Placebo alone produces a **3.2% increase** in the erythema. **9.4%** is the combined **reduction** caused by ALGAVITE. **90%** showed a reduction in scalp erythema after 30 days of use.

# ALGAVITE

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## USAGE LEVELS

PRODUCT	(%)
Shampoo	1
Conditioner	1
Scalp Tonic	3
Scalp Lotion	3

## INCI NAME

Kappaphycus Alvarezii  
Extract, Fucus  
Vesiculosus Extract,  
Glycerin, Sodium  
Benzoate and  
Potassium Sorbate

## RESEARCH & DEVELOPMENT

# THE POWER OF SEaweEDS IN ALGAVITE

There are over 72.000 different species of known seaweeds in the oceans, growing in different environments, from the cold waters of the Arctic to the tropical seas, from deep waters to the surface of reefs and rocks. Seaweeds have been used in beauty treatments for centuries, by many cultures bordering the ocean, but discoveries of their benefits are still being made.

Seaweeds are among the most sustainable vegetables in the world, as they do not compete with crops for food production, do not consume water or fertilizers, do not require pesticides and have a huge biomass production capacity. Based on more than 45 years of research on marine algae, Assessa chose two special algae with unique properties for the development of Algavite.



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