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ACB

Kale Protein Blend

Pro-Collagen

Antioxidant

Volumizing



VEGAN



SEPHORA
CLEAN



CREDO
CLEAN



GLOBALLY
COMPLIANT



COSMOS
COMPLIANT



ISO 16128



THE FEATURES.

Good hair is grown, not made! While proteins have long been a go-to in hair care, superfood-derived proteins take it a step further by not just nourishing your strands but also your scalp to build the perfect foundation for healthy hair growth. This root-to-tip solution refreshes your hair care routine, delivering antioxidant-rich ingredients and collagen-boosting peptides that work together to enhance volume, strengthen strands, and promote lasting, natural results!

INCI: Hydrolyzed Kale Protein & Hydrolyzed Carrot Protein & Hydrolyzed Lemon Protein

TECHNICAL DATA SHEET.

ACB Kale Protein Blend

THE STORY.

Cosmetic formulators have traditionally utilized hydrolyzed proteins to help repair and strengthen hair. While hydrolyzed proteins have long been the heroes in hair care, the market continues to expand and shift. With an expected CAGR of 7% between 2023 and 2030, the “Skinification of Hair” trend continues to reshape how consumers view hair care.¹ In response to this emerging trend, we adapted superfood proteins to work double duty for your hair and your scalp.

To activate this ingredient, we isolate discrete peptides from kale, carrot, and lemon through a proprietary hydrolysis process. Well-known for their nutritional benefits, these fruits and vegetables go beyond nourishment for your diet; they deliver protective antioxidants and conditioning benefits directly to the scalp too! Supercharged with peptides, ACB Kale Protein Blend feeds the scalp what it craves, setting the stage from root-to-tip for stronger, healthier hair.



THE SCIENCE.

The hydrolysis of superfood proteins, especially kale, unlocks the full collagen boosting benefits of these natural ingredients. Research has shown that kale extract can stimulate cellular activity and promotes blood vessel formation, both of which are crucial to collagen production.² Collagen is essential for a healthy scalp as it provides structural support, enhances skin elasticity, and promotes blood circulation, all of which are crucial for maintaining a healthy scalp. Rich in phytochemicals, kale, lemon, and carrot proteins also offer natural antioxidant protection, combating the effects of environmental stressors like UV rays and pollution that are known to break down collagen.^{2,3,4,5} By using hydrolyzed proteins to deliver a powerful boost of collagen and antioxidant protection to your scalp, we create the perfect environment for vibrant, healthy hair growth. The result? Voluminous hair that’s deeply moisturized, frizz-free, and full of life.

The hair strand is made up of three layers: the cuticle (the outer layer), the cortex (middle layer), and the medulla (inner layer). The medulla isn’t always present and has been found to be mainly present in thicker hair. The outer cuticle protects the inner cortex, which is mostly made up of proteins that provide strength and elasticity. When exposed to environmental stressors, chemical damage, thermal damage, and friction from everyday styling, these proteins can be damaged. Supplementing with protein-rich treatments can help to restore hair health. Hydrolyzed proteins, specifically, are known for their ability to boost elasticity and help repair damaged hair, particularly at split ends.⁶ Maintaining the protein integrity of the hair is essential for preserving strength, elasticity, and overall health, marking protein-rich treatments as a vital part of every hair care routine.

While plants are a rich source of protein, these proteins are typically too large to be soluble and must be hydrolyzed to effectively deliver their benefits to the skin and hair. Through enzymatic hydrolysis, plant proteins like kale, lemon, and carrot are fragmented into smaller molecules, increasing their solubility and thus their ability to not only bond with the skin but also enter the cortex to condition the hair. Research has shown that hydrolyzed proteins with smaller molecular weights can actually deeply penetrate the hair cortex, reduce breakage, and reduce thermal properties of relaxed hair.⁷ Traditional hydrolyzed proteins primarily focus on restoring the structural integrity of the hair fiber—improving elasticity, reducing breakage, and enhancing manageability. However, our approach goes beyond standard protein repair by incorporating scalp-targeted benefits that support collagen production and provide antioxidant protection—factors essential for long-term scalp health and optimal hair growth.

THE TECHNICAL DETAILS.

INCI. Hydrolyzed Kale Protein & Hydrolyzed Carrot Protein & Hydrolyzed Lemon Protein

CAS. 100209-45-8 & 100209-45-8 & 100209-4

EINECS. 309-353-8 & 309-353-8 & 309-353-8

EUROPE. Contact Us

USA. Compliant

CHINA. Contact Us

Origin. Botanical

Natural Antimicrobial. Leuconostoc/Radish Root Ferment Filtrate*

Preservatives. None

Solvents Used. Water

Appearance. Clear to Hazy Liquid, Yellow to Amber

THE FORMULATION TIPS.

pH Stability. 4 - 7

Temperature Stability. Lower temperatures reduces browning. Product may darken if temperature is maintained over 50 °C for an extended period of time

Use Level. 1 - 10%

Ionic State. Anionic

Alcohol Compatibility. Compatible with up to 50% alcohol at 5%

Solubility. Water Soluble

Pro Tips. It is recommended that this product is added to the batch in cooldown to maintain appearance

* Please note this product contains Leuconostoc/Radish Root Ferment Filtrate (Tradename: M15008-Leucidal® Liquid) - produced by Active Micro Technologies, LLC - containing 18.0–22.0% Phenolics (tested as Salicylic Acid). Please refer Leucidal® Liquid product literature for additional information.

THE BENEFITS OVERVIEW.

Collagen Boosting Sirius Red/Fast Green Collagen Analysis



Heat Protection Thermal Protection Assay & Heat Protection SEM Assay



Antioxidant Protection Reactive Oxygen Species (ROS) Scavenging Assay



Hair Volumizing 3D Hair Volume Assay



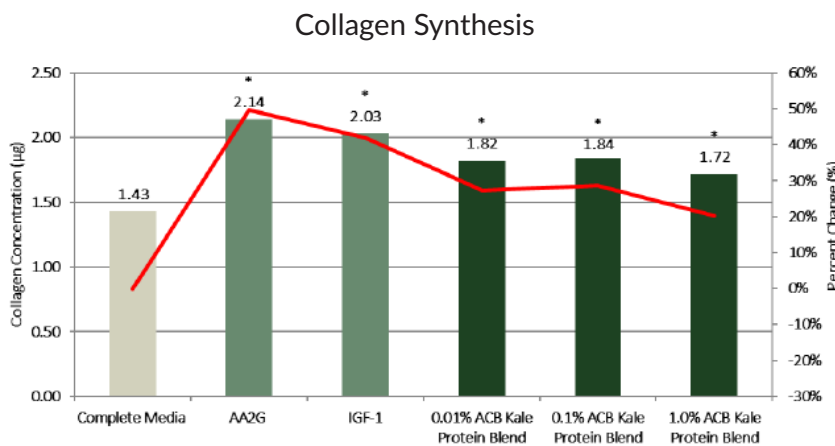
Stylist Approved Salon Half-Head Study



THE EFFICACY.

Collagen Boosting

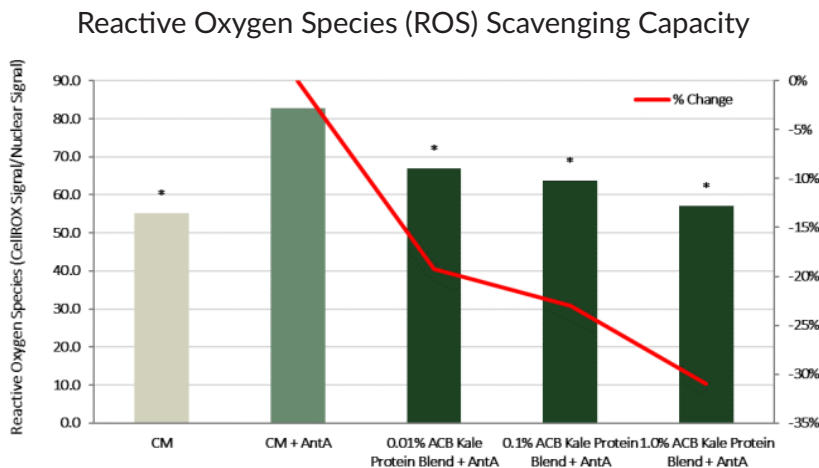
A Sirius Red/Fast Green Collagen Assay was conducted to assess the *in vitro* effect of ACB Kale Protein Blend to trigger collagen synthesis in dermal fibroblasts. The results indicate that ACB Kale Protein Blend stimulates collagen synthesis which may assist cosmetic applications designed to enhance collagen deposition and provide a younger and healthier dermal complexion. Collectively, increases in collagen production may lead to improvements in dermal-epidermal junction integrity as well as an improved scaffolding matrix.



Boosts collagen synthesis by +29%

Antioxidant Protection

A ROS Scavenging Assay was conducted to assess the *in vitro* effect of ACB Kale Protein Blend to scavenge unnecessary oxidative stress in dermal fibroblasts. These data indicate ACB Kale Protein Blend scavenges unnecessary ROS, which may help to attenuate characteristics of cellular aging. Collectively, intrinsic and extrinsic factors perturb skin homeostasis by stimulating abundant levels of ROS that amplify DNA mutation, cellular senescence, advanced glycation end products, protein oxidation, and collagen degradation.



Reduces ROS levels by -31%

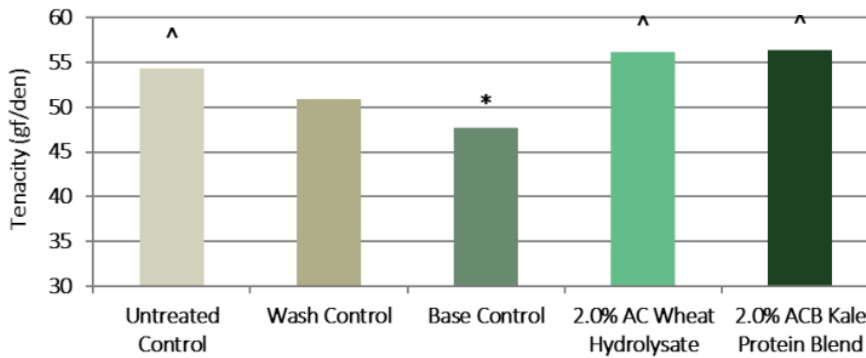
ACB Kale Protein Blend

THE EFFICACY CONTINUED.

Heat Protection

A thermal protection assay was conducted to assess the ability of ACB Kale Protein Blend to protect hair against heat styling. Collectively, heat styling damages virgin brunette and bleached blonde hair, however one application of ACB Kale Protein Blend prevents the heat-styled induced reductions in tenacity and modulus of elasticity in both hair types when utilized as a leave-in product. Taken together, ACB Kale Protein Blend protects and strengthens virgin brunette and bleached blonde hair against thermal damage.

Force Required to Break Hair Strands

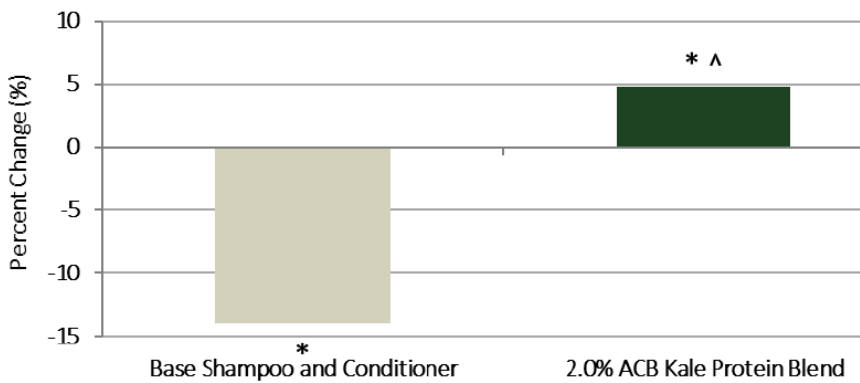


Increases hair tenacity by +4%

Hair Volumizing

A 3D Hair Volumizing Assay was performed to determine the hair volumizing properties of ACB Kale Protein Blend. These results indicate ACB Kale Protein Blend augments hair volume and prevents frizz after repeated washing when added to shampoo and conditioner at recommended use levels. Collectively, ACB Kale Protein Blend demonstrates hair volumizing properties which contributes to the appearance of thicker healthy brunette hair.

Change in Brunette Hair Volume



Increases hair volume by +5%

ACB Kale Protein Blend

THE EFFICACY CONTINUED.

Stylist Approved

A Salon Half-Head Study was conducted to evaluate the perceived hair benefits of ACB Kale Protein Blend in a shampoo and conditioner on wet and dry hair. These results indicate ACB Kale Protein Blend improves the perceived benefits with wet and dry hair when added to shampoo and conditioner at recommended use levels. Collectively, ACB Kale Protein Blend demonstrates visual and perceived hair characteristics which contribute to a healthier looking hair appearance.



Baseline Base Shampoo and Base Conditioner 2.0% ACB Kale Protein Blend

**Improves
frizz
by +38%**



Baseline Base Shampoo and Base Conditioner 2.0% ACB Kale Protein Blend

**Enhances
shine
by +26%**

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7. Malinauskite, E., et al. "Penetration of different molecular weight hydrolysed keratins into hair fibres and their effects on the physical properties of textured hair." *International Journal of Cosmetic Science*. 43.1 (2021): 26-37.

Active Concepts LLC
Lincolnton, NC - USA
Tel +1 704-276-7100
info@activeconceptsllc.com

Active Concepts SRL
Bareggio, (Milano) ITALY
Tel +39 02 90360719
info@activeconcepts.it

Active Concepts LLC, Asia
Kaohsiung, Taiwan
Tel + 886 73599900
info-asia@activeconceptsllc.com.tw

Website
www.activeconceptsllc.com

Social Media
[@activeconceptsglobal](https://www.instagram.com/activeconceptsglobal)

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