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AC Griffonia Lysate Advanced

Antioxidant
Skin Lifting
Pro-Collagen



VEGAN



SEPHORA
CLEAN



CREDO
CLEAN



ISO 16128



THE FEATURES.

The thought shared by all cosmetic and personal care consumers is: the products we use make us feel good. These feelings that accompany the use of neurocosmetics push this technology to the forefront of modern skin care. AC Griffonia Lysate Advanced utilizes this approach through the use of 5-HTP, a chemical precursor in the biosynthesis of serotonin. When used, 5-HTP transforms personal care formulas into neurocosmetics, capable of making consumers feel and look good. AC Griffonia Lysate Advanced is designed to offer formulators a multipurpose ingredient capable of increasing antioxidant, skin lifting, and elastin and collagen-synthesizing activities. Enter the fascinating world of neurocosmetics with AC Griffonia Lysate Advanced!

INCI: Griffonia Simplicifolia Seed Extract

TECHNICAL DATA SHEET.

AC Griffonia Lysate Advanced

THE STORY.

“When you look good, you feel good.” The thought shared by all cosmetic and personal care consumers is: the products we use make us feel good. These feelings that accompany the use of neurocosmetics push this technology to the forefront of modern skin care.

Serotonin, a neurotransmitter known to promote feelings of happiness¹, can be capitalized on and marketed as such, to seamlessly enhance products specifically designed as neurocosmetics. The naturally occurring amino acid, 5-hydroxytryptophan (5-HTP), is the chemical precursor in the biosynthesis of serotonin.² When used, 5-HTP transforms personal care formulas into neurocosmetics, capable of making consumers feel and look good. AC Griffonia Lysate Advanced takes advantage of the rich 5-HTP content in *Griffonia* seed cells, providing formulators with a neurocosmetic material that delivers immediately perceivable results and long-term benefits for anti-aging skin care.

Mindfully crafted by Active Concepts, AC Griffonia Lysate Advanced is designed to offer formulators a multipurpose ingredient capable of improving antioxidant, skin lifting, and elastin and collagen-synthesizing activities.



THE SCIENCE.

Griffonia simplicifolia, a medicinal flowering herb growing in parts of Africa, is known to offer several health-promoting effects, including antioxidant properties.² The seeds of the plant have been shown to contain 5-HTP, which as previously mentioned, is the chemical precursor of the neurotransmitter, serotonin.

In addition to producing serotonin, 5-HTP has demonstrated radical scavenging activities. 5-HTP was found to preserve membrane fluidity in the presence of oxidative stress, while protecting cells against oxidative DNA damage.³ Antioxidants are known to protect against harmful free radicals occurring in the environment that can lead to premature aging. These molecules are also noted to help tighten the skin and reduce wrinkles.⁴

As a naturally occurring amino acid, 5-HTP may indirectly influence collagen synthesis by boosting serotonin levels. It is referenced that serotonin has displayed skin healing abilities, being able to enhance the proliferation and migration of keratinocytes and fibroblasts.⁵ This attribute can help maintain skin firmness and suppleness.

The combination of components that make up AC Griffonia Lysate Advanced result in a long-term anti-aging product, which also imparts a tangible and supple film on the skin. This film not only protects against environmental damage, but also immediately tightens and lifts the skin, revealing a firm, younger-looking complexion.

THE TECHNICAL DETAILS.

INCI. Griffonia Simplicifolia Seed Extract

CAS. 999999-99-4

EINECS. 310-127-6

EUROPE. Compliant

USA. Compliant

CHINA. Contact Us

Origin. Botanical/Bacteria

Natural Antimicrobial. Leuconostoc/Radish Root Ferment Filtrate*

Preservatives. None

Solvents Used. None

Appearance. Clear to Slightly Hazy Liquid

THE FORMULATION TIPS.

pH Stability. 4 - 7

Temperature Stability. Stable up to 60° Celsius

Use Level. 1 - 10%

Ionic State. Anionic

Alcohol Compatibility. Compatible with 50% SDA-40

Solubility. Water Soluble

Pro Tips. It is recommended that this product is added during the cooling phase of the formulation process and after the emulsion has been formed.

* 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.

AC Griffonia Lysate Advanced

THE BENEFITS OVERVIEW.

Antioxidant Protection Reactive Oxygen Species (ROS) Scavenging Assay



Elastin Synthesis Human Elastin ELISA Analysis Report



Tightening Immediate Skin Lifting Benefits



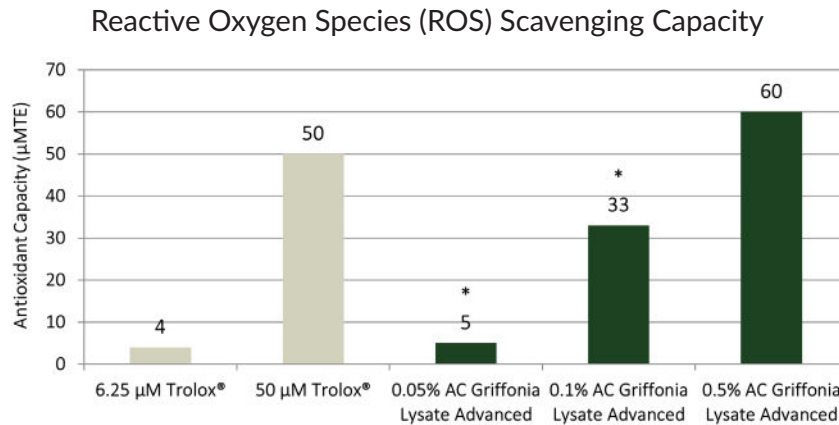
Collagen Boosting Sirius Red/Fast Green Collagen Analysis



THE EFFICACY.

Antioxidant Protection

An Oxygen Radical Absorbance Capacity (ORAC) Assay was conducted to assess the antioxidant capacity of AC Griffonia Lysate Advanced. The antioxidant capacity of AC Griffonia Lysate Advanced increased as the concentration increased, indicating that the ability to minimize oxidative stress is dose dependent. In summary, AC Griffonia Lysate Advanced is capable of providing antioxidant properties and aids in the anti-aging process through protection at the cellular level.



Enhances antioxidant protection by 18%

Tightening

A short-term *in vivo* study was conducted to evaluate the ability of AC Griffonia Lysate Advanced to reduce wrinkles on the face. These results indicate AC Griffonia Lysate Advanced reduces the appearance of wrinkles when added to personal care applications at recommended use levels. Collectively, AC Griffonia Lysate Advanced improves skin health and provides a more youthful appearance by reducing the visual consequences of normal aging.

Immediate Skin Lifting



Reduces appearance of wrinkles by 16%

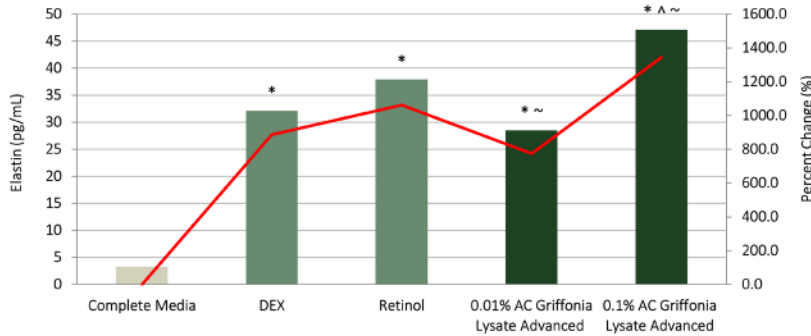
AC Griffonia Lysate Advanced

THE EFFICACY CONTINUED.

Elastin Synthesis

An Elastin ELISA was conducted to assess the *in vitro* effect of AC Griffonia Lysate Advanced on the extracellular release of Elastin from human dermal fibroblasts. These increases in elastin synthesis indicate stimulation, migration, and proliferation of skin fibroblasts. This provides an environment which could decrease the signs of aging and reduce the formation of fine lines and wrinkles. It can therefore be concluded that at normal use concentrations AC Griffonia Lysate Advanced enhances skin matrix replenishment and anti-aging properties as well as slowing skin matrix degradation.

Change in Secreted Elastin

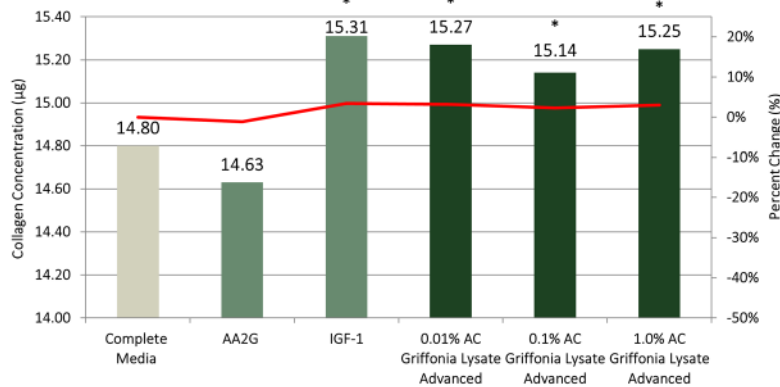


Increases elastin synthesis by 1344%

Collagen Boosting

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

Change in Collagen Levels



Boosts collagen production by 3%

References:

1. Dfarhud, Dariush, Maryam Malmir, and Mohammad Khanahmadi. "Happiness & health: the biological factors-systematic review article." Iranian journal of public health 43.11 (2014): 1468.
2. Nazhand, A., et al. "Beneficial Properties and Sustainable Use of a Traditional Medicinal Plant: Griffonia simplicifolia. Challenges 2024, 15, 14." 2024.
3. Maffei, M. E. "5-Hydroxytryptophan (5-HTP): Natural Occurrence, Analysis, Biosynthesis, Biotechnology, Physiology and Toxicology." Int. J. Mol. Sci 22 (2021): 181.
4. Amrutkar, Miss Pooja Ravindra, et al. "Formulation and evaluation of photo-aging face gel by using algae powder extract (Chlorella vulgaris)." International Journal Of All Research Writings 2.12 (2020): 17-24.
5. Sadiq, Alia, et al. "The Role of Serotonin during Skin Healing in Post-Thermal Injury." Int. J. Mol. Sci 19 (2018): 1034.

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