

AC Griffonia Lysate Advanced



INTRODUCTION

An *in-vivo* study was conducted to evaluate the immediately perceivable skin tightening benefits of **AC Griffonia Lysate Advanced**. Along with perceivable skin tightening, images were taken to visually assess the appearance of fine lines and wrinkles after a short term period. All participants were asked to evaluate the improvement in skin tightening compared to the control. Results indicate that this material is capable of significantly increasing perceivable skin tightening and minimizes the appearance of fine lines compared to the control.

MATERIALS AND METHODS

This study was conducted using 6 M/F subjects between the ages of 25-50. Half of the participant population was instructed to apply the 5.0% active loaded eye serum to their right under eye area and the other half to their left. The participants were then instructed to apply the base eye serum to their opposite under eye area. Each participant was supplied with ~2.0mg of product for each application.

Baseline photos were taken prior to application of the test materials. Photos were taken again three minutes following application of the test materials. Photographic assessments were performed using the VISIA Complexion Analysis System (Canfield Scientific., Fairfield, NJ, USA). The VISIA System, with a configurable head support, ensured consistent positioning of each subject's head. The participants cleaned their skin with a gentle facial wipe (Daily Facial Towelettes – Paraben Free Formula by Kirkland Signature) before the image was obtained. Images were taken for each subject to quantify the feature counts for wrinkles.

Three minutes after application of test materials, participants were asked to rate the feeling of tightness on a scale of 1-10 for each under eye area, where 1 represents no perceived improvement. This data provides an assessment of perceivable skin tightening. The average ratings for the experimental and control were calculated, and the differences between time points were recorded and compared. For statistical analysis a two-sample t-test, assuming unequal variance, was performed to compare data. The significance threshold was set at 0.05.

Code Number: 16634

INCI Name: Griffonia Simplicifolia
Seed Extract

INCI Status: Conforms

CAS Number: 999999-99-4

EINECS Number: 310-127-6

TRF#: 6306

Lot Number(s): 72745

Suggested Use Levels: 1.0 - 10.0%
Use Level for Assay: 5.0%

Sponsor:

Active Concepts, LLC
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Lincolnton, North Carolina 28092

Study Director: Maureen Danaher
Principle Investigator: Kara Rivera

Suggested Applications:

Anti-Aging, UV Protection,
Tightening, Lifting

Benefits of AC Griffonia Lysate Advanced:

- Immediately Perceivable Results
- Neuro-Cosmetic
- Long Term Anti-Aging Benefits
- 5-HTP Marketing

AC Griffonia Lysate Advanced

INCI Name	% w/w
Water	83.50
Glycerin	2.00
Sodium Hyaluronate	1.00
C14-22 Alcohols & C12-20 Alkyl Glucoside	2.00
Cocos Nucifera (Coconut) Extract	3.00
Chlorella Vulgaris Extract & Olea Europaea (Olive) Leaf Extract	4.00
Punica Granatum Sterols	0.50

Table 1. Base serum formulation.

RESULTS

According to the results of the assessment, 66.7% of participants were able to perceive a significant tightening effect on the area around the eye where the experimental (5.0% **AC Griffonia Lysate Advanced** in base serum) was applied. Additionally, the experimental (5.0% **AC Griffonia Lysate Advanced** in base serum) delivered 36.2% more of a perceivable tightening effect than the base serum alone. The active in base serum demonstrated a statistically significant difference in perceived tightening, when comparing the percent change of experimental and base ratings. P-values were less than or equal to 5% indicating results of the study were not due to random chance.

Participant Assessment of Tightness

Ratings on Scale of 1-10 (Feeling of Tightness)		
	Experimental (5.0% AC Griffonia Lysate Advanced in base serum)	Control (Base Serum)
Participant 1	8	2
Participant 2	6	5
Participant 3	5	7
Participant 4	6	7
Participant 5	6	4
Participant 6	6	1
Average	6.2	4.3

Table 2. Participant assessment of tightness.

Perceivable Tightening Statistical Analysis

t-Test: Two-Sample Assuming Equal Variances

	Variable 1	Variable 2
Mean	6.166666667	4.333333
Variance	0.805555556	5.222222
Observations	7	7
Pooled Variance	3.013888889	
Hypothesized Mean Difference	0	
df	12	
t Stat	1.975658322	
P(T<=t) one-tail	0.035822783	
t Critical one-tail	1.782287556	
P(T<=t) two-tail	0.047164557	
t Critical two-tail	2.17881283	

Table 3. Statistical analysis on the overall tightness ratings comparing the percent change of experimental and control values.

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Figure 1. Participant #2 treated with 5.0% **AC Griffonia Lysate Advanced** in Base Serum displays a reduction (10.0%) in wrinkle feature counts from beginning of treatment (T=0) to T=3 minutes via VISIA Image Analysis. Images on the top are participant #2 with image enhancement, through VISIA, which provides higher visualization of feature changes. Images on the bottom are natural photos of participant #2.

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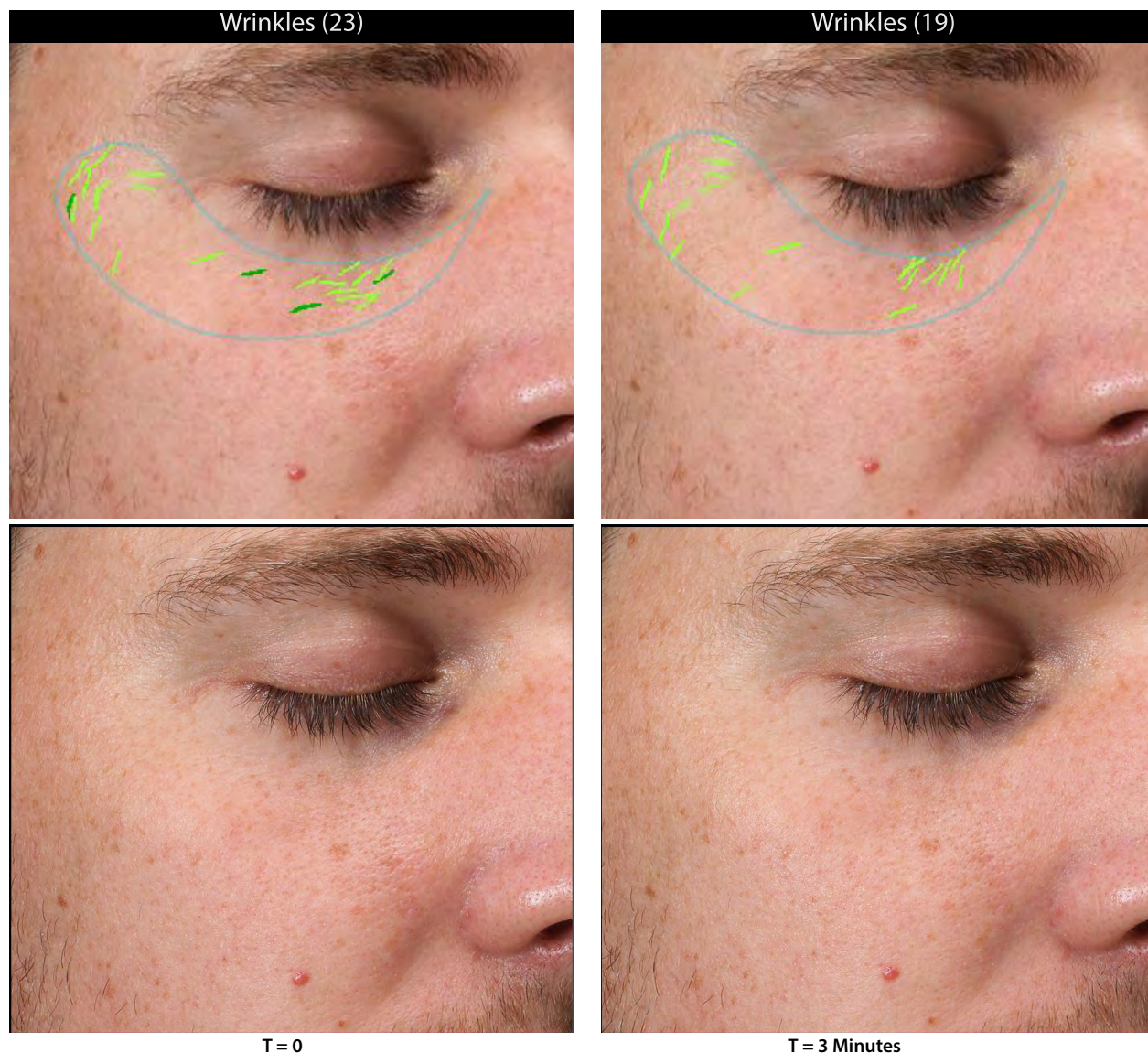


Figure 2. Participant #5 treated with 5.0% **AC Griffonia Lysate Advanced** in Base Serum displays a reduction (19.0%) in wrinkle feature counts from beginning of treatment (T=0) to T=3 minutes via VISIA Image Analysis. Images on the top are participant #5 with image enhancement, through VISIA, which provides higher visualization of feature changes. Images on the bottom are natural photos of participant #5.

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Figure 3. Participant #6 treated with 5.0% **AC Griffonia Lysate Advanced** in Base Serum displays a reduction (27.8%) in wrinkle feature counts from beginning of treatment (T=0) to T=3 minutes via VISIA Image Analysis. Images on the top are participant #6 with image enhancement, through VISIA, which provides higher visualization of feature changes. Images on the bottom are natural photos of participant #6.

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DISCUSSION

Figures 1 through 3 illustrate the changes in wrinkle characteristics on participants from baseline to three minutes following application of the base serum containing 5.0% **AC Griffonia Lysate Advanced**. The VISIA feature counts demonstrate a reduction in the overall appearance of wrinkles. According to the results of the panelist images and ratings assessment, it can be concluded that **AC Griffonia Lysate Advanced** can be used to visibly reduce the appearance of fine lines and wrinkles while providing a noticeable tightening effect on skin. For this reason, this exceptional ingredient is ideal to add to cosmetic and personal care applications where immediate lifting benefits are desired.

It should be noted that the 2020 Global Health Crisis has limited the panelist size and age demographic for this study. As the average participant age for this study is 26 years, **AC Griffonia Lysate Advanced** would be ideal for the 'Prejuvenation' trend. Treating the signs of aging before they set in has become an increasingly popular approach to dealing with wrinkles and other issues associated with getting older. 'Prejuvenation' encompasses both the preventative and restorative approach to skin care that Millennials and Generation Z are adopting. Instead of trying to turn back the effects of time, an increasing number of young adults are focused on an effective skin care regimen earlier in order to stop time in its tracks. The immediate tightening effect of **AC Griffonia Lysate Advanced** can help to maintain the health and aesthetics of youthful skin while also enhancing it with the active's antioxidant capabilities and collagen production benefits.



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