

AC Party Face Pom



let your outer beauty shine through!
 superfruit ingredient
 with immediate tightening properties,
 anti-aging benefits,
 wrinkle reduction,
 and skin revitalizing properties

BACKGROUND

In the past, consumers seeking speedy anti-aging results had to wait in a doctor's office for an invasive Botox or facelift procedure. Today's savvy consumer is no longer dependent on such extreme measures for immediate gratification. Costly and painful attempts at age maintenance are outdated thanks to pioneering technology. To this end, Active Concepts has developed **AC Party Face Pom** for significant results that provide instant smoothing and lifting effects. Intense simplicity never looked so good!

Aging is a natural process of life. We can lessen the appearance of damaging oxidative effects with healthy maintenance of our bodies. Our cutting edge multi-tasker allows formulators to capitalize on botanicals by combining firming polymers using the low molecular weights of orange blossom peptides with pomegranate extracts for lasting age defying results.

SCIENCE

Pomegranate, *Punica granatum*, was introduced to the Latin and North Americas during the mid-1700s by Spanish settlers, although the fruit has ancient Eurasian roots dating back as far as 8,000 years. Pomegranate has a profusion of health benefits and its popularity in mainstream society is not without merit. From a cosmetic formulator's perspective, pomegranate is highly useful for entrapping moisture. When isolated, the higher weight carbohydrates of pomegranate create a film on the skin's surface. This film layer acts as a barrier enhancement where hydrating spheres can hold moisture at the surface level allowing for a noticeable lifting effect with increased suppleness. For this reason, pomegranate carbohydrates are capable of creating immediate lifting effects and optimizing skin barrier function.¹

Code Number: 20447

INCI Name: Water & Punica Granatum Extract & Citrus Aurantium Dulcis (Orange) Flower Extract

INCI Status: Conforms

REACH Status: Compliant

CAS Number: 7732-18-5 & 84961-57-9 & 8028-48-6

EINECS Number: 231-791-2 & 284-646-0 & 232-433-8

Origin: Botanical

Processing:

GMO Free
 No Ethoxylation
 No Irradiation
 No Sulphonation

Additives:

Preservatives: None
 Antioxidants: None
 Other additives: None

Solvents Used: N/A

Appearance: Slightly Hazy to Hazy, Yellow to Light Amber Liquid

Soluble/ Miscible: Water Soluble

Ecological Information:

87.55% Biodegradability

Microbial Count: < 100CFU/g, No Pathogens

Suggested Use Levels: 2.0 - 5.0%

Suggested Applications:

Skin Lifting, Skin Tightening, Smoothing, Anti-Wrinkle

Benefits of AC Party Face POM:

- Immediate Tightening
- Wrinkle Reduction
- Antioxidant



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While pomegranate is known all over the globe for its good health appeal, the orange blossom deserves equal attention. Originating from the subtropics of Southeast Asia, the succulent orange fruit represents a subtropical region of North America where Spanish explorers had hoped to find the secret to youth. Instead, they discovered land chock full of antioxidant-rich harvest. *Citrus aurantium dulcis*, or sweet orange, contains unique peptides that formulators can readily incorporate for heightened skin barrier reinforcement. These short-chained proteins trigger new collagen formation, as the skin perceives that collagen has been lost. The actives operate as a signaling system resulting in increased matrix stability. Our skin's foundation is further reinforced by its ability to neutralize free radicals. Studies have shown that the orange is capable of reducing oxidative stress, which can help to further reduce damage and diminish the appearance of fine lines and wrinkles for a youthful appeal².

BENEFITS

AC Party Face Pom was developed to provide significant results for instant smoothing and lifting effects. A blend of pomegranate extract and orange blossom peptides for lasting age defying results. This powerful combination is able to reduce the appearance of fine lines and wrinkles, support collagen synthesis while deeply nourishing cells for enhanced cellular longevity. **AC Party Face Pom** can immediately lift the skin and reduce the appearance of wrinkles for an instantly healthy, younger looking complexion. We have pioneered the perfect combination of nutritious hydration with instant lifting effects to allow consumers to put their best party face forward, not just today but every day!

EFFICACY

An Oxygen Radical Absorbance Capacity (ORAC) assay was conducted to assess the antioxidant capacity of **AC Party Face Pom**. As shown in Figure 1, **AC Party Face Pom** exhibited antioxidant activity comparable to 200µM Trolox®. The antioxidant capacity of **AC Party Face Pom** increased as the concentration increased. As a result we can assure that its ability to minimize oxidative stress is dose dependent and that **AC Party Face Pom** is capable of providing antioxidant properties.

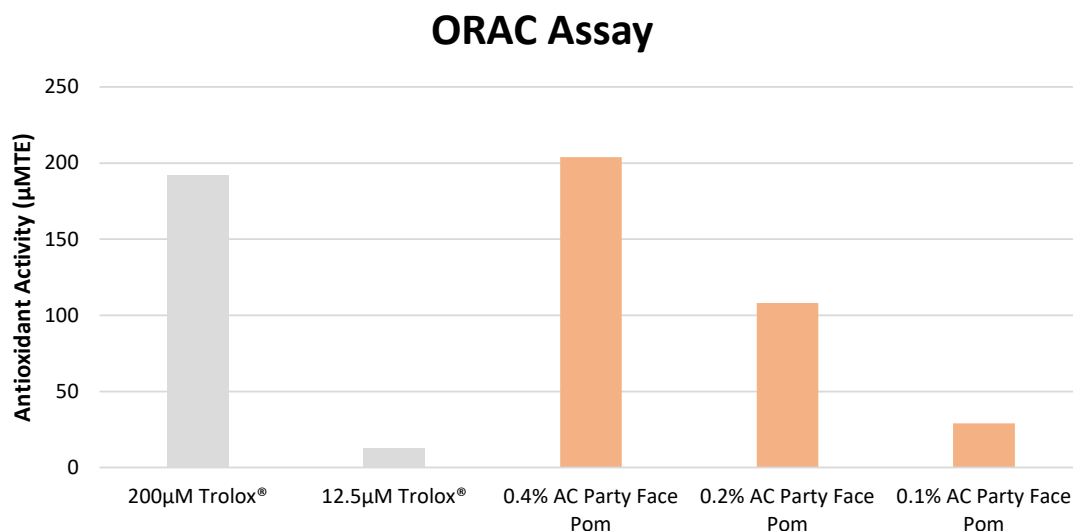


Figure 1. Antioxidant capacities.

A Sirius Red/Fast Green Assay was performed to assess the changes in collagen synthesis by **AC Party Face Pom**-treated *in vitro* cultured human dermal fibroblasts. Sirius Red is a unique dye that binds specifically to the helical structure of types I through V collagen, while Fast Green binds to non-collagenous proteins. These two dyes work in conjunction to provide a semi-quantitative method of determining amounts of collagen and non-collagenous proteins in a sample. After staining a sample the dyes are easily extracted and have optical density (OD) absorptions at 540nm (Sirius Red) and 605nm (Fast Green). Collagen concentrations are calculated through equations with OD values. Figure 2 demonstrates the collagen synthesis activity of **AC Party Face Pom**.

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Collagen Concentration

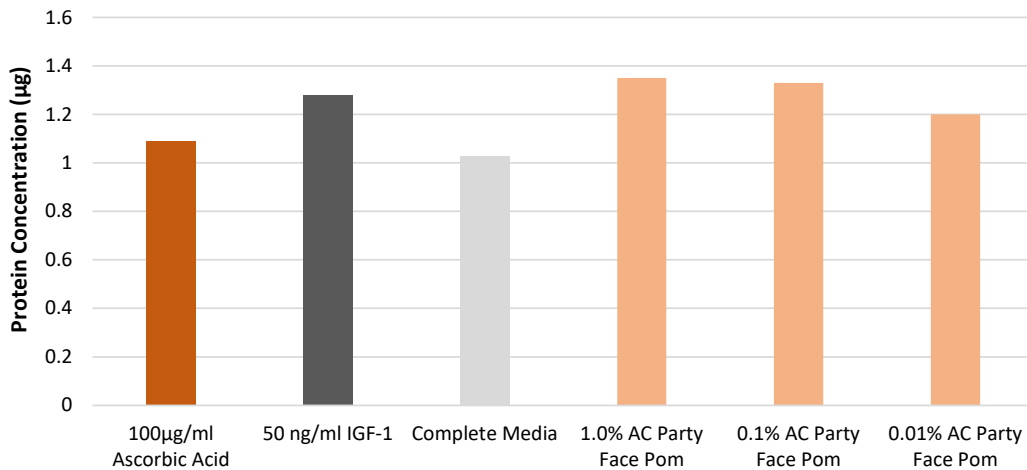


Figure 2. Comparative collagen concentration.

When skin ages it loses its shape, sags, wrinkles, and has a weakened protective barrier. An *in-vivo* study was conducted to determine whether **AC Party Face Pom** can provide significant skin lifting benefits as well as confirm how long these properties would last.

A cutometer (Courage-Khazaka electronic GmbH - MPA 580) was used to measure changes in skin lifting properties. The system works based on suction. Negative pressure is created inside the probe of the cutometer and the skin is forced into the aperture. The penetration depth is determined by a non-contact optical measuring system that consists of a light source, a light receptor and two prisms facing each other. The two prisms reflect the light from the transmitter to the receptor depending on the depth of the skin inside the probe. The values obtained are based on the resistance of the skin that is drawn into the probe as well as its ability to return to the original position. Based on our findings, **AC Party Face Pom** is capable of providing immediate and significant skin lifting benefits that can last up to 4 hours.

Durability of Skin Lifting

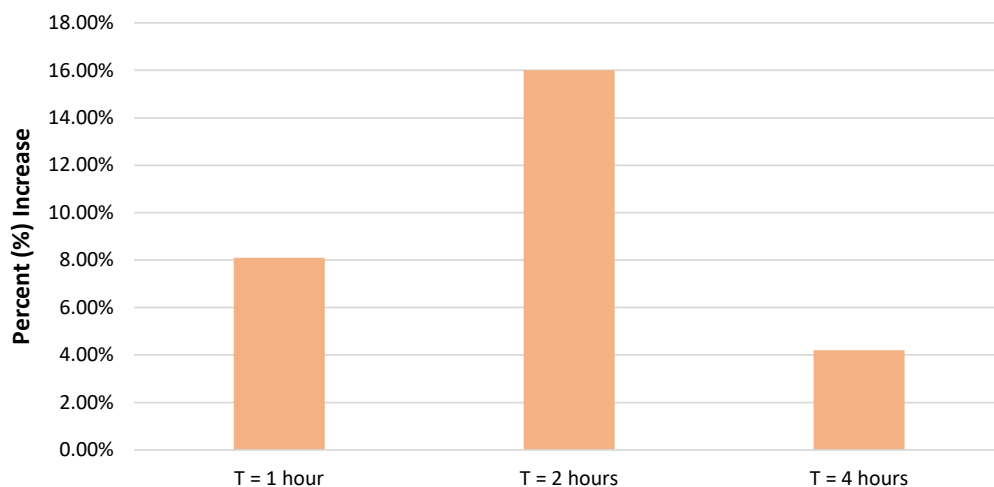


Figure 3. Increase in instant lifting properties achieved using 4.0% AC Party Face Pom in O/W emulsion over time.

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An *in-vivo* analysis was performed to evaluate the effect of 4.0% **AC Party Face Pom** on the appearance of wrinkles. Our technical staff conducted a series of tests to show the efficacy of its anti-wrinkle properties on 10 volunteers between the ages of 36 and 70. Studies were conducted by observation with an image analyzer on Day 0, Day 30, and Day 60. We determined percent decrease in wrinkle length, depth, number, and surface area. 4.0% **AC Party Face Pom** in an O/W emulsion base was applied twice daily for 60 days. The anti-wrinkle effects were analyzed by observation with a profilometer equipped with an image analyzer. For surface area, we examined a 1cm² field around the eyes in an area known as "crow's feet." Silicon polymer replicas were made for Day 0, 30, and 60. Illumination cast at a 35° angle forms shadows on the casts, and the analyses of gray levels were analyzed via a software program on a computer. We measured: wrinkle length, wrinkle depth, number of wrinkles, and wrinkled surface area.

Changes in Wrinkle Characteristics

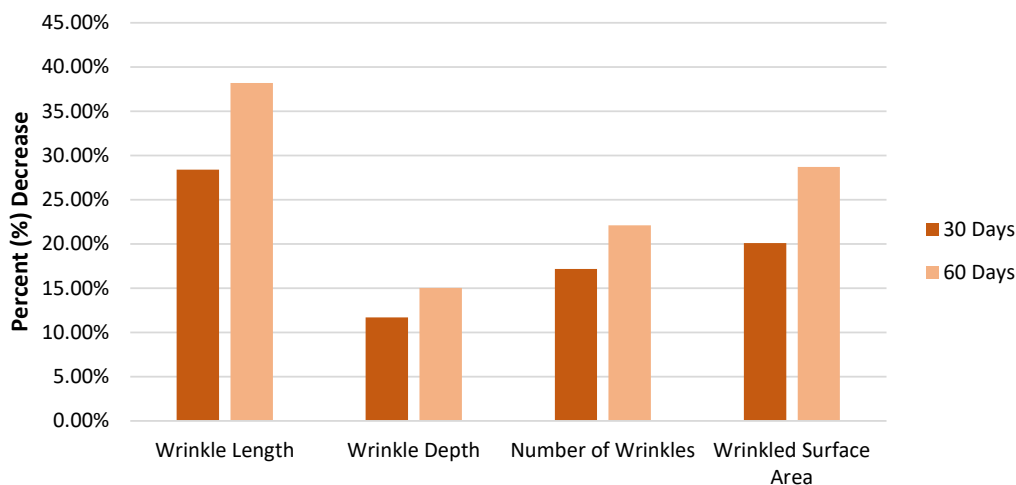


Figure 4. Percent decrease in wrinkle characteristics at 30 days and 60 days following twice daily application of O/W emulsion containing 4.0% **AC Party Face Pom**.

After twice daily application, both Day 30 and Day 60 showed significant wrinkle reduction in all four categories. Day 60 showed slightly more significant results than Day 30, which leads us to believe that prolonged application leads to better anti-wrinkle results.

References:

1. Ribeiro, A.S.; Estanqueiro, M.; Oliveira, M.B.; Sousa Lobo, J.M. Main Benefits and Applicability of Plant Extracts in Skin Care Products. *Cosmetics* 2015, 2, 48-65. <https://doi.org/10.3390/cosmetics2020048>
2. Haj Ammar, Ahlem and Bouajila, Jalloul and Lebrihi, Ahmed and Mathieu, Florence and Romdhane, Mehrez and Zagrouba, Fethi Chemical Composition and in vitro Antimicrobial and Antioxidant Activities of Citrus aurantium L. Flowers Essential Oil (Neroli Oil). (2012) Pakistan Journal of Biological Sciences, vol. 15 (n° 21). pp. 1034-1040. ISSN 1028-8880.