



## PRODUCT, DESCRIPTION AND EVIDENCE

### VIT C20

A lightweight palm free anti-oxidant serum containing 10% Ascorbic acid formulated for younger oily skin types to help reduce free radical damage, prevent the signs of ageing and brighten lack lustre skin.

#### KEY BENEFITS

- 15% improvement in the appearance of fine lines and wrinkles.
- 45% improvement in skin luminosity.
- Up to 69% reduction in the appearance of age spots.
- 77% reduction in the appearance of blemishes.
- Skin appears 50% firmer.

#### DIRECTIONS FOR USE

Apply daily to cleansed skin by gently massaging over face & neck until absorbed. Avoid Direct eye contact. Follow with SPF 50+.

#### WARNINGS

For external use only. Avoid contact with eyes. If this occurs wash affected area thoroughly with water. If irritation occurs, discontinue use. Store this product at room temperature above 10°C and below 25°C.

#### INGREDIENTS

Aqua, Ascorbic Acid, Glycerin, Xanthan Gum, PPG-26-Buteth-26, Sodium Ascorbyl Phosphate, Phenoxyethanol, PEG-40 Hydrogenated Castor Oil, Glyceryl Acrylate/Acrylic Acid Copolymer, Parfum, Benzoic Acid, Dehydroacetic Acid, Alpha-Isomethyl Ionone, Citral, Coumarin, Limonene, Linalool.

#### ACTIVE INGREDIENTS

Ascorbic Acid 10%  
Sodium Ascorbyl Phosphate 1%

#### ASCORBIC ACID

Vitamin C is proven to be very effective in various skin and personal care applications by delivering many benefits:

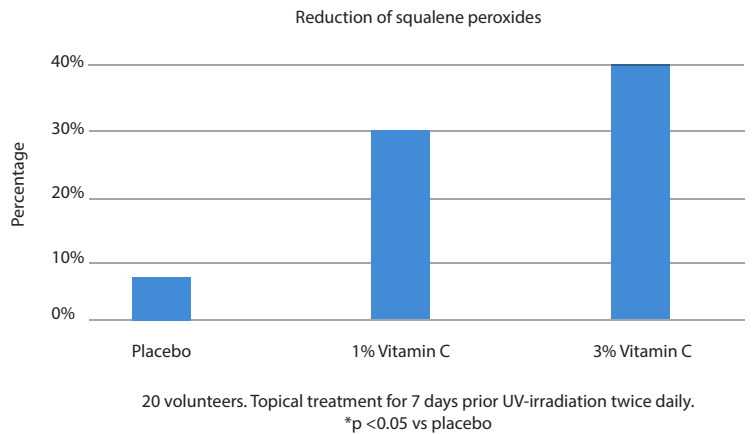
- Excellent antioxidant by reducing peroxides formation and carbonylated proteins
- Boosts collagen synthesis and improves skin firmness
- Evens the skin tone and reduces age spots by limiting the production of melanin
- Improves the appearance of acne-prone skin

#### Anti-oxidant and photoprotection

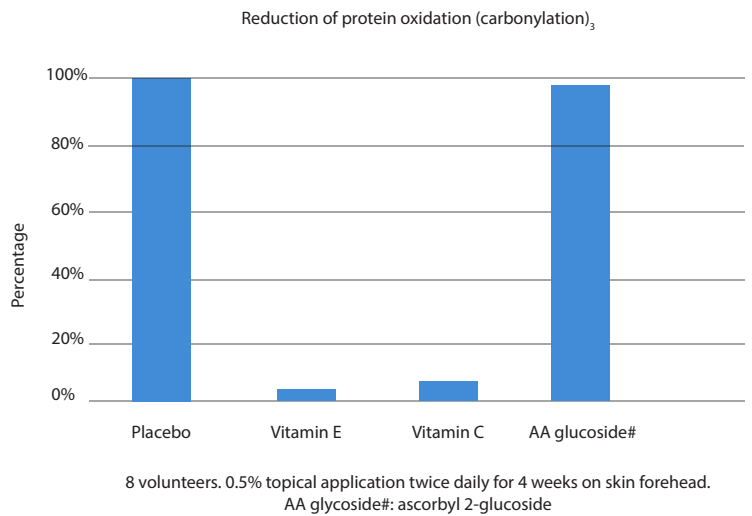
Vitamin C is the anti-stress solution for a daily, non-stop protection.

- Vitamin C is a powerful antioxidant as shown by its ability to reduce squalene peroxides and oxidized (carbonylated) proteins in vivo.
- It demonstrates synergistic anti-oxidant and anti-pollution activity with Vitamin E. In vivo studies have shown that a mixture of stabilized Vitamin C and Vitamin E can decrease erythema by 50% and sunburn cells up to 75%.<sup>1</sup> Another in vivo study has shown that the combination of these 2 vitamins decreased also the inflammation marker of ozone exposure NFkB up to 50%.<sup>2</sup>

Vitamin C reduces the UV-induced lipid peroxides up to 40% in vivo.



Vitamin C reduces protein oxidation by 91% vs placebo in vivo.

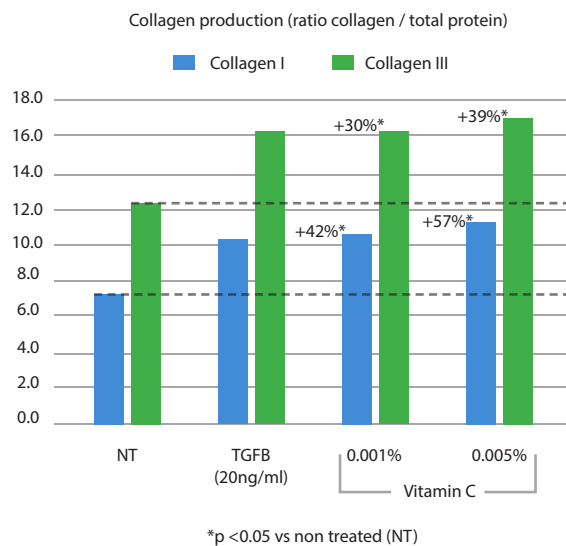


### Anti-aging

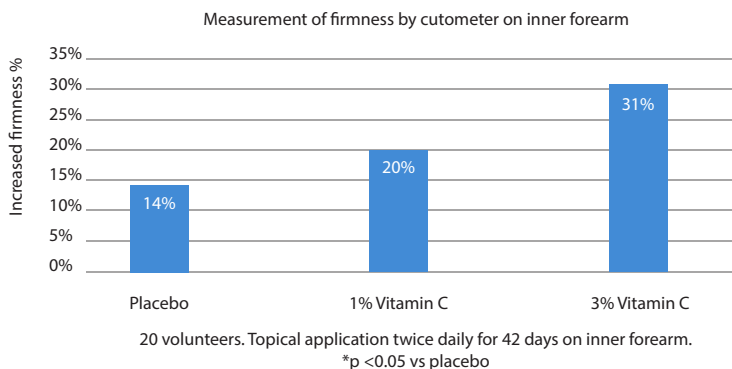
Vitamin C displays anti-aging activities alone or in combination with other vitamins.

- Vitamin C stimulates collagen synthesis in dermal fibroblasts and it helps to maintain skin firmness in aged skin
- A vitamin complex consisting of Vitamin C and Biotin demonstrates proven benefits in the reduction of wrinkles (-25 μM) as shown in DSM's in vivo study.
- A combination of Vitamin C and Retinol improved fine lines and radiance by 15% in 100% of subjects.<sub>4</sub>

Vitamin C boosts fibroblast collagen I (+57%) and collagen III (+39%) in vitro.



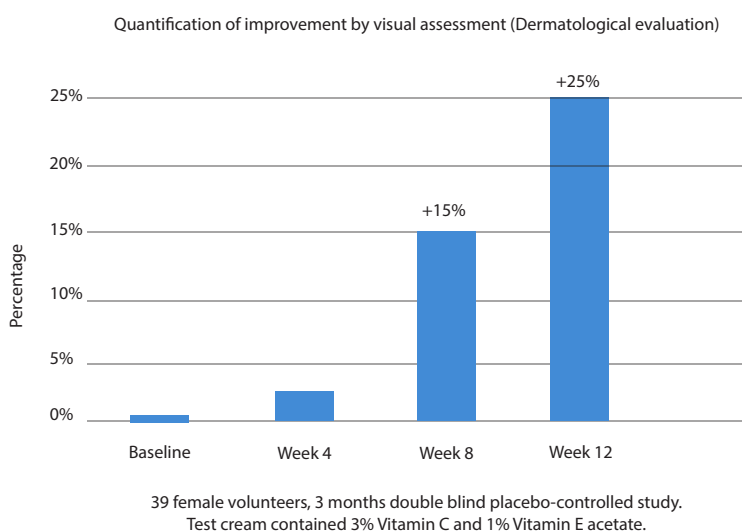
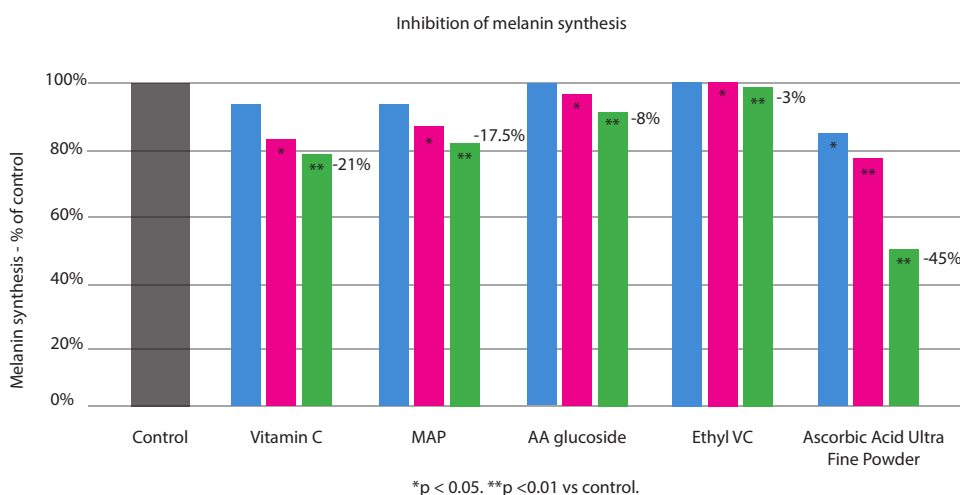
Vitamin C doubles the skin firmness increase in vivo.



### Skin Lightening

Vitamin C has a proven strong lightening effect. Ascorbic acid significantly reduces the melanin.

The following in vivo study provides evidence that Vitamin C significantly brightens the complexion and reduces the intensity of facial age spots.



Vitamin C reduced the colour intensity of age spots up to 25% in vivo and visibly evens the skin tone.



This efficacy data shows significant and powerful fading of age spots and evening of the skin tone up to 69%.

[All data on file.](#)

## SODIUM ASCORBYL PHOSPHATE

Acne vulgaris is the most common inflammatory skin disorder and jeopardizes seriously the facial impression of a person. Development of acne involves a complex relation among several causes.

Treatment and prevention success can be archived by affecting the main contributors positively like Propionibacterium acnes or lipid oxidation leading to inflammatory reactions and follicular keratinization. Vitamin C tends to break down in cosmetic formulations resulting in a brownish discoloration.

Sodium ascorbyl phosphate (SAP) represents a stable precursor of vitamin C that ensures a constant delivery of vitamin C into the skin. We were able to show that 1% SAP has a strong antimicrobial effect with a log reduction of 5 after 8 h on P. acnes in a time-kill study.

Further on in a human in vivo study with 20 subjects an SAP O/W formulation significantly prevents the UVA-induced sebum oxidation up to 40%.

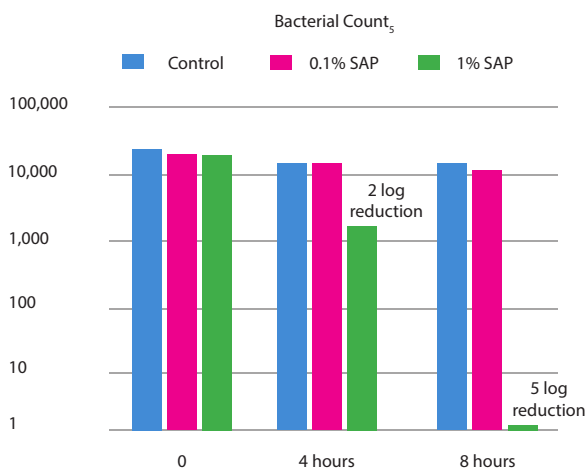
Finally, we performed an open in vivo study with 60 subjects with a 5% SAP lotion over 12 weeks. The efficacy ranked as excellent and good of SAP was 76.9%, which was superior compared with a widely prescribed acne treatment. In conclusion, these data show that SAP is efficient in the prevention and treatment of acne vulgaris. SAP can be used in a non-antibiotic and effective treatment or co-treatment of acne with no side effects, which makes it particularly attractive for cosmetic purposes.

<https://pubmed.ncbi.nlm.nih.gov/18492184/>

### Reduces appearance of acne

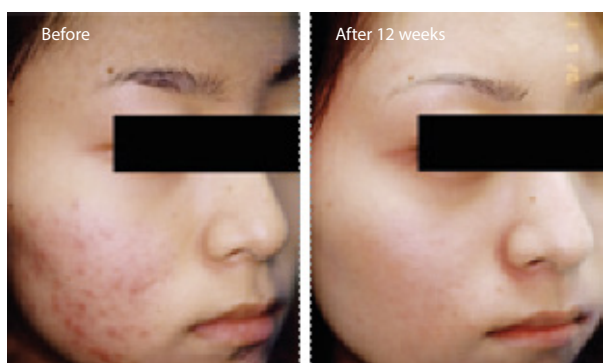
SAP can be used as an effective cosmetic ingredient for acne-prone skin.

In vitro, SAP very effectively reduces the bacterial count of Cutibacterium Acnes, the key bacteria for acne. In the vivo study further illustrates the SAP potential to improve the appearance of skin condition associated with acne and inflammation. Skin impurities and acne are common disorders not only experienced by teenagers but also by adults.



SAP inactivates Cutibacterium Acnes by 5 log in vitro.

SAP inactivates Cutibacterium Acnes by 5 log in vitro.



Photographic evidence of skin appearance improvement.

26 patients with acne vulgaris. 5% SAP topical application twice daily for 12 weeks. This improves skin condition of acne vulgaris by 77% in 12 weeks in vivo.

[All data on file.](#)