Clinical Evidence

PRODUCT, DESCRIPTION AND EVIDENCE

$H_2\infty$

This luxury silky moisturiser is formulated to keep skin optimally hydrated and in peak condition. Blended with Tara Seed Extract, Tripeptide-1, Tetrapeptide-7 to reduce the appearance of lines and wrinkles, whilst using sustainable ingredients, it has also had silicones removed to help protect our oceans.

KEY BENEFITS

- Combines deeply moisturizing ingredients such as saccharide isomerate, panthenol and hydrolysed proteins to provide intense, long lasting moisturization for up to 72 hours.
- Enriched with shea butter, cupuacu butter and avocado oil to nourish the skin with vitamins and fatty acids.
- Improve signs of dry skin by 20%.
- Includes a duo of peptides that naturally increases the formation of new collagen.
- Reduces signs of wrinkles by 35%.

DIRECTIONS FOR USE

Apply to clean skin by massaging over face and neck until absorbed, avoiding direct eye contact. Re-apply as required.

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 below 40°C.

INGREDIENTS

Aqua, Glycerin, Silybum Marianum Ethyl Ester, Helianthus Annuus Seed Oil, Arachidyl Alcohol, C20-22 Alkyl Phosphate, Butyrospermum Parkii Butter, Persea Gratissima Oil, Simmondsia Chinensis Seed Oil, Theobroma Grandiflorum Seed Butter, Saccharide Isomerate, C20-22 Alcohols, Behenyl Alcohol, Hydrolyzed Corn Protein, Panthenol, Phenoxyethanol, Tocopherol, Hydrolyzed Wheat Protein, Arachidyl Glucoside, Butylene Glycol, Hydrolyzed Soy Protein, Caesalpinia Spinosa Gum, Parfum, Alantoin, Sodium Gluconate, Vaccinium Vitis-Idaea Fruit Extract, Sodium Hydroxide, Benzoic Acid, Dehydroacetic Acid, Leuconostoc/Radish Root Ferment Filtrate, Carbomer, Sodium Lactate, Citric Acid, Sodium Citrate, Glucose, Polysorbate 20, Pantolactone, Xanthan Gum, Gluconolactone, Sodium Benzoate, Palmitoyl Tripeptide-1, Palmitoyl Tetrapeptide-7, Calcium Gluconate.

ACTIVE INGREDIENTS

Butyrospermum Parkii Butter 2%
Persea Gratissima Oil 2%
Simmondsia Chinensis Seed Oil 2%
Theobroma Grandiflorum Seed Butter 2%
Saccharide Isomerate 2%
Hydrolyzed Corn Protein 1%
Panthenol 1%
Tocopherol 1%
Hydrolyzed Wheat Protein 1%
Hydrolyzed Soy Protein 0.5%
Vaccinium Vitis-Idaea Fruit Extract 0.2%
Palmitoyl Tripeptide-1 0.0003%
Palmitoyl Tetrapeptide-7 0.00015%

BUTYROSPERMUM PARKII BUTTER

A botanical ingredient derived from the seeds of the African Shea tree. Also known as Shea butter. It acts as a skin conditioning agent. Firstly, it helps retain moisture and lessen the loss of water by forming a barrier on the skin's surface. Secondly, it also works to reduce the appearance of rough patches and dry flakes on the skin. It acts as a moisturizer because of its content of unsaponifiable fats- meaning that, unlike other fatty oils, it does not turn into soap when in the presence of a potent alkali, thus retaining its moisturising abilities.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5796020/

PERSEA GRATISSMIA OIL

Native to Mexico: consumed 10,000 years ago by Aztecs & Mayas, imported to Europe in the 17th century.

Key Benefits:

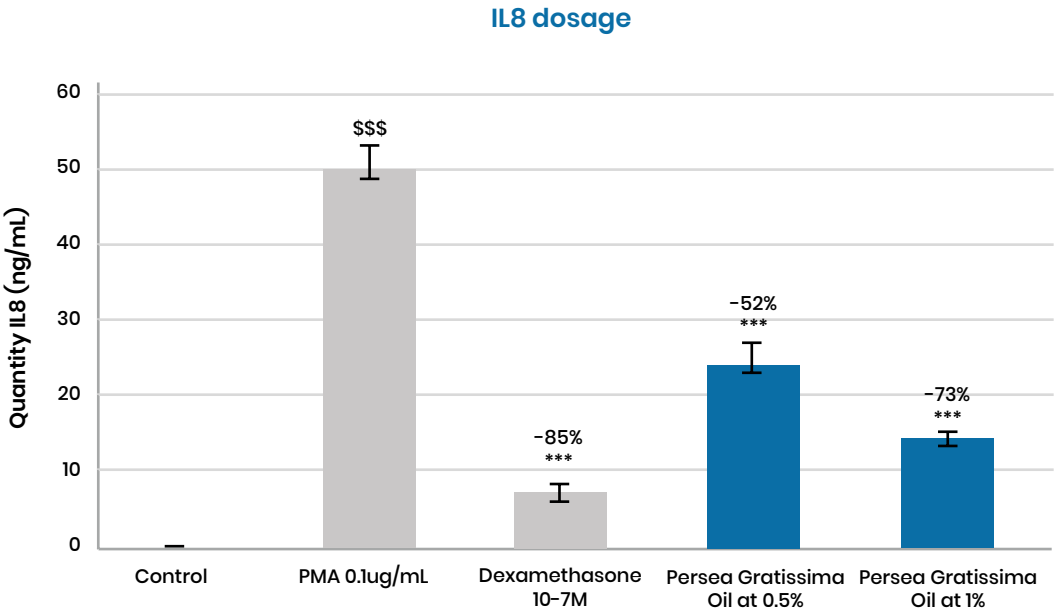
- Lightens complexion, reduces dark circles, reduces eye bags.
- Acts on: Inflammation, Pigmentation irregularity, Vascular and lymphatic permability, Blood circulation and Fatty deposits.
- It inhibits tyrosinase activity and reduces adipocytes size.
- Reduces appearance of eye bags and dark circles
- Antioxidant
- Reduce appearance of wrinkles
- Improved skin elasticity

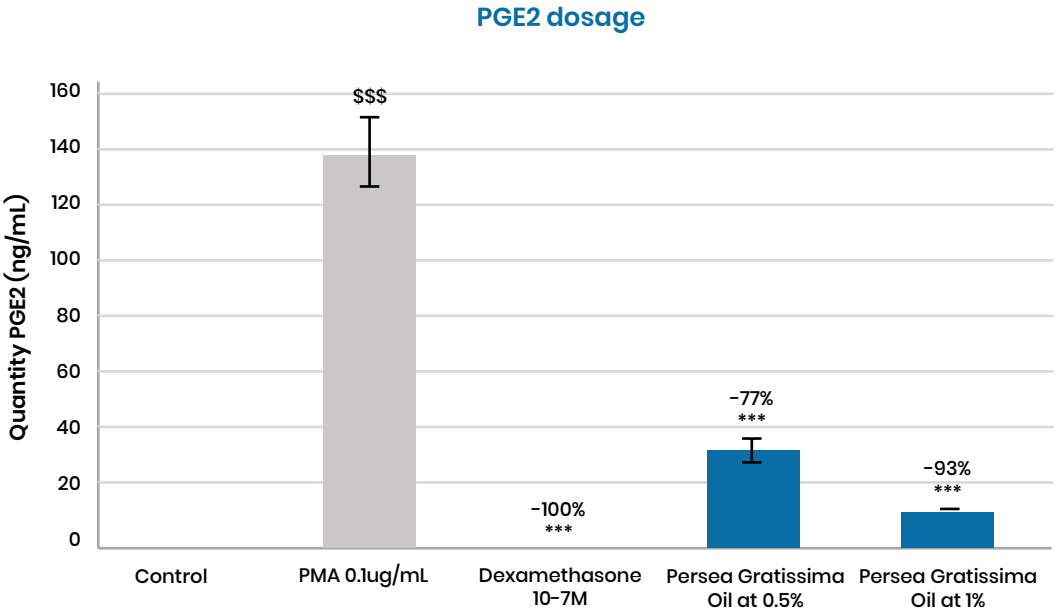
Reduced Interleukin 8 (IL8) activity, reduced synthesis of Prostaglandin E2 (PGE2) (induces skin ageing).

Keratinocytes incubated for 24hr with Persea Gratissima Oil vs Dexaméthasone

Stimulation with PMA (Phorbol 12-Myristate 13-Acetate) for 24hr

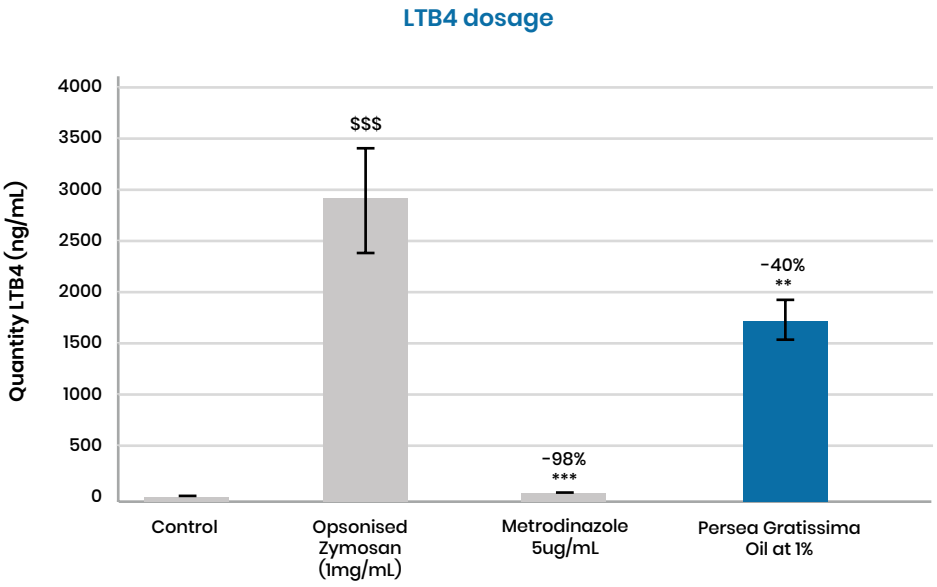
$$$ p<0.001 vs temoin no stimulated
*** p<0.001 vs PMA





Reduced Oedema formation-reduces inflammation.

LTB4: chemotactic factor
Chemotactic factor activated in response to inflammation, increases vasular permeability.

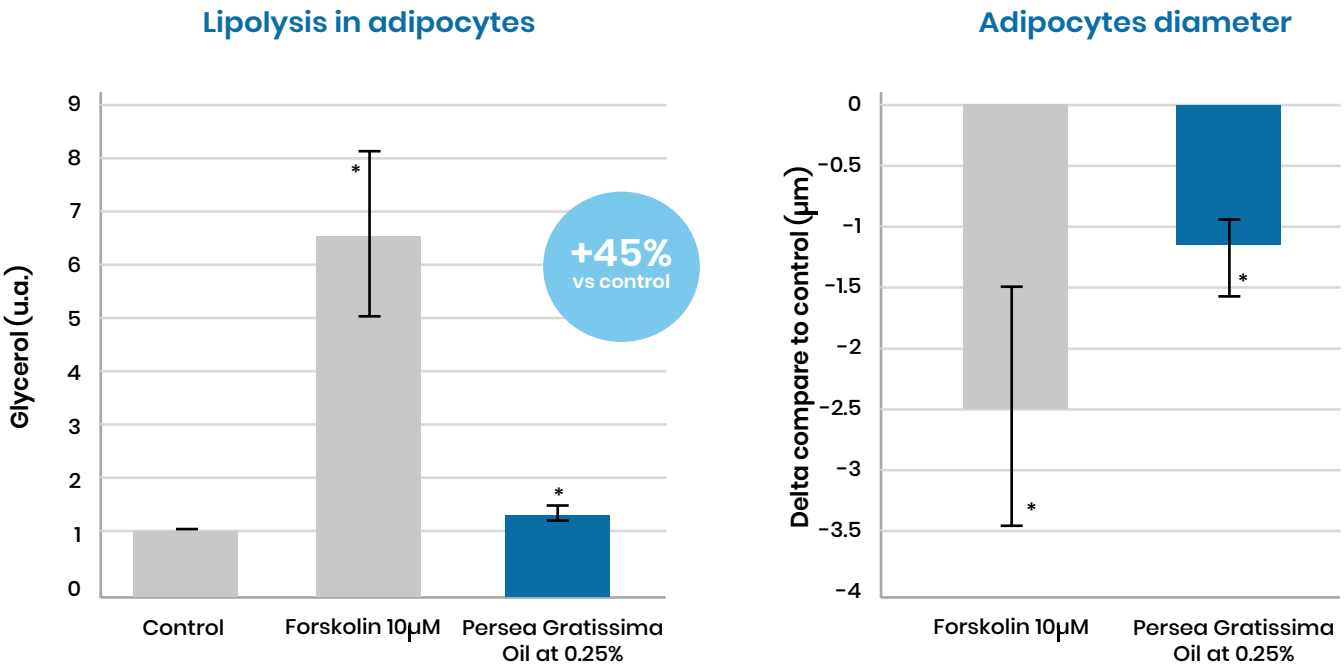


Human neutrophils incubated with Persea Gratissima Oil or Métronidazole at 5µg/mL, for 15 minutes

Stimulation by opsonised zymosan (1mg/ml) for 10 minutes

$$$ p<0,001 vs control
* p<0.05
** p<0.01 vs zymosan

Stimulates lipolysis to reduce puffiness

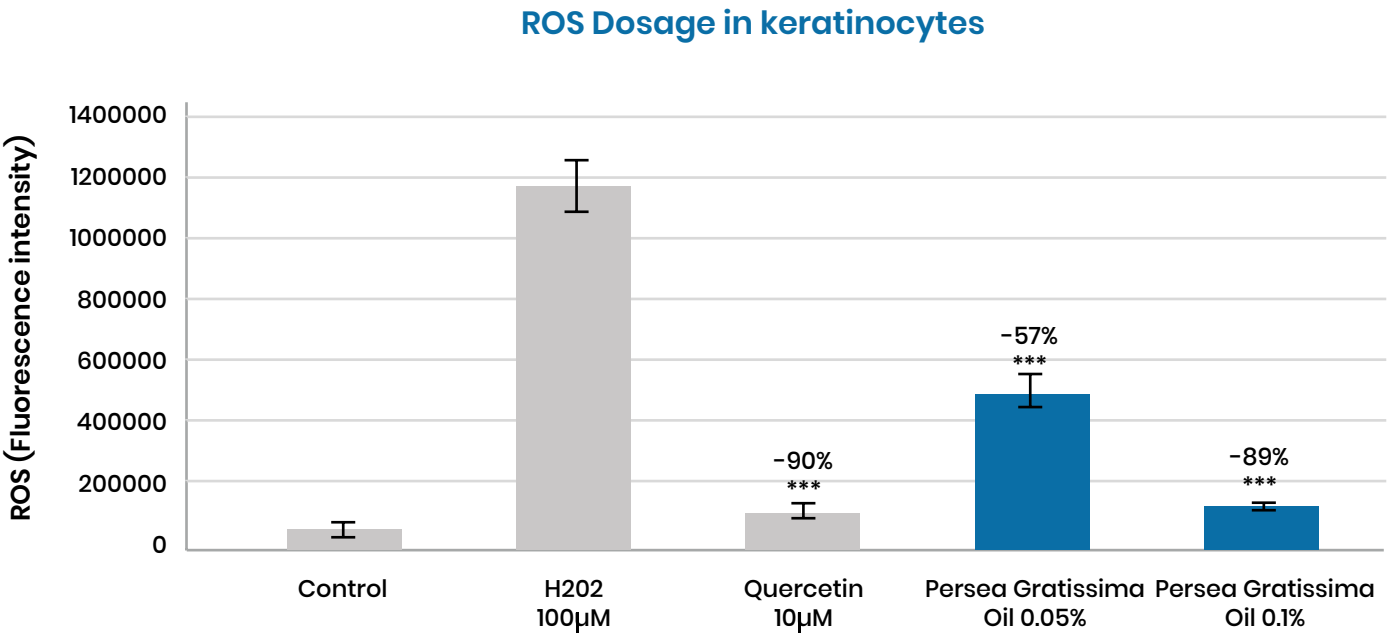


Mature adipocytes treated for 4hr with Persea Gratissima Oil or Forskolin, Glycerol released measurement

Measure of adipocyte diametre using a cell-size counter

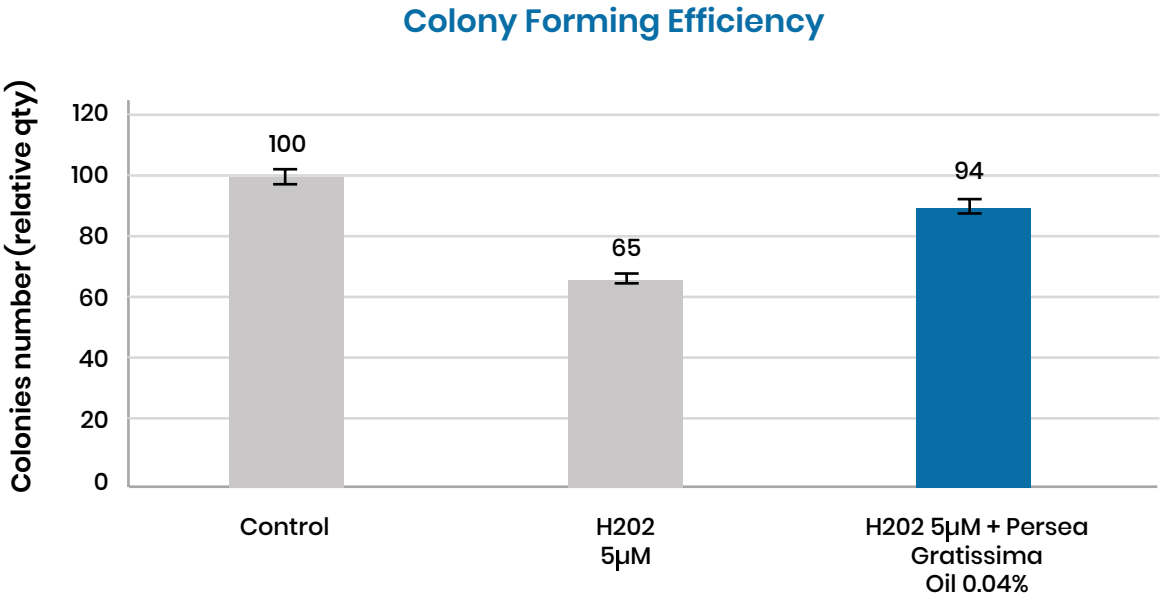
* p<0.05

Stimulates antioxidant activity and protects stem cells from oxidative stress.



Keratinocytes pre-treated for 24hr then treated for 20mins by H202.

*** p<0.001



Epidermal progenitor cells exposed to H202; 5µM for 15mins.
Assessment of colony-forming capacity.

Conclusion:

- Increase in Microcirculation
- Decrease in inflammation
- Decrease vascular & lymphatic permeability
- Decongestion
- Oedema reduction

Dark Circles

Lightening Effect
- Decrease Melanogenesis
- Decrease Tyrosinase

Eye Bags

Decrease fatty deposits
- Increase Lipolysis
- Adipocytes diametre

Clinical Case Study 1

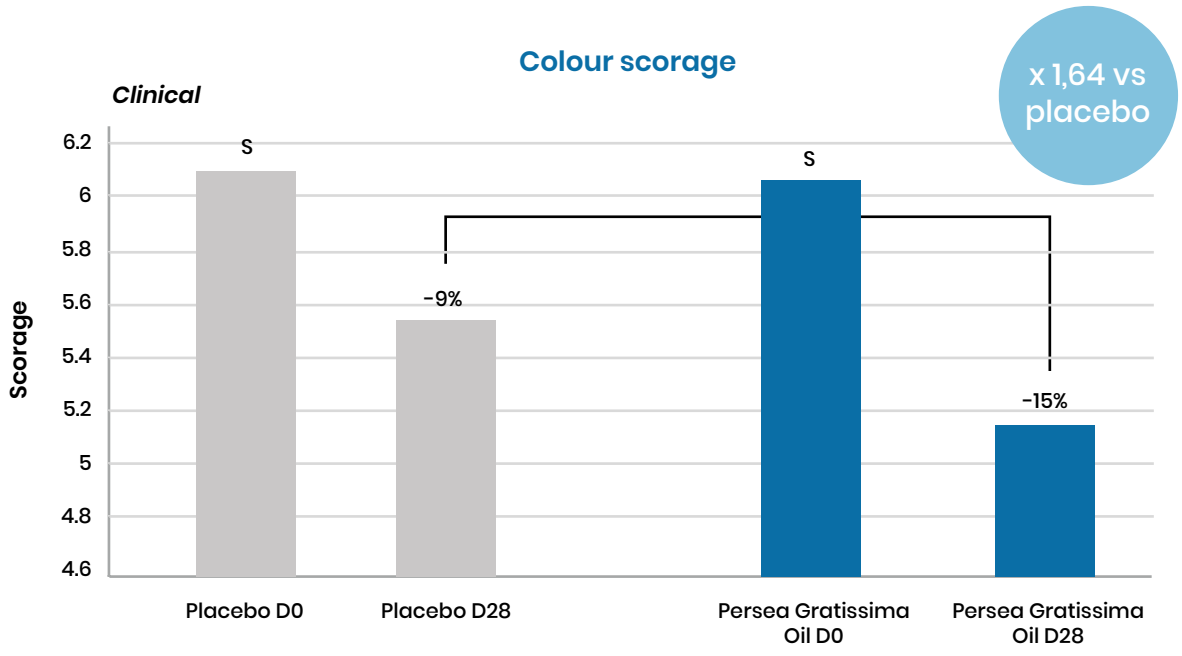
Population
- 20 healthy female volunteers
- 22 to 66 years old (average age 40 years old)

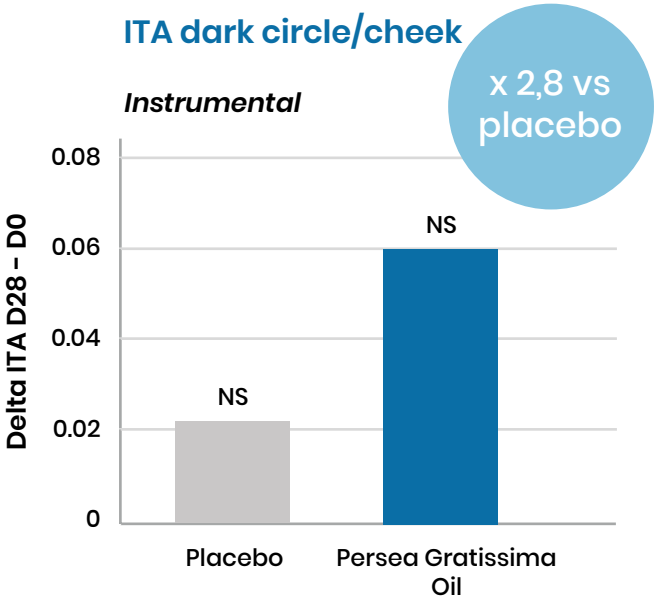
Inclusion Criteria
- Randomised double blind study vs placebo
- Dark circle on the face

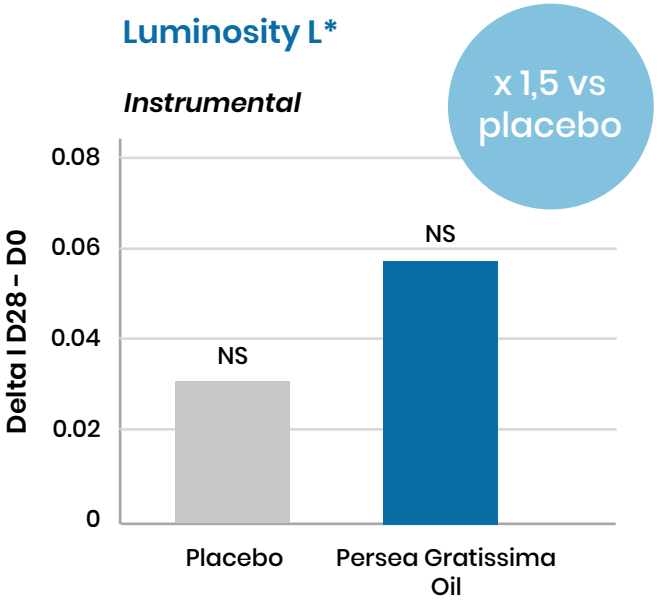
Protocol
- Use of a cream containing 3% of Persea Gratissmia Oil or a placebo
- Hemi face
- Twice a day
- During 28 days

Colour Results

Persea Gratissmia Oil decreases the intensity of dark circles.

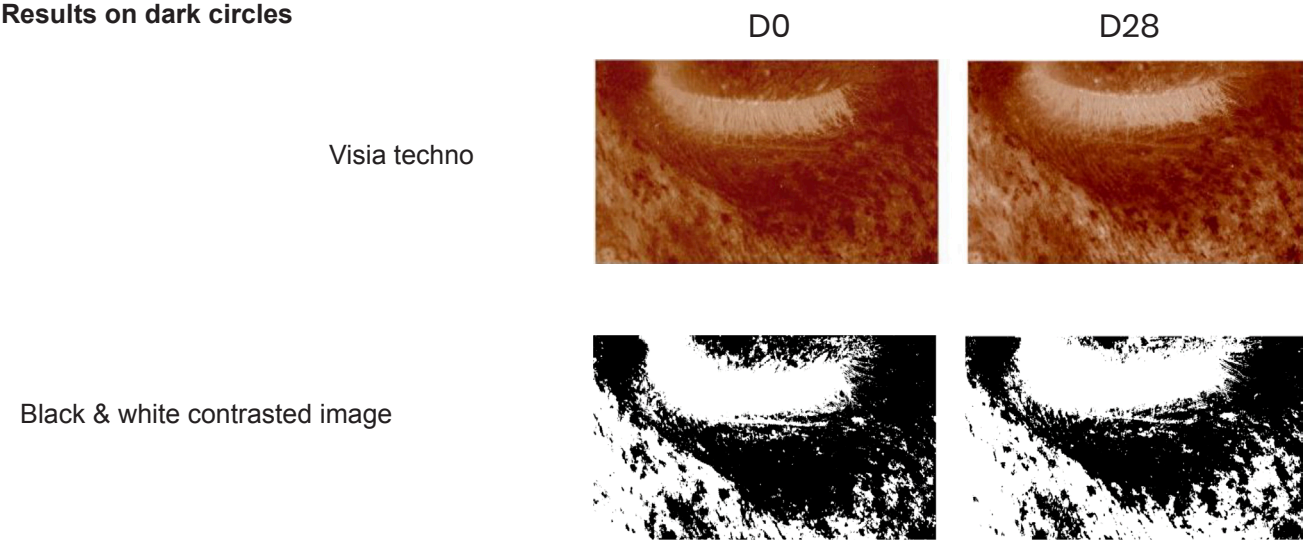






Colour of dark circles (skin colour infraorbital)
- Score 0 : skin colour similar to other skin areas
- Score 9 : dark circle very intense and visible

Results on dark circles



Clinical Case Study 2

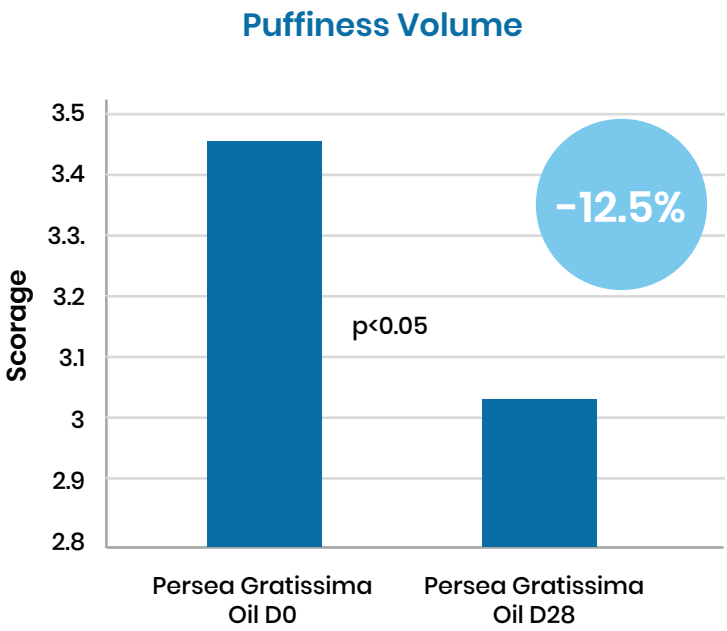
Population
- 23 healthy female volunteers
- 44 to 70 years old (average age 63 years old)

Inclusion Criteria
- Eye bags on the face (Bazin scale superior to grade 2)

Protocol
- Use of a cream containing 3% of Persea Gratissmia Oil
- Face
- Twice a day
- During 28 days

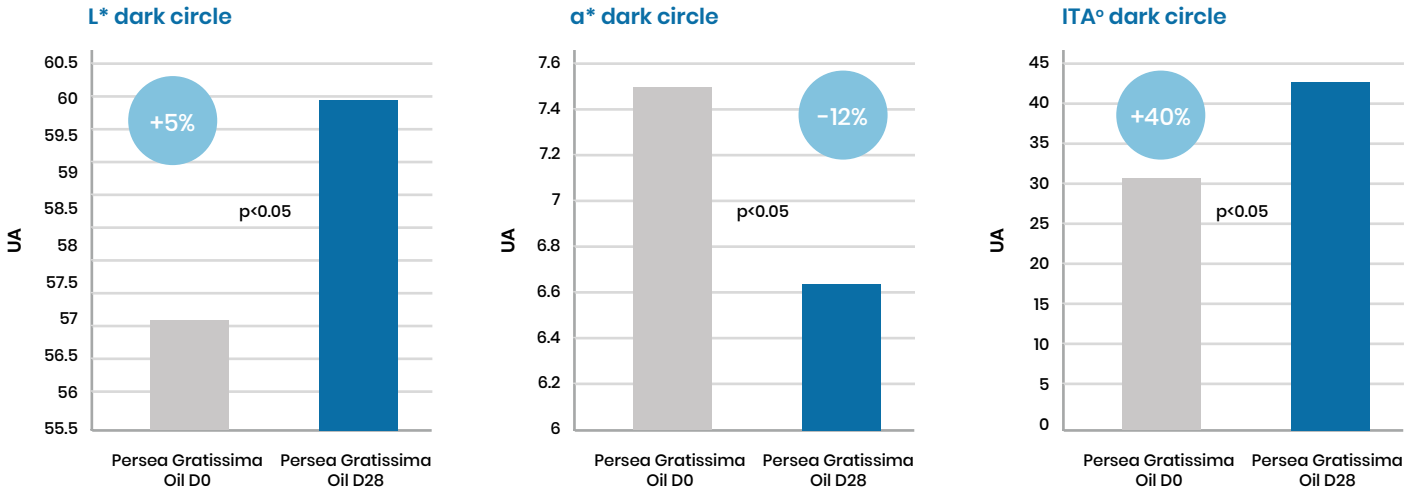
Results on puffiness

Persea Gratissmia Oil reduces the volume of puffiness



Results on dark circles

Persea Gratissmia Oil lightens the dark circles



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Avocado Oil is rich in Vitamins A, D and E and can penetrate quickly into the lower skin layers to promote healing, skin regeneration and protection from the ageing effects of UV light and pollution. Used topically, vitamin-rich Avocado Oil smooths wrinkles, helps to tighten the skin and diminish blemishes. It is also gentle enough to be used on dry, ageing, rough or sensitive skin.

The main chemical constituents of Avocado Oil are: Palmitic Acid, Palmitoleic Acid, Stearic Acid, Oleic Acid, Linoleic Acid, Alpha Linoleic Acid. These chemical constituents all carry their own set of beneficial skin properties: Palmitic Acid has emollient properties; Palmitoleic Acid helps delay the appearance of premature ageing, moisturises and tightens skin, enhances skin complexion and skin elasticity; Stearic Acid has cleansing properties and can balance out excess sebum and soften skin; Oleic Acid helps skin suppleness and helps reduce the signs of ageing Linoleic Acid has anti-inflammatory properties and promotes moisture retention in skin.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3249906/
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6600360/

SIMMONDSIA CHINENSIS SEED OIL

Orange oil is an oil produced by cells within the rind of an orange fruit (Citrus sinensis fruit). In contrast to most essential oils, it is extracted as a by-product of orange juice production by centrifuge, producing a cold-pressed oil. It is composed of mostly (greater than 90%) d- limonene, and is often used in place of pure d-limonene. Sweet orange, or Citrus sinensis, is the fruit that produces this beneficial essential oil commonly used in various skincare products for its aroma and its antioxidant and antiseptic properties. The benefits of the humble orange oil go along way in protecting the skin from free radicals and healing it from acne. Reduces dark spots and blemishes, Fights off free radicals to prevent premature skin aging, Antibacterial properties help fight acne, Boosts circulation in the skin, Promotes cell growth and collagen synthesis, Shrinks large pores and firms skin (astringent), Controls excess oil formed on the skin, Has antiseptic healing properties.

Obtained from the nut of the jojoba plant found in North America, Jojoba oil is a widely used due to it's various healing properties. Possessing a similar structure to the skin's sebum, jojoba oil helps regulate the skin's sebum production.
https://bit.ly/2V0grAs
https://pubmed.ncbi.nlm.nih.gov/34073772/

THEOBROMA GRANDIFLORUM SEED BUTTER

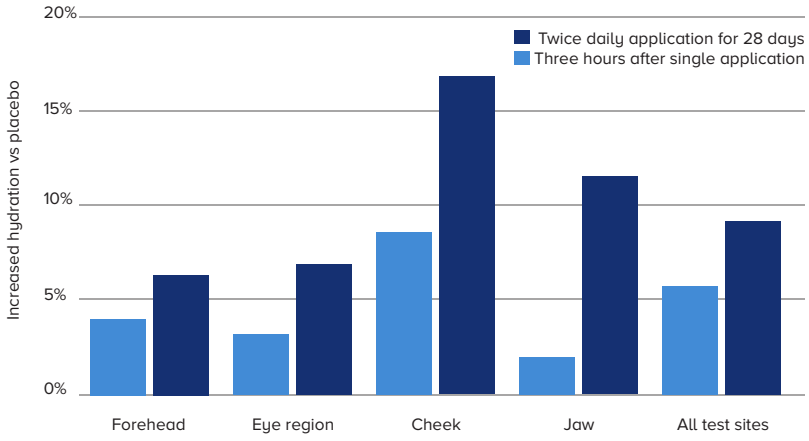
Cupuacu Butter, also known as Theobroma grandiflorum seed butter, from the Cupuacu Tree is found in Northern Brazil in the Amazonian rain forest. The pulp of the fruit that the tree bears provides cupuacu butter. It is a modern plant-based alternative to lanolin, which is a major sensitizer and produces untoward allergies and side effects in many individuals. Cupuacu's ability to penetrate the skin quickly (transdermal penetration), and then retain moisture, is unparalleled and far superior to shea butter or lanolin. A simple water absorption study was performed in the lab. Water was added to each of the following: cupuacu, shea butter and lanolin, with stirring, until separation was observed. Cupuacu could support 440% of its weight in water, which means that 1 kg of cupuacu butter could absorb 4.4 kg of water before any division of phases was noted. Cupuacu butter offers the capacity to attract water allowing it to function much more effectively as a skin hydrator and plumper.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4495740/

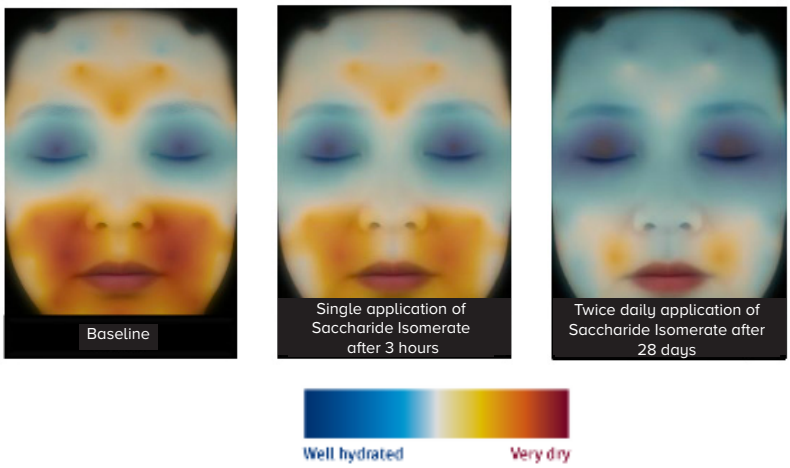
SACCHARIDE ISOMERATE

Saccharide Isomerate Complex is a 100% plant-derived carbohydrate complex, similar to that found in human skin. The molecules bind to the skin, preventing epidermal water loss, delivering immediate & long-lasting hydration for up to 72 hours. As a vegan hyaluronic acid booster, Saccharide Isomerate complex contains no animal by-products, so you can be confident that this product is cruelty-free and highly efficacious.

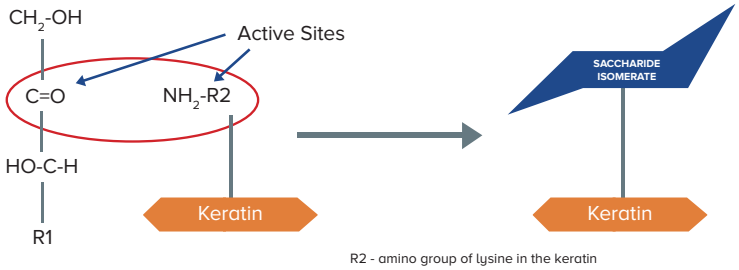
Saccharide Isomerate Complex is clinically proven to provide short and long-term hydration. The case study image below shows the increase in hydration to the stratum corneum after 3 hours and after 28 days, where Saccharide Isomerate Complex was applied twice per day.

Saccharide Isomerate vs. Placebo
After twice daily application of Saccharide Isomerate Complex, there is a significant improvement in hydration across all facial areas. Just 3 hours after a single application, the excessively dry cheek area is significantly more hydrated.



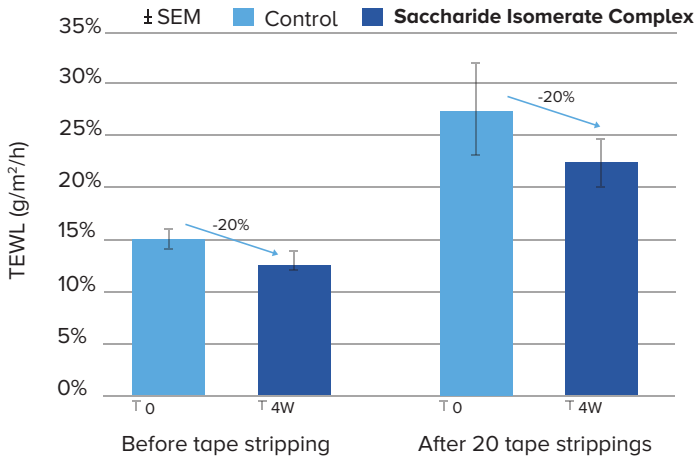


The in-vivo and in-vitro studies have proven the unique binding of this Saccharide Isomerate Complex to te free amino group of lysine in keratin. After 4 weeks of continuous use, Saccharide Isomerate improves the signs of dry skin by 20%, with effects lasting long after the final application 6 days later. This binding function allows the Saccharide Isomerate Complex to connect with the top layer of the skin, locking in moisture.



R2 - amino group of lysine in the keratin

Saccharide Isomerate Complex in an aqueous solution improves and strengthens the skin barrier functionas shown by the 20% reduction in trans-epidermal water loss before and after 20 successive tape strips after a 28-day application.



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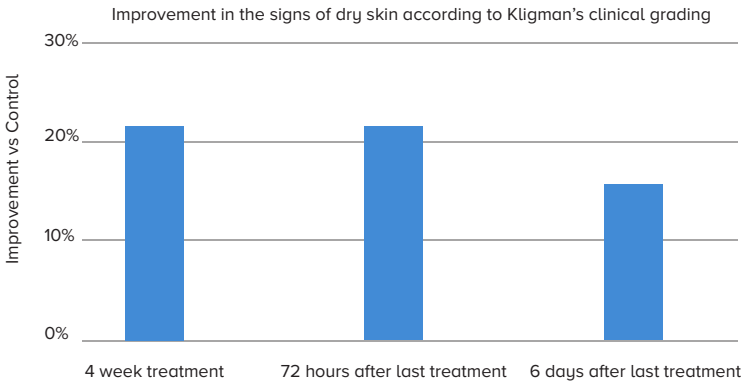

Link: 1. International Journal of Cosmetic Science,2015, 37, 595-605
Link: 2. International Journal of Cosmetic Science, 2016 38, 217-223
Link: 3. Data on file.
Link: 4. Data on file.
Link: 5. G.Padberg, J. Soc.Cosmetic Chemists 23, 271-279, 1972

HYDROLYSED PROTEINS - CORN, WHEAT & SOY

In the skin, Hydrolysed proteins are among a group of key nutrients that are often referred to as the natural moisturising factor (NMF). These compounds are responsible for maintaining moisture content and suppleness of the skin by attracting and retaining water to keep the outer layer of the stratum corneum hydrated. Hydrolysed proteins derived from plants such as corn, wheat and soybeans are substantive to both skin and hair.

When applied to the skin, these proteins penetrate the outer layers of the stratum corneum to provide hydrating benefits while forming a film that minimises trans-epidermal water loss (TEWL).

Hydrolysed proteins have also been shown to reduce irritation caused by surfactants typically used in shampoos and cleansers.

These Hydrolysed proteins derived from wheat, corn and soybeans, which combined can enhance moisturisation and conditioning properties of a wide variety of skin care and hair care applications, in addition to, providing film forming and anti-irritant benefits to leave skin and hair hydrated and healthy.

Link: Data on file.

PANTHENOL

Also known as pro-vitamin B5, Panthenol effectively penetrates the skin and has a moisturising effect on the skin by decreasing transepidermal water loss, making dry skin softer and more elastic. Topical application has been shown to aid in healing and skin barrier repair.

Links:
https://pubmed.ncbi.nlm.nih.gov/21982351/
https://pubmed.ncbi.nlm.nih.gov/27545858/

- Metabolises in the skin to form Pantothenic Acid.
- Is a deep penetration moisturiser.
- Stimulates cell proliferation.
- Promotes minor wound healing.
- Acts as an anti-inflammatory agent.
- Is effective in treating acute sunburn.

Link: https://www.ncbi.nlm.nih.gov/pubmed/21982351

In skin, Panthenol has the following properties:

- It improves and increases the humidity properties of the skin (moisturising effect); it also makes dry skin softer and more elastic
- It has an anti-inflammatory effect and soothes irritated skin
- It stimulates epithelisation and helps to heal minor wounds (shaving, skin grazes and blisters)

Link: Data on file.

TOCOPHEROL

Tocopherol or Vitamin E is an important fat-soluble antioxidant and has been in use for more than 50 years in dermatology. It is an important ingredient in many cosmetic products. It protects the skin from various deleterious effects due to solar radiation by acting as a free-radical scavenger.

Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4976416/

One of the most well-known and researched antioxidants for the body and for skin. Vitamin E occurs naturally in human skin, but can become depleted due to constant environmental exposure in the absence of sun protection. There are eight basic forms of the entire fat soluble vitamin E molecule, which are either synthetically or naturally derived. The most typical forms are d-alpha-tocopherol, dalphatocopherol acetate, dl-alpha tocopherol, and dlalpha tocopherol acetate. Research has shown that natural forms of vitamin E are more effective than their synthetic

counterparts, but both definitely have antioxidant activity. Vitamin E is an important fat-soluble antioxidant and has been in use for more than 50 years in dermatology. It is an important ingredient in many cosmetic products. It protects the skin from various deleterious effects due to solar radiation by acting as a free-radical scavenger. Experimental studies suggest that vitamin E has photoprotective properties and is a powerful antioxidant

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VACCINIUM VITIS-IDAEA FRUIT EXTRACT

Vaccinium Vitis-Idaea Fruit Extract is a natural active ingredient obtained from plant stem cells using an environmentally friendly biotechnological process that provides a higher level of efficacy. Vaccinium Vitis-Idaea is able to repair and protect skin against the oxidative damage caused by solar radiations such as UV and IR-A, improving skin's antioxidant activity, reducing wrinkles and spots, and improving moisturisation, firmness and elasticity. The result is skin with a young and healthy appearance, which is more resilient against sun damage.

35%
reduction in the number of wrinkles

13%
reduction in wrinkle volume

18%
reduction in subepidermal low-echogenic band (SLEB)

24%
increase in SLEB density

13%
increase in skin moisturisation

44%
reduction in cellular oxidative stress

Link: Data on file.

PALMITOYL TRIPEPTIDE-1

The various forms of peptides act upon collagen found in the body and particularly skin. The most abundant form of collagen in the body is type collagen I, the collagen primarily responsible for repairing your skin. Collagen III is found alongside collagen I and works much in the same way, though it is not as tough as collagen I. Palmitoyl Tripeptide–1 mimics the relationship between the growth factors involved in the skin's healing process and the production of collagen. Essentially, Palmitoyl Tripeptide tricks your skin into producing more collagen to repair your skin, improve elasticity and minimise the appearance of fine lines and wrinkles. Palmitoyl Tripeptide–1 is a powerful skincare ingredient to combat aging, but like most skincare ingredients it works more effectively when used in combination with other anti-ageing peptide ingredients. When used as part of a good skin-care routine, Palmitoyl Tripeptide–1 can help skin repair damage by stimulating collagen production. The results is younger, smoother and stronger skin.

Link: https://www.mdpi.com/2079-9284/4/2/16/html

PALMITOYL TETRAPEPTIDE-7

Palmitoyl Tetrapeptide-7 (It was also formerly known and marketed as Palmitoyl Tetrapeptide-3. Palmitoyl Tetrapeptide-7 consists of a short chain of four amino acids (a.k.a. GQPR peptide or glycineglutamineproline-arginine) connected to palmitic acid. Palmitic Acid is a fatty acid added to improve the peptide's oil solubility and thus skin penetration. Palmitoyl Tetrapeptide-7 serves as an anti-inflammatory after exposure to UVB-irradiation. In vivo reflectance confocal microscopy studies indicated that a blend of Palmitoyl Oligopeptide and Palmitoyl Tetrapeptide-7 enhanced the extracellular matrix structure compared to placebo. Sixty healthy photoaged volunteers were tested over 12 months with a formulation containing Palmitoyl Tetrapeptide-7. A reduction of facial wrinkles was documented by this long-term use.

Palmitoyl Tetrapeptide-7 used in conjunction with Palmitoyl-Oligopeptide. They can boost the growth of the connective tissues and naturally increasing the production of collagen in the skin; when the production of collagen is increased, the skin can heal and rejuvenate itself.

Link: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4950680/