Valens MelaDerm

MANAGING
HYPERPIGMENTATION

Food supplement
For reduction of pigmented spots,
brighter skin and radiant complexion

VALENS®

Skin pigmentation [1]

Our skin has a vital physiological role, providing a barrier against extrinsic factors. It also provides a unique defense system against **UV radiation** through its pigments. One of the key pigments is **melanin**, produced and distributed by specialized cells called **melanocytes,** primarily found in the basal layer of the epidermis.

Melanocytes produce melanin in a process, called melanogenesis, a complex and tightly regulated process that involves multiple steps - from **stimulation by UV radiation and hormones** to the synthesis and distribution of melanin within the skin.

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Melanogenesis

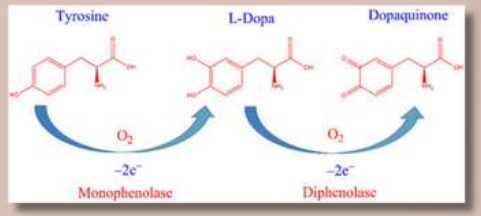
UV radiation and other factors cause DNA damage, existing **melanin degradation** and ROS (reactive oxidative species) production.

The melanin granules accumulate above cell nuclei in keratinocytes and absorb harmful UV radiation before it can damage the DNA. It also **scavenges ROS**.

Epidermal melanin unit (melanocytes + keratinocytes) responds with increased levels of **tyrosinase** activity.

Melanocytes produce melanin, pack it in melanosomes and transfer it to **keratinocytes.**

Tyrosinase converts amino acid tyrosine into **DOPA**, a naturally occurring amino acid, which plays a central role in producing several vital neurotransmitters and is also involved in melanin production.



DOPA is converted into **dopaquinone**, which can undergo various pathways to produce **eumelanin** (dark brown to black pigment) and pheomelanin (yellow to red pigment).

Other factors

UV Radiation

Hormonal imbalance

Stress

Medication

Extrinsic factors

Hyperpigmentation [2, 3, 4]

= Excessive production and accumulation of melanin in keratinocytes

Hyperpigmentation is a common skin condition characterized by **darkened patches** or **spots** on the skin - **an undesirable aesthetic problem.** It occurs when tyrosinase activity is highly increased and an excess of melanin is produced and accummulated.

Types: Melasma, sunspots (solar lentigo), age spots, post-inflammatory hyperpigmentation (PIH) ...

Mechanism against hyperpigmentation[5]

- **Inhibition of tyrosinase activity -** inhibiting tyrosinase and thus preventing melanin production.
- **Inhibition of melanosome transfer -** Preventing the transfer of melanosomes from melanocytes to keratinocytes.
- **Oxidative stress reduction -** Reducing oxidation which is a necessary step for melanin synthesis.

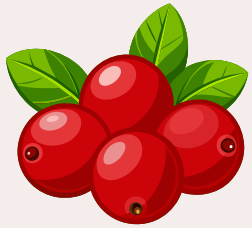
Valens MelaDerm

Capsules for brightening the skin and removing hyperpigmentation

A rich blend of **clinically proven** active ingredients for removing dark spots:

Oli-Ola™

- Vitamin C
- Niacinamid
- Vitamin E
- L-Cystein



Cranberry extract

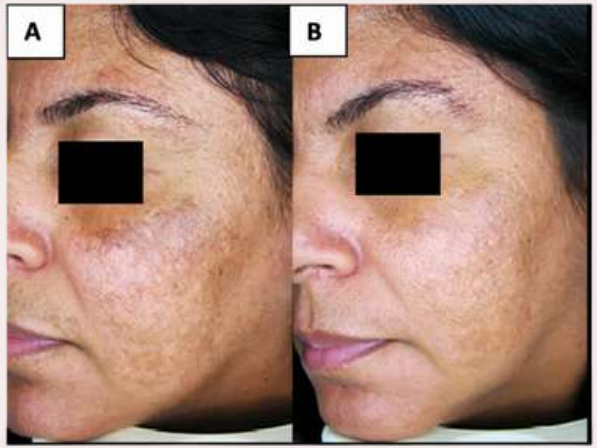
Oli-Ola™

Olive extract

Olive extracts are traditionally used in **skin-brightening products** to reduce pigmented spots, brighten skin and improve the complexion. They are rich in **polyphenols,** such as **hydroxytyrosol, a potent antioxidant** [6, 7].

Oli-Ola™ is a **100% natural olive extract** with guaranteed (standardized) levels of **hydroxytyrosol (3%)** and clinically proven efficacy:

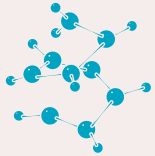
- Activation of gene expression for antioxidant skin protection
- Decrease in general oxidative marker MDA (59 % decrease)
- Reduction of premature signs of skin aging, like uneven pigmentation, thus leading to bright complexion
- **Reduction of pigmented spots [12]**



The treatment with olive extract based on hydroxytyrosol showed great potential for the control of melasma. Results after 60 days of supplementation.

L-cysteine

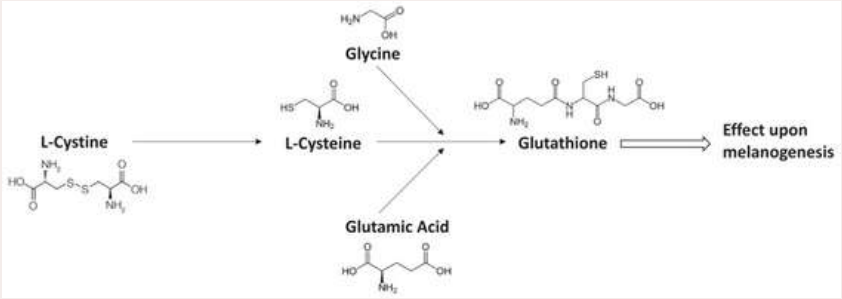
Glutathione precursor



L-cysteine is a semi-essential amino acid (the body can produce it but not always in sufficient quantities). It plays several critical roles in the body, particularly in the synthesis of **glutathione,** one of the most important **antioxidants.**

Glutathione influences **skin pigmentation** through several mechanisms [9]:

- Inhibition of tyrosinase activity
- Antioxidant action
- Conversion of melanin types (shifts the production of melanin from eumelanin to pheomelanin
- Recycled other antioxidants



Since cysteine is crucial for glutathione synthesis, sufficient levels of L-cysteine ensure adequate production of glutathione*.

Clinical studies have proven the whitening effect and reduction of the size of facial dark spots [9].

**Glutathione, as a raw material, is inherently unstable.*

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Vitamins and minerals

Vitamin C

Vitamin C (L-Ascorbic acid) interferes with melanin synthesis by **inhibiting tyrosinase** [8].

It acts as a **ROS scavenger** [8].

EFSA claims:

- Contributes to **normal collagen formation** for the normal function of the skin
- Contributes to the **protection of cells** from oxidative stress
- Contributes to **regeneration** of the reduced form of **vitamin E** (antioxidant)

Copper

Promotes even skin tone and overall skin health.

EFSA claim:

- Contributes to **normal skin pigmentation**

Vitamin E

It acts as a **ROS scavenger** [8]:

- inhibits oxidative attack of fatty acids
- contributes to higher glutathione levels

EFSA claim:

- Contributes to the **protection of cells** from oxidative stress

Niacinamide (vitamin B3)

Biologically active form of niacin (vitamin B3).

Inhibits the transfer of melanosomes from the **melanocytes to the keratinocytes** [10].

EFSA claim:

- Contributes to the maintenance of **normal skin**

VALENS®

Cranberry extract

Source of polyphenols, flavonoids and arbutins

Arbutin:

- Inhibition of tyrosinase activity
- Often used as a skin-brightening agent for treating hyperpigmentation, dark spots and uneven spots on the skin

Ellagic acid

- Inhibition of tyrosinase activity
- Type of polyphenols

Cranberry extract offers several benefits for skin whitening and the reduction of hyperpigmentation due to its **antioxidant, anti-inflammatory**, and **melanin-inhibiting** properties [11].

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Dosage

Recommended daily dose

- **1 capsule**

Directions

- Take with enought water or any other drinks
- Consume anytime in the day
- For optimal results, regular intake is required - min. 2 months
- Suitable for long-term supplementation throughout the year*

Tip

For optimal skin protection, especially before and during summer and periods of intense sun exposure, we recommend using our **Valens SunDoc capsules, formulated to shield the skin from harmful UV rays and prevent sun-induced damage.*

Active ingredients	per capsule
Olive extract Oli-Ola™:	150 mg
Vitamin C	120 mg
Cranberry extract	85 mg
L-cysteine	50 mg
Niacin	15 mg
Vitamin E	10 mg
Copper	0.4 mg

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Advantages at a glance

- **Rich formula in capsule form**
- **Clinically supported ingredients**
- **Packed in recycled plastic for reduced carbon footprint**
- **Market proven**
- **Made in IFS and GMP-certified facility**
- **Made in EU**

GMP CERTIFIED

MADE IN EU

IFS CERTIFIED

References

1. Costin, G. E., Vincent J.H. (2007). Human skin pigmentation: Melanocytes modulate skin color in response to stress. The FASEB Journal. Wiley Online Library. [Human skin pigmentation: melanocytes modulate skin color in response to stress - Costin - 2007 - The FASEB Journal - Wiley Online Library].
2. An updated review of tyrosinase inhibitors. (n.d.). International Journal of Molecular Sciences. MDPI. Retrieved from https://www.mdpi.com [IJMS | Free Full-Text | An Updated Review of Tyrosinase Inhibitors (mdpi.com)].
3. Costin, G. E., Vincent J.H. (2007). Human skin pigmentation: Melanocytes modulate skin color in response to stress. The FASEB Journal. Wiley Online Library. [Human skin pigmentation: melanocytes modulate skin color in response to stress - Costin - 2007 - The FASEB Journal - Wiley Online Library].
4. Chen, Q., & Zhao, Y. (2021). Oxidative stress in the skin: Impact and related protection. International Journal of Cosmetic Science, 43(1), 1-10. https://doi.org/10.1111/ics.12647 [Oxidative stress in the skin: Impact and related protection - Chen - 2021 - International Journal of Cosmetic Science - Wiley Online Library].
5.Gillbro, J. M., & Olsson, M. J. (2011). The melanogenesis and mechanisms of skin-lightening agents – Existing and new approaches. International Journal of Cosmetic Science, 33(3), 210-221. https://doi.org/10.1111/j.1468-2494.2010.00616.x
6. Cristoni, Aldo (2009). Nutritional Cosmetics || Olive Fruit Extracts for Skin Health. , (), 233–244. https://doi.org/10.1016/B978-0-8155-2029-0.50019-3
7. Nunes, A., Marto, J., Gonçalves, L., Martins, A.M., Fraga, C. and Ribeiro, H.M. (2022), Potential therapeutic of olive oil industry by-products in skin health: a review. Int. J. Food Sci. Technol., 57: 173-187. https://doi.org/10.1111/ijfs.15384

References

8. Mechanisms regulating skin pigmentation: The rise and fall of complexion coloration. (n.d.). International Journal of Molecular Sciences. MDPI. Retrieved from https://www.mdpi.com [IJMS | Free Full-Text | Mechanisms Regulating Skin Pigmentation: The Rise and Fall of Complexion Coloration (mdpi.com)]
9. Duperray, J., Sergheraert, R., Chalothorn, K., Tachalerdmanee, P. and Perin, F. (2022), The effects of the oral supplementation of L-Cystine associated with reduced L-Glutathione-GSH on human skin pigmentation: a randomized, double-blinded, benchmark- and placebo-controlled clinical trial. J Cosmet Dermatol, 21: 802-813. https://doi.org/10.1111/jocd.14137
10. Fiske, A., Wasnik, S., & Sabale, D. (2021). A systematic review on skin whitening product. International Journal of Pharmaceutical Sciences Review and Research, 71. https://doi.org/10.47583/ijpsrr.2021.v71i01.013
11. Zhu, W., & Gao, J. (2008). The Use of Botanical Extracts as Topical Skin-Lightening Agents for the Improvement of Skin Pigmentation Disorders. Journal of Investigative Dermatology Symposium Proceedings, 13(1), 20-24. https://doi.org/10.1038/jidsymp.2008.8
12. Bagatin, J., Ma, P., & Bagatin, E. (2020). A pilot clinical study to evaluate the effectiveness of olive extract containing hydroxytyrosol for oral and topical treatment of melasma: Estudo clínico piloto para avaliar a eficácia do extrato de oliva contendo hidroxitirosol para tratamento oral e tópico do melasma. Biomedical and Biopharmaceutical Research Journal, 17(1), 1-15.

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