

ALPAFLOR[®]

GIGAWHITE CB

The natural
skin active
that keeps
your skin
at its
luminous
best



NUTRITION • HEALTH • SUSTAINABLE LIVING



DSM

BRIGHT SCIENCE. BRIGHTER LIVING.

The secret of the Alps

The Alps boast an exceptional abundance of flora. DSM research has investigated some 100 samples to uncover the secrets of the seven species with the most powerful brightening properties. Unspoiled, high altitude locations, crisp mountain air and fresh glacier water, provide the perfect conditions for these plants to thrive and yield a high level of active content.

Supporting sustainable agriculture in the Swiss Alps and respecting the mountains are key principles of the ALPAFLOR® philosophy. All cultivation methods are certified organic, contributing to the protection and preservation of these natural areas and rare plants. What's more, DSM works closely with a network of local growers, assuming all risks and providing technical support, helping to secure a fair wage and consistent income for alpine farmers. In consequence, the ALPAFLOR® bio-actives have been awarded Fair Trade status.



ALPAFLOR® GIGAWHITE CB – a unique and naturally- potent fusion of 7 plants

Primula Veris (cowslip primrose)

The Spring Flower: One of the first flowers of spring and a symbol of survival and youth, it is also useful in treating skin blemishes.



Melissa Officinalis (lemon balm / balm mint)

Lemon Mint: This member of the mint family helps to balance oily, dry and sensitive areas of the skin.



Malva Sylvestris (Mallow)

A Millennial Herbal: Used for its soothing properties since ancient times, mallow also has potent moisturizing and antioxidant activity.



Mentha Piperita (peppermint)

The All-Rounder: Peppermint has been used medicinally for thousands of years. It has a soothing and cooling effect on irritated skin.



Veronica Officinalis (alpine speedwell)

The True Image: Veronica is formed from the Latin words vero, meaning true, and icon, meaning image. It is known to repair tissues and reduce skin irritation.



Alchemilla Vulgaris (lady's mantle)

The Magic Herb: Alchemilla comes from the word alchemy as in medieval times it was thought that water droplets forming on the leaves could turn metals to gold. Lady's mantle was also believed to give eternal youth.



Achillea Millefolium (alpine yarrow)

The Smart Hero: The word Achillea refers to the ancient Greek hero Achilles who used the plant for its wound healing and soothing properties.



Key facts

UNIQUE PRODUCT FEATURES

- A unique composition of seven Alpine plant extracts organically cultivated at high altitude
- Organic, sustainable and fair-trade certified bioactive allowing full traceability
- 100% natural origin content (according to ISO16128)
- Impacting *in vitro* the production of melanin and melanosome maturing
- Intercepting *in vitro* the migration of melanin to the upper layer of the skin
- Increases the luminescence of the skin *in vivo*
- Reduces the color intensity of age spots *in vivo*

BENEFITS

- Keeps your skin at its luminous best
- Significant improvement in skin tone brightening
- Reduction of age spots color intensity

COSMETIC APPLICATION

- Protecting day cream
- Skin tone products
- Personal care products for mature skin

SUGGESTED CONCENTRATION

1–5% ALPAFLOR® GIGAWHITE CB

INCI NAME

Glycerin, water, *Malva Sylvestris* (Mallow) flower / leaf / stem extract, *Mentha Piperita* (Peppermint) leaf extract, *Primula Veris* flower extract, *Alchemilla Vulgaris* flower / leaf / stem extract, *Veronica Officinalis* flower / leaf / stem extract, *Melissa Officinalis* leaf extract, *Achillea Millefolium* flower / leaf / stem extract, Citric acid

Feeling comfortable in our own skin inspires confidence

A fresh, healthy looking complexion helps us to feel great about ourselves. But aging and exposure to the sun can cause skin discoloration, age spots and an uneven tone and this can affect our emotions. As that youthful, luminous glow begins to fade it's easy to lose self-confidence.

Asian women, especially, wish for healthy, bright, luminous-looking skin. Knowing you look bright and glowing on the outside goes a long way to making you feel lighter and brighter on the inside — especially if that look is achieved using gentle, natural plant extracts nourished by pristine mountain spring water and harvested at high altitudes in the pure mountain air of the Swiss Alps.

ALPAFLOR® GIGAWHITE CB is a unique and naturally potent fusion of seven alpine plant extracts. It targets multiple steps in the skin pigmentation process, impacting the production of melanin and intercepting the migration of melanin to the upper layer of the skin. Its outstanding brightening action gradually enhances the skin's natural glow resulting in brighter, more luminous looking skin with an even tone. Hence we can proudly claim that ALPAFLOR® GIGAWHITE CB is gentle on both the skin and the environment.

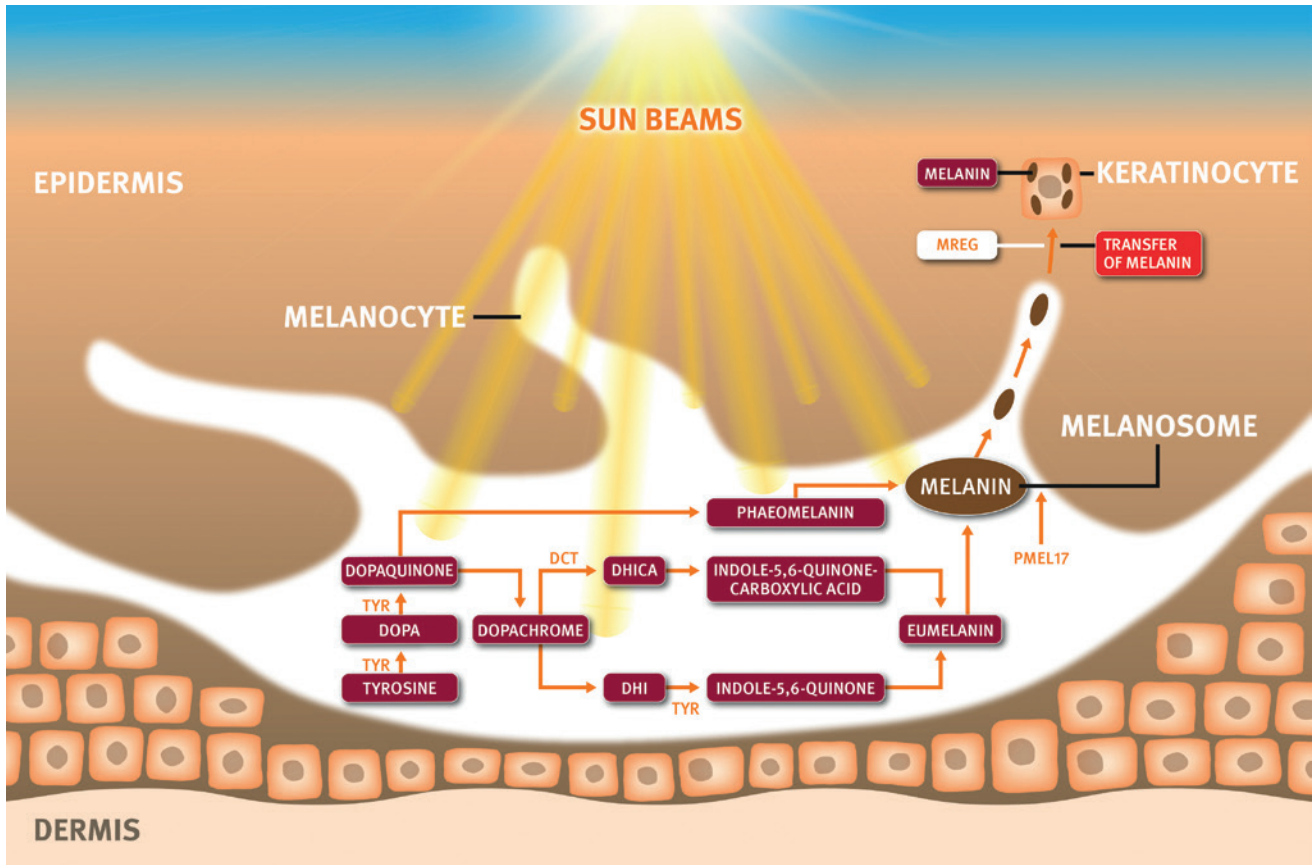


Efficacy

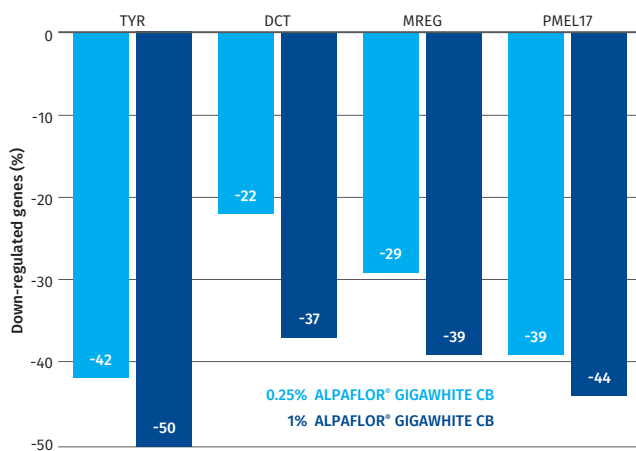
In vitro

Targets multiple steps of skin pigmentation:

- Downregulation of key enzymes involved in the biosynthesis of melanin (Tyrosinase TYR and Dopachrome tautomerase DCT)
- Downregulation of the Premelanosome protein 17 (PMEL17) which is involved in the maturing of the melanosome
- Limitation of Melanin migration from melanocytes to the keratinocytes by reducing Melanoregulin (MREG)

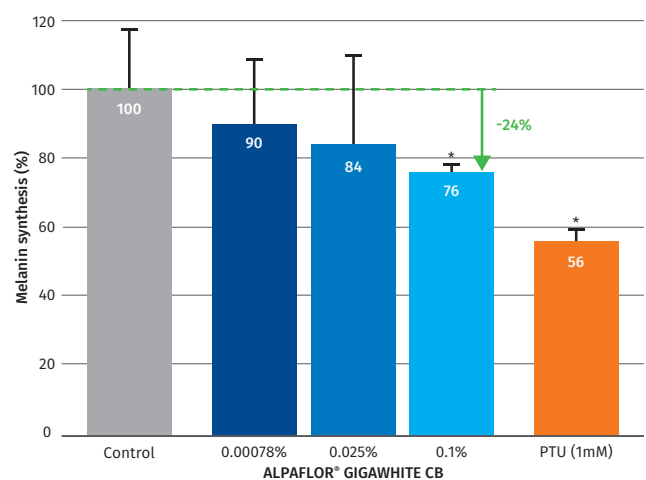


Inhibition on melanogenesis key markers



Normal human melanocytes were treated with ALPAFLOR® GIGAWHITE CB and incubated for 72hrs. Then, RNA was extracted and reverse transcribed. Gene-expression was analyzed using a LightCycler system (Roche Molecular Systems Inc.).

Inhibition of melanin in normal human melanocyte



*Statistically significant, $p \leq 0.01$

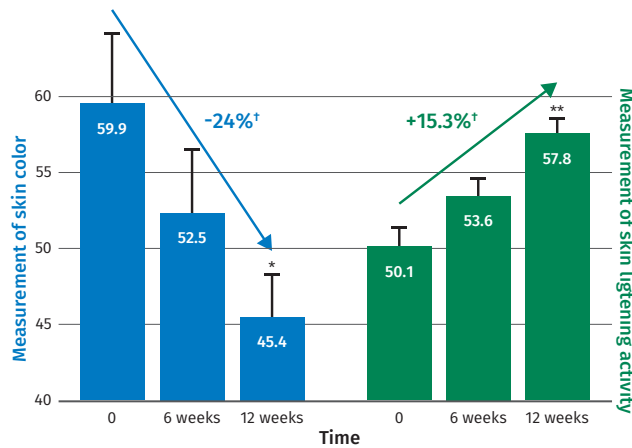
Normal human melanocytes were grown to subconfluency and treated with ALPAFLOR® GIGAWHITE CB for 72hrs. Melanocytes were lysed with 1.7M KOH and total melanin content was measured at 405nm.

In vivo

At a concentration of 5%, ALPAFLOR® GIGAWHITE CB shows excellent skin brightening activity after 12 weeks of treatment (Asian skin)...

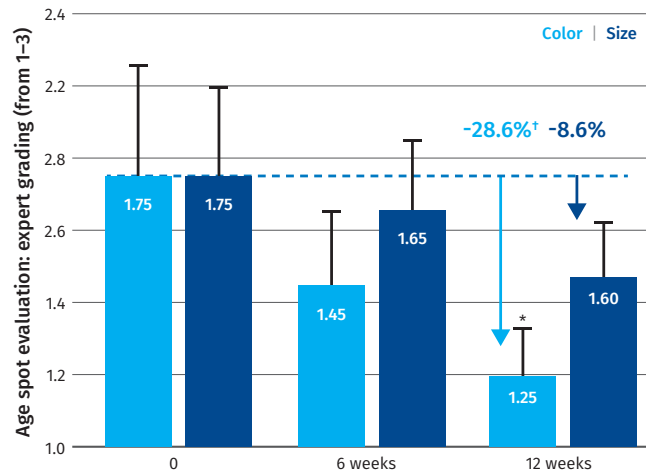
Color (clinical reading)

L-Value



10 volunteers (aged 41-62, mean 49.8 yrs) with medium to dark skin (rated 3-4 via the Fitzpatrick scale) of Asian descent (mostly Chinese and Japanese) received product with 5% ALPAFLOR® GIGAWHITE CB twice daily over 12 weeks period.

...and a significant reduction of age-spots color intensity *in-vivo*



The assessment methods were a skin color reading by a Minolta Chroma Meter to record the L, a and b values on 5 separate areas on each side of the face and a clinical grading of the color of each side of the face, measurements at 6 and 12 weeks.

Certifications



ALPAFLOR® GIGAWHITE CB
3% Natural (96% organic)
28% water
69% derived natural
0% nature-identical



ALPAFLOR® GIGAWHITE CB
Halal certified by HFCE
(Halal Food Council of Europe)



ALPAFLOR® GIGAWHITE CB
IECSC listed, IECIC listing



ALPAFLOR® GIGAWHITE CB
100% Natural origin
10.65% Organic origin
Certified to Cosmos Standard available at
<https://www.cosmos-standard.org>



ALPAFLOR® GIGAWHITE CB
Fair trade certified according to the Fair For Life standard available at
www.fairforlife.org



For more information, please visit www.dsm.com/personal-care

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