

CLERILYS® W

PATENT

ANTI-SPOT AND DEPIGMENTING AGENT



COMPLEXION

CLERILYS® W

PHYTOBIOACTIVE

> ACTIONS

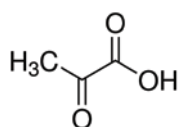
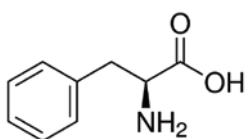
- Reduces skin pigmentation
- Reduces age-related pigmentation spots
- Evens out skin tone and pregnancy mask
- Lightens the complexion

ORIGIN

White mulberry
Morus alba
(Bark)

Hibiscus
Hibiscus sabdariffa
(Flower)

Cucumber
Cucumis sativus
(Seed)



> MECHANISM OF ACTION

CLERILYS® W simultaneously provides 3 types of molecules to act on 3 levels of pigmentation:

- Play a role of exfoliator.
- Reduce melanin production by melanocytes.
- Limit melanocyte transfer to the upper layers of the epidermis.

> COSMETIC BENEFITS

- Skin ageing and pregnancy increase skin's sensitivity to solar radiation, leading to hyperpigmentation causing brown spots or chloasma (pregnancy mask).
- With CLERILYS® W the complexion is lightened, brighter and uniform; dark spots disappear and chloasma is diminished.

> COSMETIC USES

▶ **Anti-spot care products**

▶ **Depigmenting care products**

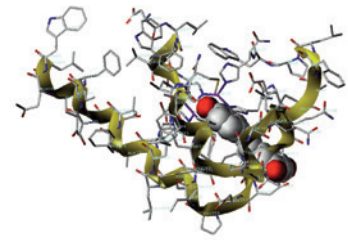
▶ **Anti-ageing care products**

▶ **Hand care products**

> SCIENTIFIC PROCESS

• Melanogenesis

This phenomenon is the result of a series of reactions catalysed by various enzymes (tyrosinase, TRP*1, TRP*2), leading to the conversion of tyrosine and DOPA to eumelanin and pheomelanin.



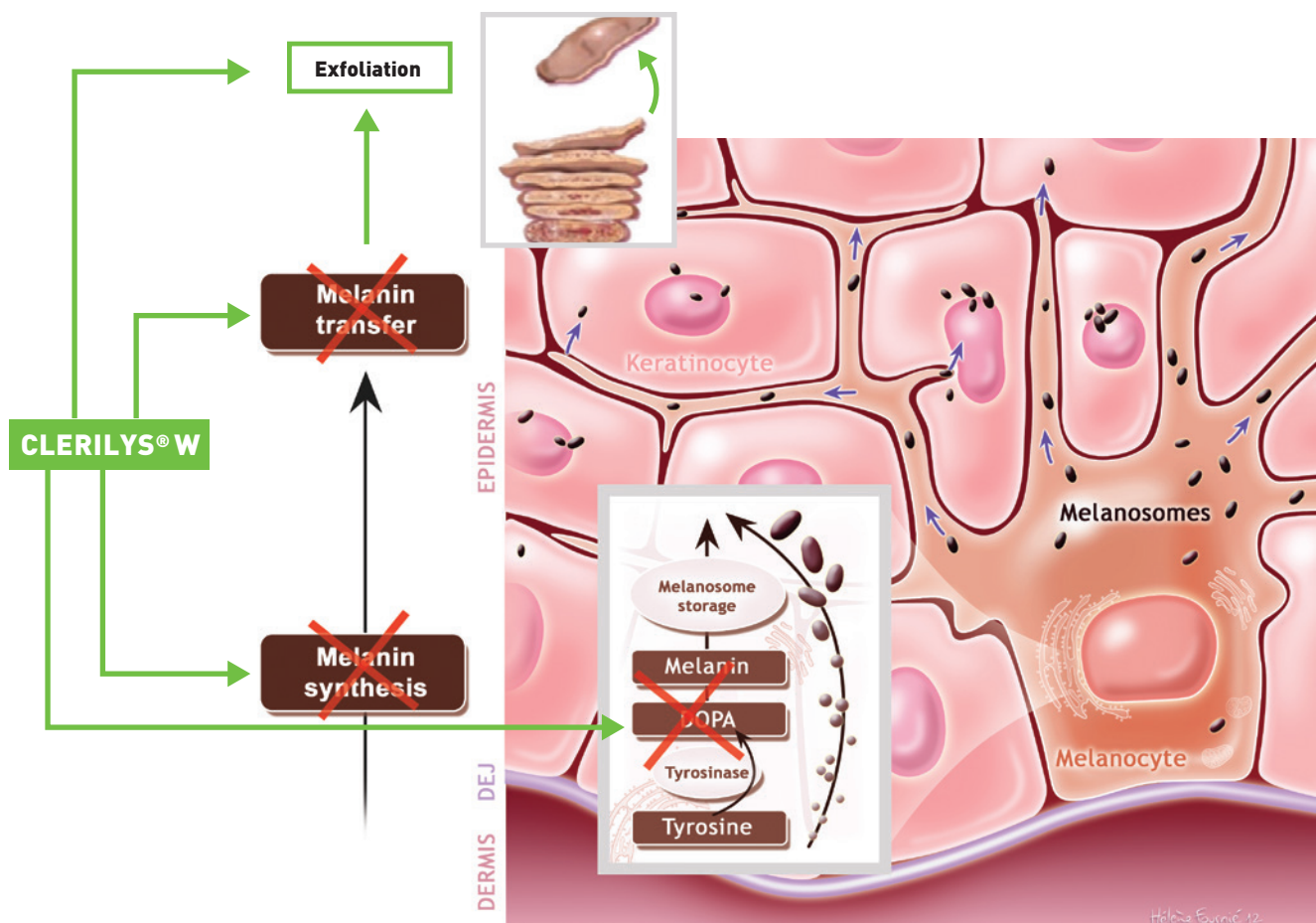
• CLERILYS® W

Tyrosinase inhibition by white mulberry reduces pigment production by melanocytes.

The use of phenylalanine derived from cucumber, reduces the build-up of melanin in melanosomes by limiting its membrane transfer.

The AHAs (Alpha Hydroxy Acids) derived from hibiscus flowers accelerate cell renewal and have an exfoliating effect, rapidly eliminating the melanin-rich keratinocytes.

* TRP: Tyrosinase Related Protein



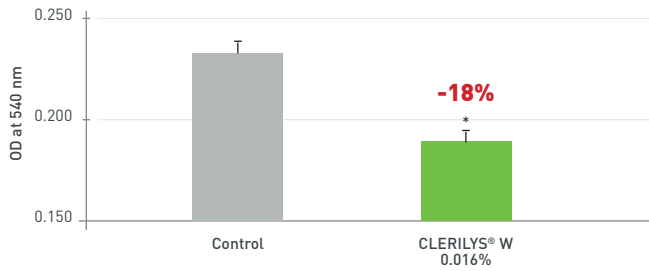
> **PROVEN EFFICACY**

IN VITRO TESTS

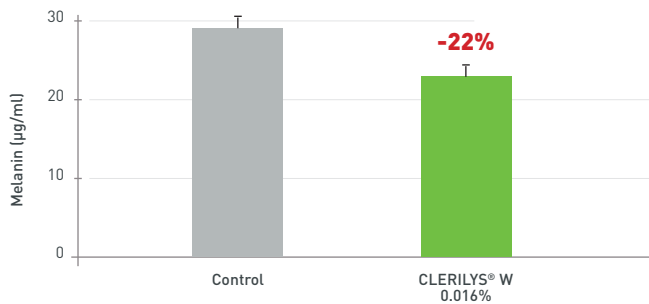
INHIBITS MELANOGENESIS: ACTION ON 3 KEY MECHANISMS

Evaluation in human normal melanocyte and keratinocyte cultures

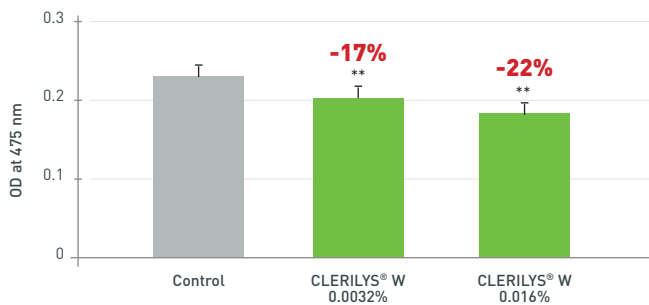
• Inhibition of tyrosinase activity: **-18%**



• Inhibition of melanin production: **-22%**



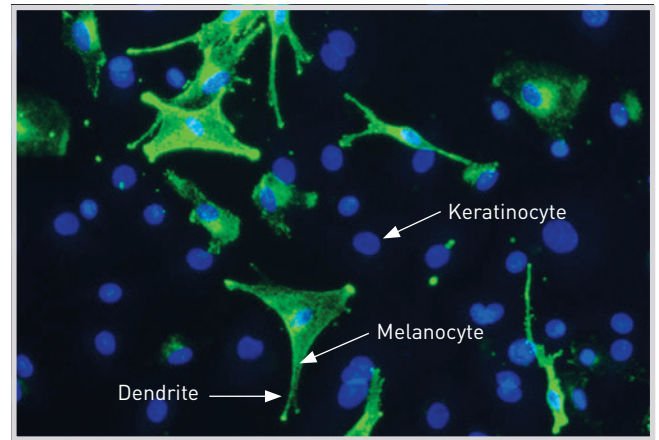
• Inhibition of melanin transport: **-17%** and **-22%**



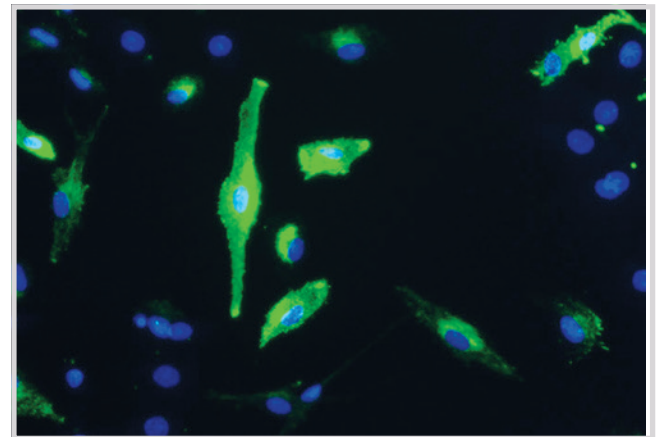
* Significantly different from control (p>0.001)

** Significantly different from control (p>0.05)

• Inhibition of transport via dendrites



Control co-culture



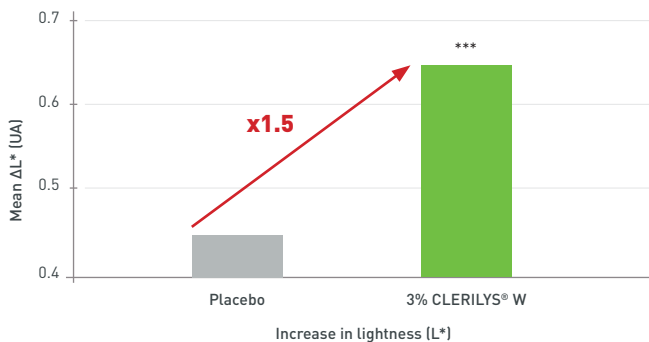
CLERILYS® W 0.016%

Illustration of melanin transport inhibition by fluorescence

> **PROVEN EFFICACY**

IN VIVO TESTS

LIGHTENING EFFECT: x 1.5

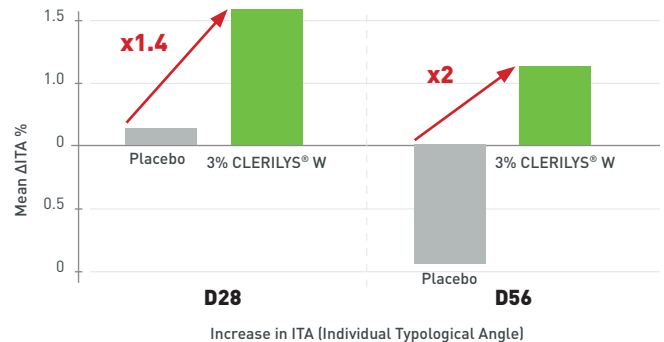


Increase in lightness [L*]

Double-blind / Twice-daily application / 56 days / Control and CLERILYS® W groups, 28 volunteers each

*** Significantly different from D0 (p<0.001)

DEPIGMENTING EFFECT: x 1.4 at D28, x 2 at D56



D28

D56

Increase in ITA (Individual Typological Angle)

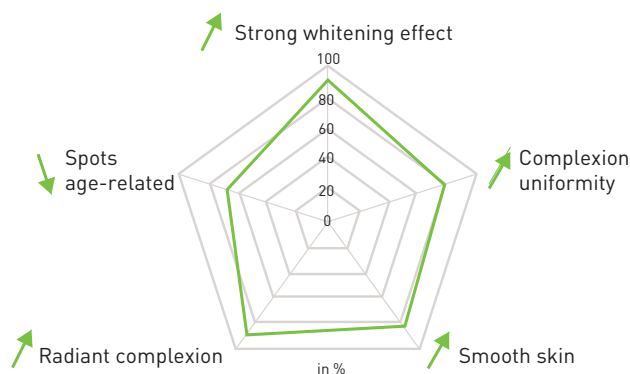
IN VIVO
TESTS

VIEWING



SELF-EVALUATION

- Lightening effect: **+89%**



Double-blind / Twice-daily application / 56 days / 28 volunteers

FORMULATION

Concentration for use: 1 to 3%**Caution for use:**

Add to emulsions, at the end of the preparation process, either cold or at 35-40 °C, during cooling.

TECHNICAL DATA

Characteristics

Organoleptic	Appearance: clear liquid Colour: amber
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Solubility	Water: soluble
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Storage

Keep in a dark place, in the original packaging, at an ambient temperature between 15 and 25 °C. Use rapidly once opened, or transfer to sterile packaging.

Tolerance tests

- Eye irritation: mildly irritant
- Skin irritation: non-irritant
- Mutagenicity: non-mutagenic and non-pro-mutagenic

INCI name: Cucumis sativus (Cucumber) Seed Extract, Morus alba Bark Extract, Hibiscus sabdariffa Flower Extract
Preservative: Several versions available, see specifications

Authorized:

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