

SYNERLIGHT™ 2

Targeting melanin



Many active ingredients are developed to help restore a healthy glow to the skin. Some whitening agents still use molecules such as hydroquinone and kojic acid which have been shown to be cytotoxic.

To safely, and in an original way, get rid of hyperpigmentation problems, Gattefossé offers a powerful association of Sophora and Kiwi extracts.

SYNERLIGHT™ 2

COMPOSITION

Synerlight™ 2 is a natural blend created from extracts of Kiwi and Sophora in a vegetable origin butylene glycol.

Sophora angustifolia is a tree growing in China. It is included in the Chinese pharmacopeia. Used as a decoction, Sophora is traditionally used against lice and other noxious insects, parasitic dermal lesions, gastric ulcers and eczema.

In Japan, this plant can be found in household medicine like bathing agents, hair tonics for hair growth and nourishment. It is also known to possess anti-elastase and anti-hyaluronidase properties.

The ***Kiwi fruit water extract*** shows a significant inhibiting action against tyrosinase and hyaluronidase enzymes.

The combination of these two ingredients can be used to fight age spots as well as hyperpigmentation. It will also help preserve the skin moisture content by protecting hyaluronic acid in the skin tissue.

WHITENING ACTIVITY - ANTI-MELANIN SYNTHESIS

Synerlight™ 2 was tested on B16 melanocytes *in vitro* at several concentrations. Its efficacy was compared to the existing Synerlight™ version made with petrochemical origin butylene glycol. Cells were cultured with NDP-MSH which stimulates pigmentation.

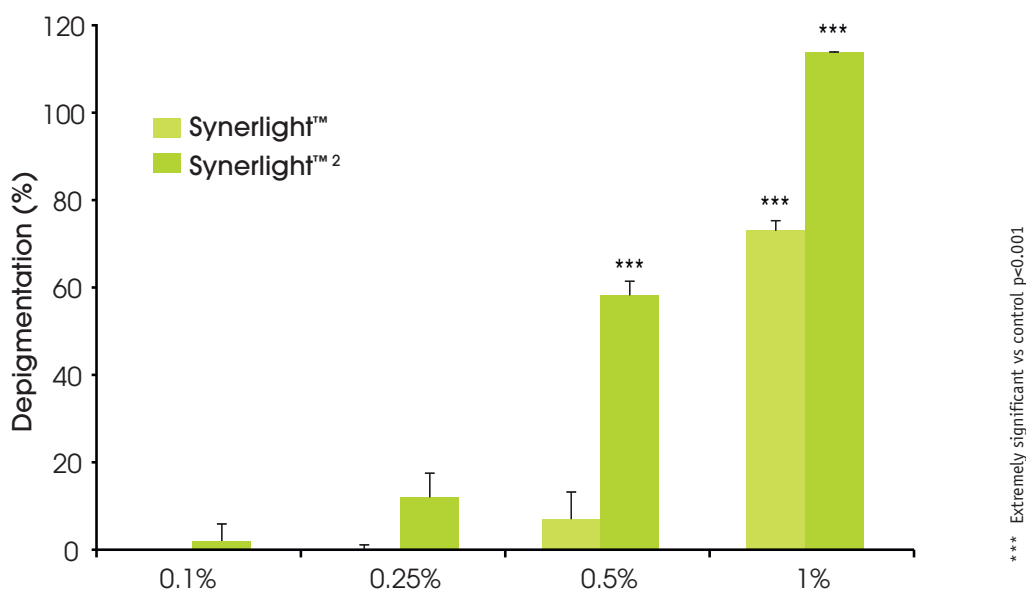


Figure 1

Melanin synthesis inhibition is dose-dependent. Synerlight™ 2 used at 1% inhibits more than 100% of melanin synthesis induced by NDP-MSH. Synerlight™ 2 not only inhibits melanin synthesis induced by NDP-MSH, but also reduces the basal melanin content.

The inhibiting action of Synerlight™ 2 is far stronger than that of the former Synerlight™ version. These results reveal the **high efficacy of Synerlight™ 2 in reducing melanin production**.

SAFETY

The cytotoxic activity of Synerlight™ 2 was compared to Kojic acid, a positive whitening reference.

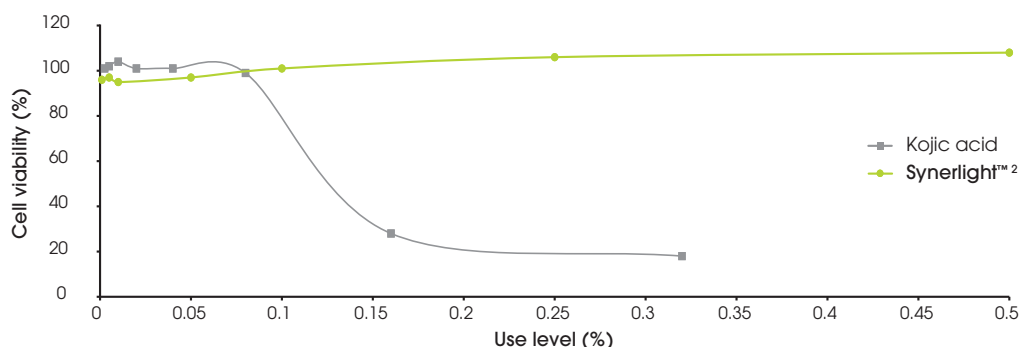


Figure 2

Synerlight™ 2 shows a far greater safety than Kojic acid in cell culture. The safety of melanocytes is improved. No associated cytotoxicity is noticed.

Synerlight™ 2 allows to obtain a clear whitening of dark spots without harming the cells.

KEY BENEFITS

- Fights hyperpigmentation
- Natural active
- Moisturizing potential
- Preservative free

APPLICATIONS

Recommended for **anti-aging** and **moisturizing** lines, Synerlight™ 2 is dedicated to **skin lightening** treatments and **whitening** applications. It will specifically target age spots and can be used as a **complexion** enhancer.

Synerlight™ 2 (code 5830)	
INCI	Butylene Glycol (and) Actinidia Chinensis (Kiwi) Fruit Water (and) Alcohol (and) Sophora Angustifolia Root Extract <i>Listed in IECIC (Inventory of Existing Cosmetic Ingredients in China) 2003</i>
Suggested use level	0.5 to 3%

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GATTEFOSSÉ is an independent, multinational company headquartered in France which creates, manufactures and distributes specialty products used as ingredients by the cosmetic and pharmaceutical industries. Present in 60 countries worldwide, GATTEFOSSÉ enjoys a strong know-how and position in lipochemistry, biology and extraction from natural sources.

GATTEFOSSÉ offers the cosmetic industry a variety of high performance products classified as:

- **Bases and Additives:** emulsifiers, coemulsifiers, emollients, dispersers, solubilizers, thickeners...
- **Traditional plant extracts**
- **Substantiated active ingredients** from vegetable, mineral and marine origins.

