



# Skinergium® Bio\*



An energy concentrate, stimulating cellular renewal for fewer wrinkles and a more radiant complexion

## Maca, the precious root from Peru



Maca (*Lepidium meyenii* Walpers) is a taproot plant from the Brassicaceae family. It has been grown as a food crop and for its medicinal properties since the Neolithic era in the High Andes in Peru, at an altitude of 3,500 to 4,200 metres.

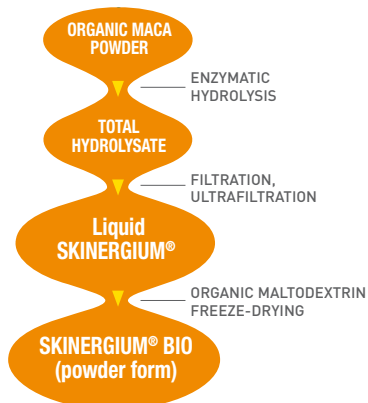
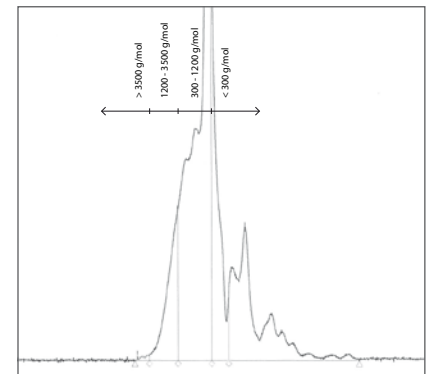
This tuber is one of the very rare plants able to survive in the extreme climatic conditions common on the high Andean plateaux, with relentless sun and high temperatures during the day, intense frost at night and sustained violent winds that parch most plants and cause considerable soil erosion, creating semi-desert conditions.

Maca was first used by the Incas over 2,000 years ago, when it was an integral part of Andean diet and trade. When the Incas controlled the South American region, they found maca so powerful that its use was reserved for their royal court.

Nowadays in Peru, maca is used raw, cooked or dried and processed as an ingredient in biscuits, cakes, crisps, and drinks. It is also sold and used for its energy-boosting properties. It is commonly called "Peruvian ginseng", since it is said to stimulate libido. It is also known to increase natural energy and muscle tone, as well as physical performance. Maca now has an international reputation.

## A patented process

Skinergium® Bio is obtained directly from tuber flour, using a bio-enzymatic process patented by Laboratoires Expanscience. The flour is treated with a specific enzyme mix, in order to obtain a hydrolysate containing peptides and sugars. The process is completed by a final ultrafiltration phase, designed to eliminate any residual traces of protein.



**APPLICATION:** anti-wrinkle care products for mature, dull or tired skin

**DESCRIPTION:** beige powder

**INCI NAME:** Hydrolyzed Lepidium Meyenii Root and Maltodextrin

**DOSE IN USE:** 0.05% to 0.2%

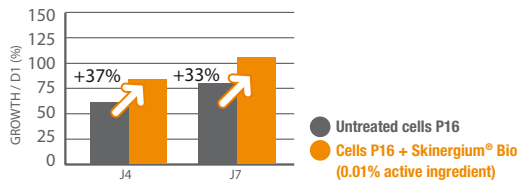
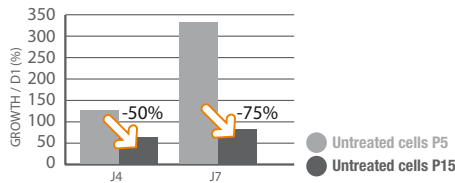
**STORAGE:** preservative-free, bacteriologically fragile, must be handled with care



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## Stimulation of proliferation of aged fibroblasts



In this study a model of skin fibroblasts, artificially aged in vitro, characterized by the use of fibroblasts derived from plastic surgery (on a female patient aged 26) and cultured to high passage numbers (P15) is used. Without the active ingredient, the replication capacities of aged fibroblasts (P15) are much lower than those of young fibroblasts (P5).

The addition of Skinergium® Bio (0.01% active ingredient) to aged fibroblasts (P16) increases their replication capacity by +37% and +33% respectively at D4 and D7.

By stimulating the proliferation capacities of aged fibroblasts, Skinergium® Bio could therefore compensate for the age-related decrease in the dermal cell population and thereby counter intrinsic cutaneous ageing.

## Clinical trial \*\*

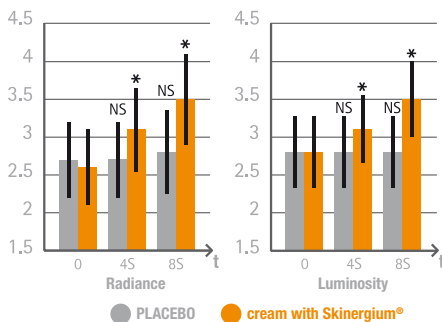
19 volunteers, aged from 49 to 67 (average age 60) took part in the double-blind versus placebo trial. Twice a day for 8 weeks, they applied a cream containing 0.1% of active ingredient (i.e. 0.2% Skinergium® Bio) and a placebo cream to the hemifacial area.

### Effect on wrinkles

Skin prints were taken using Silflo resin at T0, 4 weeks and 8 weeks in the "crow's feet" area then analyzed by video imaging.

From week 4, the Skinergium® Bio group showed a significant decrease in all wrinkle parameters: average depth (-3%), length (-12%), area (-12%) and number of wrinkles (-10%). The placebo had no significant effect on these parameters, either at week 4 or 8.

### Effect on complexion



A trained evaluator scored the complexion radiance and luminosity of each half-face before treatment, after 4 weeks and after 8 weeks.

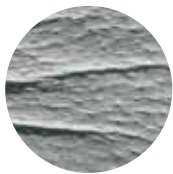
There was a significant improvement in terms of radiance and luminosity from week 4 for the cream with Skinergium® Bio. After eight weeks, complexion radiance had improved by 35% and luminosity by 25%.

The placebo cream had no significant effect on these parameters, either at week 4 or 8.

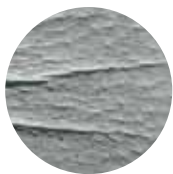
\* statistically significant change by comparison with initial measurements and areas treated with the placebo (p<0.05) NS: non-significant change

\* Raw material certified by Ecocert Greenlife according to the Ecocert Standard for Natural and organic Cosmetics available at <http://cosmetics.ecocert.com>

\*\* Test performed on Skinergium®, can be transposed to Skinergium® Bio product



BEFORE



AFTER 8 WEEKS

Skinergium® Bio gives your cells a real boost, reducing wrinkles and enhancing the radiance of your complexion.

[www.expanscience-ingredients.com](http://www.expanscience-ingredients.com)

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