



Botanical Ingredients



A healthy diet...

...can impact appearance of skin



As nutrition and diet play a big role in skin health, there is a growing demand for "Beauty From Within" solutions.

Beautiful skin starts from within

Nutricosmetics Market is Poised to Reach **US\$7.93 billion** by 2025

CAGR: 5%



Main functional beauty benefits:

- Anti-ageing
- Sun/UV protection
- Hair care

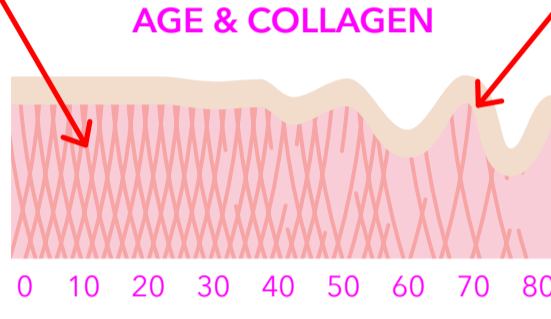
Skin ageing and collagen

Collagen is one of the major building blocks of the skin, responsible for its elasticity and strength



High levels of reactive oxygen species (ROS) lead to the activation of collagenase.

Accumulation of advanced glycation end products (AGEs) leads to more brittle collagen.



Collagen deterioration is linked to skin ageing

Curcumin and skin ageing



Is turmeric's (one of the most revered plants in Ayurveda), main bioactive polyphenol with potent anti-oxidant & anti-inflammatory properties.

...can slow down the ageing process...

However the potential of curcumin is limited by its poor bioavailability.

The solution

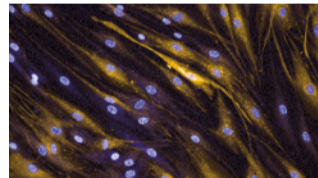
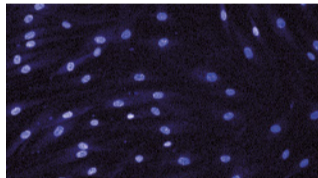
CURCUSHINE™
microcapsules

Bioavailable and soluble curcumin with anti-ageing benefits

Efficacy

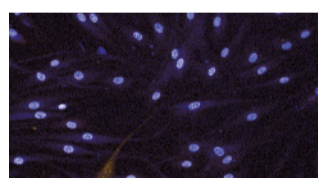
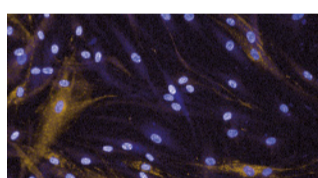
Benefits

1. In vitro-ROS reduction effect



Basal control Medium

ROS control Medium (H₂O₂)



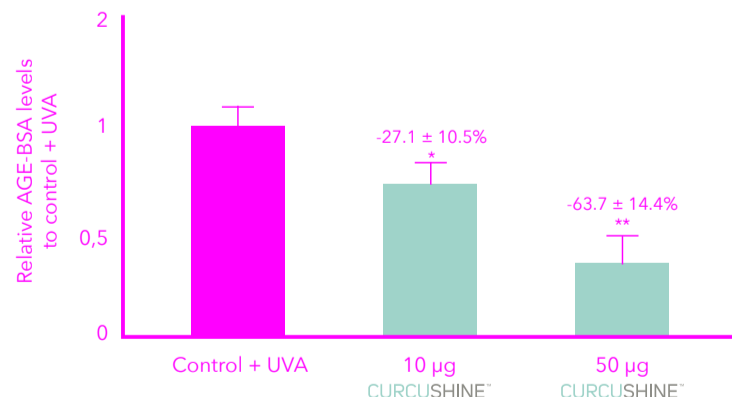
Green Tea Extract 10 µg/mL

CURCUSHINE™ microcapsules 10 µg/mL

CURCUSHINE™ microcapsules shows significant protection vs oxidative stress on HDFa cell cultures

CURCUSHINE™ microcapsules exhibits better anti-oxidant performance compared to a well-known extract, thus preventing skin ageing from within.

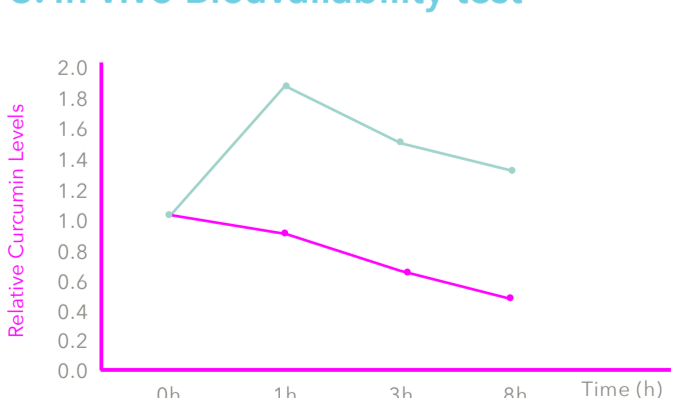
2. In vitro- UVA-induced glycation Protection



CURCUSHINE™ microcapsules significantly protects from UVA-induced glycation

The in vitro treatment with CURCUSHINE™ microcapsules significantly protects from UVA-induced glycation, by decreasing Advanced Glycation End products (AGEs) up to 63.7%, compared to the untreated control.

3. In vivo Bioavailability test



CURCUSHINE™ microcapsules bioavailability is much higher than control, lasting until 8 hours after the intake

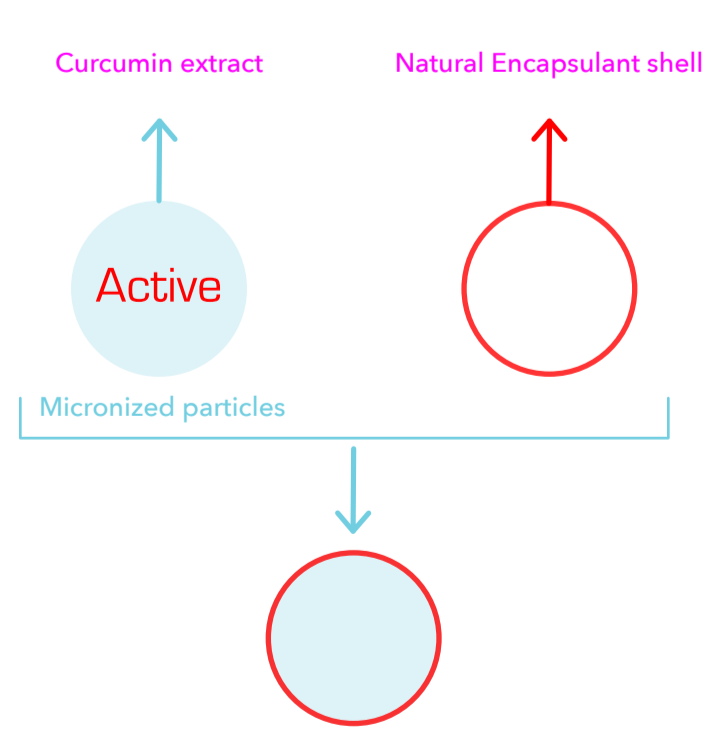
CURCUSHINE™ microcapsules displays a pharmacokinetics profile of slow release of curcumin compared to the quick absorption, metabolism and removal of free curcumin.

Water solubility



Superior water dispersion of CURCUSHINE™ microcapsules compared to free curcumin extract.

Technology



Applications



Nutraceutical, functional beverages and nutricosmetic applications.

