

PROVITAL  GROUP

For a beautiful life from cells to the skin

# DETOSKIN™

Your ultimate ally  
to reach skin's excellence



Exclusive N.A. Distributor  
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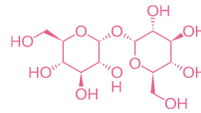
This is a story about the Peony,  
**the queen of flowers**, so beautiful with its bright  
colours and delightful fragrance, that inspires us in  
the aim of creating a beautiful life

Detoskin™ is a synergistic combination of:



**TRADITION**  
**Peony extract**

Its secret of beauty is in the roots extract, with a high concentration of peoniflorin, a source of youth and energy.



**TECHNOLOGY**  
**Trehalose**

It is obtained biotechnologically from natural starch sourced from cassava with COSMOS approval.

*The peony is named after Paeon, the physician to the Greek gods, a student of Asclepius, the god of medicine. Leto, the goddess of fertility once told Paeon of a special root growing on the slopes of Mt. Olympus which would help soothe the pains of childbirth. Asclepius became jealous of his student, and threatened to kill him. To save Paeon, Zeus turned him into a peony flower so that he could continue to alleviate the pain of women in childbirth.*

Our peony is grown and carefully harvested by hand in the Northeast region of China, where its cultivation history is over 1.500 years old and it is so appreciated that many cities host peony festivals and gardens.

Detoskin™ recycles inside for visible improvement  
outside through mitochondrial rejuvenation

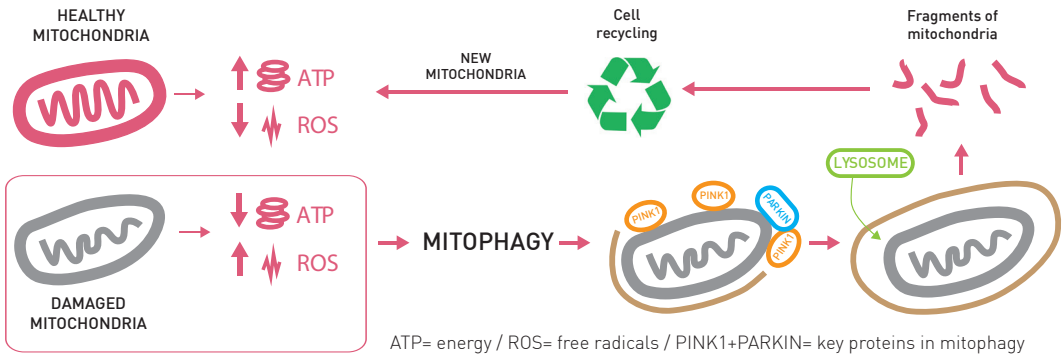


**Mitophagy is the key**



# What is mitophagy?

Mitophagy is the cellular mechanism to remove damaged mitochondria



As we age → Mitophagy decreases speeding up aging process

Detoskin™ triggers mitophagy to:

1. Optimize energy production
2. Detoxify cells from ROS (reactive oxygen species)
3. Make them more resilient to damages
4. Revitalize skin cells for an anti-aging effect

...and mitophagy is trendy



The Nobel prize in Medicine 2016 was for Yoshinori Ohsumi for his discoveries of the mechanisms for autophagy (mitophagy is mitochondrial autophagy)

## IN VITRO EFFICACY

A screening allowed us to identify that the best combination to boost mitophagy was peoniflorin + trehalose.

### Activating mitophagy

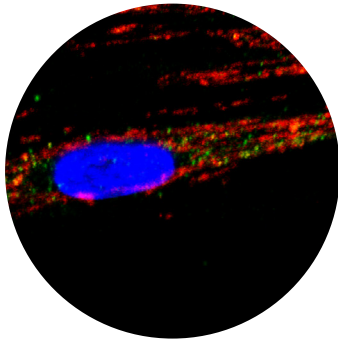
Treating human dermal fibroblasts with Detoskin™ resulted in an increase in:

- Mitophagy, removing and recycling damaged mitochondria.
- Mitochondrial renewal.

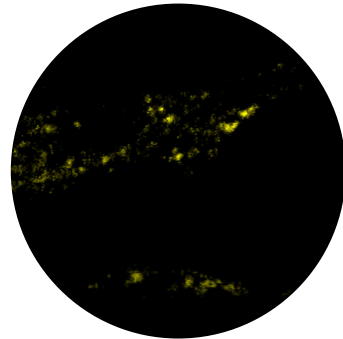
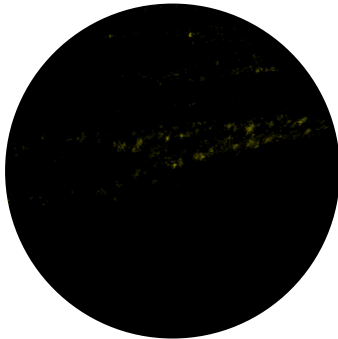
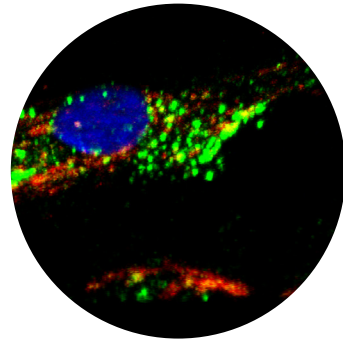
Visualization through confocal microscopy of the induction of mitophagy by Detoskin™.

Mitochondria, visible in red, and phagosomes, in green color, are involved in the formation of vesicles, and when they are coincident in space and time means that there is mitophagy, which in the image stands out in yellow.

CONTROL



DETOSKIN™





## Detoskin™ detoxifies and rejuvenates the skin removing damaged mitochondria

### Improving the quality of mitochondria

Not only the number of healthy mitochondria increased, but we demonstrated that the quality of the mitochondrial pool was better and more efficient.

**↑ 25%** Increased synthesis of ATP (clean energy)

**↓ 12%** Decreased ROS (reactive oxygen species) synthesis (damaging molecules)

With Detoskin™, the cells work better because the damaged mitochondria have been replaced by new ones optimizing energy production and reducing damaging ROS substances.

## Detoskin™ boosts “clean energy” via a sustainable cellular mechanism

The real anti-aging effect is:

**↑ 53%** Increased synthesis of collagen III

**↓ 92%** Decreased MMP-1 overproduction (enzymes involved in the breakdown of extracellular matrix)

...even in aged fibroblasts



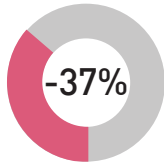
## IN VIVO EFFICACY

Panel of 32 volunteers aged 40 to 60 years old with visible aging signs.  
56 days, measurements at D0, D28 and D56.  
Placebo and formulation with 1.5% Detoskin™ on face and forearms.

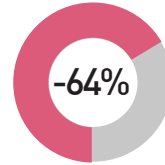
### Detoxifying the skin

Less damaging ROS means a better oxidative state and healthier fibroblasts to reduce senescence, and a cleaner cellular environment.

ROS reduction  
in 28 days



ROS reduction  
in 56 days



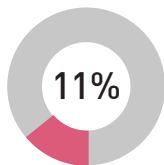
**Detoskin™ detoxifies the skin**

### Inner structure improvement

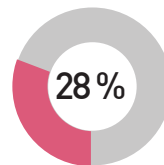
Measurements taken at different layers show how mitophagy activation leads to a global anti-aging effect, increasing:

- Epidermis thickness
- Area of dermal fibers

Increase epidermis  
thickness



Increase dermal  
fibers area

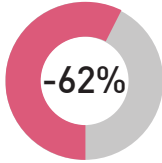




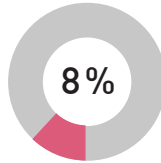
## Firmer and even

Aging causes an uneven skin tone and microrelief (a young skin shows a low anisotropy index value), and a loss of elasticity. With Detoskin™, biomechanical properties of the skin also benefit from this renewed energy.

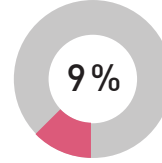
Reduction of anisotropy



Increase of skin tone homogeneity



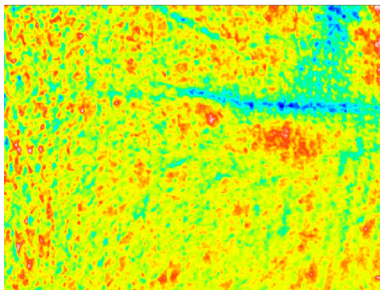
Increase of elasticity



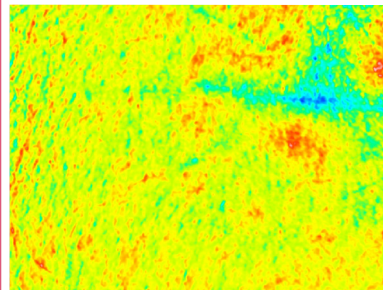
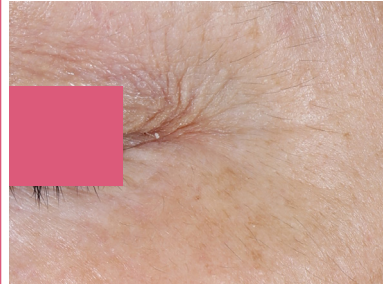
**Detoskin™ decreases the anisotropy and skin tone is more homogeneous, to regain a youthful glow**

## Only wrinkles of smiles will remain

D0



D56



**Detoskin™, the story about the beauty secrets of Peony**

# DETOSKIN™

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to reach skin's excellence

## Cosmetic applications

- Face and body care
- Anti-aging preventive cosmetics
- Energizing treatment
  - Cell regenerator
- Anti-aging makeup

## Technical specifications

### DETOSKIN™ 72750

PROPERTIES	Activates mitophagy and improves the mitochondrial pool
ACTIVE MOLECULES	Peoniflorin and trehalose
APPEARANCE	Transparent liquid - slightly turbid liquid Pale brown - brown color
SOLUBILITY	Soluble in aqueous solutions
RECOMMENDED DOSE	1 - 2%
INCI	Aqua, glycerin, paeonia lactiflora root extract, trehalose, sodium benzoate, potassium sorbate



CHINA  
IECIC LISTED

## Formulation

### ENERGY BOOSTER PRESSED SERUM

INCI / PCPC	%(W/W)
<b>A</b> Aloe Vera Gel M.S. - TZ. (Provital)	38,65
Orange Waterjuice™ - ECO (Provital)	40.00
Tetrasodium Glutamate Diacetate, Sodium Hydroxide, Aqua (Water)	0.20
Detoskin™ (Provital)	1.50
Hydroxypropyl Starch Phosphate	4.00
<b>B</b> 1,2-Hexanediol	1.00
Pentylene Glycol	3.00
<b>C</b> Velvet Touch Oil (Provital)	5.00
Oleth-20	2.00
<b>D</b> Plantago Psyllium Husk Powder	0.40
Xanthan Gum	1.10
Oat Flour (Provital)	1.00
<b>E</b> Aqua (Water), Sodium Hydroxide	0.10
<b>F</b> Parfum (Fragrance)	0.05
Glycereth-26	2.00

Wrinkles should merely indicate where  
smiles have been (Mark Twain)

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