

**Holimel<sup>®</sup>**

*Protect your skin  
daily from U.V*

**ROBERTET**  
HEALTH & BEAUTY

# Sun, friend & foe

Today's consumers demand products that are versatile. They seek UV protection in their day cream and anti-aging protection in their sunscreen.



UV exposure is responsible for 80% of the visible changes commonly attributed to skin-aging including pigmentation disorders, wrinkles and texture.



75% of adults using UV protection products expressed their preference for natural ingredients.



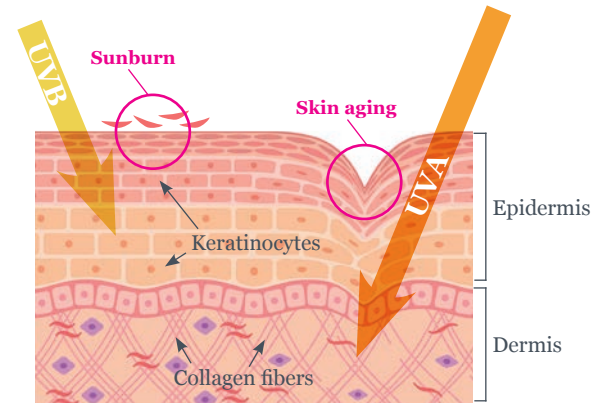
# UV rays, oxidative stress and associate damage

## ***UVA rays***

- Penetrate deeply into the dermis
- Responsible for ROS\* overproduction
- Damage through indirect photosensitizing reactions
- Major role in tanning and photo-aging

## ***UVB rays***

- Highly mutagenic
- The most noxious
- Completely absorbed by the epidermis
- Primarily responsible for skin reddening, sunburn
- Play a key role in various skin disorders



Besides ROS overproduction, UV can additionally impair the epidermal antioxidant defense system, making antioxidants a relevant strategy for photoprotection.

\*Reactive Oxygen Species

# Our melon, an unexpected discovery

The story of SOD B® and the Superoxide Dismutase (SOD) begins with an **unexpected discovery**.

In 1989, French melon producers are surprised by a new variety of Cantaloupe melon that showed **an impressively long shelf life**.

Several years of research uncovered the mystery of this unique long-lasting quality: an exceptionally **high content in SOD, a powerful antioxidant**. From this discovery, SOD by Bionov, **SOD B®, was born**.

Today Bionov, company of Robertet Group, remains **the world's largest producer of natural SOD**.



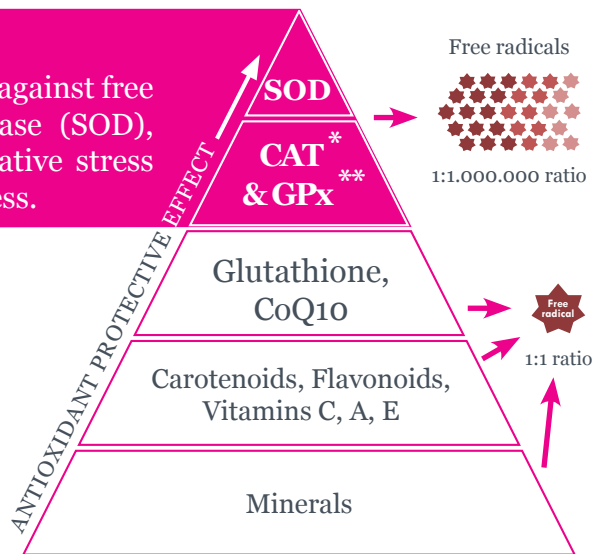
# The most efficient antioxidants are produced by our body

Holimel® boosts the skin's natural antioxidant defenses thus preventing oxidative stress and inflammation caused by both environmental threats and natural aging process.

## Primary antioxidants

### Produced by our body

Thanks to their synergistic mechanisms of action against free radicals precursor species, Superoxide Dismutase (SOD), CAT and GPx prevent the development of oxidative stress from the starting point of cellular oxidation process.



## Secondary antioxidants

### Only from food

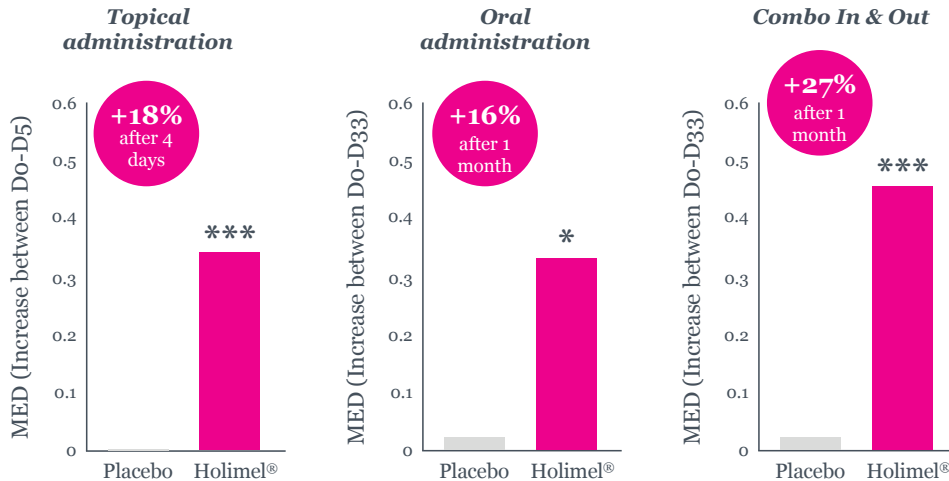
- Capacity to quench only one free radical
- Rapidly overwhelmed

\* CAT: Catalase \*\* GPx: Glutathione peroxidase

# Holimel<sup>®</sup>, triple action against U.V

## ① *Holimel<sup>®</sup> rapidly increases skin resistance to U.V*

*Design: Randomised, double-blind, placebo-controlled study, 88 healthy men and women, phototype II and III, 18 to 50 years old, 4 weeks.*



Quick efficacy  
After only  
4 days

Low dose  
20 mg/day

Holimel<sup>®</sup> protects the skin from sun exposure damages and delays sunburns by significantly improving skin resistance to UV.

The minimal erythema dose (MED) is the threshold dose that starts producing sunburn.

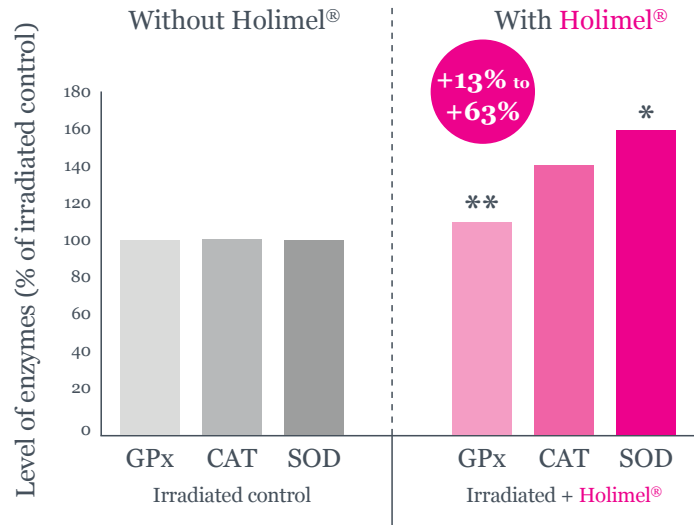
\*\*\* p<0.001, \* p<0.05

## ② Holimel® boosts skin's own antioxidant defenses

### Human skin explants

Holimel® demonstrates its capacity to boost the body's own defense against UV, **increasing its antioxidant enzymes by up to 63%.**

#### Significant increase of skin antioxidant enzymes expression



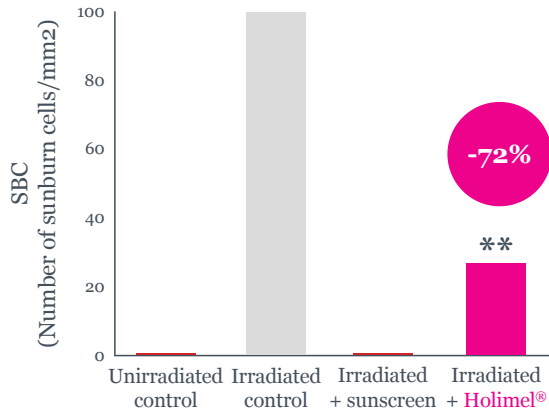
\*\* p<0.01, \* p<0.05

### ③ Holimel® goes deeper into skin protection against U.V

#### Human skin explants

Not only does Holimel® delay sunburn, it also prevents UV radiations harmful effects on skin cells by **decreasing sunburn cells (SBC) by 72%**.

#### Significant decrease of sunburn cells formation



Irreparably damaged and potentially mutagenic keratinocytes, sunburn cells are a direct consequence of UVB exposure.

\*\* p < 0.01



# Holimel<sup>®</sup> at a glance

## *Health benefits*

- 100% natural primary antioxidant
- Boosts endogenous antioxidant defenses
- Increases skin resistance to UV irradiations
- Reduces UV-related skin damages
- Fast-acting (Oral: 1 month, Topic: 4 days)

## *Green and natural process*

- Patented
- Green & gentle on environment
- Solvent free
- Additive free
- Made in France

## *Proven efficacy*

- 1 clinical trial
- 1 preclinical trial on human explants
- Demonstrated way of action
- Demonstrated bioactivity
- Patented process & protective coating

## *Consumer oriented*

- 100% natural and organic
- Oral and/or Topical
- Allergen free
- Vegan
- Low dose
- Kosher & Halal



# Home of Nature™

Robertet is truly the Home of NATURE™ thanks to its **unique expertise in clinically proven botanical ingredients, essential oils and natural flavours and fragrances.**

This polyfunctional skill in natural ingredients makes Robertet **a full natural solutions provider** for food supplements, cosmetics, and functional food & beverage companies.

Robertet's natural savoir-faire goes **from the seed or field selection to the compounded natural solution** taking into account the challenge of contaminants and the valorization of the residues.

[www.robertet.com](http://www.robertet.com)





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