



SkinCare

Newsletter PersonalCare 3/2023

PlusXanthin™
The Powerful Antioxidant

August 2023

PlusXanthin™

PlusXanthin™ is a carotenoid (Deinoxanthin), ingredient with strong anti-oxidant and multi-functional effect, produced by microbial fermentative production. It can help to reduce wrinkle, especially improve eye bag.

INCI & CFDA:

Water, Micrococcus lysate, 1,2-Hexanediol, Polyglyceryl-10 Laurate

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LABIO
BEYOND BIOTECHNOLOGY

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Background

Extremophiles of LABIO

It is species of micro-organism living in very unusual circumstance, owing to its special character like acid-loving, thermo-loving, cold-loving, dry-loving, etc.

It is exactly opposite character when comparing the usual micro-organism, and so it can give more benefits to the human skin against the harmful circumstance through the proper way of application.

Deinococcus radiodurans

One of the most resistant microbe known as *Deinococcus sp* is the world's toughest bacterium in The Guinness book of World Records.

Deinococcus sp is well known as a "Super bug", over 2 billion years old, it survives strongly from the radiation which is treated as the worst condition for all organism.

The most interesting bacteria in science today, studying and understanding its mechanisms can lead to nuclear waste pick up and medical uses associated with cancer.

- Desertica
- The First
- Antarctic-G

Ability to recover DNA damaged by external environment such as strong UV irradiation and ROS

Dark circle, eye bag

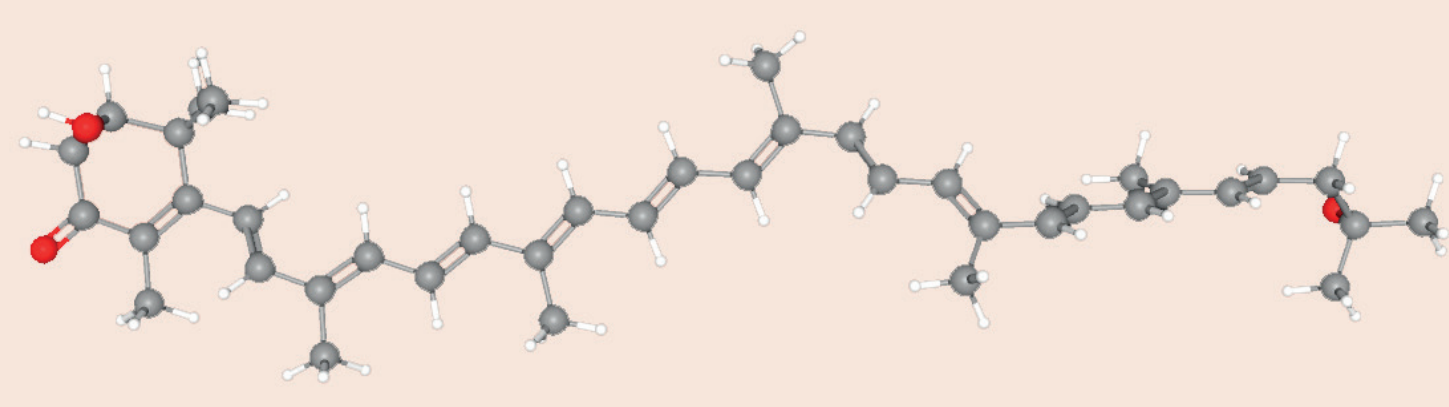
The causes of dark circles:

- Fat under the eyes
- Pigmentation
- Dilated, increased blood vessels under the eyes
- Aging
- Heredity

The biggest cause of fat under the eyes is aging, which causes sagging as skin elasticity decreases.

New Solution

Deinoxanthin (C₄₀H₅₄O₃) PlusXanthin™

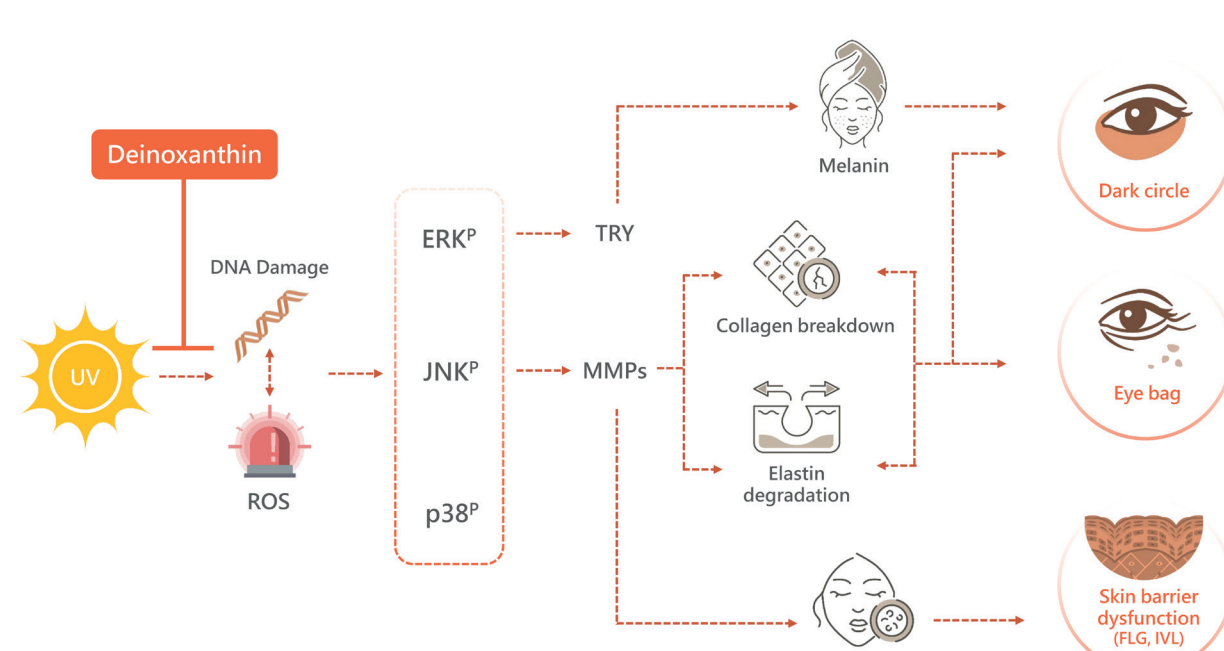


- Deinoxanthin is a unique carotenoid biosynthetic by *Deinococcus*.
- *Deinococcus radiodurans* biosynthesize Deinoxanthin, a carotenoid, to withstand extreme environments such as strong γ-rays or UV radiation and drying conditions.

- Deinoxanthin is highly antioxidant, anti-inflammatory and anti-aging.

- Molecular weight: 582.9 g/mol
- Absorption wavelength: 480 nm

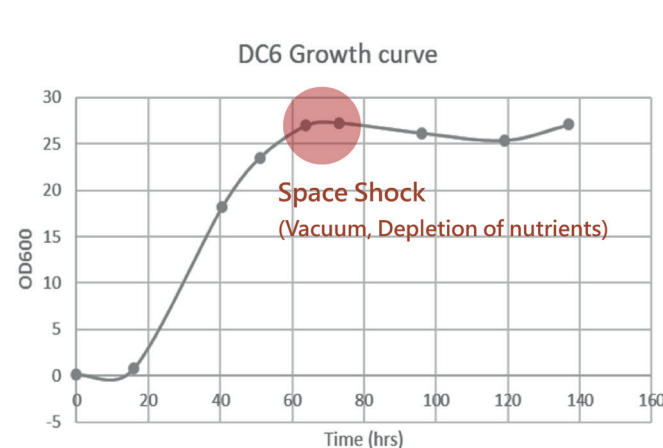
ROS & eye wrinkle care



Extremophiles with LABIO's technology

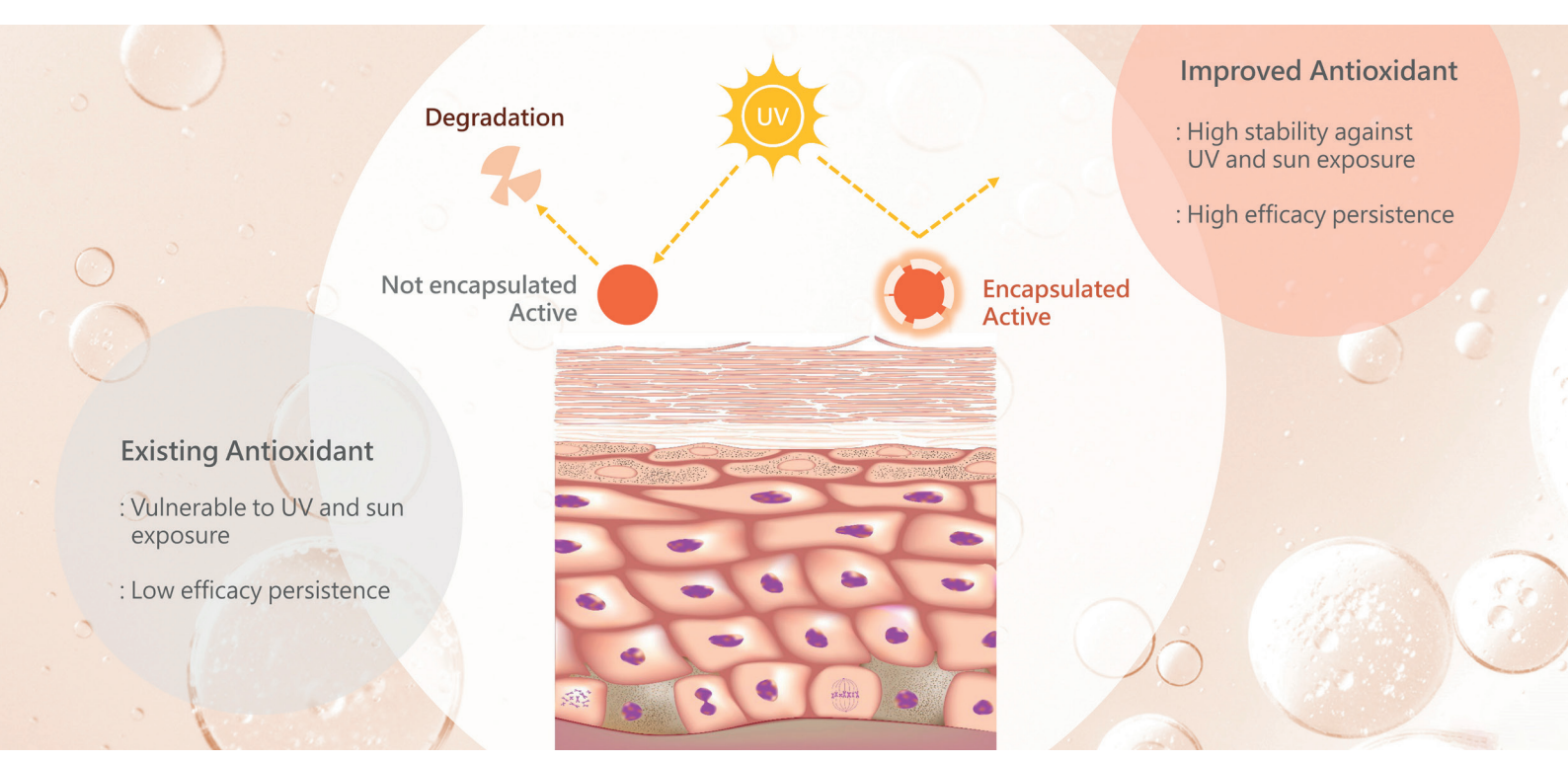


- Phase 1: System fermentation under optimal conditions to activate extreme microorganisms.
- Phase 2: Fermentation in extreme environments where microorganisms cannot live* to produce useful ingredients for extreme microorganisms.
- Phase 3: Filter the low-temperature aging fermentation and fermented extreme microbial fermentation that gives the low-temperature vacuum impact of extreme microorganisms.



* Extreme environment: low temperature, low pH, limited nutritional content

Encapsulation with LABIO's technology



Applying Encapsulating Technology = Improved Stability

In vitro and clinical test results are available!

Summary

PlusXanthin™ utilizes a carotenoid called deinoxanthin, which is derived from the world's most resistant microbe, *Deinococcus radiodurans*. This carotenoid is biosynthesized to withstand extreme environmental conditions such as UV radiation and sun exposure. By utilizing a patented encapsulation technology, improved stability such as maintaining color and antioxidant efficiency can be observed. Benefits include reduced under-eye dark circles and bags, increased collagen, skin barrier improvement, and reduced ROS.

INCI: Water, Micrococcus lysate, 1,2-Hexanediol, Polyglyceryl-10 Laurate

- Anti-oxidant
- Anti-inflammation
- Anti-aging

Recommended dosage: 3 - 5%

Application: Skin, Body

Imprint

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Picture credits

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