

Bio Green Phytoplacenta

Turn Back Your Age Clock



Find plant extract solution with

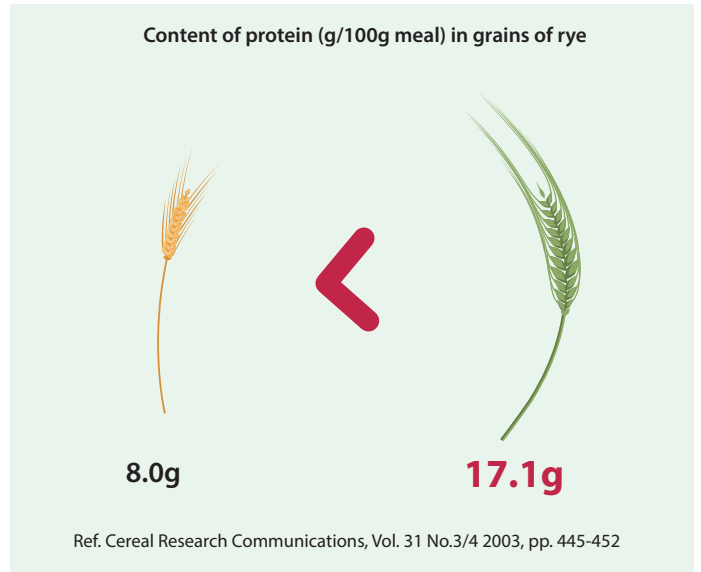
DermáLab

How can we maintain healthy skin and prevent skin aging?

“The nutritional value of immature grain and its placenta.”

Cereal grains are grown in greater quantities than other types of crops and provide more food energy and functional material around the world. Among them, rye can grow well on unfavorable soils where other crops can not grow, and is resistant to cold.

We found that the immature rye have a higher nutritional value compared to ripened grains, especially protein and polysaccharide. Furthermore, protein shows a higher content in rye placenta, and it can be utilized for skin health.



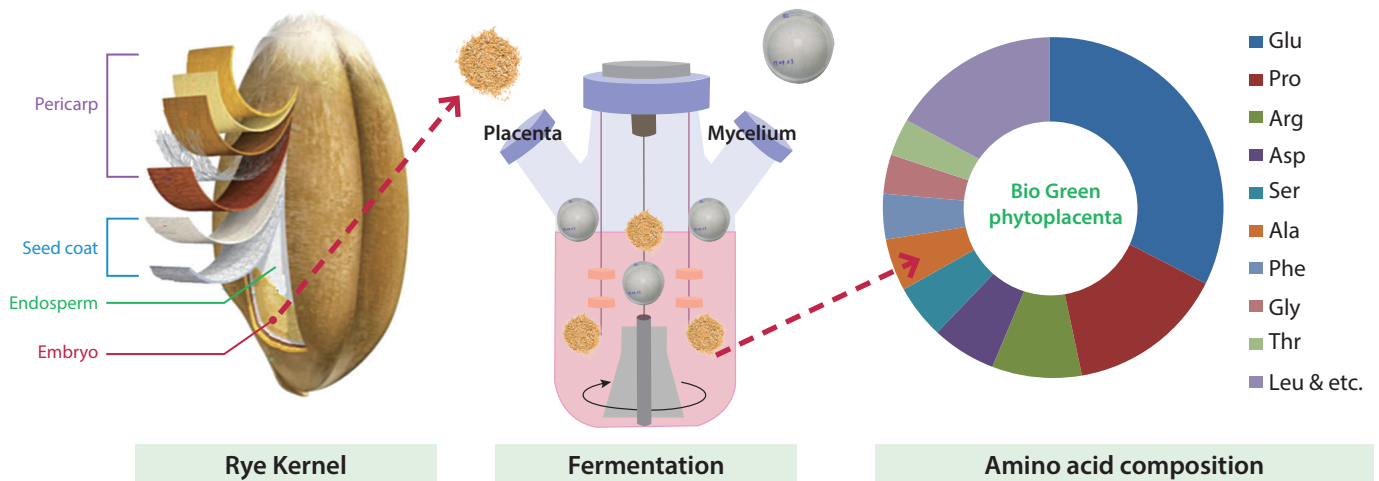
“Bio Green Phytoplacenta restores the skin vitality by supplying green energy.”

By environmental pollution and busy daily life, skin becomes more and more sensitive and skin trouble increases. Accordingly, our skin need moisturizing and nutrition to maintain healthy skin and prevent skin aging.

Dermalab has developed a hydrolyzed rye phytoplacenta extract through our own hydrolysis technology fermenting immature rye placenta with shiitake mushroom mycelia (Patent : KR 10-1810410).

Fermented immature rye placenta has higher amino acid composition (such as Glutamic acid, Proline, Arginine, Aspartic acid, Serine, Alanine, Phenylalanine, Glycine) than other grains. A higher contents of amino acid can strengthen skin moisturizing and collagen production.

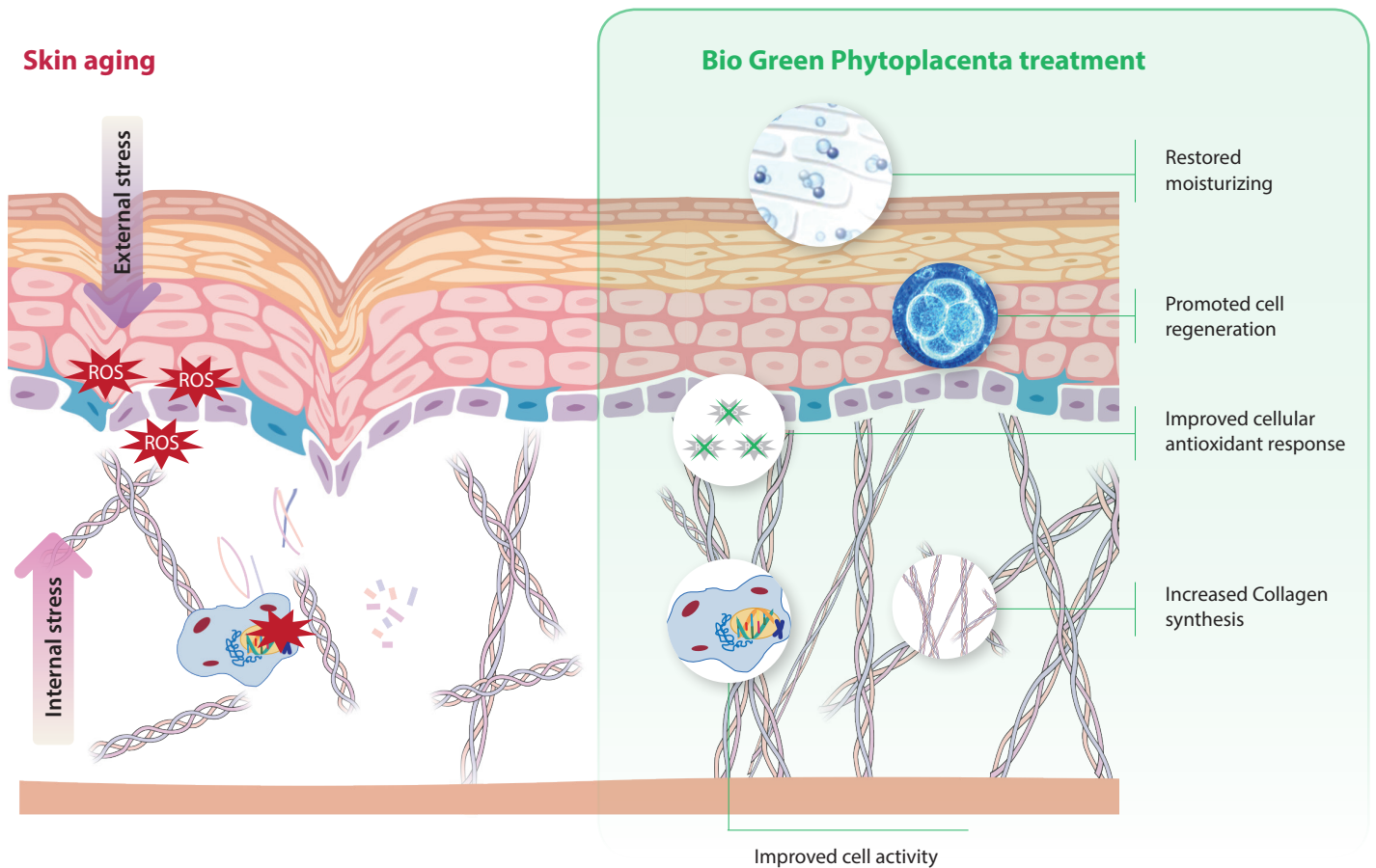
Bio Green Phytoplacenta enhances nutrient supply to the skin to help maintain healthy skin and slow down skin aging.



MECHANISM

Busy life cycle such as stress, fatigue, lack of sleep, unbalanced diet and etc. burns out self regenerating energy of skin. This phenomenon leads to the metabolism instability by oxidative radicals induction and DNA damage in skin cells.

Instable metabolism reduces hydration and collagen production in skin, and promotes skin aging such as wrinkles, dull skin, and lack of elasticity.



Bio Green Phytoplacenta enhances nutrient supply to skin and increases self-regeneration energy.

1. Bio Green Phytoplacenta protects skin from oxidative stress by increasing SOD expression.
2. Bio Green Phytoplacenta improves skin moisturization by increasing AQP-3 expression.
3. Bio Green Phytoplacenta increases skin elasticity by increasing collagen expression.

IN-VITRO TEST

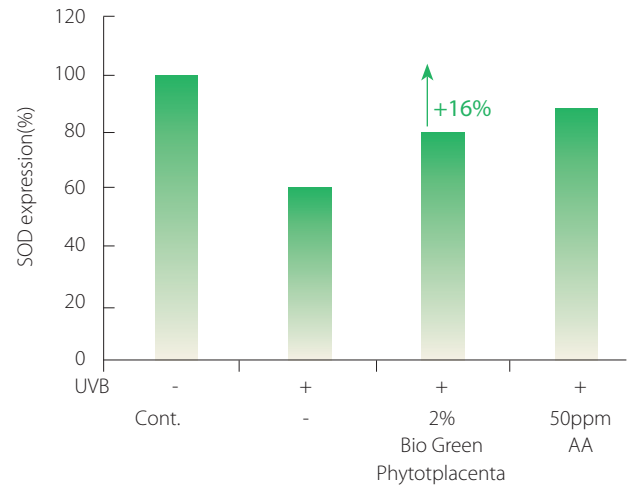
ANTIOXIDANT EFFECT

BIO GREEN PHYTOPLACENTA INCREASES SOD EXPRESSION

Superoxide Dismutase (SOD) is an enzyme that repairs cells and reduces the damage by superoxide, the most common free radical in the body.

SOD : 16% ↑

Protocol: Human epidermal keratinocyte (HaCaT) cultures were incubated during 48 hours (at 37°C, CO₂ 5%) in presence of Bio Green Phytoplacenta. After irradiation with 200 mJ/cm² of UV-B, the expression levels of mRNA were analyzed by RT-PCR. AA: Ascorbic Acid



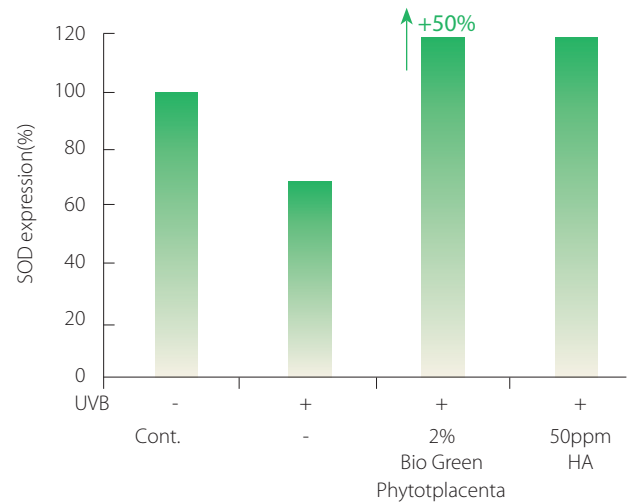
MOISTURIZING EFFECT

BIO GREEN PHYTOPLACENTA INCREASES AQP-3 EXPRESSION

Aquaporin-3 (AQP-3) is a water/glycerol transporting protein expressed strongly at the plasma membranes of basal epidermal cells.

AQP-3 : 50% ↑

Protocol: Human epidermal keratinocyte (HaCaT) cultures were incubated during 48 hours (at 37°C, CO₂ 5%) in presence of Bio Green Phytoplacenta. After irradiation with 200 mJ/cm² of UV-B, the expression levels of mRNA were analyzed by RT-PCR. HA : Hyaluronic Acid



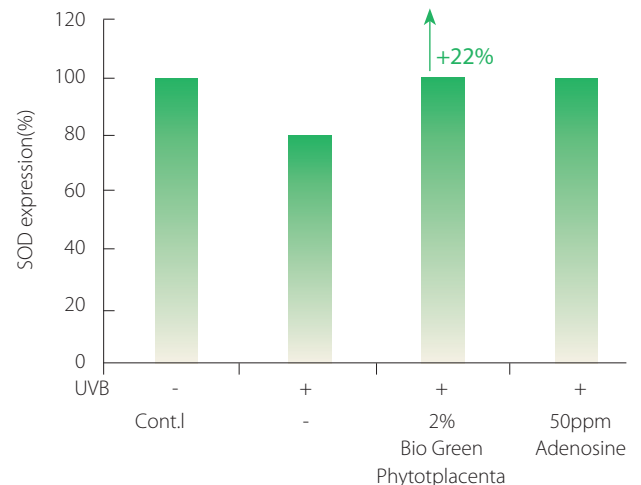
COLLAGEN SYNTHESIS EFFECT

BIO GREEN PHYTOPLACENTA INCREASES COL1A1 EXPRESSION

COL1A1 encodes the major component of type I collagen, which belongs to a family of extracellular matrix (ECM) proteins.

COL1A1 : 22% ↑

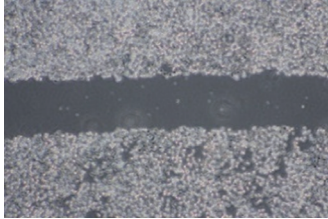


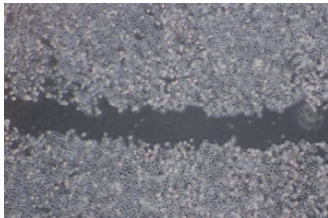
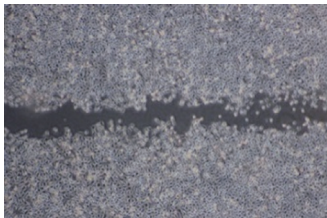

Protocol: Human dermal fibroblast (HDFa) cultures were incubated during 48 hours (at 37°C, CO₂ 5%) in presence of Bio Green Phytoplacenta. After irradiation with 200 mJ/cm² of UV-B, the expression levels of mRNA were analyzed by RT-PCR.



IN-VITRO TEST

CELL REGENERATION EFFECT

BIO GREEN PHYTOPLACENTA ENHANCES THE REGENERATION OF KERATINOCYTE

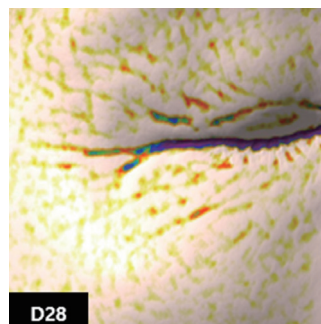
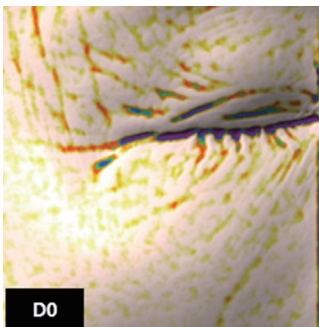
	Control	Bio Green Phytoplacenta 1%	Bio Green Phytoplacenta 2%
Before			
After			

Protocol: Cell regeneration test was performed by using the wound healing assay. Human Epidermal Keratinocytes (HACAT) were incubated during 18hours (at 37°C, CO₂ 5%) in presence of Bio Green Phytoplacenta. Wound width was estimated with an inverted microscope.

IN-VIVO TEST

SKIN BARRIER ENHANCEMENT

BIO GREEN PHYTOPLACENTA ERASES SIGNS OF AGEING



Bio Green Phytoplacenta decreases crow's feet
Average -8.0% Up to -10.1%

Skin roughness has been improved.

Method : Apply 2% Bio Green Phytoplacenta Serum for 28 days, and evaluate wrinkles of eye contour with Antera 3D (Miravex Limited).



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Cosmetic Activities	<ul style="list-style-type: none">• Increase of SOD expression• Increase of AQP-3 expression• Increase of COL1A1 expression• Enhancement of Cell regeneration• Reduction of Skin wrinkle
INCI name	Water (and) Butylene Glycol (and) 1,2-Hexanediol (and) Hydrolyzed Rye Phytoplacenta Extract (and) Lentinus Edodes Mycelium Extract
Recommended % of use	2%