

# NEOBERRY

PREVENTS AND REVERSES GLYCATION

## ASSESSA

INNOVATION FOR A GREENER WORLD

### NEOBERRY

NEOBERRY is a potent anti-glycation ingredient derived from a carefully selected blend of strawberries, blueberries, blackberries, and raspberries, with an excellent anti-aging activity. Through a specialized two-step biotechnological process, the key bioactive polyphenols and glycodes are concentrated and protected. Our proprietary **Active Encapsulation** technology guarantees optimal stability and delivery for maximum efficacy.

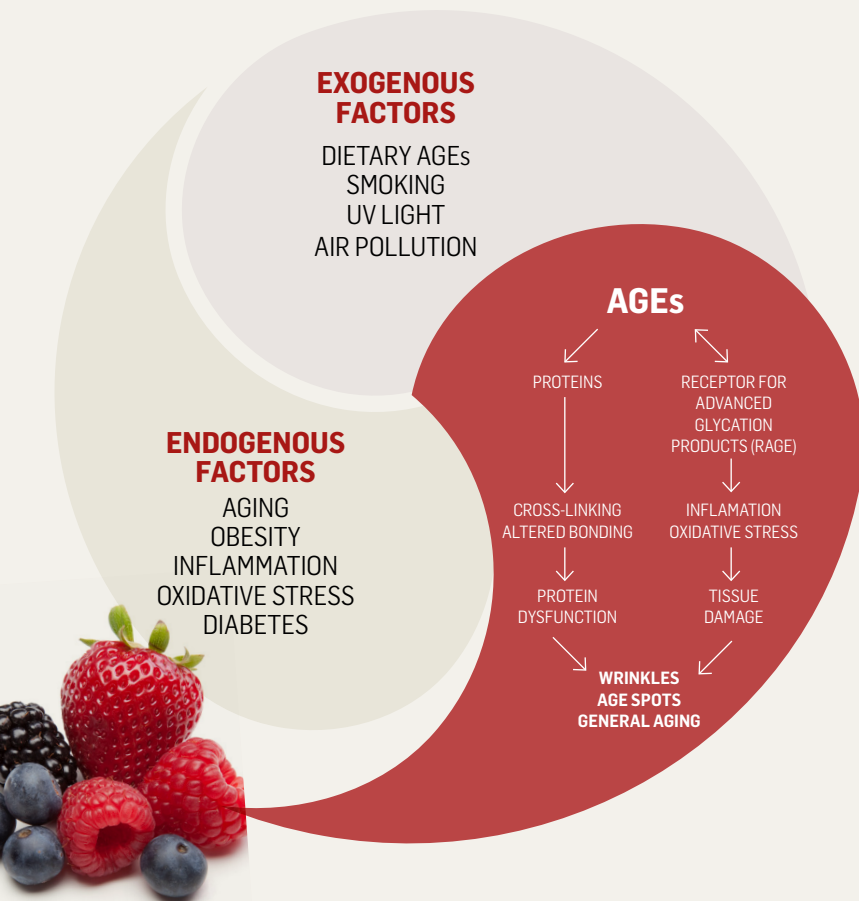
**NEOBERRY**  
IS OBTAINED  
THROUGH AN  
EXCLUSIVE BIO-  
TECHNOLOGICAL  
PROCESS,  
WITHOUT THE  
ADDITION OF  
SOLVENTS.



**NEOBERRY is preservative-free and scientifically proven to prevent glycation in skin. NEOBERRY also actively reverses early signs of glycation damage and stimulates Collagen I production, strengthening the skin's extracellular matrix and promoting a youthful appearance.**

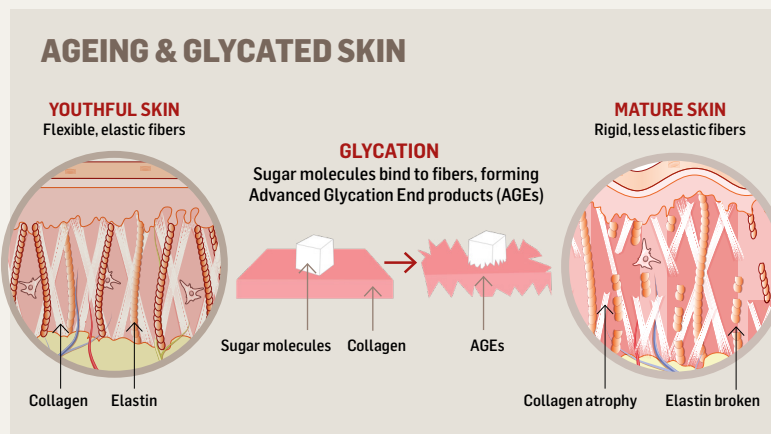


# WHAT IS GLYCATION?

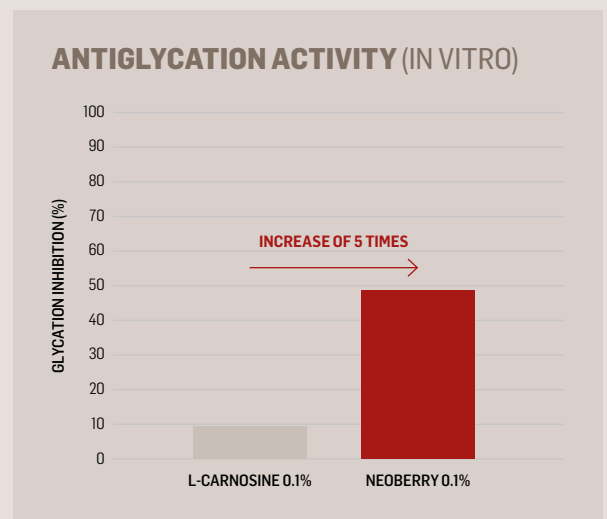


Glycation is a chemical reaction that occurs between sugars and proteins, resulting in irreversible damage to the structure and function of these proteins. When excess sugar molecules in the body bind to skin proteins, such as collagen and elastin, they form advanced glycation end products (AGEs).

AGEs damage proteins and contribute to various skin aging issues. Additionally, AGEs contribute to increased oxidative stress in the skin, causing cell damage and accelerating premature aging. **Understanding the interplay between glycation and skin aging is fundamental in developing products to intervene in the process.**

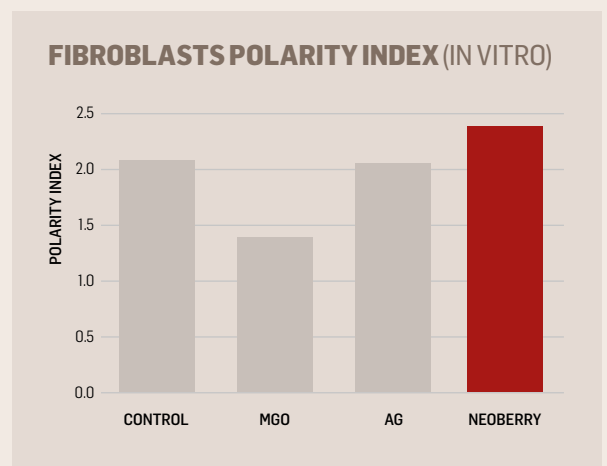


## 1 ANTIGLYCATION ACTIVITY



The glycation inhibitory activity of NEOBERRY was compared to L-Carnosine using fluorimetry. NEOBERRY at 0.1% is **five times more effective** than l-carnosine.

## 2 ANTIGLYCATION ACTIVITY IN HUMAN FIBROBLASTS

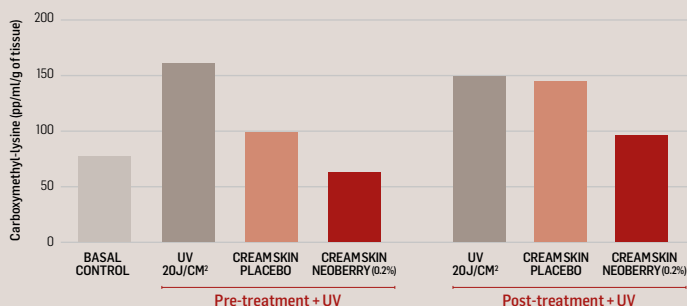


The inhibitory effects of NEOBERRY and aminoguanidine (AG), a standard antiglycation agent, on methylglyoxal (MGO)-induced glycation were evaluated in human fibroblasts. Glycation levels were quantified using a cellular polarization index. NEOBERRY effectively reverses fibroblast glycation and demonstrates superior anti-glycation activity compared to aminoguanidine (AG).

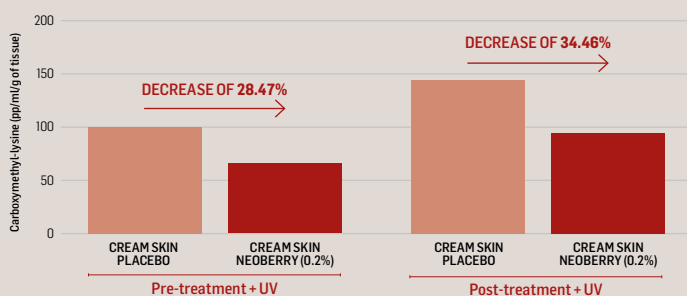


### 3 PRECLINICAL EFFICACY OF NEOBERRY IN PREVENTING AND REVERSING AGE FORMATION IN HUMAN SKIN

#### CARBOXYMETHYL-LYSINE (CML) QUANTIFICATION



#### CML QUANTIFICATION (NEOBERRY x PLACEBO)



#### Prevention

Human skin fragments were treated with an emulsion (cream skin) containing 0.2% NEOBERRY and a placebo formula (cream skin placebo) for two days. On the third day, the fragments were exposed to 20 J/cm<sup>2</sup> of UV radiation and collected 24 hours after the UV radiation.

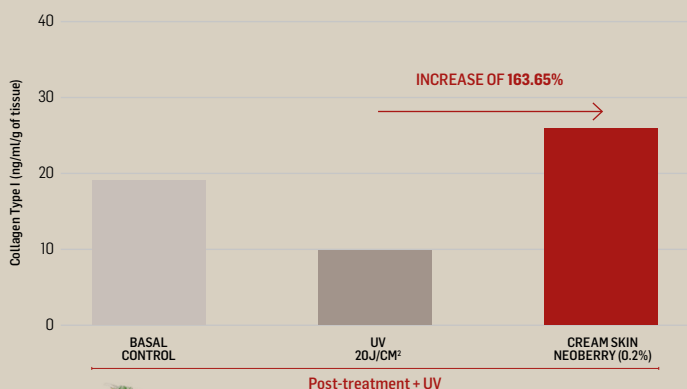
#### Reversion

Skin fragments were exposed to 20 J/cm<sup>2</sup> of UV radiation on the first day, treated twice daily with the test formulas for two days, and collected 24 hours after the last treatment. Carboxymethyl-lysine (CML) was measured using an immunoenzymatic assay (ELISA).

NEOBERRY prevents glycation in human skin and actively reverses early glycation damage. Skin explant studies revealed a **28.47% reduction** in Carboxymethyl Lysine (CML) with pre-treatment and a **34.46% reduction** with post-treatment, demonstrating its **powerful deglycation capabilities**.

### 4 PRECLINICAL EFFICACY OF NEOBERRY ON COLLAGEN PRODUCTION IN HUMAN SKIN

#### QUANTIFICATION OF COLLAGEN TYPE I



Ex-vivo human skin fragments were exposed to 20 J/cm<sup>2</sup> of UV radiation on the first day and subsequently treated twice a day with an emulsion (cream skin) containing 0.2% of NEOBERRY and a placebo formula (cream skin placebo) for two days and collected 24 hours after the last treatment.

Collagen type I was measured using an immuno-enzymatic assay (ELISA). Treatment with **NEOBERRY led to a 163.65% increase in collagen production** compared to the UV exposed skin, underscoring its ability to reverse collagen degradation caused by UV exposure.





# NEOBERRY

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## CLAIMS

- 1 Prevents skin glycation
- 2 Reverses sugar-induced aging
- 3 Boost the skin's natural collagen production
- 4 Reverts the generation of early glycated products
- 5 Superior performance compared to L-Carnosine and Aminoguanidine
- 6 Preservative-free, encapsulated and natural product

## USAGE LEVELS

PRODUCT	(%)
Facial serum	0.1 to 0.5
Facial mask	0.1 to 0.5
Facial cream	0.1 to 0.5

## INCI NAME

Acacia Senegal Gum, Vaccinium Myrtillus Fruit Extract, Fragaria Vesca Fruit Extract, Morus Nigra Fruit Extract and Rubus Idaeus Fruit Extract.



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