

Dermial®

Hyaluronic acid matrix ingredient

Use: skin & beauty Dose: 60 mg/day

Application: dietary supplements and functional foods

Dermial® is a unique **hyaluronic acid matrix ingredient** obtained through a proprietary manufacturing process that ensures a high concentration of hyaluronic acid (60–75%), plus a balance of other glycosaminoglycans (>10%), including dermatan sulfate and chondroitin sulfate, and collagen (<5%). Thanks to its **anti-aging** and **regenerative properties**, Dermial® makes it possible to create leading nutricosmetic products that unlock beauty from within.

The opportunity

Global nutricosmetic ingredients market¹



\$3.71 billion in 2026



7% CAGR 2020–2026

Hyaluronic acid²



Fastest growing
nutraceutical and
functional ingredient for
skin and beauty



+60% product launches
including hyaluronic acid
(2015–2019)

The role of hyaluronic acid in the skin

Hyaluronic acid is present in the dermis and epidermis of the skin, where its **main function is to bind water to collagen, trapping water in the skin and keeping it moisturised**. As individuals age, however, the levels of endogenous hyaluronic acid and other glycosaminoglycans, such as dermatan sulfate and chondroitin sulfate, decrease, leading to changes in skin appearance.

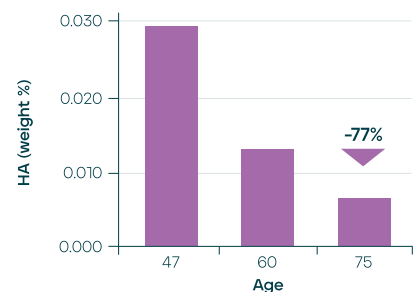


Fig 1. After 47 years of age, total endogenous hyaluronic acid decreases considerably.³

The solution: Dermial®

Increases skin moisture up to **30%**
Anti-aging properties

Powerful **regenerative activity**
Efficacy supported by science

Develop cutting-edge nutraceutical products with our biologically-derived hyaluronic acid matrix ingredient, Dermial®⁴⁻⁷:

- 1 Improves the **hydration and elasticity** of the skin
- 2 Acts as a potent **regenerative agent**

- 3 Improves the **quality of the dermis and epidermis**, helping to maintain the health and nutrition of skin
- 4 **Is absorbed** in the intestine

1. Increases hyaluronic acid synthesis⁴

Dermial® significantly increases the synthesis of hyaluronic acid in human dermal fibroblasts (HDF), which are responsible for producing the extracellular matrix that forms the connective tissue of the skin.

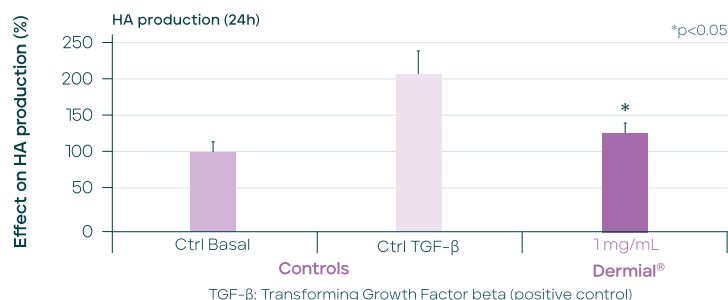


Fig 2. Increased hyaluronic acid production in HDF with Dermial®.

2. Increases elastin production^{4,6}

Dermial® significantly increases the synthesis of elastin in HDF – a key protein in the extracellular matrix that is present in the connective tissue. It provides resilience and elasticity, enabling tissues to regain their shape after stretching or contracting.

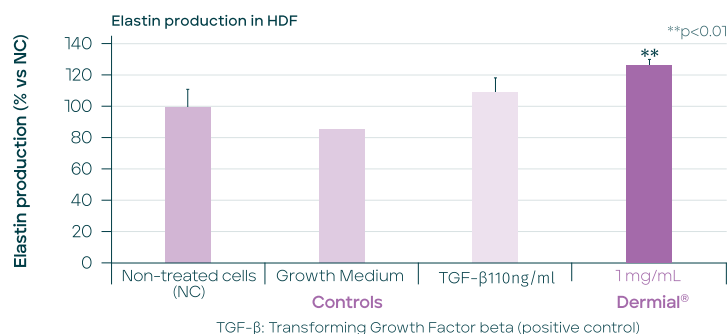


Fig 3. Dermial®, significantly increases the synthesis of elastin at a rate of 24.09% ± 1.57.

3. Increases type I collagen production⁶

Dermial® showed a significant effect on the production of type I collagen in HDF cells. Treatment of HDFs for 72h with 1 mg/mL of Dermial® increased the production of type I collagen by 48.04% ± 11.49 compared to untreated HDFs. Pure hyaluronic acid from fermentation (HA-F) and extraction origin (HA-E) did not demonstrate significant stimulating effects on the production of type I collagen.

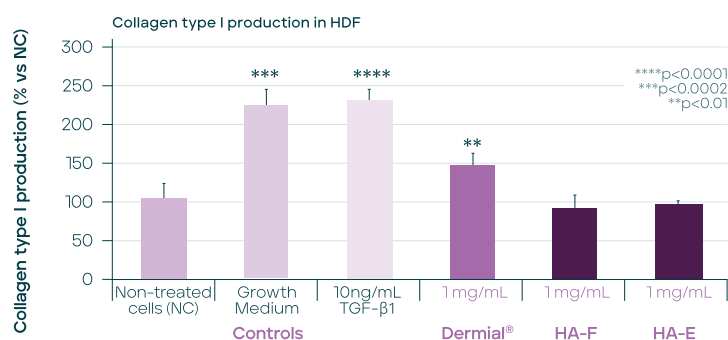


Fig 4. Increased production of type I collagen in HDF cells with Dermial® compared to HA-F and HA-E.

4. Induces fibroblast proliferation⁶

Dermial® demonstrated a unique ability to significantly stimulate the proliferation of HDF cells at 24 hours, reaching a proliferation rate of 1.81% ± 27% in comparison to pure hyaluronic acid from extraction and fermentation origins.

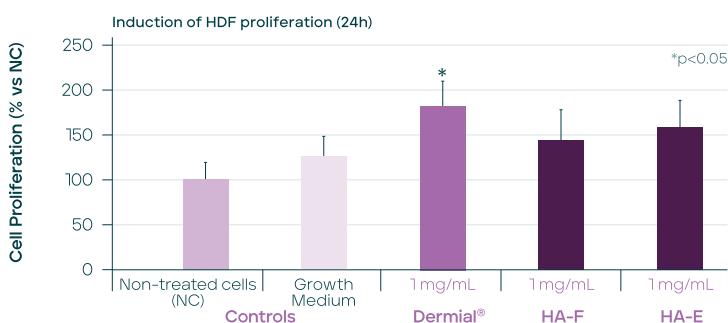


Fig 5. The effect of Dermial® on HDF cell proliferation compared to pure hyaluronic acid.

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References 1) Research and Markets. 2021 Nutricosmetic ingredients market – size, share, COVID impact analysis and forecast 2027. [report], 2021. 2) Innova Market Insight. Beauty-From-Within, 2020. 3) Longas M, et al. Carbohydr Res.1987;159(1):127–36. 4) Torrent et al. The FASEB Journal, 2013;1S:633.2. 5) Torrent et al. Osteoarthritis and Cartilage, 2010;18:S246–247. 6) Galvez-Martin et al. The FASEB Journal, 2022;xSin press. 7) Canut et al. Regul Toxicol Pharmacol., 2012;62:532–41.

About Bioiberica

Bioiberica is a global Life Science company with more than 45 years' experience in the identification, extraction and development of biomolecules of high biological and therapeutic value for the pharmaceutical and nutraceutical industries.

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To innovate in the skin & beauty market using Bioiberica's Dermial®, contact us today.

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