



Belinal®

Silver fir branch extract

Beauty
from Within



Both beauty-from-within and clean beauty are experiencing significant growth as consumers continue to recognize the significant roles that natural ingredients can play within the body in supporting healthy aging, hair and skin health.

With Belinal® Silver Fir Branch extract, we provide science-backed expertise and innovation to help you develop formulations that stand out and boost your sales.

Belinal® – Beauty from Within Mechanisms of Action

1. Belinal® stimulates the production of collagen and elastin in the skin, promoting dermal regeneration and enhancing overall skin parameters.
2. Belinal® protects the skin from oxidation and reduces inflammatory processes, contributing to improved skin health and resilience.

Suggested dose of Belinal® in your formula

150 mg

Daily

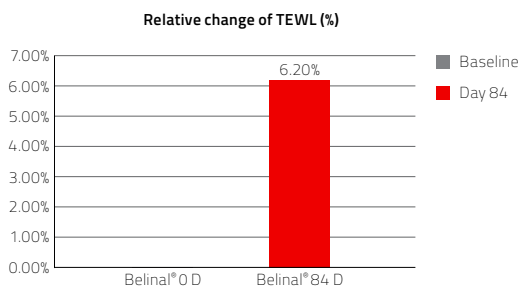


Clinical evidence:

A placebo-controlled clinical pilot study with 150 mg of Belinal® daily in 20 volunteers aged 45-60 years, demonstrated improvement of skin parameters compared to the placebo. Participants administered one capsule daily with a glass of water, for 84 days. Belinal® improves skin parameters in humans when taken orally.

Trans Epidermal Water Loss (TEWL) – Improvement of skin barrier

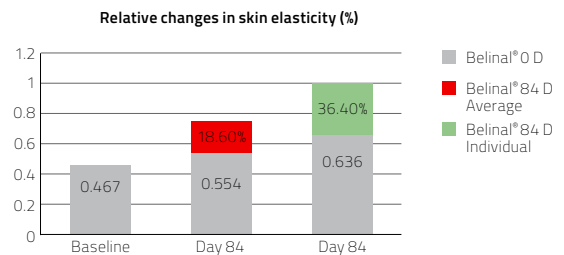
An improvement of skin condition was reflected in reduced TEWL in g/h/m². Reduction in the Silver Fir Branch extract Belinal® group was by 6.2%.



Improvement of skin elasticity

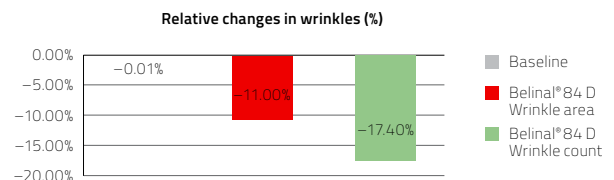
An important increase in skin elasticity by 18.6% was observed at a day 84, which was more than in placebo (14.6%).

The skin elasticity in individual improved by 36.4%.



Reduction of wrinkles

An important decrease in wrinkle count by 17.4% was observed, and reduction of wrinkle area by 11.0% was observed. See diagram below.



In vivo study shows that components of Belinal® penetrate the cell membrane and exhibit stronger antioxidant activity compared to well-known standards.

USP Unique Selling Proposition – Advantages and Features:

Innovative Polyphenolic Solution for Enhanced Formulations

- A 150 mg daily dose delivers a broad spectrum of polyphenolic bioactive compounds, ensuring optimal efficacy and health benefits.
- Utilizing a clean, water-based extraction process, our polyphenols are sourced from pristine EU mountain forests, guaranteeing purity, sustainability, and full traceability.
- Offering a unique polyphenolic profile, this formulation provides a first-to-market advantage, distinguishing it from competitors while enhancing product value and consumer trust.
- The strategic composition of polyphenols and polysaccharides improves formulation stability, ensuring product integrity and effectiveness throughout its 5-year shelf life.

Discussion:

The improvement of physiological skin parameters is likely linked to an increase of collagen and elastin synthesis in the skin layers as discovered by earlier topical clinical study with Belinal®. These data demonstrate that the oral supplementation with Belinal® can improve skin structure and skin health from within.

References:

- Tavčar Benkovič E, Žigon D, Mihailović V, Petelinc T, Jamnik P, Kreft S. **Identification, in vitro and in vivo Antioxidant Activity, and Gastrointestinal Stability of Lignans from Silver Fir (*Abies alba*) Wood Extract Belinal.** J Wood Chem Technol [Internet]. 2017 Nov 2;37(6):467–77.
- Kreft S. **The influence of oral intake of Silver Fir Branch extract Belinal® on skin parameters- placebo controlled clinical study – Study report from Faculty of Pharmacy, University Ljubljana, May 2020.**