

**Belinal®**

Silver fir branch extract



Longevity – Healthy aging



At the biological level, aging reflects the accumulation of cellular damage over time.

While people are living longer, many of these extra years are spent in poor health.

But if older individuals can stay healthy and active during these years, their quality of life could be as good as in younger days.

Healthy ageing is the process of maintaining the functional ability that enables well-being in older age.

Your tree of life for healthy ageing

Belinal® Silver Fir Branch Extract is a premium ingredient rich in bioactive compounds, including flavonoids, phenolic acids, lignans, and non-starch polysaccharides. Discover how Belinal® merges the power of science and nature to support longevity and wellness in your product formulation in multiple ways.

Suggested dose of Belinal® in your Healthy aging Formula

100–140 mg

Daily



Belinal® – Healthy aging Mechanisms of Action

ANTI-OXIDANT ACTIVITY – INSIDE CELLS Belinal® protects telomeric DNA from oxidation and upregulates telomerase activity. Activation of SIRT6 by flavonoids helps maintain telomeric chromatin and delays cellular aging.

BRAIN HEALTH Belinal® supports vasorelaxation of arteries through prostacyclin release mechanisms (PGI₂) and/or via endothelium-derived hyperpolarizing factor (EDHF).

CARDIOVASCULAR HEALTH Belinal® inhibits the formation of advanced glycation end products (AGEs). AGEs are harmful compounds formed when proteins or fats combine with sugar in the bloodstream, a process known as glycation.

JOINT HEALTH Belinal® can enhance the chondrogenic potential of mesenchymal stem cells from patients with osteoarthritis and may play an important role in the future treatment and prevention of joint disease.

ANTI-INFLAMMATORY ACTIVITY Belinal® inhibits COX-2 activity, suppresses the expression of proinflammatory cytokines such as tumor necrosis factor α (TNF- α), interleukin-6 (IL-6), and interleukin-1 β (IL-1 β). It also suppresses COX-1 activity and inhibits histamine release.

METABOLIC HEALTH Belinal® acts as a carbohydrate blocker by inhibiting the enzymes alpha-amylase and alpha-glucosidase. It reduces postprandial glucose levels by up to 35%.

GUT HEALTH Polysaccharides in Belinal® act as prebiotics, providing nourishment for beneficial gut bacteria. This promotes a balanced gut microbiome, which is crucial for optimal digestion and immune function.

SKIN HEALTH Belinal® stimulates the production of collagen and elastin in the skin, promoting dermal regeneration and enhancing overall skin quality.

USP Unique Selling Proposition – Advantages and Features:

Innovative Polyphenolic Solution for Longevity Formulations

- A 100–140 mg daily dose delivers a broad spectrum of polyphenolic bioactive compounds, ensuring healthy aging 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. Low MOQ.
- 5-year shelf life. The composition of polyphenols and polysaccharides improves formulation stability, ensuring product integrity and effectiveness throughout its shelf life.

References: 30 scientific studies and 9 published articles

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