

# **Mobilee**®

# Hyaluronic acid matrix ingredient

Use: Mobility (joint and muscle health) Dose: 80 mg/day Application: dietary supplements and functional foods (dairy)

Mobilee® is a hyaluronic acid matrix ingredient and patented extract containing hyaluronic acid, polysaccharides and collagen. With Mobilee®, it is possible to support joint and muscle health at a low dosage thanks to the synergistic effect of its three naturallyoccurring components.

#### **Effects of Mobilee®**



Increases the endogenous synthesis of hyaluronic acid by synovial cells more than 200-fold



Increases muscle cells proliferation



Lowers Prostaglandin E2, which is linked to inflammation



Supports muscle strength



Reduces synovial effusion and joint discomfort after three months

## Mobility & healthy ageing

Consumers of all ages are interested in mobility products that will help them maintain an active lifestyle and keep them healthy. However, joint discomfort is a common condition that can decrease an individual's ability to move freely, affecting their quality of life.

of people globally say they or people globall, 5..., experience joint discomfort

# Do more with Mobilee®

Develop cutting-edge mobility products that simultaneously target joint and muscle health.

- Easy to formulate: highly efficacious at 80mg/day and excellent organoleptic properties
- Science-backed: efficacy supported by a robust body of scientific evidence
- · Solid regulatory framework: Novel Food (EU Commission) and GRAS status (FDA)
- · Supported by Bioiberica's 20+ years' experience in joint health and mobility





#### 1. Reduces joint discomfort

Daily consumption of a yoghurt supplemented with 80mg of Mobilee® significantly reduced pain intensity from the second month of treatment, compared to the placebo group.

Sánchez, J. et al. Genes Nutr, 2014;9:417.

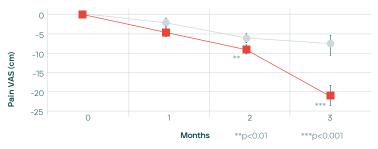


Fig 1. Time evolution of the pain reduction (VAS).

Placebo Mobilee®

#### 2. Supports muscular strength

Three months of oral administration of a yoghurt product containing Mobilee® in healthy individuals with knee discomfort provided improvements in muscle strength.

Martínez-Puig, D. et al. Mediterr J Nutr Metab, 2013;6:63-68.

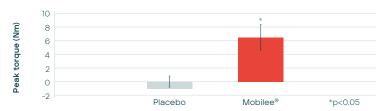


Fig 2. Increase in maximum peak torque compared to baseline values (Nm) for knee extension at 240  $^{\circ}\!/s$ .

## 3. Supports muscle health

After 24 hours of treatment with 6  $\mu$ g/mL Mobilee®, myocyte hyperplasia (muscle cell size) increased by 7%, as well as myocyte proliferation (27%). In the sarcopenia model, there was also an increase in myocyte differentiation (Foxo1 gene expression upregulated 80%), as well as an effect against muscle atrophy, damage and cell death.

Tobajas, Y. et al. Aging Clin Exp Res, 2023;35:S314.

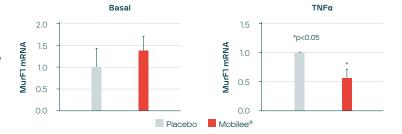


Fig 3. In a sarcopenic model induced by TNFa (15 ng/mL), there was a significant decrease (40%) in Murf1 expression (a gene involved in muscle breakdown) after treatment with Mobilee $^{\$}$ , illustrating an effect against muscle atrophy.

# 4. Supports muscle regeneration with whey protein

A formulation including 6  $\mu$ g/mL Mobilee® and 19  $\mu$ g/mL whey protein promoted myocyte hyperplasia (an increase in muscle cell size) and cell regeneration.

Martínez-Puig, D. et al. Clinical Nutrition, ESPEN, 2023;58:508.



**Fig 4.** MyoD expression (a gene that regulates muscle cell differentiation) was observed in healthy myocytes and a sarcopenic model after treatment versus baseline, displaying a positive effect on muscle regeneration.

These statements have not been evaluated by competent food authorities. The product is not intended to diagnose, treat, cure, or prevent any disease. This information is only for business-to-business use and not meant to be addressed to final consumers. Therefore, Bioiberica assumes no liability for the statements that the producer of the final product may include in its own publicity to consumers.

References 1) FMCG Gurus, 2018/2019.

#### **About Bioiberica**

Bioiberica is a global life science company with more than 45 years' experience in the research, production and commercialisation of molecules of high biological and therapeutic value for the pharmaceutical, nutraceutical and food industries. To innovate in the joint health market using Bioiberica's Mobilee®, contact us today.

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