



## Phytofirm Biotic

### The probiotic ferment ally to preserve youthfulness from head to toe

Cosmetics that contain probiotic ingredients are rapidly gaining popularity around the world because consumers associate these materials with health, wellness and sustainability. BASF's ingredient Phytofirm Biotic enables cosmetics manufacturers to create probiotic anti-ageing skin products. In vitro and in vivo testing has proven that this innovative probiotic rejuvenates the youthful appearance of the skin from head to toe by increasing the production of collagen I, collagen V and elastin. It is obtained by fermenting soybean extract from non-GMO, traceable European soybeans using the *Lactobacillus plantarum* strain. Phytofirm Biotic offers manufacturers worldwide an effective alternative to soy protein hydrolysate when making probiotic skin care products.

#### Product Description

---

Soybean extract bio-fermented by the *Lactobacillus plantarum* strain. Unique, sharply controlled and highly reproducible solution, rich in peptides and lactic acid.

#### Consumer Benefits

---

Skin thickness / skin density increase

---

Anti-sagging effect

---

Elasticity increase

---

Lifting

---

Stretch mark reduction



## In Vivo

Skin thickness of jawline

Net, immediate and global elasticity of jaw skin

Improvement of elastic recovery

## In Vitro / In Tubo

Stimulation of elastin synthesis

Inhibition of elastase

Stimulation of collagen I and V synthesis

Stimulation of glycosaminoglycan (GAG) synthesis

Increase of epidermal thickness

Inhibition of fibroblast lattice contraction

Inhibition of fibroblast transformation into myofibroblast (stretch mark prevention)

## Clinical Study Results

Age of Volunteers: Volunteer panel >55

Results Time Scale: 8 weeks, 12 weeks, 16 weeks

Tested Skin Area: Face

## Target Molecules in the Skin

Dermal extracellular matrix (ECM) components

Dermis components

Elastin

Collagen

Glycosaminoglycans

Hyaluronic acid

Ceramides

## Nature of Active

Active Substance / Technology: Pro/Pre/Postbiotics, Bio-ferment, Amino acids, Biotechnology

Compliance: Listed in IECIC

Geography: Europe

Origin: Vegan, Super food, Edible raw material basis

Special Formulation Features: Low pH tolerant, High pH tolerant, Cation compatible



## INCI

---

Lactobacillus/Soybean Ferment Extract, Pentylene Glycol, Caprylyl Glycol

## Form of Delivery

---

Liquid