

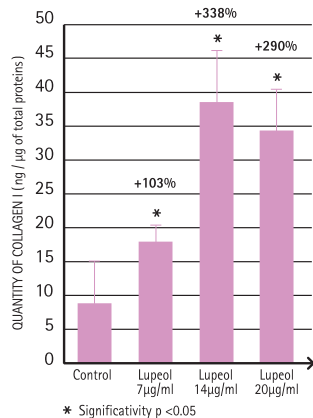
# COLLAGENEER®

> **INCI NAME: Helianthus Annuus (Sunflower) Seed Oil and Lupinus Albus Seed Extract**

## > APPLICATIONS

Collageneer®, a patented active ingredient derived from Lupin seed coatings, has the ability not only to increase the synthesis of type I collagen (the most abundant collagen, which diminishes with age), but also to promote production of a high quality collagen that gives the skin its firmness and elasticity.

## > IN VITRO TESTS



### 1. Effect on type I collagen synthesis

(human fibroblasts, 72-hour treatment, ELISA test)  
Lupeol significantly stimulates production and secretion of type I collagen, starting at 7 mg/ml, via overexpression of the collagen  $\alpha 1$  (qRT-PCR : +46% pour 20 µg/ml).

### 2. Effect on HSP47

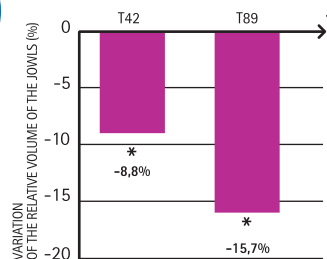
(human fibroblasts, 48-hour treatment, Western blot test)  
Lupeol induces overproduction of HSP47, a type I collagen molecular chaperone, via overexpression of the gene (qRT-PCR : +21% pour 20µg/ml).  
HSP47 assists in the correct assembly of the triple helix (chaperone function) and helps prevent maturation of abnormal procollagen (quality control function).

## > CLINICAL EVALUATION (25 volunteers, 89 days, 2% active ingredient, 2 applications/day)

This open study was carried out to validate the concept on volunteers.

### 1. Skin elasticity (Cutometer)

Beginning at T42, an increase in the parameters  $Ur/Ue$  and  $Ur/Uf$  is noted, corresponding to an improvement in skin elasticity. At T89, the increases—of 11.2% and 10.6%, respectively—are significant.



### 2. Facial contour (fringe projection)

With age, the skin of the facial oval sags and increases in volume. At T42, a significant reduction in this volume is seen. This is confirmed and amplified at T89.

### 3. Self-assessment

The volunteers confirmed these clinical results by their own assessment of the cream's effectiveness:

- Improved firmness of the skin **92%**
- Reduced sagging of the facial contour **72%**

## > ANALYTICAL COMPOSITION

CHARACTERS — Oily and limpid liquid, with yellow to brown-orange colour and a characteristic odor

TOTAL LUPEOL CONTENT 3.5 to 4.5g/100g

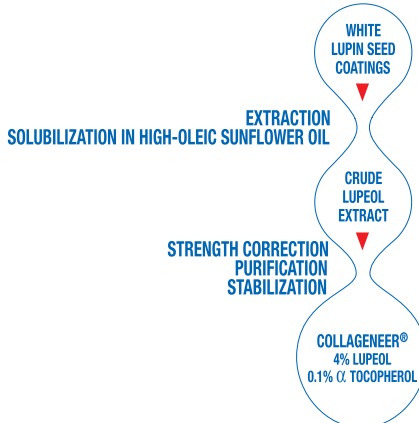
ALPHA-TOCOPHEROL CONTENT  $\geq 50$ mg/100g

COLLAGENEER® contains no preservatives

STORAGE: UNDER NITROGEN, IN A HERMETICALLY SEALED CONTAINER, PROTECTED FROM LIGHT AND HUMIDITY, BETWEEN 15 AND 25°C.

COLLAGENEER® IS INTENDED FOR COSMETIC USE (TOPICAL ADMINISTRATION).

## PROCESS



**EXPANSCIENCE®**  
LABORATOIRES