

Cutting Edge Radiance MAKISTEM

50 years
COBIO SA
NATURALLY EFFECTIVE

Makistem is an innovative plant stem cell extract obtained from *Aristotelia chilensis* (Maqui) through an advanced biotechnological cell culture process.

This approach enhances its **antioxidant capacity**, maximizing its effectiveness and ensuring species conservation by generating plant biomass without compromising its natural environment.

Its high polyphenol content offers comprehensive **protection against photoaging**, helping to effectively **reduce all types of dark spots**, whether superficial, brown or caused by exposure to UV rays.



NATRUE Approved

COSMOS APPROVED

INCI

Glycerin, Aqua, *Aristotelia chilensis* leaf extract

DOSE OF USE

0.5-1%

SOLUBILITY

Hydrosoluble

EFFICACY TESTS

IN VITRO



24 hours
Study on melanocytes

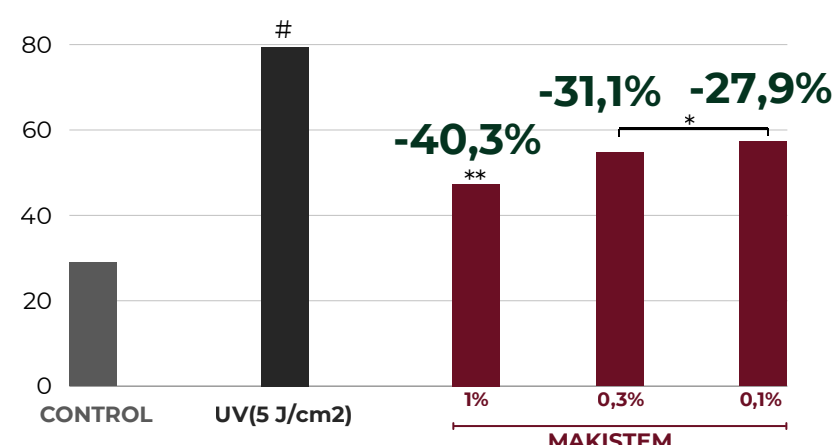
72 hours
Study in fibroblasts



REDUCTION OF MELANIN
SYNTHESIS + PROMOTION OF
PRO-COLLAGEN TYPE I SYNTHESIS

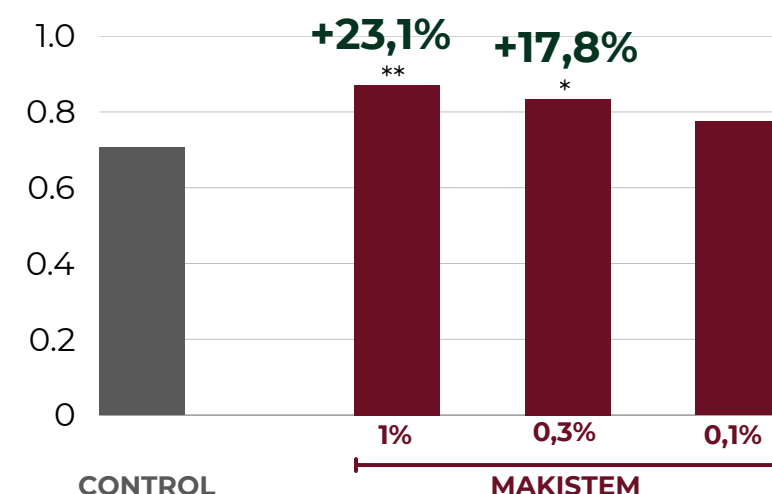
MAKISTEM EFFECT ON MELANIN PRODUCTION IN CULTURED HUMAN MELANOCYTES UNDER UV IRRADIATION

Makistem **reduced melanin synthesis** by -40.3%, -31.2% and -27.9% to 1%, 0.3% and 0.1%, respectively.



MAKISTEM EFFECT AS AN ANTIAGING AGENT BY QUANTIFICATION OF TYPE I PROCOLLAGEN IN HUMAN FIBROBLAST CULTURE (FBH)

Makistem significantly **increased pro-collagen type I production** by +23.2% and 17.9% at 1% and 0.3%, respectively.



IN VIVO

1% Makistem



21 volunteers



28 days

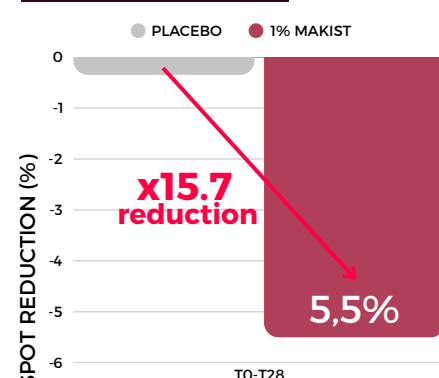
FACIAL DARK SPOTS REDUCTION

EVALUATION BY VISIATION OF DIFFERENT TYPES OF STAINS:

- Superficial spots:** Visible lesions (with the naked eye) and hyperpigmentation.
- Brown spots:** Deeper skin lesions due to excess melanin.
- UV spots:** Accumulation of melanin under the epidermis due to sun exposure, detected with UV light.

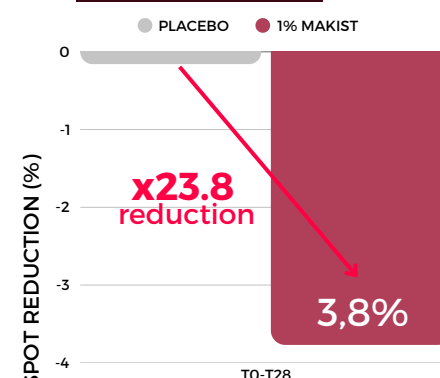
Decrease in the 81% of volunteers.

SURFACE STAINS



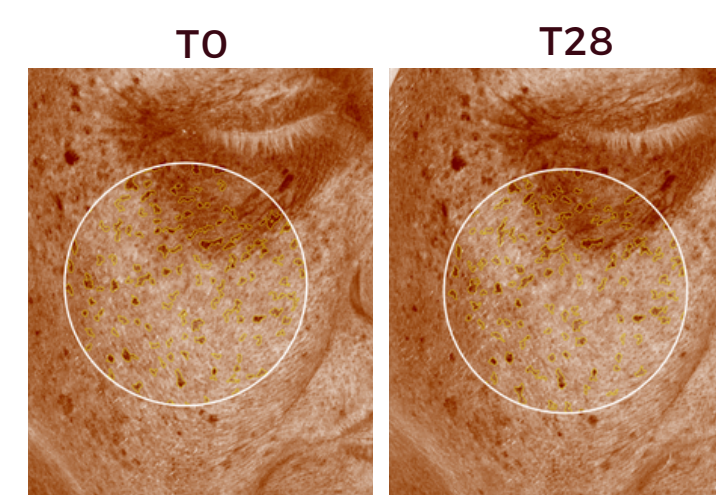
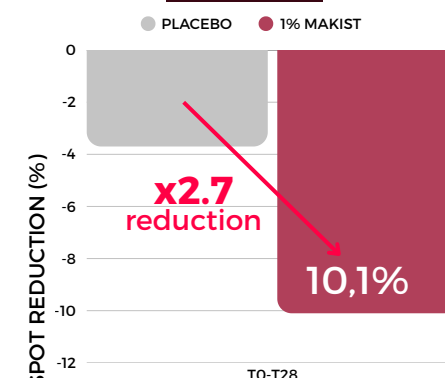
Decrease in the 58% of volunteers.

BROWN SPOTS



Decrease in the 86% of volunteers.

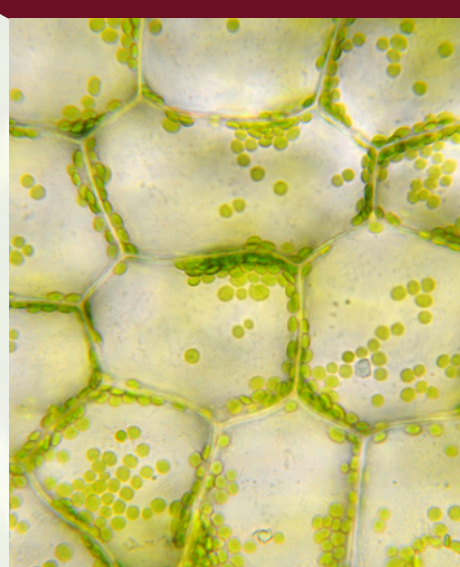
UV SPOTS



VOLUNTEER #12

Makistem at 1% significantly **reduced the intensity of surface dark spots by 5.5%, brown spots by 3.8% and UV by 10.1%** in 28 days.

Marketing claims



PLANT STEM CELLS



VISIBLE DARK SPOTS
REDUCTION:
SUPERFICIAL, BROWN AND UV



PROMOTES COLLAGEN
SYNTHESIS



DECREASES MELANIN
SYNTHESIS



PROTECTS FROM UV
RADIATION



ECM PROTECTION