

ILLUMISCIN®

Illuminates Skin by Eliminating Age Spots

ILLUMISCIN® is effective against age spots and provides illuminated, even-toned skin. A balanced composition of Oleuropein, stabilised Vitamin C and Zinc PCA comprehensively combats the two pigments responsible for the occurrence of age spots, Melanin and Lipofuscin.

The active ingredient thus prevents the formation of age spots in a unique way. In addition, it also successfully reduces the size of existing age spots and diminishes their contours. The skin tone is evened out, and the skin looks radiant again. The application of ILLUMISCIN® for the treatment of age spots is patented.







ACTIVE INGREDIENTS

Vitamin C

Vitamin C in a stabilised glucosidic form prevents the formation of melanin by inhibiting tyrosinase (the key enzyme in melanogenesis) at an early stage.

Zinc PCA

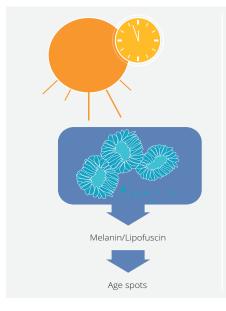
Zinc PCA, the zinc salt of pyrrolidonic carboxylic acid, activates the vitamin C transporter. Ascorbyl glucoside can be taken up more efficiently by the skin cells and can exhibit a better inhibitory effect on melanogenesis.

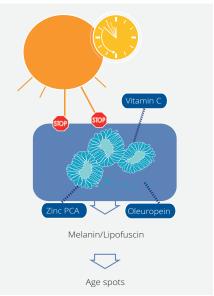
Oleuropein

Oleuropein from olive leaves prevents the formation of the ageing pigment lipofuscin in the skin cells and protects against the development of age spots.

MODE OF ACTION

Age and sun are the main factors initiating the formation of age spots. Associated with this is the development of the sun-induced pigment melanin and the age-related waste pigment lipofuscin. ILLUMISCIN® prevents the formation of both pigments and is thus highly effective against age spots.

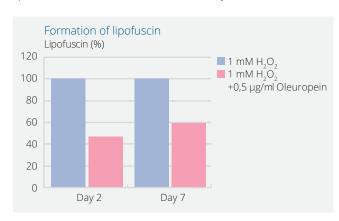




ILLUMISCIN® PREVENTS THE FORMATION OF LIPOFUSCIN (*in-vivo* study)

Method: Determination of lipofuscin by means of autofluorescence.

Implementation: Cultivation of human keratinocytes and incubation with 0.5 µg/ml oleuropein (0.0001% ILLUMISCIN®), control group not treated with active ingredient. Subsequent generation of artificial cell ageing by means of treatment with 1mM $\rm H_2O_2$. Fluorometric determination of lipofuscin content. Result: ILLUMISCIN® successfully prevents the formation of lipofuscin. After 2 days, the lipofuscin content is 53% lower compared to stressed, untreated cells. Even after 7 days the lipofuscin concentration is still reduced by 41%.

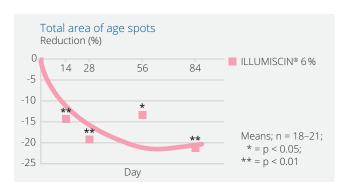


ILLUMISCIN® REDUCES THE SIZE AND CONTOUR CONTRAST OF AGE SPOTS (in-vivo study)

Method: Determination of the area (pixels²) and contour contrast ($\Delta Ea*b$) of facial age spots by means of high resolution digital imaging.

Implementation: Twice-daily application of a water/ethanol solution of 6% ILLUMISCIN®, treatment period 3 months, 21 test subjects of Caucasian skin type, age: 50–67 years; high resolution digital images taken on day 0, 14, 28, 56 and 84. Result: ILLUMISCIN® effectively reduces the size and contour

Result: ILLUMISCIN® effectively reduces the size and contour contrast of age spots (data not shown).



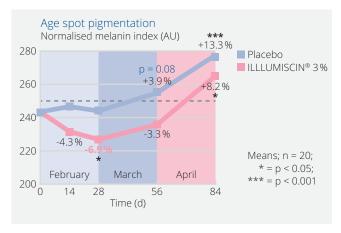
ILLUMISCIN® PROMOTES DEPIGMENTATION AND PREVENTS REPIGMENTATION OF AGE SPOTS (*in-vivo* study)

Method: Measurement of age spots depigmentation by determination of melanin index using a Mexameter MX18.

Implementation: Twice-daily application of a cream with 3% ILLUMISCIN® on one hand vs. placebo on the other hand over a period of 12 weeks, 10 female volunteers (Caucasian skin) with at least 2 age spots on the back of each hand: age 52–60 years (average 56.7 years).

The melanin index was determined on day 0, 14, 28, 56 and 84. Result: ILLUMISCIN® continuously reduced the melanin content of age spots under winter sun (until day 28) and inhibited new pigment formation under spring sun (d 56 and 84). It hence provides spot lightening (depigmentation) and lessens spot darkening (repigmentation).

It could also be demonstrated that ILLUMISCIN® effectively controls age spots while not excessively whitening the surrounding area (data not shown).



Application and Processing Information

Age spot reducing care for face and body. Can be used in gels, emulsions, serums.

Recommended Use Level: 2 - 6%

INCI: **EU:** Glycerin, Aqua, Olea Europaea Leaf Extract, Ascorbyl Glucoside, Zinc PCA, Ascorbic Acid **USA:** Glycerin, Water, Olea Europaea (Olive) Leaf Extract, Ascorbyl Glucoside, Zinc PCA, Ascorbic Acid **Japan:** Glycerin, Onsen-Sui, Olea Europaea (Olive) Leaf Extract, Ascorbyl Glucoside, Zinc PCA, Ascorbic Acid



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