



whitelan®

Advanced Whitening System

for a radiant skin tone

Skin brightening and photoaging prevention



Description

Professional whitening treatment, developed in Switzerland by DERMICA LABS and corresponds to a bleaching therapy as a result of using 3 steps treatment, Step 1 peeling gel, Step 2 Mesotherapy solutions that can be applied by Auto MTS Carita, mesotherapy techniques, or cryoelectroporation Nano Cool, and Step 3 Home Care treatment cream.

Properties

This new patented formulation designed for skin brightening doesn't show cytotoxic effects, or sensitization reaction, obtain amazing fast results.

Applications

- Step 1 Peeling Gel
- Step 2 Whitening Ampoules
- Step 3 Home Care Cream

Safety and efficacy together

Science

The colour of our skin is determined mainly by the amount, distribution and type of melanin, a pigment produced by melanocyte cells in a process called melanogenesis. Melanin synthesis takes place in melanosomes, which contain specific enzymes controlling the production of the pigments. The first step of melanogenesis is mediated by tyrosinase, a key enzyme that catalyses the first two reactions of melanin synthesis. Abnormal accumulation of melanin is responsible for hyperpigmentations, which could be a serious aesthetic problem.

Whitelan® is a new brightening active which acts by inhibiting tyrosinase activity. It fulfils all the desirable qualities for a new skin brightener: exhibits a considerable lightening in vivo effect on the skin, has a completely safe profile, shows good stability in all formulas and possesses a photoprotective effect on human epidermal keratinocytes, helping to prevent the skin damage caused by UV radiation.

Results in only 2 months

In vitro efficacy

whitelan® Advanced Whitening System

1. TYROSINASE INHIBITION

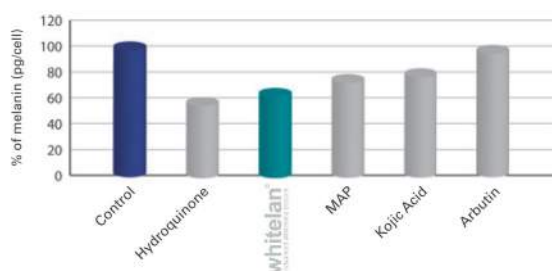
Digestion of L-Dopa in the presence of the test items and measure of absorbance variations at 475nm (wavelength of melanin absorption) is a validated assay for measuring the potential inhibitory activity of the compounds on the tyrosinase activity.



37% inhibition of mushroom tyrosinase activity and 43% of human tyrosinase activity

2. MELANOGENESIS INHIBITION ON HUMAN EPIDERMAL MELANOCYTES

Primary human melanocytes (HEMn-DP) cell cultures were used to compare the melanogenesis inhibition efficacy of Hydroquinone, Arbutin, Magnesium Ascorbyl Phosphate (MAP) and Kojic Acid respect to Whitelan® at the same concentration (10µM). After 20 days of culture, melanin concentration was determined and values were normalised respect to the number of cells per well.



Melanogenesis inhibition and cytotoxic effect of Whitelan® (10µM, 200µM) and Hydroquinone (10µM) were observed by optical microscopy.



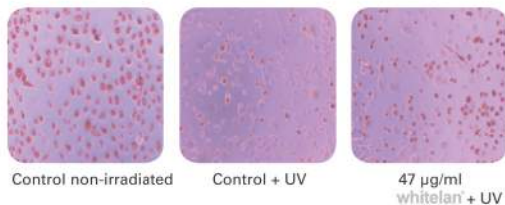
Whitelan® exhibits a better depigmenting effect than MAP, Kojic Acid and Arbutin, and similar to Hydroquinone



Whitelan® does not affect melanocyte growth, while Hydroquinone cytotoxicity was clearly observed

3. CELLULAR PHOTOPROTECTION

Test based on the determination of the protective effect of Whitelan® when tested in the presence of a cytotoxic dose of simulated solar light.

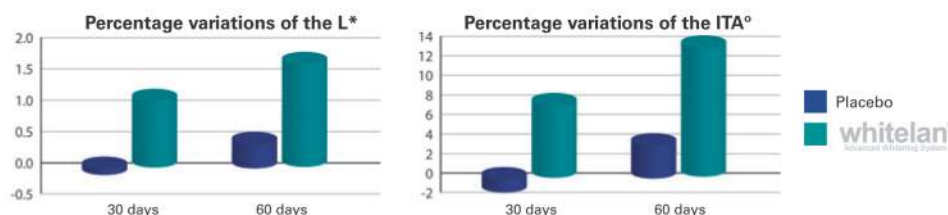


190% increase in cell viability Whitelan® helps to prevent the skin-damaging effects of UV radiation.

In vivo efficacy

1. BRIGHTENING EFFECT

A group of 20 Asian female volunteers, aged 18 to 46, applied Whitelan® Step 3 Home Care Cream, is the third step of Whitelan® protocol on one side of the face twice daily and a placebo cream on the other side for 60 days. The brightening effect was instrumentally evaluated by a Chromameter CR-300 and the parameters used were: L* (Luminance) and ITA° (Individual Typological Angle).



Whitelan® protocol based on it's unique 3 Steps system induced a significant brightening effect after 30 and 60 days using the 3 Steps

2. DEPIGMENTING EFFECT

A dermatological evaluation was performed in 10 volunteers, aged 18 to 70, with melasma and/or actinic lentigines. Whitelan Step 3 Home Care Cream was applied on their face and/or hands twice a day for 60 days.



98% of the volunteers with melasma and 78% with lentigines experienced a significant improvement after 60 days of using Whitelan®

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