



PBC LABS™

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IMPATIC ESSENCE

COMPOSITION CHARACTERISTICS

— INCI

Impatiens Glandulifera
Extract, Pandanus Amaryllifolius
Leaf Extract

— RECOMMENDED DOSING

0,1 – 1,0 %

— SOLUBILITY AT 20°C

Water – soluble
Alcohol – soluble

— OPTIMAL PH

5-8



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EFFICIENCY TESTS

ANTI-AGING PROPERTIES

In aging skin, for the loss of collagen fibers and elastin correspond to increased expression of matrix metalloproteinases (MMPs), mainly collagenase and elastinases. They cause remodeling of the extracellular matrix. Collagenase breaks down collagen fibers and elastinase breaks down elastic fibers. With age, the level of collagenase increases, which causes more and more damage to the collagen fibers. In addition, they become folded, and individual strands are separated by connective tissue elements. Also, the fibers are deprived of contact with the fibroblasts that produce them. With age, the amount of soluble glycosaminoglycan and soluble collagen decreases



IMPATIC ESSENCE EXTRACT HAS BEEN PRESENTED TO BE VERY EFFECTIVE IN INHIBITING COLLAGENASE AND ELASTASE ACTIVITY IN IN VITRO TESTS.

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INHIBITION OF COLLAGENASES

0,01 % extract inhibited collagenase isolated from *Clostridium heamolyticum* at the level of 81.73%

HINHIBITION OF ELASTASES ACTIVITY

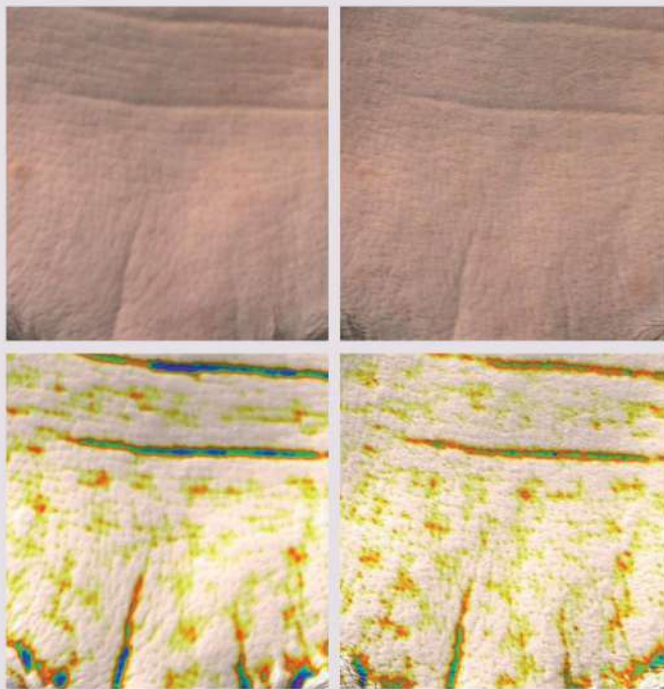
0,01 % extract inhibited porcine pancreatic elastase at 83.19%

ANTIOXIDANT PROPERTIES

The assessment of antioxidant properties was carried out in vitro using the spectrophotometric method, determining the ability of the extract to neutralize the violet radical 2,2-diphenyl-1-picrylhydrazyl (DPPH-). 0,01 % extract showed antioxidant activity at the level of 177.07 µg Trolox/ml (equivalent to highly active antioxidant Trolox)

SKIN SMOOTHING ACTION

The level of skin smoothness was assessed using a special measuring device Visioscan® VC 20plus, Courage & Khazaka Company. 11 volunteers took part in the in-instrumental study. Based on the conducted application tests, after 28 days of regular application, it was found that the extract smoothes the skin (on average by 9%).



BEFORE STARTING TO
USE (D0)

AFTER 28 DAYS OF REGULAR
PRODUCT APPLICATION (D28)

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FLEXIBILIZING ACTION AND SKIN FIRMING

The study of the effect on improving the biomechanical parameters of the skin was carried out using a specialized measuring device Cutometer® MPA 580 by Courage & Khazaka Company. 11 people took part in the apparatus test. Based on the application tests, after 28 days of regular application, it was found that the extract tones the skin (on average by 6%) and firms the skin (on average by 10%).

DEPTH-REDUCTING ACTION AND THE WITH WRINKLES

The study confirming the effect of reducing the depth and width of wrinkles in the measurement zone was carried out using a specialized measuring device Antera 3D® by Miravex Limited. 11 people took part in the apparatus test. On the basis of application tests, after 28 days of regular application, it was found that the extract reduces the depth (by 6% on average) and width of wrinkles (by 3% on average)



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ANTI-INFLAMMANTORY PROPERTIES

The anti-inflammatory activity of the extract was assessed on the basis of lipooxygenase (LOX) inhibition by spectrophotometry. 0,01 % extract inhibited LOX activity at the level of 73.38%

BRIGHTING PROPERTIES

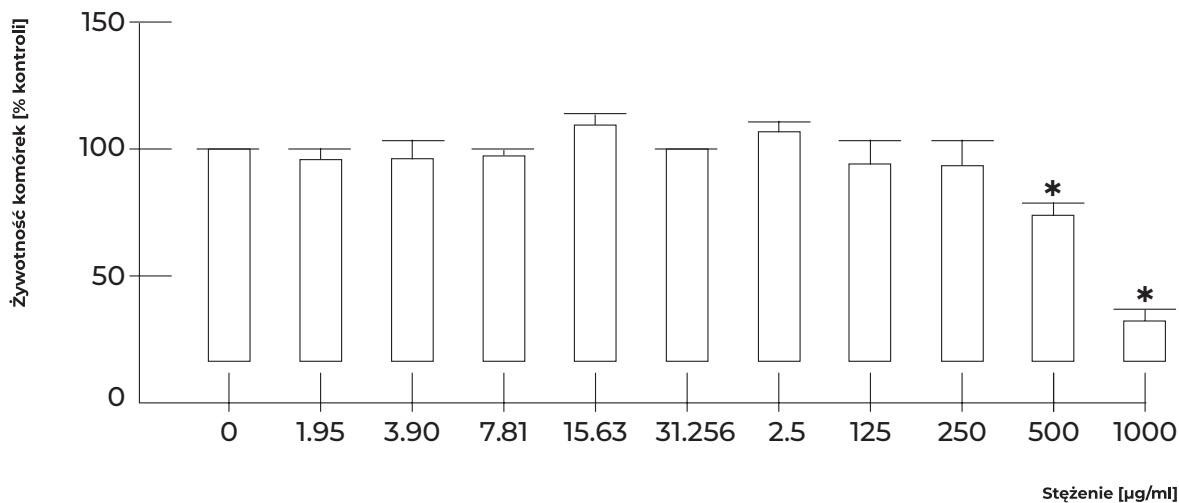
Tyrosinase is the rate-limiting enzyme for melanin production. The anti-tyrosinase effect was determined by calculating the oxidation of L-DOPA to dopaquinone in an in vitro fungal tyrosinase assay. 0,01 % extract inhibited tyrosinase activity at the level of 53.95%.

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NO CYTOTOXICITY

The evaluation of the cytotoxicity of the extract was performed using a cell line of human normal skin fibroblasts (BJ). The conducted experiment showed that the extract did not show a cytotoxic effect on human skin fibroblasts.

*Drawi. Viability of human skin fibroblasts after 24-hour incubation with the extract. The MTT test was performed to assess viability. *Significantly statistically different compared to control cells - incubated without test compound (0 $\mu\text{g/ml}$); $p < 0.05$, t-test.





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NO IRRITANT PROPERTIES

The aim of the study was to assess the irritating properties (skin tolerance) of the extract on healthy adult skin using a patch test. After conducting a patch test under dermatological control on a group of 25 volunteers, it was found that the extract used by people with no documented allergy to any of the ingredients is well tolerated by the skin. No irritation or allergic reactions occurred in the tested group of volunteers. The extract therefore meets the requirements of the Skin Compatibility Test and can be classified as non-irritating.



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MOISTURIZING PROPERTIES

Instrumental tests of the level of skin hydration using Corneometer® CM 825. The aim of the study was to determine the effect of the extract on the level of skin hydration. The study was conducted with the use of a specialized measurement device by the Courage & Khazaka Company - Corneometer® CM 825. Eleven volunteers took part in the instrumental study. On the basis of application tests, after 28 days of regular application, it was found that the extract according to the invention at a concentration of 100 mg/l moisturizes the skin (on average by 3%).

INGREDIENTS

The extract contains large amounts of azelaic acid, p-hydroxybenzoic acid, as well as quercetin and kaempferol derivatives, ferulic acid, chlorogenic acid, vanillic acid, salicylic acid and others, confirmed by LC-MS analysis. **Confirmed by LC_MS analys.**

THANK YOU
FOR GETTING TO KNOW
OUR OFFER!



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UL. CERAMICZNA 1 / 102,
20-150 LUBLIN