



HAIR DISORDERS

PICEATANNOL DIMER FOR ANTI-SENSITIVITY AND ANTI-DANDRUFF APPLICATIONS

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Modern life with its stress and its environmental exposure induces scalp sensitivity which is traduced by inflammation and dandruff. This cutaneous problem was also recently linked with hair coloring.

An original model is developed to screen the potential of products in the resolution of this way. On keratinocyte culture, the sensitivity is induced by a hair dye component, the PPD (p-phenylenediamine) knows to induce skin contact allergy. IL18 is used as sensitivity markers.

Among the tested product a piceatannol dimer. It is a naturally occurring hydroxylated analogue of resveratrol, less studied but displays a wide spectrum of biological activity. It could inhibit the release of IL18, in preventive and curative way, respectively of 40% and 34% for a dose of 0.3%.

To explore the interest of the product on dandruff way, an ex vivo studies on survived human scalp explant aggressed by Malassezia extract. This yeast extract modify the differentiation of the scalp explant, which is traduced by a decrease the level of SPRR2 markers, the Piceatannol dimer restores the late cornified envelope with a significant increase of SPRR2 by 263% versus excipient.

Then a clinical study to evaluate beneficial effect on dandruff is conducted on volunteers treated by a formulation containing 0.5% of the product. After 14 days and after 28 days of treatment the dandruff intensity decreases significantly by 23% and by 53%.

This new dimer is able to reduce the scalp sensitivity caused by different environmental stresses, such as hair dye with clinical benefits by reducing dandruff intensity.





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