a fórmula

Especialista em você

Lytenol A®

Ação retinol-*like* no tratamento da acne

DESCRIÇÃO

O **Lytenol A ®** é um monoterpeno (Bakuchiol) fenólico, extraído da planta indiana *Psoralea corylifolia*. É compatível com uma grande variedade de ativos e apresenta capacidade antioxidante superior à vitamina E. Em estudos, o **Lytenol A ®** foi capaz de reduzir até 70% de lesões inflamatórias de acne em 60 dias.

MECANISMO DE AÇÃO

Lytenol A ® inibe as enzimas pró-inflamatórias, em especial a enzima 5-alfa-redutase, bloqueando o processo de inflamação e garantindo a redução da atividade da glândula sebácea. Além disso, o Lytenol A ® possui propriedades antioxidantes, prevenindo a ativação de espécies reativas presentes no sebo e a peroxidação lipídica, responsável pelo início do processo inflamatório. Estudos demonstraram que o Lytenol A ® atua de forma semelhante aos retinóides tópicos, sem os efeitos adversos comuns como a queimação e a descamação, podendo ser utilizado em peles sensíveis.

INDICAÇÕES

- Antiacne
- Anti-inflamatório
- Antioxidante
- Antienvelhecimento

DOSE USUAL

A recomendação de uso tópico de **Lytenol A ®** é de 0,5% a 1%.

Sugestões de Fórmulas

Lytenol A® 0,5%
Acneol SR® 6%
Second Skin® qsp ..... 30 g
Modo de uso: aplicar duas vezes ao dia.
Indicação: acne inflamatória.

Lytenol A® 1%
Phloretin 1%
Gel FPS15 qsp ..... 30 g
Modo de uso: aplicar duas vezes ao dia.
Indicação: antioxidante.

Lytenol A® 1%
Sytenol A® 1%
LumineCense[INN] 2%
Adimax® qsp ..... 30 g
Modo de uso: aplicar sobre a pele limpa, pela manhã e à noite, massageando suavemente.
Indicação: antiacneico.

Lytenol A® 1%
Second Skin® qsp ..... 30 g
Modo de uso: aplicar duas vezes ao dia.
Indicação: antienvelhecimento.

PRINCIPAIS REFERÊNCIAS:

Chaudhuri, R. K., & Bojanowski, K. (2014). Bakuchiol: a retinol-like functional compound revealed by gene expression profiling and clinically proven to have anti-aging effects. International journal of cosmetic science, 36(3), 221-230.Disponivel em < https://onlinelibrary.wiley.com/doi/full/10.1111/ics.12117>.

Yu, Q., Zou, H. M., Wang, S., Xu, Y. M., Li, J. M., & Zhang, N. (2014). Regulative effect of bakuchiol on ESF-1 cells anti-aging gene. Zhong yao cai= Zhongyaocai= Journal of Chinese medicinal materials, 37(4), 632-635.Disponivel em < https://www.ncbi.nlm.nih.gov/pubmed/25345139>.

ESTUDOS

www.aformulabr.com.br/qrcode/lytenolafv01.pdf

Lytenol A®

ESTUDOS

A retinol-like functional compound revealed by gene expression profiling and clinically proven to have anti-aging effects.
The study was undertaken to compare the skin care related activities of retinol and bakuchiol, a potential alternative to retinoids. Retinol is a pivotal regulator of differentiation and growth of developing as well as adult skin. Retinoic acid is the major physiologically active metabolite of retinol regulating gene expression through retinoic acid receptor - dependant and independent pathways. Comparative gene expression profiling of both substances in the EpiDerm FT full thickness skin substitute model was undertaken. Furthermore, type I, III and IV collagen, as well as aquaporin 3 expression was analyzed by ELISA and/or histochemistry in human dermal fibroblasts and/or Epiderm FT skin substitutes.Bakuchiol is a meroterpene phenol abundant in seeds and leaves of the plant Psoralea corylifolia. We present evidence that bakuchiol, having no structural resemblance to retinoids, can function as a functional analogue of retinol. Volcano plots showed great overall similarity of retinol and bakuchiol effects on the gene expression profile. This similarity was confirmed by the side-by-side comparison of the modulation of individual genes, as well as on the protein level by ELISA and histochemistry. Retinol-like functionality was further confirmed for the upregulation of types I and IV collagen in DNA microarray study and also show stimulation of type III collagen in the mature fibroblast model. Bakuchiol was also formulated into a finished skin care product and was tested in clinical case study by twice-a-day facial application. The results showed that, after 12 weeks treatment, significant improvement in lines and wrinkles, pigmentation, elasticity, firmness and overall reduction in photo-damage was observed, without usual retinol therapy-associated undesirable effects.Based on these data, we propose that bakuchiol can function as an anti-ageing compound through retinol-like regulation of gene expression.

Regulative effect of bakuchiol on ESF-1 cells anti-aging gene.
To explore the mechanism of bakuchiol on anti-aging gene mRNA expression level of human skin fibroblasts (ESF-1).The potential of cell proliferation which was divided into blank group,positive control estradiol group, and bakuchiol high, medium and low dose groups was detected by MTT. The expression levels of Col I, Col III, TIMP-1, TIMP-2 and MMP-1 mRNA were detected with RT-PCR.ESF-1 vitality and the expression levels of Col I, Col III, TIMP-1 and TIMP-2 mRNA were significantly increased by bakuchiol and E2. However, the expression of MMP-1 mRNA was reduced by bakuchiol and E2.The bakuchiol can enhance ESF-1 cell activity, promote collagen and matrix metalloproteinase inhibitors mRNA expression level and inhibit mRNA expression of matrix metalloproteinases in order to postpone skin aging.

Bakuchiol in the Managementof Acne-affected Skin
Bakuchiol, a meroterpene of plant origin, is shown here to act against four major pathophysiologic features that cause acne, suggesting its use to complement and/or enhance the effectiveness of current anti-acne agents. In addition, the material is non-irritating, presents no photo- or hydrolyticstability issues and is easy to use. Discussion and Results section later in this article.Presently, oral or topical isotretinoin (retinoic acid) is the only single agent that is effective against all four major pathophysiologic features. However, when used at therapeutic doses, this drug is responsible for several serious side effects including teratogenicity8 due to interference of the exogenous retinoic acid with endogenous retinoic acid signaling, which plays a role in the patterning of developing embryos.9. Further,the use of broad-spectrum antibiotics such as erythromycin, clindamycin,etc., has led to widespread resistance.Therefore, retinoic acid should be used only in the most severe cases and alternative treatment approaches should be considered first. Phenol, 4-[1E, 3S)-3-ethenyl-3, 7-dimethyl-1, 6-octadienyl (bakuchiol), a meroterpene of plant origin, shows promise as a new agent that can complement and enhance the effectiveness of currently available anti-acne formulations. Bakuchiol is likely the only agent after retinoic acid shown to be effective against multiple pathophysiologic features of acne. Further, bakuchiol has an excellent safety profile and was shown to be nonirritating and non-sensitizing based on human repeat insult patch-testing (data not shown), has no photo- or hydrolytic stability issues, and thus can be used.

REFERÊNCIAS
Chaudhuri, R. K., & Bojanowski, K. (2014). Bakuchiol: a retinol-like functional compound revealed by gene expression profiling and clinically proven to have anti-aging effects. International journal of cosmetic science, 36(3), 221-230. Disponivel em < https://onlinelibrary.wiley.com/doi/full/10.1111/ics.12117>.
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CHAUDHURI, Ratan K.; MARCHIO, Francois. Bakuchiol in the management of acne-affected skin. Cosmetics and Toiletries, v. 126, n. 7, p. 502, 2011.
GREENZAID, Jonathan; FRIEDMAN, Adam; SODHA, Pooja. The Use of Bakuchiol in Dermatology: A Review of In Vitro and In Vivo Evidence. Journal of drugs in dermatology: JDD, v. 21, n. 6, p. 624-629, 2022.