Lipo™ Bisabolol

A Natural Anti-Irritant made from a Renewable and Sustainable Resource

Lipo™ Bisabolol

INCI : Bisabolol
CAS #: 23089-26-1
EC #: 245-423-3

Natural Ingredient

Anti-irritant

Sustainable resource

Improve appearance of damaged skin

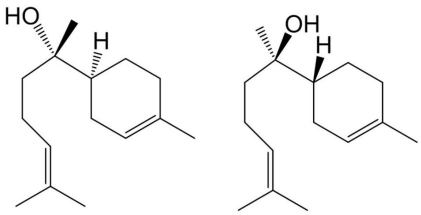
Help fight against bad bacteria

Lipo™ Bisabolol is a natural product obtained by distillation from the Candeia Tree (Vanillosmopsis erythropappa / Eremanthus erythropappus).

German Chamomile (Matricaria chamomilla) was used traditionally to treat fever, muscle spasms, ulcers, wounds and gastrointensinal disorders. The key active within this botanical was identified as Bisabolol. Since its first discovery by scientists, Bisabolol has become a multi-functional ingredient found in body care, facial creams, facial cleansers and lipstick.

This plant-derived ingredient is very versatile, functioning as an anti-irritant, anti-inflammatory and is used in a wide variety of cosmetic applications. The anti-irritant benefit of Lipo™ Bisabolol makes it an excellent active ingredient for protection of the skin against daily environmental stress. Lipo™ Bisabolol can also be used in combination with compounds that may irritate the skin, such as alpha hydroxyl acids and retinol or in formulations for sensitive skin.

Sterospecific Syntheses of the Diastereometric (±)-a- Bisabolols



(-)-α-bisabolol (+)-α-bisabolol

- The most bio-active form of bisabolol is the (-)-α-Bisabolol, with the (4S, 8S)-configuration. Chemical synthesis of bisabolol results in different (+)-α-Bisabolol and (-)-α-Bisabolol mixtures, which have a lower bio-activity compared to the Candeia oil ingredient
- Natural Bisabolol contains > 95% Bisabolol (pure (-)-α-Bisabolol)
- Synthetic Bisabolol contains about 85%Bisabolol (mixture listed above)

M Schwartz et al (1979) J Org Chem Soc. 6:953-956

Natural Bisabolol is 50% more potent than synthetic Bisabolol.

Recommended applications

Skin Care
Baby Care
After-Sun Care
Lip Care

Approved by ECOCERT RAW MATERIAL COSMOS APPROVED

China IECIC 2015

ISO ISO16128 - NOI 87-90%

Vantage

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Appearance @25°C	Colorless to light yellow slight viscous liquid
Odor	Characteristic, sweet, faint floral
Refractive Index (20°C)	1.492-1.498
Assay	Minimum 95%
Recommended Use Level	0.1-1.0%
Solubility	Soluble in ethanol, natural oils, emollients, and hydrocarbons. Insoluble in water and glycerin.

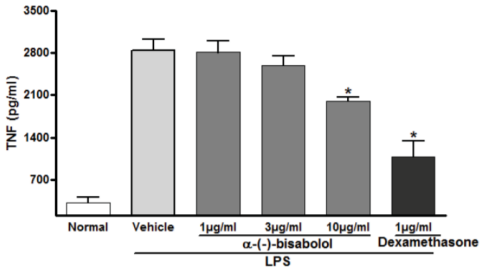
Reduces pro-inflammatory cytokines in a cellular system

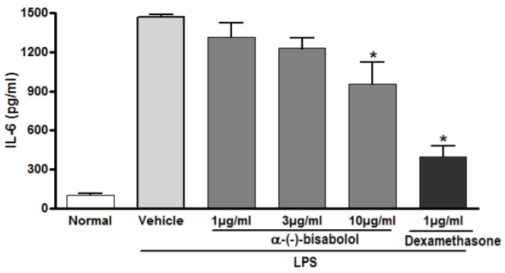
Bisabolol significantly decreased LPS-induced inflammatory cytokines suggesting its anti-irritancy effect

Method

Cells: Macrophage
Product tested: Bisabolol
Positive Control: Dexamethasone

Assay: ELISA
Markets: TNF-a & IL-6





K. Maurya et al (2010) J Am Oil Chem Soc. 87:1-7

Enhances bioavailability of compounds

Bisabolol can increase the bioavailability of actives into the skin.

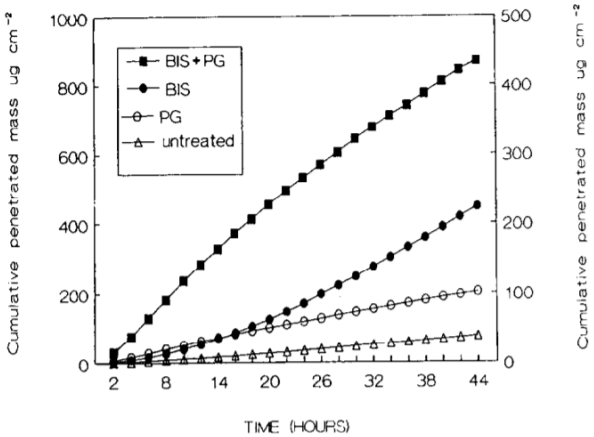


Fig. 2. Example cumulative penetration curves of 5-fluorouracil delivered from its saturated aqueous solution to untreated and enhancer treated human epidermis at 32°C. The left ordinate refers to the α-bisabolol/propylene glycol-treated skin and the right ordinate refers to all other curves.

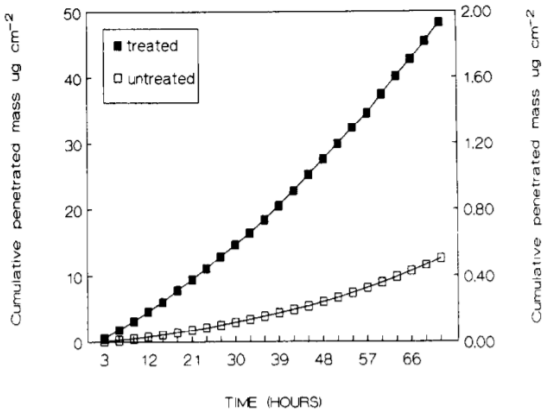


Fig. 4. Cumulative penetration curves of triamcinolone acetonide, delivered from its saturated 1:1 propylene glycol-water solution to untreated and enhancer treated (1:1 α-bisabolol/propylene glycol) human epidermis at 32°C (example plots). The left ordinate refers to the treated skin and the right ordinate refers to the untreated skin.

Method

Cells: Abdominal skin
Product tested: Bisabolol, Polypropylene glycol, triamcinolone

Assay: Diffusion through skin and quantification by HPLC

R. Kadir et al (1991) International Journal of Pharmaceutic, 70:87-94