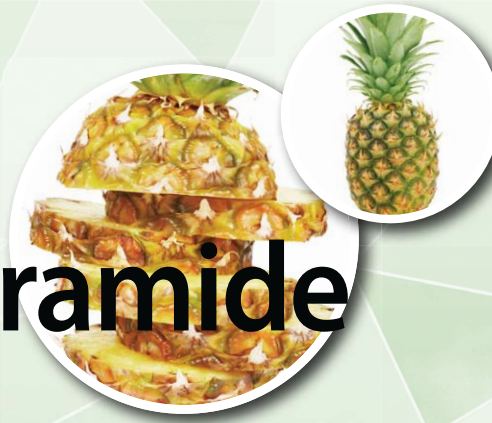




Pineapple Ceramide



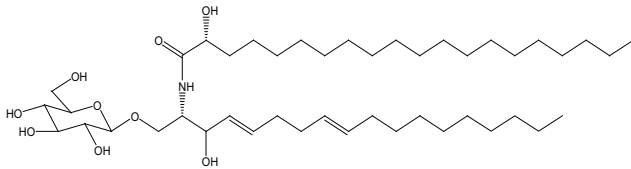
Catalog Number
ICP0102

Description

Ceramide is the major intercellular lipid which fill the gaps in corneocytes of horny layer, the outer layer of skin, and plays an important role in suppression of transepidermal water loss, skin barrier function. It is known that ceramide decreases with ageing or atopic dermatitis. Ceramide has been important ingredient in the dermatological field but also an active ingredient in skin care products.

Pineapple contains the highest content of ceramide. Pineapple ceramide is a glucose linked ceramide derivative, named as glucoceramide. Glucoceramide has unique biological activity, it reduces melanin contents, induces hyaluronic acid synthase-3 and aquaporin-3 expression. Therefore, glucoceramide treatment contributes skin lightening, moisturising and smoothing effect.

Pineapple ceramide



Application

- Skin lightening
- Anti-ageing
- Moisturising
- Texture improvement

Recommended Dosage

0.1 ~ 0.5%

Composition

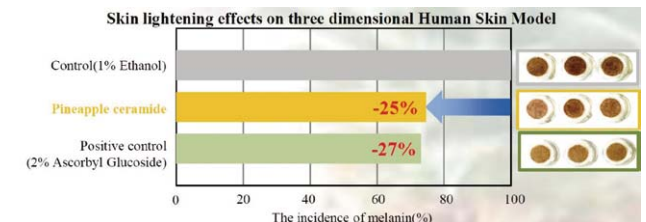
- Cyclodextrin (80%)
- Ananas Sativus Fruit Extract (20%)

PCPC/INCI Name

Ananas Sativus(pineapple) Fruit Extract

Biological Activity

Skin lightening effects



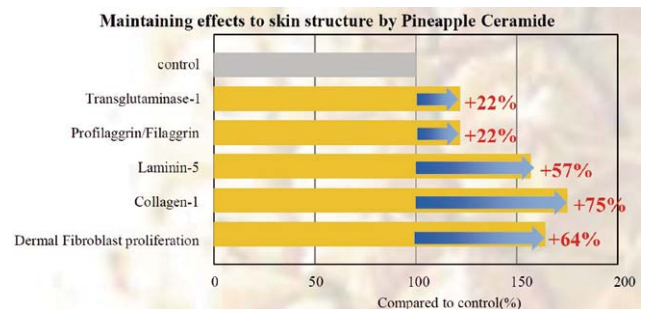
Pineapple ceramide inhibited melanin production in the 3D human skin model.

Maintenance of healthy skin structure

Keratinization is an important process to maintain healthy skin barrier. The upper barrier is matured stratum corneum, which composes of natural moisturising factor(NMF), cornified cell envelope(CE). And those epidermal barrier is strongly supported by dermal-epidermal junction(DEJ) and dermis. Pineapple ceramide extract shows good efficacy on all factors for NMF, CE, DEJ and dermis.

Focused key factors are

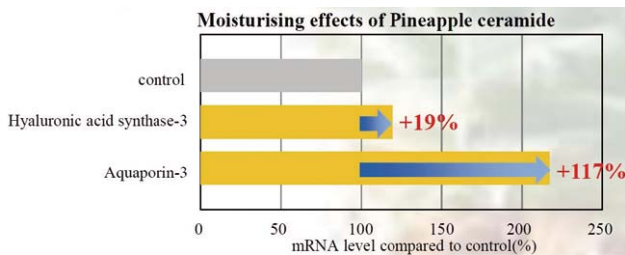
- CE : Transglutaminase-1
- NMF : Profilaggrin and Filaggrin
- DEJ : Laminin-5
- Dermis : Collagen-1



Pineapple ceramide induces transglutaminase-1, profilaggrin, laminin-5 and collagen-1 expression, and increases fibroblast proliferation.

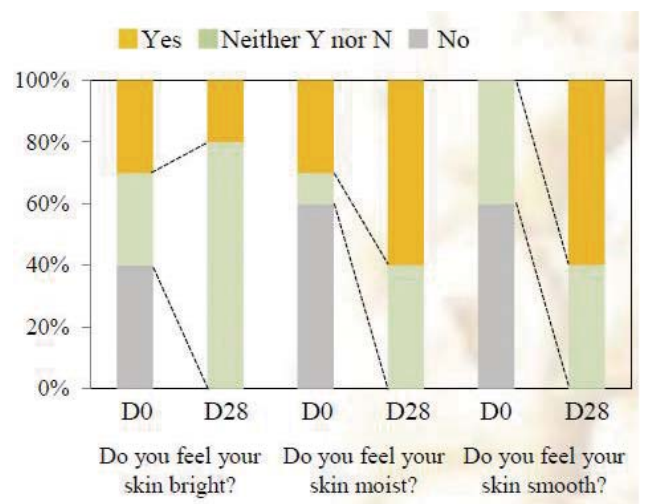
Moisturising effects

Hyaluronic acid synthase-3 and aquaporin-3 are related to epidermal water metabolism and turn over, which lead to healthy soft skin.



Pineapple ceramide treatment induces gene transcription of hyaluronic acid synthase-3 and aquaporin-3 in normal human epidermal keratinocytes(NHEK) cells.

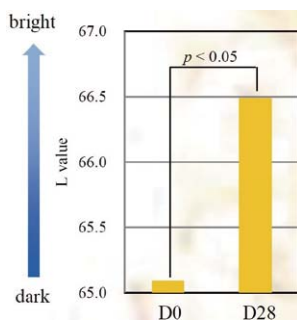
P-P histogram



Clinical Activity

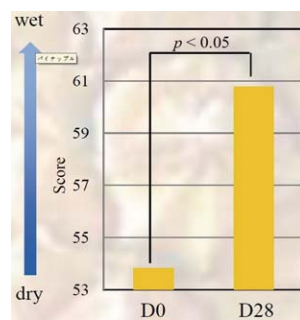
0.5% pineapple ceramide contained cream was applied on neckline 2 times/day for 28 days to 10 volunteers. As a result, pineapple ceramide improved skin lightening, texture and moisture.

L value



L value is an indicator of skin brightness and was measured by a spectro colorimeter CM2600d.

Moisture



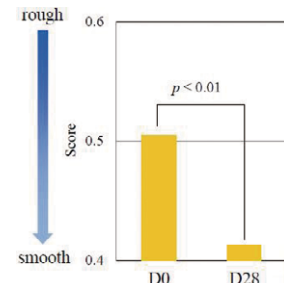
Skin moisture was measured by Corneometer CM825.

Photograph



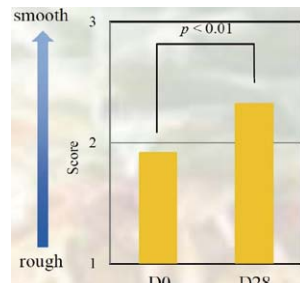
Neckline and enlarged photographs of skin were taken with Canon EOD D50 and i-scope, respectively.

P-P histogram



P-P histogram indicates a distance between skin grooves. So, smaller the score becomes, smoother skin becomes. It was measured by a reflective replica analysis system ASA-03RXD.

Destiny of texture



Destiny of texture indicates skin smoothness as P-P histogram. Higher destiny becomes, smoother skin becomes. It was measured by a reflective replica analysis system ASA-03RXD.

