DERMOCEA®

For a plumper and firmer skin

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Wards off skin aging

Restructures the cutaneous framework

Gelyma

Skin ageing is a biological complex mediated by a combination of the effects of time (intrinsic aging) and environmental factors (extrinsic aging or photoaging) on cellular and extracellular infrastructure.

As a result of skin aging, important changes affect both epidermis and dermis levels. The skin becomes drier, saggy and wrinkled.

In order to minimize such signs of aging, GELYMA proposes DERMOCEA® that acts both on the epidermis and dermis.

DERMOCEA® combines sucrose and two extracts prepared from the innovative red seaweeds *Meristotheca dakarensis,* endemic species from Senegal and *Jania rubens,* a red crustose species known as coral moss from the Mediterranean.

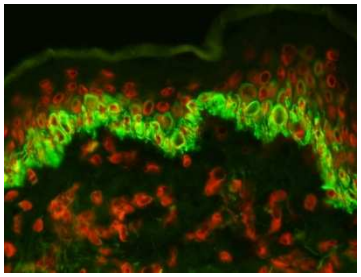
Mechanisms of action

Ex vivo studies on human skin explants treated over 9 days with a gel (2% DERMOCEA®) (LABORATORY BIO-EC -FRANCE).
In vitro studies on human normal fibroblasts (SEPhRA-PHARMA- FRANCE).

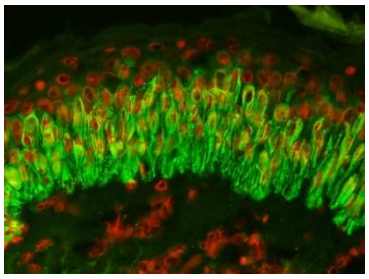
DERMOCEA® helps to restructure the epidermis

With age, the epidermis is the first affected by decreasing in thickness. Epidermal thickness decreases at about 6.4% per decade. Changes are most pronounced in exposed areas such as the face and the neck. Moreover, the ability of keratinocytes to divide in the basal layer decreases. The epidermis becomes less thick, more dry and rougher in appearance.

➤ Action on keratin K14 synthesis



Control Untreated explant

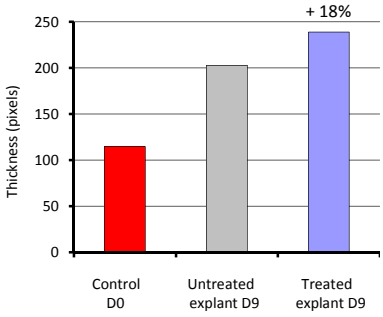


Treated explant

The keratin 14 (K14) is a low molecular weight keratin, specifically expressed by keratinocytes throughout the differentiating suprabasal layers of the epidermis.

K14 is known as a skin biomarker of the cell renewal and epidermal differentiation.

2% DERMOCEA® after 9 days treatment induce a clear overexpression of K14 compared to untreated explant.



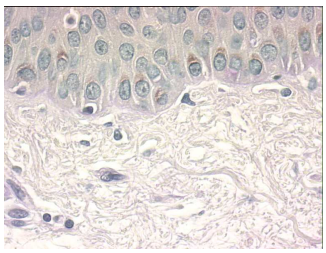
The epidermis thickness filled by basal K14 for the explants treated 2% DERMOCEA® increases significantly by +18% compared to untreated explants after 9 days treatment.

DERMOCEA® improves the keratinocyte differentiation and reinforces the skin epithelial integrity.

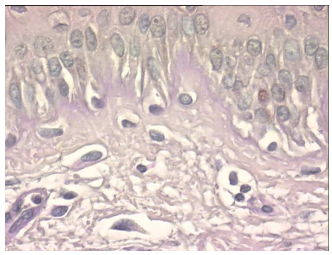
DERMOCEA® reinforces and protects the dermis

With age, all components of the dermis are affected by important changes, especially glycosaminoglycans and collagen. The synthesis of GAGs decreases affecting moisture level in the dermis. The skin becomes thinner and less supple. The collagen fibers are constantly renewed but this renewal decreases with age. The reduced amount of collagen explains the reduced skin thickness and the loss of dermal firmness. Moreover, GAGS as well as collagen fibers are susceptible to certain enzymes. Hyaluronidases degrade GAGs such as hyaluronan. Metalloproteinases, especially collagenases deteriorate collagen.

➤ Action on GAGs synthesis



Control – Untreated explant

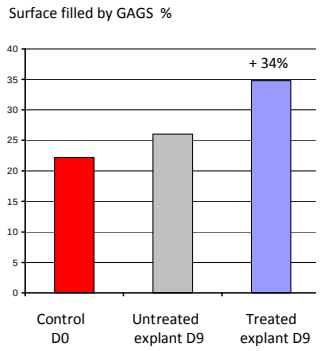


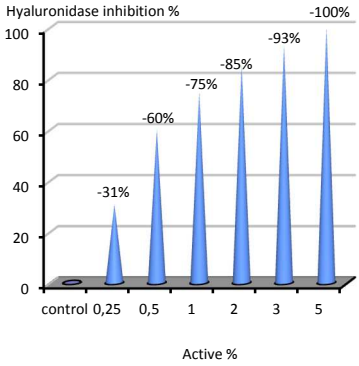
Treated explant

2% DERMOCEA® after 9 days treatment induce a clear overexpression of GAGs compared to untreated explant.

The percentage of the surface occupied by GAGs for the explants treated DERMOCEA reaches significantly more than +34% compared to untreated explants after 9 days treatment.

DERMOCEA® stimulates significantly the biosynthesis of glycosaminoglycans (GAGs) in the dermis.

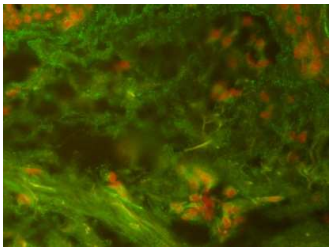




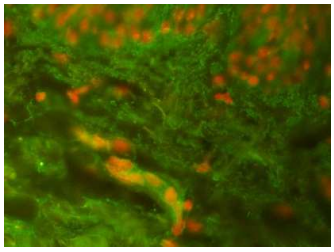
With 1% active, the inhibition of hyaluronidase reaches - 75%.

DERMOCEA® prevents GAGs deterioration by inhibiting hyaluronidase, thus helps enhance skin moisturizing and restores the skin volume.

➤ Action on collagen I synthesis



Control – Untreated explant



Treated explant

2% DERMOCEA® induce a clear overexpression of collagen I compared to untreated explant.

DERMOCEA® increases the collagen III synthesis.

Elisa testing on normal human fibroblasts complete these results.

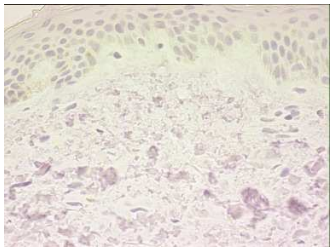
DERMOCEA® protects the ECM by inhibiting collagen I degradation. With 1%, DERMOCEA® inhibits significantly by 37% the expression of MMP-1 that is the major enzyme responsible for collagen I degradation.

Also (no shown) DERMOCEA® stimulates signify-cantly the synthesis of pro-collagen I that is the precursor of collagen I. With 2% DERMOCEA® the increase of pro-collagen I synthesis is over 26%.

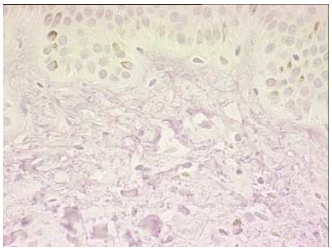
	MMP-1 ng/ml		MMP-1 ng/ml/µg prot.		% Inhibition
	NS	S	NS	S	
Control	5.5 ± 0.9	43.2 ± 0.5	2.1 ± 0.9	16.6 ± 1.7	
DERMOCEA® 0.5%	8.1 ± 1.7	39.2 ± 2.6	1.2 ± 0.3	12.9 ± 2.4	**22 ***
DERMOCEA® 1%	4.7 ± 1.2	37.0 ± 3.6	1.4 ± 0.7	10.5 ± 1.9	**37 ****

Inhibition of MMP-1

➤ Action on collagen III



Control – Untreated explant



Treated explant

2% DERMOCEA® induce a clear overexpression of collagen III after 9 days treatment compared to untreated explant.

DERMOCEA® increases the synthesis of collagen III that is the youth collagen in human fibroblasts.

Algal source

Meristotheca dakarensis is a red macroalga endemic of Senegal shores (western Africa) where it grows in the upper sublittoral zone between 0 to -6 m.

Jania rubens is a red crustose macroalga collected along the seashores of Provence (Western Mediterranean).

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Cosmetic benefits

By targeting both the epidermis and dermis, DERMOCEA® improves the skin status.

- By promoting epidermal cell differentiation, DERMOCEA® restructures the epidermis and reinforces the skin integrity.
- By stimulating the synthesis of matrix macromolecules and preventing their enzymatic degradation, DERMOCEA® promotes restructuring of the dermis in a complete way by enhancing skin moisturizing, restoring skin volume, increasing skin firmness and reducing saggy skin.

With its conjugated effects on both the epidermis and the dermis, DERMOCEA is an innovative marine approach for the prevention and treatment of the major signs of aging.

As results the skin is plumped up and recovers its volume and firmness.

Cosmetic applications

Anti-aging skin care products - Firming face and body care - Skin renewal formulations.

Recommended use level: 0.5% - 2%.

Characteristics

INCI names	water	CAS n° 7732-18-5	EINECS n° 231-791-2
	Sucrose	CAS n° 57-50-1	EINECS n° 200-334-9
	Meristotheca dakarensis extract		
	Jania rubens extract		

Limpid liquid yellow light to dark colored.

Preservatives by selection: microcare SB or phenoxyethanol.

Packing size: 1kg - 5kg - 10kg.

Vérifié par ECOCERT MATIÈRE PREMIÈRE COSMÉTIQUES

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Gelyma

GELYMA Parc d'Affaires Marseille Sud (C4) - 1 Boulevard de l'Océan - 13009 Marseille - France
Phone: +33 4 96 14 09 82 - Fax: +33 4 96 14 09 83 - E-mail: gelyma@wanadoo.fr