

Technical specifications

• *Homeostatine 72250*

PROPERTIES	Anti-aging
ACTIVE MOLECULES	Marine pentasaccharide (MPS)
APPEARANCE	Liquid Pale yellow
SOLUBILITY	Very soluble in water
RECOMMENDED DOSE	2.0-5.0%

Formulation

• *Anti-wrinkle facial cream*

	INCI / PCPC	% (w/w)
A	Aqua (Water)	82.15
	Hydroxyethylcellulose	0.50
	Acrylates/C10-30 Alkyl Acrylate	0.45
	Crosspolymer	
	Glycerin	3.00
	Xanthan Gum	0.20
B	Preservative	0.60
	Paraffinum Liquidum (Mineral Oil)	2.00
	Cyclopentasiloxane, Cyclohexasiloxane	3.00
	Caprylic/Capric Triglyceride	2.00
	Avocado Oil	1.00
	Sweet Almond Oil	1.00
	Parfum (Fragrance)	0.25
Dimethicone	0.80	
C	Triethanolamine	0.20
	Aqua (Water)	0.20
D	HOMEOSTATINE	2.00
E	Triethanolamine	0.15
	Aqua (Water)	0.50

Homeostatine

Combined active ingredient of a marine fraction and a plant polysaccharide

Epidermic Homeostasis



Anti-aging

Homeostatine

This three-dimensional matrix of Andean galactomannans sequentially releases an oligosaccharide from *Enteromorpha compressa* to the skin.

Homeostatine applications on the skin trigger a cascade of effects that eventually restore the **extra-cellular matrix homeostasis**.

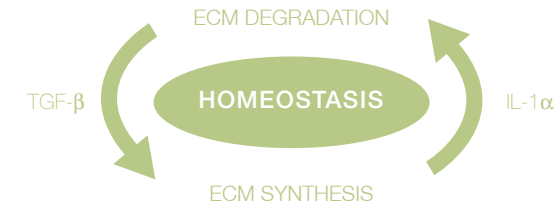
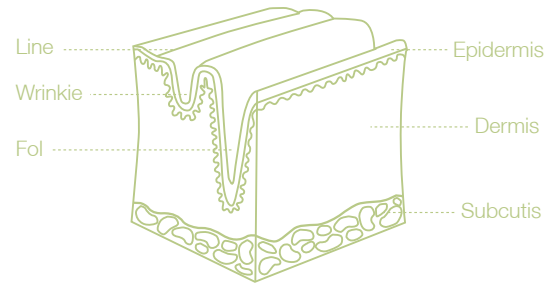
Suitable for the formulation of skin rejuvenating cosmetics on the basis of its wrinkle reduction, firming, moisturizing and elasticity improving actions.

Wrinkles: alterations in the ECM homeostasis

Keratinocytes release cytokines (IL-1 α and TGF- β) that regulate fibroblastic activity. A balance is established between ECM basal synthesis (TGF- β) and basal degradation (IL-1 α), thus generating a state of HOMEOSTASIS.

Processes that alter the balance of the extra-cellular matrix homeostasis - namely the balance between the synthesis and degradation of ECM components - consequently produce wrinkles and result in a less elastic, less firm and less moisturized skin.

Restoring homeostasis reduces wrinkles and recovers the cosmetic properties of skin.



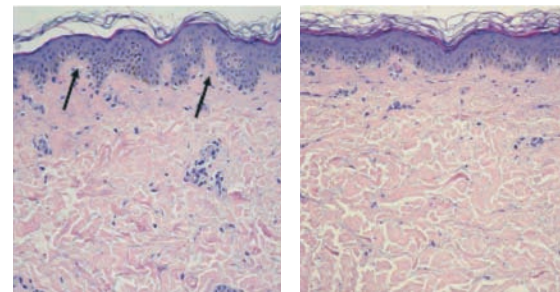
Features and benefits

Action

- Wrinkle reduction
- Improvement of skin firmness, moisturization and elasticity
- Anti-aging

By restoring ECM balance

- Increases synthesis of collagen I and III
- Increases skin thickness
- Increases the elastic fibers
- Increases glucosaminoglycans
- Reduces metalloproteinases
- Inhibits the IL-1 α stimulus



HM 56

PL 56

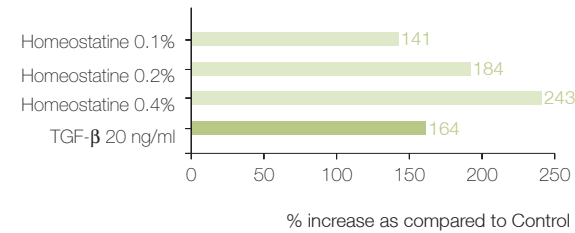
Illustration of the dermo-epidermal junction in HOMEOSTATINE (HM56) treated skin and Placebo (PL56) treated skin.

In Vitro

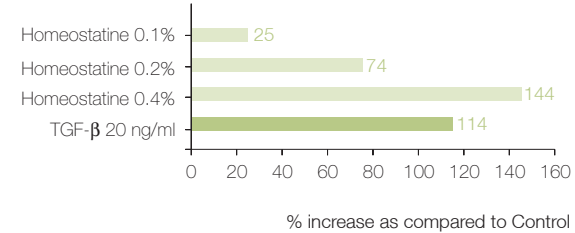
Effects on collagen I and III synthesis and IL-1 α action

Study on cultures of human dermal fibroblasts.

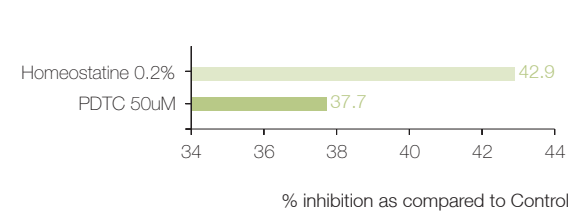
• Collagen I synthesis



• Collagen III synthesis



• IL-8 inhibition in IL-1 α activated fibroblasts



Cosmetic applications

- Anti-wrinkle treatment for aged skin
- First-wrinkles treatment
- ECM rejuvenating (firmness, elasticity and moisturizing)

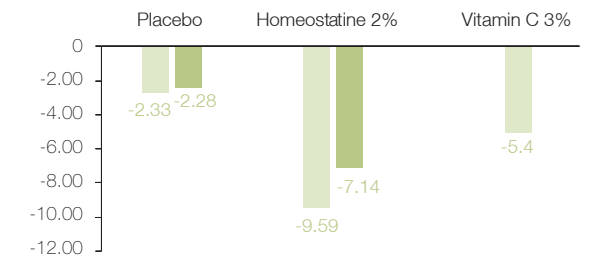
In Vivo

Measurement of wrinkle size and depth

- 2% HOMEOSTATINE cream
- 2 applications/day in the periorbital area, for 56 days
- 12 volunteers
- Evaluation of wrinkles using the FOITS technique

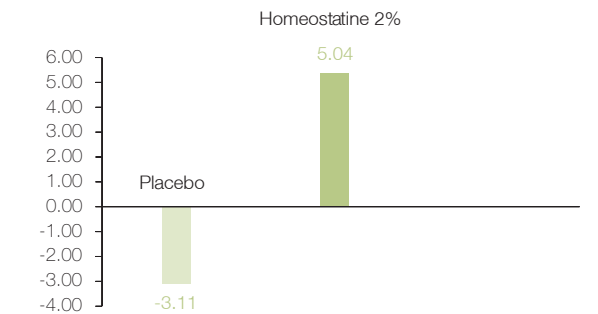
• Wrinkle reduction

Wrinkle reduction **30%** higher than that produced by Vitamin C



• Skin thickness. Rejuvenating effect

+ **8.15%** skin thickness



Toxicological information

This product has been evaluated according to the available toxicological information, based on safety assays and bibliographical data. These data allow the conclusion that using this ingredient, under the normal conditions for the use of cosmetics and at the recommended concentrations, is free of risks.