

A NEW SERIES OF SKIN LONGEVITY ACTIVES



ORGANIC
BIOACTIVES

NEW ZEALAND

INNOVATING FROM TRADITION™

OceanDerMX®

RosaThalia™

Targeting wrinkles
& Loss of firmness

Multiple benefits

IN 10 MINUTES

- **40%** immediate reduction in wrinkle volume

IN 14 DAYS

- **70%** reduction in deep wrinkle volume compared to placebo
- **30%** increase in skin firmness compared to placebo



New Zealand botanicals sustainably harvested by indigenous Māori communities according to their ancient harvesting practices



OceanDerMX® RosaThalia™ harnesses the power of *Rosa Hibiscus*, or “Kaute” in the Cook Islands—a treasured botanical in Polynesian beauty rituals—and *Sarcothalia*, a red macroalgae thriving in New Zealand’s rugged coastal waters. This potent fusion of land and sea delivers deep hydration, powerful antioxidants, and complex polysaccharides, working in synergy to **smooth fine lines, restore firmness, and reveal a more youthful, radiant complexion.**

THE BOTANICAL SCIENCE



Hibiscus Rosa - Sinensis (South Pacific Hibiscus) – The Collagen Protector

- A rich source of mucilage^{1,2} a natural hydrating agent that forms a protective film on the skin’s surface, enhancing moisture retention and smoothing the skin’s texture.
- Contains bioactive compounds like glucose and rhamnose, which support collagen integrity by inhibiting collagenase activity and protecting the skin’s extracellular matrix from oxidative stress and environmental damage^{1,2}.
- Supports skin resilience and elasticity by reinforcing the skin barrier, aiding in long-term skin health and smoothness.



Sarcothalia Circumcincta (New Zealand Red Algae) – The Marine Skin Architect

- High in phycoerythrin, a marine peptide known for its ability to increase antioxidant protection and anti-ageing activity while providing hydration^{3,4}.
- Abundant in marine glycans – sulphated polysaccharides, which support the extracellular matrix, reinforcing collagen structure and preventing moisture loss⁵.
- Contains Mycosporine-like Amino Acids (MAAs) that function as natural UV-absorbing compounds, protecting skin from photoageing and oxidative stress⁶.

INNOVATION SPOTLIGHT

OceanDerMX® RosaThalia™ addresses fundamental biological processes that contribute to skin deterioration while supporting skin structure and vitality over time. By harnessing the potent properties of marine-derived sulphated polysaccharides and bioactive compounds from South Pacific Hibiscus, OceanDerMX® RosaThalia™ represents an **advanced cosmetic active** designed to promote **skin longevity**.

MARINE GLYCANS - Bioactive Architects Of Skin Cell Communication & Hydration

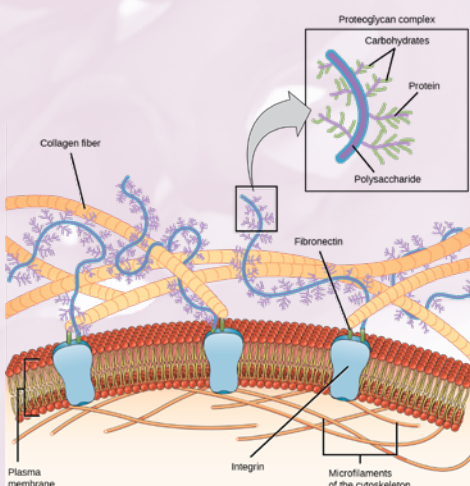


Fig. 1. This diagram depicts the extracellular matrix's components, including proteoglycans and sulphated polysaccharides. It illustrates their involvement in transmitting signals between cells. *SOURCE: courses.lumenlearning.com.*

Sulphated polysaccharides / Marine glycans, abundant in the marine ecosystem, particularly in red algae⁹, are nature’s unique bioactive compounds with no direct equivalents in terrestrial plants. Structurally, they share remarkable similarities with **mammalian glycosaminoglycans (GAGs)**, the essential molecules that maintain skin’s hydration, elasticity, and resilience¹⁰. In the skin, these marine-derived polysaccharides act as functional mimics of GAGs, playing a pivotal role in **cell signalling, protein interactions, moisture retention, and growth factor modulation**. Their unique ability to enhance cellular communication and hydration makes them powerful allies in advanced **bio-functional** skincare, supporting a **plumper, firmer, and more radiant complexion**^{11,12}.

MECHANISMS OF ACTION - TARGETING THE CORE HALLMARKS OF AGEING

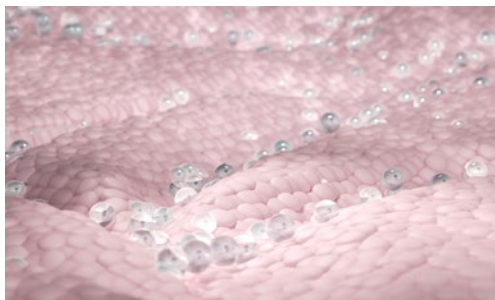


Fig. 2. Schematic of deep wrinkles in the skin resulting from an overall volume deficiency of the subcutaneous structure.

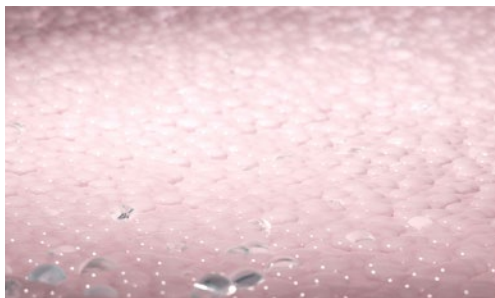


Fig. 3. Schematic of well hydrated and restored skin.

1. Hydration and Barrier Function:

Complex botanical polysaccharides enhance skin hydration through their hydrophilic nature, forming moisture-retentive matrices that reduce trans-epidermal water loss (TEWL)⁷.

2. Anti-ageing and Senescence Modulation:

Acidic polysaccharides from herbal sources like Hibiscus exhibit antioxidant properties, mitigate oxidative stress, and promote fibroblasts proliferation, aiding in skin rejuvenation and delaying cellular senescence^{3, 8}.

3. Cross-linking and Mechanical Strength:

Sulphated polysaccharides from marine algae can form cross-linked networks with other biopolymers and active compounds, enhancing skin's structural integrity, elasticity, and providing a lifting effect on the skin, smoothing the skin's micro-relief, and enhancing barrier function⁵.

4. Film-Forming Properties:

The complex polysaccharide matrix creates an immediate tightening effect, visibly reducing fine lines and wrinkles and enhancing skin texture within minutes.

IN VIVO CLINICAL STUDIES

ASSESSMENT OF THE IMMEDIATE ANTI-WRINKLE EFFICACY OF OceanDerMX® RosaThalia™ (2%*) ON CROW'S FEET

* The in vivo study was conducted on 22 female volunteers aged 45 and above at a 2% concentration, derived from a reconstituted freeze-dried (FD) powder at a 1/80 ratio

STUDY RESULTS 10min

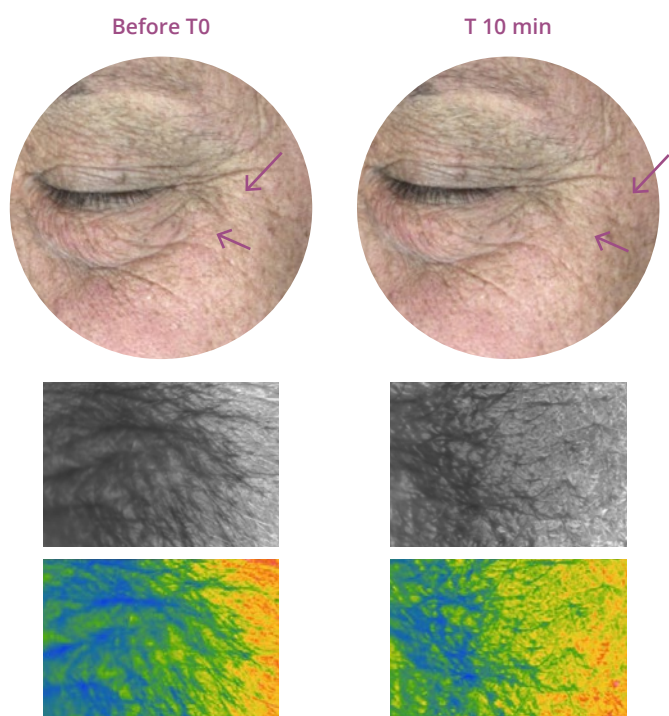
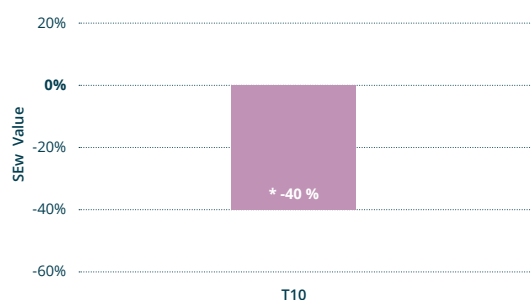


Fig. 4. Images (Observ Camera 520, Parallel Polarized mode) and 3D representations with faux colour (Visioscan VC 20 Plus) illustrating immediate wrinkle reduction after 10 minutes. Wrinkle depth is represented by the colour blue.

Wrinkle Volume on Crow's feet after 10min



*p<0.01 versus initial conditions and 10min after application.

Graph 1. OceanDerMX® RosaThalia™ at 2% reduces wrinkle volume by 40% within 10 minutes of application on the crow's feet area. The study was conducted on 22 female volunteers aged 45 and above.

STUDY RESULTS - DAY 14

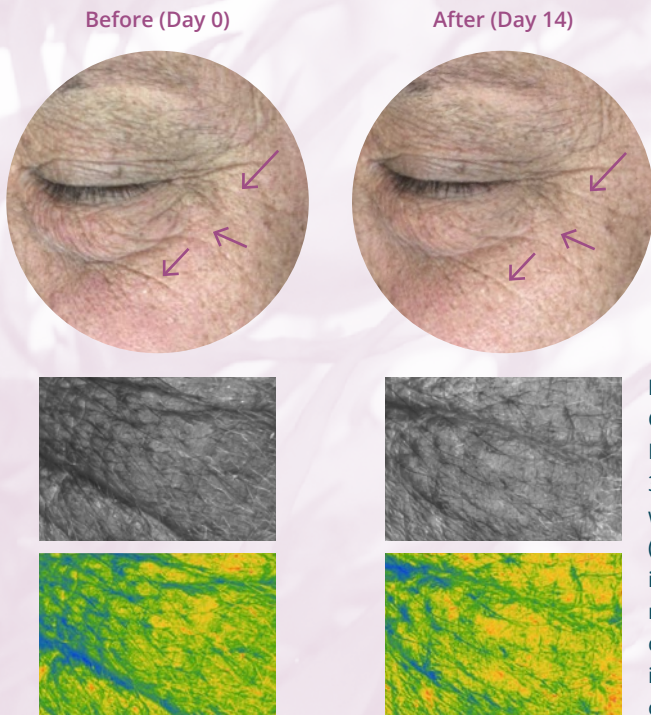
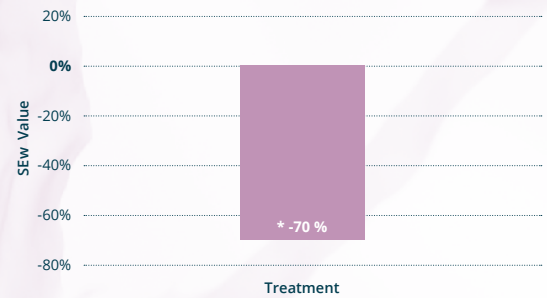


Fig. 5. Images (Observ Camera 520, Parallel Polarized mode) and 3D representations with faux colour (Visioscan VC 20 Plus) illustrating wrinkle reduction after 14 days. Wrinkle depth is represented by the colour blue.

Wrinkle Volume on Crow's feet after 14 days

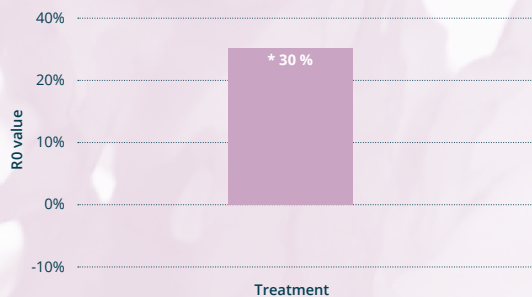


*p<0.01 versus initial conditions and 14 days after application.

Graph 2. OceanDerMX® RosaThalia™ at 2% reduces wrinkle volume by 70% compared to placebo after 14 days of twice-daily application on the crow's feet area. The study was conducted on 22 female volunteers aged 45 and above.

SKIN FIRMNESS EFFICACY – 2%*

Skin Firmness after 14 days

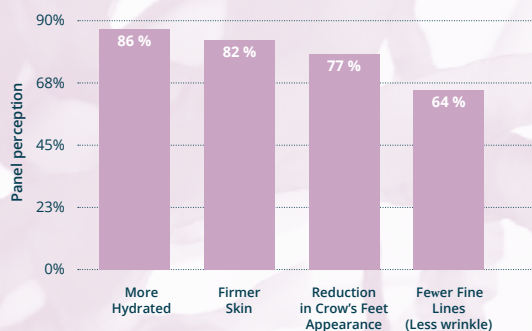


*p<0.01 versus initial conditions and 14 days after application.

Graph 3. OceanDerMX® RosaThalia™ at 2% increases skin firmness by 30% compared to placebo after 14 days of twice-daily application on the crow's feet area. The study was conducted on 22 female volunteers aged 45 and above.

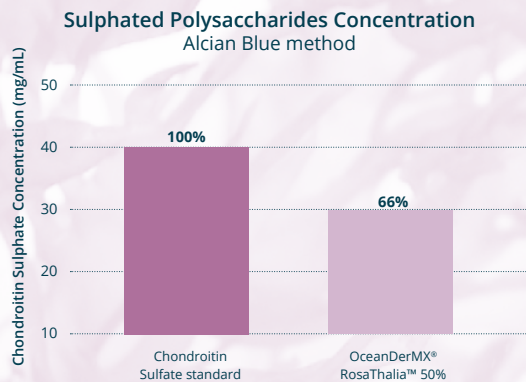
SELF EVALUATION OF THE FEMALE VOLUNTEERS

Self Assessment Survey

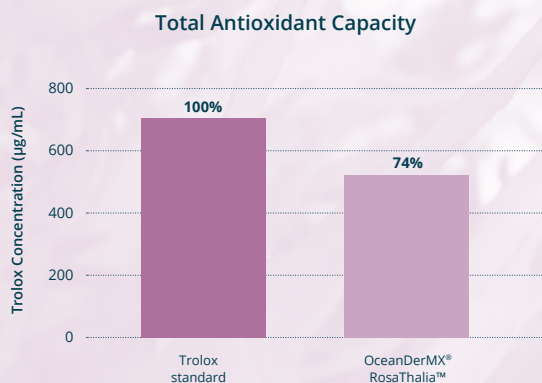


Graph 4. A self-evaluation survey was conducted with 22 female volunteers aged 45 and above after 14 days of trial to assess their skin appearance

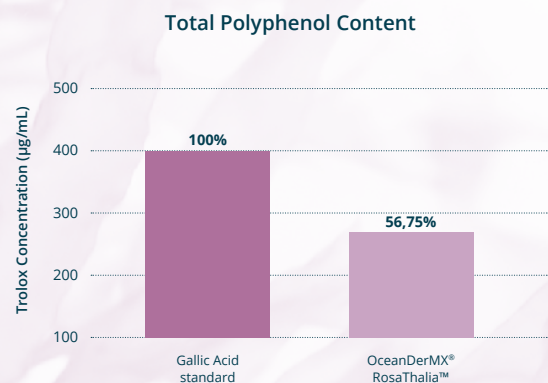
IN VITRO DATA EVALUATION AND RESULTS



Graph 5. Chondroitin sulphate (CS) is used as the calibration standard in the Alcian Blue method. **OceanDerMX® RosaThalia™** 50% (dilution due to colour extract) achieved **66%** of the maximum Alcian Blue response relative to the CS calibration curve, corresponding to a concentration of **26.53 mg/mL** CS-equivalent sulphated polysaccharides. This is considered high compared to typical red algae values (2.5–10 mg/mL; Carvalho et al., 2013; Sato et al., 2018; NIWA Database), supporting its **excellent glycan richness and hydration potential**.



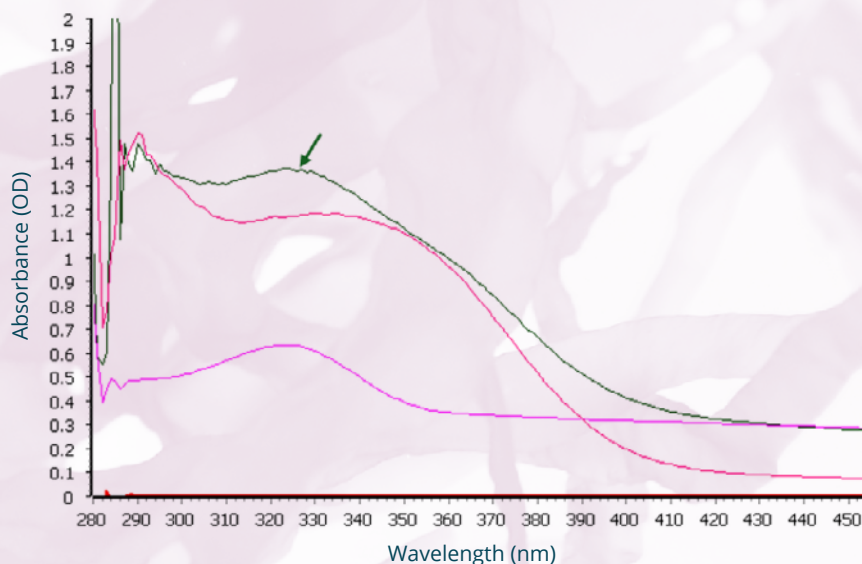
Graph 6. Trolox is used as a reference antioxidant standard in the CUPRAC assay to evaluate the antioxidant strength of natural extracts. **OceanDerMX® RosaThalia™** exhibits an antioxidant capacity corresponding to **74%** of the maximum Trolox-equivalent activity, equivalent to **518.3 µgTE/mL**. This is classified as **high antioxidant capacity** according to Prior et al., 2005 and Apak et al., 2007.



Graph 7. Gallic acid is used as the calibration standard to quantify polyphenols based on the Folin-Ciocalteu method. **OceanDerMX® RosaThalia™** reached **56.75%** of the maximum response of the calibration curve, corresponding to **227 µg/mL** gallic acid equivalents (GAE). Based on literature classifications (Fekete et al., 2020; Kumar et al., 2020; Cox et al., 2019), this indicates a good concentration of phenolic compounds, contributing to the extract's **antioxidant and anti-ageing properties**.

ANALYTICAL DATA EVALUATION AND RESULTS

UV SPECTROSCOPY ABSORPTION RESULTS



— *Sarcothalia circumcincta* extract
— *Hibiscus rosa-sinensis* extract
— OceanDerMX® RosaThalia™

Born from the fusion of Red Algae and Hibiscus **co-extraction**, **OceanDerMX® RosaThalia™** harnesses the best of nature for maximum efficacy. The peak absorbance, highlighted by the purple line, showcases an **additive effect** between these two potent botanicals for higher performance and protection against UVAs and UVB.

Fig.6. UV spectrum of *Sarcothalia circumcincta* extract, *Hibiscus rosa-sinensis* extract, OceanDerMX® RosaThalia™. Observation peak absorbance at 325 nm.

HPLC RESULTS ON TRIPLICATES

Product	Family molecule	Molecule	Results
<i>Sarcothalia circumcincta</i>	Protein	R - Phycoerythrin	[420-430]mg/kg
<i>Hibiscus Rosa - Sinensis</i>	AHAs	Citric Acid (AHA)	2.0-2.45%
		Malic Acid (AHA)	0.20-0.35%
		Tartaric Acid (AHA)	0.010-0.020%
		Ascorbic Acid (AHA)	0.0006-0.0008%
	Sugars	Glucose Fructose Rhamnose	Total sugar = 0.180-0.220%

Fig.7. HPLC results from Hibiscus Rosa - Sinensis extract and Sarcothalia circumcincta (at the same concentration as present in **OceanDerMX® RosaThalia™**). Phycoerythrin increases antioxidant protection and anti-ageing activity. AHAs as well as sugars can lead to improved hydration. This combination provides synergistic benefits, addressing both **anti-ageing and hydration needs**.

- **Phycoerythrin** is not just known for its antioxidant and anti-inflammatory properties. Studies showed that it can protect against physiological changes caused by oxidative stress, contributing to **anti-ageing benefits**¹³.
- **AHAs and sugars** compounds play significant roles in enhancing skin hydration. Studies have demonstrated improvements in all stratum corneum hydration states, lipid and protein structures, contributing to high level of hydration¹⁴.

TECHNICAL & REGULATORY

INCI: *Sarcothalia Circumcincta* extract (and) *Hibiscus Rosa Sinensis* flower extract

APPEARANCE: Purple to light brown flakes to powder (the extract colour does not affect final product appearance)

TECHNOLOGY: TPT Xtraction® (Bio-liquefaction) - synergistic, green biotech process (IPONZ patent number 807179)

SUGGESTED DOSAGE: Use at 2%* in the final formulation, based on the reconstituted liquid form.

REGULATORY: Certified Vegan, China Compliant, Ecocert & Cosmos Approved, NATRUE approved

NATURAL INDEX: 1

PRESERVATIVE FREE

ALCOHOL-FREE

SAFETY AND TOXICOLOGY: The material is safe for topical use when formulated as directed.

APPLICATIONS

- Anti-wrinkle Eye creams
- Anti-ageing serums
- Lifting masks
- Body firming lotions & Creams
- Advanced skincare formulations targeting fine lines & loss of firmness and elasticity

* To achieve this, dissolve 0.25g of powder in 19.75g of water (1/80 ratio) and heat to 75°C with constant stirring for 15 minutes before incorporating it into the formula. (For 1000g of the final product, use 20g of this reconstituted solution.)

PRESERVATION AFTER RECONSTITUTION: If not used immediately, the reconstituted liquid form should be preserved to prevent microbial contamination.



RAW MATERIAL VERIFIED BY ECOCERT GREENLIFE, CONFORM TO THE COSMOS STANDARD

IPONZ PATENT No. 818858

April 2025 / Ver. 002

NONE OF THE INGREDIENTS ARE DERIVED FROM GENETICALLY MODIFIED ORGANISMS (GMO) WITH ALL THE PLANTS MEETING THE ORGANIC DEFINITION OF THE ISO 16128 STANDARD.

DISCLAIMER

This brochure is not intended for final consumer or to advertise your products to final consumers without our written approval.

No claims related to the ingredients and formulation shall be made without our prior written approval - [even though the claims are presented in this brochure] The person using the ingredients or formulation from this brochure is solely responsible that the final products, labeling, packaging, advertising and claims comply with local cosmetic laws and regulations.

All trade marks referred to herein are registered in New Zealand. In addition, various trade marks are, or are in the process of being, registered in other jurisdictions.

SOURCES:

1. <https://pubmed.ncbi.nlm.nih.gov/23248396/>
2. <https://www.mdpi.com/2223-7747/10/3/522>
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