

A NEW SERIES OF SKIN LONGEVITY ACTIVES



ORGANIC
BIOACTIVES

NEW ZEALAND

INNOVATING FROM TRADITION™

OceanDerMX®

KānuBright™

**Hyperpigmentation
& Uneven Skin Tone**



Multiple benefits

IN 14 DAYS

- **20%** increase in overall brightness
- **10%** reduction in redness
- **85%** increase in skin hydration



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



Inspired by the endurance and longevity of New Zealand's biodiverse ecosystems, **OceanDerMX® KānuBright™** harnesses the **adaptive power** of marine and land botanicals that thrive in extreme conditions — elevated UV exposure and harsh environmental factors. Hyperpigmentation and uneven skin tone are **visible hallmarks of unbalanced skin and an accelerated aging process**, influenced by multiple intrinsic and extrinsic factors.

OceanDerMX® KānuBright™ is designed to intervene in **key pathways** that contribute to **uneven skin tone**, **hyperpigmentation** as well as **water loss** in the skin.

THE BOTANICAL SCIENCE



Kunzea Ericoides (Kānuka)

The Skin Shield

- **Kānu** - Kānuka (*Kunzea ericoides*) is a New Zealand endemic botanical known for its strong ability to **adapt to challenging environments** as well as its potent **anti-inflammatory** and **antioxidant properties**¹.
- Kānuka has a **rich** profile in complex **polyphenolic** compounds – including gallic acid and quercetin – which are powerful antioxidants contributing to skin brightening^{1,2}.
- These bioactives can help to **protect the skin** from **oxidative stress** and the damage it causes (such as inflammation, premature ageing, and hyperpigmentation)¹.



Sarcothalia Circumcincta

(New Zealand Red Algae) – The Marine Skin Architect

- **Bright** - Inspired by the **bright** ruby-red and **glossy** blades of *Sarcothalia circumcincta*, an endemic New Zealand red macroalgae from the Gigartinaceae family.
- Abundant in **marine glycans**, skin-essential sulphated polysaccharides, renowned for their ability to **form a protective film** on the skin, enhancing **moisture retention** and imparting a **visible radiance**³. These polysaccharides possess significant water-binding capacities, creating a hydrating layer that not only moisturizes but **also reflects light**, contributing to a **luminous skin**³.

BEHIND THE LOW-LEVEL CHRONIC INFLAMMATION – “INFLAMMAGING”



Fig. 1. Schematic representation of **hyperpigmented and dehydrated** skin.

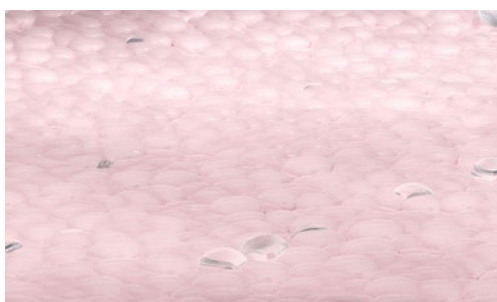


Fig. 2. Schematic of a **brighter, more even, and well-hydrated** complexion.

- Hyperpigmentation and ageing are intrinsically linked through **low – level chronic inflammation**, which acts as the silent driver behind **dysregulated melanin production, extracellular matrix degradation, and cellular senescence**⁴.
- Targeting inflammation with potent **antioxidants, anti-inflammatory bioactives, and barrier-strengthening strategies** is crucial for preventing and managing hyperpigmentation and ageing⁵.

TARGETING THE CORE HALLMARKS OF UNEVEN SKIN TONE MECHANISMS OF ACTION

1. Tyrosinase Inhibition:

- Tyrosinase is an enzyme in melanogenesis, catalyzing **melanin production**. Overactivation leads to excessive melanin deposition, resulting in **hyperpigmentation**, **sun-induced dark spots**, and **uneven skin tone**^{6,7}.
- **OceanDerMX® KānuBright™** demonstrates moderate **tyrosinase inhibition** contributing to brighter and even complexion.

2. Anti-Inflammation:

- Kānuka has been scientifically studied for its potent **anti-inflammatory** properties¹. Rich in bioactive compounds, Kānuka has been shown to **modulate** inflammatory pathways by **reducing pro-inflammatory cytokines** and **oxidative stress**^{8,9}.

3. Hydration & Barrier Function:

- Complex botanical polysaccharides enhance skin hydration through their hydrophilic nature, **forming moisture-retentive matrices** that reduce trans epidermal water loss (TEWL)³.

IN VIVO CLINICAL STUDIES

ASSESSMENT OF SKIN BRIGHTENING EFFICACY OF OceanDerMX® KānuBright™ (2%*) ON THE FACE

* The in vivo study was conducted on 25 female volunteers (ages 25+) at a 2% concentration, derived from a reconstituted freeze-dried (FD) powder at a 1/90 ratio

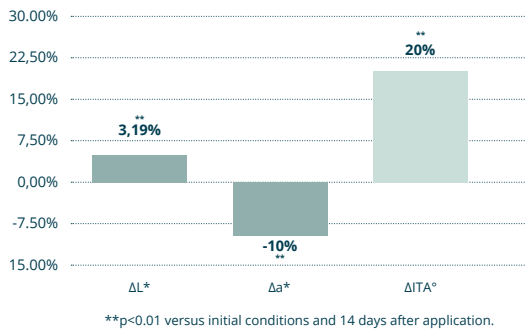
SKIN BRIGHTENING EFFICACY IN 14 DAYS – 2%*



Fig. 3. Images of 2 female volunteers no. 26 (left) and no. 50 (right) at D0 (before treatment) and D14 (after treatment) analyzed using Observ Camera 520 under the Daylight mode. **OceanDerMX® KānuBright™** at 2% in a moisturiser provides significant improvement in **overall skin brightness** and **hydration level** (radiance and appearance of skin tone) for the whole face after 14 days of twice-daily application. The study was conducted on 25 female volunteers aged 25 and above.

SKIN TONE EVALUATION IN 14 DAYS – 2%*

Skin Tone Evaluation

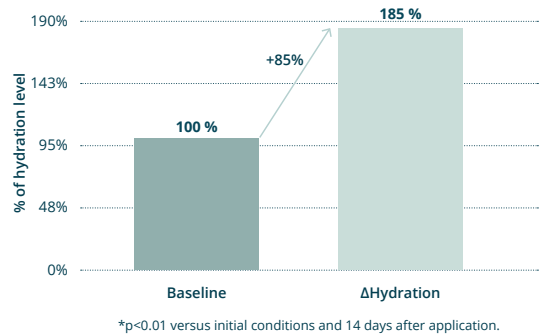


Graph 1. OceanDerMX® KānuBright™ at 2% demonstrates significant improvement in lightness (L*) by 3% increase***, redness (a*) by 10% reduction and overall brightness (ITA°) by 20% increase after 14 days of twice-daily application on the face (*Colorimeter, Courage + Khazaka*). **OceanDerMX® KānuBright™** has a skin brightening effect and can help with reducing **skin inflammation** and improving the **overall brightness** of the skin.

***an increase of 1-5% in L* value is commonly observed and recognized as a perceptible improvement in skin brightness (Kim et al., 2015; Hakozaiki et al., 2002; Lephart, 2013).

SKIN HYDRATION LEVEL – 2%*

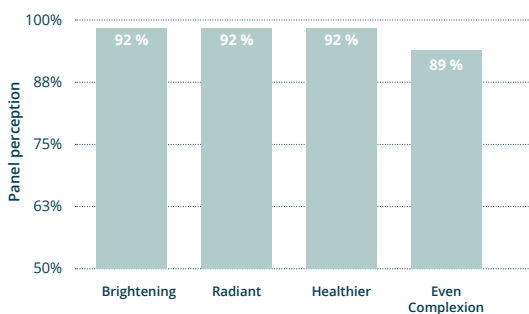
Skin Hydration



Graph 2. OceanDerMX® KānuBright™ at 2% increases hydration level (related to the radiance and appearance of skin tone) by 85% after 14 days of twice-daily application on the face. The study was conducted on 25 female volunteers aged 25 and above.

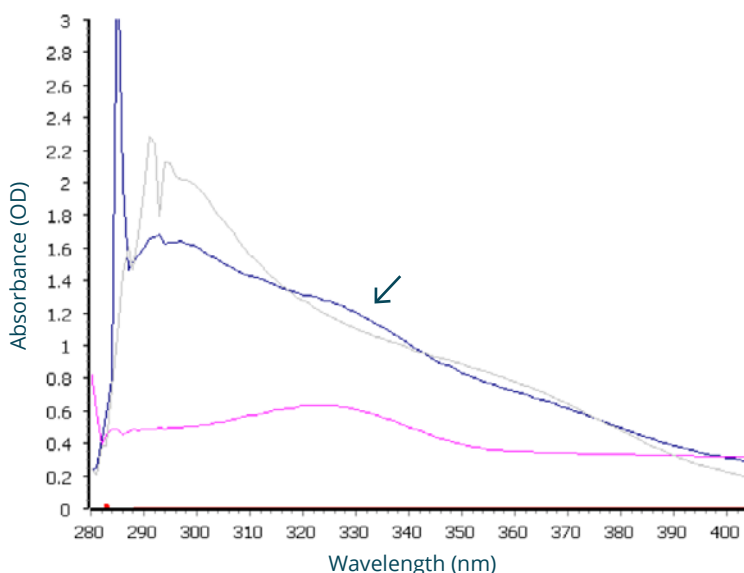
SELF EVALUATION OF THE FEMALE VOLUNTEERS

Self Assessment Survey



Graph 3. A self-evaluation survey was conducted with **25 female volunteers** aged 25 and above after 14 days of trial to assess their skin appearance.

ANALYTICAL DATA EVALUATION AND RESULTS UV SPECTROSCOPY ABSORPTION RESULTS



— *Sarcothalia circumcincta* extract
— *Kunzea ericoides* leaf extract
— **OceanDerMX® KānuBright™**

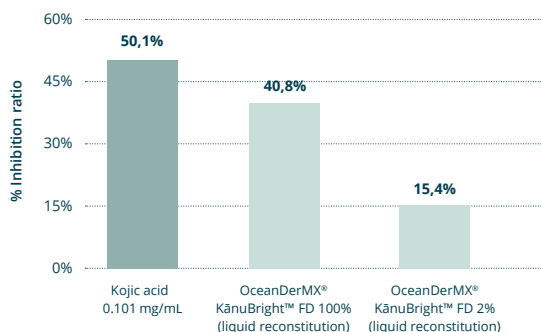
Born from the fusion of Red Algae and Kānuka **co-extraction**, **OceanDerMX® KānuBright™** harnesses the best of nature for maximum efficacy. The peak absorbance, highlighted by the blue line, showcases an additive effect between these two potent extracts for higher performance and protection against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

Fig.4. UV spectrum of *Sarcothalia circumcincta* extract, *Kunzea ericoides* leaf extract, **OceanDerMX® KānuBright™**. Observation peak absorbance at 325 nm.

IN VITRO DATA EVALUATION AND RESULTS

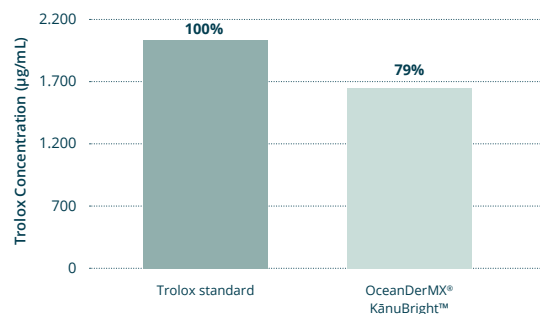
A balanced approach to **skin brightening** involves moderate tyrosinase inhibition combined with strong antioxidant activity. This strategy effectively brightens the skin while minimizing adverse effects^{4,5}. Studies show that antioxidants and tyrosinase inhibitors work synergistically, enhancing skin brightening efficacy while ensuring safety^{4,5}.

Tyrosinase Inhibition



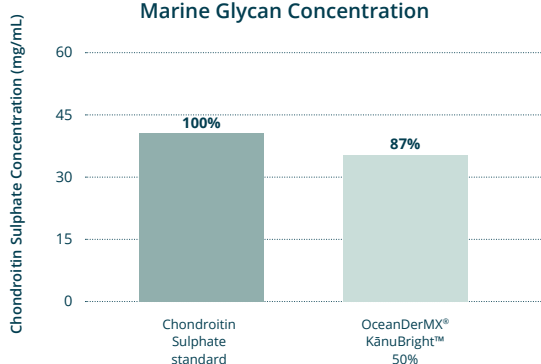
Graph 4. Kojic Acid at 0.101 mg/mL as standard. **OceanDerMX® KānuBright™** freeze-dried 100% exhibits substantial tyrosinase inhibition, approaching the efficacy of kojic acid. **OceanDerMX® KānuBright™** freeze-dried 2% results in 15.4% of tyrosinase inhibition which is an effective and safer alternative to brightening skincare products application.

Total Antioxidant Capacity



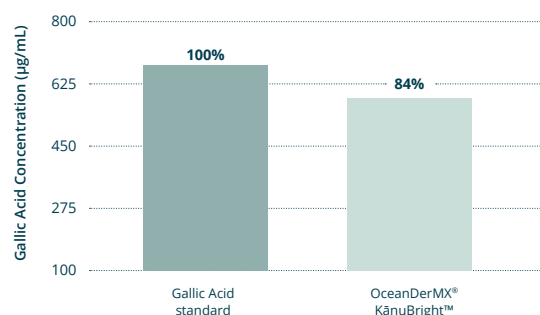
Graph 5. Trolox is used as a reference antioxidant standard in the CUPRAC assay to evaluate the antioxidant strength of natural extracts. **OceanDerMX® KānuBright™** exhibits an antioxidant capacity corresponding to **79%** of the maximum Trolox-equivalent activity, equivalent to **1586.3 µgTE/mL**. This is classified as **strong antioxidant capacity** and significant **oxidative stress protection** according to Apak et al., 2007 and G. Perry et al., 1997 (*Comparative antioxidant potential of New Zealand native plant leaf extracts*).

Sulphated Polysaccharides
Marine Glycan Concentration



Graph 6. Chondroitin sulphate (CS) is used as the calibration standard in the Alcian Blue method. **OceanDerMX® KānuBright™** 50% (dilution due to colour extract) achieved **87%** of the maximum Alcian Blue response relative to the CS calibration curve, corresponding to a concentration of **34.94 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**.

Total Polyphenol Content



Graph 7. Gallic acid is used as the calibration standard to quantify polyphenols based on the Folin-Ciocalteu method. **OceanDerMX® KānuBright™** reached **84%** of the maximum response of the calibration curve, corresponding to **544 µg/mL** gallic acid equivalents (GAE). Based on literature classifications, this indicates a good concentration of phenolic compounds, contributing to the extract's **antioxidant and anti-ageing properties** (Houghton, P., et al, 1997; *Total phenolic content and antioxidant activity of native New Zealand medicinal plant extracts*).

HPLC RESULTS ON TRIPLICATES

Product	Family molecule	Molecule	Results
<i>Kunzea ericoides</i> leaf extract	Polyphenols	Gallic Acid	10-12mg/kg
	Flavonoids	Quercetin	2.5-3.2mg/kg

Fig.5. HPLC results from **OceanDerMX® KānuBright™**. Gallic acid targets **pigmentation and brightness**, while Quercetin focuses on **reducing inflammation and enhancing skin resilience**. This combination makes them a scientifically supported duo for promoting **healthy, balanced skin**.

- **Gallic acid** is widely recognized for its potent antioxidant properties, but its benefits extend beyond this role. Scientific studies have demonstrated that gallic acid exhibits **significant skin-brightening effects** due to its **strong anti-tyrosinase activity**, which inhibits melanin production and helps reduce **hyperpigmentation**, making it a valuable for achieving a **more even and radiant complexion**^{10,11}.
- **Quercetin**, a well-studied flavonoid, has been subject to research indicating its primary benefits as a **powerful anti-inflammatory and antioxidant**. Quercetin helps protect the skin from **oxidative stress** and **soothe irritation**^{12,13,14}.

TECHNICAL & REGULATORY

INCI: *Sarcothalia circumcincta* extract (and) *Kunzea ericoides* leaf extract

APPEARANCE: 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

ORGANIC INDEX: 1

PRESERVATIVE FREE

ALCOHOL-FREE

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

APPLICATIONS

- Eye/face brightening creams & moisturizers
- Brightening serums
- Overnight brightening skincare lines
- Brightening masks
- Advanced skincare formulations targeting hyperpigmentation & uneven skin tone

* To achieve this, dissolve 0.22g of powder in 19.78g of water (1/90 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 should be preserved to prevent microbial contamination.



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NEW ZEALAND
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CERTIFIED
VEGAN
NZV



CHINA
COMPLIANT



IPONZ PATENT
No. 818860

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

IPONZ PATENT
No. 818860

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.

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SOURCES:

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