



WILFADERM:

wilmar

Ricinoleyl palmitate

Skin Barrier Enhancer &

Anti inflammation



WILFADERM

Benefit

- Reduces trans epidermal water loss (TEWL)
- Enhances natural moisturising factor (NMF)
- Repairs skin barrier via increased filaggrin production
- Provides superior skin moisturization
- Reduces skin inflammation
- Produced enzymatically at low temperature
- Produced from renewable plant feedstock



**Boost filaggrin
production
by 3X**

WILFADERM

FEATURES

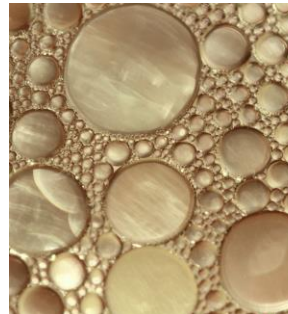
Product Form

- Flowable liquid



Flexibility

- Compatible in O/W ,W/O and anhydrous systems
- Blends with natural oils, esters, waxes.



Sensory

- Lightweight, non-greasy, reduces dryness & flakiness



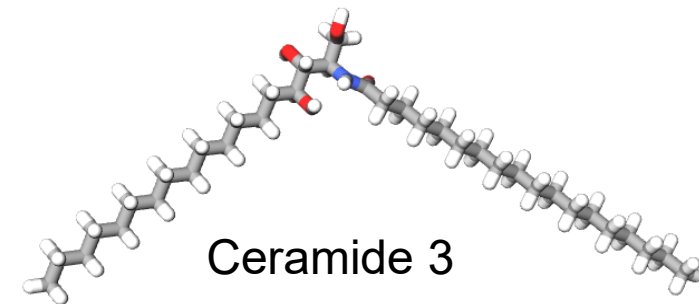
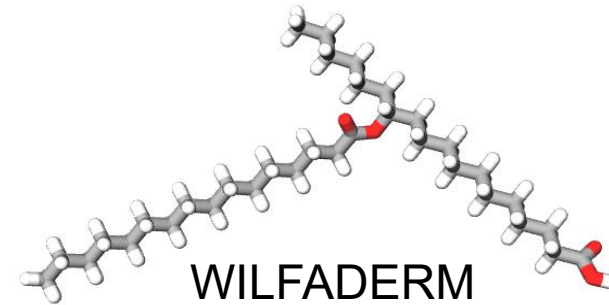
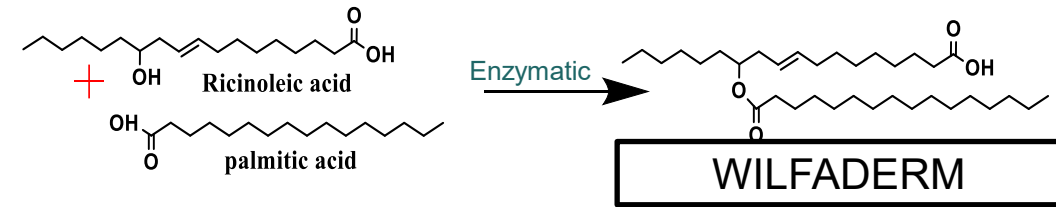
Sustainability

- Biodegradable
- Bio-Based
- 100% Naturality Index
 - ISO 16128
- Vegan

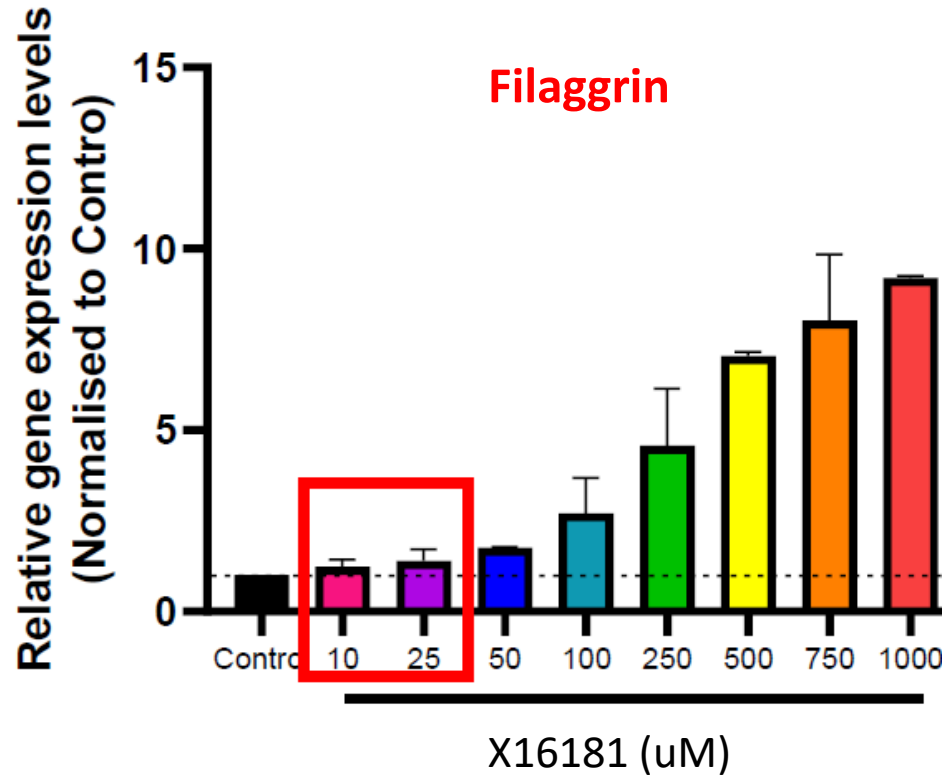




WILFADERM : Ceramide Mimetics for Sensitive Skin via Filaggrin



WILFADERM-Skin Barrier Enhancement



Filaggrin boosts **NMF levels**, enhancing skin hydration

In Vitro Assay Model

Cell type:

Primary human keratinocytes (from Singapore volunteer skin bank)

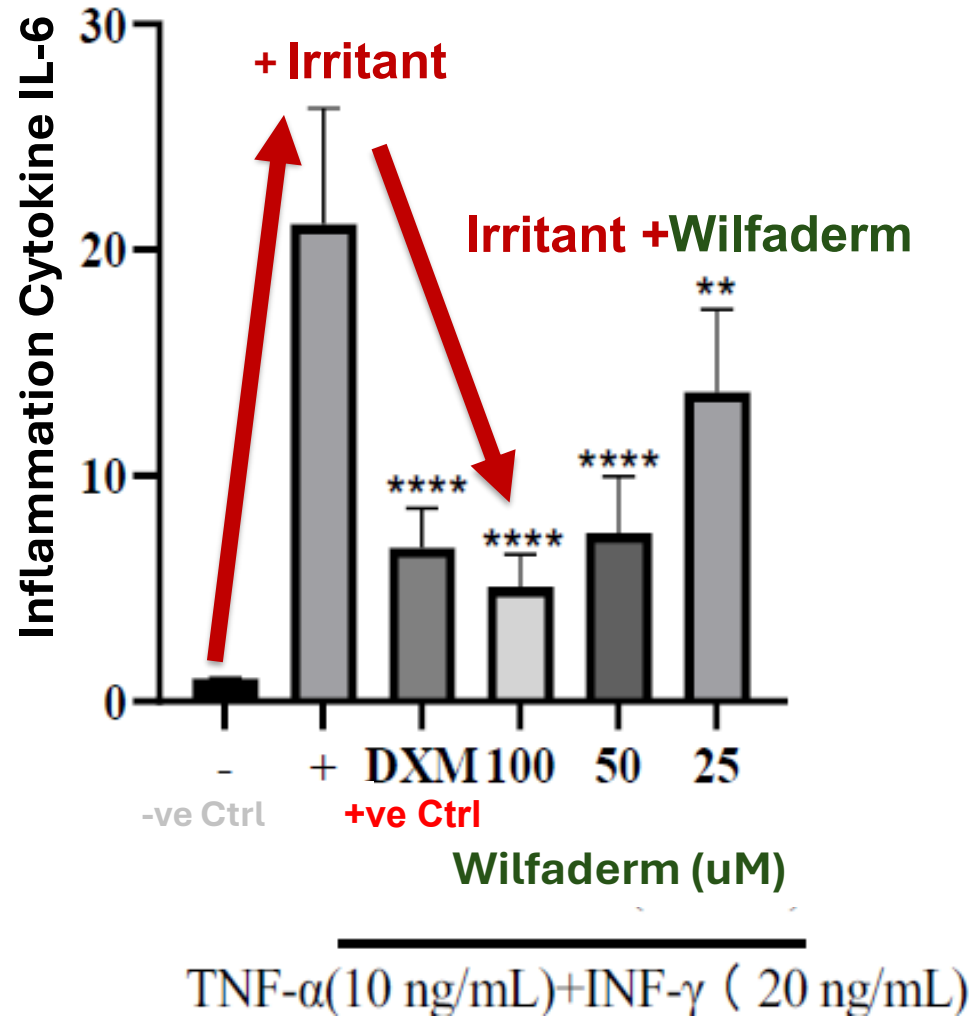
Treatment:

Cells were treated with different concentrations of Wilfaderm (10-1000 uM)

Readout:

Relative expression of **Filaggrin (FLG)** was monitored using **quantitative PCR (qPCR)**.

WILFADERM- Reduces Inflammation



Anti-Inflammation Assay

Cell type:

Human keratinocyte cell HaCaT were stimulated with TNF- α (10 ng/mL) + IFN- γ (20 ng/mL) to induce inflammation

Treatment:

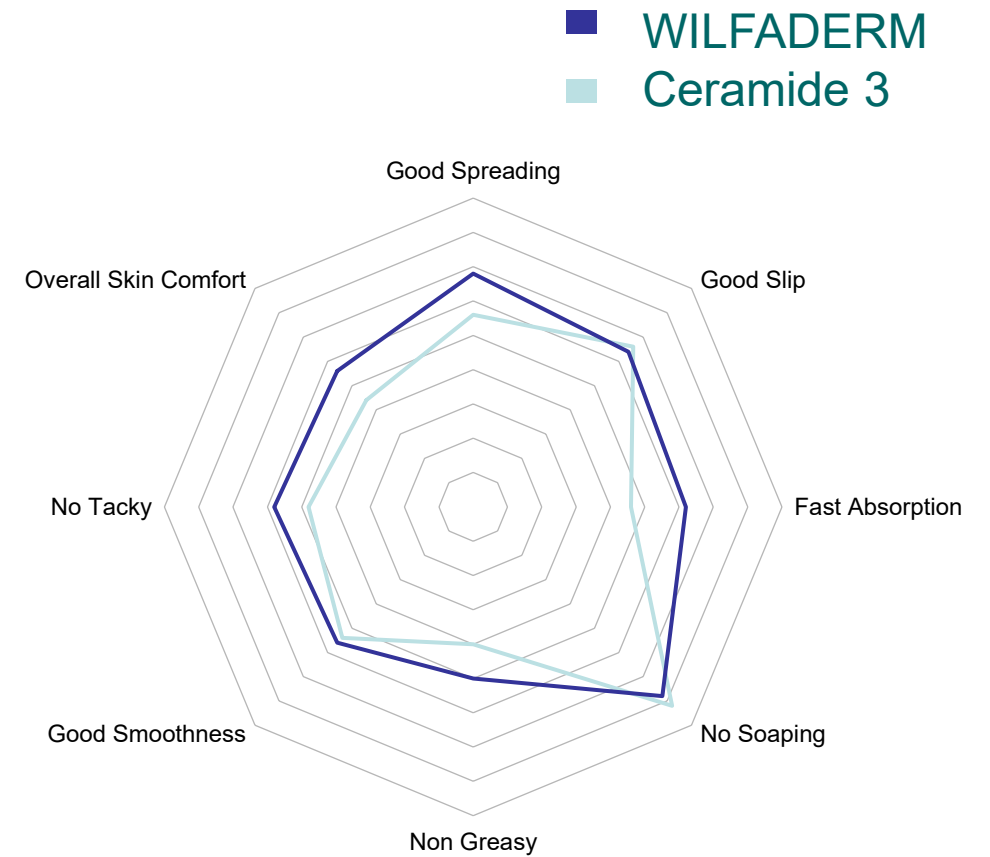
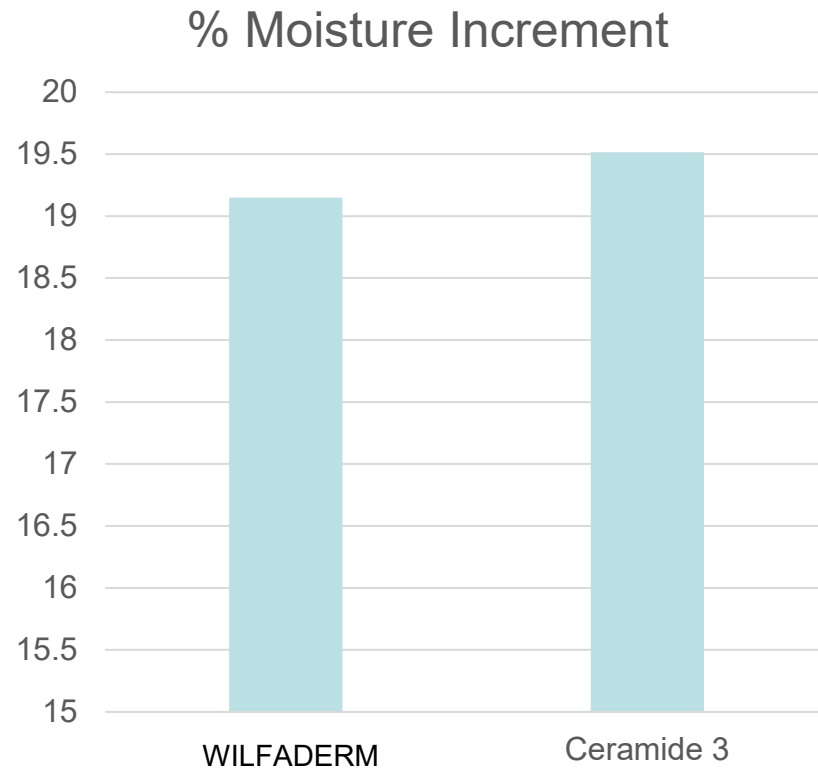
Wilfaderm (25–100 μ M) vs Dexamethasone (DXM, positive control drug)

Readout:

Relative expression of IL-6 mRNA was measured using quantitative PCR (qPCR).

Wilfaderm demonstrating strong anti-inflammatory activity & comparable to dexamethasone (positive control).

Moisturising Performance: WILFADERM vs. Ceramide 3

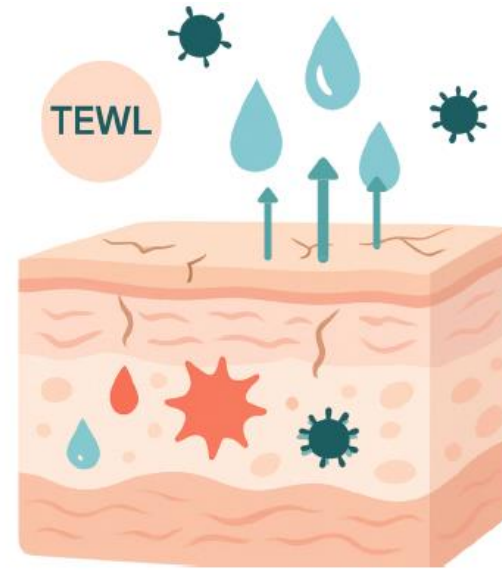


WILFADERM – Increase the filaggrin production by 3x

WILFADERM boosts filaggrin production by **up to 3x** in vitro, in turn, enhancing the skin's natural moisturizing factors to **enhance hydration and moisture retention.**

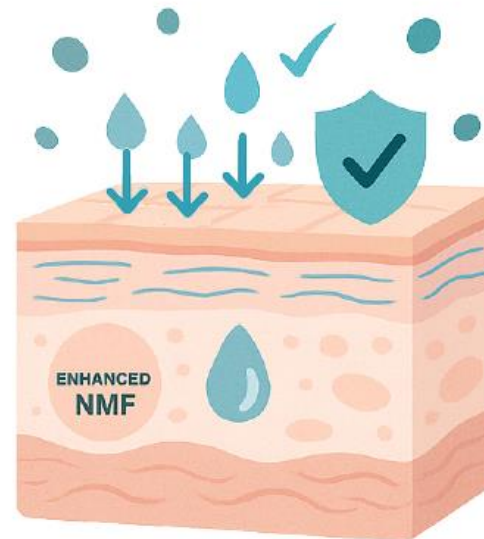
It strengthens the barrier to reduce dryness, redness, and flakiness, leaving skin soothed, resilient, and comfortably hydrated.

Damaged Skin
Compromised Barrier Integrity



- ↑ **High TEWL**
Skin moisture loss
- ↓ **Low NMF**
Reduced hydration
- ↑ **Increased Inflammation & Redness**

Treated Skin
With WILFADERM



- ↓ **Reduces TEWL**
Moisture loss prevention
- ↑ **Enhances NMF**
Increases skin hydration
- ↓ **Decreases Inflammation & Redness**