

# *in vivo* Activity | SLM Technology Strengthens the Skin Barrier Function

## Objective

- To examine the influence of SLM Skin Lipid Matrix® on transepidermal water loss in comparison to a placebo
- To measure if SLM Skin Lipid Matrix® has a strengthening effect on the skin lipid barrier after only one day of treatment

## Technique

- Damage of the skin barrier by a 24 hours patch with 0.5 % sodium dodecyl sulfate
- Difference of transepidermal water loss (TEWL) by Tewameter® TM 300 [g/(m²h)]; immediately after damage vs. after 1 day of treatment

## Study Details

Design	Double-blind, placebo-controlled, randomized <i>in vivo</i> study
Test Panel	22 volunteers with healthy skin, aged between 18 – 55 years
Test Substances	Placebo formulation (3 % glyceryl stearate citrate), verum formulation with SLM (3 % hydrogenated phosphatidylcholine)
Application Site	Volar forearm
Measuring Time	After 1 day of treatment (2 applications)
Analytics	Difference of transepidermal water loss (TEWL) by Tewameter® TM 300 [g/(m²h)] vs. baseline

## Result

Improvement of Barrier Function after 1 Day of Treatment  
(2 Applications)

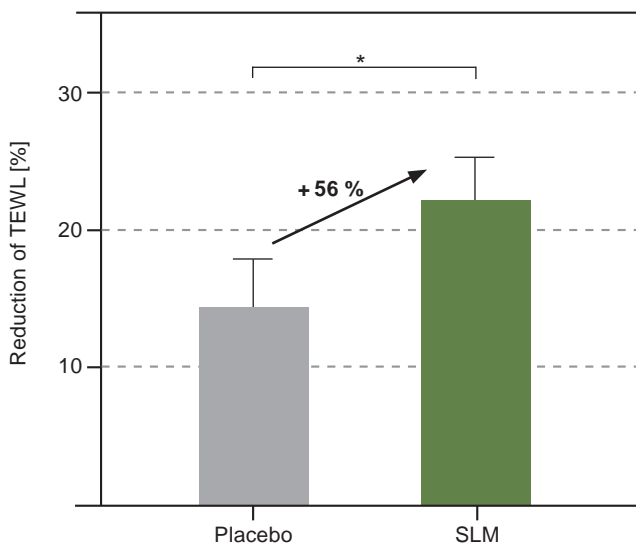
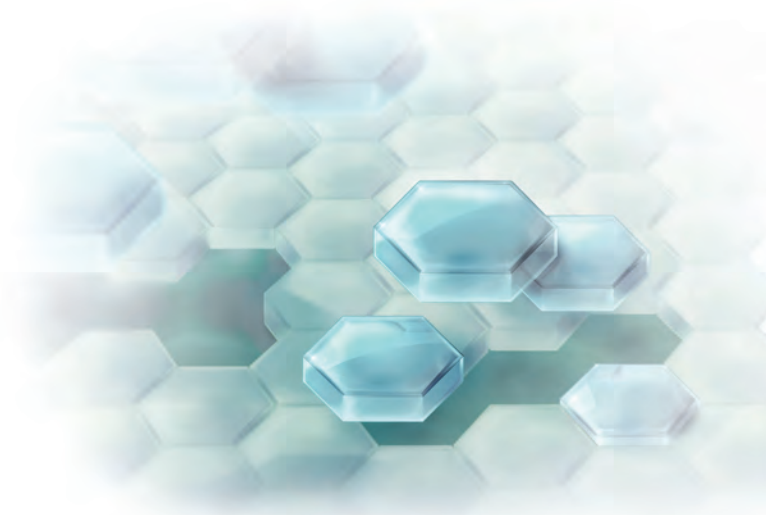


Fig. 3: The formulation with SLM significantly decreased the transepidermal water loss in comparison to a placebo with glyceryl stearate citrate.  $n = 22$ , Mean  $\pm$  SEM; \* =  $p \leq 0.05$ .



SLM Skin Lipid Matrix® significantly improves the barrier function of the skin.  
SLM Skin Lipid Matrix® has an instant strengthening effect on the skin lipid barrier.