

SYN[®]-TACKS

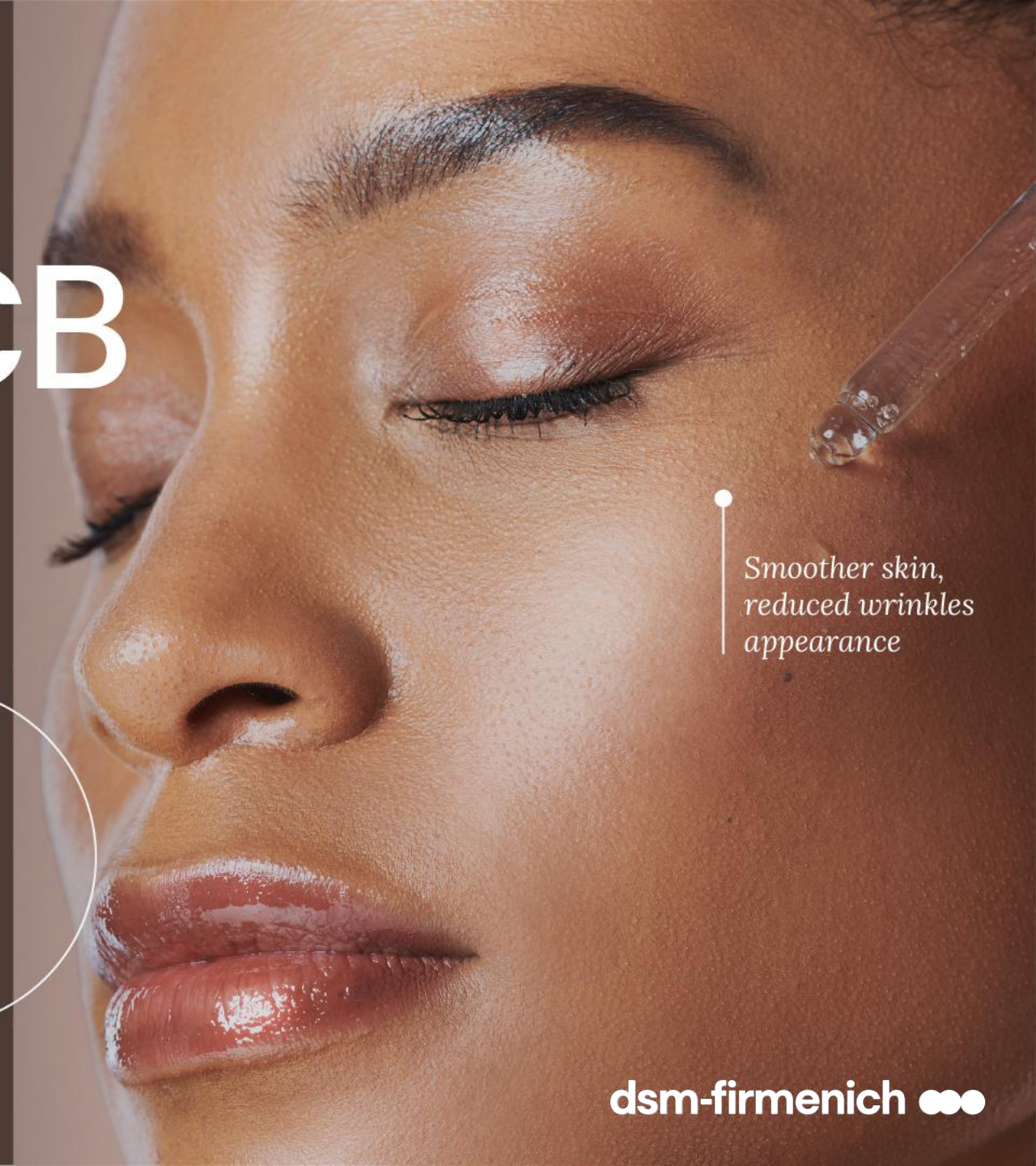
*Boosting beauty through
the dermal-epidermal junction*

CB



April 2026

Peptides | Pharma-inspired skincare



*Smoother skin,
reduced wrinkles
appearance*

dsm-firmenich 

SYN®-TACKS CB

ID Card

INCI NAME:		Palmitoyl Dipeptide-5 Diaminobutyroyl Hydroxythreonine, Palmitoyl Dipeptide-5 Diaminohydroxybutyrate, Aqua, Glycerin			
TECHNOLOGY:		- Combination of two highly active tri- and tetrapeptides, made by latest cutting-edge SYN®-Peptide technology, designed to support the dermal-epidermal junction (DEJ) - TFA-free¹ 99.9% of natural origin (according to ISO 16128)			
TECHNICAL:		Form: Liquid pH of use: 3.0-5.5	Use level: 1-3% Preservative: Free	Solubility: Miscible in water	
BENEFITS:		- Improves overall DEJ functionality by significantly stimulating Integrin β4, Laminin V, Collagens IV, VII and XVII, and all at once* - Improves molecular communication and structural integrity skin** - Smoother skin and visible reduction of wrinkle appearance ** - Rejuvenated, more compact skin** - Increased skin suppleness by +35%** - Increased skin tonicity by +31%** - Increased skin firmness by +17%**			
REGISTRATION CERTIFICATION:		   			

1. Non-intentionally added TFA
* in vitro ** in vivo

2 Peptides | Pharma-inspired skincare

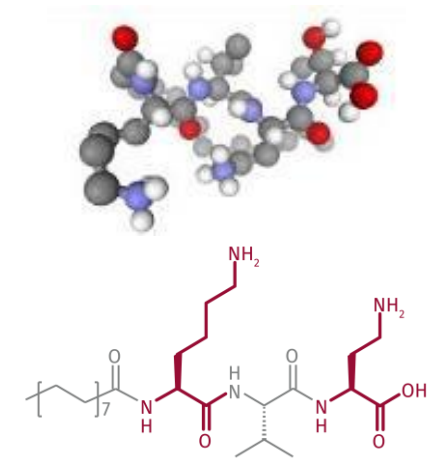
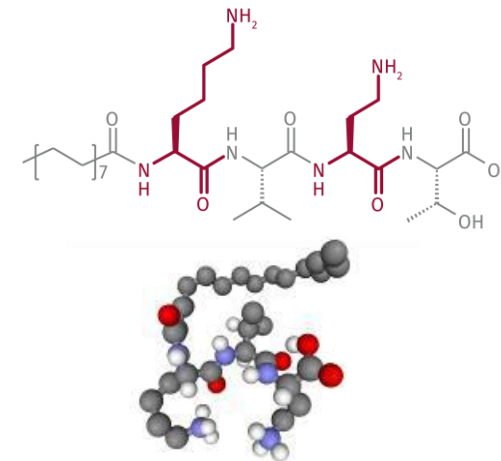
SYN®-TACKS CB

Patented innovation

For maximal efficacy SYN®-TACKS CB comprises two peptides for synthesis stimulation of major : Dermal-Epidermal Junction (DEJ)-proteins

SYN®-TACKS CB' patented complex and peptides:

- Palm-Lys-Val-Dab-Thr-OH
INCI: Palmitoyl Dipeptide-5 Diaminobutyloyl Hydroxythreonine
- Palm-Lys-Val-Dab-OH
INCI: Palmitoyl Dipeptide-5 Diaminohydroxybutyrate



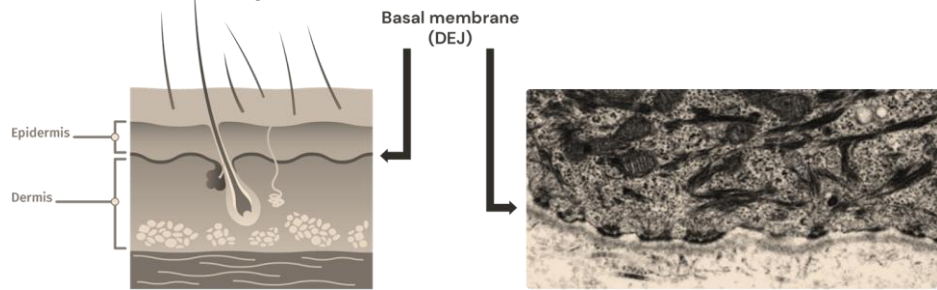
SYN®-TACKS CB is a specified and patented combination of two highly active peptides

SYN®-TACKS CB

Target: Dermal-Epidermal Junction (DEJ)

Function of DEJ

- DEJ is the anchor and communication layer between epidermis and dermis
- DEJ is only a thin structure (800-1000 nm)



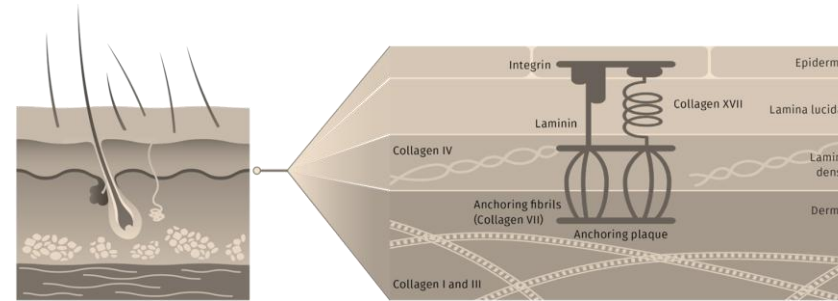
- Young skin: folded DEJ – Aged skin: even DEJ



- A well folded membrane indicates good DEJ health and organization

Main components of the DEJ

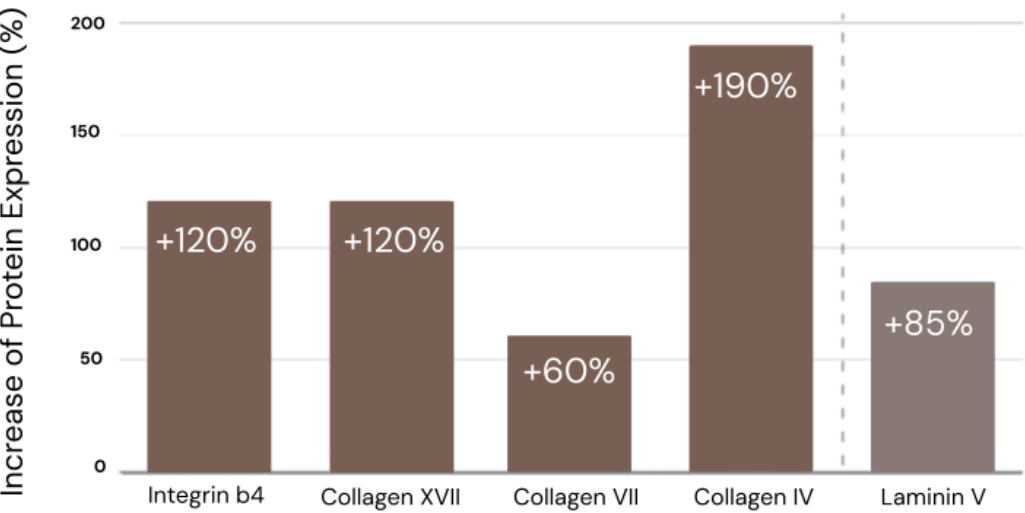
- The complex DEJ structure includes an interacting network of several proteins to ensure its functionality and integrity



- Collagen: Collagen IV; Collagen VII (anchoring fibrils); Collagen XVII
- Laminin V: major non-collagenous component of the basal lucida, important for cell attachment and differentiation
- Integrins: cell adhesion and inter-cellular communication

SYN®-TACKS CB – *in vitro* efficacy

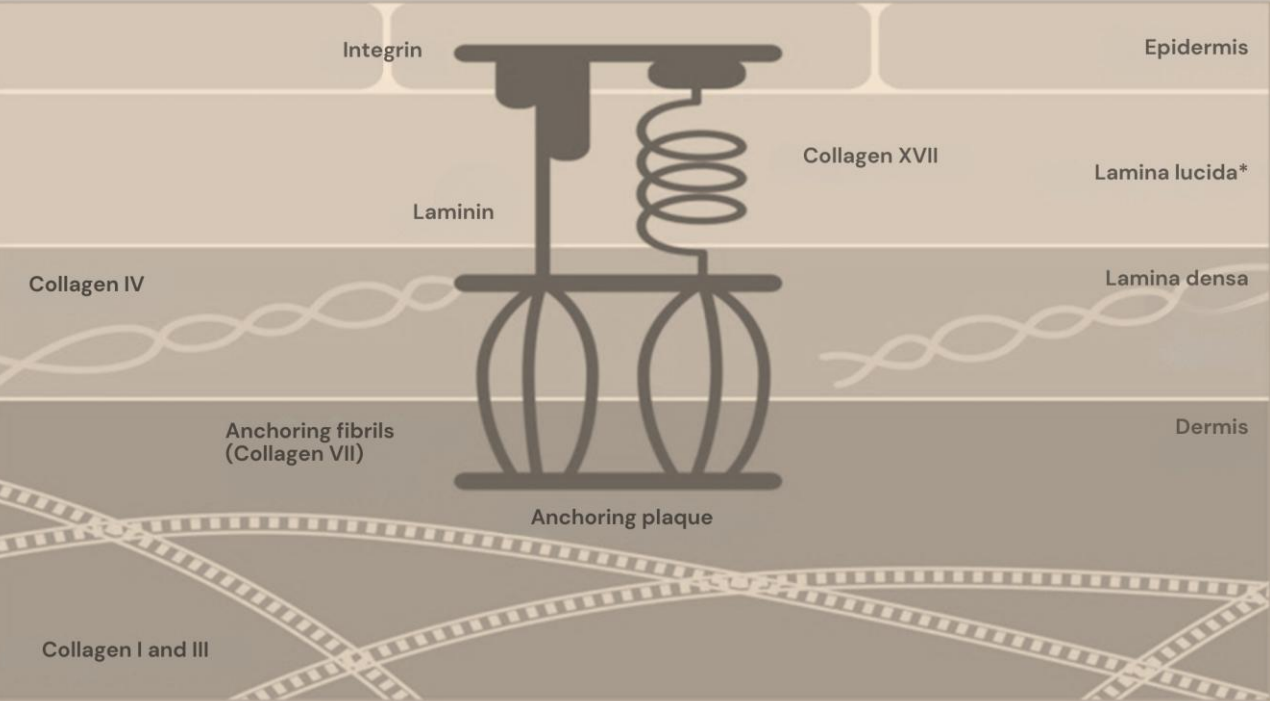
Stimulation of DEJ protein expression (RNA)



Stimulation of DEJ protein expression by:
Palm-Lys-Val-Dab-Thr-OH (50 µM, in **brown**, mRNA level)
and Palm-Lys-Val-Dab-OH (100 µM, in **light brown**, Protein level).

Major DEJ proteins are significantly upregulated

in vitro efficacy



in vitro

SYN®-TACKS CB – *in vivo* efficacy

Study design

Main study Preliminary study

- 15 volunteers, 2 months, age group 40–45
- Cream with 1% **SYN®-TACKS CB**
- Cutometer®: tonicity, firmness, suppleness; macro photographs
- Two age groups 40–45 and 60–65 with 15 volunteers each; duration 3 months
- Cream with 1% **SYN®-TACKS CB**
- Reviscometer®: anisotropy;
- Tape strips and scanning electron microscopy (SEM) to inspect cellular cohesion
- Macrophotographs, questionnaire

in vivo efficacy



in vivo

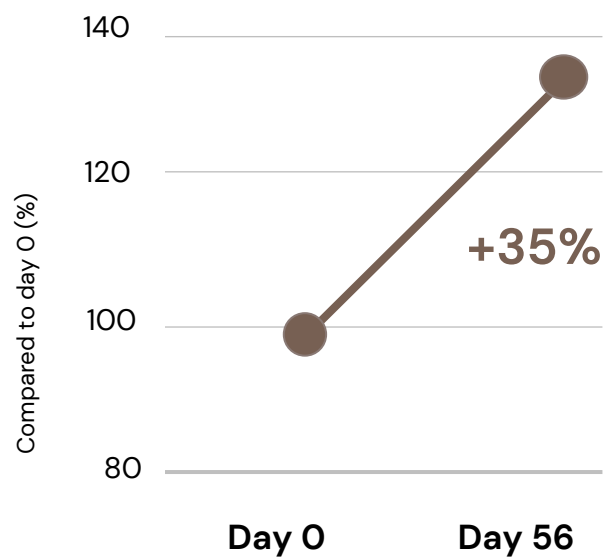
SYN[®]-TACKS CB – *in vivo* efficacy

Cutometer[®]

After 56 days of use 15 volunteers (age 40–45) present a significant increase in:

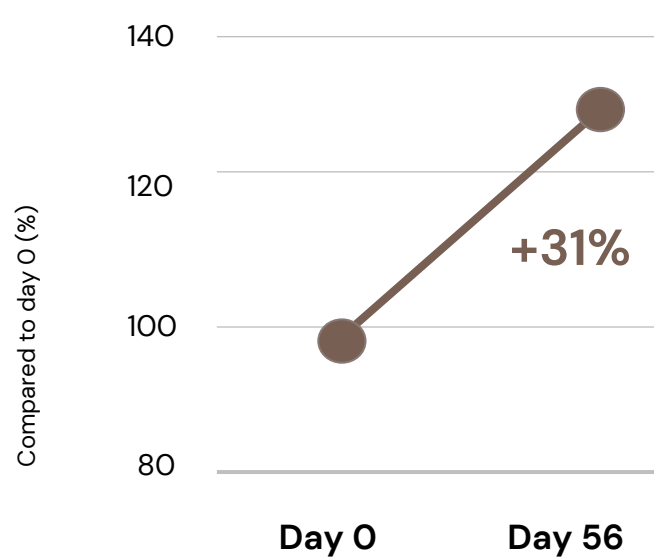
Skin suppleness

P=0.006
effect on 88% of volunteers



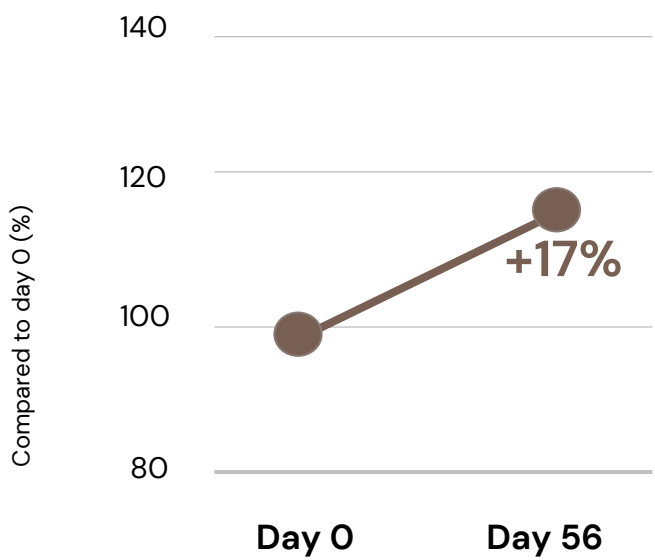
Skin tonicity

P=0.016
effect on 74% of volunteers



Skin firmness

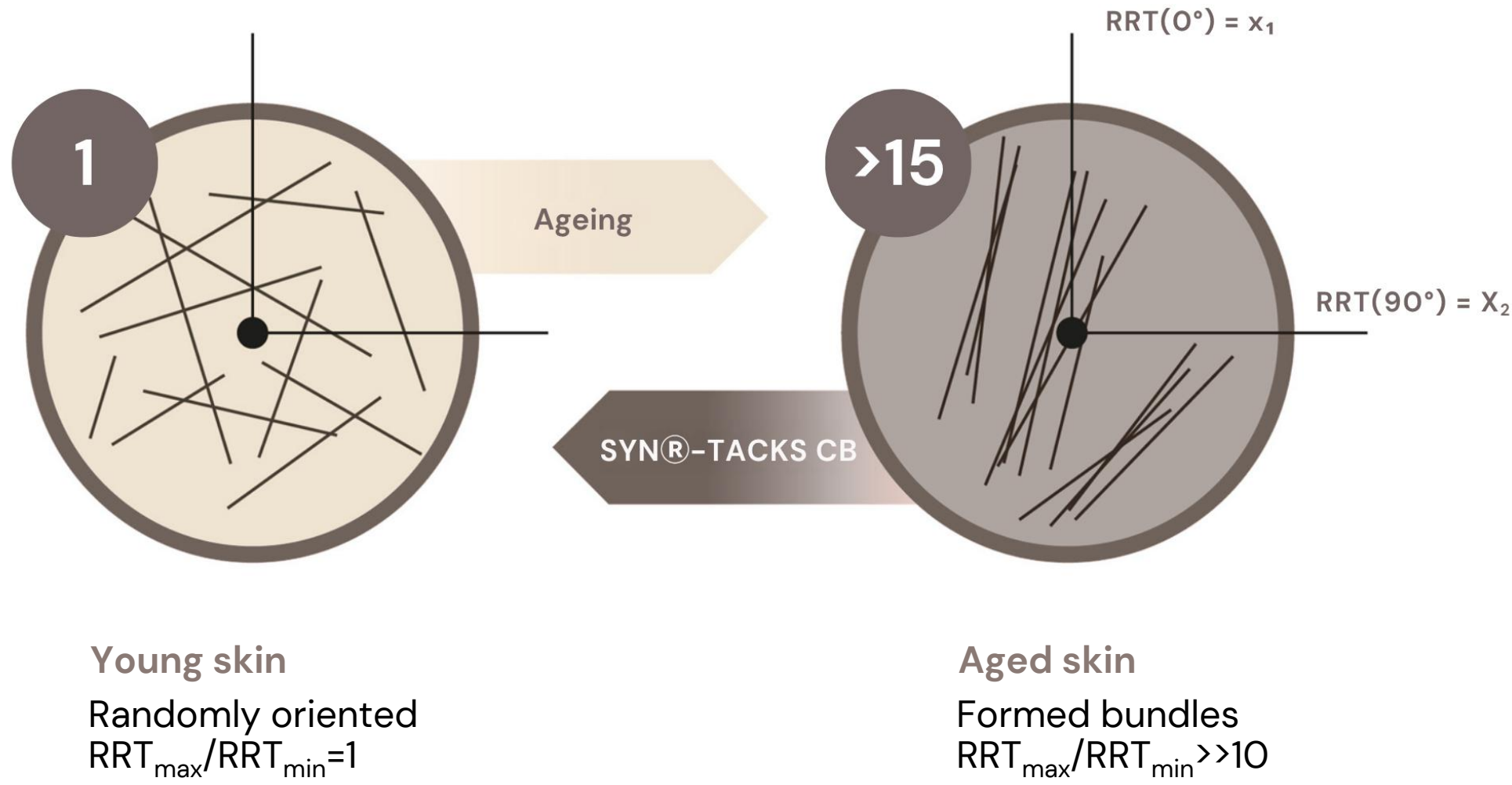
P=<0.001
effect on 94% of volunteers



SYN®-TACKS CB – *in vivo* efficacy

Anisotropy: Degree of collagen fiber alignment

in vivo

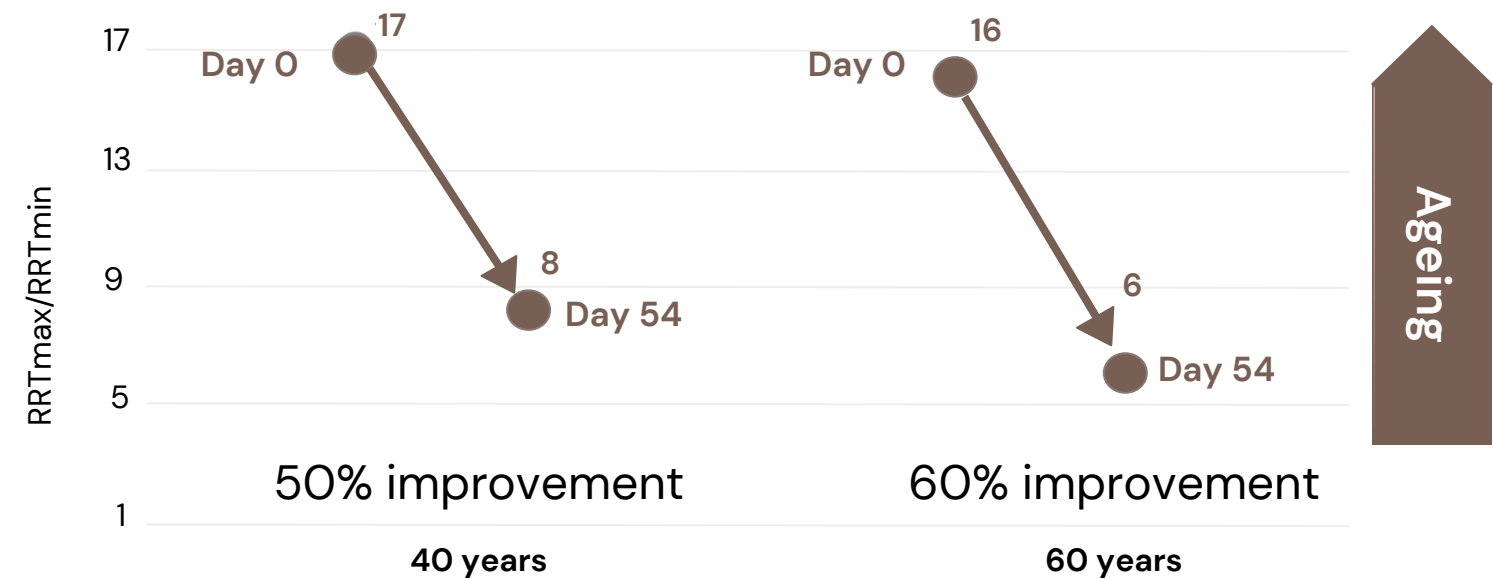


SYN®-TACKS CB – *in vivo* efficacy

Anisotropy parameter

in vivo

Three months study, n = 30, age 40–45 and 60–65



The anisotropy of collagen fibers increases with age.
SYN®-TACKS CB treatment leads to a “younger” collagen anisotropy.

in vivo efficacy

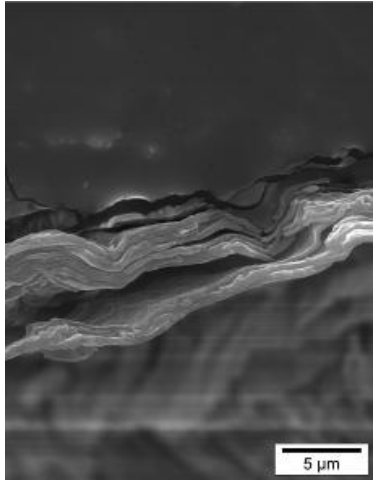
SYN®-TACKS CB – *in vivo* efficacy

Stratum Corneum Tape Strips

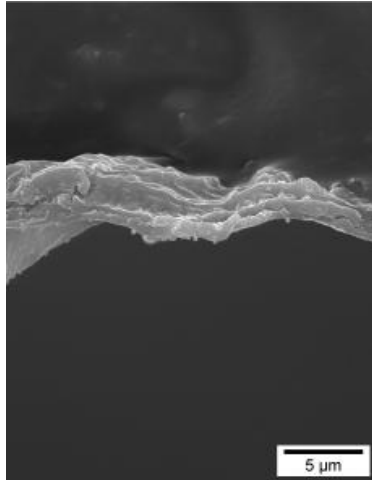
in vivo

Scanning electron microscopy of tape strips

Volunteer 77, age 44, 1% SYN®-TACKS CB

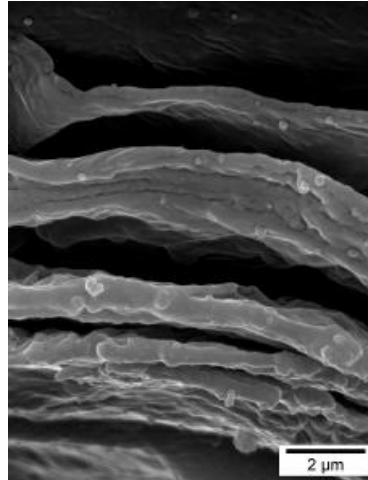


Day 0

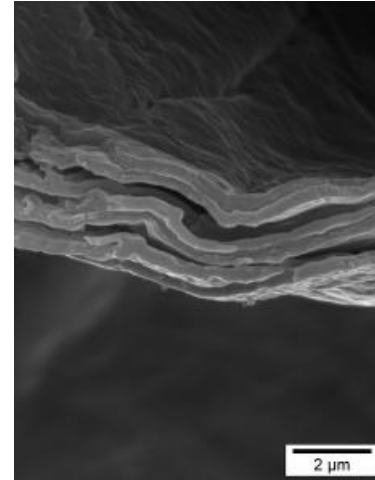


Day 84

Volunteer 88, age 62, 1% SYN®-TACKS CB



Day 0



Day 84

SYN®-TACKS CB improves cellular cohesion:

- Fewer layers are stripped off by tapes
- Layers show increased compactness

in vivo efficacy

SYN®-TACKS CB – *in vivo* efficacy

Macrophotographs

in vivo

Volunteer 73, age 43, 1% SYN®-TACKS CB, 56 days



Day 0



Day 56

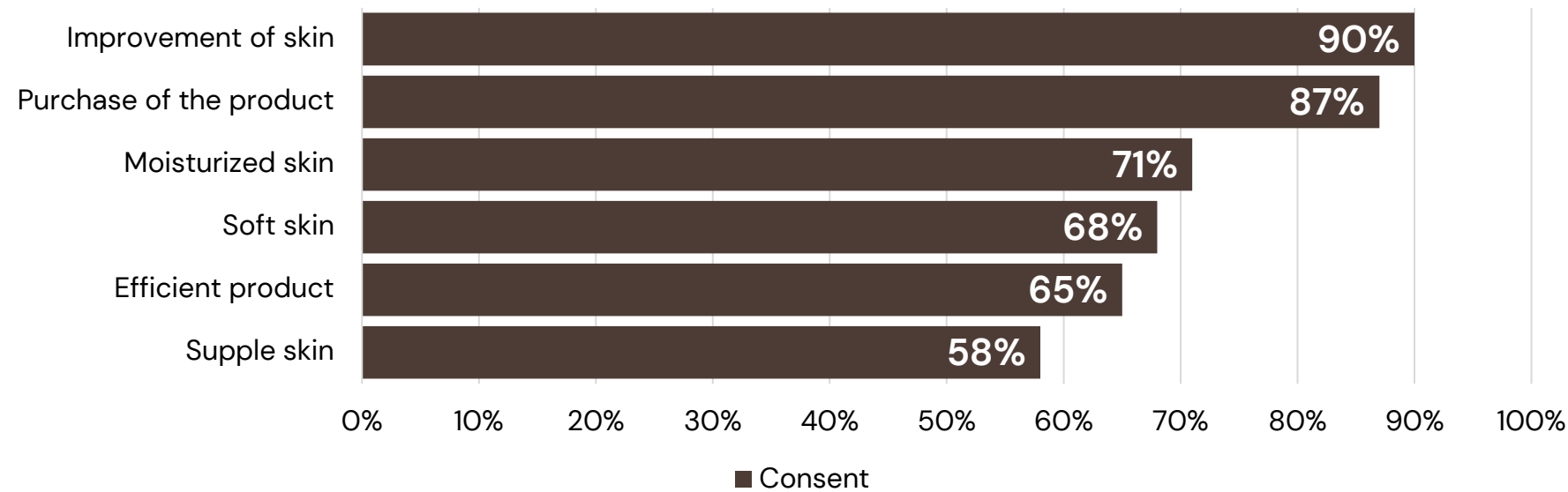
Visible aspects are clearly improved, less wrinkles and better overall improved skin appearance

in vivo efficacy

SYN®-TACKS CB – *in vivo* efficacy

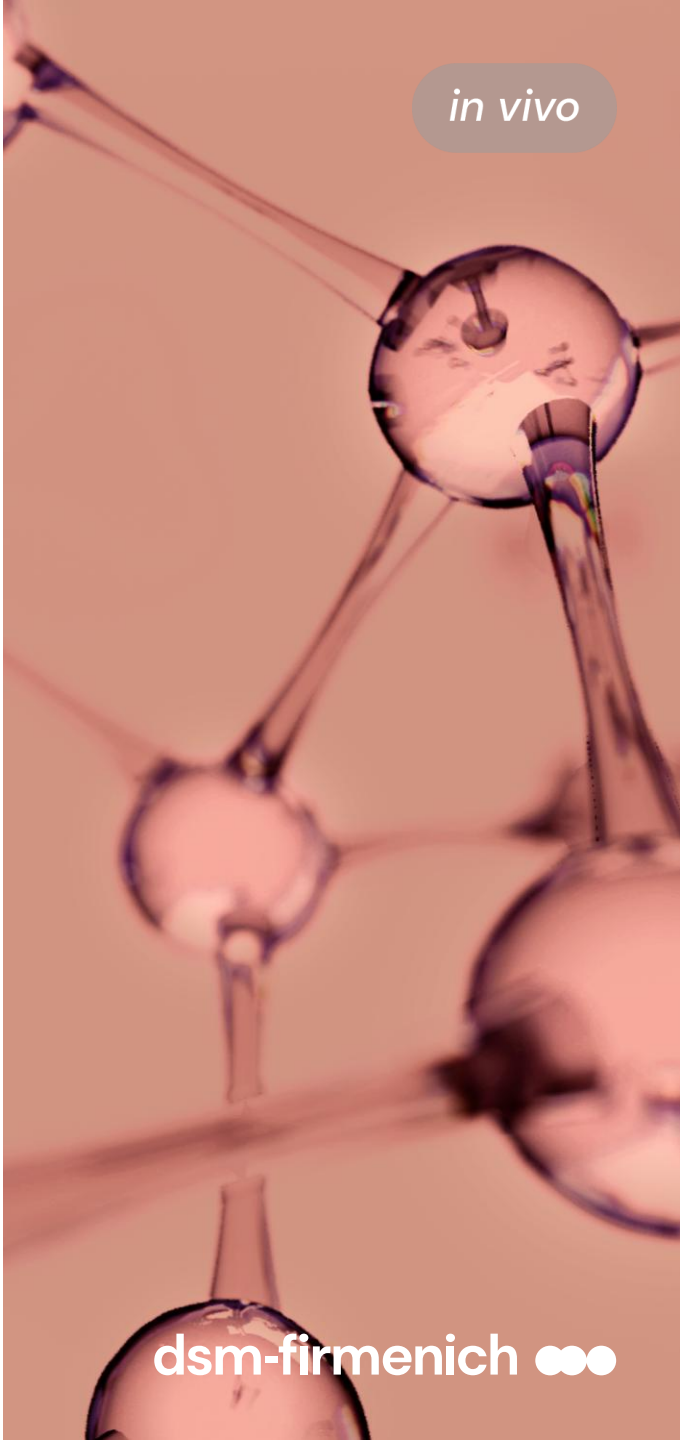
Evaluation questionnaire: Summary

n =30, 3 months, 1% SYN®-TACKS CB



About 90% report improved skin state and would purchase the product

in vivo efficacy



in vivo

SYN®-TACKS CB – *in vivo* efficacy

Clinical investigation: Summary

Improved Dermal-Epidermal Junction organization by SYN®-TACKS CB

- Improves skin tonicity, firmness, and suppleness after only two months.
- Skin anisotropy parameter is rejuvenated.
- Cellular cohesion is improved.
- Macro photographs show the overall improved appearance.
- SYN®-TACKS CB got excellent ratings in the evaluation questionnaire

in vivo efficacy



SYN®-TACKS CB

Easy to formulate with

- Offered as a glycerine-based aqueous solution
- Preservative- and PEG-free
- Optimal pH range in formulation from 3 to 5.5
- Stable at elevated temperature (80°C) for up to 2 hours
- Recommended concentration: 1%
- Guide formulations are available upon request



SYN®-TACKS CB

"Top of beauty"

- For a well-organized, younger looking skin
- The first complex to improve overall DEJ functionality
- Optimizes cellular communication of the skin
- Offers structural benefits to the skin
- Is safe for cosmetic use
- Easy to formulate with

SYN®-TACKS CB for a well-organized, healthy and beautiful skin!



Disclaimer

Copyright © dsm-firmenich Switzerland AG, 2026, 4002 Basel, Switzerland.
www.dsm-firmenich.com. All rights reserved.

dsm-firmenich has used diligent care to ensure that the information provided herein is accurate and up-to-date to the best of its knowledge. However, dsm-firmenich makes no representation or warranty, either expressly or implied, of the accuracy, reliability, completeness, or suitability thereof. The information provided herein contains scientific and product information for business-to-business use and does not constitute or provide scientific or medical advice, diagnosis or recommendation for treatment options. Country or region-specific information should be considered when labelling or advertising to final consumer. In no event shall dsm-firmenich be liable for any direct or indirect damages arising from or reliance upon, or use of, any information provided herein. The content of this document is subject to change without further notice. Please contact your local dsm-firmenich representative for the latest information. All trademarks listed in this document are either (registered) trademarks of, or trademarks licensed by, the dsm-firmenich group of companies, unless explicitly stated otherwise.

Disclaimer Formulation Guideline

The information provided herein is provided for information purposes only and has been prepared by dsm-firmenich in accordance with its own methodology. dsm-firmenich has used diligent care to ensure that it is accurate and up-to-date, however, dsm-firmenich makes no representation or warranty, either expressly or implied, of the accuracy, reliability, or completeness thereof. In no event shall dsm-firmenich be liable for any damages arising from or reliance upon, or use of, any information provided herein. Further, dsm-firmenich shall not bear any liability for the application and/or use of any processed material containing its product(s). The formulation of the finished product is the customer's sole responsibility. It is the customer's responsibility to determine the suitability of dsm-firmenich's products regarding user specific purposes, assess compatibility and stability of their finished product(s) and to ensure compliance of their finished product(s) with relevant laws and regulations. Any product, marketing or other claims made by customer are its sole responsibility. The content of this document is subject to change without further notice. Please contact your local dsm-firmenich representative for further details. © dsm-firmenich Switzerland AG, 2026.

We bring progress to life