

SYN-UP®

Unlock your skin's longevity



August 2026

Peptides | Pharma-inspired skincare



*Stronger,
visibly smoother,
and firmer skin*

dsm-firmenich 

SYN-UP®

ID Card

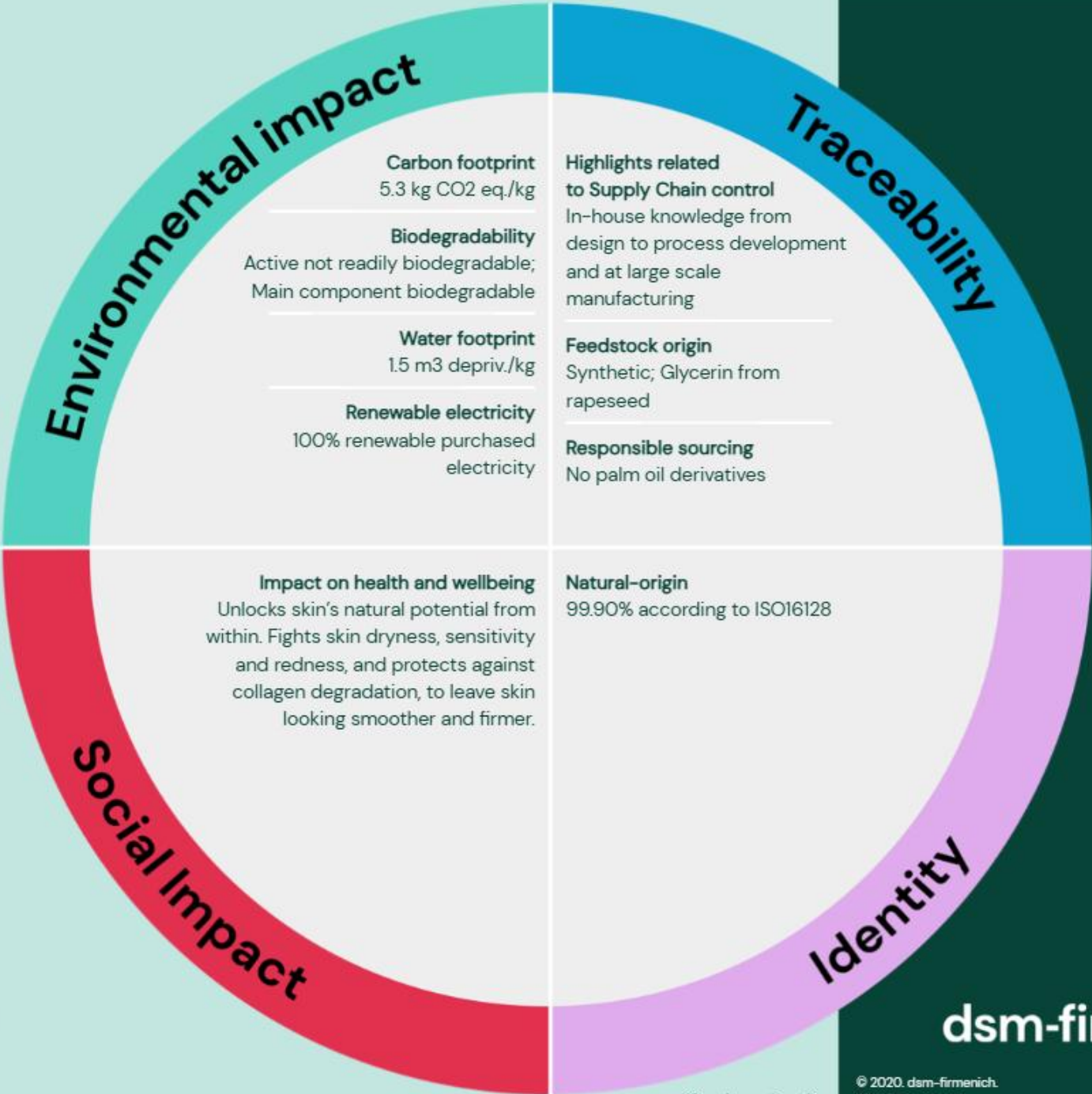
INCI NAME:	Amidinobenzyl Benzylsulfonyl D-Seryl Homophenylalaninamide Acetate, Aqua, Glycerin, Citric Acid, Sodium Hydroxide		
TECHNOLOGY:	- Highly potent patented dipeptide derivative, made by cutting-edge SYN®-Peptide technology via Green Chemistry Science to rebalance Plasmin activities, which is important for healthy-looking skin <i>In silico</i> structure-based peptide design and artificial intelligence (AI), visualized with molecular modelling - TFA-free¹ 99.9% of natural origin (according to ISO 16128)		
TECHNICAL:	Form: Liquid pH of use: 3.0-7.5	Use level: 1% Preservative: Free	Solubility: Miscible in water
BENEFITS:	- Promotes healthy-looking skin by inhibiting Plasmin levels* and rebalancing key bacteria S. Aureus and S. Epidermidis** - Reduces skin sensitivity and redness by modulation MMP 9*/***, CXCL5* and IL-8 activities* - Helps to smooth the skin by preventing the degradation of type IV Collagen*/*** and by stimulating type I Collagen* - Down-regulates melanin synthesis* - Makes the skin more resilient against stress attacks day-by-day** - Real, significant prevention of dry skin conditions** - Reduces redness and unpleasant skin sensations** - Visibly smoother and firmer skin** - Lighter age spots in just 2 weeks **		
REGISTRATION CERTIFICATION:	    		

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

SYN-UP®

INCI name: Amidinobenzyl Benzylsulfonyl D-Seryl
Homophenylalaninamide Acetate, Aqua, Glycerin, Citric Acid,
Sodium Hydroxide
Product codes: 5038341

PIONEER IN PEPTIDES
High performance active with
low carbon
footprint contribution
Natural inspired mechanism



Aligned with and contributing to the
SUSTAINABLE DEVELOPMENT GOALS



The carbon and water footprint calculations are based on internally conducted LCA according to ISO 14040/44 guidelines, dsm-firmenich LCA policy and validated by an internal reviewer.
The biodegradability is based on relevant OECD tests.

SYN-UP® : a combination of Efficacy and Sustainability



Carbon footprint of 5.3 kg CO₂ eq./kg. High efficiency allowing a low carbon footprint in use⁽¹⁾.



Green chemistry reaction type⁽²⁾ and waste minimization with an 80% solvent recovery



Manufactured in Switzerland with 100% renewable electricity⁽³⁾



>99% naturality according to ISO 16128⁽⁴⁾ and suitable for Clean Beauty

(1) Considering the 1% recommended use-level, 53 g CO₂ per kg of final formulation.

(2) Main reaction type is amidation

(3) The last production step in Aesch

(4) The full SYN-UP® formulation



The exposome threat

Every day external stressors, such as **UV irradiation**, **climate**, **pollution** or **chemicals** can disbalance the skin.

This process activates the production of pro-inflammatory molecules (cytokines) and proteolytic enzymes (MMP's, Plasmin, Urokinase...) triggering a series of skin damages and signs of aging.

Over time, the epidermis becomes thinner and more vulnerable, which also makes it more permeable to attack. This leads to the alteration of the Dermo-Epidermal Junction and the deterioration of Collagen in the Dermis.

The result?

The skin **becomes more fragile, prone to sensitization, loses its vitality** and **firmness...** in short, looks **unhealthy**.



What's happening inside the skin?

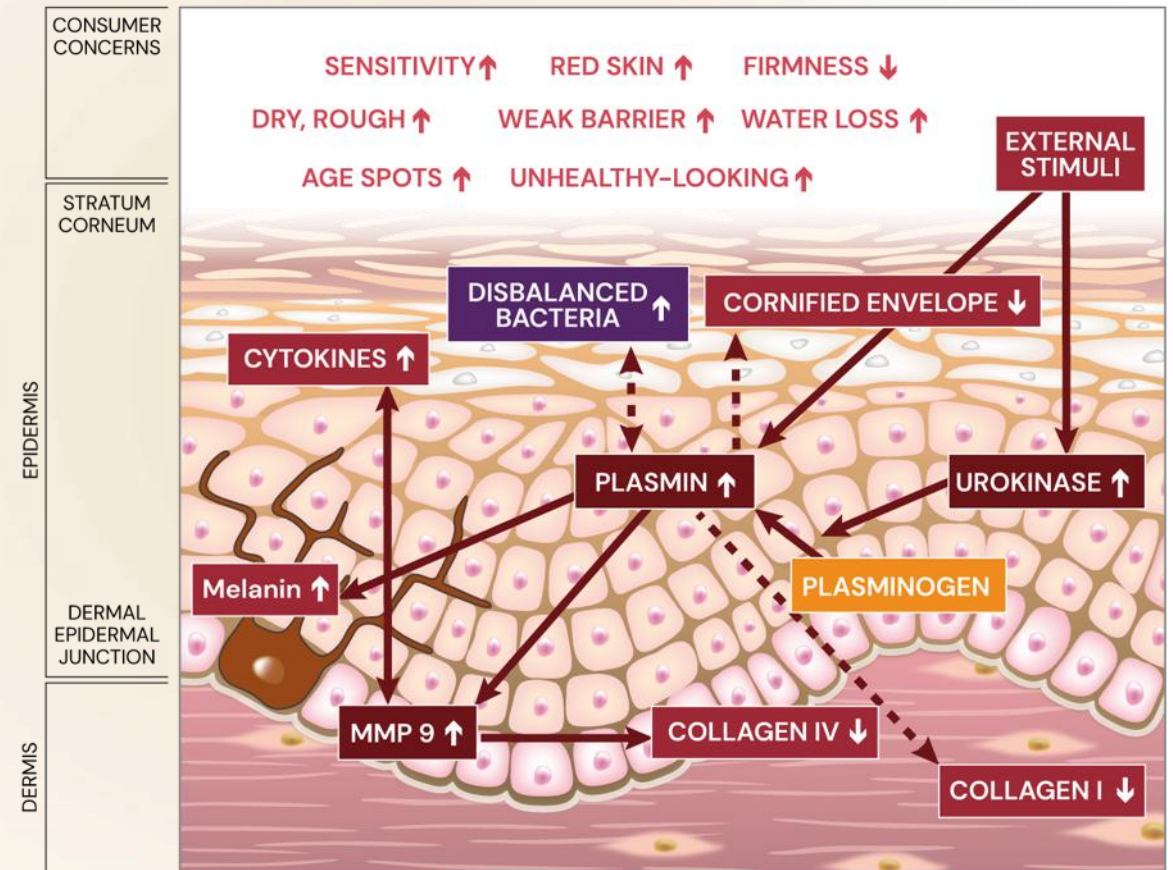
High Plasmin & Bacteria disbalance play a central role in unhealthy-looking skin



Plasmin is an enzyme responsible for protein activation and degradation and is widely present in the epidermis of the skin.

High Plasmin activities:

- **disbalance bacteria:** *S. aureus* affects skin barrier function via bacterial proteases, inflammation is triggered, and Plasmin is further activated leading to an even more vulnerable barrier¹.
- **affect the Cornified Envelope**, important for the protection and maintenance of the skin barrier
- **activate MMP 9** leading to increased levels of inflammatory cytokines and red skin conditions. Increased levels of MMP 9, which are also elevated in sun-exposed skin, mediate degradation of type IV Collagen, a major component in the Dermal Epidermal Junction.
- **activate MMP 1 levels** leading to the **degradation of type I Collagen** so the skin has less structural support². When Collagen is compromised, skin loses elasticity & firmness.
- **increase melanin synthesis** leading to uneven skin tone and age spots.

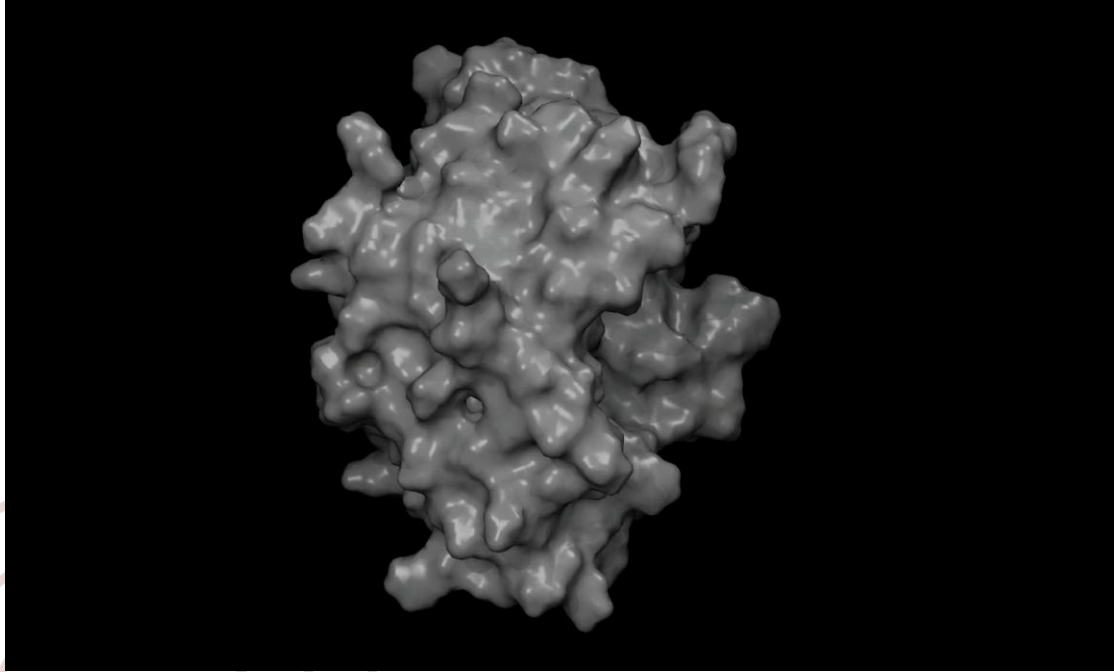


1) Allergy Asthma Immunol Res. 2019 Sep;11(5): 593–603

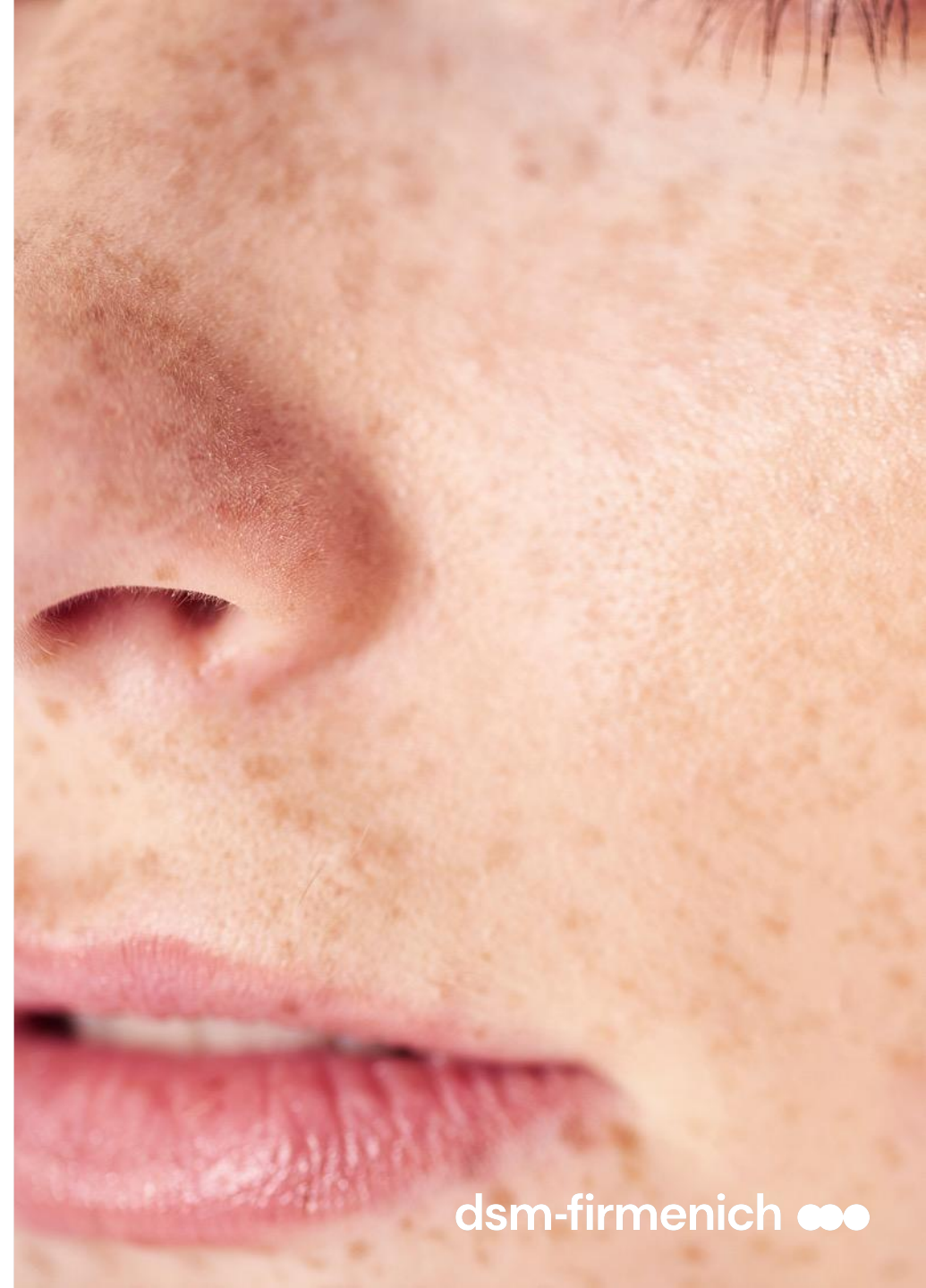
2) Experimental Dermatology 2018;27:520–525.

SYN-UP[®] peptide targets Plasmin

Visualized with molecular modelling



- **Molecular modelling approach and Artificial Intelligence (AI)** provides accurate prediction of the mode of action
- **SYN-UP[®] peptide** (in blue) fits with the perfect size and shape like a key into a lock of the active site (the key-hole) of Plasmin (the lock - in green)

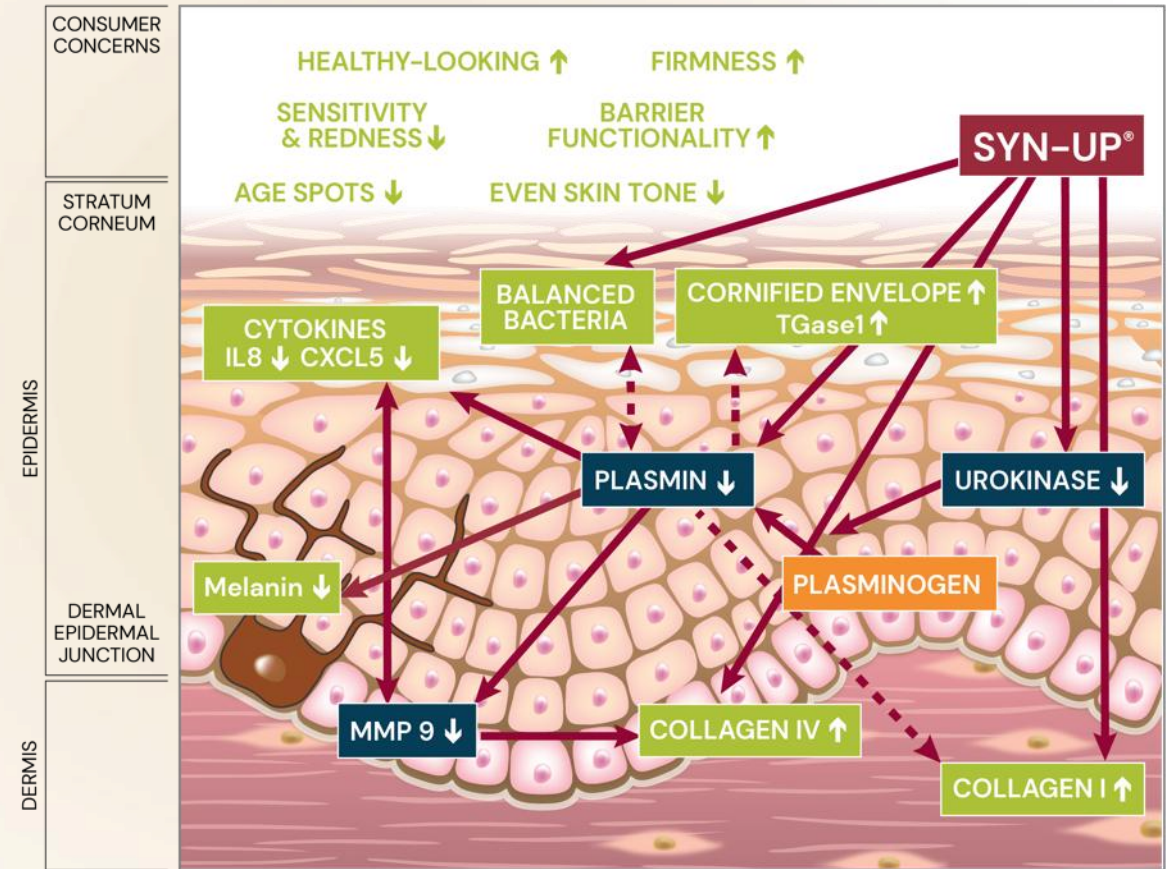


SYN-UP® unlock your skin's longevity

One biological target (Plasmin) to drive improvement across all skin layers



- **SYN-UP® promotes healthy-looking skin** by inhibiting Plasmin and Urokinase* activities and balancing key bacteria *S. Aureus** and *S. Epidermidis***.
- **SYN-UP® reduces skin sensitivity and redness** by modulation of MMP 9, CXCL5 and IL-8 activities*.
- **SYN-UP® increases skin barrier functionality** by up-regulation of Transglutaminase 1 (TGase1)*.
- **SYN-UP® helps to smooth and firm the skin** by preventing the degradation of type IV Collagen* and by stimulating type I Collagen*.
- **SYN-UP® down-regulates melanin synthesis*** leading to more even skin tone and age spot reduction**.



SYN-UP®: in vitro proven efficacy

Significant facts & benefits



Benefits	Skin Biomarker	Facts	Method
Healthy-looking skin	Plasmin Urokinase	-60% ¹ -97% ¹	In vitro In vitro
Skin barrier protection	Transglutaminase 1	+10x ¹	In vitro
Skin sensitivity improvement	CXCL5	-60% ¹	In vitro
Skin redness reduction	IL-8	-51% ¹	In vitro
Skin redness reduction	MMP-9	-79% ¹	Ex vivo
Increased smooth & firm skin	Collagen IV	+14% ¹	Ex vivo
Increased smooth & firm skin	Collagen I	+88% ¹	In vitro
Even skin tone	Melanin	-58% ¹	In vitro

SYN-UP®: in vivo proven efficacy

Significant & visible facts & benefits



Benefits	14 Days	28 Days	56 Days
Skin dryness reduction°	n/a	95% volunteers	n/a
Skin sensitivity reduction°	n/a	100% volunteers ³	n/a
Skin barrier improvement°°	+ 8% ¹	+ 15% ¹	+19% ¹
Collagen boost (cheek)°°	+33% ¹	+55% ¹	+78% ^{1,2}
Collagen boost (crow's feet area)°°	+11% ¹	+30% ¹	+29% ^{1,2}
Skin elasticity boost (cheek)°°	+7% ¹	+11% ¹	+16% ¹
Skin elasticity boost (crow's feet area)°°	+8% ¹	+12% ¹	+19% ¹
Forehead wrinkle reduction°°	-6% ^{1,2}	-8% ^{1,2}	-10% ^{1,2}
Crow's feet wrinkle reduction°°	-7% ^{1,2}	-7% ^{1,2}	-10% ^{1,2}
Lighter age spots°°	+9% ¹	+20% ¹	+26% ^{1,2}
Smaller age spots°°	-6% ¹	-10% ¹	-12% ^{1,2}

Strong visible results – in vivo

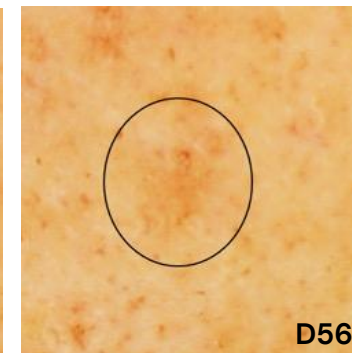
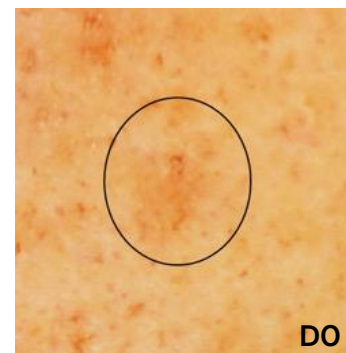
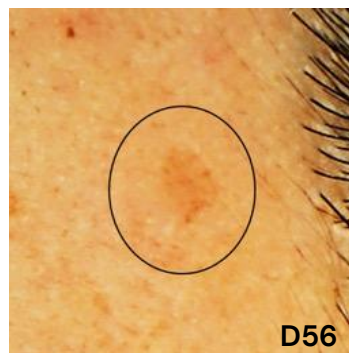
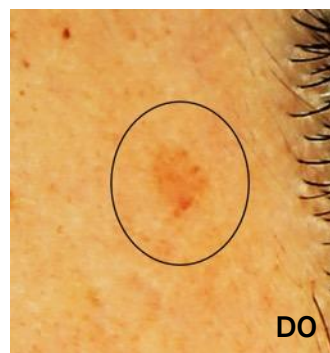
Forehead wrinkles reduction with 1% SYN-UP®, Volunteer #26



Crow's feet wrinkles reduction with 1% SYN-UP®, Volunteer #25



Age spots reduction with 1% SYN-UP®, Volunteers #36 and #60





REVEAL

UNLOCK YOUR
SKIN'S LONGEVITY

MINIMAL SKINCARE FOR
MAXIMUM RESULTS

WITH **SYN-UP[®]** PEPTIDE



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