

SYN[®]-Peptides

Revealing the
power of visible,
targeted effects





The SYN[®]-Peptides portfolio


At DSM we believe that the quest for perfect skin is a powerful driver for scientific research. And we are convinced that our small synthetic peptide molecules are making a big difference, opening up new dimensions in skin care to deliver ultimate results.

DSM has developed a unique and proprietary portfolio of synthetic molecules with low molecular weight and high efficacy – the SYN[®]-Peptides range.

Each individual SYN[®]-Peptide offers a specific skin benefit based on substantiated efficacy. The range is proven to be highly effective in the fight against even pronounced skin ageing concerns.

As a pioneer in synthetic peptides, DSM owns a patented portfolio of SYN[®]-Peptides. Our in-depth knowledge of peptide processing technology and formulation ensures quality and flexibility over the whole production process at scale. SYN[®]-Peptides are offered as stable compositions easy to blend into various skin care applications. The unique peptide structure is aimed to target specific processes and to guarantee visible results.





What makes the SYN[®]-Peptides portfolio unique?

Proteins and peptides play an important role in the beauty of skin as structural components such as collagen, elastin and laminin, and as inhibitors and stimulating agents such as growth factors like TGF- β or regulators of biochemical processes.

At DSM, we use our bright science to develop very small-sized but potent tri- and tetra-peptides that are more likely to ensure visible, targeted effects. Their increasing success is based on the fact that they are trusted as biologically-active ingredients and that they perfectly fit consumer desires for powerful ingredients based on scientific breakthroughs.

The design of SYN[®]-Peptides is inspired by naturally-occurring proteins and peptides. Our state-of-the-art peptide synthesis technologies allow tailor-made modification to mimic natural peptide activity. Thanks to their activity and stability, SYN[®]-Peptides help to maximize the value of cosmetic formulations.

Our entire SYN[®]-Peptides range is offered in a stable glycerin/water base with no additional preservative system. This allows broad application in most cosmetic formulas at the low level of 1 to 4%. Each SYN[®]-Peptide is claim-substantiated based on thorough in vitro and in vivo study results, and comes with formulation guidance.



The SYN[®]-Peptides Portfolio

SYN[®]-TACKS

Boosting beauty through the dermal-epidermal junction

A well-folded dermal-epidermal junction (DEJ) is the basis for healthy, firm skin. As we get older, the DEJ becomes flatter and less well organized, resulting in wrinkles and other signs of aging. SYN[®]-TACKS restores DEJ function by boosting the synthesis of hemidesmosomal proteins. It increases elasticity, firmness and suppleness, so that skin looks and feels younger within weeks.



SYN[®]-HYCAN

Firming and remodelling by hyaluronan from within

Loss of skin firmness is one of the very visible signs of aging. SYN[®]-HYCAN helps fight skin sagging by boosting hyaluronan content in the skin. The tripeptide also increases the expression of decorin and lumican, two important proteoglycans, which support the formation of new collagen fibrils and increase their quality and strength. Fresh hyaluronan and stronger collagen fibrils result in a visible remodeling effect.



SYN[®]-COLL

Reverse visible signs of photo-aging in just 4 weeks

SYN[®]-COLL – a small molecular synthetic peptide – has been designed to prevent the formation of wrinkles and to reduce their appearance. The SYN[®]-COLL molecule has a dual effect. Firstly, it boosts collagen by mimicking the human body's own mechanism to activate latent transforming growth factor beta, TGF- β (Tissue Growth Factor), a key element in the synthesis of collagen. It also protects collagen from degradation through the inhibition of matrix metalloproteinases (MMP). Both activities work synergistically to maintain complete structural integrity of the skin.



SYN[®]-EYE[®]

Lineless eyes within 7 days

SYN[®]-EYE combines the latest SYN[®]-peptide technology with superior bioactives in a multifunctional eye care formula. SYN[®]-EYE helps to improve skin texture and smoothes the delicate skin eye area. Within just 7 days SYN[®]-EYE visibly reduces the appearance of lines and wrinkles around the eyes and after 14 days a brighter skin color in the dark circle area was perceived. Alongside the outstanding anti-ageing results, the clinical study showed very high consumer acceptance in all key aspects of eye care compared to benchmark.



SYN[®]-AKE

Stop wrinkling –keep laughing

Facial expressions are part and parcel of daily communication. Young skin is resilient to involuntary muscle contractions of the face, but older skin develops expression lines, such as crow's feet and forehead wrinkles. Let your face relax without losing the ability to express yourself. SYN[®]-AKE's effect reduces the appearance wrinkles, and is fast acting, long-lasting and fully reversible.



SYN[®]-TC[®]

Experience a new dimension of skin smoothing in only 28 days

SYN[®]-TC is a synthetic peptide-based complex, tailor-made to ensure best performance for high-performing, facial anti-ageing formulas. It significantly increases the formation of Collagen I, III, IV, VII and XVII to facilitate their unique contribution to beautiful, smooth skin. In a comprehensive study, consumers confirmed they experienced a new dimension of skin smoothing. In only 28 days at a usage level of 2.5%, skin becomes smoother with a softer touch and an improved overall young-looking appearance.

SYN[®]-STAR[®]

The Global Beauty Maximizer

SYN[®]-STAR™ – an innovation based on existing patented peptide technology – showed, for the first time, a global anti-ageing and mattifying effect in a study on three different skin tones. The enzyme PLOD3 (procollagen-lysine, -oxoglutarate 5-dioxygenase 3) is known to be important for the stability of intermolecular collagen crosslinks. New in-vitro tests confirmed that SYN[®]-STAR™ stimulates PLOD3, increasing collagen stability, specifically in mature skin, by a factor of more than 4.

In an *in vitro* assay SYN[®]-STAR™ was shown to inhibit DPP4 (dipeptidyl peptidase-4), a key enzyme involved in sebum flow. A survey of volunteers, 83% of women agreed that they felt more confident and ready for a fabulous day after a 4% treatment with SYN[®]-STAR™.

SYN[®]-UP[®]

Unlock your skin's longevity

Every day external stressors, such as UV irradiation, pollution, cold, heat and wind can disbalance the skin. This process activates the production of Plasmin, triggering a series of skin damages and visible signs of aging. SYN[®]-UP[®] is our peptide solution for multiple skin benefits – the smart key to long term healthy & youthful looking skin. By rebalancing Plasmin levels, this unique dipeptide improves the skin barrier functionality by interacting with the microbiome, combats skin dryness, sensitivity and redness, and helps to smooth and firm the skin.

SYN[®]-UP[®] is now allowed to be used in skincare formulations in the China market with its successful notification as a New Cosmetic Ingredient (NCI) under the country's new cosmetic legislation.



For more information, please visit www.dsm.com/personal-care

Europe

DSM Nutritional Products Europe Ltd
Personal Care
Wurmisweg 576, CH-4303 Kaiseraugst
Switzerland
Phone: +41 (61) 815 8888
Email: info.pc-emea@dsm.com

North America

DSM Nutritional Products, LLC
45 Waterview Boulevard, Parsippany, NJ 07054
United States of America
Phone: +1 800 526 0189
Fax: +1 973 257 8580
Email: info.pc-na@dsm.com

Asia Pacific

DSM Singapore Industrial Pte Ltd.
trading as DSM Nutritional Products Asia Pacific
30 Pasir Panjang Road
Mapletree Business City #13-31
Singapore 117440
Phone: +65 6632 6617
Fax: +65 6632 6600
Email: info.pc-apac@dsm.com

Latin America

DSM Produtos Nutricionais Brasil S.A.
Av. Juscelino Kubitschek, 1909, Torre Sul, 5o andar
03178-200 Brasil
Phone: + 55 11 3760 6409
Fax: + 55 11 3760 6492
Email: info.pc-latam@dsm.com

China

No. 476, Libing Road, Zhangjiang
Pudong, Shanghai 201203
China
Phone: +86 21 6171 8240
Fax: +86 21 61716266
Email: info.pc-china@dsm.com



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