



# SCH PeptCare™ Oil Soluble

Actives for the skin

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# 01

## Introduction

# 01

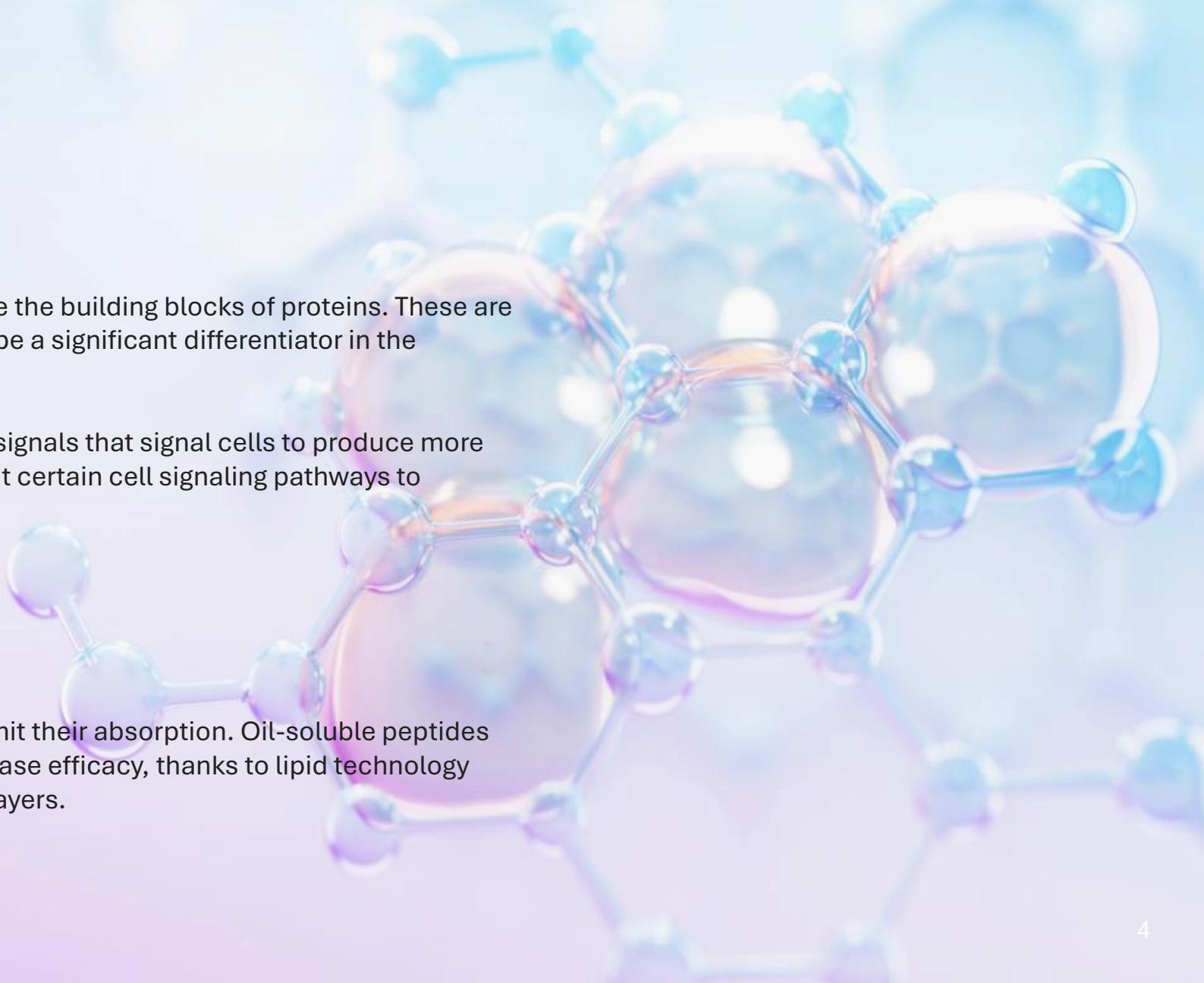
## Peptides

Peptides are small chains of amino acids, which are the building blocks of proteins. These are advanced and highly effective ingredients that can be a significant differentiator in the cosmetic market.

At the cellular level, peptides can act as biological signals that signal cells to produce more molecules such as collagen and elastin, or to inhibit certain cell signaling pathways to modulate the appearance of the skin from within.

## Solubility

Normally, peptides are water-soluble, which can limit their absorption. Oil-soluble peptides improve skin affinity, optimize absorption and increase efficacy, thanks to lipid technology that enhances active infusion into the skin's living layers.



02

## Oil-soluble peptide proposals



## 02 SCH PeptCare™ PaTT7 Oil

**Fights inflammatory aging, helping to preserve the skin's youthfulness**

INCI: Palmitoyl tetrapeptide-7

**Bio-signalling peptide** → Mimics the structure of IgG antibodies to activate cell signaling pathways in the skin.

**Inflammatory anti-aging action** → Inhibits inappropriate inflammatory responses and glycation damage (protects collagen) and stimulates collagen and fibronectin synthesis (promotes collagen).

**Stable and easily absorbed** → Palmitoyl modification improves stability and transdermal absorption, increasing its efficacy in oil formulations.

**Application suggestions** → Ideal for clear oils, makeup removers, lotions and creams, in concentrations from 0.1% to 5%.

## 02 SCH PeptCare™ PaTT7 Oil

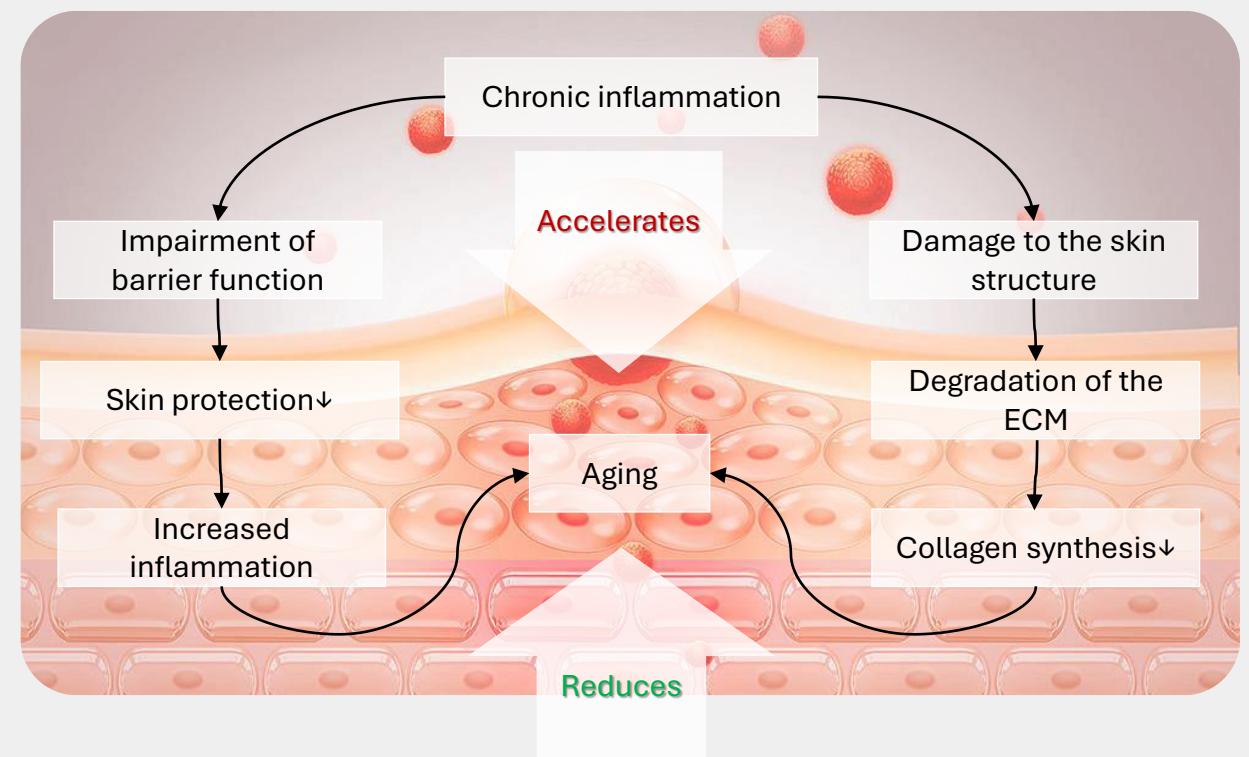
### Mechanism of action

INCI: Palmitoyl tetrapeptide-7

**Anti-inflammation** → Inhibits inflammatory factors such as IL-6 and IL-1 $\beta$ , correcting inflammatory damage.

**Collagen promotion** → Acts as a signaling messenger, stimulating collagen and fibronectin production.

**Collagen protection** → Helps preserve collagen by reducing inflammation and glycation reactions.

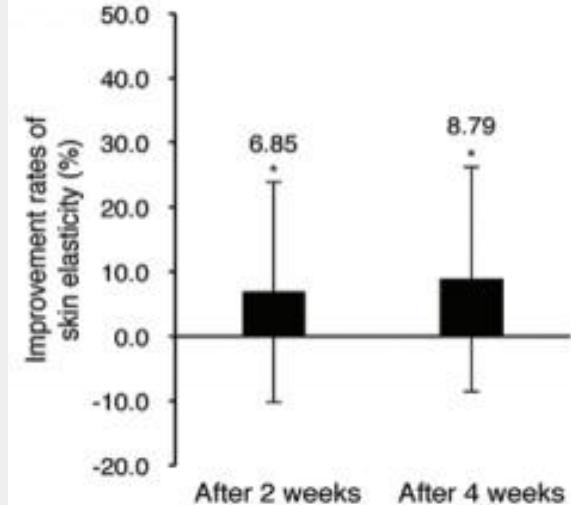


## 02 SCH PeptCare™ PaTT7 Oil

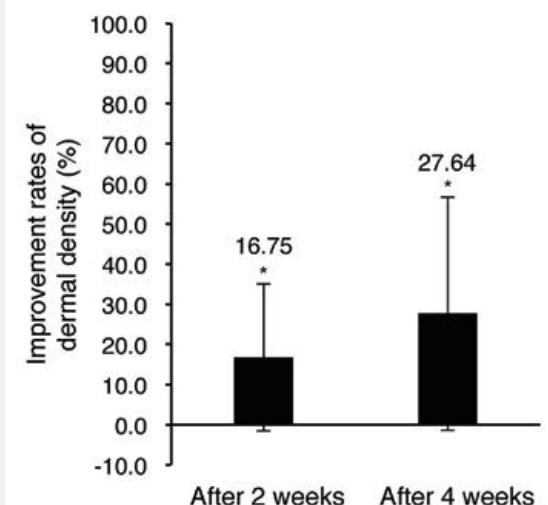
### Efficacy test

20 people used a face cream and eye cream containing 1% SCH PeptCare™ PaTT7 Oil for 28 days, and the results showed that the products had good effects on improving wrinkles, skin elasticity, skin density and skin tone.

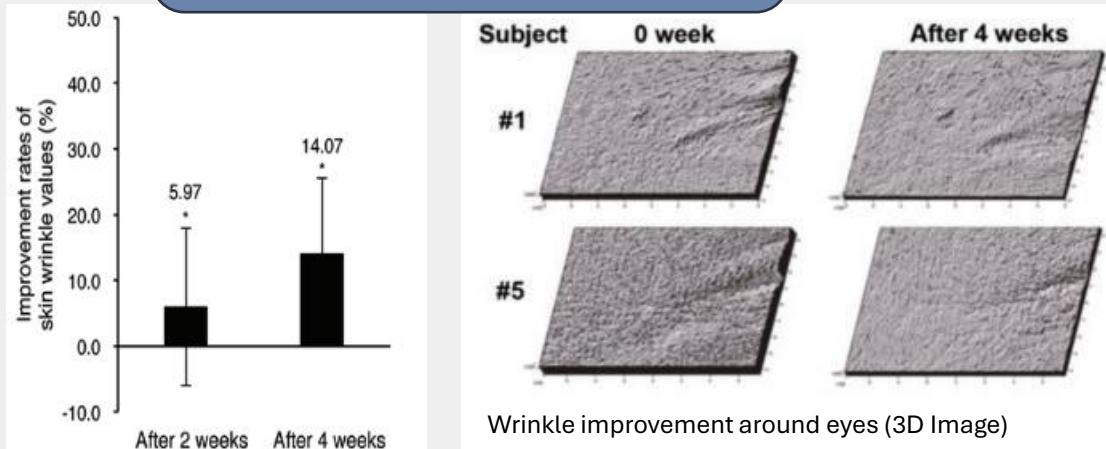
Skin elasticity: +8,79%



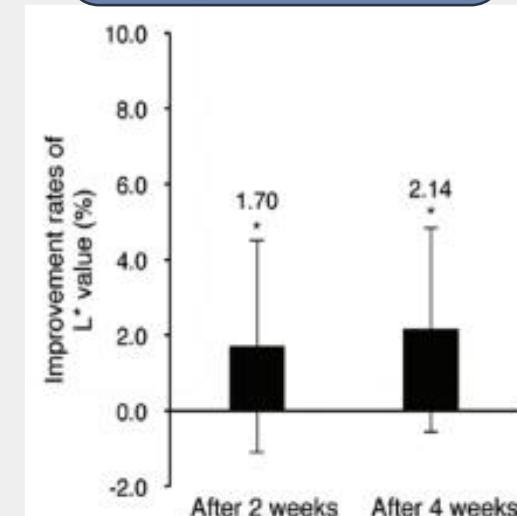
Skin density: +27,63%



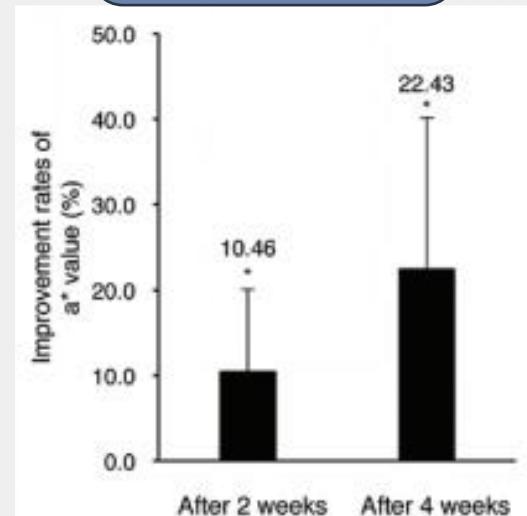
Wrinkle reduction: -14,07%



Luminosity: +2,14%



Redness: -22,39%





## 02 SCH PeptCare™ PaT1 Oil

**Stimulates dermal regeneration and improves skin firmness and elasticity**

INCI: Palmitoyl tripeptide-1

**Biomimetic peptide** → Fragment of type I collagen (GHK sequence) that acts as a growth factor, activating dermal repair pathways.

**Collagen and GAG stimulation** → Promotes the synthesis of collagen, hyaluronic acid and other glycosaminoglycans, improving firmness, elasticity and water retention capacity.

**High skin penetration** → Palmitoyl modification increases peptide lipophilicity, improving its absorption and efficacy in oil formulations.

**Ideal for sensitive skin** → Its excellent tolerance profile makes it suitable for lips, eye contour and sensitized skin.

**Application suggestions** → Ideal for clear oils, makeup removers, lotions and creams, in concentrations from 0.1% to 5%.

## 02 SCH PeptCare™ PaT1 Oil

### Mechanism of action

INCI: Palmitoyl tripeptide-1

**Smart dermal activator** → It binds to receptors on fibroblasts mimicking growth factors (TGF- $\beta$ ), stimulating the production of extracellular matrix.

**Dermal matrix regeneration** → Increases the synthesis of type I and III collagen, hyaluronic acid and fibronectin, restoring dermal architecture.

**Synergy with retinoids** → Enhances the action of retinoids without irritation, with a visible firming and anti-aging effect.

#### ***Palmitoyl tripeptide-1***

It is quickly absorbed by skin cells because it forms the smallest unit of collagen formation



#### ***Conventional collagen peptide***

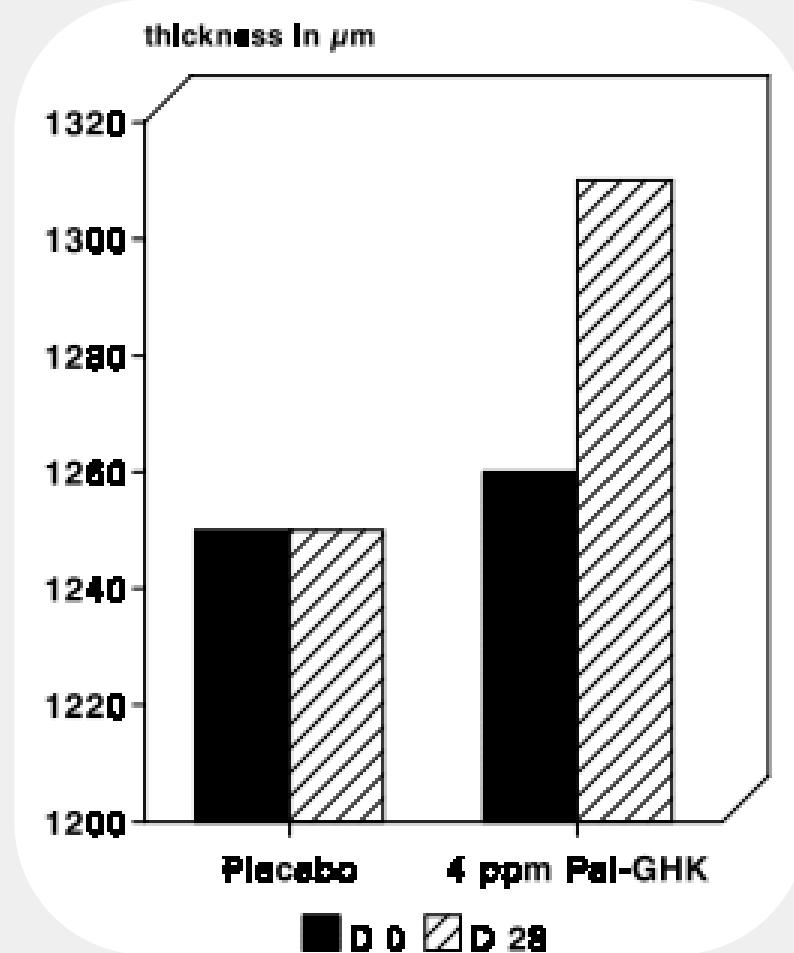
It is too large to be absorbed due to its molecular weight and must go through degradation processes

## 02 SCH PeptCare™ PaT1 Oil

### Efficacy test

In vivo and ex vivo studies with SCH PeptCare™ PaT1 Oil have been carried out on irradiated skin with daily doses of UVA for one week (to degrade collagen) to see its recovery in terms of barrier thickness, coinciding with an anti-aging effect. The skin is considered to reduce its thickness by approximately 6% every 10 years.

After a study on 23 volunteers during 4 weeks of applying a cream with 0,0004% SCH PeptCare™ PaT1 Oil to the forearm for better subsequent analysis, a 4% increase in skin thickness was seen.



Skin thickness after 28 days: +4%



## 02 SCH PeptCare™ Calm Mix Oil

**Soothes inflammation and reduces redness, promoting more balanced skin**

INCI: Palmitoyl tetrapeptide-7 & Palmitoyl tripeptide-8

**Palmitoyl tetrapeptide-7: fights inflammatory aging** → It simulates IgG immunoglobulin fragments to regulate inflammatory factors, balance inflammation damage, and at the same time promote and protect collagen synthesis.

**Palmitoyl tripeptide-8: quickly reduces redness** → It is a small-molecule biomimetic tripeptide with high anti-inflammatory activity, which addresses inflammatory and allergic skin problems from the source and through multiple pathways, based on the principle of skin allergy.

**Application suggestions** → Ideal for soothing and repairing sensitive or intolerant skin on a daily basis. Recommended for clear treatment oils, makeup removers, lotions and creams, in concentrations from 0,01% to 5%.

## 02 SCH PeptCare™ Calm Mix Oil

### Mechanism of action

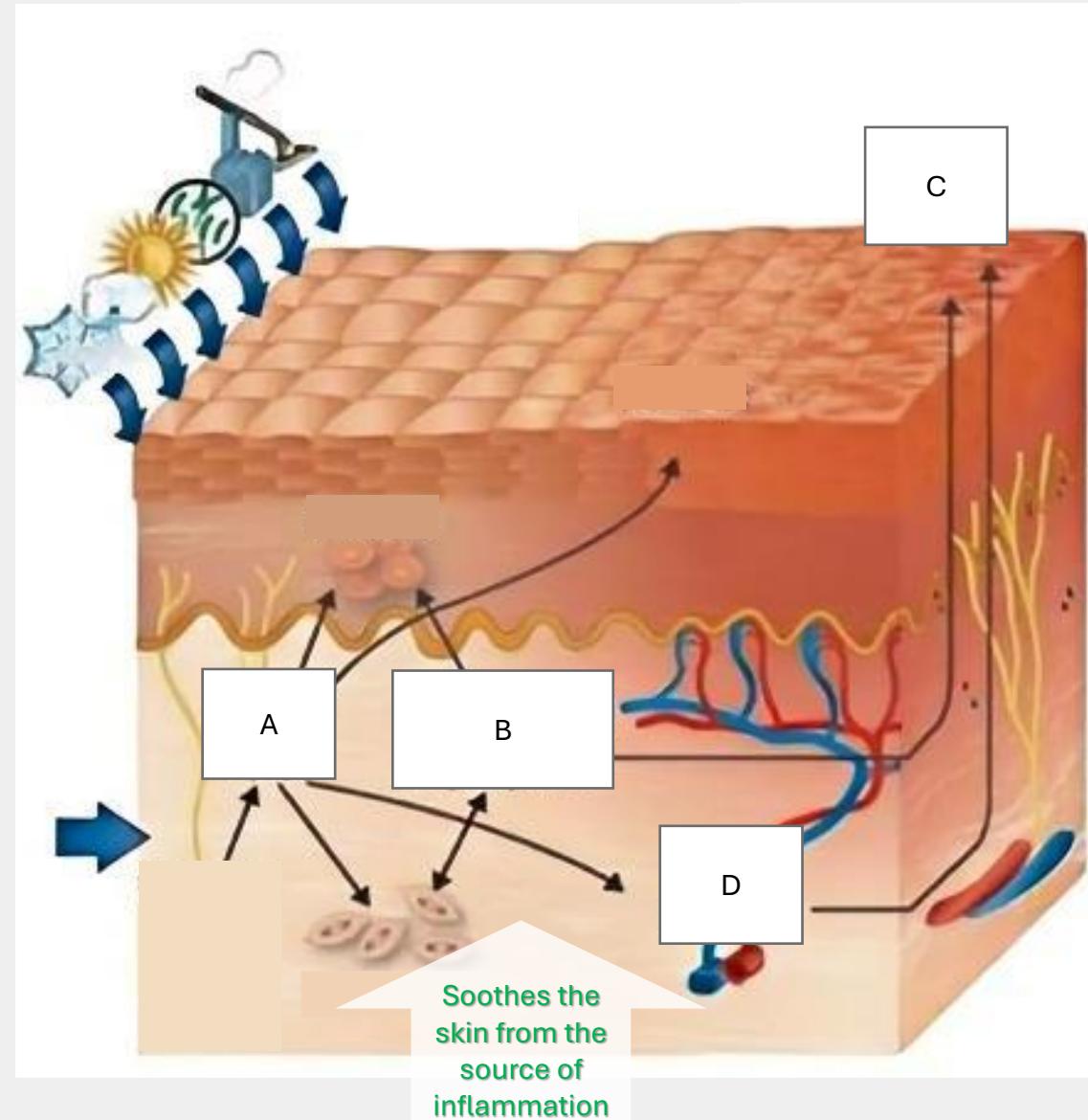
#### Palmitoyl tripeptide-8

**A** → It reduces the release of substance P (neuropeptide), thus decreasing the release of inflammatory factors.

**B** → It simulates the structure of  $\alpha$ -MSH (inflammation regulatory protein), binds to the MC1-R receptor, and reduces the expression of inflammatory factors.

**C** → Prevents and reduces external stimuli, helping to maintain and restore the skin's normal threshold of sensitivity.

**D** → Decreases vasodilation and vascular permeability, reducing edema and erythema.



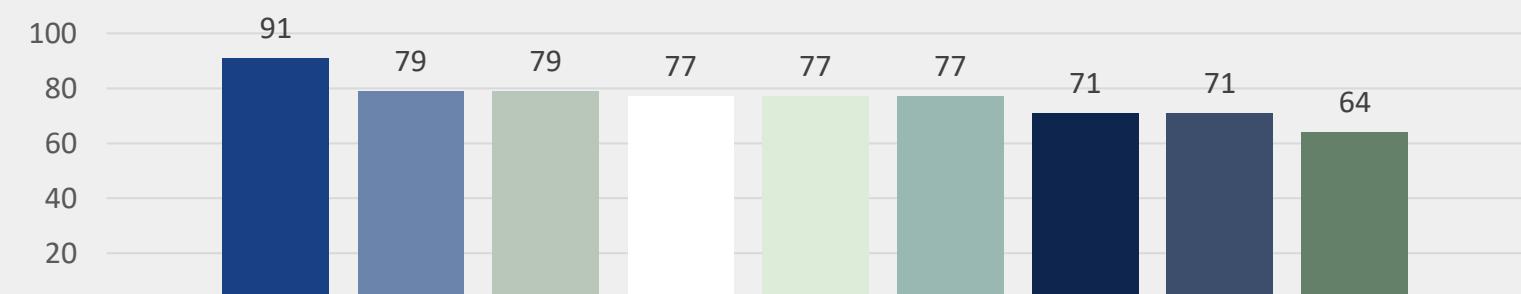
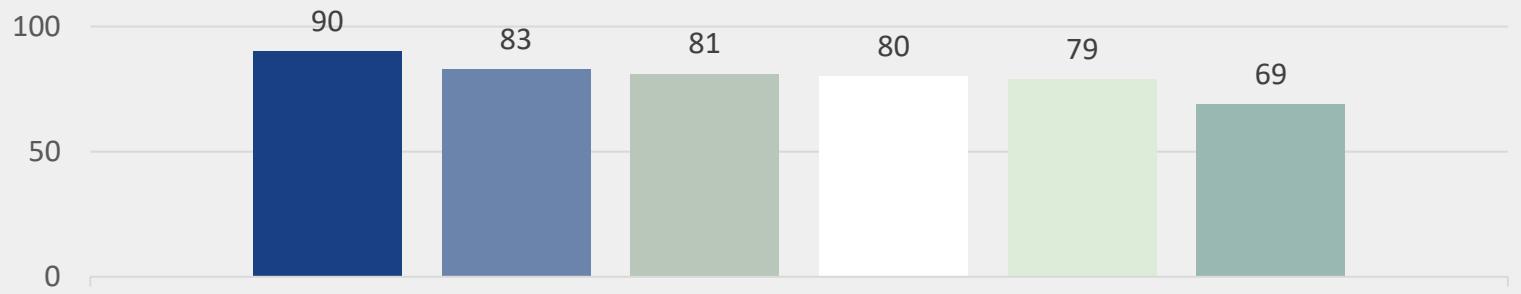
## 02 SCH PeptCare™ Calm Mix Oil

### Efficacy test

A study was conducted with 57 male volunteers (50% with sensitive skin), who applied a moisturizer with 2% palmitoyl tripeptide-8 solution at 200 ppm after their morning shave. Self-assessment using questionnaires was performed after 1 week and 4 weeks of use.

### Results

- Rapid effect already in the first week.
- Reduction of the burning and stinging sensation caused by mechanical irritation.
- Improved skin protection and comfort.

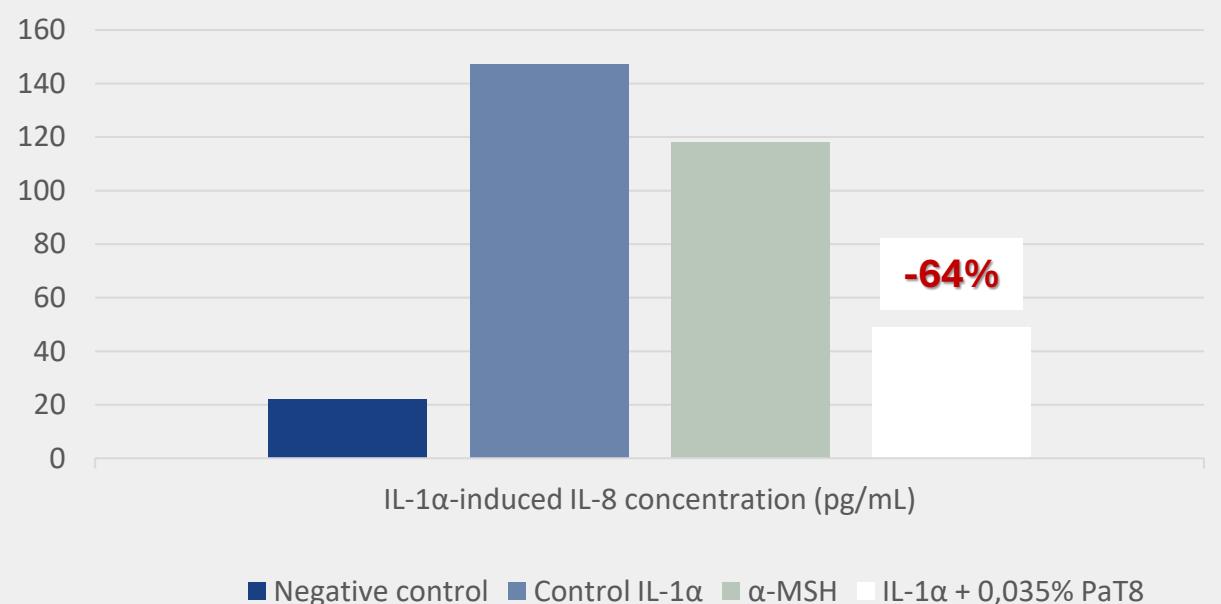
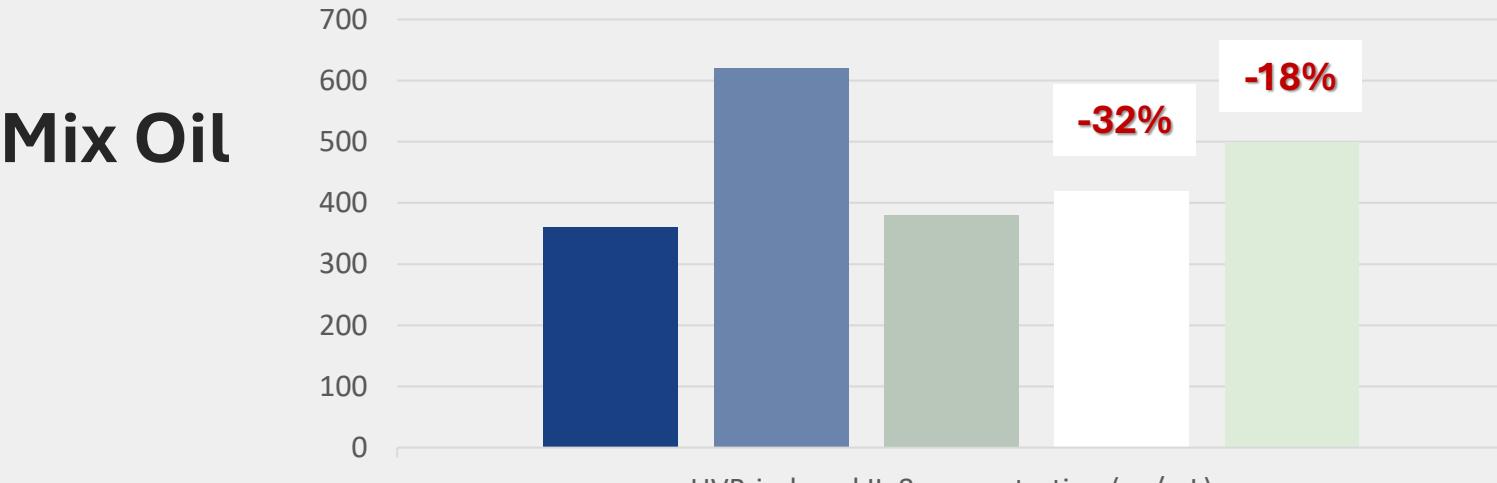


- Skin feels more comfortable
- Reduces irritation during shaving
- Relieves irritation caused by shaving
- Soothes skin tightness
- Provides an immediate soothing effect
- Relieves skin redness
- Improves skin redness
- Relieves irritation during shaving
- Protects the skin from irritation caused by shaving
- Reduces the stinging sensation
- Provides a refreshing sensation
- Relieves irritation caused by shaving
- Relieves itching
- Improves shaving comfort
- Reduces irritation during shaving
- Reduces the stinging sensation
- Skin looks revitalized
- Reduces irritation during shaving

## 02 SCH PeptCare™ Calm Mix Oil

### Efficacy test

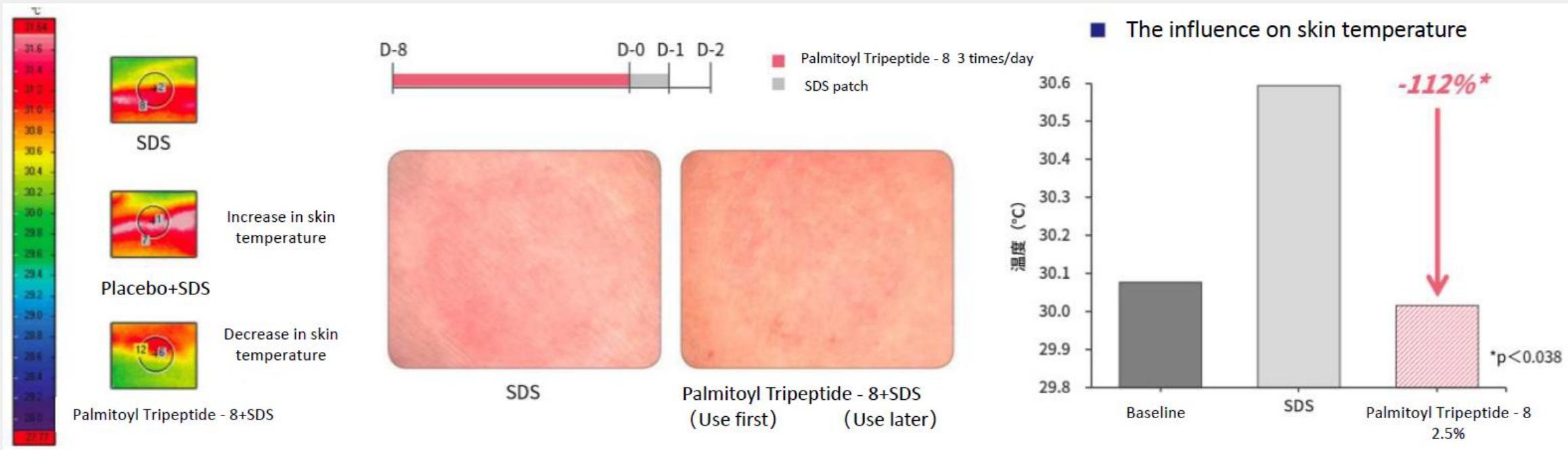
One study showed that 0,035% palmitoyl tripeptide-8 can inhibit 32% of the inflammatory response caused by UV rays, protect the skin from UV damage, and inhibit 64% of inflammation caused by inhibition of inflammatory factor induced by pro-inflammatory and anti-inflammatory cytokines at its source.



## 02 SCH PeptCare™ Calm Mix Oil

### Efficacy test

8 volunteers with normal skin were given placebo or a 2,5% palmitoyl tripeptide-8 solution three times a day for eight days. On the ninth day, SDS patches were removed (to induce irritation) and skin temperature was measured using thermography. The results showed that 2,5% palmitoyl tripeptide-8 used during 8 days of stimulation was able to reduce skin temperature by 112%, helping to maintain a normal sensitivity threshold and prevent skin irritation.





## 02 SCH PeptCare™ Ageless Mix Oil

**Stimulates collagen synthesis, promoting skin regeneration and firmness**

INCI: Palmitoyl tetrapeptide-7 & Palmitoyl tripeptide-1

**Palmitoyl tetrapeptide-7: anti-inflammatory and anti-aging** → It simulates IgG immunoglobulin fragments to regulate inflammatory factors, balance inflammatory damage, and at the same time has a good promoter/protective effect on collagen.

**Palmitoyl tripeptide-1: powerful collagen promoter** → Active peptides derived from collagen fragments that stimulate the synthesis of a large amount of collagen in the skin, deeply repairing it. Palmitoylation promotes better transdermal absorption.

**Application suggestions** → Suitable for the prevention of wrinkles and aging, improves skin quality. Recommended for clear treatment oils, makeup removers, lotions and creams, in concentrations from 0,01% to 5%.

## 02 SCH PeptCare™ Ageless Mix Oil

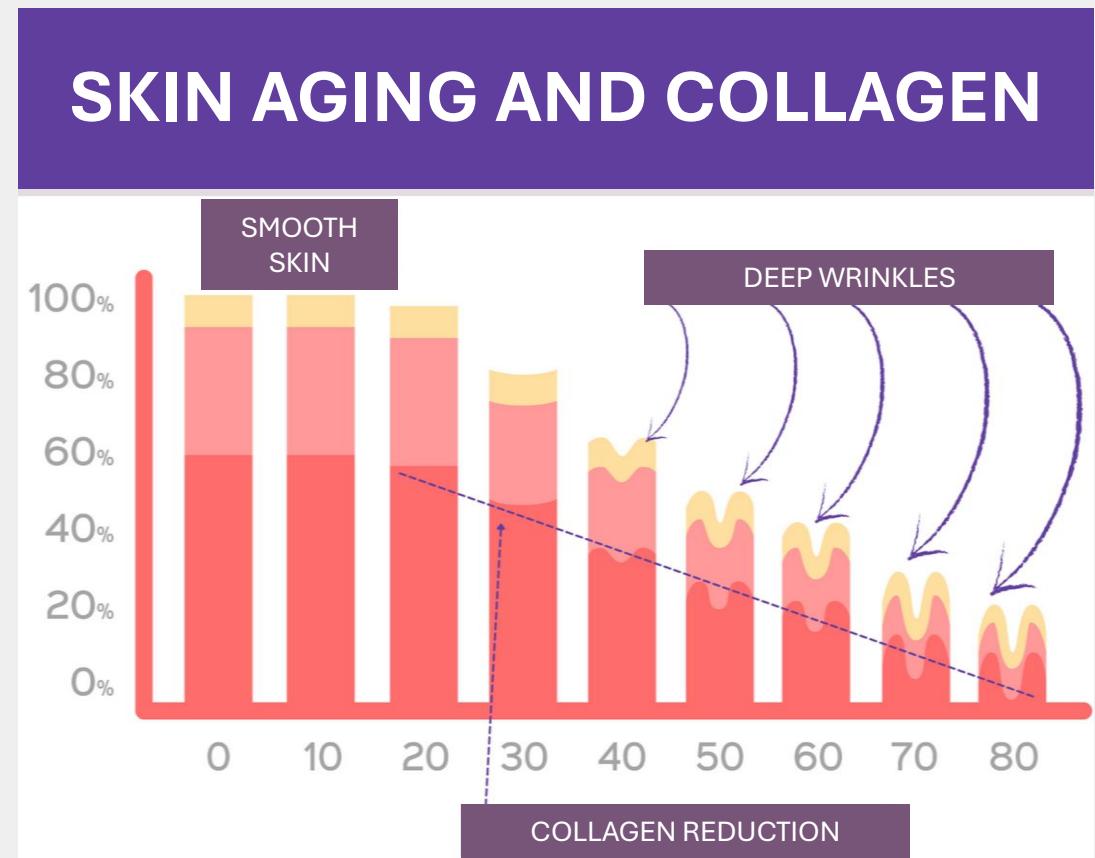
### Mecanismo de acción

#### Palmitoyl tripeptide-1

Palmitoyl Tripeptide-1 belongs to the matrikin signal peptides (matrix peptides) and can act on the dermis.

By simulating the function of natural signal molecules in the human body, it activates fibroblasts and promotes extracellular matrix (ECM) synthesis.

Specifically, it includes promoting the generation of collagen (types I and III), elastin, and structural glycoproteins (such as laminin and fibronectin).





## 02 SCH PeptCare™ Ageless Mix Oil

### Efficacy test

One study was conducted with 15 female volunteers between 44 and 59 years old, who applied a cream with palmitoyl tripeptide-1 and a placebo cream around their eyes for 4 weeks.

Parameters such as total length, depth and amplitude of wrinkle roughness were recorded.

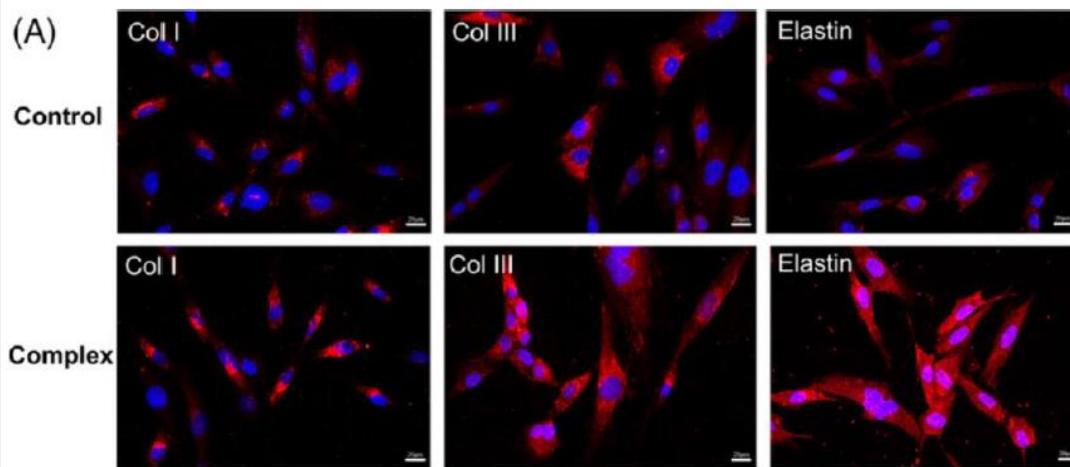
The results showed that the cream with palmitoyl tripeptide-1 achieved a significant reduction in the length, depth and roughness of wrinkles, evidencing good anti-aging effects.

Evaluation indicators	average change
Wrinkle length	-39%
Wrinkle depth	-23%
harshness	-17%

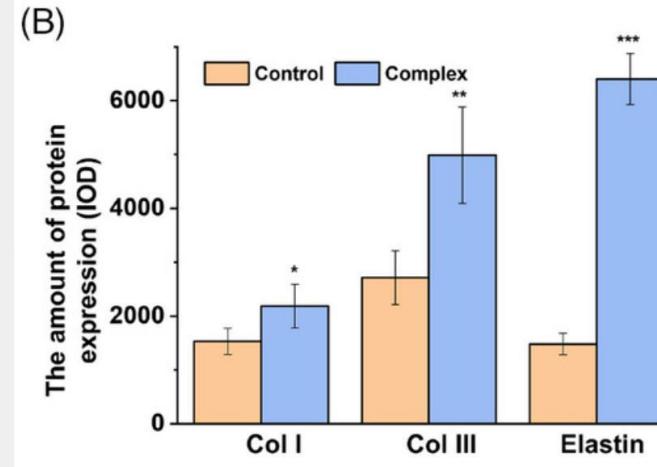
## 02 SCH PeptCare™ Ageless Mix Oil

### Test de eficacia

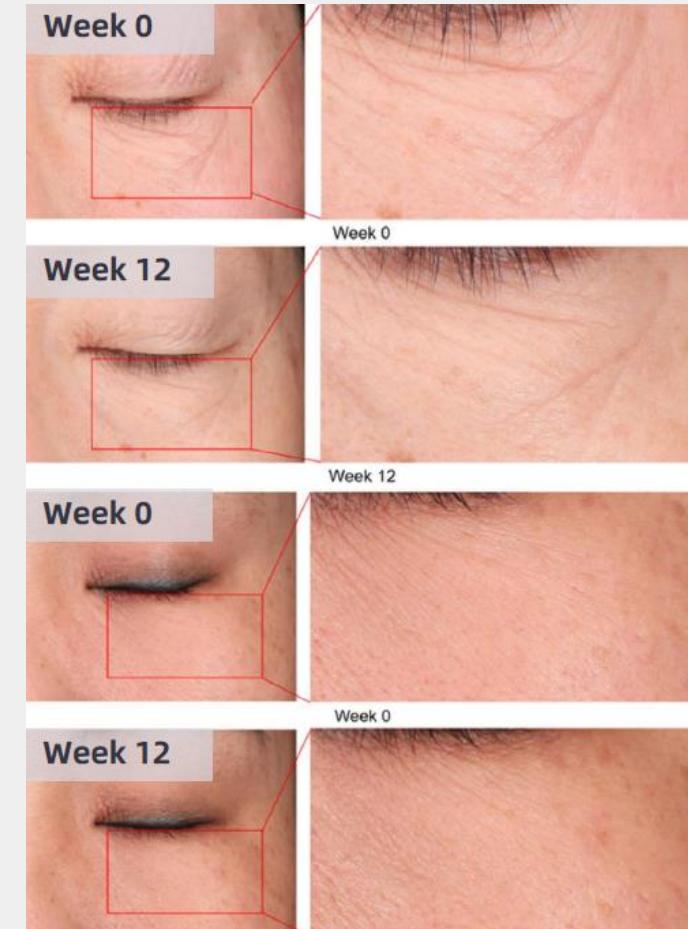
A study shows that, after 12 weeks under the action of palmitoyl tripeptide-1, the synthesis of key components of the extracellular matrix (ECM) can be stimulated, such as type I and type III collagen, elastin and structural glycoproteins (such as fibronectin).



Immunofluorescence staining was used to observe the collagen and elastin synthesis capacity of the complex. In Figure A, compared to the control group, anti-aging eye cream containing palmitoyl tripeptide-1 significantly increased the expression of Col I and Col III, as indicated by intensified red fluorescence.



Quantitative analysis shows that, after treatment with anti-aging eye cream containing palmitoyl tripeptide-1, expressions of Col I, Col III, and elastin increase significantly.



# 03

## Comparison





## 03 Comparison table

PRODUCT	SCH PeptCare™ PaTT7 Oil	SCH PeptCare™ PaT1 Oil	SCH PeptCare™ Calm Mix Oil	SCH PeptCare™ Ageless Mix Oil
INCI	Neopentyl glycol dicaprylate/dicaprate, Polyglyceryl-2 isostearate, 1,2-hexanediol, Pentylene glycol, PEG-6 caprylic/capric glycerides, <b>Palmitoyl tetrapeptide-7</b>	Neopentyl glycol dicaprylate/dicaprate, Polyglyceryl-2 isostearate, 1,2-hexanediol, Pentylene glycol, PEG-6 caprylic/capric glycerides, <b>Palmitoyl tripeptide-1</b>	Neopentyl glycol dicaprylate/dicaprate, Polyglyceryl-2 isostearate, 1,2-hexanediol, Pentylene glycol, PEG-6 caprylic/capric glycerides, <b>Palmitoyl tetrapeptide-7, Palmitoyl tripeptide-8</b>	Neopentyl glycol dicaprylate/dicaprate, Polyglyceryl-2 isostearate, 1,2-hexanediol, Pentylene glycol, PEG-6 caprylic/capric glycerides, <b>Palmitoyl tetrapeptide-7, Palmitoyl tripeptide-1</b>
Appearance	Clear to slightly yellow liquid	Clear to slightly yellow liquid	Clear to slightly yellow liquid	Clear to slightly yellow liquid
Dosage (%)	0,01 - 5	≤ 2	0,01 - 5	0,01 - 5
Solubility	Oil soluble	Oil soluble	Oil soluble	Oil soluble
Caducity	12 months	12 months	12 months	12 months
Regulatory status				
Europe	OK	OK	OK	OK
China	OK	OK	OK	OK



# **SCH PeptCare™ Oil Soluble**

**Actives for the skin**